THE WORLD'S WORK

NOVEMBER TO APRIL 1905

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THE WORLD'S WORK

VOLUME IX

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A HISTORY OF OUR TIME

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SIR WILLIAM RAMSAY

THE DISTINGUISHED BRITISH CHEMIST WHO DISCOVERED THE ELEMENTS HELIUM, ARGON, NEON, CRYPTON, AND XENON, AND WHO HAS MADE RESEARCHES INTO THE NATURE OF THE EMANATIONS OF RADIUM

(See "The March of Events")

THE WORLD'S WORK

NOVEMBER, 1904

VOLUME IX

NUMBER 1

The March of Events

THE Presidential campaign has gone into its last stage—the stage of oratory that is all climax, and of a final effort by each organization to poll a full vote and to make sure of the hesitant. It has been a gratefully decorous campaign, stirring no bitterness of feeling, bringing no threat to prosperity, prying little money from unwilling victims. The financial machines have worked gently, for they have lacked power to press or to squeeze; and the public has not been alarmed. Dirty work enough has doubtless been done, and will be done, by local managers where voters are venal. But we have made a great gain over the fright and interruption that the two preceding campaigns caused. The Democratic party deserves the thanks of the country for this difference.

The total result of the campaign on party history has been, first and foremost, to lift the quadrennial contest to a level of dignity and decorum that is as high as it ever was in the history of the Republic—perhaps higher than it ever was before. Its contribution to party doctrine, and to a change of relations of the parties to one another, and to permanent problems, has not been great. The Republicans stand where they stood before—committed to protection; for that is the main matter of doctrine. The Democrats have, thanks to Mr. Parker, come to approve sound money; but, since Mr. Cleveland's day, they have lost earnestness in attacking the protective system, although their doctrinal formula is the same. They have sought to add to the body of Democratic doctrine alarm about the use of the executive power—to make it stand for quietness and dignity rather than for activity and initiative. To what extent the temperamental difference between Mr. Roosevelt and Mr. Parker may become a future party difference, will depend on the personalities of the candidates in the next contest. As far as can be foreseen, the campaign will leave the parties in their attitude to one another, and to the larger subjects of the time, very much as they were before—except that the Democratic party has gained in manner and personnel, perhaps at the cost of some earnestness.

As regards the greatest subject of all—the parties' relations to the trusts and all that this implies—the Republican party under Mr. Roosevelt's captaincy is less under suspicion of subserviency than it was under Mr. Hanna's; but the Democratic party is able to arouse somewhat less public confidence in its moral earnestness, for Mr. Parker is not as eager for radical experiments as Mr. Bryan. Mr. Roosevelt's action and attitude have allayed criticism; but Mr. Parker's programme has not inspired confidence in his party's ability to work a reform. We have not gone much further toward solving the problems presented by the trusts, but such definite gain as has been made is to Mr. Roosevelt's credit.

The most important result of the campaign

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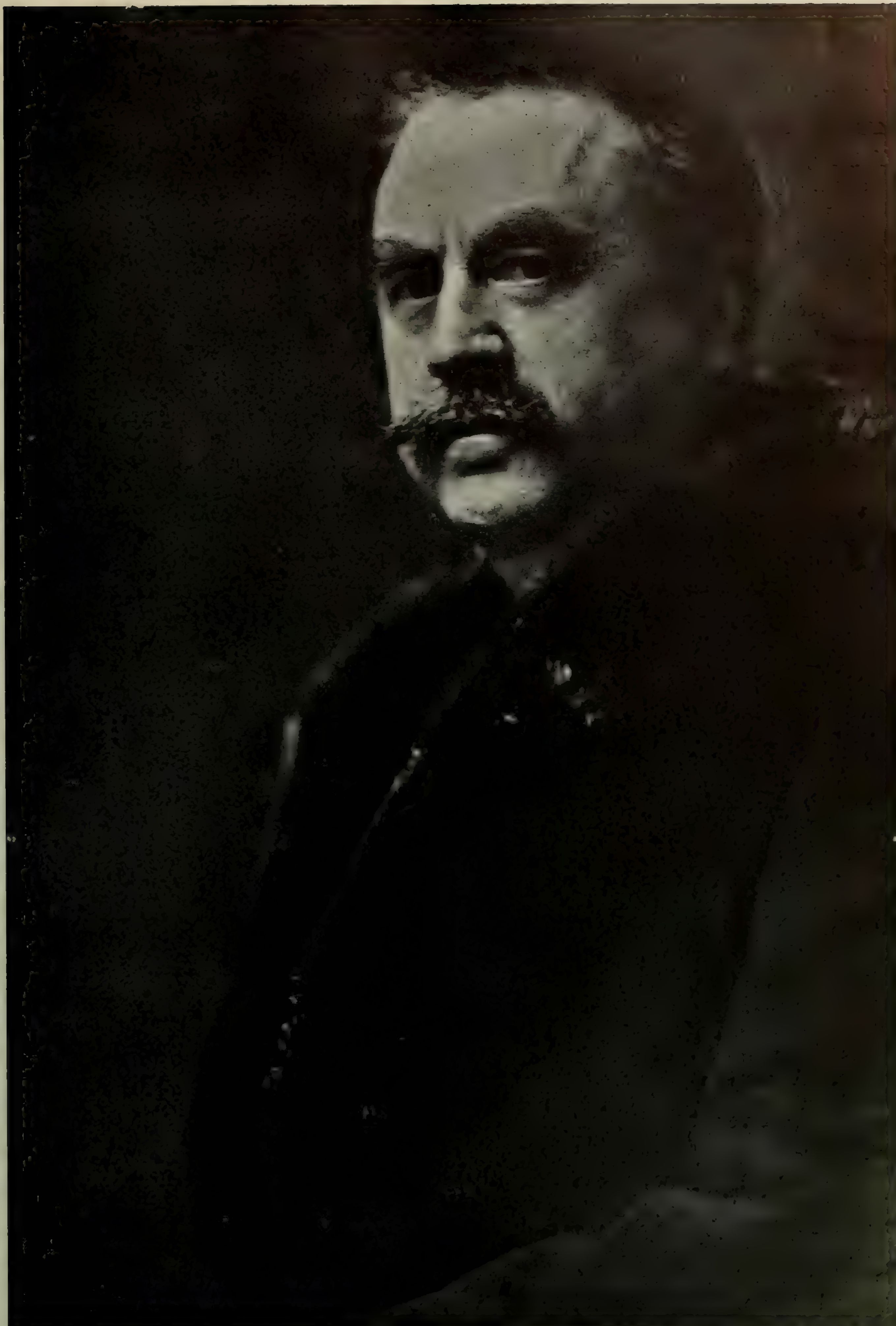
MR. DURHAM WHITE STEVENS

THE COUNSELOR OF THE JAPANESE LEGATION AT WASHINGTON, WHO HAS BEEN APPOINTED BY THE EMPEROR OF JAPAN AS LEGAL ADVISER TO THE EMPEROR OF KOREA—AN AMERICAN WHO WILL DO AN IMPORTANT SERVICE IN A DIFFICULT AND DELICATE ASIATIC SITUATION

(*See "The March of Events"*)



Photographed by Mrs. Gertrude Kasebier

MR. STANFORD WHITE

THE DISTINGUISHED ARCHITECT OF NEW YORK, WHO HAS DONE MUCH TO IMPROVE THE ARTISTIC BEAUTY OF BUSINESS STRUCTURES

(See page 5499)

will doubtless be the good effect of a better opposition party; and this will be a great gain.

THE PROBABLE REPUBLICAN SUCCESS

BY the general law of the alternation of parties in power, this year was the time for a Democratic victory. The Republican party has had control of every department of the government for an eight-year period of greatly increased expenditure. We have had costly enterprises in hand—a war, heavy budgets for the navy and for the army, and costly colonial tasks. These increased our expenses beyond precedent. The necessary increase has made it easy, too, to increase expenses that were not necessary. It has been a period of unmatched activity and success, and great success is often the mother of careless management.

Moreover, the Republicans came into power eight years ago by the most lavish use of money that was ever known in our history, and by "trust" methods of campaign management. So closely was the party identified with the great aggregations of capital and with favored interests, that Mr. Bryan's crusade against "plutocracy" won the votes of many men who had no sympathy with his free-silver doctrine.

In the actual conduct of the government, too, the Republicans have not escaped scandal. The postal frauds were a natural result of the carelessness that comes from too secure a hold on power.

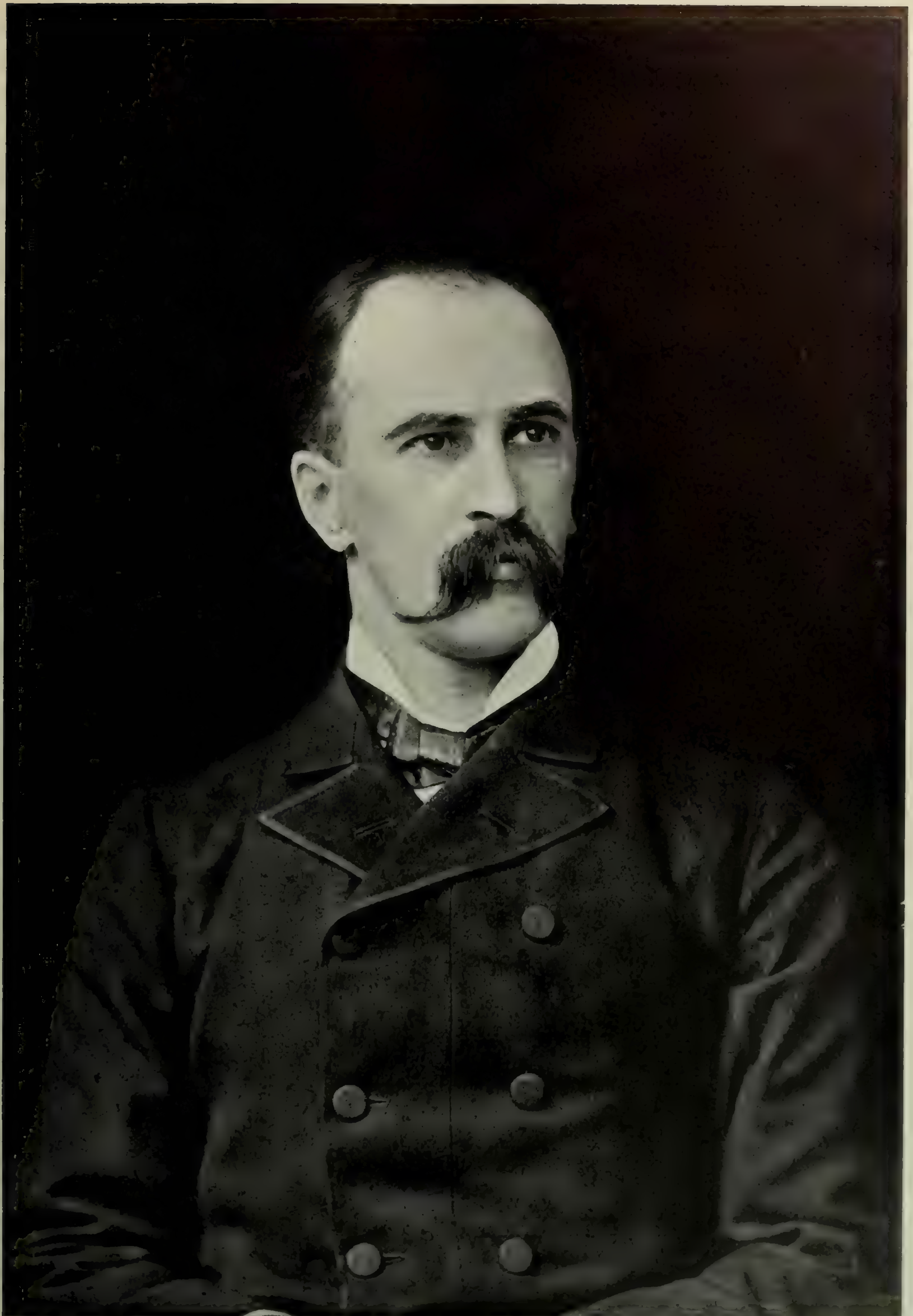
These facts, and many more like them, would naturally make the way easy for Democratic success under normal conditions. But two strong forces have come into play that seem likely to change what might have been the natural alternation of parties in power. The first force is the personality of Mr. Roosevelt. As soon as he came to the leadership of his party, many of the dangers of Mr. Hanna's management and methods disappeared. The tendency toward party dependence on a "plutocracy" was checked. A vigorous activity took the place of a well-fattened complacency. The party took on new life.

The other practical force that disturbs the general law whereby a party, after a period of careless power, is thrown out, is the lack of Democratic leadership. It would have been a reasonable supposition that, after Mr. Bryan's losing captaincy, men would have been put in command who could rally the party and give it good spirit for a fight. When Judge Parker sent his famous telegram to the St. Louis Convention, it looked as if such a man had been found. But he has not shown the qualities of a great leader. The most silent Presidential candidate in our history, he remains the least known. As a private citizen, he has all the virtues that men most admire. But, as a leader, he has shown only such negative qualities as courtesy and high-mindedness. He does not quite speak the language of the people, but chiefly the language of a political theory. He does not know the men who dwell in the mid-continental States, nor do they know him. Yet these are the men who elect Presidents. For these reasons, a change of party power is likely to be postponed till other personalities appear.

A sweeping change in public sentiment *may* come during the last days of the campaign; but surely such a change *must* come, if the Democrats win. For there is a progressive accumulation of evidence that they have not taken a firm hold on the enthusiasm of the country. The party has run hither and thither after theoretical "issues," and left the Republicans to take for their own use, whenever they care or are driven to take them up, the two great duties that the Democrats inherited—to reform the tariff and to regulate trusts. Not having impressed the people with their moral earnestness about these two great tasks, the Democrats have only one effective appeal left—the appeal to party loyalty. They will poll the necessarily Democratic vote—from 47 to 49 per cent. of all the ballots cast. But they will hardly do more. In Congressional elections, they may make gains; for, in these, local management may overcome the inertia of the national campaign. But they seem already to have lost the national election.

THE DEMOCRATS' IGNORANCE OF THE PEOPLE

THE strange truth is, the managers of the Democratic party do not seem to know the American people of this generation. They have, for instance, tried to oppose the Philippine policy, which our government worked out under Mr. Taft when he was Governor of the Islands—in the face of the approval of that policy which the people expressed four years ago, and again in the Congressional



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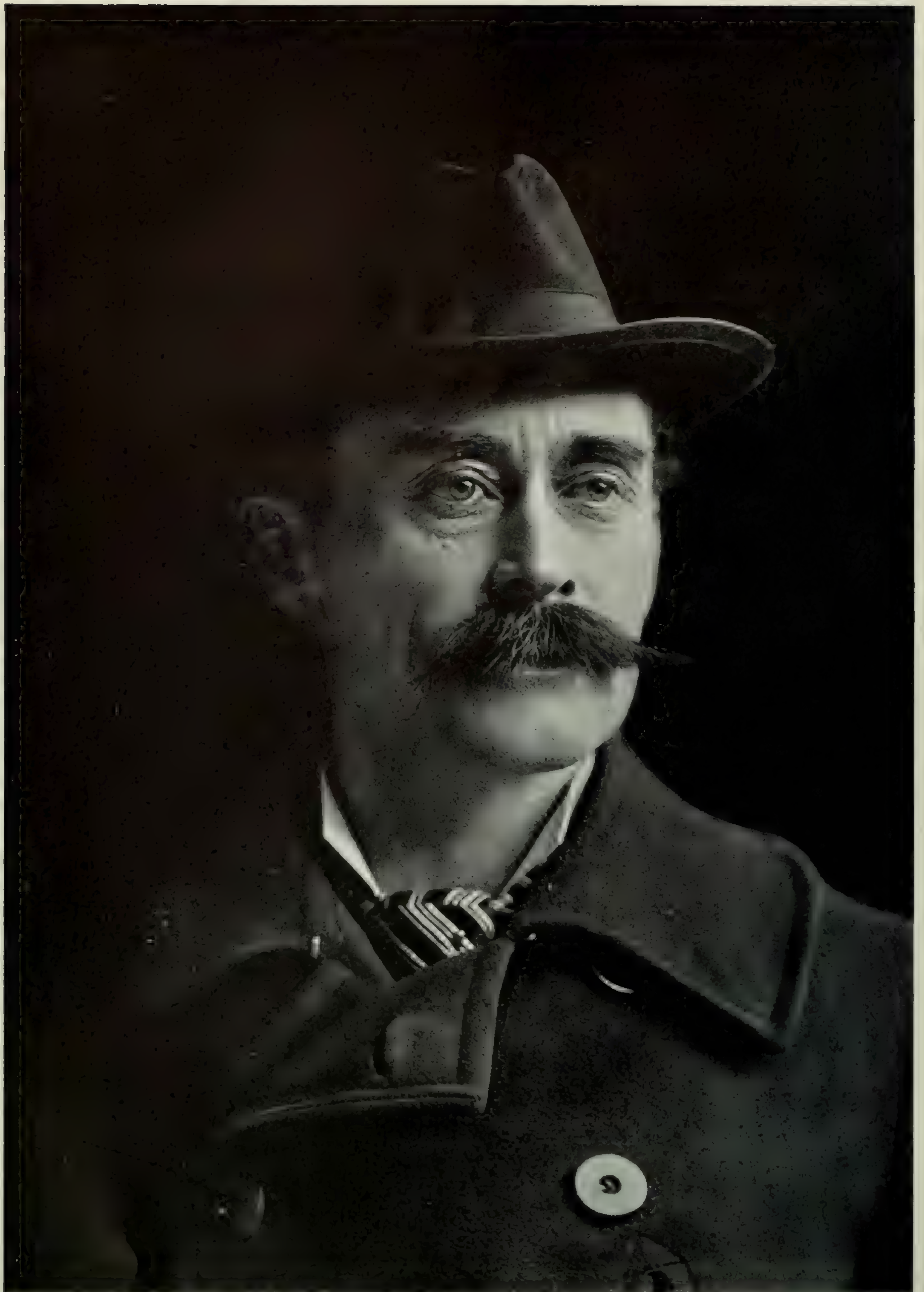
DR. WILLIAM OSLER

OF THE JOHNS HOPKINS HOSPITAL, BALTIMORE, RECENTLY ELECTED REGIUS PROFESSOR OF MEDICINE AT OXFORD UNIVERSITY, ENGLAND



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LIEUTENANT ROBERT E. PEARY

PRESIDENT OF THE INTERNATIONAL GEOGRAPHIC CONGRESS,
WHO WILL MAKE ANOTHER NORTH POLAR EXPEDITION

(*See " The March of Events "*)

elections two years ago. The people did even more than approve this policy—they showed impatience with the anti-imperialists for continuing to discuss it.

Again, the Democratic managers took up for especial discussion Mr. Roosevelt's action in Panama. The people had approved that, too. Congress readily voted the appropriation, and the Senate ratified the treaty. The people of both parties plainly showed their satisfaction at this conclusion of the long effort to secure a chance to cut the canal. If the Democratic managers had known the American people, they would never have laid emphasis on this subject.

Then they chose Mr. Roosevelt's energetic manner for attack. The masses of both parties like the President's vigor; and it was preposterous to try to make them believe that he is a "dictator," or that the republic is in danger because of his "recklessness." His energetic temperament is the strongest attraction that he has for the people. They like this quality exceedingly. They like action, decision, vigor—that is their temperament; and they are not impressed by finely drawn arguments on constitutional subjects. It is strange that the Democratic managers do not know the temperament of the people well enough to understand the cause of Mr. Roosevelt's great personal popularity.

If the campaign be regarded as a play (and it is), there is this difference between the chief actors— Mr. Roosevelt pleases the audience more than Mr. Parker. Mr. Roosevelt knows the audience, and Mr. Parker does not. Wholly apart from the merits of the discussions of the Panama incident and the Philippine problem, the main matter is that they are both settled questions. No amount of discussion can now essentially change the course of events. They are settled; the masses of the people regard them as settled; and they are not interested in hearing them discussed further. To try to keep these dead subjects alive is a tactical mistake.

We are confronted, then, with the disappointing fact that the leaders of our oldest political party, which comprises almost, if not quite, half the people, do not know the American masses of this generation—their temperament, their ambitions, their thought. This is the more unfortunate and surprising because the party is the party of the masses rather than of the classes. What it needs are leaders that know the people, and can conduct the campaigns in the light of that knowledge, and not by trying experiments with academic questions. It is only large, definite facts and striking personalities that the millions of men in any country can take an eager interest in.

THE CANDIDATES AS LETTER-WRITERS

THE letters of acceptance by the two candidates for the Presidency were received by their parties with hearty approval, and even with a good deal of enthusiasm. Each was characteristic of the man. Mr. Roosevelt's was an animated and almost pugnacious defense of the Republican administration, and he wrote it in the tone of a challenge. Mr. Parker's letter also showed spirit in accepting, or rather in appearing to accept, Mr. Roosevelt's challenge to rescind the executive order which grants a service pension after the age of sixty-two. But Mr. Parker was not bold enough to stop with his promise to rescind the order, for he also practically committed himself to the principle of a service pension beyond some given age.

But, eagerly as each letter was read on the day of its publication, they both, of course, were soon merged in the general volume of campaign activity, and were soon forgotten. For, except those passages which were practically abbreviated debates on pensions and on trusts, the letters were, necessarily, hardly more than amplifications of the accepted doctrines of each party. Mr. Roosevelt showed his qualities of confidence and boldness, and Mr. Parker made a distinct gain in public opinion by saying anything at all, for, up to that time, he had been the most reticent candidate that was ever named for the Presidency.

TO CALL A SECOND PEACE CONFERENCE

PRESIDENT ROOSEVELT took the visit of the members of the Interparliamentary Union to the White House —a body that included distinguished representatives of all the principal European legislative bodies—as the occasion to announce his intention to invite all the Powers to send representatives to another peace conference. The conference that was held at The Hague in 1899, at the call of the Czar, did little more than begin the work which a

series of such conferences may do. Its most important action was the establishment of an international tribunal. This international tribunal received an impetus and a standing chiefly by the action of the United States in referring to it a long-standing controversy with Mexico, and by President Roosevelt's action in causing to be referred to it the celebrated Venezuela case—both evidences that show strongly the American disposition to submit grave matters of dispute to the tribunal for arbitration.

The work done by the conference of 1899 in prescribing certain limitations in the conduct of war on land looked forward to the work of another conference which should make still further regulations of civilized warfare, and which should, in particular, more clearly define permissible practices in naval warfare. An additional necessity has arisen for such work, because of the questions that have grown out of the war between Japan and Russia. What articles may be declared contraband; the use of wireless telegraphy; the privileges of ships of belligerent governments in neutral ports; the use of submarine mines and submarine boats—these and other questions, most of which were not in mind at the time of the conference of 1899, call for international action now.

There has been much lay discussion whether a peace conference may profitably be called so long as the present war continues. There are reasons why it might serve as an occacasion for mediation. There are other reasons why it might have a contrary effect, particularly since the first conference was called by the Czar himself. But more important than the effect that a second conference might have upon this particular war will be the large moral effect of it in giving another great impetus to the general impulse toward peace. That it will be the President of the United States who will call a second international peace conference is gratifying to the intelligent sentiment of all political parties throughout the republic.

The thirteenth International Peace Conference, which met at Boston, early in October, was welcomed, on behalf of our Government, by Secretary Hay. In his address, he said, with characteristic grace and force:

"McKinley deplored, with every pulse of his honest and kindly heart, the advent of the war, which he had hoped might not come in his day, and gladly hailed the earliest moment for making peace; and President Roosevelt has the same tireless energy in the work of concord that he displayed when he sought peace and ensured it on the field of battle. No Presidents, in our history, have been so faithful and so efficient as the last two in the cause of arbitration and of every peaceful settlement of differences. I mention them together, because their work has been harmonious and consistent. . . . When The Hague Court lay apparently wrecked at the beginning of its voyage, threatened with death before it had fairly begun to live, it was the American Government which gave it the breath of life by inviting the Republic of Mexico to share our appeal to its jurisdiction; and the second case brought before it was at the instance of Mr. Roosevelt, who declined in its favor the high honor of arbitrating an affair of world-wide importance.

"I beg you to believe it is not by way of boasting that I recall these incidents to your minds; it is rather as a profession of faith in a cause which the present Administration has deeply at heart, that I ask you to remember, in the deliberations upon which you are entering, the course to which the American Government is pledged, and which it has steadily pursued for the last seven years.

. . . .

"If our example is worth anything to the world, we have given it in the vital matter of disarmament. We have reduced our army to its minimum of 60,000 men; in fact, we may say we have no army, but, in place of one, a nucleus for drill and discipline. We have three-fourths of one soldier for every thousand of the population—a proportion which, if adopted by other Powers, would at once eliminate wars and rumors of wars from the daily thoughts of the chancelleries of the world."

LESSONS FROM THE WAR

THERE is a fundamental difference between the habits of Japanese and Russian soldiers. The Russian officers behave after the traditional manner of generals. Riding in front of their armies, they exhort their soldiers, curse them, and lead them, as generals have usually done; and they receive individual credit for their deeds of bravery. In the Russian army, there is music on the march and music around the campfires, and the sort of soldiers' merrymaking that we have always associated with camp life.

But, on the Japanese side, everything is different. The generals remain in the rear, directing their armies by telegraph or by telephone. Their troops need no spectacular encouragement. Not a Japanese officer of

high rank has been shot since the war began, whereas a number of Russian generals have been killed. The Japanese generals wear modest uniforms, and they can hardly be distinguished from the common soldiers. Nor do they get credit for individual deeds of bravery. They seem to suppress personal praise. Everywhere about a battle-field, on the Japanese side, telegraph and telephone wires are instantly strung, and their officers are thus kept in immediate communication with one another. Electricity was never before so much used in any war. And the Japanese armies are silent. They have practically no martial music, nor do they shout, except in those unusual moments when they cry "Banzai."

It is a new experience to read of armies that shoot as accurately as any in the world, that use electricity more than it was ever used in war before, that show perfect training and unprecedented endurance, and that have won an advantage on every battle-field where they have fought—it is difficult to think that, in such an army, the only things that can be bought from camp-followers are cigarettes, fans, tooth-brushes, and writing paper. No intoxicant is procurable, and none is wanted. When the soldiers rest they make tea, they smoke cigarettes, they draw battle-scenes on thin paper to send to their friends at home. The volume of their mail is enormous. In the officers' baggage there are few luxuries. They carry big kettles and rolls of matting, so that they may enjoy hot baths. In periods of rest, between battles, the bath is the officers' luxury, and fans and tea are the chief luxuries of the men. They add to their fresh-food supply, and to their amusement, by fishing, whenever they are near water—imperturbable, unwearying, smiling, without emotions, except the impulse to die for victory.

Other differences between the two peoples and the two countries are shown by such facts as these: Although the population of Russia is nearly three and a half times as great as the population of Japan, and its area nearly six times as great, the Japanese have a million more pupils in their schools than the Russians; they publish more periodicals and books; although Russia has nearly nine times as many miles of railroad, the Japanese roads carry more passengers, though less freight; they send half as many again letters by post as the Russians send; with only about one-fourth as many miles of telegraph wires, they send nearly as many messages; their trade per capita is greater than the Russians' both in imports and in exports, although the total trade of the Russians, of course, is very much greater. The apparent financial and military strength of the Russians is incomparably the greater. Yet, so cheaply does the Japanese soldier live that Japan may do more with little money than Russia with more; and so eager are the Japanese that they may possibly put more men in the field than Russia can transport 6,000 miles. It is estimated that the war is costing Japan fifteen million dollars a month, and Russia perhaps three times as much. Japan may, at this rate, by more domestic and foreign loans, hold out for a very long time. The many instructive and surprising facts that the war makes plain increase as it goes on.

JAPAN'S ORGANIZATION OF KOREA

THE Emperor of Japan has appointed Mr. Durham W. Stevens as chief adviser to the Emperor of Korea. He is an American by birth and training, who served long in our diplomatic service in the East, and who, for a considerable period, has been counselor to the Japanese Legation at Washington. The meaning of this appointment is that Japan is about to begin the definite task of reducing Korea to modern organization. She has not waited for the end of the war to act on the assumption that she will have this task to do. Korea is important not only to Japan as a natural outlet for her population, but important, also, to the whole trade of the East.

The area of the country is 82,000 square miles. It is, therefore, as large as Kansas. It has a population of 14,000,000, including 25,000 Japanese. Last year, it imported more than $9,000,000 worth of merchandise, and exported nearly $7,000,000. The greater part of the trade is, of course, in Japanese hands, and Japan will supply the market for most of the things that Korea will need. But Japan is committed to open trade there, and the United States will find a market for more or less material for railroad building and other such primary utilities, as well as for its cotton manufactures. Korea is not a poor country, as it has sometimes been supposed,

but, on the contrary, under proper organization it will become a country capable of absorbing a very considerable commerce.

But the Japanese organization of Korea will be interesting for a still larger reason. The ambition of Japan (the Japanese would call it their destiny) is ultimately to organize China. Chinamen are better merchants than the Japanese, but they lack the organizing ability that the Japanese have shown. When, therefore, method has been introduced into China's manufacture and trade, when modern boards of trade have been organized, with all that they imply, and when modern transportation facilities, and all that they imply, have been put in the service of the vast empire, a new chapter in its industrial history will begin. Underlying all questions of Japan's military power and national pride is, of course, the economic ambition for the proper organization of China. In the present war, Japan is fighting for a free hand in this great opportunity. If she succeed, she will use this success primarily for the advance of her own industrial interests. But such a stimulus will be given to trade that other nations will profit more than any nation now profits, and much more than they could profit by Russian organization under its repressive bureaucracy, or by the jealous acts of European nations that hinder one another.

Mr. Stevens's work in Korea, therefore, remote as the subject seems from ordinary American interests, may mean the beginning of a wholly new epoch in the history of Asia. The events that may follow his work may have the largest consequences in determining important relations of the Great Powers.

LAFCADIO HEARN

MR. LAFCADIO HEARN'S charming books about the intimate life of the Japanese raised Western curiosity rather than satisfied it; for he wrote elusive rather than substantial things. But the spirit of Japan was more intimately and delicately interpreted by him (so the cultivated Japanese themselves say) than by any other writer in a Western language. The son of an Irish father and of a Greek mother, educated in France, and introduced to the rough experience of practical life in the United States, with an instinctive love of the soft and the tropical, after much wandering, he found himself at home only when he gave up Western methods of living and of thinking, took a Japanese name, married a Japanese wife, and became a Japanese subject. His death, in Tokio, came most inopportunely, for if he had lived and worked a few years longer he would have given English readers, in this time of rapidly rising eagerness to know the Japanese spirit, a still better insight into it. An eccentric man, of a delicate discernment and of rare power of expression, he was a unique personality even in our most cosmopolitan era.

THE POSSIBILITIES OF SUBMARINE CRAFT

ALTHOUGH the submarine boat has not yet been used in the present war, the war has given an impetus to its development, and it seems likely to play an important part in naval action hereafter. In recent manœuvres by our own navy off Newport, a submarine was sent by night to attack warships. In spite of the vigilance of the warships with their searchlights, the submarine drew near enough, before it was discovered, easily to have destroyed them; and the "victory" was awarded to it. The possibilities of this uncanny craft may be revolutionary; and the fascination of experiments with it will cause it to engage the engineers of all navies for some time to come. A silent, invisible, submerged engine of destruction may be the long-looked-for thing that will make naval wars impossible. If we devise an instrument of destruction at sea that cannot be met by any instrument of defense (for one submarine fleet could never find another), what then? If all navies should be thrown into the scrap-heap for mechanical reasons, peace conferences would find their task made easier.

THE BRITISH CONQUEST OF TIBET

AS a result of the British expedition to Tibet under Colonel Younghusband, the first step has been taken toward the practical control of the country by the British Government in India. The treaty that was made binds the Tibetans to establish three markets where the British may trade, to keep open the existing routes, and others that may be opened; no Tibetan territory may be sold or leased to any Power without British consent, and no other Power shall build roads, or telegraphs, or open mines; and British troops may occupy the Chumbi

Valley for the three years during which an indemnity of $500,000 is to be paid in yearly instalments.

When the British reached Lhasa, the Grand Lama, the head of the ruling hierarchy, fled, and the treaty had to be made with those who were substituted for him in power. The treaty was to receive the assent of China, too, of which Tibet is nominally a province; and it is reported that this assent has not been given. But Chinese authority over the country is vague, and the powers of different members of the Tibetan hierarchy are not very clearly defined in the British official understanding. These matters, therefore, are rather technical than essential—so, at least, events will show. For the machinery of control over such a country is the right to trade; and Great Britain now needs only to let events take their course to make Tibet a country practically under English control.

Russia, too, has made a protest; but Russia now has other duties to attend to, and, by the irresistible reaching out for more territory that is instinctive in the English, the sacred and forbidden city has come under English control (we had as well now definitely so regard it); and the bounds of the Empire are by so much made broader. This practical acquisition of Tibet makes the British Empire in India more secure from Russian intrigue and attack; and this security was the real motive of the expedition.

England's entrance into Egypt was at first even less direct than this entrance into Tibet; but now there is no land outside the British isles that is more securely under English control—nor, for that matter, with such advantageous results. The same general course of events will be likely to follow, even if more slowly, in this Himalayan province, which is the spiritual centre of Buddhism. The English have gone into the great temple itself, and looked on the golden image of the Buddha, which to millions of human beings is the most sacred thing in the world. Russia has lost in Tibet a move in the great game of her ambition, almost as important as the loss of Manchuria will be. Her advance into China has been checked in Tibet until the time comes, which has so often been predicted, of a great war for the leadership of the world between England and Russia—a prediction that seems now less likely than ever to come true.

THE CONGO SCANDALS

THE Congo scandal will not down. It has stirred England to increasing indignation for a year. There is impressive evidence that the most atrocious misuse of power has been made under the rule of the King of Belgium.

The history of the Congo State is this: Twenty years ago, when France, England, and Germany were scrambling for territory in Africa, the several Powers placed 1,000,000 square miles of territory, containing 20,000,000 inhabitants, in the trusteeship of the King of Belgium. King Leopold had previously organized an international association for exploring and civilizing the region; and he was bound by an agreement, entered into with the Powers, to observe the integrity of the Congo Free State, to develop its commerce, and to respect the personal rights and liberties of the inhabitants. This was in 1885. The United States was the first government to recognize the independence of the new State.

Now it has been asserted, with strong evidence, that the agents of the King's government in the Congo Free State have systematically mutilated the natives, whenever they failed to supply the required or expected amount of rubber, ivory, or other native products—have cut off the hands of women and children, and acted with such cruelty as to reduce the population, in one part of the territory, by as many as 50,000 in ten years. This means ruthless slaughter—the wiping out of whole villages.

These accusations have been denied on the authority of King Leopold. So far as we are concerned, the controversy is now approaching a sort of crisis; for there have come to the United States a representative of The Congo Reform Association (which has many influential members in England, and which makes these accusations) and a representative of King Leopold. Each is trying to affect public opinion here; and both sides of the controversy have been laid before the President. The hope of the Reform Association is so to stir up public opinion as to require the calling of another Congress of the great Powers, which shall bring the Belgian Government to account, and take steps to prevent such atrocities in the future.

The evidence that has been gathered by the Reform Association seems, on its face, a

convincing proof of unspeakable cruelty—the worst, perhaps, that is now anywhere practised, even in the darkest parts of the world.

THE LESSON OF THE GREAT HARVESTS

AT last, after waiting a great many thousands of years, the business of tilling the earth is becoming organized, as other great industries have been organized. The main fact that will strike the reader of the articles in this magazine which describe the harvesting of the wheat crop in the West and of the cotton crop in the South is that these two great industries are now so conducted as to make the cultivation of the earth a profitable business. From the time wheat is sowed until it is sold on the other side of the world, it is grown, reaped, handled, shipped, and marketed by machinery and by system.

Of still greater significance is it that the cotton crop is fast coming under similar organization. The prosperity that it is bringing to the South is hastening the adoption of good business methods in the place of the bad methods of the past. Although there has been a steady improvement in recent years, much of the cotton is yet handled more wastefully than any other great product, and the business is not yet so organized and conducted as to enable the farmers to get their just share of profits.

There is much talk now of organizations to enable the growers to hold their cotton, if they wish, instead of selling it as soon as it is ginned. The proposal is to conduct warehouses for storing it on a coöperative basis, using somewhat the same principle that is used in coöperative dairies in New England and the West. There is no field of industry wherein organization is more needed or would bring a greater saving. The South now spins a very large part of its crop. In South Carolina, for instance, more cotton is spun than is grown. Although the farmer in many States has a market practically at his own door, he handles his crop through a complicated system, which enables several profits to be made between him and the spinner.

Cotton can be grown on a reasonably well-conducted farm for five cents a pound. On good land, under the best management, it can be grown for four cents. In most of the Southern States, if it can be sold for ten cents, it will yield a larger margin of profit than any other staple crop, besides the profit of the products of the seed. Not many years ago, the Southern farmers received only about $5,000,000 for their cotton. For their cotton seed alone they now receive more than $100,000,000 a year. A decade or two ago, they were nearly all the victims of the manufacturers of fertilizers many of which were little better than a fraud. Through the work of the Department of Agriculture at Washington and the Agricultural Departments of several Southern States, the farmers now manufacture an increasing quantity of their own fertilizers. The growers have learned, too, the proper rotation of crops, so that the annual saving in fertilizer bills is in itself perhaps enough to pay a dividend on the value of the farm lands. When the business is organized as well, let us say, as the business of handling and marketing wheat, cotton culture will become by far the most profitable agriculture conducted on a large scale in the country.

It is fairly dazzling to trace the history of cotton culture and the increase of its value. Half a century ago, the total product was less than the present product of Texas alone. The crop now is in the neighborhood of ten million bales a year. The price is fast rising. Conservative men expect that within a few years it will reach an established price of fifteen cents a pound. Why should it not, with the opening of wider markets in Asia, with the continuously increasing market in our own country and in Europe? The same rate of increase in its consumption that has taken place in the last thirty years will inevitably bring the price to the farmer in the neighborhood of fifteen cents, for the simple reason that the area of profitable culture, large as it is, is necessarily restricted.

THE SOUTH'S PRACTICAL COTTON MONOPOLY

THE increasing demand for cotton goods throughout the world, the better organization of cotton culture in the South, and the increasing profits that will come to the farmer, are causing a sweeping reorganization of the textile industry. In the process of this reorganization there are bound to come serious disturbances. There is now, for instance, great suffering in some of the manufacturing cities in England, because the mills are shut down.

The two main causes of cotton famine there are the lack of elasticity in American

production and a large increase in the world's consumption. There is still another cause—the constant increase of facilities for spinning in the South, close to the place of its production. With the rapid growth of the United States in population and wealth, and its constantly widening home markets, British cotton spinners are looking about the world afresh, to see where cotton may be grown in their own colonies, particularly those colonies unlikely to engage in manufacture. To produce a large supply in other portions of the world, the British Cotton-growing Association, with similar bodies in France and Germany, has been organized; and some of their members expect that, in British possessions alone, more than enough cotton may be grown for the needs of Lancashire mills.

But the weight of evidence is that, whatever crops may be grown in India or in Egypt, the American cotton-planter will continue to have a practical monopoly of the great staple; for Indian and Egyptian and African cottons have, so far, shown themselves useful only for special purposes, and not for the staple uses of the great mass of mankind.

A THANKSGIVING THOUGHT

THE main reason why agriculture in many of its forms has come at last to profitable conduct and organization is the scientific help that has been given by the governments in many countries. In our own land, the Department of Agriculture, at Washington, and the corresponding departments of many State governments have put the whole business of tilling the soil on a new basis. No such change has taken place in any other of the great occupations, except in transportation.

Nor is it in our country alone that the government has thus put the agricultural population on a new footing. In Denmark, for instance, in addition to the experiment stations of the kind with which we are familiar, the government has several hundred "demonstration fields," where the farmers are taught by experiment and field instruction. There is also a government laboratory for agricultural research. The result is a new epoch in Danish economic conditions. The little kingdom was practically bankrupt not many years ago, and its people were poor. Now they lead, or come near to leading, the world in their dairy products (per acre); and even the cereal crop of the country has increased beyond all former belief.

At this Thanksgiving time, the old habit of expressing gratitude first for the harvest justifies itself as it never did before in all human history; for the earth was never before so well tilled; and we have learned that we have only begun to know its marvelous possibilities.

A LITTLE SHIFTING OF THE WORLD'S WEALTH

THE government's estimate of the wealth of the country is, like other such estimates, rather a rough guess. But guesses made upon the same basis over a considerable period show at least the rate of increase. It is a wonderful chapter in our history that is thus summarized: that the wealth of the country was estimated in 1850 at seven billions of dollars; in 1860, at sixteen billions; in 1870, at thirty billions; in 1880, at forty-two billions; in 1890, at sixty-five billions, and in 1900, at ninety-four billions.

The leap made during the last decade was larger in amount, though, of course, somewhat smaller in percentage, than during any preceding ten years. Unlike the accumulated wealth in Europe, the wealth of our own country has hitherto been nearly all invested at home. But the time is now coming when we are beginning to have foreign investments—not only such as a part of the recent loan made by Japan, and as the money used in the development of Cuba and South America and Mexico, but American financial operations will now more and more reach out into Europe itself. For three-fourths of a century or more, European bankers have had agencies here. Now the time is coming, or is at hand, when some of our great financial institutions will have control of banking houses in London, and, perhaps, in continental cities also.

Of course, it will be a long time before the accumulated capital of the European financial centres will be equaled by the surplus in the United States; but, at the rate at which our wealth is now increasing, American money must more and more become an important factor in the finance of the whole world. A slight impetus to this movement is given by every such event as the war in Asia; for, while we have invested only $25,000,000 directly because of it (which we

paid for a part of the Japanese loan), England also invested $25,000,000 in the same loan, and the continental bankers hold the debt of the Russian Government, especially the bankers in France. The war expenses and losses of both sides call for capital from the great reserves of Europe; and as European money goes to fill these demands, American capital will be drawn into channels that this European money would otherwise have filled. It is interesting to note how very large the foreign investments of the principal European countries are. The estimates of authorities vary, but a conservative guess at the amount of English capital invested abroad is twelve to fifteen billions of dollars. Germany has perhaps five billions; France has as much or more, of which, perhaps, two billions are lent to Russia. The enormous accumulations of the great financial centres of Europe make the most impressive fact in the practical world. It is generally understood, by the way, that the great bankers of Paris, upon whom the Russian Government is more or less dependent, would welcome any military event favorable to the Czar's armies which they might use as an occasion to demand a cessation of the war without complete humiliation to Russia.

In considering the wealth and the trade of the nations, it is interesting to remember that the internal commerce of the United States is estimated at twenty-two billions of dollars—as great as all international trade. This fact tells the most interesting story for our future and for the future of mankind.

FINANCIAL GROWTH, WEST AND SOUTH

If we turn now to our own country and its domestic trade and finance, we shall find that a remarkable change has been taking place, even within the last four or five years, in the relations of the different sections of the United States. Only yesterday both the West and South were dependent upon the East for the financing of their enterprises, and New York was the banking-house of the whole country. In a large way, this relation continues, and will to a greater or less degree continue for a long time to come, because, in addition to the city's own wealth, much of the wealth that is accumulated in every part of the country comes to New York and is held and handled here. But a succession of good crops in the western States, and the rapid growth of successful manufacturing enterprises there, have made that section, to a very considerable degree, independent of the East for its ordinary financial needs.

A similar change is taking place in the South. The high price of cotton, the success of cotton manufacturing, the continued development of the Southwest in particular, and the general, increasing prosperity are making the southern section of the Union much less dependent upon New York than it ever was before.

To give one concrete example: within the last five years, almost every important railroad line in the West and in the South has been rebuilt. Most of them now have iron bridges and ballasted tracks. Cities and towns have made correspondingly permanent improvements. The demand, therefore, for money for such uses is less than it was, in proportion to the wealth of the communities; and the wealth of most of these communities has increased with sufficient rapidity to enable them to finance many undertakings of kinds that they used to bring to New York. The approach to economic independence by every great section of the country is the surest sign of the substantial quality of the prosperity that we have had.

ORGANIZED DISCONTENT

In general terms, Socialism means discontent. A Socialist may be a philosophical student of social conditions who accepts the creed for other reasons than a personal grievance against society; but the rank and file of the Socialist party, in every country, is nevertheless the mass of the belligerently dissatisfied.

A general measure of popular dissatisfaction, therefore, in the principal countries of Europe may be made by the estimate of the strength of the party, that has recently been published in the *International Socialist Review*. In Germany there are 3,000,000 Socialists, and they have eighty-one members in the national legislature; in France there are 880,000, and they have forty-eight members; in Belgium there are approximately half a million. Next comes the United States, where, in 1902, the Socialists claimed 225,000 votes. Great Britain is said to have only about 100,000. The computation of the strength of Socialism in the civilized

countries of the world is that the party has grown from two and a half millions in 1893 to nearly six and a half millions in 1903.

It is true that Socialism does not mean the same thing in all of these countries. In Germany and in France it is a compact political party, with somewhat different methods, and even different aims, in each country. In the United States, what is in a general way called Socialism (for there are two distinct parties here) is in the main an importation of the German idea, with an inapt application to American conditions.

Discontent with social or economic conditions in the United States, whenever it organizes itself, will not be called Socialism; but it is likely to take a name that will more accurately describe its purpose, which will be to bring about the public ownership of such necessities and utilities as coal mines and railroads. In Europe, governments are the provocation to Socialism. But, if a strong party is ever developed here it will be the limitations of government that will be most likely to provoke it. Wherever government goes too far in regulating industry, it brings discontent; and, whenever it does not go far enough, it also brings discontent—whereby hangs this moral: that modern economic and social problems have developed so fast and in so many forms (under the new organization of the world by quick communication) that government has not kept pace with them.

SANTO DOMINICAN ANARCHY

THE condition of Santo Domingo continues to make it one of the dark spots of the world. Exiled Dominicans in New York estimate that President Morales has killed 200 people since he assumed the presidency. This estimate does not include the lives lost during the revolution by which he assumed power, nor those lost during the counter revolution which opposed him, but only the lives of those who were killed in cold blood. Some of them were publicly executed, but most were assassinated, by orders of the president—all since a compact was signed on an American gun-boat guaranteeing these people their lives and their liberty.

It is now sixty years since a handful of people raised their flag of liberty in the island and proclaimed the independence of the Dominican Republic. Since then, they have had about two hundred civil wars and revolutions. Factions have time and again appealed in vain to other countries to give them order. Although Spain answered, and undertook the task, the government met with such half-hearted support that the undertaking was given up. Then the Dominicans turned to us; and, although a treaty of annexation was signed under General Grant's administration, it was never ratified by the Senate. For twelve years subsequently, they were ruled by a despot whose career of public extravagance and vice was recently compared to the rule of Ismail Pasha in Egypt. During the rule of Ulysses Heureaux, the debt of the Dominican Republic was increased from $1,500,000 to more than $30,000,000. The government now finds itself in the hopeless condition of being able neither to pay this debt, nor to maintain a semblance of peace, except by repression and murder. Since Santo Domingo lies halfway between Cuba and Porto Rico, there will continue to be an agitation for interference by the United States. In the Santo Dominican end of the island, the full-blooded negro is not dominant, and the feeling runs counter to his rise; but the Haitian end is populated wholly by negroes, and whites are not permitted to hold property. The whole island is a dark spot on the map.

THE REMEDY FOR A PEOPLE'S DECLINE

THE long discussion that has been carried on in England about the physical deterioration of the people cannot be said to have proved anything with mathematical certainty. It will be recalled that the subject was brought up first just after the Boer War. Military reports showed then that an increasing and alarming number of men who offered themselves for military duty were physically unfit for it. A sweeping declaration was made that the English stock had deteriorated. The official inquiry that followed brought forth a report that was full of instruction. Although its conclusions were not definite, it was found that, in large classes of the English people, there had been a very serious physical decline.

The causes, of course, were those causes that are inseparable from life in so compact a country—overcrowding, with the necessary results of a lack of air and of light, and, most of

all, the improper care of children; bad nutrition, caused partly by the lack of proper food and, to a great extent, by a lack of proper conditions for cooking, and, to a considerable extent, also, to a group of physical ailments due to improper care of the teeth. The drink habit came in for its share of blame, and so did the use of tobacco by children. All these causes may be summed up in the comprehensive sin of overcrowding in cities. It is impossible to read the voluminous literature that has been put forth during the last six months in England on this subject without concluding that these evils of living have caused the physical degeneration at least of a large part of the sturdiest family of men among the nations.

The two facts that impress themselves most strongly on any one who has followed this long discussion are (1) that the decline of English agriculture is a capital misfortune, for far too small is the proportion of the people who get their living directly from the ground; and (2) that it is a striking and happy thing that a whole nation should become aroused about the physical condition of the people. When the conscience of a whole kingdom can be stirred up to consideration of such a question, it is probable that a remedy will be found.

We may have the happy reflection that, however disgraceful the conditions of living may be in some of our largest cities in the United States, the ever-increasing attractiveness of the country is an influence that will save the American population from anything like general physical decline for indefinite centuries to come. If a man had to say what single great influence in the world is today the most hopeful for the future of the human race, he might not go amiss if he said that it is the change which has taken place from ignorant culture of the earth to the scientific, healthful, and profitable methods that we are at last adopting.

THE STABILITY OF MASSACHUSETTS

An instructive report of industrial conditions made by the State of Massachusetts for the year 1903 shows how stable life and work are in that commonwealth. The increase in the value of all manufactured products in the State, in 1903, was less than 5 per cent. over their value in 1902. The largest gain was made in articles manufactured of leather (18 per cent.), the next largest in carpetings (17 per cent.), and the next largest in shoes (10 per cent.). Cotton goods showed an increase of a little less than 1 per cent.; there was a decline in the value of paper and worsted goods; and an increase of less than 1 per cent. in the value of cotton manufactures, although the materials used in all these manufactures cost almost 5 per cent. more.

The number of persons employed in all manufacturing industries showed a gain of a little more than 3 per cent., and wages increased more than 5 per cent. The average time that wage-earners worked was 293 days. In other words, the value of the manufactured products of Massachusetts increased in that year nearly 5 per cent., and the industries employed nearly 4 per cent. more persons, and paid more than a 5 per cent. increase in wages.

The noteworthy fact about this report is the stability that it shows. Manufacturers in New England—this is the rule, at least—may almost reckon in advance the demand they will have for their products, the rate of increase, and the cost of labor. In no other part of the United States—perhaps in no other part of the world—are methods and character so constant. And the interesting thing is that this same fact appears whether you study a dull report of economic conditions, a town budget, the report of a public library, the sale of toys, or the cost of food per calory for four old maids who conduct a model kitchen in the village beautiful.

THE FINANCING OF WORLD'S FAIRS

The receipts of the World's Fair at St. Louis, by fortnights, since June 1st, have increased steadily, except for the latter half of July, and the increase since the middle of August has been rapid. The first half of June, the income was only $477,000; the first half of September it was nearly $900,000. As a financial venture, it was never expected to pay—certainly not to pay a direct return to those who invested in it, whether they were governments or corporations or individuals. But some of them are receiving good indirect returns. The United States Government, of course, will not recover its appropriation—there was no such expectation; but it has received the $5,000,000 that it lent to the Exposition Company.

The financial experience of the Fair will

make it even plainer than previous experience had made it that such expositions must be regarded as educational and advertising enterprises, especially if they are projected on a large scale. The suggestion has been made that, since the General Government makes an appropriation to every large fair, it should encourage the holding of one every decade—every census year, perhaps—and withhold its support from others.

It is gratifying that after midsummer the attendance at St. Louis rapidly increased. Without reference to the financial outcome, it is important that as large a number of persons as possible should see the instructive things gathered together there. If the press had not been somewhat fair-weary, it would have made more ado about this wonderful exposition. Little ado or much, it is true that there are several millions of people within reach of it who will never see another like it; and it is an educational opportunity (and a great pleasure to boot) that they may yet have for a month.

TENEMENTS AND EDUCATION

DR. MAXWELL, the superintendent of schools in New York City, recently declared that the city would have to demolish the tenement before the dwellers in that vast wilderness could restore the home; and the home must be restored before really effective education could be given. This is the substance of his declaration, and it is true.

What we see every day we soon become accustomed to. The tenement (the rich man's and the poor man's, too) pours out its multitude of creatures every morning, who, after a day of certain toil or of uncertain pleasure, come back for such rest as they are capable of, and for the stupor that they mistake for sleep—day after day, year after year, millions of us; and we have become so accustomed to this existence that we have long since forgotten the normal life.

It is from warrens like these that children flock to school-houses to be taught "nature" —God's earth, as invisible to them as His sky; and they have neither sight nor odor of any really healthful growing thing.

Now, it is a bold thing—for a man runs the risk of being regarded as a fool—to attack the tenement in this radical way. We are in the habit of thinking that we do well if we clean up little plague spots here and there, and abolish a Five Points or a Lung Block; and we call this "the tenement problem." The tenement problem is the abolition of all residences out of reach of sunlight and out of sight of sky and land; and there is no remedy but the wholesale remedy of abolition.

Dr. Maxwell says that the city must do it. In our present stage of social darkness, we raise many objections to this plan. Some of them may be well taken—the objections, for instance (not to mention more), that the city cannot build houses enough, and that the dwellers in tenements would not go into them if they were built. But these are not serious objections to a sane and far-seeing man, who knows that at some day—it may be several enlightened generations hence—slum-cities have got to be rebuilt.

Meantime, Dr. Maxwell and his associates must engage in what they call "education" against the greatest odds. Their disadvantage is that they live and work in the squalid splendor of the metropolis of the richest continent on the globe, and into it the Old World pours a continuous stream of its unhealthful children. The fundamental problem of almost every people on earth must be solved on this one small island. Our palliatives—tenement commissions and social settlements and the like—excellent as they all are, hardly touch the fringes of the task. We shall some day come, or be driven, to Dr. Maxwell's remedy; for only some such radical treatment is a real remedy.

THE MOST PRACTICAL OF ALL SUBJECTS

EVERY subject under Heaven has been put into courses of study in schools somewhere—including accounting; and the accountants, since their rise to increased attention from the public, make a good case for their subject. They are like all other men who have subjects, in this opinion—that they regard the disciplinary value of its study as very great.

No doubt; but the main matter lies nearer home. It is the fact that not one man—or woman—perhaps, in every hundred—not one, it may be, in five hundred—knows precisely how his money goes; and, for that reason, he can make no intelligent study of his habits of spending or of his habits of life. The responsibility for the use of money, whether in large or small amounts, does not

become a part of his life. Almost every human being (even the very rich are not exceptions) has moments or hours or days or nights of anxiety and trouble because of bad financial management.

Yet those few who always regulate their expenditures with wise reference to their incomes *may* find trouble of another sort; for the determination to hold on to a dollar sometimes causes more trouble and worry than the loss or the waste of it could cause to a normal man. To cultivate a habit of mind toward a dime that makes its spending painful is to know a depth of degradation that the spendthrift, in all his sorrow, never dreamed of.

Still, the accountants have a good case. Everywhere in the United States, outside of New England, we are wasteful; we do not know how we and our money are parted (it is usually in the proverbial way); and we even scorn to make an accurate study of our habits. Whether children could be effectively taught such a subject by any course of study, the schoolmasters must answer after trial for a generation. But what a good accountant could save from waste in the personal habits of the first hundred well-dressed and well-to-do men that he might meet in almost any American town would probably make him richer than any one of the hundred — if he were able to follow his own advice. For your very accountant is also—many a one—a spendthrift of his own money. What we spend without meaning to spend makes the difference between "getting along" and financial independence in the lives of, perhaps, half the fairly prosperous people, especially in our town life. Perhaps the best way to cure this general American defect is for the young of other parts of the country to marry into New England families.

AN UNWEARYING ARCTIC EXPLORER

COMMANDER PEARY is to make another attempt to reach the North Pole. Profiting by his own long experience, he is having built, in a Maine shipyard, a vessel that is meant to combine all the advantageous qualities for its task. It will be, as he himself expressed it, "the ablest ship that ever pointed her nose inside the Arctic or the Antarctic Circle." He expects it to rise to the pressure of the ice so as to escape destruction, and to be strong enough to withstand enormous strain. It will have a thousand horse-power, with the possibility of fifteen hundred for brief periods, and is expected to be able to push a way through heavy ice-packs.

Commander Peary will next summer make the comparatively short voyage to the shores of Grant Land, where he will take, as a part of his party, the picked men of the Eskimo tribe resident there with whom he has established friendly relations. He will spend the winter there, and, with the return of light, will take a sledge journey across the central polar pack. In this way he hopes to reach the Pole.

The North Pole will at some time be won from mystery; and, though the public curiosity about it is less than it once was, when the much-tried task is finally accomplished there will be a burst of world-wide enthusiasm. After that event, which, we may hope, will come by the energy of our countryman, the business of the explorer will practically be ended.

THE LATE SENATOR HOAR

IF not a towering figure, the late Senator George F. Hoar, of Massachusetts, was a personality of distinction in our political life for more years than any other man devoted to our public service. His life symbolized his State, for he held to traditions as Massachusetts has always held to them, and he fought to make his convictions prevail even when he stood alone. One of his grandfathers fought at Concord; the other was Roger Sherman, of Connecticut, one of the signers of the Declaration. He was a graduate of Harvard College, and, as a young man, he flung himself into the abolitionist activities, and became an ardent Republican when the Republican party was born. Every possible influence made him essentially a sturdy New Englander.

Since 1868, he represented his State at Washington continuously, and, from his first election to his death, he had the confidence of all the Presidents, and with Hayes and Garfield he had intimate relations,

He upheld the political rights of the Negroes —even to managing the Force Bill in the Senate; he demanded justice for the Indians; counseled sympathy with the Cubans; would acknowledge no right of ours to govern the Filipinos; and he imperiled his political

fortunes in Massachusetts by opposing religious intolerance. In many of these acts, he was at issue with his party. He used his whole influence to maintain the dignity and independence of the Senate. When President Cleveland sent in the appointment of William B. Hornblower to the Supreme Court, Senator Hoar was one of the majority that nullified the appointment because the President had failed to consult Senator Hill, of New York, in making it. He remonstrated with President McKinley and with the Senate against the practice of the President's appointing Senators on commissions, feeling that Senator George Gray, for example, would have voted against the treaty with Spain if he had not been on the commission that made it. Senator Hoar was a picturesque and interesting survival of the sturdy type of public man that belonged to our ante-bellum era.

DR. OSLER'S CALL TO OXFORD (ENGLAND)

DR. WILLIAM OSLER, of the Johns Hopkins Hospital and Medical School at Baltimore, who has just been appointed Regius Professor of Medicine at Oxford, earned distinction by writing a text-book on the theory and practice of medicine that is considered the foremost book on this subject in our language. He has won a reputation, here and abroad, as a most skilful practitioner, and as one of the ablest living investigators into the nature of internal diseases. He was born in Canada fifty-seven years ago, was graduated from McGill University, Montreal, in 1872; he spent two years studying in Europe, and, on his return, he was appointed Professor of Medicine in McGill University, where he spent ten years in teaching, and in collecting clinical data which were afterward used in the preparation of his "Text-book of the Theory and Practice of Medicine." In 1884, he accepted the position of Professor of Clinical Medicine in the University of Pennsylvania, and, in 1889, he was called to the high place that he has resigned to accept the Oxford professorship. By his going, the United States loses one of its most eminent scientific investigators.

THE COLLEGE YEAR

THE beginning of the college year, a month ago, brought several interesting facts under discussion. For instance, in almost every college there was an increase in the number of students—in some colleges a very large increase. The demand for higher training keeps pace with the growth of wealth and population—perhaps outruns it, by mere physical measurement. Endowments and gifts to colleges continue to be made in ever-increasing sums. Yet the demands, especially of the larger universities, become greater every year. Columbia University, in New York City, for instance, has immediate need of more than two millions of dollars; and President Wilson, of Princeton, it will be recalled, formulated a plan of enlargement and improvement, last year, that calls for about twelve millions.

Dr. Alfred G. Mayer, a little while ago, put into concise form in *Science* the statistics of higher education in the United States, which show that the number of our universities and colleges in 1902 was 638, and the number of students, including graduate students, was 112,433. The number of colleges has increased by 50 per cent., and the number of students by about a hundred per cent., during the decade. But how small a part the college-bred are of the whole population is yet somewhat startling, for they comprise but one in every 700. There were twice as many teachers in 1902 as there were in 1889. The value of college property was multiplied by almost three; the endowment funds were two and a half times as great; gifts for other purposes were nearly three times as great; and the total income, exclusive of benefactions, was more than trebled. The number of books and libraries was doubled.

In spite of this increased prosperity, the average salary of teachers has probably declined. In one of our largest universities, the average, ten years ago, was $1,500. It is now only $1,257. In another one, the average was $1,454, and now it is $1,355. This low average has been caused by the engagement of an increasing number of instructors and other subordinate members of the teaching force. The salaries of the professors themselves have not declined, but the increasing proportion of college instruction is now done by subordinate members of the faculties. Sir William Ramsay, during his recent visit to the United States, made more than one plea for increasing the salaries of teachers of high grade.

College training, except in those universities that are maintained by the States, is yet paid for by rich men and dead men. The students, even at those institutions where fees are highest, pay not more than one-third of the cost of the training that they receive. It is an industry that must yet be endowed—a fact that hints of its ecclesiastical history. In the perfect economic state, the State will pay for the training of all its children. But we need not yet bother ourselves about the ideal economic state. There is enough work for us to do in training well as large a number of capable youth as possible, at the expense of rich men, living or dead, at the expense of the State, or in any other way, if only enough youth be trained, and be trained well enough.

A NATIONAL MOVEMENT AGAINST CHILD LABOR

A NATIONAL Committee has recently been organized, with headquarters in New York, to secure proper legislation for the protection of working children. Child-labor is always in demand in new industries and in industries newly begun in agricultural communities, because, being the cheapest labor, it the better enables employers to meet the competition of well-organized communities. The number of working children has rapidly increased in the last few years; and, in some States, there are no laws for their protection, and in others the laws are more or less ineffectual. Delaware and Georgia, for examples, where there are many children employed in factories, have no regulative laws; in Pennsylvania, girls of thirteen work at night in the mills; in Indiana and New Jersey, boys of fourteen work all night in the glass factories; and the New Jersey Legislature this year refused to pass a bill to prohibit children from working at night.

In 1902 and 1903, fifteen of the States made laws bettering the condition of this class of workers; and in seven of these States there was no previous child-labor legislation. Thus a good start has been made toward better labor laws throughout the country. In the South, much remains to be done; for, although Georgia is now the nly southern State without some kind of child-labor legislation, most of the laws are inadequate, and some of them were enacted less to remedy abuses than to silence the public-spirited men and women who carry on the campaign of sanitation and protection.

To give publicity to the methods of employers of children, and to stir up public opinion when the proper officials have neglected their duties, the National Committee has been formed. It has been proved over and over again that this is an evil that can be made to yield to public opinion. Yet hearty and effective as public opinion always is on the subject when once aroused, new industrial communities, in particular, slip gradually into grave abuses before the public becomes aware of it. It is a striking instance of the immorality of organized industry.

CHICAGO'S SUPPORT OF GOOD MUSIC

EARLY in December, Chicago will celebrate the completion of a unique building, to be called Orchestra Hall, in the establishment of which the city has set a noble example for other American communities. The structure is to be the permanent home of the Chicago Orchestra, the musical organization instituted thirteen years ago by Theodore Thomas, the dean of American conductors, and directed by him ever since.

This excellent symphony orchestra is henceforth to be "permanent." The orchestra has been endowed—not by one wealthy philanthropist, not by the municipality, but by popular subscription. More than eight thousand men and women have contributed to the endowment fund. The donations range from $1 to $20,000.

When Mr. Thomas, with the aid and backing of a few rich and enlightened men, formed the Chicago Orchestra for the performance of classical and symphonic music, his work was appreciated by a mere handful of people. His audiences were discouragingly small, while the Auditorium, in which the concerts were given, was vast. This meant a heavy deficit at the close of each season. At no time did the orchestra even approach a self-supporting basis. The average annual deficit has been in excess of $28,000. The trustees of the orchestral association cheerfully met these deficits, and had the satisfaction of seeing the audiences grow steadily in size and in musical intelligence. Even under the best conditions, however, the orchestra could not expect to make both ends meet, and the policy of living from hand to mouth and

depending on the beneficence of generous patrons could not be regarded as satisfactory. About two years ago, Mr. Thomas and the trustees of the orchestra decided that the organization must either be disbanded or placed permanently on a sure and stable foundation.

To give it a home, do away with the deficits, and make it independent and free from care, $750,000 had to be raised somehow. It was decided to make an appeal to the public—to those Mr. Thomas had educated to enjoy and love the best music.

The appeal was made to the public. The response of the music-loving community abundantly justified Mr. Thomas and his staunch supporters. About $650,000 was secured in a year, and the rest will certainly be forthcoming.

Orchestra Hall will be a true temple of art and a monument to the labors of Theodore Thomas. He found Chicago a musical wilderness; he has made it a centre of musical culture and activity. He has brought beauty and sunshine into the lives of thousands, and the Chicago Orchestra has been a civilizing and refining agency. Chicago is justly proud of it, and the orchestra has every reason to be proud of Chicago.

HAS PUBLIC LIFE DECLINED?

ANY man who will look calmly over the whole field of politics in the United States will be surprised to find how few forceful personalities have been put forward this year. Governor La Follette, in Wisconsin, and Mr. Folk, in Missouri—where is there a third man in State politics who may properly be mentioned with these? Respectable men there are in abundance, and "good" men of both parties. But our political life does not, as a rule, now attract many men of the first class.

There are several reasons, the strongest of which no doubt is the influence of the bosses, big and little. A political machine generally looks for merely "available" men—men who have few enemies, who may be trusted to look favorably upon all sorts of compromises—not bad men nor venal, but manageable men.

Yet enough men of original force do win political power to keep us reminded that the bosses and the machines are far less powerful than they seem to be; and, if this generation of Americans had such a real love of public life as our grandfathers and great-grandfathers had, the "compromise" candidate would not be the rule. The rewards of politics do not appeal strongly enough to the most forceful men—that is the trouble; and this comes near to saying that we are not as deeply concerned about the public welfare as our grandfathers were. The fairer way to say it is, that we have many more interesting things to demand our time and effort than they had. But, whatever the explanation, the fact remains that there are few really strong men among the thousands that will be voted for this month for public offices.

SUPERVISION OF TRUST COMPANIES

[THE WORLD'S WORK publishes every month an article in which some timely and vital subject of the financial world is taken up]

TWENTY years ago, there were not more than one hundred trust companies in the United States, and these held on deposit only an inconsiderable fraction of the total amount of money in bank. Today, there are ten times as many, with resources of more than $3,500,000,000.

The need of some kind of responsible business organization, which could handle, as trustee or agent, large affairs of various kinds, encouraged the growth of trust companies. National banks are rigidly restricted by law to making only well-secured commercial loans. They cannot handle real estate, engage in the insurance business, conduct building and loan associations, or do the thousand and one things an individual can profitably undertake. A trust company, essentially a corporation which manages funds in the relation of a trustee for some individual or for some other corporation, may, by its charter, do anything proper to the wise and

profitable management of an estate. So the rapidly increasing trust companies of the last decade have engaged in so many kinds of business that they have come to be known as "the department stores of finance."

Owing to the sharp difference between the privileges and the natural activities of national banks and trust companies, the possibility existed of a harmonious development of the two forms of institution, each filling a special field. But, eager for business, the trust companies began, gradually, to encroach on the field of the national banks. Customers placed money on deposit, and drew checks against it, as in national banks; and the trust companies attracted these deposits by paying a low rate of interest on them. Some of the national banks, accordingly, were forced by the competition to pay a small rate of interest on their deposits. But the latitude of operation permitted to trust companies continued to give them an advantage not possessed by national banks. The swift growth of the trust companies, therefore, continued not only in the exercise of trustee functions, but in ordinary banking operations. It results, then, that many national banks are now resorting to such devices as employing trade solicitors, sending out circulars, and offering extraordinary inducements to get business, not merely on account of competition among the banks, but also to keep the trust companies from acquiring too large a share of the banking business. The banks are feeling trust company competition.

The problem that presses now is one of regulating trust companies. The safety of the trust company system has been questioned, despite the fact that failures have been few—in New York State, for example, though seventy-five trust companies were incorporated from 1874 to 1904, only two have failed. As a safeguard for depositors and customers, national banks are not only restricted in function and obliged to keep a specified reserve of cash on hand, but they are examined regularly by national bank examiners, who have the power to close any bank whose condition does not satisfy them. No such wholesome regulations govern the trust companies. Last May, Massachusetts enacted a law requiring trust companies doing business within the State to keep reserves amounting to 15 per cent. of all money on deposit subject to withdrawal within ten days. But other States are much more lax, and there is no pretence of uniformity in the supervision of trust companies among the States less strict than Massachusetts. It is clear, however, that the stability of the American banking system cannot long hold public confidence, if an important branch of banking, using $3,500,000,000, is no more supervised by the States than is private business. The trust companies are being conducted efficiently and safely. But even the managers of trust companies advocate supervision, to guard against the temptation to loose financial methods.

Sometimes a trust company finds the easiest pathway to profits in buying and selling real estate and promoting real estate schemes. Actually, it may thus become a real estate company with a banking branch. Similarly, another becomes an insurance company. Another becomes a fidelity company, guaranteeing the bonds of individuals and enterprises. Funds placed on deposit in such companies, or held by them in trust, are subject to such heavy risks as fluctuations in real estate values, disastrous fires, or unreliability on the part of bonded customers. Or, a trust company may engage in commercial banking chiefly, in this case assuming the hazards of discounting commercial paper, with no salutary restraints such as govern national banks. And sometimes a trust company combines all these forms of business. Three failures occurred in Pennsylvania, one in 1895, one in 1896, and one in 1897, through investments of the companies' funds in western mortgages. Other failures have occurred through unwise loans. But the demand for supervision of the companies is not based on any history of disaster. Quite the contrary. In ten years, the ratio of liabilities of failed companies to the total of assets of all the companies was only $\frac{9}{100}$ of 1 per cent.; whereas the ratio among the national banks was $\frac{28}{100}$ of 1 per cent. The point here made is that, since the trust companies now possess more than one third of the $10,000,000,000 of banking resources in the United States, they have reached such importance as to demand some public control.

It is a commendable feature of the spirit among trust company managers that they are asking for State supervision.

HARVESTING WHEAT WITH A HEADER IN KANSAS

The machine cuts off the heads of the wheat and elevates them into the header-bed alongside

By courtesy of the International Harvester Company

HARVESTING THE WHEAT

FORTY BINDERS CUTTING EIGHT THOUSAND ACRES OF GRAIN ON A NORTH DAKOTA BONANZA FARM—THRESHING IN KANSAS, OUR GREATEST WHEAT STATE—HOW NEW BREEDS ARE INCREASING THE MINNESOTA YIELD—MOVING THE GRAIN TO ELEVATORS AND MILLS—THE PIT, WHERE ITS PRICE IS REGISTERED—A FIRST-HAND ACCOUNT OF HARVESTING AND MOVING THE CROP

BY

ISAAC F. MARCOSSON

THE August wind that sweeps across North Dakota's 5,000,000-acre wheat fields rustles enough golden grain to provide bread for all the people of the United States for a month. And North Dakota is but the far outpost of our vast wheat belt—that every year sends forth a stream of 637,000,000 bushels of wheat—as wide and deep as the Red River that nourishes it. All sections contribute to it; but Kansas, Minnesota, and North Dakota produce the most. Therefore, in order to make an investigation of the crops and the conditions which are typical of all American wheat growing States, I recently made a tour of these States at harvest time.

In the heart of the Red River section is the Elk Valley Farm, 15,000 acres in breadth. Here, for seven miles, I rode through the waving wheat, the kernel-laden heads rattling like musketry against the buggy. Far as the eye could see, and farther still, stretched the gleaming grain; here gold, and there green where the tops had escaped the sun's ripening rays. Eight thousand acres of wheat! Enough to feed a whole city; nodding, swaying, rippling around the few trees that rose among it, and waiting to be harvested. Then the wind died, the rustling ceased, and a silence hung over the fruitful fields. A tall grain elevator loomed against the horizon, and I heard the rumble of a distant freight-train hurrying the empty cars northward to be filled with grain.

Here, then, was the Spring wheat, planted in May, ready for the harvester in August.

Photographed by E. R. Shepard. By courtesy of the Great Northern Railway
PLOWING ON A NORTH DAKOTA FARM

But it was not long intact. In the early morning, when the dew glistened upon the grain, the battery of binders swung into action, like artillery going to battle. One by one the harvesting machines, each drawn by three mules, clattered to the cutting-line. Soon there was a line of forty machines fringing the waving field for a quarter of a mile. The whips cracked, and the drivers shouted—some in Scandinavian, some in German, and some in plain, profane English! The long, steel reapers whirled like great wings, and a swath of grain six feet wide went down at every turn, and then six bundles of wheat were dropped behind. And then another binder followed, a little closer to the grain, and six more sheaves littered the stubble. And soon the whole line of forty machines, whirling and rattling, swept the field, leaving a trail of sheaves. Already the air was heavy with the pungent, musty smell of the wheat that clings to freight-cars, to elevators, to mills, to anything that the golden grain touches. The machines followed a diagonal line, the first one always keeping the inside and cutting a swath in the form of a square. Twenty acres a day for each machine, or 800 acres—twice the area of the average farm of the United States—for them all!

Behind the machines came the shockers—the men who pile the sheaves of wheat in shocks. And soon the shocks spread out line after line—hummocks of rich grain, like the brown tents of a camped army.

I rode with the superintendent of the farm, in a light buggy drawn by two wiry horses. The buggy was equipped with a complete tool outfit. It was the superintendent's business to keep the binders at work all day. A quarter of a mile away a binder stopped and the driver waved his hand. The little horses galloped through the wheat.

"Screw loose on the cutter," said the

Photographed by J. Gus. Olson
HARROWING THE GROUND FOR PLANTING
Each harrow is forty feet wide

driver, and the superintendent was on the ground in a moment. There was a rummage through the box: click, click, went the screw. Then the binder moved off, with the steel blades clipping. To the right there was the sound of angry voices, and three machines stopped and a group of shockers gathered about two men who were quarreling. A Swede had accused an Irishman of taking his mattress in the bunk-house. Here was a different kind of business for the superintendent. He dashed to the scene. There was a quick jump to the ground, and his strong, lithe body was hurled between the men, scattering them like straw. For the men who operate great farms, the largest in the country, must be strong and brave, and know how to deal with men as well as wheat. Here and there, over a thousand acres, the superintendent raced his horses. They are trained to start the moment he gets into the buggy, and to come to him at call. And thus the day goes on this vast Dakota wheat farm; with the strident clatter of the binder; the silent fall of the wheat; the hastily eaten meal; and, at the end, a field shorn of its waving beauty, ready for the threshing machine.

There is no jest and laughter in the harvesting of these bonanza Dakota farms. It is too big, too serious a business. There is too much at stake. Often the harvesting is a race with wind and rain. Fortune hangs in the balance of the waving wheat. With the small Kansas or Nebraska farmer it is different, for his wheat is only part of his crop. Here it is all. This is why the small army of harvesters is at work at break of day, and that is why it sometimes works in shifts all through the night. I have seen the harvest moon silver the wheat fields and heard the rattle of the binders drown the sound of the night insects.

By courtesy of the International Harvester Company

HARVESTING WHEAT WITH A BINDER ON A SMALL FARM

At the Elk Valley Farm, the harvesting

FORTY BINDERS HARVESTING ON AN EIGHT-

this fall was delayed on account of rain. Five thousand acres of wheat, golden yellow, drooped in the rain, and every day that it remained uncut added to the odds against it. Already the rust had made its destructive way up the stalks, sapping the richness of the kernel. Fifty binders stood idle, and a hundred harvesters loafed in the village or slept in their bunks.

"What are you going to do?" I asked Mr. N. G. Larimore, owner of the farm. We stood in his office and watched the dripping fields.

"Wait until the rain stops," he said.

"And then?"

"And then work every available minute."

Here, then, was the note of the Northwest wheat country—patience and work: for these are the things that have made the great, trackless prairies fruitful.

And what is true of the Elk Valley Farm is true of the Dalrymple Farm, the Grandon Farm, and all the other great North Dakota bonanza farms—as the big ones are called—where 10,000 acres of wheat are handled as easily as a single section of 640 acres is harvested elsewhere. For farming is on the scale represented by the forty binders. The Elk Valley Farm has yielded as much as 190,000 bushels in a single year.

THE HARVESTERS

I went down among the harvesters at the Elk Valley Farm. They are part of the army that moves northward from Oklahoma to Canada with the harvested grain, for they help to harvest it. Poles, Scandinavians, Irishmen, Germans, and Americans, they make a motley crowd. Gathered from all

THE SAME FIELD AFTER THE WHEAT

THOUSAND-ACRE FARM IN NORTH DAKOTA

By courtesy of the International Harvester Company

lands, they have a common purpose—to get where the wheat is cut. The western farmer calls them "hoboes," the name given in the East to the ordinary tramps. But the harvester differs from the tramp in that he works for a living. Unclean, unkempt, illiterate, he is not altogether a picturesque figure. When he doesn't work, he either sleeps or gambles, and when he can do neither of these, he fights. This for the majority. Yet, at the Elk Valley Farm I met some strange types. The rain kept them indoors. One of the harvesters, gray and worn with toil and hard luck, had gone West to Kansas with the tide of boomers in the early eighties, when towns sprang up over night. He had lost everything; he had joined the harvesters ten years ago, and, once caught in the stream of wheat-workers, had remained.

"And when you can't work any more, what will you do?" I asked him.

"Then I'll be one of your eastern 'hoboes,'" he said.

Another man had been a successful druggist in New York until drunkenness had caused his downfall. I found him driving a water-wagon for a thresher.

In May, the "hoboes" rally in Oklahoma for the first of the harvesting, and steadily they work their way northward, through Kansas and Nebraska, to Minnesota and the Dakotas. Then they cross the border, for the Canadian harvest lasts until the snow flies. The majority then work their way to the logging-camps of Wisconsin and Minnesota, and in the spring float down the Red and Mississippi rivers with the log rafts. Thus this migratory crowd follows the

HAS BEEN CUT AND PILED INTO SHOCKS

WEIGHING EARS OF WHEAT AT THE MINNESOTA EXPERIMENT STATION
A process in breeding wheat

seasons, an humble and inconspicuous element in the gathering of the great wheat crop.

THE THRESHING

But while the long lines of binders are sweeping the Dakota fields, the threshers are separating the rich kernels from the stalks in a thousand farms in Minnesota, Wisconsin, Kansas, and Nebraska, through the heart of the great wheat belt. A month before, the harvesting machines had cut these fields, not with batteries of forty binders, but with single headers. In the Middle West, the header is used almost to the exclusion of the binder. But some wheat is bound. Heading lacks the picturesqueness of the long row of machines used on bonanza farms, but it is just as effective, and renders the wheat easier to thresh. Headed wheat is not bound with twine. The horses push the machine through the wheat; the steel blades cut the wheat

MAKING A RECORD OF KERNELS
Another step in breeding wheat

about five inches below the heads. The heads are elevated to a platform which rests on a wagon which moves with the cutter. When one wagon is filled, another takes its place. The heads are piled in tall shocks. Sometimes they are hauled directly to the machines. It is no uncommon sight to see the harvesting machines in one field and the thresher, spouting chaff and straw and dropping grain, in another.

But threshing, after all, is the picturesque, colorful feature of the harvesting, and it is most picturesque in Kansas, for it comes when the great Middle West is in the full glory of ripe richness, when the pointed stacks of cut wheat rise on all sides amid the stubble, and when the long corn-fields are bursting with fat ears. And threshing in Kansas still has some of the home features that years ago made it a holiday event in the

THRESHING NURSERY WHEAT FOR SEED
At the Minnesota Experiment Station

life of the farmers; when the women went forth in the fields to help the men; and when the harvest moon shone on happy lovers resting after the day's work. In the northern States, certain shrewd farmers have become professional threshers. Each one buys a traction-engine and separator (as the threshing machine is commonly called) and travels with his outfit, including hired hands and cook-shanty. He makes his deal with the farmer to thresh his grain for a certain sum, and that is the end of the farmer's responsibility, in which his wife formerly had a large and burdensome part. For, in the old days, the neighbors flocked in to help at the threshing, and that meant much cooking, brewing, and baking. Sometimes the neigh-

Photographed by E. R. Shepard. By courtesy of the Great Northern Railway

THE FIRST HOME OF A WHEAT GROWER, NEAR HILLSBORO, NORTH DAKOTA

He is growing his first crop

bors brought their own dishes and table articles, for fear the farmer's wife did not have enough to serve so many people.

But in Kansas, the greatest wheat-producing State in the Union, which produces as much wheat as all the States together but four, there is a survival of that good old custom of "exchanging work," as they call it, when farmers help each other thresh. With the cutting of the wheat it is different, for the farmers own their own harvesting machines. The threshing outfit, consisting of engines and separator, costs $3,000. In every community I found one thrifty

Photographed by E. R. Shepard. By courtesy of the Great Northern Railway

THE HOME OF THE SAME WHEAT GROWER, FOUR YEARS LATER

Photographed by E. R. Shepard. By courtesy of the Great Northern Railway

THE HOME OF THE SAME WHEAT GROWER TODAY

farmer who owned one, operating it within a radius of thirty miles.

It is in Kansas, too, that you get the full meaning of the richness of the harvesting, for it is a kind of personal thing with the people. I rode through Reno County, that every year adds 4,000,000 bushels to the State yield. To the right and left of the road stretched the yellow fields with the wheat stacks rearing their pointed tops. It was wheat wherever I turned.

Then I saw a curl of smoke over the horizon, and my ear caught the puff and pant of an engine. I rode into the field, and there, in the centre, stood the long, red thresher, and, a hundred feet away, linked by a broad belting, quivered the traction-engine. A lithe, young Kansas farmer shoveled coal from a barn-wagon. In half a dozen parts of the field men were pitching the wheat from the tall stacks to their wagons, and a loaded wagon stood at each side of the machine. Two men fed the hungry, clattering thing—hurled the wheat to the self-feeder that cut the twine and rushed the stalks swirling into the maw, where the steel arms greedily threshed it back and forth, shaking the whole machine as they extracted the golden grain and sent the chaff and straw flying up the long, wooden stacker that pointed its nose to the sky. Overhead, the wheat and chaff fell like a blinding, yellow cloud, piling up a straw-stack inch by inch. But down the spout on one side of the wagon hurtled the sun-flecked kernels of wheat, rattling and falling in a steady stream into the big wagons. For this rush of threshed grain was the result of the months of working the soil and nursing the crop. Overhead, the straw still fell onto the stack, and in the wagon the yellow kernels slowly rose like the tide on the shore. Back and forth from the field went the sheaf-laden wagons, and back and forth from the bins rattled the big-bodied farm-wagons.

By courtesy of the International Harvester Company

THE OLD WAY OF HARVESTING

And what was happening that August day in Reno County was happening in thirty other Kansas counties and in a dozen other

States. Everywhere the rich kernels were rushing into the waiting wagons, to be hauled to bins and elevators, all to join that mighty stream of 637,000,000 bushels of wheat, our second greatest crop, greater even than King Cotton.

Six hundred and thirty-seven million bushels of wheat! One-fifth the whole world's output; enough wheat, made into bread, to provide one and one-third loaves a day for every inhabitant of the United States for a year; enough wheat, made into loaves a foot long, to girdle the earth!

What, then, is the significance of this rich harvest of grain, garnered from coast to coast, that not only feeds us, but, rushing out from nearly every port, helps to feed the world? How has this vast yield been made possible? How has the crop grown, in less than half a century, from only 150,000,000 bushels a year to its present magnificent yield of 637,000,000 bushels?

Photographed from a stereograph, copyright, 1904, by Underwood & Underwood

THE NEW WAY OF HARVESTING

A combined harvester which heads, threshes, and sacks wheat on a farm in Washington

THE IMPROVEMENT OF FARM MACHINERY

In 1800, 97 per cent. of our people lived on the farms, yet they did not raise enough wheat for their own needs. In 1901, 37 per cent. of the population lived on the farms, and, with one-third the labor, not only produced eleven bushels of wheat for every person, but were able to export farm products valued at $950,000,000. How was this made possible? Simply by the invention and use of improved farm machinery.

Our forefathers in this country cut the wheat with the sickle, and separated the kernel from the stalk with a flail. Man felt the need of a rapid and efficient means of harvesting grain. All the while, on a little farm in Rockbridge County, Virginia, a

patient man was working with a machine to harvest grain. His name was Robert McCormick. He built a rude cutter that cut grain as the blades were pushed. In 1831, his son, Cyrus McCormick, then aged twenty-eight years, working on a slightly different plan, made a cutter that harvested the grain. A man walked behind, binding the grain with twine. This was the first reaping machine.

What happened? When the farmers got a machine that did the work of half a dozen men, they planted more wheat. With the introduction of reaping machines, the natural resources of the country, held in check by inadequate facilities for cultivation and harvesting, underwent a remarkable development; exports of wheat and flour, stationary during the first half of the century, grew. Labor, released from the farms by the introduction of machinery, doubled the output of our factories from 1850 to 1860. It was, indeed, a significant development.

In 1870, the automatic self-binder was invented. It cut and bound the wheat. The reapers and binders became as necessary to the western homesteader as guns and powder to the pioneer. As farm machinery improved, our agricultural empire expanded, and our wheat belt increased from 15,000,000 acres in 1860 to 50,000,000 acres in 1900.

But the inventors of farm machinery were not content to stop at the point undreamed of half a century ago. Today, in the San Joaquin Valley of California, you may see the new giant of the harvesting fields—the combined harvester and thresher. On one side, the long steel arms cut the waving wheat; the grain is rushed across the machine on slats to the other side, where wooden fingers, with lightning speed, separate the kernels from the stalk. The straw is tied in bundles, falls on one side, and the wheat, sacked, drops on the other. The only manual labor required is driving the horses, sewing the sacks as they are filled, and carrying away the sacks and bundles.

By courtesy of the International Harvester Company

THE OLD WAY OF CUTTING GRAIN WITH A SICKLE IN EGYPT

Farm machines do the work of men. Wherever I went in the West and Northwest, I found the latest farm machinery in use and being bought. At every cross-roads railway station I saw flat-cars loaded with new farm machinery. In North Dakota I saw whole trains of these cars, the fresh, red paint on the ungainly threshers glistening in the sunlight.

By courtesy of the International Harvester Company

HARVESTING ON A HILLY FARM IN MICHIGAN

Copyright, 1904, by C. H. Graves, Philadelphia

FEEDING SHEAVES TO THE THRESHER

These cars went to a hundred towns. Between June and October, 300,000 binders will have cut wheat from Oklahoma to the Dakotas, and 100,000 threshers dumped the golden grain into waiting wagons. For the sound of these whirring machines is the song of the Middle West in harvest time.

Last year, 1,069,000 harvesting machines were sold in the United States, and, of this number, 225,000 were binders. They went to every wheat-producing country in the world, for the sun never sets on American farm machines. But most of them are being used in the United States. Our agricultural expansion has followed the path of farm machinery.

Improved farm machinery is now one of the farmer's valuable assets here. We have $200,000,000 invested in farm machinery—enough money to run the United States Post-Office Department for a year and build another New York subway with the surplus.

But farm machines could only cut and

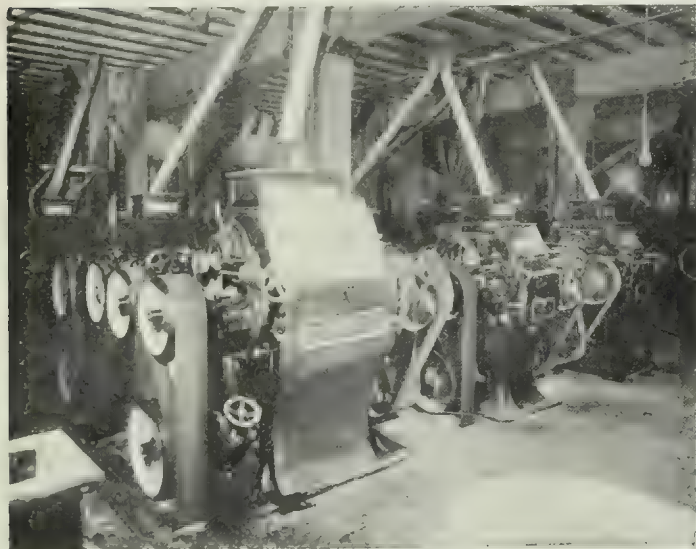
Photographed from a stereograph, copyright, 1904, by Underwood & Underwood

CUTTING A SWATH OF WHEAT FOURTEEN FEET WIDE, IN CALIFORNIA

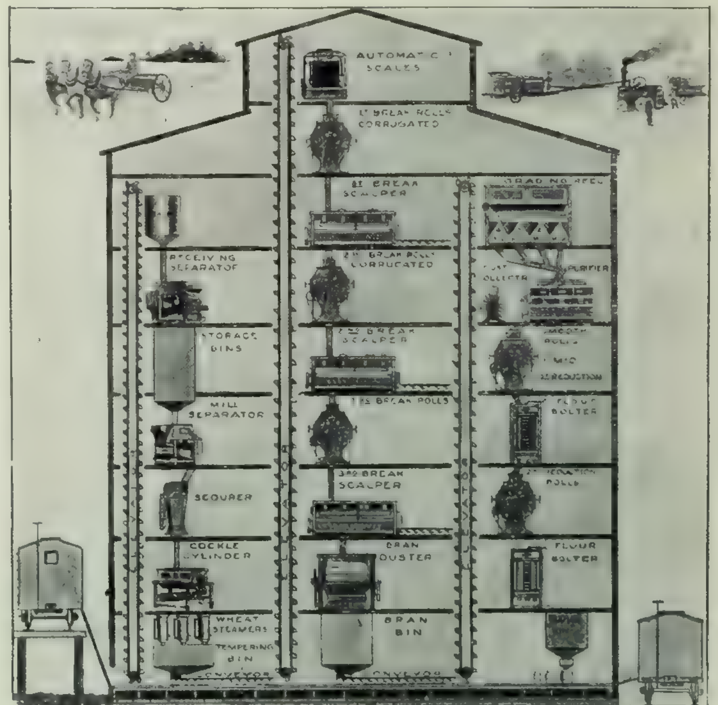
GRINDING WHEAT BETWEEN STONES—THE OLD WAY OF MAKING FLOUR

harvest crops; they could not grow them. The time was when the wheat grower paid no attention to seed wheat, planting from the same strain year after year. Sometimes his crops failed. He did not know why. He blamed the soil and the weather. He did not stop to think that the fault might be with the seed. That was the day of the clodhopper; but that day is gone. Now the farmer studies the soil and the seed; we breed wheat just as we breed cattle. The beginning was significant.

Thirty-five years ago, a boy worked on an Iowa farm in the summer and went to the State agricultural college, at Ames, in the winter. He heard the farmers complain of poor wheat crops. He began to study wheat at school. The boy was Willet M. Hays. When he became professor of agriculture at the Minnesota State Agricultural College, at



THE STEEL ROLLERS THAT NOW GRIND THE WHEAT IN THE MINNEAPOLIS MILLS



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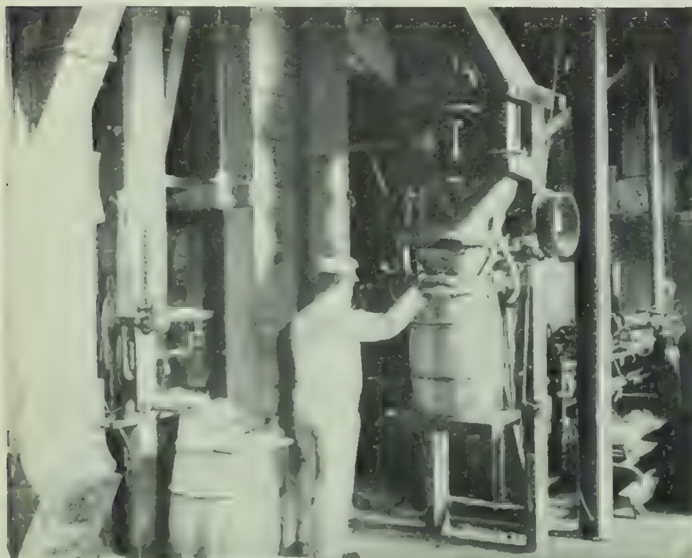
A MODEL FLOUR MILL

The cross-section shows the movement of wheat from the time it leaves the car in the kernel until it leaves the mill as flour



By courtesy of the Washburn-Crosby Company

AUTOMATICALLY FILLING THE BARRELS WITH FLOUR

St. Anthony's Park, he began to breed wheat. He said: "The wheat farms of Minnesota, the second best wheat-producing State in the Union, produce fourteen bushels of wheat an acre. They should produce twenty-five bushels."

What did he do? He collected 1,000 varieties of wheat from all parts of the world. He planted them regularly on the university farm. He said, "You cannot

change the soil, but you can change the seed." And he changed the seed. From a thousand kernels of the yield he selected one kernel and planted it again. And then he planted it again and again, nursing it from year to year. He took two different kinds of wheat, grafted the pollen, and bred new varieties. Now, at the end of fifteen years of patient work, he has produced two new varieties that, sowed on the farms of Minnesota, have produced, in every case, an increased yield. They are known as Minnesota 163 and Minnesota 169 wheats. The Minnesota 163 wheat was planted on the university farm, and in an adjoining plot was planted ordinary Blue Stem wheat, such as the average Minnesota farmer plants. The new variety yielded an average of twenty-eight bushels an acre; the old, twenty-three. Two years ago, six Minnesota farmers planted the Minnesota 169, and every one reported an increase of four and one-half bushels an acre. The State yield was increased by 50,000 bushels. This year, 200 farmers have planted it, and the State yield will be increased more than 500,000 bushels. These farmers paid $1.50 a bushel for the new seed wheat. They could have bought seed wheat from their neighbors for 60 cents a bushel. But the Minnesota farmer is learning that it is cheaper to buy the more expensive seed.

By courtesy of the Washburn-Crosby Company

DELIVERING FLOUR BARRELS AT A MINNEAPOLIS MILL

I walked over the university farm with Professor Hays. From less than four acres have been produced the rich kernels that will increase the wheat yield millions of bushels every year. He took me to the seed house, where I saw, on the shelves that lined the room, row after row of fire-proof, round boxes. And in these boxes were the choice seed-wheat kernels that years of experimenting had perfected, each kernel as valuable as if it were a nugget of gold.

THE DULUTH-SUPERIOR HARBOR, THE LARGEST
The wheat goes by way of the

Behind the development of new varieties of seed-wheat in Minnesota is the most striking lesson in the development of the wheat belt of the Northwest. It has not only proved the yielding power of the new varieties, but it has showed that the farmer is willing to use them and pay well for them. And this means a larger yield.

MR. COBURN'S WORK IN KANSAS

What is happening in Minnesota is happening in Kansas, in the Dakotas, in every large wheat-producing community; everywhere the farmers are buying and planting the best seed-wheat.

Kansas has no Hays, but she has a man named F. D. Coburn. He is secretary of the State Board of Agriculture. I talked with him in his office under the dome of the State capitol building at Topeka. Here he sits at a desk, in touch with every farmer in Kansas. Ask him the productivity of any wheat farm in Kansas, and he will tell you. Ask him how to grow wheat under any condition, and you will learn. And what he has told you, he has already told the Kansas farmers by speech and by books. His books on wheat, on alfalfa, on cattle-raising, on corn (he introduced Kaffir corn in Kansas, which brought wealth when Indian corn was withered by drouth), on dairying, on swine, you will find in every Kansas farm-house. The farmers read them. That is why they have large crops and are prosperous.

OVERFLOW WHEAT WAITING SHIPMENT IN KANSAS

Mr. Coburn is himself a farmer. He believes that every child in Kansas should know about wheat and corn. He has written simple elementary chapters on the grains, and they are incorporated in the public-school books. The Kansas child grows up knowing what is in the kernel and what makes it grow. The next generation of Kansas farmers will be even better farmers than their fathers.

But it has another result. "What is the effect on the child of this study of agriculture in the public schools?" I asked Mr. Coburn.

"It fixes the boy's eye on the farm home, and removes the temptation of a seven-dollar-a-week job in the city," he replied.

I met four boys on the road in Sumner County, Kansas. This county produces nearly 7,000,000 bushels of wheat — more than any other county in the country.

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WHEAT-SHIPPING PORT IN THE WORLD
Great Lakes to the Atlantic Seaboard

"Are you boys going to be farmers?" I asked them.

"Yes," they all replied.

"And why?" I asked.

"Because we want to raise wheat and make money," was the reply.

Kansas wheat paid her farmers $50,000,000 last year. I went to Wellington, the county seat of Sumner County. It has less than 4,000 people, yet the three banks there contain $750,000, and five-sixths of it is farmer's money. Three-fourths of the directors of the banks are farmers, and all are wheat growers. There are four grain elevators in the town, with a total capacity of nearly a million bushels. The three flour mills there produce 1,600 barrels of flour a day, and some of the flour is shipped to England and South Africa. Land is worth from $40 to $60 an acre, and there are not fifty waste acres in the county.

This is a typical Kansas wheat county. Wherever I went in the Kansas wheat section—and there are thirty counties that produce a million bushels or more each—the fields were rich with the golden grain and the farmers had money in the banks.

The houses on the county poor-farms in Kansas are going to ruin because there is no one to occupy them. In Sumner, Barton, Reno, and other wheat counties, these poor-houses are being used as granaries.

Other things have helped the Kansas wheat grower to raise large wheat crops. He has the telephone and the rural free delivery. Ten years ago, the wheat grower was content to read the weekly paper. Now he demands the daily, and the rural delivery has it at his door every morning. It keeps him in touch with the markets; he can sell his grain with better price-knowledge.

THE FARMERS' RAILWAY

The movement of crops was formerly a problem, but railways and trolley lines almost to the farmers' doors now provide transportation. But difficulties arise such as confronted the wheat growers of Ramsey County, North Dakota. How they overcame them is a significant example of the mettle and resource of the Northwestern farmers.

These farmers hauled their grain—often a

By courtesy of the Washburn-Crosby Company

A MINNEAPOLIS ELEVATOR THAT HOLDS 6,000,000 BUSHELS OF WHEAT
The circular tanks are of tile and are fire-proof. Formerly elevators were made of wood

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THE WHEAT PIT OF THE CHICAGO BOARD OF TRADE

An hour before the market closes, when the brokers are in a rush to buy or sell

distance of twenty-five miles—to Devil's Lake, the county seat, through which the Great Northern Railway passed. It kept the farmers hauling grain all winter. They asked Mr. James J. Hill, president of the Great Northern Railway, to build a branch line from Devil's Lake up through their section. Mr. Hill said he could not build. Six of the largest farmers met at a schoolhouse. One of them was Mr. Joseph Kelly, who owned 900 acres of land and who hauled his wheat fifteen miles to Devil's Lake. Mr. Kelly said, "If the Great Northern won't build, we will build." And the farmers built a railroad twenty-five miles long.

They asked every farmer who hauled grain to Devil's Lake to subscribe. Some subscribed $25; others, $500. They raised $50,000. They sent a farmer to Duluth to buy ties, and another to St. Paul to buy old rails. A land-promoter was building a small branch line out of Devil's Lake to the south, and they got him to survey the road. They hired section-hands to lay the track. But they needed more money. They bought land along the line and laid out three towns, sold the lots, and used the money to buy an old engine, a day-coach, and four box-cars from the Great Northern Railway The express car is an old freight-car with a hole cut in one end.

Then the road was started. Every morning at 8:30 o'clock the train leaves Devil's Lake, and returns at 3 o'clock in the afternoon. It will stop for any farmer at any place. Last year the road made its expenses; it hauled 60,000 bushels of wheat. This year, with the railroad at hand, the farmers planted more wheat, and the road will haul 2,000,000 bushels.

I went to Starkweather, the largest town laid out by the farmers on their road. Two years ago the site was a flax-field. I found it a bustling place, with thirty stores and houses, 400 people, a school-house that cost $10,000, three elevators with a capacity of 250,000 bushels, three banks, a newspaper, and a church. At the other two towns, that a year ago were farm lots, I found grain elevators, schools, and stores.

Here is what these farmers had done when they built their railroad: they had established three towns, increased the price of land along the way 75 per cent., increased the yield of wheat, built schools, established telephones. They made a whole community rich, thriving, and independent.

THE NEW HARVEST FESTIVAL

There is even a new kind of harvest festival in the grain belt. In the fall, when the grain is threshed, the farmers now go on a visit to their State agricultural college. Twenty thousand Iowans last year went to Ames, some with their wives and children. The railroads made low rates, and the trip was called a harvest-home excursion. It was started by the agricultural college professors. Old farmers go through the buildings where the young farmers are trained, get samples of seed-wheat and corn, find out the latest things in farm machinery, and see them at work. And what is happening at Ames happens each year at Fargo, North Dakota; Manhattan, Kansas; and St. Anthony's Park, Minnesota.

But that is not all. At all these colleges they have a short winter course of instruction for the farmer, held in January, when the crops are all in and when the farmer can leave the farm. Then the farmer goes to school, studies seed-corn and wheat and stock-judging. Only a nominal fee is charged. What is the result for the farmer? He goes home with new ideas, with better seed, with a knowledge of how to do farm things better.

I heard this story at Ames: Professor P. G. Holden, professor of agronomy, who last year preached corn-gospel to the Iowa farmers from the rear platform of special trains, was having a class of fifty farmers in seed-corn judging. He noticed an old man standing near a group of members of the class.

"Won't you join us?" asked Professor Holden.

"No, thanks," replied the man. "I'm too old. Just reconnoiterin' around."

"You are not too old," said the professor, and he showed the old man to a place at the corn-table. The farmer became deeply interested, and he took home some seed-corn. The next year, the Governor of Iowa offered a trophy for the best ear of corn in the State, and the old man won it.

Every Iowa poor-farm has been turned into a corn experiment station, where different kinds of seed-corn are planted each year. Then, during the fall, the farmers have a picnic at the farm, and find out which kind of corn has grown the best ears. And what is

true of corn is true of wheat. Everywhere the tendency of the farmer is to study to get the best results that can be obtained.

IN THE MILLS

I had followed the wheat from Kansas to North Dakota; seen it cut and threshed, heard the grain rattle in the waiting wagons, and watched these wagons cross the fields to the elevators, where the grain was lifted in elevators to the tall bins, there to spurt through spouts to the cars. I saw whole trains of wheat, thirty cars to a train, a thousand bushels to a car, speeding to the Minneapolis market, the world's largest wheat depot. Last year, the Great Northern Railway alone hauled 82,000 loaded cars of wheat—enough cars strung out to reach from New York to Pittsburg.

At Minneapolis, I stood on the river bank and watched the giant elevators loom against the sky, row after row of glistening tile tanks 150 feet high, flanked by sentinel chutes 200 feet high—a world's golden granary! Alongside the elevators, the cars shuttled back and forth; automatic steel shovels scooped the grain from them and hurled it into yawning hoppers, there to be lifted to the top of the elevator by an endless-shuttle elevator. Then it was hurled across screens, to be cleaned, rushed to bins to be weighed, and then sent rattling down more chutes to bins, or sent hurrying in conveyers across the tops of the tanks, to be stored in one of them. An endless moving, surging torrent of wheat, gathered from a thousand farms, that rattled like hail against the chutes and lashed the sides of the bins. It is seldom at rest, for soon it is rushed out again, through dark tunnels, to feed the hungry rollers of a flour mill or to go rushing on to a new part of the world. And always the same musty, pungent smell, that you get first in the fields and everywhere that the wheat touches. Day after day the flood rushes into Minneapolis: 88,000,000 bushels a year — a torrent as mighty as Niagara.

The elevators were formerly built of wood; now they are steel and tile, fire-proof, and clean. One of these cavernous giants, owned by the Washburn-Crosby Company, has a capacity of 6,000,000 bushels.

From these elevators, you can hear the water swirling and rushing over St. Anthony's Falls, the steady force that turns the turbines that drive the machinery in the flour mills, that rise, gray and tall, beyond the mills that give Minneapolis a far-reaching commercial distinction. Here the massive steel rollers grind the wheat into the soft, white flour. Two hundred thousand bushels of wheat fed to them every working-day, issuing in 80,000 barrels of flour. From roller to roller drops the wheat, finer and whiter at every grinding, until it falls like a white cloud into the waiting sacks or barrels.

Every day, the long special trains of flour wind their way out of Minneapolis; some to Seattle, to discharge their freight into an Orient-bound ship; some speed southward to the Gulf, to be loaded on a ship for South America; some to the Lakes, to Buffalo, to be reshipped to New York. Minneapolis exports 5,000,000 barrels of flour, but has enough left to provide us with bread.

THE "PIT"

But all the wheat has not gone through the rollers of the mills. Millions upon millions of bushels lie piled high like yellow mountains in the farmers' bins and in the elevators. Fortunes and destinies of men are bound up in it, too. Stand on the floor of the Chicago Board of Trade and watch the riot of the "pit"! Watch the seething, surging crowd, and hear the cries of the buyers and the sellers, who every day buy and sell millions of bushels of wheat they never see; who make fortunes for people they never know. And here, too, is the smell of the wheat, for the floor is littered with samples gathered from a thousand farms—gathered in the sunlight, and here tossed in a storm. On the right click the telegraph instruments, sending everywhere the prices registered in the maelstrom of the "pit"; the prices the farmer in Kansas and North Dakota and Minnesota will read in his newspaper, brought to his door by the rural delivery. "Dollar wheat," and the farmer is glad, because he can buy new binders, and build a new barn, and perhaps buy a piece of land. But he does not know the men who made the price in the "pit."

There is still another picture. You can see it from the top of one of the great grain elevators on the Hudson River, at New York. Climb up into the chutes, and you can hear the rattle of 200,000 bushels of wheat, garnered in a dozen far-away farms, as it comes rushing up the shuttle and then goes swirling

down to the bins, some of it for storage, some of it to spurt into a lighter that rocks in the river. For hours, the grain rushes like a mountain torrent into the hold, and the yellow cargo rises inch by inch. Then a tug comes alongside the lighter and hauls it across the river to the New Jersey docks. A floating elevator, equipped with a shuttle-elevator, bumps alongside, and once more the grain is rushed up, this time to rain into the hold of an ocean liner. On the other side, passengers are getting aboard. Thus the wheat on one side, the people on the other, and the one has a deep significance for the other. Then the ship goes out to sea with its grain, perhaps to India, perhaps to England, perhaps to Africa, bearing a stream from our granary to help feed a hungry world.

INVESTING A MILLION DOLLARS A DAY

THE WAYS IN WHICH THE FUNDS OF THE GREAT INSURANCE COMPANIES ARE LENT AND PRESERVED—THE PART THE COMPANIES PLAY IN ALMOST ALL GREAT FINANCIAL TRANSACTIONS

BY

HENRY WYSHAM LANIER

THEY tell this story down on Wall Street. The executive officer of a great insurance company, happening, one day, to meet a friend in the street, found himself violently upbraided because his company refused to invest in the bonds of an enterprise with which his friend was connected. The insurance man stood it a few minutes. Then—"Oh, well!" said he carelessly, as if he were ordering a box of a new brand of cigars, "send me up a million and a half of them."

The way in which insurance people relate this as a huge joke is about as strong evidence as a man could wish of the precautions which have been thrown around the matter of placing the three hundred millions of insurance funds invested and re-invested each year. The president of one of the great concerns looms large in the financial world; but, when it comes to actual investing, he is but one of a financial committee, whose separate interests and connections are so varied that few projects come before them concerning which they do not have some outside (or "inside") information. As a rule, no investment is made unless this committee agrees upon it unanimously.

"Of course," said the head of one company, "if a chance that couldn't wait came before me to secure something which I knew the committee wanted, I should take the responsibility. But even then they would have an opportunity almost at once to pass upon it."

The reason for this becomes apparent when one considers that otherwise there would devolve upon three men the responsibility of placing safely, and to the best advantage, something like a million dollars a week apiece, to say nothing of keeping safe nearly four hundred millions of assets already invested and belonging to each company.

There is a glamour about the idea of controlling millions which may make this situation seem less onerous than it really is. Doubtless few people who had not tried it would consider such work real labor when compared with selling goods to a man who doesn't want them, or handling a complicated business organization. But just suppose, you merchant, or clerk, or author, or what not, that *you* had pouring in upon you a volume of trust funds at the rate of fifty million dollars a year, and that you must place this so that it would be absolutely safe ten, twenty-five, a hundred years in the future, and surely earn a little more than $3\frac{1}{2}$ per cent. interest meanwhile—how would you go about it?

Here is what the insurance companies do: To begin with, the problem is much simplified by the fact that investments now come to them. The great companies, far from having to seek for investments, are continually besieged by a thousand-and-one people offer-

ing bonds, and mortgages, and the like. Broadly speaking, everything comes to them, and comes before it goes elsewhere.

"Time and time again," remarked an official in one company, "I've had personal friends come in and say: 'Now I want to raise, say, half a million on that property, and I know it'll be all right if it comes properly before the committee. What I want you to do——'

"'But, my dear fellow,' I'd answer, 'it's already been before the committee.'

"'Oh, no, no! No, indeed! It couldn't have been. This is something we're keeping absolutely quiet. Nobody's known about it except Blank.'

"'And he came here to offer it'—as proved to be the case upon investigation."

These applications go to one man, generally the assistant treasurer; and he investigates each one, so that it comes before the committee accompanied by the information necessary for them to pass intelligently upon (say) the estimated value of the land to be mortgaged or full facts concerning the enterprise issuing the stocks or bonds. The three qualities desired are absolute security, adequate interest, and a long term, to suit the many obligations maturing far in the future.

The principles which govern the choice of these experts can best be judged from the results. Practically a third of the insurance assets are in railroad bonds, and the companies own about 10 per cent. of all the six or seven thousand millions of outstanding bonds issued by our railroads. While experience justifies the selection of these securities as first choice, expert ability is often required to judge of the value of any given bond issue. As an authority said recently:

"For example, a railroad running between Chicago and St. Louis might have two or more issues of bonds resting upon its tracks, right of way, local stations, or a certain part of its rolling-stock. It might have other series of bonds upon its terminals in Chicago, and still other series upon its terminals in St. Louis. Perhaps the issues might be complicated by the bonds upon the bridge carrying the railroad across the Mississippi, and by the issue of car-trust certificates for the purchase of certain rolling-stock. It may also be that the company, in purchasing the stock of some branch railroad, has issued bonds to pay for such stock, using the stock of the branch road as collateral security for the bonds, or the road may have purchased coal lands from which to supply its engines with fuel, and issued bonds to pay for the land."

But a careful scrutiny of the recent annual reports, and a consideration of exactly what the bonds represent, enable the initiated to come very close to the truth. First-class railroad bonds usually increase in value during the long periods of insurance investment.

Since railroad stocks are bought only sparingly, it has never happened that an insurance company found itself in actual control of a road; but, by representation in directorates, the great companies exert a widely spreading influence. A few years ago, the proposed reorganization of a Georgia railroad (with a whole great plan of consolidation depending upon it) was absolutely blocked by an insurance company, which held a large proportion of the bonds, until the terms were modified to meet its ideas.

Next to railroad bonds, the companies seem to prefer mortgage loans on real estate, and the total sum invested in this way is only a hundred millions less than the other. After ascertaining that the title is clear, the taxes paid, and no prior mortgage extant, the company may, by law, lend from a half to two-thirds of the estimated value of the property. In practice, this is restricted to a half, and the possibility that the company may have to become the owner instead of the mortgagee must always be kept in mind. Consequently, insurance men rarely lend on property which requires expert detailed management to be of full value, or which cannot be sold quickly. Foundries, breweries, hotels, tenements, apartment houses, storage warehouses, large country estates, and churches, all come under this ban. Most eligible are office buildings in large cities, fertile farm lands, and dwellings worth $20,000 or less. It must also be remembered that some States have made laws so shamelessly unjust to outside creditors that real estate loans by non-residents would be very unsafe.

But, after all these matters have been considered, there is one point far more important. Some far-seeing insurance men assert nowadays that the loan on real estate is somewhat of a delusion and a snare. No one has put this more clearly than Mr. John B. Lunger, vice-president of the Travellers Insurance Company, in a college lecture:

"The loan is made on the appraised value of the property. Now, the value of real estate does not remain stationary. It either increases or decreases, as time goes by. If the property increases in value,

the additional value enhances the security for the loan, but does not add to the principal invested. On the other hand, if the value of the property is impaired, the security is proportionately lessened, and, if such value is impaired to the point where it is worth no more or less than the amount of the mortgage, the company is frequently compelled to take over the property. In other words, the company is at a great disadvantage as regards the changing value of property. It receives no direct return for the improvement in values, and has to assume the greater part of the risk of any decline in values. If our life insurance companies—and, I might add, the savings banks—were to make up careful tabulations of their experiences with mortgages, and charge against interest receipts all losses of principal and interest on foreclosed property, and all expenses in connection therewith, they would probably find that their returns from bonds and mortgages had been less than in some other lines of investments; and, if they were to extend this investigation so as to take the loans made in each particular year, and trace the history of these loans from year to year, they would find that the rate of interest earned on the original sum invested constantly diminished through foreclosures and the losses connected therewith."

That this long-neglected fact is being perceived by insurance financiers is evident, for the reports of the three greatest companies for 1903 show a decreasing proportion of mortgage loans. Indeed, in one case these are only 10 per cent. as large as the amount in bonds. The average for the whole country is brought up by such concerns as the Michigan Mutual Insurance Company, which has practically all its assets (six millions out of seven) in this form. The Union Mutual, too (of Portland, Me.), with assets not one-tenth as large as the New York Life Insurance Company, has actually a million dollars more in real estate mortgages than the latter company.

More striking still is the poor showing made by the companies' real estate holdings. In one word, they have put into real estate two hundred million dollars (nearly half of which is in New York City), on which the returns are less than half what would have been secured from railroad bonds. It is apparently their well-established policy to erect all over the world expensive and elaborate office buildings, the only justification for which must be sought in their alleged value as "advertisements," for they return, on the average, about 2 per cent. on the investment. There seems to be a chance here to help the "dwindling interest rate," which is held mainly responsible for the decrease in dividends to policy-holders of late years.

Railroad stocks and bonds, and real estate mortgages and holdings, take up three-fourths of the vast sums the insurance companies invest. They hold also State and city bonds (the former sometimes bearing the unpleasant possibility of "repudiation"), a few United States bonds, and a great many of those of foreign governments (one of our companies often takes an entire issue of, say, ten millions of such securities), bonds of electric light, gas, and water companies, stocks of trust companies and banks, and a few miscellaneous concerns, and a couple of hundred millions of loans on premiums to policy-holders and on collateral. In the flush times of the winter of 1902–3, the companies' statements showed that their stocks and bonds were worth sixty-two millions more than they cost (the latter being the basis of valuation in the assets); but, during last year, this handsome "unearned increment" was cut in two; so that, if such a decline could continue another twelve months, the huge assets of this sort would have to be marked down to meet the market value. That this unpleasant situation is most unlikely is due to the good judgment and conservatism which, in the main, have characterized our insurance investments. One hears some rather startling talk occasionally about the misuse of insurance funds, the purchase of real estate, so as to influence outside holdings of those in authority, and so on; and more than one intelligent person has assured the writer that the great companies are practically bankrupt and would surely go to smash if it were not for the flood of the new business! Perhaps the best comment on these statements is the fact that there are numerous bank failures each twelve months, but "no failure of a substantial, conservative life insurance company has taken place in over a quarter of a century."

The natural result of the insurance companies' unprecedented growth has been to make them at once huge financial reservoirs, irrigating the business world in the piping times of peace and powerful bulwarks in periods of stress. In 1893, the panic was broken, one is told, by the use of clearing-house certificates; but it is not often stated that the way in which the banks got hold of ready money was through the steady stream

of insurance deposits pouring in—one million, five millions, ten millions a week, rain or shine, panic or "boom."

Of course, the great companies exert a financial influence far beyond what appears on the surface. They control, directly or indirectly, banks, and trust companies, and safe deposit concerns; there is a close connection between the largest real estate corporation in the country and one of the largest insurance companies; and a partner of the firm of J. P. Morgan & Company is chairman of the finance committee of another. The ramifications of these interests are marvelously extensive, and it is safe to say that there are few big financial transactions nowadays in which the insurance companies do not have some part.

HOW SUCCESSFUL ARE THE PUBLIC SCHOOLS?

CONCLUSIONS DRAWN AFTER A YEAR'S VISIT TO SCHOOL-ROOMS EAST AND WEST—THE GRAVEST DEFECTS AND UNSOLVED PROBLEMS

BY

ADÈLE MARIE SHAW

(THE TENTH OF A SERIES OF FIRST-HAND INVESTIGATIONS OF AMERICAN SCHOOLS)

AFTER examining public schools in many parts of the United States for a year, I conclude this series of articles with a summary of the greatest needs that impressed themselves upon me. The excellences of the schools have been reported. It is upon the problems that they have not yet solved that public attention must be fixed.

The majority of public-school children pass through from four to six school grades. In some large cities, four grades is the limit of attainment before the child reaches the age at which he may go to work. By these children after they have left school, and by the high-school children who are graduates of the grammar schools, we must make our estimate of public-school efficiency.

Physically, the results are meagre. A carful of people in city or country will prove it. One needs no physician's certificate to see the signs of disease due to ignorance. They are depressingly, even offensively, frequent. One sound, firm, well-proportioned, clean-skinned, genuinely graceful human being rivets the eyes of a whole crowd. Now, with such a public-school training as is given at Menomonie, Wis., most children would grow up with this strength, beauty, and grace.

Mentally, the showing is hardly less meagre. The measure of mental training is the power to reason. If the graduates of public schools had learned to reason, they would not be gulled over and over by the same lying advertisements, they would not be the readiest dupes of yellow journalism, there would be more conversation and less drivel; imagination would make simple and inexpensive pleasures more acceptable. The final touchstone of decision would not be immediate personal pleasure, and there would be less living from hand to mouth, more thought of the future.

Morally, the school showing is poorer still. There are, of course, in great cities, many influences that suggest the getting of money without work. The schools do not counteract these influences as they might. In one of our city high schools, several thousand girls daily trudge up and down stairs to their recitations, carrying luncheons, pencils, books, papers, all their school possessions, in bags and suit cases, because, as a teacher explained, "It wouldn't be safe to leave anything a minute; it would be stolen."

The moral and social average of twenty-five years ago, when children of small New England cities and country neighborhoods all went to school together, and regarded private schools as devices for the feeble, has dropped to a lower level. Moreover, stealing is less a danger than certain other faults.

Respect for heroism, for instance, is almost wholly for the physical kind. Courage seldom takes the form of the defense of the weak or of the unpopular. Everywhere, in visiting the neighborhoods of schools in which no definite effort was made to teach kindness, I saw perpetrated upon animals cruelties whose rehearsal would hardly be proper in this magazine. It is easy to arouse the ambition to be rich, to be important. The success of education is measured far more certainly by the ability to bear obscure responsibilities with intelligence and honor. "Tell them (public-school children) plainly," says Dr. Ida M. Metcalf, in the *International Journal of Ethics*, "that hard tasks simply call for more earnest endeavor; that they are at liberty to dislike certain work as heartily as they please, but that to offer this dislike as an excuse for leaving their work undone is to play a part unworthy of men and women. Even young children are capable of the conception of duty as a powerful dynamic force. If, upon pupils of high-school age, this conception has not dawned, they are in danger of developing into incompetent whiners at life's tasks, cowards under life's hardships, pitiable egotists, intellectual and moral invertebrates."

Compared with other nations, we are not a race of weak-bodied, weak-minded, pagan people, but, compared with what we might be, we are all these things! Our public-school graduates make the bulk of the educated population; and, if the schools were everywhere and in all ways what they are in some ways in certain places in the United States, we should be truly great.

BAD METHODS OF CHOOSING TEACHERS

One of the principal and important causes that retard the full development of the schools is the careless selection of teachers. No one who knows the public schools denies that the teachers are overworked and underpaid. They should receive higher salaries. At the same time, some normal schools that I have visited should put less into note-books and more into trained intellect and character, and neither bribery, "pull," nor mere "marks" should elect any man or woman to a teaching position. All these things have been efficacious in the past, and one or the other is still a power in most places. In some parts of the country, I found the girls most attractive to the "committee" to be the teachers most dreaded by an ambitious principal. Then, too, the student who had "stood high in her classes" was frequently the teacher whose pupils stood low in theirs. Effort is being made to raise standards, to demand a finer type of teachers. Wherever it is made, the superintendent becomes unpopular, and the movement is opposed with a violence which suggests that too many people have come to regard the public school as an easy means of providing for ambitious young women.

"What is a battlement?" a teacher asked a high-school senior. The girl did not know.

"Sit down, and study the text" ("The Prisoner of Chillon"), "look at the picture, and consult your dictionary," said the teacher. "I will give you fifteen minutes."

The recitation went on; the girl sat reading the poem, looking at the picture, studying the dictionary. At the end of fifteen minutes the teacher once more asked the question, "What do you understand by 'Chillon's snow-white battlements'? What is a battlement?"

The girl looked at her vaguely, vaguely moved a mouth that hung limply open, and muttered, "Somepthin' covered with snow."

I remember the girl well—a to-be-pitied embodiment of intellectual sloth. I was amazed to find her teaching in one of the most beautiful of New York City's new schools; she had "passed." What, in the name of humanity, have little children done, that they should have to depend upon her for wisdom?

In Boston, there is today presiding over the intellectual destinies of a public-school classroom a young woman (though, to be sure, she struggled as substitute for a certain length of time before she attained her present eminence) whose fitness to be a teacher is illuminated by an anecdote of her preparatory course. With her classmates, she had listened to a course of lectures on literature, and had taken the examination that followed. Some days after, she was met on the street by a classmate, whom she hailed with determination.

"I was just coming to see you," she said. "You know the Professor talked a great deal about the Great Deckitt, and I studied that particularly. I heard the question right, I know, and I put the answer on my paper exactly as it is in my note-book, but it's *all crossed off!*" and she produced her examination paper from beneath her arm.

"The Great Decade, from 1590 to 1600?" asked the other girl.

"Yes," said the aggrieved one. "Here it is: The Great Deckitt was born in 1590 and died in 1600. He wrote Spenser's 'Faery Queen,' Hooker's 'Ecclesiastical Polity,' Hamlet's 'Othello,' and several of Shakespeare's plays."

"Don't you think he was rather young to have done so much?" asked the other girl, with youthful impatience.

"I did think of that," replied the first, "but it's in my note-book."

These are not solitary facts, yet daily some enraged citizen appears in the public prints to exclaim with chivalrous horror against the "requirements for teaching." It is the battle of the children that the higher standard is fighting. Do the sympathizers with disappointed candidates want their children taught by the creator of The Great Deckitt?

It is to keep such young people from becoming teachers that Superintendent Maxwell, of New York City, has made examinations for teaching certificates a test of the power to reason as well as to memorize, and that Superintendent Cooley, of Chicago, has made evidence of study and mental activity a *sine qua non* of teachers' promotions. No way is yet infallible, but these efforts show already plain results in the higher quality of the New York teaching force, and in the work of the four thousand Chicago teachers studying in the Chicago normal extension course.

Good salaries should be paid to teachers, but they should be earned. No man or woman of cheap and superficial ideals can give an equivalent of a good salary. A teacher whose language still has traces of dialect, and whose fist is ready for the slow or daring pupil, may have a ninety-nine-per-cent. knowledge of wood-carving or geography, and yet be an unfit teacher. A few weeks ago I saw a teacher, who ranks well, strike a boy on the head. The boy went to his seat cheerfully grinning, and there was some excuse for the show of force in the street-gamin quality of some of the pupils, but the way in which the teacher moved, spoke, gave commands, was a way acquired where refined speech and quiet movements are unknown. He had not outgrown his early surroundings.

Indianapolis has the only system that I saw which was effective in dropping out those candidates for positions who could pass examinations, and yet, in spite of an agreeable manner and pleasing exterior, were unfit to teach. If the daughter of the bank president or of the charwoman showed a lack of an essential teaching quality, the Normal School quietly and kindly dissuaded the candidate, helping her rather to become something equally self-respecting, but requiring other qualities. If the girl was obstinate, believed herself underrated, she was allowed the five months of practice-teaching under one of the expert teachers who train the normal classes in the schoolrooms, and afterward given her five months of independent teaching. All the time she was watched and helped, and, if she did not acquire the lacking qualities, she was again warned. If, at the end of this year of trial, there was absolutely no hope for her, she was finally rejected, and persuaded to undertake some other work. Even hopeful candidates sometimes teach under direction and independently for two years before reaching the standard that earns the Indianapolis diploma.

The result is plain in the Indianapolis schools. At No. 6, where the pupils are nearly all foreign, I visited every classroom, and I found children who read with cultivated inflections, and talked well about what they read. Under the direction of the supervisor, Miss Alexander, they had read more good books than the average child sees in his whole life. The school had given them, as far as possible, the associations that a few fortunate children get at home. Their minds had been waked up, and imitation of really refined and vigorous teachers had done the rest.

"System?" said Mr. Henry, of the Indiana State Library. "We've got too much system! What we want is the right teacher. Then let her go ahead." What he said jokingly, is very near the truth. It is to get the "right teacher" that "systems" are tried, and all systems are useless without the personal, persistent effort of trained authorities, capable of discriminating in the selection of a teacher.

INEFFICIENT BOARDS OF EDUCATION

Here is a second weakness of the public schools. Compared with the best, how do the majority of school authorities stand? The boards of education know something about wall-paper, about coal, about the making of rubber hose. Some of them use that knowledge in the honest conduct of the school business, some misuse it at the expense of the public. I have found few places where even such school business as the purchase and distribu-

tion of supplies was well conducted. Grocers who carried on their business in the fashion of these "boards" would be despised as dishonest, careless, or incompetent. "I offered X—— a thousand dollars to get the mayor to put me on the board," a friendly stationer confided to me. "I was on the board in 18—. It's worth three thousand," he concluded. He was the man who offered a teacher whom I know an increase in salary by means of a political light in the district. "My friend has influence; I often get the janitors' salaries raised; they pay me a good commission," he said.

The position of board members demands time, often much labor, and there is seldom a salary attached. It is a great deal to expect that they will give the time and labor without an equivalent. Granting that the equivalent is more often political preferment than money, the boards are still unequal to their task. I have come across instance after instance where good educators and disinterested men were crowded off the school board and replaced by politicians of an unworthy class.

Every kind of school position, a country schoolmaster's, a county superintendent's, a State superintendent's, is still "in politics." Although Wisconsin elects the State superintendent at a different time of year from her other officers, and so avoids one danger; although Cleveland has established what it considers a model, disinterested, city system; and many wise, honest people are governing schools in many places—yet most of the schools as I saw them were far from free. The public does not discriminate in selecting a "school board" as well as the school board discriminates in selecting a teacher.

Certain other reasons appear to me to account in a great measure for the failure of the schools properly to educate American children. I base my conclusions upon eight years of teaching in a city high school, upon an extended acquaintance among teachers, as well as upon a year given up to visiting public schools in many parts of the United States.

PUBLIC IGNORANCE OF THE SCHOOLS

Public ignorance surrenders money for the trial of criminals and the finding of lost jewels, but it groans at any increase in school expenses. Consequently, there are too few teachers for too many tasks, wooden methods because teachers cannot afford to learn better ones, and everywhere illiterate school graduates without resources.

A well-conducted national campaign of education, showing to the tax-payers of each school centre results obtained elsewhere, would make the beginning of a revolution. As it is, educational meetings are frequently dreary; often only the opportunity for petty educational lights to glorify themselves. Schools are in many cases not even closed to allow teachers to attend great school meetings. The fine-print circular, the bombast of the inventor of a "system," the smug self-congratulation of school managers—these things are not enough to enlighten the ignorance of Americans about their schools.

THE LACK OF EFFECTIVE ORGANIZATION

The teachers in Philadelphia have recently obtained a considerable increase of salary by organizing. The teachers in Chicago accomplished the task of filling the city treasury with money (money that the politicians had failed to collect), and so secured what had been denied them from "lack of funds." If the teachers, hundreds of thousands strong, would organize for definite, progressive ends, they might be equally effective. Organization takes time and energy. While they are overworked, they have not the necessary time and energy to give for this purpose.

INSTANCES OF GOOD WORK

But I have found many active, good influences at work in the life of public schools. In Philadelphia, the School City was training children to voluntary obedience to laws they themselves enacted; adjustment to school relations, and responsibility for a share in the existing order, were educating active, not negative, characters. In nearly every State that I visited, the Audubon Society was an active agent in teaching the manliness that is chivalry. In Maine, the Young Citizens' Loyal League, working with the school authorities, had brought about, among other things, a vast difference in the care and treatment of animals in country towns. In many places, good books were growing more accessible to school children; from Maine to the far West traveling libraries were multiplying. State reading-circles, school bureaus, special associations, were offering books at nominal prices.

Teachers were using better material. Vul-

gar and commonplace stories were replaced by the good literature of the Humane Education Society of Rhode Island, by the best magazines, by the best authors. Even commonplace songs were, in a few instances, making way for better ones.

The individual child was, here and there, given a chance. In Batavia, N. Y., individual instruction alternated with class teaching, and in six classrooms a second teacher "coached" the backward; in Cambridge, Mass., the brighter children who grew restless were taken from their grade, put in a class together, and allowed to work faster, till they "skipped" a year.

Here and there I have seen public school children receive scientific physical training. In a little Wisconsin town (Menomonie), I saw children who, clothed properly, were having, from their primary years, regular drill in a school gymnasium, under trained direction, with shower-baths and swimming lessons, winter and summer. How much the sick-list would be decreased if all places in the country, not one alone, had such a drill!

In an eastern city, I saw a group of high-school girls receive, for the first time, out-of-door games under trained instruction. When they began, their motions were lumbering and stiff: a command, and the muscular obedience to that command came far apart. I saw these same girls months later, when their motions had become elastic, their postures springy and firm, and their action swift upon the word. Every part of the body, including the brain, had been strengthened.

"Teach children how to breathe?" laughed an objector to physical training. "I guess most of 'em can breathe all right." Yet, in one average class of forty-nine children, barely half were found who used anything but the upper part of the lungs, and some were unable, through lack of practice, to take a deep breath even by a special effort. More than half were poisoned by unpurified blood, and several had "delicate throats," and "didn't get rid of a cold all winter." In the upper grades of the same school, many of the children were slightly deformed, and their deformities were due to neglect of their physical welfare.

BAD SCHOOL EQUIPMENT

Everywhere I went, schoolroom furniture and its arrangement seemed to have their share in producing discomfort and helping deformity. Chairs with backs that were useless unless the child made an obtuse angle of his person encouraged bad positions. "Have you single desks?" I asked a principal. "Certainly," he answered, "but we are so crowded that we have to put two together!" Where pressure on space was greatest, chairs were added to the aisles, and three children occupied the breathing-room of one. It seemed in many places the fashion to have the seat of one child attached to the desk of the child behind her. If Dorothy wriggled, the desk under Mildred's pen vibrated.

The average schoolroom, as I found it, was about as well equipped for its business as a barn is for housekeeping. The blackboards were often conveniently placed for the carpenter, but very inconveniently for the children. The ventilated, individual locker for hat, coat, and rubbers, except in some new school gymnasiums, was almost unknown. The teacher's wardrobe, cupboard, bookshelves, were frequently missing altogether, and such as I found were not good. "I have no place for my hat but my desk drawer, and so I had to order it made exactly seven by eleven inches, or it wouldn't go in," one teacher confessed. Since most teachers must themselves furnish many necessary things—books, photographs, even maps—or go without them, much worn and grimy material was economically retained, and lay upon dusty shelves or was packed in inaccessible corners.

School buildings are not properly clean. Once in Brooklyn, and twice in other places, I came upon a janitor who took pride in the cleanliness of his rooms, and worked hard to keep them in order.

The teachers make a constant battle for clean rooms, but they are generally contented with the impure school air to which they are accustomed. Teachers in some enlightened communities are now required to pass a physical examination. But no effort, so far as I know, has anywhere been made to test the candidate's sensitiveness to bad air. I knew a consumptive teacher, who died five days after leaving the schoolroom, and numbers of neuralgic teachers, who could not bear a current of air. Yet they were kept in control of schoolrooms overcrowded with lusty young life. Several schools I found where teachers were forbidden ever to open a window because patent ventilators had been put in. Although the ventilators failed to venti-

late, the rule against opening the windows could not be violated.

There are more efforts at instruction in the need of the bath and the necessity for sleep and exercise. But the "more" are few enough compared with what should be done.

New York City has led the way in proving that medical inspection, combined with the trained nurse, reduces truancy, and adds to the efficiency, as well as to the attendance, of the public school. Nowhere yet is medical inspection of the schools all that it might be, and, in most places, it does not exist.

ABOUT "FADS"

Few people worry over the absence of the school gymnasium, although any school without a gymnasium and a trained physical director is only two-thirds of a school; but over the children's studies there is continual worry and wrangling. It is the candid and troubled belief of many lovers of American public schools that the authorities are "rushing the very young into all sorts of fantastic courses." The modern school curriculum, like every new thing, gives opportunities to the humorist. One man sets forth an imaginary day's schedule in this fashion:

> Bird-calls, yawps, hoots, barks, cackles (anent nature study)—10 minutes; penmanship—5 minutes; effects of alcohol, narcotics, Washington pie, and strong cigars—55 minutes; arithmetic—10 minutes; box-making, cutting, pasting, ripping, painting, and kalsomining—45 minutes; geography—5 minutes. It will at once be seen that the old studies are included.

Thus, laughter confirms the fears of the serious.

There is truth in the objection that "nature" lessons are sometimes unscientific, that they sometimes do more harm than good. Some "science" and "nature" teachers are too much absorbed in experiment to be humane, too amateurish in their work to be accurate. But these objections are no more valid against the teaching of nature than the mistakes of a poor mathematician against the teaching of arithmetic.

Any subject can be made "suggestive" and "stimulating"—in the right hands. There are schools where arithmetic and bookkeeping are enlivened by being related to life; the children follow in their text-book the financial fortunes of a boy who grows up, earns money, and buys books and magazines, as well as food and clothes; they follow his transactions with the bank and with other men; and, with the teacher's aid, they start a little savings fund of their own. One teacher in Maine reported several hundred dollars in the local bank, deposited by the children of his school. "I don't teach them to be stingy, either," he said.

I saw in the Agricultural College, at Lafayette, Ind., a small model of a horse attached to a system of weights and pulleys that so governed the cart drawn that the student could tell at once whether a different placing of a load in the cart, or a change in the adjustment of the horse's harness, lightened or increased the horse's burden. The problems worked were within the grasp of children, and mathematics was but part of the practical gain. Imagine the increase in the comfort of city streets if every driver or teamster had been taught "figuring" by such a model.

The pitiful fact is that few places are aroused to the necessity of securing and paying for the best teaching in their schools. Modern fads, when they are properly taught, are merely common sense in the schoolroom, the use of material, hitherto wasted, by which children are given the practical control of their powers. They cost effort, time, money. That is the reason why one child has a good education in American public schools for ten thousand that have a poor education.

Our very attempts to improve the schools have often the opposite effect. Instead of enfranchising women teachers and taking them out of the power of the politicians, we are putting in more men, because they are men. The best schools must employ the best candidate, man or woman. Instead of training brain and hand to their best efficiency, we are in some places arbitrarily fitting boys for this and girls for that. The result is a poorer equipment for work, a shallower attitude toward life.

It is an ignorant man who is satisfied with the public-school system of the United States; and a very ignorant man who is not proud of it. The reasons for pride exist partly in its possibilities, partly in its achievements; the reasons for dissatisfaction, in its big, blundering complacency, which is our own blundering complacency about it. Our devotion to our public schools is too much like the devotion of the mother who thinks that to see the faults of her children indicates a lack of love.

THE GEOGRAPHICAL CENTRES OF ACTIVITY

THE STORY OF OUR NATIONAL PROGRESS SHOWN IN THE WESTWARD MOVEMENT OF THE CENTRES OF POPULATION, WEALTH, AND ACTIVITY

BY

CHARLES M. HARVEY

THE building up of the West and the South through immigration and enterprise is drawing the centres of our population and activity farther and farther inland. The movements of these centres tell the story of American progress.

The centre of population has clung close to the thirty-ninth parallel in its steady advance. It was twenty-three miles east of Baltimore in 1790; it moved forty-one miles due westward by 1800; passed into Virginia soon after 1801; and moved thirty-six miles west and five miles south by 1810. The Louisiana purchase, which included New Orleans and other settlements near the Gulf of Mexico, was responsible for the movement to the South. It advanced eighty-nine miles west by 1830, moving slowly southward in each decade, by reason of immigration into Alabama and Mississippi after the war of 1812, and of the annexation of Florida. By 1830 it had passed into the Mississippi watershed.

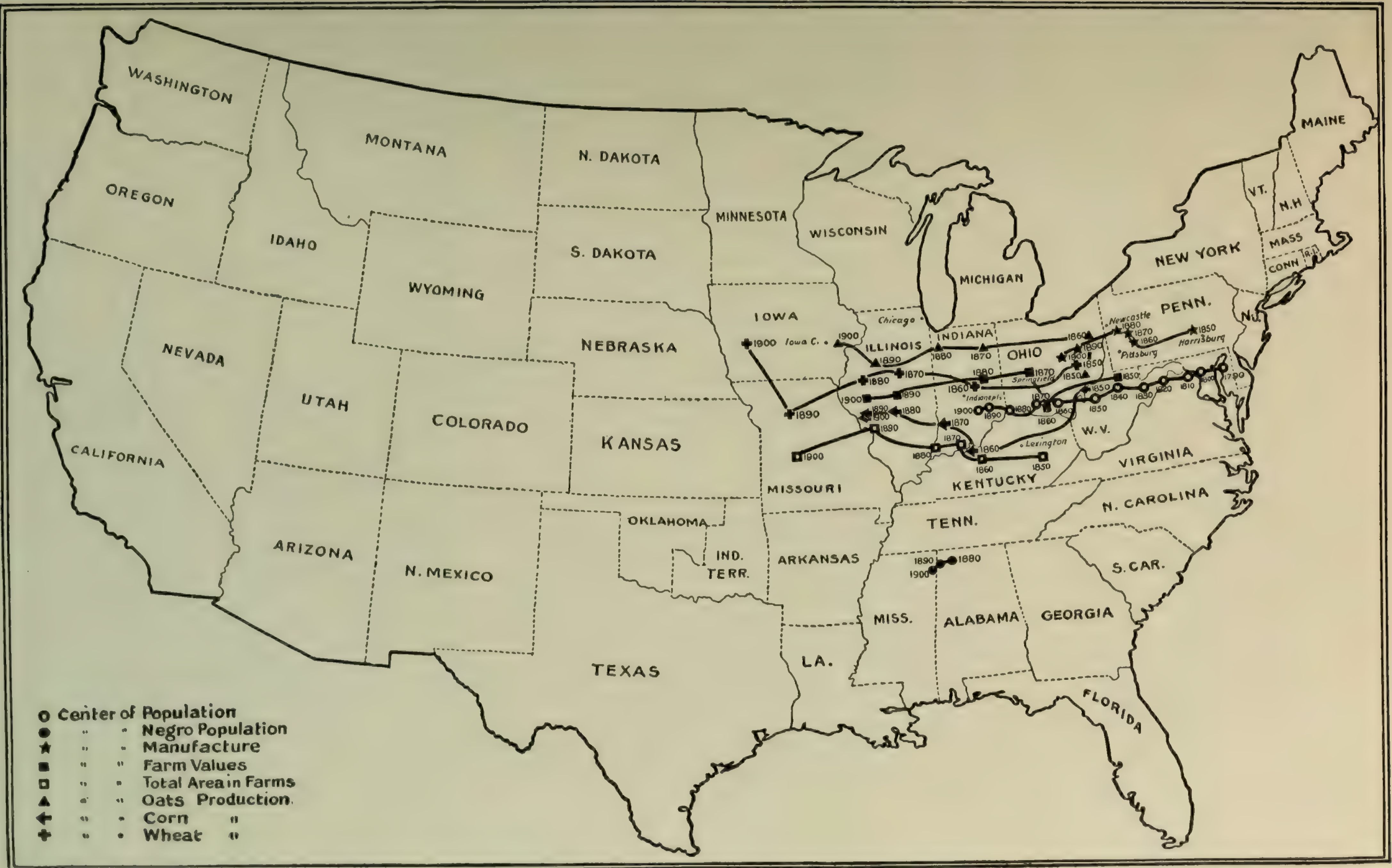
When the railroad reinforced the steamboat in peopling the great valley, the centre moved fifty-five miles westward by 1840 and another fifty-five miles by 1850. It was drawn a few miles north of the thirty-ninth parallel, between 1830 and 1840, by immigration into Michigan and Wisconsin, and just south of the line in the next ten years by the annexation of Texas. The rush to far western gold fields in 1849 and 1859 brought the centre eighty-one miles westward, and into Ohio by 1860—the longest distance it ever moved in ten years. By that time slavery began strongly to repel immigration, and by 1860 the centre moved just north of the thirty-ninth parallel, where it has remained.

The Civil War, which shut out immigrants from the Confederate States and practically excluded them from the border slave communities, cut down the westward movement to forty-two miles in the next decade. But Lincoln's free-homes act of 1863, attracting immigration from the East, the South, and Europe, and the building of transcontinental railroads, again increased western settlement. The centre had moved fifty-eight miles westward up to 1880 and forty-eight miles—into Indiana—by 1890.

In the decade ending with 1900 the movement was only fourteen miles, the smallest since the government was founded. Industrial expansion in the old slave States, including Texas, Oklahoma, and the Indian Territory, carried it three miles southward in the same time. The point in 1900 was six miles southeast of Columbus, Ind., not far from the middle of the State.

In 1900, when the population centre was six miles southeast of Columbus, Ind., the centre of the number of farms was in Illinois, 110 miles east of St. Louis; that of the value of farms was thirty-nine miles west-northwest of Springfield, Ill.; the farm-area centre was forty-eight miles southwest of Jefferson City, Mo.; the cotton centre was in Mississippi, thirty-four miles north by west of Jackson; and the centre of manufactures was fifty-nine miles southwest of Cleveland, O. The southward bend in the manufactures line since 1880 indicates the vast growth in industries in the ex-slave States since that year.

The number of inhabitants a little more than trebled from 1850 to 1900, the number of farms increased fivefold, the acreage of land in farms eightfold. In 1850, property was valued at $7,000,000,000, or $307.69 for each person. In 1900, it was $1,235.86 for each person. The story of American expansion and the growth of American power and influence, which these figures tell, is one of the marvels of the world's history.



A MAP SHOWING THE WESTWARD MOVEMENT, BY DECADES, OF THE CENTRES OF POPULATION, OF MANUFACTURES, OF FARM VALUES AND AREAS, AND OF DIFFERENT CROPS

THE RICH KINGDOM OF COTTON

THE DOMINANT INDUSTRY OF THE WORLD—THE VALUE OF THE CROP TO SOUTHERN FARMERS LAST YEAR TWICE THE WHOLE WORLD'S PRODUCT OF GOLD—ITS EXPORT VALUE HALF THE VALUE OF ALL OTHER AGRICULTURAL PRODUCTS, VEGETABLE, ANIMAL, AND FOREST COMBINED—THE STORY OF COTTON FROM PLANTING TO MANUFACTURE—THE SOUTH'S RAPID INCREASE IN PROSPERITY, AND THE MEANING OF IT

BY

CLARENCE H. POE

EDITOR OF "THE PROGRESSIVE FARMER," RALEIGH, N. C.

NO plant, unless it be wheat, is of so much importance to the human race as cotton. Destroy any fruit in the world, and men would grow other fruits. Let any tree become extinct, and other trees will take its place, and our building would go on as before. Even if either corn or wheat should grow no more, we could grow enough of the other, supplemented by rice, oats, barley, rye, peas, beans, and the like, to feed both man and beast with comfort. But for cotton there is no substitute that can be cultivated cheaply on a large scale — no substitute, animal or vegetable product, which can compare with it for cheapness.

Nor is there any plant with a history more marvellous or more romantic—more suggestive of the legend and mythology of the Orient from whence it came. If Frank Norris had lived in the South instead of in California, what an Epic of Cotton he might have given us! Cotton, whose influence did most to bring us an alien race from Africa, and then did most to perpetuate in America the institution of slavery; Cotton, on which a "Dixie Land, the Land of Cotton," once built its hopes, while it waged a great war; Cotton, which helped the vanquished people to their feet again, and now bids fair to restore them to the proud position in wealth and industry which they held before the Civil War.

THE ENORMOUS VALUE OF THE COTTON CROP

It is hardly too much to say that cotton is now the basis of the dominant industry of the world. In their primary forms, iron and steel products represent a value of only $1,700,000,000 yearly, while the estimated value of the world's annual output of cotton goods is $2,000,000,000. Twice as much cotton as wool is produced, and three-fourths of the world's cotton supply is grown in the southern section of the United States. Twice the world's total gold product of last year would have been required to pay southern farmers for lint and seed; three-fourths of the capital stock of all the national banks in the country would have been inadequate. Among our American export crops, cotton towers preëminent with $350,000,000 in value for the year ending June 30, 1903 (1904 would make a better showing), against less than $600,000,000 for all other agricultural exports. In other words, take all other animal and vegetable products exported any year—wheat, corn, barley, oats, rye, flour, meal, oatmeal, fruits, vegetables, liquors, tobacco, wine; cattle, hogs, horses, sheep; beef, pork, mutton; butter, cheese, canned goods, lard, oils, wool; timber, lumber, naval stores, etc.—the entire contribution, except cotton, furnished the outside world by every American farm, ranch and forest, from Maine to California, from Michigan to Texas, from Alaska to Hawaii—take all this, and, with the proceeds of one year's cotton and cotton-seed exports, and a safe mortgage given on the next year's, the southern cotton-grower could buy the whole colossal aggregation and still have a surplus of more than $100,000,000 left as pin-money and as a margin of safety for the mortgagee.

WHAT COTTON MEANS TO THE SOUTH

For, much as cotton means to the United States, and much as it means to the world, it means infinitely more to the twelve States and Territories of the South, in ten of which it is the chief farm product. Here cotton is the life-blood of commerce, its condition the thermometer of trade. Every man talks cot-

ton; every man has an opinion about the size of the crop; the weather conditions in Texas and throughout the Cotton Belt are subjects of general interest; the government crop report is read with closer attention than anything else in the newspapers. Well and truthfully did Henry W. Grady say in his tribute to the cotton plant:

> "The sun that shines on it is tempered by the prayers of all people. The shower that falls whispering on its leaves is heard around the world. The frost that chills it and the dew that descends from the stars are noted, and the trespass of a little worm on its green leaf is more to England than the advance of the Russian army on her Asian posts."

When cotton prices drop, every southern man feels the blow; when cotton prices advance, every industry throbs with new vigor. For the last five crops the South has received nearly $800,000,000 more than for the preceding five crops—nearly twice as much money as is invested in all our American cotton mills. For the crop of 1903 alone she received $325,000,000 more than for the crop of 1898—a sum which, if equally divided, would give a surplus of $225 to each of the 1,418,000 farms growing cotton, or $20 each to every one of the 16,000,000 inhabitants of the Cotton States. Small wonder that southern railways report heavier increases in earnings than lines in any other section of the country. Small wonder that the assessed valuation of southern property is now increasing three times as rapidly as in the decade 1890–1900. Small wonder that bank deposits in the southern States from 1896 to 1903 increased 153 per cent., while the increase for the rest of the United States was only 90 per cent.; and a preliminary statement, which the Comptroller of the Currency has just sent me, shows that the increase during the last twelve months has been more than two and one-half times as rapid in the South as in the rest of the country.

It is, in fact, a new South that we have. The factory, the bank, the church, the school, the newspaper—all are benefited by the increase in prices paid for the South's great staple crop. The architect will tell you that he is building better houses than ever before; the furniture dealer will tell you that he is shipping more furniture than ever before; the manufacturer of implements and machinery will acknowledge that southern progress astounds him; the schools report greatly increasing numbers of pupils; and even the preacher says that, for once, his salary is paid promptly and in full, and that a sermon on foreign missions is now unprecedentedly effective.

The social changes that prosperity will bring will remodel southern life. It will restore the country life again to its dignified place of the old time. For years, the countryman has been in the townsman's debt. Now the farmer has money to lend. This will, in time, bring a complete social change.

"If cotton brings about 10 cents for the next ten years," said a thoughtful business man in North Carolina to me the other day, "the South will again become, as it was before the war, the most prosperous section of our country. I know of no industry in the world that will yield larger returns, in proportion to the capital and the intelligence required, than cotton-growing at 10 cents a pound."

And the price bids fair to remain near the 10-cent mark. Excepting the two periods 1840–50 and 1891–1901, it has never been less. If a 5,000,000-bale crop, in 1859, was marketed at 11 cents, why should not a 12,000,000 crop now bring 10 cents? With the increased demand for labor from railways and factories, there is now little prospect of pushing the production beyond 12,000,000 bales.

But before we begin a discussion of the larger cotton problems, it may be well to follow briefly the story of a cotton plant.

HOW COTTON GROWS

Cotton is planted throughout the South just as soon as danger of frost passes, this time varying from March 10th in Texas and Louisiana to May 1st in North Carolina. Except in Texas, the guano bill is enormous, commercial fertilizers costing North Carolina cotton growers alone nearly $5,000,000 each season. Of late years there has been more improvement in methods of planting than in any other phase of cotton farming. Formerly, one man and one horse opened the furrow; another man strewed the fertilizer; another man dropped the seeds; and another man with a horse covered them. Now one machine, with one man and one horse, does all this work at once. A few days after planting, the long green line of two-leaved plants in each row begins its battle with grass—a long, thin line, for the cotton seeds are dropped only one inch

apart, though later the plants are thinned out so as to stand 12 inches apart. Cotton begins to bloom when the plant is from five to eight weeks old—beautiful white blooms the first day, pink the next, and the third day comes the tiny green boll. Opening gradually, the boll shows four or five distinct lobes of cotton. Picking or harvesting begins in August in Texas and in September in the latitude of North Carolina. This work must be done entirely by hand labor, just as it was done in India a thousand years ago. In this part of the South, from 40 to 50 cents per hundredweight is paid for picking, while in Texas as much as one dollar is sometimes paid. At seventy-five cents per hundredweight of seed cotton—two-thirds of the weight being seed and one-third lint or fibre—the cost of picking is 2¼ cents per pound of lint, and this, a few years ago, was more than one-third the selling price. Now, however, the seeds sell for enough to pay the entire expense of picking.

Three acres is considered a fair day's plowing, and the following account, given me by a farmer, will indicate the work required in cultivating this area:

THE COST OF CULTIVATING THREE ACRES

To break ground	$3.00
To open rows	.50
To 3 sacks guano	6.00
To scatter guano	.50
To make ridges	1.00
To plant	1.00
To seed	.75
To three hoeings	4.50
To four plowings	4.00
To picking 1,800 pounds	6.00
To hauling	2.00
To ginning	2.00
	$31.25
By 600 pounds lint @ 9c	$54.00
By 36 bushels seed	9.00
Selling price	$63.00
Cost	31.25
Profit	$31.75

DIFFERENT SYSTEMS OF COTTON FARMING

Of the farms in the ten Cotton States, in 1900, 48 per cent. were worked by owners, 20 per cent. by cash tenants, and 31 per cent. by share tenants—showing a decrease for the decade of 15 per cent. in the percentage of farms managed by owners, a gain of 12 per cent. in the proportion worked by share tenants, and a gain of 33 per cent. in the percentage operated by cash tenants. Of share tenants there are several classes. Some rent land only, paying therefor one-fourth of the farm product; others, with land, stock, tools, and one-half of the fertilizer furnished, receive one-half the crop; while still others are content to give labor only for one-third of the yield.

The relative decrease in the number of farms worked by owners during the last census decade must be attributed to the emigration of farm-owners to towns, as a result of the depression in cotton prices. With the turn in the tide in prices, one now finds abundant evidence of a similar turn in the tide of emigration. Young men of executive ability cannot overlook the new opportunities for money-making in cotton growing, and many will endeavor to revive the old plantation system of farming. On the other hand, farm lands have as yet advanced but little in value in proportion to their increased earning capacity, and many small farmers and tenants are seizing the opportunity to buy. "I can take any farm in my county and pay for it with two cotton crops," says a member of the North Carolina Board of Agriculture; and one farmer within a few miles of the writer's home has paid for his farm with one year's product, though this, of course, must have been done at a sacrifice of all home comforts. Under these conditions, the proportion of tenants is likely to decrease during this decade, and the proportion of farms worked by owners—now 19 per cent. for Negroes and 58 per cent. for whites—to be correspondingly increased. Tenants will buy land, and non-resident owners will return and conduct their own estates.

A FEW TYPICAL COTTON FARMS

One of the largest cotton farms in North Carolina is owned by Crossland & Everett, in Richmond County. This is conducted by share tenants, who furnish labor, pay one-half the cost of the fertilizer, and receive one half the crop.

"Two-thirds of our croppers are white men with their families as labor," Mr. Everett tells me. "We make it a point to secure tenants who have families of boys, thereby having labor under their control. We specify in our agreement with tenants that the crop is to be planted, worked, and gathered under

HOEING YOUNG COTTON

Photographed by George Stark

our direction. We stipulate also the amount of supplies they are to have each month, being careful that they do not consume as much as their labor is worth, thereby causing them to feel that, if they fail to comply with their contracts, they will be the losers. Thus they have an interest in the crop in excess of the advances made. We provide our croppers with comfortable houses; allow them to have garden, potato, and other vegetable crops for the use of their families; encourage them to keep cows, pigs, etc.; and thus have them feel that they are at home. Last year, they cleared, after paying all their crop expenses, from $100 to $200 to the horse; hence they are contented and work well. We have a good school, and the children, when not in the farm work, are in school from three to six months in the year. We have churches also, and they attend services and Sunday school regularly."

Messrs. Crossland & Everett have kept accurate farm accounts for the past fourteen years, and the story told by their books shows the profit of cotton growing on ordinary farm land. Estimating the value of a good one-horse farm, with improvements, at $1,000, the following is the average yearly expense as they find it:

Six per cent. interest on farm value, per year	$60.00
Taxes on same	10.00
Wear and tear of mule	15.00
Interest on value of mule	10.00
One-half cost of fertilizer	110.00
Tools, and keeping same in repair	15.00
Repairs on buildings, etc	10.00
Share of Superintendent's expense	25.00
Ginning one-half of cotton	13.00
Total	$268.00

To offset this, Messrs. Crossland & Everett find that the average production of cotton on each one-horse farm during the last fourteen years has been 6,850 pounds of lint, and the average price $7\frac{3}{4}$ cents. They receive one-half the crop; therefore, against expense of $268, including 6 per cent. interest, they have had—

3,425 pounds of lint @ $7\frac{3}{4}$ cents	$265.43
One-half value of seed	62.57
Total	$328.00

This shows a profit of 12 per cent. for the last fourteen years. Suppose, however, that cotton had averaged 10 cents per pound. Then we should have more than 19 per cent. on the investment. And the cotton crop of Crossland & Everett last year was sold for more than $40,000.

Another successful cotton grower, in spite of the low average price for the last ten years, is the president of the North Carolina Farmers' Convention, Mr. E. L. Daughtridge. He raises live stock, uses the best farm implements, and practises a well-planned system of crop rotation. Although two or three of his crops these last eight years have been sold for only 5 cents a pound, he has made an average annual profit of from $5,000 to $10,000 on his 3,000-acre plantation.

On one of the best cotton farms near Raleigh—Waverly Farm, owned by Mrs. R. S. Tucker—no tenants are employed. The white manager and his family do much of the work, and this is supplemented with hired labor. On eighty acres, last year, with a total labor cost of $2,872 and a fertilizer expense of $600, the manager, Mr. Bagwell, raised 144 bales of cotton, which, sold at 15 cents per pound, brought $9,600 — a gross profit of $6,128, or $76 an acre.

There are cotton plantations in Alabama, the delta of Mississippi, and portions of Texas and Georgia that include as much as 30,000 acres under one management. These large plantations are conducted with perfect system, and, necessarily, in the most business-like manner. Every item of expense, even to the wear and tear of a wagon or the life of a mule or a horse, is accounted for by a system of bookkeeping. Perhaps several commissaries are maintained, where the laborers get their necessities. One of these great farms employs a small army of men and women, and the year's profits, if the price for the staple is good, would provoke the envy of successful business men of the large cities.

Photographed by Herbert Coleman

A COTTON FIELD READY FOR THE PICKERS

From what has been said, however, the reader should not infer that the bulk of our cotton crop is grown on great plantations, as such is not the case. The average southern farmer produces only about ten bales per year. Other crops are grown, of course, in addition to cotton. It is this small farmer, with 50 to 200 acres to call his own, living under his own vine and figtree, working himself, and with children large enough to do most of the hoeing and picking, who is getting in the fullest degree the new-found

wealth in cotton growing that means so much to the prosperity of the South.

Probably most persons outside the South think that Negroes grow most of our cotton crop; but this is by no means true. Of the 1,418,000 cotton farms reported in 1900, 849,000 were operated by whites. White farmers cultivated 14,616,000 acres, and Negro farmers 9,650,000 acres. The whites owned 58 per cent. of the farms operated by them, while the percentage of colored owners was only 19. "Clearly, the central feature of the southern farm life of the Negro race," says Prof. W. E. DuBois, "is the tenant class—this half-million black men who hire farms on various terms, and a large proportion of whom stand about midway between slavery and ownership."

The average Negro farmer of the more thriftless sort can hardly be said to be even "half way between slavery and ownership." Under the crop-lien law, at the beginning of each season he mortgages his yet unplanted crop to the merchant in order to get supplies to live on through the year. Then his recklessness, coupled with the exorbitant rate of interest, leads him to buy more than his crop pays for; and the usual condition of the merchants' books at marketing time has been pretty accurately set forth in the popular Negro couplet:

"Naught's a naught; figger's a figger:
All for the white man, and none for the nigger."

Photographed by George Stark

PICKING COTTON

The next year this story is repeated, and the next, and the next. But now the crop mortgage is disappearing rapidly before the advancing prices of cotton. Many white farmers, as well as colored, have been the slaves of this crop-lien system. "And the pathos of the lien-farmer," as has been well said, "is that he is always only twelve months from freedom. Better that he should eat one coarse meal a day, and wear his cheap clothes

1 2 Photographed by Julian A. Dimock 3

STAPLES OF (1) WILD, (2) UPLAND, AND (3) SEA ISLAND COTTON SHOWN CLINGING TO THE SEED
The value depends on the length of the fibre

to the last frazzle of decency, and, by one unremitting struggle, break his chains."

But not all the Negroes are of the improvident class. The first bale of cotton marketed in North Carolina this year was grown by a Negro, and, for the last seven years, the first bale of Georgia cotton has come from the farm of Deal Jackson, Dougherty County's leading Negro cotton grower. His story is an interesting one. Eighteen years ago, he borrowed $1,000 to buy a run-down farm, giving a mortgage on the place as security. He has since made purchases of adjacent farms, and now has 2,000 acres of the most fertile land in Georgia. He and his family run nine plows, and his tenants thirty-six.

GINNING AND BALING METHODS

Until Eli Whitney invented the cotton-gin in 1793, the work of separating the seed of upland cotton from the lint was done entirely by hand; and it is said that the most expert

Photographed by Wilson, Savannah, Ga.

COTTON BLOSSOMS, UNRIPE BOLLS, AND OPEN BOLLS ON A STALK AT THE SAME TIME

Photographed by Julian A. Dimock

WILD COTTON IN SOUTHERN FLORIDA

picker could not clean more than three to five pounds of seed cotton a day. The essential features of the Whitney gin have never been supplanted or improved upon; but, in recent years, gin manufacturers have perfected the machinery, until the modern gin sucks the seed cotton from the farm wagon, divides the lint and the seed, and returns the lint cotton baled, with its seed separated, to the same wagon within an hour. These new gins have an average capacity of thirty bales a day. Under the old system, the completion of two bales in a day was regarded as an achievement.

After the lint cotton is separated from the seed, it is packed in bales of an average weight of about 500 pounds. Endless trouble to shippers and exporters has been caused by the utter lack of uniformity in the size of cotton bales. There is a great need of a better baling system. Mr. Edward Atkinson, one of our highest American authorities on cotton subjects, has declared that cotton is "the most barbarously handled commercial product in the world." Besides the lack of uniformity in the size of the bales, gins at present are able to pack cotton to the average density of only fourteen pounds per cubic foot. Every bale not sold to local mills, therefore, must be sent to some cotton compress and the size reduced two-thirds before it can be exported.

Photographed by George Stark

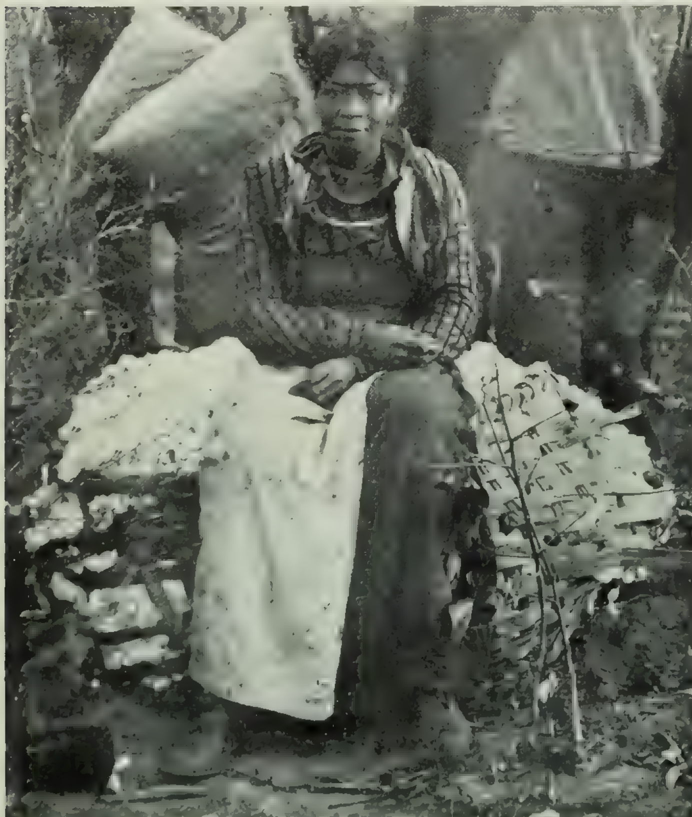
WEIGHING THE DAY'S PICKING

The round-lap cylindrical bale, introduced a few years ago, was hailed by many as filling the long-felt want for a better system; but the beginning of the end came recently when the company that owns the patent was thrown into the hands of a receiver, with liabilities much in excess of the assets. The round bale failed, partly because the world had been too long accustomed to the square form to take kindly to a change; partly because round bales do not pack so compactly as square bales, just as logs require more space than plank; and partly because the company which owned the round-bale

A TYPICAL COTTON PLANT

presses threatened to create a monopoly, only leasing its machinery, and refusing to sell it outright on any terms.

Just now another baling system—the Whitman—is coming into prominence, but not enough is known of it as yet to justify a final word as to its merits. Its promoters claim that it packs cotton at the gin to such density as to do away with the necessity for recompressing. This company proposes to sell its machinery outright, thus avoiding the blunder of the round-lap promoters.



Photographed by George Stark

A PICKER WAITING TO HAVE HER BASKETFUL WEIGHED

MARKETING AND EXPORTING THE CROP

In marketing the cotton crop, there has been in recent years a marvelous gain in directness and economy. Formerly, the farmer sold to his merchant at the nearest town; the merchant sold to the commission merchant

Photographed by George Stark

A GINNERY

The raw cotton is fed into the gins automatically; the picked cotton (the lint) is separated by the gins from the seed

in the city; the commission merchant sold to the dealer at the seaport; the seaport dealer sold to the New York exporter; the New York exporter sold to Liverpool; and Liverpool sold to Manchester. Now all this is changed—how greatly changed will be seen from the report of a cotton-exporting house which handles more than 300,000 bales each season.

"The old method of the planters, of consigning their cotton to factors for sale," said the manager of an exporting house, "is almost wholly abolished, intermediary charges having been gradually overcome through competition, and the producer and the consumer are thus brought closer together; and the farmer gets the benefit of this advantage. The

cotton is now bought on the plantations, or at the railway stations, throughout the whole cotton belt, by the representatives of large exporting houses and by the mills. Our firm employs more than one hundred buyers for this purpose, and the cotton is shipped daily to the port, where it is expeditiously sampled, classified, weighed, compressed, and loaded upon ships for foreign ports, with almost incredible swiftness. We have had a train loaded with cotton fifty miles from port at seven in the morning, and by seven o'clock of the same day—in the evening—it has been stowed on board a foreign ship and bills of exchange drawn and negotiated!"

THE WAREHOUSING SYSTEM

Just now a great deal is said in the newspapers about the proposed warehousing system of the Southern Cotton Corporation. Undoubtedly, the custom of rushing the cotton on the market during the three or four

Photographed by Herbert Coleman

BRINGING BALES TO THE COMPRESS

months of the picking season has a tendency to depress prices, and a system of gradual marketing through a period of ten months would do much to avoid wild fluctuations; but whether or not the farmers will look with favor on the great Sully warehousing scheme remains to be seen. One of the favorite arguments of this company is worth reprinting:

"With scarcely 10 per cent. change in any recent years in the production of cotton, prices have fluctuated more than 200 per cent. In 1898, with a crop of 11,270,000 bales, the average New York price was 6 cents, though in many places in the South cotton sold as low as 4 and 5 cents a pound. During the present season, with a crop of little more than 10,000,000 bales, or a difference of only about 10 per cent., cotton has sold as high as 17 to 18 cents, and may average for the year 12 cents. These changes in prices are more rapid than the prices of

Photographed by Herbert Coleman

ROUND BALES AFTER COMPRESSING, CONTAINING AS MUCH COTTON AS THE LARGER BALES BELOW

any other product. Between the time a farmer starts from his home to sell his cotton in his nearest market, and the time he gets there, prices may change \$5 to \$10 a bale. Under such conditions the planters' interests can never be on a thoroughly sound basis, nor can manufacturing expand as it would under more stable conditions."

The general opinion in the South is that we have now entered on a long era of high prices for cotton, and that the supply is not likely to become large enough to depress them to their former level. The South might increase its acreage, but the scarcity of labor makes this impracticable. Texas and Mexico might add much to the total supply, but the boll-weevil now stands in the way of any considerable increase there. Mr. Edward Atkinson predicts that, for fifty years to come, the South will have a virtual monopoly of the world's cotton supply.

Photographed by George Stark

COMPRESSING THE BALES

During the Civil War Mr. Atkinson imported cotton from every foreign country now mentioned as a probable competitor of the South, and his verdict is that all were found wanting.

There are yet many wastes in cotton culture. One waste, which went on for a full century and has not yet been completely stopped, was the waste of cotton seed. The farmers used to realize only $5,000,000 a year from their cotton seed; now they receive $100,000,000. Another waste is in the reckless use of commercial fertilizers, and another the even more reckless selection of seed for planting. Still another waste, likely to have attention now, is the total loss of unopened bolls. By threshing these in parts of Texas last year nearly $2,000,000 was added to the value of the crop. If it is possible to invent an effective cotton-picker, then it is fair to assume that we are wasting $50,000,000 yearly in depending on hand labor for this work. Millions, too, are wasted by the use of inefficient tools, and millions more through unwise methods of cultivation and failure to rotate crops. The cotton boll-weevil also threatens a loss of hundreds of millions if not checked. Lastly, we are still shipping 60 per cent. of our cotton to Europe—almost as uneconomic, as has been said, as it would be to ship our iron ore instead of turning it into the finished product here.

The market for cotton products will continue to increase. They will probably increase till every acre of tillable land in the South may be profitably cultivated; and these States will realize, in a different way, the kingship of cotton that the Old South dreamed of. Fifty years ago, the whole world produced only about 3,000,000 bales (little more than the present product of Texas!). This year, the world's product is 15,000,000 bales. This 15,000,000 will become 20,000,000 within a few decades; and half this vast product will probably be grown, spun, and woven in the South. The economic significance of this reasonable prediction is simply this—that no other part of the world will become so rich from an agricultural product.

In this article, nothing has been said about the enormous value of the by-products of the cotton plant. Nor have the southern cotton mills been described: yet more cotton is now spun in the South than in the North.

THE MARKET IN MONTGOMERY, ALABAMA

Photographed by Herbert Coleman

THE HAVANA TOBACCO COMPANY'S STORE ON BROADWAY, NEW YORK. DESIGNED BY STANFORD WHITE

Photographed by Arthur Hewitt

BUSINESS BUILDINGS MADE BEAUTIFUL

THE INCREASE OF ARTISTIC HOTELS AND COMMERCIAL BUILDINGS IN NEW YORK CITY—THEIR EXCELLENT PAINTING, SCULPTURE, AND FURNITURE—BEAUTIFUL FACTORIES AND OFFICE-STRUCTURES IN MANY PARTS OF THE CITY—A NEW AND IMPORTANT MOVEMENT

BY

J. M. BOWLES

ONE of the most cheerful signs of American interest in matters other than those purely material is the rapid increase of artistic commercial buildings, especially in New York. The hotels are more lavishly beautified than ordinary business buildings, but these latter are receiving more and more attention, and are now beautified to an extent that would have been deemed absurdly wasteful not long ago.

A well-known New York man recently made two trips to Europe, apparently for the sole purpose of squandering large sums of money. His last tour occupied four months, and he bought no less than fifty marble statues, antique and modern, one hundred and forty assorted bronzes, mostly from the famous founder, Barbedienne of Paris, a large number of paintings, innumerable etchings and engravings, tapestries of

Photographed by A. Radclyffe Dugmore
THE BALCONY OF THE HOTEL SAVOY, NEW YORK
Central Park and the St. Gaudens statue of Sherman in the background

historical interest, old velvets and brocades, rare Florentine silks, Sèvres vases from royal palaces, antique Chinese pottery, Venetian glass, a dining-room service with solid silver candelabra once owned by the King of Naples, brother of Napoleon I., and many other beautiful and expensive things. Incidentally, before leaving home he had

Photographed by A. Radclyffe Dugmore
ELABORATE ELECTROLIERS ON THE HOTEL SAVOY BALCONY

ordered thirty Steinway grand pianos with specially decorated cases. And yet this almost wholesale buyer is not an art collector gone mad, a dealer, nor even an amateur trying to rival Mr. J. Pierpont Morgan, who buys great art collections ready-made, but the proprietor of a hotel in New York City.

The hotel in which these treasures have been placed contains five hundred rooms, is on Fifth Avenue near Central Park, and

Photographed by A. Radclyffe Dugmore
AN EXQUISITE MARBLE FOUNTAIN IN THE HOTEL MANHATTAN, NEW YORK

among the valuable materials lavishly used in the building are bronze, white marble carved by hand, French Caen stone with bronze ornamentation, Circassian walnut, white mahogany, satinwood, velvets, Lyons silks, rare rugs, and, as a capping-piece of financial expansion, hand-made lace curtains in one suite costing $5,000 apiece.

This money has been spent simply as a cold business proposition for a hard-headed investor of long experience who believes that in the hotel business, at least, art pays.

A close observer of life in New York during the winter season is not surprised at all this, nor is he startled when told that

fifteen great hotels are now being built at a cost of $50,000,000. He sees in them simply the logical result of the way things have been going of late years. New York is the pleasure city of the nation. To her come the spenders from all the States, transplanting bodily their art galleries and their cash-boxes. In all great cities—and thus in New York as a natural evolution from such conditions—a group of clever men and ings, and other decorations. It is insistence upon lavish art that has made this hotel a centre of fashionable life, even if considered only from the point of view of evidences of wealth. Another has a well-printed pamphlet describing its Tiffany favrile glass mosaic in mother-of-pearl, gold, and iridescent colors, its drawing-room in Vernis Martin, its paintings by Denman, Crowninshield, and Champney, and its important mural decoration, "The Tri-

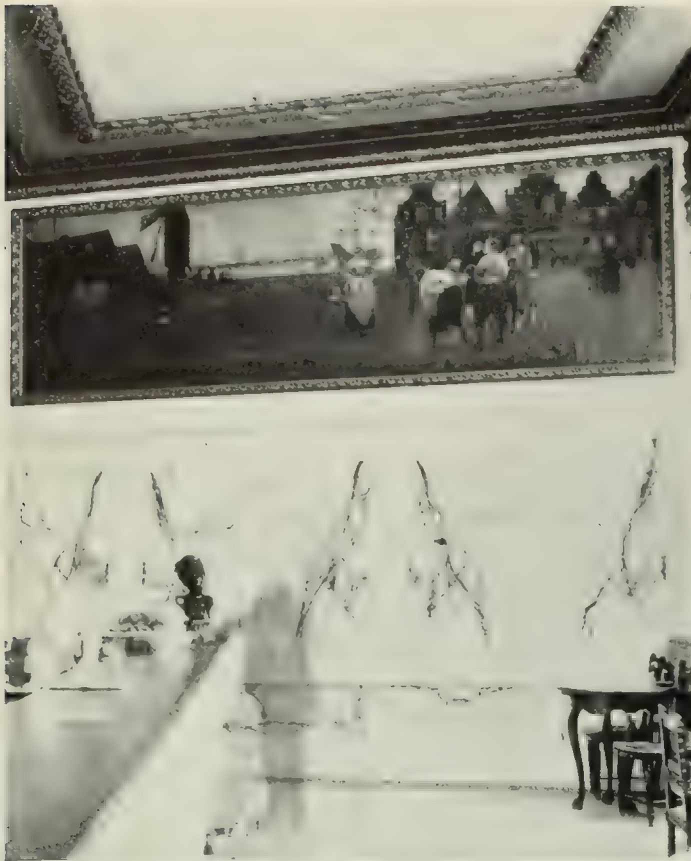
THE MEN'S CAFÉ IN THE HOTEL MARIE ANTOINETTE, NEW YORK

women arises quite capable of meeting the wealthy class at least half way, and willing to encourage them sympathetically in their efforts to rid themselves of their surplus income.

It is a significant detail of the hunting of business and culture that the three greatest hotels in New York catering to wealthy patronage make a special point of their artistic features. The souvenir book of one hotel is full of mention of its apartments with semi-royal antique furniture, extensive mural paint-

umph of Manhattan," by Mr. C. Y. Turner, on the main floor, the competition for which was held under the auspices of the Fine Arts Federation. And now comes a hotel with the avowed intention of outdoing everything else in the city.

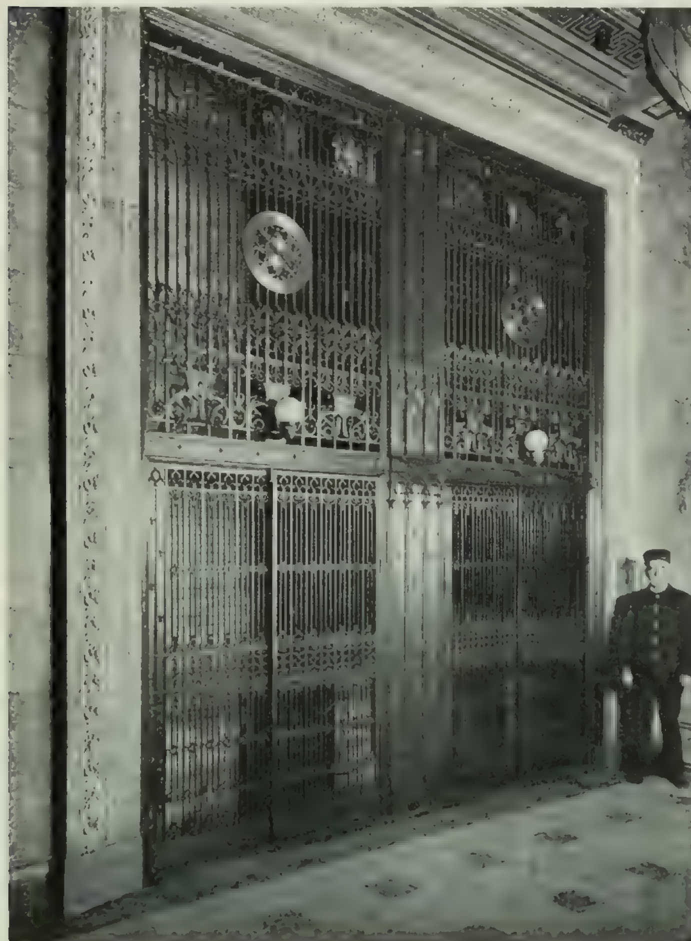
On almost every cross street near Fifth Avenue and in the uptown hotel district one finds new hotel buildings with floors of real mosaic—not the sausage-like mixture in imitation of it seen in low-priced structures—the most beautiful marbles the world can



Photographed by A. Radclyffe Dugmore

THE HOTEL IMPERIAL CAFÉ

"The Bowling Green," by Edwin A. Abbey, used as a decoration



Photographed by Wurts Brothers
Courtesy of the John Williams Bronze Foundry

BEAUTIFUL METAL-WORK ELEVATOR ENTRANCES

In the building of the Prudential Life Insurance Company, in Newark, N. J.

supply, onyx by the square rod, stained glass—though usually gaudy, Oriental carpets, elevator doors and grilles in bronze, hand-carved woodwork (the glued-on imitations are gone, though much of the ingenious machine-carving prevails), some mural decorations by first-class American artists in spaces which would formerly have been at the mercy of low-grade Italian fresco painters, a little fairly good sculpture, some admirable decorative stonework, and down to the veriest detail follows the sense of beautiful reality.

A cleverly managed hotel of today would

Photographed by Jewett, Orange, N. J.
Courtesy of the Metropolitan Life Insurance Company

A SUMPTUOUS BUSINESS OFFICE

The Board of Directors' Room of the Metropolitan Life Insurance Company

not think of offering china, glass, linen, stationery, and menu cards without the stamp of good taste. To make public eating-places trivial or superficial does a vulgar injury to the ceremony of eating. The influence of handsome stationery is especially far reaching. Every letter written by a guest may, by the impression made by paper and envelope, attract another guest to the hotel. One often has no other method of judging a hotel's standing. A house that furnishes elegant stationery is like a business man who is careful of his personal appearance. Good-

looking maids and sturdy men in picturesque liveries are important elements in the growing knowledge of artistic propriety of detail. ing of hotel proprietors after art novelties. Novelty!—the daily demand of the spending class. A "Flower Room" instead of a

Photographed by Wurts Brothers. Courtesy of Donn Barber Architect. Mural decoration, copyright, by Albert Herter

THE INTERIOR OF THE PARK NATIONAL BANK, NEW YORK

Showing the mural painting, "Agriculture," by Albert Herter

That the psychology of this hotel art has come through the ambitious pleasures of the fashionable over-rich is pointed in the strain- palm garden is going into the great new Hotel Knickerbocker at Broadway and 42d Street, a "Roman Court" for the same

Photographed by A. Radclyffe Dugmore
THE BRONZE AND MARBLE ENTRANCE
to the building of the Knickerbocker Trust Company, New York

rooms are wholesome as well as pretty, and tend to help the movement for green things in city houses and streets, though occasionally ambitious owners of small hotels need to be reminded that one palm does not make a garden. Roof-gardens are also to be commended, though still in a crude state architecturally. There is no reason why they should not be solidly yet gracefully designed in fine materials as a component part of the building, instead of being treated as things of merely temporary character unworthy the attention of the architect. The day will come when they will be seriously considered, and the roof of an important building will be as attractive in its construction and decoration as the ground floor, and its immense natural advantages fully developed.

The newer hotel buildings in New York are thoroughly saturated with French styles of decoration, preferably the periods of the

Photographed by Wurts Brothers
Courtesy of the John Williams Bronze Foundry
STATELY BRONZE DOORS
A detail of the entrance to the Knickerbocker Trust Company

use in the St. Regis, and an "Orangerie" in the new Hotel Astor. In the handsome annex of the Hotel Marie Antoinette, and in last year's Hotel Belleclaire, are cafés in the style of *l'art nouveau*, a decorative mode of which little has been seen here, but which has made great strides in Germany, Austria, and France. Outdoor dining in the courtyards and on the roofs and front terraces of hotels no longer surprises us, as we encounter this Continental custom in the most conservative atmospheres. Even the old Grand Union Hotel has succumbed to the new order of things and has a "Flemish Room" with a beautiful mediæval floor of big squares of dull red brick, although the rambling corridors and offices of this quaint place have always been the home of an interesting and ever-changing group of paintings by the best American artists, the property of Mr. Samuel T. Shaw, the founder of the Shaw Prize given annually by the Society of American Artists, and one of the proprietors of the hotel.

Palm gardens, Roman courts, and flower

three Louis—Fourteenth, Fifteenth, and Sixteenth. Even the names of our more elaborate hotels, and especially apartment-houses, are French, and, if possible, Royal French. We have an Empire, a Marie Antoinette, a Touraine (and so has Boston), a Tuileries (and so has Boston), a Versailles, a Sans Souci, a Palais Royal, an Orleans, a Navarre, even a L'Aiglon and a Le Marquise—note the *le*. This Francomania has led to curious foolish things, as in the hotel in a neighboring city where each piece of china bears the private coat-of-arms of a king of France. But a reaction is evident, and old Dutch names, appropriate and even historical in this vicinity, grow in favor, and also musical Indian words.

Great hotels are one manifestation of national character, and ours are being studied by travelers from other shores as expressions of American taste. We should beware of advertising ourselves as overfond of profuse gilding, "loud" ornament, plaster trinkets applied to walls and ceilings without rhyme or reason, and unrestrained license of form and color. For the majority of Americans a fine hotel sets a standard of taste for home decoration, table service, and certain phases in manners. To many it stands in its luxury as an ideal to be followed as closely as possible.

The plans of the new hotels now building in New York, three of them to cost $5,000,000 apiece, are elaborate and important, but as none of the interior work is actually finished, it is impossible to say anything as to general artistic effect. It looks now, though, as if by next year a tour of New York's hotels would be well worth while, simply as a matter of sightseeing, as one goes through great buildings in Europe. The Waldorf has for a long time had a system of guides to conduct visitors through its mazes. Imagine twenty-five years ago a prophecy that hotels and museums should ever have kinship! And the delightful part is not so much that art should be spreading, or that hotels should be improving, but that it was life that surged up to art, and not art, a missionary, that reformed life.

Photographed by A. Radclyffe Dugmore

A QUAINT GERMAN WINE CELLAR
The unique basement banquet-hall in the new Hotel Astor, in New York

Such things exhilarate one with the progress of real vitality.

Our hotel builders are showing wisdom in giving many talented American artists a chance to paint mural decorations, the art expression of the twentieth century. Nothing so lends a hotel distinction as wall paintings of subjects suggested by the name chosen for the building. Nothing else so places its decorations on a non-competitive basis and gives the hotel the same individuality seen in a home. The charm of the old hostelry was its native quality—its union with the tradition of the spot for whose hospitable intent it was responsible. The new development, the hotel, though courteously expressing cosmopolitanism, likewise should represent the thought and resources of its own country. And the tendency of hotels, though strenuously pretentious for the moment, is toward the purity of picturesque taste. The acumen which saw the business value of art can be depended upon to see its way finally to artistic correctness. Besides, the effect of dealing with art at all is to create the fervor to excel in its use. Witness the passionate heights to which art collectors are taken. Already this ambition is gathering its momentum among the purveyors of art to hotels. They watch their fellows' business as closely for the art it displays as for its commercial steps. And the feeling is not jealousy, but desire to accumulate "points" of progress—the business man's method of educating himself in art. This result—not of humoring art as formerly in hotels, but of depending upon it and rejoicing in it—proves that art pays and is a permanent, not a transitory, investment.

Photographed by A. Radclyffe Dugmore
A BANK INTERIOR IN NEW YORK, FINISHED IN BRONZE AND THE RAREST MARBLES

Photographed by A. Radclyffe Dugmore
ONE OF THE BEST EXAMPLES OF ARCHITECTURE ON FIFTH AVENUE, NEW YORK

The fact that the display of art is a step ahead for a business, from a purely commercial point of view, is proved even more strongly by its growing use in quarters where its advantages are less obvious than in hotels. For instance, it cannot result in any immediate cash profit for the New York Interurban Railway Company to introduce art into their power-house for the new subway;

yet that is what they have done. Located in the heart of a dingy and deserted slum district is a great building of the finest white stone, designed by one of the best American architects. It is simple, dignified, and beautiful, and cannot fail to have an uplifting influence on the neighborhood. And in the subway stations much decorative art has been employed, as was shown in the last number of this magazine. This corporation also took an important step ahead in deciding to admit no advertisements in any part of the subway.

In some places where subway stations adjoin private property, artistic objects are being installed underground. The owners of one of the hotels now under way are constructing an elaborately decorated café and restaurant under the street, with large windows and a handsome entrance opening upon the subway station.

As one goes about New York, art constantly surprises one in unexpected places, though the city as a whole is not artistic. Architecturally, one of the most beautiful buildings in New York is a storage warehouse, half hidden by the elevated railroad, a building of much style and character, with exquisite details, among them some small sculptured human heads. Some great businesses, driven by high rents from the fashionable or more central retail districts, have moved the bulky part of their manufacturing to districts of low rents near the water-front, retaining only show-rooms and offices on or near Fifth Avenue or Broadway. The establishments of these enterprises are continually cropping up in unlikely streets with fine, light, modern buildings with artistic façades, none the less artistic because they are often executed in economical materials. One firm has installed some magnificent iron gates in front of its new factory near a University Settlement house. A heavy importer of art objects has built a sort of a covered Italian garden at the end of an out-of-the-way cross-town street, to the uninitiated seemingly far from Fifth Avenue. Yet New York is so narrow that it is really only a few blocks from the Fifth Avenue offices and small show-rooms. This unique building is used for properly displaying large works of art, such as immense mantels and carved columns, and tapestries from European palaces. In the walls of the building, square panels of fine old Italian sculpture are set at intervals.

In the shops, art is becoming more of a necessity every day. A company manufacturing a mechanical piano-player has paid special attention in its building to the artistic effect of furnishings on every floor which buyers enter, from the wall-painting over the entrance to the elevators, to the old lantern of gilded wood in the white-and-gold concert hall, making perhaps greater concessions to art than any other house devoted to a retail business.

Several silverware and jewelry firms are putting up in the retail section of upper Fifth Avenue thoroughly artistic structures, admirably restrained and free from display. One building of seven stories, to be occupied by a single firm, is being built entirely of the finest white marble. The fronts of old brownstone houses in this district, as they are torn down to give way to business buildings, are replaced with picturesque structures almost as often as with conventional. Dutch tile roofs, gargoyles, and wrought-iron lanterns are brought in to help break the monotony of a business street. A fashionable dressmaker has a store front—with mysterious latticed windows with medieval curtains, recessed doors, and masses of shrubbery and flowers—that is the essence of quaintness. The department stores feel the necessity of conforming to the demand for art. One has eight rooms, in a department devoted to the arts of dress, which are characteristic examples of eight different national styles of architecture and decoration.

An owner of a New York building has put up for a tenant a show-window mounted in the finest bronze, worked into a classical design, with a floor of mosaic and a wall of onyx slabs, as a frame and background for a show of two or three bath-tubs. Paneling of rare woods, delicately carved and inlaid, and obviously designed by an artist, is considered necessary by at least half a dozen dealers to display shirts, collars, and cuffs. A confectioner has counters of pale green marble with iridescent mosaic. The president of a tobacco company gave an order to one of the half-dozen most famous architects in the United States for "the finest store in the world"; and the result is a palatial apartment with walls, ceilings, and great columns of polished white marble, pierced

marble screens, antique marble seats from old Italy, and a series of mural decorations painted by an artist of the first rank.

A trust company, with the same architect, has, in its safety deposit vaults, under the street level where no daylight enters, an Aladdin's cave of treasure and beauty—with a reception-room, for the users of the vaults, which is another dream of white marble—the only material, besides bronze, used in the room—with specially woven crimson-velvet carpets covering the expansive floor, and an immense old Flemish tapestry concealing one of the still more expensive walls; all as a matter of business.

Progressive American business men are not indifferent to the value of even minor details. They realize that one flaw may spoil a carefully planned effect. As an instance, note the prevalence of the formal Dutch bay-tree in doors and vestibules, and the bank which has a rainy-day awning to swing across the sidewalk, the broad green and white stripes of which exactly match the white marble and green bronze of the exterior of the building. In signs, copper, bronze, iron, and other metals are used for both background and letters, the whole evidently designed by a good architect, and not by a sign-painter. Even the lettering on the doors of offices steadily improves, and becomes simpler each year; "fancy letters" are rapidly disappearing.

The financial district, down-town, leads in the use of pure art, paintings, and sculpture. Many of the buildings constructed for insurance companies and banks contain pieces of the best quality. The structure of the Prudential Life Insurance Company in Newark, although put up some years ago, is still considered by many the most beautiful office building in America. Aside from its fine interior and the wall-paintings in the board-room, it makes a noteworthy contribution to the art of the street in a wall-fountain of stone, elaborately carved in Gothic style, set in a niche in the outside of the building. As this is usually dry, and as it is rather ecclesiastical in character, the story may be true that one morning an Italian woman of the peasant class was found kneeling before it. The Metropolitan Life Insurance Company's great building, fronting on Madison Square, New York—which, after the removal of Dr. Parkhurst's church, and the building of an addition, will soon completely fill the city block upon which it started—is a distinguished work of architecture, and contains what is probably the most beautiful staircase and entrance hall of all the commercial buildings in the city. The Mutual Life Insurance Company, the New York Life Insurance Company, the Equitable Life Assurance Society, and many other rich corporations, have made noteworthy contributions to the cause of municipal art—some of them not only in New York, but in other cities of the Union—by their liberal expenditure for the best work of the best architects, executed in the best manner. Lower Broadway is an architectural picture gallery for those who care for such things, and the quality of the works on view is fully up to the standard of the usual picture exhibition.

A fine building, that of the Park National Bank, is run up, and its large and imposing mural painting is in position, almost before one finds time to go down town to see it, and the gap to the north of Trinity churchyard is filled in by an enormous sky-scraper, it seems, almost overnight. The wonder is that so much good work is so quickly done, and that private enterprise accepts so high a standard. The architect apparently has less trouble than the artist in dealing with his customers, for he seems to sell not only good architecture, but good paintings, and, what is still more difficult, good sculpture.

Among semi-public commercial buildings in Manhattan, with noted decorations, are the new Chamber of Commerce with its three fine sculptured groups on its exterior, and the still newer Stock Exchange, which has recently unveiled a splendid pediment by Mr. J. Q. A. Ward. The new building of the New York Clearing House is an architectural gem, half hidden in a narrow street.

The Wall Street district is full of fine buildings, and if the artist maintains that the problem of the sky-scraper is not always solved, at any rate one may see everywhere good doors and genuinely artistic vestibules and entrance halls of much elegance, with stairs, elevator "grilles," and other architectural details admirably designed and executed.

Art is making its way in this hustling country of ours, and the best of it is that it is coming naturally, unobtrusively—as an expression of a new spirit in modern business,

GERMAN AND AMERICAN WORKING LIFE

THE AMERICAN BETTER PAID; THE GERMAN INSURED BY COMPULSION — LONGER HOURS ABROAD, LOWER WAGES, AND FEWER STRIKES—A COMPARISON BY AN AMERICAN WRITER

BY

JOHN CALLAN O'LAUGHLIN

THE iron-workers whom I saw going to work in Düsseldorf before six o'clock represented the flower of German industry, the rank and file, whose methodical, careful labor is making Germany the most dangerous industrial competitor of the United States. It was not difficult to start a conversation with one of them. Although the German is pugnacious, he has the gift of loquacity.

"Are German workmen contented?" he asked, repeating the question after me. "Whether we are or not, we must appear to be, or we should lose our jobs. I have a large family to support. Most of my mates are in the same fix. We must take what we can get, and try to be thankful. I don't think our unions are as strong as yours in the United States. Certainly they do not act together as well. We have more or less police interference. Our wages are far below those in the United States. I have heard that I draw one-third the amount paid to a man doing my work in your country. We receive less than the workmen of England, and a little less than those of France. But many of our employers provide us with amusements." Ironical emphasis was placed upon the last observation.

Looking over my notes of my investigation of industrial conditions in Germany, I find that this man expressed the views of the average skilled workman of the empire. He did not like the extensive paternalism of the State, which the employers, in some cases, aggressively imitated, nor did others whom I saw. He believed in the insurance which the State imposes; but he is in almost constant conflict with his employers about the collection of the insurance. He objects to the retention of his wages because the work is not satisfactory to the master. He knows his comparative inferiority of condition to the workman of other industrial countries. He regards himself as poorly compensated, and is striving for an increase of wages. These various grievances account for the rapid growth of socialism in the empire.

To return to Düsseldorf. I left the worker at the door of the foundry where he was employed, and walked down the country road in the direction of a group of houses where a number of workmen's families live. The first striking fact was the air of cleanliness and of order. The women were hard at work, washing inside and out. Most of the windows were protected from the gaze of the curious by curtains of linen, stiff and fresh. I approached one of the housewives, and suggested that she was rivaling her husband in the early hour at which she began her toil. She replied that I knew little of housekeeping, because she had to rise before her husband and get his breakfast. "For you understand, sir," she said, "it would never do for my husband to be late. He would be fined; and, if he were to be tardy often, he would be discharged. And, you know, there are many who would be only too glad to take his place."

Upon a trivial excuse, I gained admission to the house, or rather to the little apartment which the woman and her husband occupied. There were only two rooms, and, in them, six persons lived—the husband, the wife, and their four children, and occasionally, "if we are lucky, *mein Herr*, we have a boarder."

The day of the boarder in such crowded homes is passing, however. The chief evil of industrial Germany has been, and is today, the crowding of the working poor. In Düsseldorf there is an average of more than nineteen persons in every inhabited house. Elberfeld and Barmen, twin towns which supply the world with dyes and chemicals, are slightly better off in this respect. Essen, the home of the famous Krupp works, has an average of more than eighteen persons. When I visited

Saxony, I found that, in Chemnitz, there are as many as 168 persons in the same house, and the average was more than twenty-nine. Although Berlin is not exclusively a manufacturing city, it has the highest average in Germany of inhabitants to each house, the number being forty-six. Overcrowding is hardly to be wondered at, however, when it is considered that Düsseldorf's population has grown in the last thirty years from 70,000 to 230,000.

I had these statistics in my note-book, and had inadvertently turned to the page upon which they were written while I was talking to the housewife. "It is more difficult to get boarders now," she was saying, "than it used to be, because the city publishes a list of prices where sleeping-space can be found, and my apartment is not included in the circular." "Why?" I asked. "They say that these small rooms cannot accommodate properly more than six persons, but I think they can; and I don't see what the city fathers have to do with it." I suggested that the action of the municipality was in the interest of the public health. She sniffed. "They do not pay my rent," she answered, "and rents are high. My husband pays one-third of what he earns for these two little rooms, and the rest is swallowed up for food, for light and heat, clothing, insurance, and taxes."

COST OF LIVING IN GERMANY AND AMERICA

I found that, while the American spent more for his food, his rent, his clothing, and fuel and light, the percentage of total expenditure to his income was less, except in the single item of rent. Nearly half the wages of the German workman is spent for food. The American pays out two-fifths of what he earns for the necessaries of life. The German pays his landlord a little more than one-eleventh of his wages; the American one-seventh. Clothing costs the German one-sixth of his wages; the American gives one-seventh. The cost of fuel and light is about the same. But the German workman by no means gets meat as often as the American, considering himself lucky if he eats it three times a week. In the expenses of a miner's family for one week, which I obtained in Westphalia, I found that only 76 cents were spent for meat. In Saxony, a weaver paid 72 cents a week for meat. In the United States, a miner in the Pennsylvania coal regions paid, in 1902, $1.83. Beef costs the workman in Berlin 15½ cents a pound, and pork 15 cents, while the Pennsylvanian pays 14 cents. Butter is cheaper in Germany, but sugar is more expensive. In twenty-five years, the retail prices of food to workmen in Germany have fallen considerably, a workman being able to purchase for 100 marks the same quantity of food that his father paid 150 marks for a quarter of a century ago. In the early eighties, wheat, wheat flour, and mutton were all higher in the United States than they were in Germany. Now, these three articles cost the American less than the German.

WORKING HOURS AND RESTRICTIONS

Work commences in Germany at 6, 6:30, or 7 o'clock in the morning, and usually stops at the corresponding hour in the evening. The workman has a quarter of an hour for breakfast, from an hour to an hour and a half at noon for dinner, and a quarter of an hour in the afternoon for tea. Sometimes, and in some factories, the breakfast period is not authorized; sometimes afternoon tea is omitted. The average length of the day's work is ten hours. In the textile industry, it may be a quarter of an hour longer. The care of women and children has concerned the State far more than the hours of the male workers. Night-work for women is prohibited, nor can they remain in the shops after 5:30 on Saturday afternoon or on the eve of a holiday. The law fixes the maximum of the woman's working-day at eleven hours, except on Saturday and the day preceding holidays, when it is ten hours. A midday rest of one hour is compulsory, and women with household cares may claim an extra half-hour. A woman is not permitted to work within four weeks of her confinement. The earliest age at which a child may be employed is thirteen years, and then it must be provided with a permit from the school inspector.

COMPULSORY WORKMEN'S INSURANCE

Insurance is the State's panacea for the wants and the misfortunes of labor. There is indemnity for accident, for sickness, and for old age. The law imposing general compulsory insurance against sickness authorized private as well as public insurance, and thus encouraged manufacturers to insure their own employees. In 1901, there were nearly ten million persons insured against sickness. Employers are required to insure their em-

ployees against accidents, and have formed syndicates which satisfy the claims. A total of nearly nineteen million persons were insured against accident in 1901. Under the insistent pressure of the Kaiser, an infirmity law, initiated by Frederick III., was passed in 1889. All working people above sixteen years of age who earn less than $500 a year are, under this law, actual or prospective beneficiaries of a pension for invalidity or for old age. In 1902, a total insurance of $51,000,000 was distributed among 4,800,000 persons too ill to work, $27,000,000 among 384,566 persons who suffered accidents, and 1,100,000 infirm persons received $30,250,000. The total thus paid out for insurance was $108,000,000, of which the work people gave only $45,000,000 and the State $10,000,000. The great drain upon insurance companies and upon the employers has caused the establishment of sanatoria, where, in case of disease, the insured are sent. The result of this policy has been noteworthy, 87 per cent. of those receiving treatment having been discharged cured.

Recognition of the rights of labor is recent in Europe. Before 1869, the laws of Prussia forbade the organization of labor unions, and until 1881 those formed in the preceding twelve years were subjected to police surveillance. The greatest progress in the organization of German workmen has been during the past decade. During the last twelve years the unions have spent more than $13,500,000 to further the interests of the working-man and woman. German officials derive some satisfaction from the fact that only 23 per cent. of this sum was used to promote strikes.

German industrialists boast that the welfare of their men is their chief concern. Yet how vigorously these same industrialists have fought every measure to benefit the condition of the working-man which conflicted with their particular interests! When Engel-Dollfus, the great Alsatian manufacturer, founded the Mülhaus societies, designed to protect the workmen from accident, he said: "The employer owes other things to his workmen than salary. It is his duty to occupy himself with their moral and physical situation, and this moral obligation, which no man's salary is able to discharge, ought to take the place of selfish individual interests, which appear sometimes to place themselves in conflict with this sentiment."

The high principles which Engel-Dollfus enunciated have been observed by many of the industrial leaders. The philanthropy of Friedrich Krupp found expression in the erection of villages of sightly, sanitary homes for his employees and the pensioners of the firm. The rents average 41 cents per room weekly, against 56 cents in neighboring towns. Professor Albrecht has estimated that, in the governmental district of Oppeln, in Prussia, the employers have provided 106 habitations for every thousand working families. In the whole empire, the proportion is only 18 per thousand families. The dwellings assigned to the workmen are not, unfortunately, always sanitary, nor do they all contain sufficient light and air. The rents, too, are often high. As a rule, however, the large operators have considerably ameliorated the condition of their employees. Dining-rooms, baths, lockers, and other conveniences are provided within the factories. Banks, subsidized by employers, and partly supported by contributions from the workmen, make payments to men whom the firm is compelled to lay off. The men who enjoy this benefit are well aware that benevolence is not always the guiding light of this charity. The firm derives the advantage of having a skilled force within easy reach when wanted. There are relief-funds for sickness, old age, death, and burial, which supplement the legal insurance; and assistance is given to workmen desiring to purchase homes. There are compulsory interest savings-banks, and voluntary interest-paying savings-banks. Some of the works provide steam laundries which do the family washing, often below cost. Buildings and grounds are set apart by many factories for their employees, and some have libraries.

The best philanthropy in Germany is embodied in the laws which require healthy conditions in the factories. They must have good light, sufficient air, ventilation, and protection from dangerous machinery; and the sexes must be separated. In all the factories that I visited, I found cleanliness, sanitation, and plenty of good air, in striking contrast with some of the factories of the same kinds that I have seen in the United States.

DEFINITE RULES TO WORK BY

What probably conduces more to tranquility among the laboring classes in Germany than anything else is the law that requires

rules defining the conditions of work. Before the rules can be enforced, they must be submitted by the employer to his men, who are authorized to file written objections. "But a man dares not object too much," said a workman in a Stuttgart factory, "because thereby he makes himself obnoxious to the firm, and the chances are that he will be let out on one excuse or another." The rules with the objections are laid before the factory inspector, who is authorized to change them if they are contrary to the law and governmental regulations, and to adopt any objections which he may deem legal and proper. The factory inspector thus possesses considerable power. The rules, when approved, are posted in every department, and they bind employer and employee. They omit the scale of wages, but prescribe when and in what manner the wages shall be paid. They set forth the hours of work, with the intervals for meals. They state the length of notice which must be given to men discharged by the firm, and expressly name the offenses that admit of instant dismissal. They specify the punishments which may be inflicted. These punishments include fines, which are usually disbursed by the firm for the benefit of the men. Especially repugnant to the American mind is the habit of foremen striking their men.

LOW WAGES AND SOCIALISM

Unquestionably, Germany's steady growth as an industrial nation is due to her comparative freedom from strikes. In 1903, there were 1,444 strikes for higher wages—as many as in the previous two years, affecting 135,532 work-people. To safeguard their interests, the workmen have established bureaus which receive and press claims against employers. Almost 200,000 persons consulted these bureaus last year. The largest number of complaints was due to disputes about accidents, workmen holding that they were entitled to pensions on account of injuries. This their employers denied. Demands for insurance on account of sickness were responsible for thousands of complaints; differences on account of wages, including retention of wages, differences relating to the character of the work, and dismissal without notice, also caused many to seek the intervention of the bureaus. As a rule, these bureaus form a vast machinery antagonistic to capital, and considerable friction is the result.

The principal cause of disputes was the universal complaint of inadequate remuneration. There were more demands for an increase of wages in 1903 than were made in the previous two years. Second in importance to disputes regarding wages were those relating to hours of work. The men are agitating for an eight-hour day. They have been rather successful, for, in 1903, 22 per cent. of the disputes were settled in favor of the work-people, 32 per cent. were compromised, and 46 per cent. were in favor of the employers. Perhaps one reason why there have not been so many strikes in Germany during the last few years is that the men cannot afford to stop work.

The German workman is not so quick as the American workman, but he is more careful. With conditions improving, his hours of work are becoming shorter, and his wages are slowly increasing. It may not be amiss to explain the effect of the late industrial crisis on the workmen by showing the fall in wages that occurred in the textile industry. A skilled workman who earned $10 a week in 1889 makes about half that sum today. Certainly this does not tend to make him content with his condition. But German manufacturers say "the condition of the German worker is much more satisfactory than that of the small trader, who, oppressed by heavy taxes and duties, and threatened by the competition of the large institutions, has a very hard experience in the struggle for life." The workman feels, however, that he owes his employer little, for those retained by many factories during times of depression were paid a fraction of what they had theretofore received, or worked fewer hours. The employer enjoyed the great advantage of having a skilled force directly at hand in case of fresh orders. No one can therefore be surprised that labor should listen to the voice of the socialist, with its tempting promise of better conditions, and should exercise its right to vote in the hope of bringing them. But, in spite of the strength that the Socialist party has today, and the probability of overwhelming strength that it will have in the future, the adoption of principles of lasting injury to capital need not be looked for. The German is conservative. But he does not wish to hamper individual prosperity by putting too grievous a weight upon capital. That this truth has been grasped by German socialists is shown by the fact that many of the ultrasocialistic doctrines in the first platforms of the party have been removed.

VIVID PICTURES OF GREAT WAR SCENES

THE THREE GREAT SOLDIERS OF JAPAN—
A NIGHT VISIT TO ADMIRAL TOGO'S FLEET

BY

O.

[NOTE.—These descriptions, written from the scenes of the events described, or from places as near these scenes as correspondents were permitted, appear in THE WORLD'S WORK and *Blackwood's Magazine*]

THE TRIUMVIRATE OF GENERALS

TOKIO.

THREE men are standing in front of a large-scale map. The map is of so large a scale that it screens the whole expanse of wall at one end of the room. The shortest of the three men holds a telegram in his hand, and, as he reads from it, one of the members of the Triumvirate runs his finger along the red line which seems to bifurcate the suspended chart. Having satisfied themselves that the reading of the map synchronizes with the information contained in the telegram, the three men group round the table in the centre of the room. They are worthy of close observation, these three, for it is this Triumvirate that is ruling Japan's destinies at the present moment. The small, podgy, pock-marked man, whom no caricaturist could fail to lampoon as a frog, is Baron Oyama, the Roberts of Japan. We use the parallel to the English soldier only as a figure of location. In temperament there is no likeness between the two, except that each in his respective country is a great soldier. And what a history lies behind this diminutive field-marshal! He has seen the latent fighting strength of his nation develop in a single generation from the standard attained in the medieval civilization of the East to that of a first-class Western Power; has lived to command it in the act of overthrowing the vaunted strength of a Western Power. But to few great military leaders has such an opportunity come as has presented itself to the present generalissimo of Japan's army. Twelve years ago, this very marshal was called upon to command the Japanese army in the field against the strength of China. The opening phases of his present campaign are being conducted over the very ground through which he then manœuvred his victorious troops. Does it come often in the lifetime of a general to operate twice over the same squares of the map? In the present operations, the knowledge gleaned in that first campaign has been worth an army corps.

The little general seated at the marshal's right is the Kitchener of Japan. If we had not known that he was Japanese, his quick, dark eye, dapper figure, and pointed beard would have led us to believe that he was a Spaniard, or perhaps a Mexican. General Baron Kodama is the executive brain of the Japanese general staff.

The third member of the Triumvirate, like his illustrious associates, also is small. He is fair for a Japanese, and the splash of grey at either temple enhances the fairness of his skin. Save for a rare and very pleasant smile, the face is unemotional. The dark eyes are dreamy, and the poorest expression of the great brain that works behind them. This is General Fukushima, whose genius has been the concrete-mortar which has cemented into solid block the material of Japan's general staff.

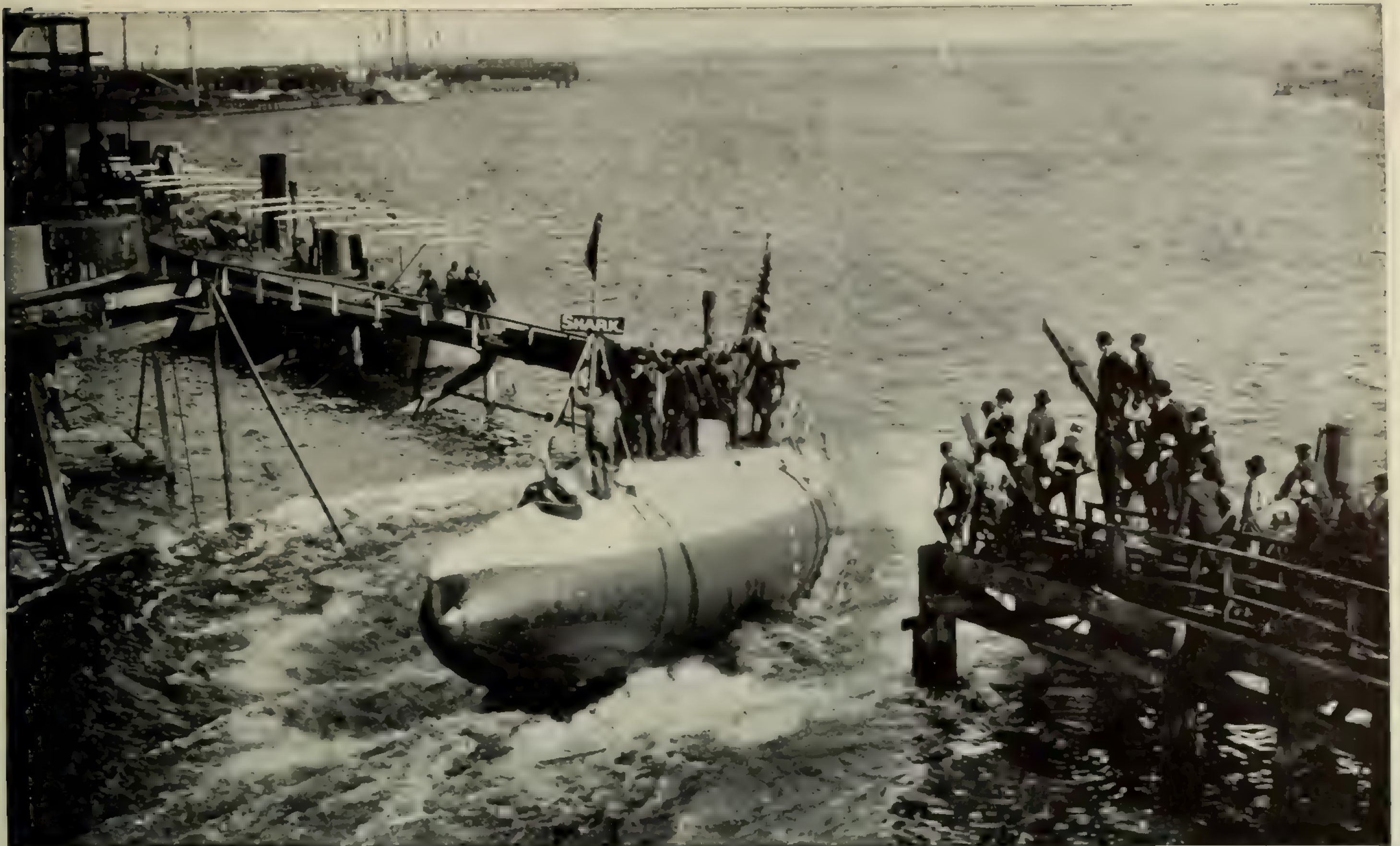
There is a key resting in the safe-keeping of the chief of the staff which, if it came into our possession, would disclose many score of admirable charts. They are marked in color, and each set has its complementary set to meet each contingency that might arise, favorable or untoward, even to the invasion of Japan. There lies stored within easy reach of the home ports every kind of material that modern forethought has considered necessary for every contingency in war—from railway material suited to the swamps of Manchuria, and baulks of timber to furnish platforms for heavy artillery destined to bombard Port Arthur, to shore-torpedo tubes prepared against a hostile landing on the home seaboard.

These are the three men who hitherto have repeatedly overthrown Russia's military strength in the Far East. Yet stay with me a moment more. They are leaving the modest building which represents Japan's military strength in Tokio—this building which, though so unpretentious and insignificant, yet has such a far-reaching shadow—the marshal and his two chief lieutenants are leaving it, for to-night is their last night in the capital; to-morrow they will leave Japan to control the destinies of the army in the field. They are due at a farewell complimentary dinner given by the heads of sister departments. Just have one glimpse at them, as they sit on the floor in strange alignment round the three walls of the banqueting-hall. For the moment all that is of the West is forgotten; they are now crude Orientals, trifling with the dainty Geisha maidens, who ply them with food and drink; they are entranced with the semi-barbaric dancing of the *première danseuse* of the house wherein they sup, and they partake of the merriment of the cup as if there were no such distraction in the wide world as war. Yet even as they sit, there has come to the men on duty at the War Department a detail of new ground that has been broken within two thousand metres of Port Arthur's outer works, of grim casualties to covering infantry entailed in this pushing forward of the parallel of attacking forces.

A VISIT TO TOGO'S RENDEZVOUS

Steadily, at half speed, the destroyer held on her course. There were no lights—as far as we could see there were no points at all beyond the stars by which the master could correct his bearings. Silently, almost weirdly, the long, thin streak of a boat slipped through the water. Suddenly, the commander put his hand on the telegraph. He peered into the darkness ahead—we could see nothing, but after a moment's hesitation his hand went down. He had rung the engines off, and almost immediately we were going full speed astern. Then it was, and then only, that we saw that there was a dim shadow of a body in front of us. For the first time, we descried a light. The signal-lamp was in requisition. A call, an answer, and then all was darkness again, and we were going half-speed forward again past the guard-ship. Presently, as it were out of nowhere, we were able to discern the dim outline of a moving body on either beam. These outlined into thin, long streaks like unto ourselves. In short, if the night had not been clear, one would easily have mistaken them for our own reflection on the mist. Then from the port beam came a hail. The answer was given in Japanese; again the telegraph spoke to the engineer. In a few seconds we were being piloted by the port boat right in through the lines of Togo's fleet.

It has not been given to every one to witness the victorious Japanese fleet lying at anchor in its rendezvous. The four squadrons lay at anchor in four lines. Just clear of them lay the transports, colliers, torpedo transports, and the dockyard vessels. At the entrance to the bay lay the guardship and the destroyers. Three destroyers and one cruiser were on the mud to facilitate the attentions of the dockyard hands. Two of the battle-ships had colliers alongside, and another of the colliers was filling the bunkers of two torpedo-boats. Across the entrance to the bay one could just make out the faint line of a boom. Since we had heard so much of the damage which the Russian guns had wrought upon the Japanese fleet, we looked anxiously for evidence of it. As the morning light strengthened, we scrutinized each of the battle-ships in turn. There were six of them, great gaunt leviathans stripped for the fray. Though the friendly glass made each rail and stanchion clear, yet we could discover no trace of this ill-usage of which we had heard so much. Then for the first-class cruisers—they at least had been knocked to pieces. Here they were, six of them, anchored in line ahead. There was nothing that the non-professional eye could detect amiss with their lean symmetry. The picture was in a manner oppressive: there was nothing within view that was not connected with scientific butchery and destruction in its most ruthless and horrible form. The ships themselves, stripped of everything that was wooden or superfluous, gave the morbid impression of merciless majesty and might. The nakedness of their dressing accentuated the ferocity of the gaping guns. But in all, if not exhilarating, it was a magnificent picture. And one bowed in awed tribute to the diabolical and misapplied genius of man.



Photographed by Edwin Levick

WILL BATTLE-SHIPS BE OBSOLETE?

HOW THE SUBMARINE TORPEDO-BOAT (OF WHICH RUSSIA HAS BOUGHT TWO) MAY CHANGE ALL NAVAL WARFARE — THE SENSATIONS OF A SUBMERGED VOYAGE

BY

MORGAN ROBERTSON

THE Japanese-Russian war has not yet brought the submarine boat to a practical test; but it has been sufficiently well developed and proved to make it certain that it will, at some time, play an important part in naval warfare. It is the next great instrument of destruction to be used, especially since the torpedo has, in Japanese hands, proved so effective.

The submarine torpedo-boat is an enlarged Whitehead torpedo, with human intelligence instead of automatic machinery to guide it, and with a launching-tube instead of the charge of gun-cotton in its nose. There are several types in more or less successful operation. Notable is the French type, that sinks by filling tanks, which is a slow operation. Then there is the Lake (American) submarine, that hauls itself under by inclined hydroplanes, and the Holland type, recently acquired by the United States Government, that dives while under motion, and is really what the others are not—a mechanical fish.

The government tests at Newport demonstrated that, except for the higher speed of the larger French boats and the efficiency of the Lake boat as a cable cutter, the Holland type carries more deadly power in its tightly packed interior than any other warcraft yet designed. With a diving compartment and with more room for motive power than can be made in larger boats, the Holland boat can dive deeper and more quickly, and aim its torpedo more accurately, than the others; and its speed, on or below the surface, is great enough for any work except pursuit.

Copyright, 1903, by R. G. Skerrett. Courtesy of the Lake Torpedo Boat Co.

READY TO SUBMERGE INSTANTLY

Photographed by Waldon Fawcett

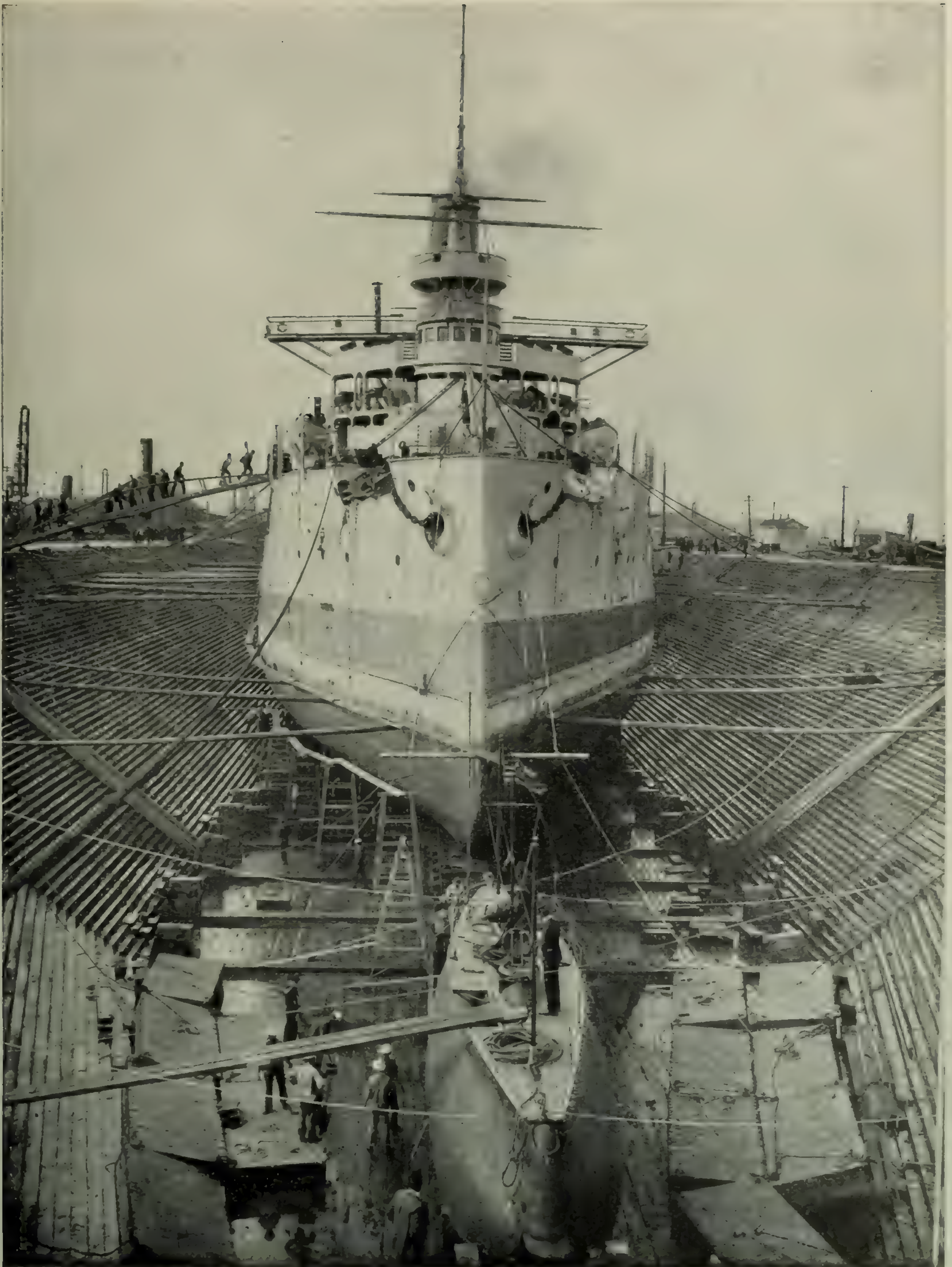
ONLY THE FLAG-MASTS ABOVE WATER

The United States Government owns eight of these Holland boats—the original *Holland*, and seven improvements on her, named, *Adder*, *Pike*, *Moccasin*, *Shark*, *Grampus*, and *Plunger*. These are built upon designs embodied in the *Fulton*, the Holland Company's trial boat, a description of which will answer for all.

The *Fulton* is a strongly built, cigar-shaped steel craft a little more than sixty-three feet long, nearly twelve feet in diameter, and of about one hundred and twenty tons displacement. She is entered by a hatch in a small "conning-tower," amidships, which closes with a water-tight joint. Scattered through the hull are ballast and trimming tanks, all of which, when filled with water, will not sink the boat; for she still has a reserve buoyancy of 300 pounds, and the conning-tower is out of water. But she is now in the diving condition, and, propelled by her screw and steered downward by a horizontal rudder, she can reach any depth less than the crushing point of 350 feet. If anything goes wrong, she can float gently upward. Her motive power for surface running is a 160-horse-power gasolene engine, and for submerged work a 70-horse-power motor which, with polarity reversed, and driven by the engine, becomes a dynamo to recharge the storage battery when it is exhausted. She is equipped with one torpedo-tube, and can carry five torpedoes. She has a full-speed radius of about six hundred miles on the surface and twenty-five miles sub-

Photographed by Waldon Fawcett

A BRITISH SUBMARINE RUNNING ON THE SURFACE



A BATTLE-SHIP AND A SUBMARINE

The original " Holland " and the Russian battle-ship " Retvizan " in the same dry-dock

Photographed by Waldon Fawcett

THE U. S. SUBMARINE "FULTON" ON THE WAYS

Showing the bow construction and the mouth of the torpedo-tube

Photographed by Waldon Fawcett

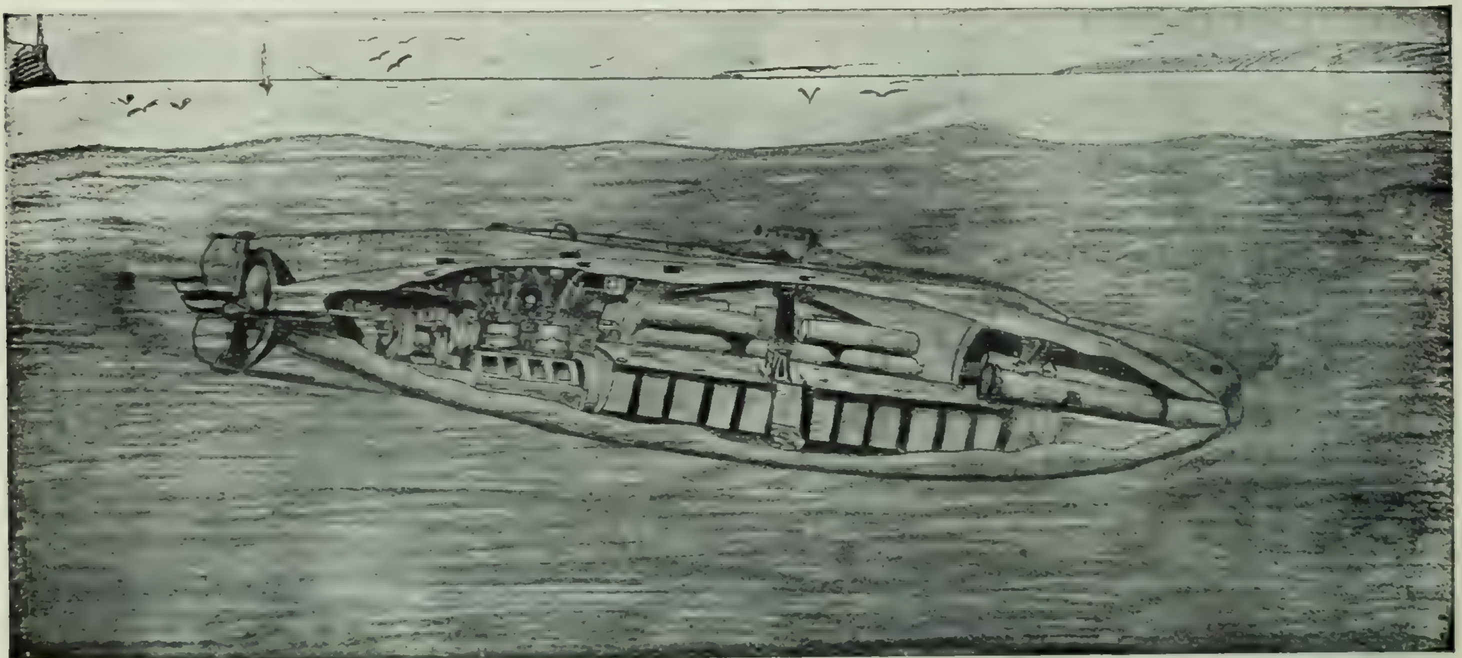
THE "LAKE" TYPE OF SUBMARINE

Showing the stern construction and the submerging apparatus

merged. A fairly practical periscope gives her a view above water when she is submerged. In the government tests mentioned, she made a ten-mile run submerged and found the imaginary enemy with this periscope. Her store of compressed air makes her habitable beneath the surface for more than two weeks with a crew of eight.

But it is not in speed, in horse-power, in radius of action, in number of tubes and torpedoes, nor in the excellence of her periscope, that the Holland boat excels her rivals. It is in her simplicity of construction, and in the shape of her hull, which makes her a quick diver. After the ten-mile run under water, the *Fulton* made another run of three miles *without* the periscope, and found the "enemy" by rising to the surface, porpoise-like, for a peep from the conning-tower. She can take these peeps and dive out of sight in from five to eight seconds.

In the Lake boat, the *Protector*, there is an attempt by its inventor, Simon Lake, to crowd into a small hull hardly larger than the *Fulton's* almost every feature and device possible in a submarine—successfully, too. The *Protector*, shaped somewhat like a battle-ship, with straight deck and ram bow, is at once a surface boat, a submarine, an under-water automobile, and a diving-bell. She has twin screws, twin engines and motors, and has the same speed as the *Fulton*, on the surface and below. She has cushioned wheels on her under-body; and, with all tanks full, she can run along the bottom, or, by lightening up a bit, can climb the steep side of a channel.



Photographed by Edwin Levick

A CROSS SECTION OF A SUBMARINE BOAT

This shows the interior mechanism, and gives an inside view of the torpedo-tube

She has a diving compartment in her bow, from which her crew may emerge in diving costume to work at cables and mines, or, in case of damage to the boat, to rise to the surface with life-buoys. She has three torpedo-tubes—two forward and one aft. This is a decided advantage, for it takes about nine minutes to reload a tube; and, in all but the last or sinking stage of submergence, she can run under her gasolene engine. But, being so full of devices, she has limited room for gasolene tanks, and her cruising radius is hardly as great as is the *Fulton's;* and, to submerge, she must pull herself under by horizontal planes, two forward and two aft, which are more cumbersome and slower than a single divided blade in the stern, such as the diving-rudder of the Holland boats. Hence the *Protector* is a slow diver—in fact, not a diver at all; but, once under water, she may stay there and take observations as needed through a short and bulky periscope. Her strong point is her facility at bottom work by reason of her wheels and diving compartment. In all else, as compared with the quick and handy, simple, and practical *Fulton*, the *Protector* is as a fine watch to a nickel clock—apt to get out of order. She did not take part in the latest government tests at Newport, because she was on her way to a Russian port to be shipped overland; but since, a little later, the *Fulton* followed her to Russian waters, it may possibly turn out that the merits of these two boats may be tested in practical war.

AN EXPERIENCE IN A SUBMARINE

A descent in a submarine is not as harrowing an experience as might be imagined. At first thought, two distinct forms of death present themselves to the mind—suffocation and drowning. But there is less danger of drowning than there is in a surface craft of the same size; for the submarine, strongly built to withstand a calculated pressure at 350 feet depth, cannot spring a leak from any accident less than a collision with a stronger craft—which can be avoided by diving deep enough. As for suffocation, that fear disappears when the mind dispassionately considers the forty cubic feet of air, compressed to a pressure of 2,000 pounds to the square inch, and carried in tanks conveniently distributed about the boat's interior. This is more than five thousand cubic feet at normal pressure; and, added to this, a tank or two of pure oxygen may be carried to replace what is absorbed by the human body. An air-purifying apparatus also can be carried to free of its carbon the carbon dioxide expelled from the lungs, leaving the oxygen to be breathed over again.

Most of the perils incident to a seafaring life are avoided in the submarine. Yet there are dangers and inconveniences, of course, peculiar to this mode of navigation, that do not pertain to surface craft. Aside from the nervousness that one feels at first when inclosed in an air-tight cylinder with several feet of water overhead, there are no bad sensations to afflict one. You are practically in an engine-room, with the smell of oil and gasolene in your nostrils and the buzzing of a motor in your ears. While the boat is on the surface, you can feel the motion of the waves and hear the wash of the water; but not when it is submerged. There is no sinking sensation, such as is felt in an elevator or on a toboggan. A depth dial will tell you how deep down you are, and an inclination dial will apprise you of the angle at which you are diving or rising; but, aside from the vibration of the motor, you feel nothing, except, perhaps, in a heavy sea. Then, as the submarine, whether submerged or not, is tossed about and lifted up and down by the passing waves, there is a feeling of lateral pressure, such as comes to you in a swing. This is rather remarkable, since you feel no "vertical" sensation.

There are rules to be observed. You must sit still in the place given to you; for, should you wander around, you would bring trouble to the mind and profanity to the speech of the man at the horizontal steering-gear. In the Lake type of boat, two men can walk forward and walk aft without disturbing the trim more than a few degrees; but, in the short, more mobile Holland type, this is not practicable. You must not smoke; for there are gasolene fumes and "battery gas" about you, and a lighted match at the right spot and moment might cause an explosion that would overcome, by internal pressure, the 350 pounds of external resistance in the stout steel walls of the hull, and you might not live long enough to be drowned. You cannot enjoy the scenery of the sea except through a limited periscope; but you may eat hot meals cooked on electric stoves, and read fine print under as good electric light as you have on shore. Should water come in through a leak or a carelessly opened sea-cock, and overcome the 300

pounds reserve buoyancy, you have a means of escape denied to you in the closed compartment of a surface boat. For instance, the *Fulton*, while lying at a dock with a force of machinists at work, sank in a few fathoms and rested on the bottom, while the water, coming down the open conning-tower hatch, filled her as full as she could be. Now, it is almost incredible that more than one or two men imprisoned in a sunken surface craft should be able to swim up through a small hatch and reach the surface alive; but, in this case, every man leisurely, each waiting his turn, came up. This was possible because of the automatic air-locks included in the structural fittings of the ceiling, in each of which, as the boat sank, was an air-space into which the water could not enter. Standing erect on the battery deck, the average man's head would nearly touch the ceiling, and these men, by ducking carefully from one air-lock to another, finally reached the midship section and swam up through the conning-tower hatch. Air-valves are fitted in each of such overhead compartments in the *Fulton*, so that if a man is caught without air enough, he can draw from the tanks, force the water down, and breathe safely until he chooses to move to the next air-space.

Another means of escape, in case the boat should sink by a leak, and the conning-tower hatch be held down by the pressure of the sea, is the more spectacular and theatrical trick of ejecting men through the torpedo tube. While there are no precedents for this, it could be done. A man may crawl in with a cork jacket—a life-buoy is too large—and, when the inner door is closed, take a long breath; then the outer door is quickly opened, compressed air admitted, and he is shot out more or less forcibly, according to the pressure applied; and, in case the ear-drums do not suffer, there is nothing to prevent his reaching the surface uninjured; for the human body itself is strong, tough, and elastic, able to withstand many atmospheres of pressure. Dogs have been shot out, experimentally, and suffered no more than injury to their feelings, and a man certainly has the endurance of a dog, if not his other good qualities. Submarine navigation, therefore, is not more dangerous than travel on the surface. You are immune from the heave of the sea and the menace of a lee shore, and are subject only to internal explosion and under-water collision, which must be guarded against by the same care and forethought as they are under surface conditions.

I shall now consider the tactical value of the submarine, not from the standpoint of, nor in refutation of, the theories propounded by the various naval experts, but in the light of plain common sense. One opinion may be taken as a basis of argument, for the reason that all expert testimony against the submarine includes it; and this opinion is that the nation that takes to the sea can keep the sea only by means of the line of battle—which means a number of the most heavily armed and armored ships; and that all subsidiary operations, such as scouting, commerce-destroying, and torpedo work, can proceed only from this line of battle, or fleet of big ships; and that transports can be convoyed and forts demolished only by these.

Granted—this last; but, if battle-ships cease to exist, forts to repel them will be worthless. They are nearly as expensive as battle-ships, and much more effective. Then, if transports have no battle-ships to oppose them, they need have no battle-ships to protect them; and, as for a base for scouts and torpedo boats, all they need is coal, and an admiral to report to. An improved destroyer may carry an admiral, not in such comfort as does the big and roomy battle-ship, but faster. And, with the additional speed available, coaling stations may be farther apart without hindrance to fleet operations; and blockades, the only practical method of naval offense, may be maintained farther at sea, safe from the fire of forts and the attacks of submarines.

As for the future value of convoying transports, what will be the use of sending soldiers across the sea to certain death within a short distance of land? With twenty submarines in place of each coast-defense ship; with a "mother ship" to supply food, water, and supplies to every five of these ducklings; and with one fast surface craft for a scout, what transport that *might* slip by the one battle-ship, could hope to land her soldiers? And what invading warcraft, slower than the scout, could catch her, or destroy her except by surprise, which it is a scout's business to prevent? Transports, to be successful, will need to be faster than the scouts that will report them; and, since this is physically impossible, invasion by sea will come to an end. It is

safe to say that, if Russia, at the beginning of the war, had expended upon submarines the cost of two of her bottled-up battle-ships, not a Japanese regiment could have landed in Korea and remained a regiment. With cheap submarines, active for fifty miles submerged and for four hundred miles on the surface, attached to every seaport, no transport or slow-going battle-ship would dare approach an enemy's coast.

The battle-ship, with its seven or eight hundred men to die when disaster comes, is an expensive investment. Those who advocate its continuance do not advocate its development. No one argues for the building of battle-ships twice as long and broad and deep as those that now exist, with twice the thickness of armor and weight of guns. Yet, if the big battle-ship be not developed still further, it will cease to exist. For a time, its work can be done by the armored cruiser; then, as the speed and vision of the submarine is increased and perfected, by the fast protected cruiser and faster destroyer; and, if the speed and vision of this deadly, unseen enemy that strikes out of the unknown in time and place finally encompasses the destroyer, these, too, must give way, as is probable; adopt the submarine features of their vanquishers; and become submergible surface boats.

But that battles will be fought beneath the sea is not likely. Men prefer to fight in the open, and only in flight would they seek the depths. Fighting will go on, of course, in one form or another. But sea-fighting will again become a matter of personal prowess—of speed, marksmanship, and courage; and, while the ultimate disarmament and simplification of types may never reach the point where the unit of a fleet will be a man with a gun in an auto-boat, yet it is certain that armored ships must follow the path of armored men, and the huge, high, soft-bottomed floating coffin for 800 men, called the battle-ship, must be the first to go.

THE EMPEROR OF JAPAN

HIS REMARKABLE RELATION TO HIS PEOPLE—HIS PERSONAL HABITS AND CHARACTERISTICS—HIS DIGNIFIED SIMPLICITY OF LIFE—THE UNIVERSAL LOVE AND REVERENCE FOR HIM

BY

DURHAM WHITE STEVENS

COUNSELOR TO THE JAPANESE LEGATION AT WASHINGTON

MUTSUHITO, Emperor of Japan, was born at Kyoto, the ancient capital of the empire, on November 3, 1852. He succeeded his father, the Emperor Komei, in February, 1867, his accession to the throne being thus coincident with the beginning of those changes which have wrought such a marvelous transformation in Japan's position among civilized nations.

The personality of a sovereign whose reign may truthfully be said to mark an era in human progress could not fail to be interesting under any circumstances. At the present moment, it is doubly so, when the nation he has successfully led so far along the path of peaceful development is engaged in a momentous struggle with one of the greatest Powers of the world. It is not easy, however, to form an accurate estimate, from a prosaic western standpoint, of the reasons for the romantic domination of that personality in Japanese affairs today, however patent may be the effects of the influence it has exercised upon the progress of Japan in the past. One difficulty, and not the least, arises from the fact that, in Japan, there is no exploitation or advertisement of the Sovereign's personality along the lines which the modern newspaper has made familiar even in the most conservative western communities. It is not meant by this that there is no "yellow" journalism in Japan, or that the Japanese do not gossip;

for the one flourishes there, and proneness to the other is as much in evidence as elsewhere. But gossip concerning their ruler, even that seemingly harmless gossip about personal tastes, habits, and the like, which apparently affords pleasure to the loyal subjects of other monarchs, is *tabu* in Japan. This is not the result of laws restricting liberty of speech, but of a mental attitude common to all classes, plainly indicative of repugnance to the familiar discussion of a personality which is to them, in fact as well as in theory, the fountainhead of all that has made the nation great and prosperous.

The time that has elapsed since the Emperor's remarkable career began seems all too brief for the formation of a trustworthy opinion concerning the precise force of his personality. There is not sufficient perspective. Only one thing seems clear—that Japan could not possibly have achieved all that she has in the last forty-five years except under the guidance of a sagacious, progressive, and self-denying ruler.

The Emperor ascended the throne during one of the most turbulent periods in the history of Japan. The Shogunate, which, for two centuries and a half, had been the supreme government in everything but name, was on the verge of dissolution. Nevertheless, the opposition arrayed against it was by no means homogeneous, nor swayed altogether by disinterested and intelligent motives. The country seethed with discontent, in some cases from well-founded complaints of the arbitrary rule of the Shogunate; in others, because of the ambitious schemes of certain powerful nobles to replace the Shogun, and, in still others, by the demand of reformers for the abolition of the dual system, and a return to the ancient and more logical form of government by the Emperor alone. For some time, a little band of agitators had been preaching the doctrine of "Imperialism," advocating the return of the Emperor to his own, and the exercise of the functions of state solely by him. Among those whose united efforts brought about the downfall of the Shogunate and the restoration of the Imperial Dynasty to complete power, these men were conspicuous for disinterested patriotism. Fortunately, they gained from the first, and maintained, throughout, the leading place in his councils.

When the Emperor ascended the throne at the age of sixteen, it would have been thought presumptuous, indeed, to prophesy for him and his people the tithe of what has followed. His ancestors had for centuries been immured from the gaze of all save a few among the highest of their subjects. That they were the titular heads of State, the only lawful source of its highest ranks, honors, and emoluments, and that the Shoguns, even at the zenith of their power, were no more than chief among the vassals of the throne, were well-recognized facts. But the practical exercise of the important functions of government had been gradually absorbed by the Shogunate, and to the emperors had been left only the nominal honors of sovereignty.

Opportunities of gaining a practical idea of men and affairs, however, had presented themselves to the young Emperor before his accession. The dissensions and disorders presaging the downfall of the Shogunate began during the reign of his father, who took a far more active part in public affairs than any of his immediate predecessors, and the sagacity and strength of will displayed by him on more than one important occasion doubtless furnished valuable object-lessons to the young prince, and aided in preparing him for the discharge of the onerous duties which fell to his lot. He also inherited from his father an unusually fine and strong physique.

It added not a little to the difficulties of the young Emperor's position that his accession occurred at a time of domestic turmoil unexampled in Japan for two centuries. But the Emperor, even at that early age, displayed keen and intelligent interest in the stirring events of the day. He was fortunate, moreover, in having as trusted counselors two noblemen of high character and liberal views —Prince Sanjo and Prince Iwakura, Court nobles, whose families had been connected in official capacities with the Imperial Family for generations. The leaders personally most active in bringing about the Restoration were, as a rule, men of comparatively low rank. They were Samurai, to be sure, but by no means of the highest order in that class. All their plans might have come to nothing had they not had in the Imperial entourage, as coadjutors liberal-minded men, of approved probity and honor, who possessed the Emperor's confidence.

Strong influences were at work as part of the Restoration movement that boded ill for the success of the reformers' plans. To for-

eign onlookers, the struggle appeared to be merely one for supremacy between dissatisfied territorial nobles on the one side and the Shogunate on the other, the prize of victory in either case being the continuation of the old order practically unchanged. Little or no account was taken at first of the real reformers—men like Saigo, Okubo, Kido, and Itagaki, with their young lieutenants, Ito, Inouye, Okuma, and others who might be mentioned. But there were others of the same opinion, notably Sanjo and Iwakura, who had the young sovereign's confidence. The trust he reposed in them is the trait of character which must most strongly impress any one who studies the history of those days in the light of what has followed. And, throughout his reign, the Emperor has given repeated proofs of this happy faculty of reposing trust in those who have proved they deserved it. Loyalty, ability, and devotion to duty, once they are demonstrated, gain and hold his implicit confidence.

PERSONAL HABITS AND CHARACTERISTICS

To sagacity of this high order is united, according to those best qualified to speak, a capacity for hard work, and the habit of devoting close personal attention to public business. As one Japanese writer says, "His Majesty makes his appearance in his place of official business at 8:00 A. M., ready to attend to affairs of State, and he will sometimes continue at work till midnight." His ministers always have ready access to his presence at all hours, and the writer has the highest authority for the statement that the attention he gives to important matters is of no perfunctory nature, but that, on the contrary, the Imperial sanction of any measure implies a careful examination of the details as well as approval of the principles involved.

The Emperor has always manifested deep interest in military affairs. In times of peace, he shows this by participation in military reviews and manœuvres, and in the graduation ceremonies of military and naval colleges, and by his indefatigable personal concern at all times in the success of the policy which has brought Japan's military and naval establishments to their present efficiency. This was notably shown when he intervened at the time of the disagreement between the Cabinet, under Marquis Ito, and the House of Representatives of the Diet regarding appropriations for the national defense. The Emperor addressed a message to both the Cabinet and the House, in which he said, among other things, "The question of national defense is one that brooks no delay, and, in order to show Our own sense of its paramount importance, We have ordered the expenses of Our Household to be reduced, so that We may be able to contribute a yearly sum of 300,000 yen for the next six years for the necessary equipment of the national defenses." At the same time, the Emperor directed that all officers of the government should contribute one-tenth of their salaries, unless excused for special reasons, for the same period of years, toward the expenses of naval construction. The result achieved by these methods proves the wisdom of the earnest solicitude thus displayed, and of the resultant "coöperation along Constitutional lines of Ministers and Representatives" which it enjoined.

A DIGNIFIED SIMPLICITY OF LIFE

Any person who associates with his ideas of a Court, especially of an Oriental Court, the anticipation of splendid, possibly gaudy, pageantry will find himself disillusionized by a reception at the Court of Japan. Here everything is on a scale of dignified, almost severe simplicity. The buildings of the Palace itself are not especially noticeable save that they harmonize admirably with the gardens and grounds surrounding them, which are laid out with all that skill in landscape gardening for which the Japanese are so justly noted. The interior of the Palace is impressive, more on account of its chaste simplicity, wherein foreign fittings and decorations in the best style of Japanese art are brought together without discord, than because of any attempt to produce splendid or gorgeous effects. The Imperial receptions, like their environment, are simple yet dignified. The Emperor receives his guests standing, with an affable word of welcome to those whose reception is personal, but with more ceremony, of course, on strictly official occasions. The first impression he gives is that of a person above the ordinary Japanese height, with somewhat irregular features, the lower face denoting firmness, the large, wide-set eyes and broad forehead showing a kindly nature and well-developed intellectual powers. The words of welcome are few, but well chosen; the voice low, clear, and well modulated; the manner quietly

cordial. The same unostentatious dignity pervades his daily life. His style of living is plain and quiet. He is especially fond of riding, and takes great interest in the care of the Imperial stud.

The management of the Imperial finances, including the Civil List, amounting to about $1,500,000 annually, is under the direct control of the Household Department. The Emperor makes liberal donations for numerous purposes; during the present war, his special contributions have been on a most generous scale. Captain Brinkley, in his history of Japan, gives the following concise summary of the ordinary expenditure of the Imperial income:

"The Emperor supports the whole of the princely families, including that of the Prince Imperial; he accompanies all patents of nobility with handsome sums; he makes liberal allowances to Cabinet Ministers by way of supplement to their salaries; he pays the honoraria that go with orders and medals; he gives large amounts to charitable purposes, many of which escape public attention altogether, and he devotes considerable sums to the encouragement of art. His own manner of life is simple and frugal, and it may truly be said that his record does not show one act unworthy of the reverence with which his subjects regard him."

A ruler, displaying an intelligent and scrupulous regard for the performance of public and private duty, of dignified life, simple tastes, and healthful pursuits — such a one truly deserves to enjoy the reverence of his people. That tribute would be rendered in any country whose people are capable of appreciating the benefits of good government. But in Japan the feeling does not stop here. It is seemingly deeper, and undoubtedly more complicated, and occasionally presents aspects which are phenomenal, and certainly not explicable upon any hypothesis with which experience has made us familiar.

REVERENCE FOR THE EMPEROR

For example, foreign observers have been greatly impressed during the present war by the devotion of soldiers and sailors to the Emperor. As one writer says, speaking of a message from Admiral Togo to His Majesty:

"This language is not accidental, nor is it merely the use of honorific terms in referring to one occupying a high temporal position. It clearly indicates the mental attitude of the Japanese toward the Emperor, who is regarded as a great deal more than a mere temporal ruler. It is no easy thing to induce even the broadest-minded Japanese to discuss this question. But for the fact that it is being shown in a thousand different ways by soldiers and sailors in the present war, it is doubtful whether strangers would ever have been made aware of its existence, or of the extent to which it enters into, and is an essential part of, the deepest convictions of the nation."

This phase of the Japanese character is no new thing to students of Japan's modern progress. To them there is no surprise in the spectacle of Japanese soldiers and sailors going to death with glad fearlessness for the sake of Emperor and country, sealing with their blood the testimony of their firm faith in the indissoluble unity of the two. Nor are those familiar with the tendency of Japanese thought surprised to hear from even the "broadest-minded" Japanese the assertion that to the Emperor should be ascribed all the credit for what Japan has accomplished under his rule. It did not require the evidence that this war has furnished to prove that an assertion of that kind, however hyperbolical it may sound to western ears, to the Japanese mind is nothing more than the statement of a recognized fact.

There could be no higher tribute to the personality of Japan's sovereign than the survival of the ancient feeling of reverence, not in the form of traditional reverence for a mysterious titular ruler, but as a sentiment of active, vital devotion to an Emperor who is known and loved by his people. It should be noted, also, that this feeling pervades all classes, irrespective of rank or condition of life. In ancient times, loyalty, self-sacrifice, and devotion to ruler and country were supposed to be attributes peculiar to a caste, the Samurai. Examples of their manifestation by members of less favored classes are recorded, but the burden of Japanese song and story, even of history, places the Samurai on a pinnacle inaccessible to any but those by whom the practice of self-sacrificing devotion to duty was more highly regarded than life. Today, the shopkeeper, the peasant, the mechanic, are giving their lives as cheerfully and ungrudgingly as ever did the Samurai of old. The spirit seems to have permeated the whole Japanese nation.

Some observers account for it as the result of an endeavor during recent years to cultivate in Japan an exuberant, even exaggerated,

patriotism. To this, the manifest spontaneity of the feeling which nerves the Japanese people in the present crisis is sufficient answer. Such critics confuse cause with effect, and, because some exhibitions of this feeling are difficult of explanation according to western standards, attribute to artificial stimulus that which is distinctly the result of natural causes. Few peoples have shown greater readiness than the Japanese to adapt practical means to practical ends, whether in their private affairs or in their governmental methods. However deeply stirred they may at times be by such waves of popular emotion as occasionally sweep over all nations, their past history proves that they possess in an eminent degree the capacity of sane recovery. Whatever may be the explanation of the spectacle they now present to the world, it is safe to assert that their zeal and ardor are not the results of motives either transitory or artificial, but of firm convictions of interest no less than of their convictions of right and duty.

A UNIVERSAL PATRIOTISM

Neither, it seems to the writer, is it quite correct to explain the spirit of patriotic devotion which the Japanese are displaying as an effect of the teachings of Shintoism. In an interesting editorial, the New York *Sun* recently expressed the opinion that the courage and notable contempt for danger shown by Japanese soldiers are due to their belief in the so-called "worship of ancestors." These soldiers, it was argued, would be ashamed to show fear, because it would cast dishonor upon those whom they honor, and leave a heritage of disgrace to those who, they hope, will in turn honor them. Mr. Arthur Knapp has the same thought in mind when he says:

> "In the late war with China, every soldier of the invading army was nerved to duty and devotion, not only by the knowledge that the entire nation of forty millions was behind him, that not a single disloyal or dissenting voice was raised in opposition to the struggle, but also by the consciousness that another vaster but viewless host was with him. . . . The Japanese are ever surrounded by their dead. It is not simply, as in other nations, that traditions of the knightly deeds, and visions of knightly chivalry of the past, linger in the memory of the warrior. The very actors in the fierce struggles of old are on the field, and in the thick of the fray, urging their sons to victory."

This is a beautiful and inspiring thought, which even the believer in other forms of religion can admire. But whether it affords an adequate explanation of the valor displayed by the soldiers and sailors of Japan, or of the feeling that inspires them, is another question. Doubtless to the Shintoist nothing could be more exhilarating, nothing more calculated to elevate energy and courage to heroic effort, than the thought that those whom he reveres and honors are at his side in the battle. Yet there are many Japanese soldiers who are not Shintoists. Possibly, these are moved by the example of their fellows, or, it may be, the teachings of whatever other religion they profess have not displaced from their minds all traces of belief in the ancient faith. If that be considered a sufficient explanation, how shall we account for the courageous spirit and the firm purpose which animate the whole Japanese people without distinction of religious belief? Those who sit at home bear no light burden, and have urgent need to be brave and resolute. We have abundant evidence of the fortitude, the patience, and the cheerfulness with which this silent multitude, of all ranks, conditions, and creeds, whose nearest and best-loved are in hourly danger, endure the painful anxieties of their position. No better illustration of their spirit, or of the fact that it is universal, could be given than is found in the story of the little band of boys from a missionary school, who spent days in serving tea to the departing troops, never failing to salute their guests, as they left, with the united cry, "*Tei Koku Banzai! Tei Koku Banzai!*" "Imperial land a Myriad years."

The shout raised by those shrill young voices with such hearty zest shows that devotion to the Emperor, as for the land with which his personality is so thoroughly identified, is not governed by the teachings of creeds, but is the spontaneous outgrowth of popular feeling. Japan is indeed an "Imperial land" to its patriotic people, not alone for its beauty and for the sacred associations which endear it to them, but also because they see in its changed conditions, in the dignity of its position, and in all the material good which the Meiji Era has brought them, evidences of the wise and benevolent rule for which they are indebted to their Emperor.

But, all this having been said, we discover that we have traveled in a circle, and have returned to the point from which we started. Here again the original proposition confronts

us, and we encounter the same difficulty in the attempt to explain, in accordance with western ideals, the potent influence which the Emperor's personality exercises upon his people and the fervid patriotism with which it inspires them. That influence and that devotion cannot be the outgrowth of an artificial cult. Their roots have a deeper hold in the national heart than that; and their spontaneity is too evidently genuine to permit the belief that they are in any sense exotic. Yet it seems equally clear that they are not inherited from old Japan—at least, in their present form. Perhaps it would be nearest the truth to describe them as an amalgam, a survival of the ancient reverence for the throne, and of the feudal doctrine of loyalty and devotion to duty at any sacrifice, permeated and vitalized by the sentiment of personal attachment and devotion.

One thing is self-evident, however, whatever the origin of this national trait—at critical junctures in peace, as well as in war, it has exercised a determining influence in Japan's affairs. Take, for example, the disturbed period which followed the introduction of a constitutional form of government. There were not lacking signs of the belief in Japan that the experiment would prove hazardous when the Emperor voluntarily announced the purpose of promulgating a Constitution and establishing a parliament at a future fixed date. Promptly at the time named, however, the promise was fulfilled, and some of the Imperial prerogatives were given over to the management of the new legislative body. As had been predicted by some, political strife and struggles, generally strenuous and not always seemly, followed each other in rapid succession. Happily, this was only a transitory phase of what has been aptly termed the "experimental stage" of constitutional government in Japan—a period that has now been succeeded by a well-ordered and well-established system.

It has been a fortunate circumstance for the nation, for the stability of its affairs, and the permanence of its progress at times like these, that loyalty to the sovereign, whose high personal qualities have justified and repaid it in full measure, has always been the controlling principle with the Japanese people.

JAPAN'S FITNESS FOR A LONG STRUGGLE

THE MILITARY AND FINANCIAL RESOURCES OF THE PEOPLE SUFFICIENT FOR A CONTEST LASTING MANY YEARS—THE PART THE EMPEROR, THE CENTRAL GOVERNMENT, AND LOCAL GOVERNMENTS PLAY IN MAINTAINING NATIONAL EFFICIENCY—FOOD SUPPLIES—JAPANESE EXPANSION

BY

JIHEI HASHIGUCHI

JAPAN prospered after the war with China, in spite of the tremendous expenditure of money and the enormous loss of lives. The loss sustained in the temporary suspension of industries was more than made up by the impetus given to revolutionize the ante-bellum national methods and to undertake enterprises on a greater scale than before. For instance, except for this impetus, the government iron foundry at Wakamatsu would not have been established. I was in the port of Wakamatsu after the war. The ground for the site of the foundry had just been purchased. It was nothing but a barren, grass-grown lot on the empty shore of the bay. Today, magnificent brick buildings, covering an extensive area, stand where my feet then trod.

When this and other instances are considered, one may infer that the present Russo-Japanese War, in case of Japan's victory, will be a double, nay, a treble blessing to the victor. For, if the war with China, which had not been systematically prearranged by the government and the people, was followed by great national prosperity, the fruits of a victory over Russia will doubtless be greater still, since this war has been prearranged for

at least four years—ever since the inauguration of the present Katsura cabinet; while its inevitable coming had long been expected by the nation.

The two wars began very differently. The uprising of the Tonghaks, which was the cause of the war with China, was an internal trouble of Korea, itself of small consequence. The people of Japan had never dreamed that it was to become the cause of a continental campaign. It was not the people that wanted war; the government induced the people to go into it. The late Count Mutsu, the Foreign Minister at the time, was a shrewd diplomat, whose diplomacy has been characterized as variable, full of a hundred and one different plans, like a show of moving pictures. When it was known that the Korean Government, unable to manage the Tonghaks, had applied to China for help, he immediately caused a council of the cabinet members to be called, pushed through a resolution that the General Staff forthwith prepare for a military manœuvre, and secretly ordered the Nippon Yusen Kaisha—a steamship company—to prepare its vessels for transport service. This happened on July 2, 1894. Marquis Ito, then prime minister, conciliatory man though he was, was induced to make a proposition to China, whose troops had already been reported to have departed, that she coöperate with Japan in subjugating the Tonghaks. But Count Mutsu foresaw that China could not be trusted. He therefore demanded that the Korean government aid the Japanese troops already in Korea, and that Korea answer favorably in three days. And, receiving no answer, he caused the troops to proceed, who forthwith seized the Korean palace, and began to act independently of China. Count Mutsu had delivered the ultimatum of the Japanese Government to China through the British minister in Tokio, on July 19th. Thus the diplomatic negotiations did not continue longer than two weeks or fifteen days.

The war with Russia is different. The people were expecting it, although they were not urged on by jingoism. The government, though aware of its coming, was quiet, thoughtful, never excited by the demands of the war party. Baron Komura, the minister of foreign affairs, a man of cool head, and with a reserve which made him appear irresolute, was a target for the reproaches of the war agitators. But he was far from irresolute. He was as firm as a rock, never receding an inch from his position all through the period when he exchanged diplomatic correspondence fifty-one times with Minister Kurino, in St. Petersburg, through whom he proposed terms of agreement to Russia. When he received the request for amendment of the terms, he amended them in such a way that the original claims of Japan were not altered in the least; and, receiving the refusal of Russia to accept the terms, he proposed reconsideration three times. He began negotiations in July, 1903, and continued them until February 5, 1904, when an ultimatum was sent to Russia. As a diplomat, Baron Komura may fairly be compared with Mr. Hay, the Secretary of State of the United States.

It is plain, therefore, that the people who reposed their confidence in the government, whose foreign minister was led to send an ultimatum not by jingoism, but by diplomatic necessity, have proved themselves to be a great civilized nation.

Japan is great, not only because she understands the civilized art of diplomacy, but also because she was measuring her resources, while the cool-headed diplomacy of her ministers was going on, to make sure that she should be able to enter, on the mainland of Asia and on the seas, a campaign of years' and, if necessary, of a century's duration, against the occidental spoilers of the Orient.

JAPAN'S MILITARY RESOURCES

Outsiders are not able to form an accurate opinion of the real condition of the military resources of Japan. Even the sympathetic people of Europe and America are in the dark on the subject. I have been informed by an intimate friend, who has been in the service of the Japanese army for three years, that Japan can call into service at short notice 1,500,000 men of strong physique, besides the large national guard; for, according to his information, 539,282 men—which was the number eligible for conscription in 1901—had no objectionable physical defect, and belonged to the first class, as shown by physical examination. The men who belonged to the second class had merely slight defects of the eye or in some bodily function. As for the naval force, 27,865 men—the total number of seamen in the active service, and the first and the second reserves—are of the best physique. In case of necessity, more than double

this number can be recruited from the merchant marine, as well as from the eager applicants for admission to the service. One million five hundred thousand is a large number, but it is a small portion of 8,034,098, which is the number of males from seventeen to forty who were available for conscription service in 1898.

Foreigners are apt to suppose that the flower of the Japanese soldiers and sailors are necessarily the young men of the Samurai class, on whom too much eulogy has been already lavished. True, the Samurai class have long been the flower of Japanese fighters; and, indeed, most of the generals and admirals, and other high officers, are still of the Samurai class; but the rank and file of the army and of the navy today are composed more of the plebeians than of the patrician Samurai class. And these heimin (plebeian) soldiers are today really important elements in battle. For instance, the Fourth Division of Osaka, in which nearly all the men are of this class, was prominent in the battle of Nanshan Hill, while the troops who, refusing to surrender, went down off Gensan, Korea, with the *Kinshin Maru*, which was sunk by the Russian Vladivostok fleet in the early part of the war, were the men of the same division. The heimin class are fast being promoted to higher rank in both army and navy. It will not, therefore, be far from the truth to predict that the Samurai class, as such, will at some near time in the future be obliterated, and the two classes of people will become indistinguishable. The Samurai class, who still claim their hereditary prerogative to be the soldiers, are far inferior to the heimin class in their physical quality. This may be due to the fact that the Samurai young men are neglecting their normal physical exercises, which the farmers, mechanics, and the ships' crews are unconsciously performing by necessity. The jiu-jitsu and the fencing which the Samurai class still practice, and of which much has been written in this country, are not in any sense comparable with the exercises that the heimin class practice in forming their physique.

It is plain, therefore, that Japan's really effective present and future military resources are to be found in the heimin class, which outnumbers the Samurai class six to one. With this class to draw on, the military resources of Japan are practically inexhaustible; moreover, the whole population of Japan, which is 45,402,359 according to the latest census, is already too large for an area of 27,062 square miles. The density of population is 1,831 to a square mile.

It is undeniable that the flower of the Japanese fighters are now at the front. Among the dead in the battles of Yalu, Nanshan, Telissu, Port Arthur, and Liaoyang are included some of the best men in the service. Japan can ill afford to lose these men at the front. If the slaughter at Liaoyang be repeated in many other battles, the effective strength of the Japanese army will be greatly lessened. But, in the opinion of many eminent authorities, assuming Japan's continued success, the active warfare will not last much longer after Harbin falls into the hands of the Japanese, although minor details of the war may continue to make slight troubles. Then Japan will not need to maintain such an enormous force at the front. A greater part of the army will be withdrawn, leaving a sufficient force to guard the frontiers of Manchuria, while China, to which Manchuria will be returned, will send her own troops to supersede the Japanese soldiers.

HOW THE WAR EXPENSES WILL BE PAID

But it may be asked how Japan will be able to defray the expenses of the war if it last long. In the first place, the volume of trade has trebled in ten years, according to the following official figures:

FOREIGN TRADE	IMPORTS AND EXPORTS
1893	$177,970,036
1902	530,034,324

This is thought to be evidence that the wealth of the nation has trebled. Even if the expenses of this war should be three times as great as that of the Chinese war, the nation will be able to pay the cost. But, whereas in the Chinese war the loans were all domestic, in the present war foreign loans were floated at the start. Some have criticised this measure on the ground that the floating of the foreign loans at a price greatly below the face value of the bonds, and with the customs duties as the security, is fraught with menace to the future of Japan's finance, since Japan will have to redeem the bonds at a very high rate of interest—say 8 per cent., on account of the discount at which they were sold. Since the loans were four times oversubscribed at home, these critics maintain that the loans ought to have been floated at home.

These arguments are worthy of note from the point of view of abstract economics. But domestic loans can be successfully floated at any time later, for the patriotism of the people will lead them to subscribe. The foreign loans are different. The sympathy of foreigners may not be so durable as the patriotism of the Japanese. When the war has lasted a long time, and the sympathy of foreigners has become slack, it may be hard to float foreign loans successfully. The Japanese government was wise in thus securing the foreign sympathy expressed in the subscriptions to the loans, while foreigners were willing; for the surplus money at home, subscribed to the war loans, but not called for, is still there. The government can keep it as a reserve fund.

HOW THE GOVERNMENT TRANSACTS BUSINESS

Almost every enterprise of national character is somehow or other connected with the government. This may be because the people, by heredity, have almost implicit trust in the government. The Mikado is, in their eyes, a superhuman being. According to the history of Japan, he is a descendant of the sun goddess, who is supposed to have descended from heaven to rule the archipelago. Thus he retains still the worshipful faith of his subjects. Marquis Ito is a wise man, for, though he was imbued with the spirit of democracy, yet, when he revised the constitution of the Japanese Government in 1888, he used the following language in the third article of the constitution:

"The Mikado is sacred and inviolable." At the same time, the constitutional power of the Mikado is defined in the first 17 articles. His power is much the same as that of the President of the United States, with the single difference that the former is sacred, whereas the latter is not. But, powerful though he is, he does not take personal direction of the affairs of state, beyond a paternal interest in them. All the actual duties of the head of the government are practically in the hands of the prime minister, who is appointed by the Mikado, with the advice of the privy council, which is a sort of self-perpetuating body, consisting of the elder statesmen, like Marquis Ito, Count Inouye, Marquis Yamagata, Count Matsukata, and those who were the main force in the reconstruction of the restored Mikado's government in the beginning of the present Mikado's reign. From the absence of any reports of such activity, it may be inferred that the Mikado has not as yet exercised his political functions to their full extent. He has never recommended any measure original with himself. All his necessary work is mapped out beforehand by his advisers.

Of all the elder statesmen, Marquis Ito is the favorite of the Mikado. He, oftener than anybody else, calls upon the Mikado at the palace to answer the latter's inquiries. Every report he makes is taken by the Emperor in good faith. While the Mikado is not a powerful monarch in the sense that Kaiser William of Germany is, he is a great monarch because he does not interfere with his subordinates in the exercise of their duties. He daily performs the routine of his office. He reads the daily newspapers with great interest. Since the war with Russia began, he has closely followed the daily reports of the occurrences at the front. All the measures passed by the national Diet interest him profoundly and are remembered by him in detail. But the veto power which he possesses is left to the prime minister, to be exercised in the name of the Mikado. Dissolution of the national Diet, which is at the will of the Mikado, is often resorted to by the prime minister when the Diet is too troublesome for him to manage. Last fall, when negotiations with Russia were still going on, the high-spirited members of the Diet passed a resolution to appeal to the Mikado against the temporizing measures of the government, as they called them. This resolution would have been voted down had the late Mr. Kataoka, the former Speaker of the Diet, lived. But his successor, Mr. Kono, aided its passage. Thus, the national Diet, representing 45,000,000 Japanese, is easily handled by the executive department.

The principles of popular government are not yet fully understood by the Japanese. Whereas, in the United States, the executive department has no right to initiate any resolution, in Japan the executive department initiates almost all the resolutions. The executive department, whenever it wishes to introduce any resolution, sends a committee to the Diet. There a member of the committee reads the message from the executive department. He is asked to explain any points unintelligible to any member of the Diet. Any member of the cabinet who has

the prerogative to be present in the assembly, and who may happen to be present, may assist the representative of the committee.

When any especially important bill is introduced, this committee is often dispensed with, and the minister in charge of the bill introduces it. Three years ago, when the seventeenth assembly of the Diet was opened, Baron Sone, the finance minister, introduced the land tax bill, explaining in a low tone the budget of that year, which included the expenditure for the third naval expansion. After he finished, Baron Yamamoto, the minister of the navy, mounted the platform vacated by Minister Sone, to explain the third naval expansion bill. His dignified manner, with his sharp eyes glowing from his pale face, which was buried in thick black whiskers, as well as his imperative tone of voice and his effective eloquence, showed the onlookers that he was handling the Diet with ease. Meanwhile, a lean, short man appeared in one of the chairs for cabinet ministers. He had no air of greatness, but he had won fame as the man who negotiated the Anglo-Japanese Alliance. He was the Foreign Minister, Baron Komura. When a member of the Diet asked whether the third naval expansion bill was a condition of the Anglo-Japanese Alliance, Baron Komura straightway answered clearly and pointedly, "There is no connection whatever!" The terseness of his language stunned the questioner, who remained silent for the rest of the session. The naval expansion bill had been passed previously, and the land tax bill was then passed. Thus the legislative department is merely an auxiliary to the executive.

LOCAL GOVERNMENT IN JAPAN

The central government is all the more powerful because it has power to supervise the local governments. The governors of prefectures and of the three large cities, Tokio, Osaka, and Kioto, are appointed in the name of the Mikado by the Minister of the Interior, and are more responsible to the latter than to the prefectural assemblies which represent the people. In order to be responsible to the central government, the governors are once a year summoned by the Minister of the Interior to a governors' council, where they are instructed in things that are for the benefit of the central government. The assemblies of the prefectures are bodies auxiliary to the executive department of the prefectures.

A prefecture is divided into counties and cities. A county is again subdivided into townships and villages. The county government is merely the reproduction of the prefectural government on a smaller scale. It is only in townships and villages that a complete local self-government system is worked out. The chief of a township or a village is elected by the council of the township or the village, and is directly responsible to the people. The chief is a mere executor of the will of the people expressed in the resolutions passed by the council.

While, on the one hand, this local self-government system is expanding its scope, on the other hand, the central government is well suited to the present condition of the country. It can apply a uniform national policy, sacrificing, if necessary, a minor interest of a particular prefecture for the national welfare. Thus the nation's progress is not retarded on account of the discordant elements in the local governments.

THE PRESENT DISTURBANCE OF INDUSTRY

The war with Russia, like the war with China, has brought about temporary economic disturbances. The advocates of frugality, in order to save money for the war fund, have gone too far—so far that the purchasing power of the people has lessened in a marked degree. Osaka, the commercial metropolis of Japan, is not so active as usual with its concourse of merchants from other cities and towns. A merchant of a small city, who used to come to Osaka six times in a year, now comes only half as often.

In spite of these facts, the production of rice this year was unusually good, according to a statement given out by Consul-General Uchida, of New York. But this condition cannot be taken as a sign that, in the coming years, the same condition will prevail; for the good rice crop this year is due to the peace which Japan was enjoying last year, while the farmers had enough farm-hands to work their farms. But this year, and in the coming years, if the war last long, the farmers will lack hands, because the able-bodied men are either at the front or in the service at home. Even if the loss of laborers in the farming industries be not great enough to affect them seriously, yet the concurrent effect of a lack of working-hands in the other industries must necessarily react upon farming.

But, however great the loss caused by temporary economic disturbances, the gain in the expansion of the sphere of influence of the nation will more than counterbalance the loss. In case of Japan's victory, the protectorate already acquired over Korea will afford the Japanese a considerable field of activity. Already the government is at work regulating the Korean policy. An enterprising Japanese recently applied to the Korean Government, whose policy will be decided by the Japanese Government, for a monopoly of the work of breaking up the uncultivated soil. Although he has not yet succeeded, somehow the Japanese Government will find a way to start such work. Rice, which is imported from Korea, will be produced there on a greater scale, and with improvement in quality after the Japanese begin work in the Korean rice-fields; for the Koreans hitherto have not cultivated them with the characteristic thoroughness of the Japanese. The Japanese cultivate rice by the intensive method. Hence, Japanese rice is very much superior to Korean rice. In case rice becomes scarce in Japan, the improved Korean crop will relieve the scarcity. Moreover, rice can be imported from the southern countries of Asia, such as Siam, Anam, and Burmah, whence Japan has long been importing it.

But Japan, which hitherto has been an agricultural country, now gives every indication that she will become a manufacturing nation before long. China has abundant natural resources. These Japan will draw upon as raw materials for her manufactures.

In Manchuria, after the war, even though the territory be returned to China, the influence of the Japanese immigrants will be dominant. They will enter into various enterprises. And, in a generation, they will doubtless establish a permanent colony, and then make a new nation, as the Anglo-Saxons have done in America. They may become powerful enough to protect the interests of both the old and the new country against the grasping hand of Russia. Thus they will relieve Japan of the greater part of her military responsibility in the new country.

THE PLIGHT OF RUSSIA

THE BURSTING OF THE BUBBLE OF ITS FORMIDABLE GREATNESS—AN EMPIRE OF "GRAFT" IN HIGH PLACES

BY

JOHN FOSTER CARR

FEAR of Russia has hung over the world for more than a quarter of a century. But today, after a nine months' war with Japan, its dreaded power has become almost a laughing-stock. War is the tonic that skilled statesmen prescribe for weak and troubled states, but neither hope of conquest nor the blow of humiliating defeat has given energy to Russia. There are signs neither of a coming popular revolution nor of national disintegration. Like the giant in the fable, who was buried under a mountain, it lies and feebly writhes.

And, like a giant, Russia has great size joined with great weakness. Some of the causes of its lethargy are incurable. Others are due to a backward civilization. The Czar rules over nearly one-sixth of the total land surface of the globe. His empire is the largest continuous national territory in the world, and is more than twice the size of all our possessions. The 25,000 miles of the equator would hardly go half-way around his frontiers. But where we have 196,000 miles of railroads—not counting double tracks—that land of magnificent distances has only 33,000; and they are so poorly built and operated that the Russian rides like the wind when he makes a speed of thirteen miles an hour. Many roads are mere military routes, and not highways of commerce. No economic facts determined their path, and frequently the only merchandise they transport is the grain they carry to the supply of troops from

a famine-stricken province. The wagon roads are poorly made, and are often impassable except when frozen solid. The rivers during the summer are the chief routes of travel and trade, but there is no adequate system of canals. The post-office handles one piece of mail for fifteen that pass through our own. For every two miles of telegraph in Russia we have five, and for each mile of her telephone wires we have fifty-three.

Russian industry tells the same story. For each inhabitant, Russia invests in industrial enterprise four dollars; the United States, one hundred and twenty-five. Our factories outnumber hers twenty-three to one. The value of her cotton spinnings is but two-thirds of ours. She manufactures somewhat more than half as much tobacco; and only in sugar does she surpass us.

Mineral wealth abounds, yet Russia does not mine enough of the precious metals to pay the expenses of her travellers abroad. Her pig-iron equals only one-sixth of ours, and one-twentieth of our coal cars would carry her entire output.

And yet Russia has 130,000,000 inhabitants. More than nine-tenths of them are peasants engaged in agriculture. They live in little villages, often miles away from the fields they till, and their poverty is chronic. Thirty per cent. of all the babies die before they complete their first year, and more than half of them are starved to death. Bred of filth and starvation, endemic typhus rages in whole districts.

Ignorance leads misery by the hand. Three-fourths of the children never see the inside of a schoolroom. Of those who go to school, few are taught more than their alphabet, the catechism, and the elements of arithmetic. In Russia proper, ninety-four people of every hundred cannot write their names, or spell out easy words. Technical education is even more neglected; and, for every 11,000 people, there is but a single physician. The upper class, and, to a limited extent, the middle class, is mentally alert; but the national mind is dull and slow of development.

The condition of the peasant has not been much bettered by the abolition of serfdom. Not the individual, but the village (*mir*) holds the land. Each year, it reallots the tillages, and no man knows in September where he will plow in March. No one fertilizes the ground he tills, and rotation of crops is impossible. The peasant, therefore, has gained little in gaining the thing named "freedom." Land he cannot sell, for he owns none; nor buy, for there is none for sale. He cannot move from village to village. The old *mir* would refuse to let him go, and, in the new, he would have no share. He does not improve his one year's holding, for it goes the next to another villager. In consequence, the land, naturally rich, has grown so poor that it will not support him. Half the year he tills the poor soil; the other half he seeks work in the factories of the cities. He seems eternally bound to the increasing horrors of starvation. For ten years, there has not been a time when famine was not ravaging some province of the Empire.

Sad as the peasant's lot is, it is made unutterably worse by the government. The best of the peasantry is drafted off to the army. The less able-bodied who are left bear the greater part of the enormous financial burdens of the Empire. Taxes have increased by leaps and bounds, until they have more than doubled in fifteen years. The state now lays hands on perhaps one-quarter of the peasant's income. Meat he seldom tastes; even cabbage he cannot afford. His practically unchanging diet consists of black bread and the cheap tea that is molded into bricks.

As a man, the peasant is dull, brutish, nonresistant to the point of martyrdom. He cannot distinguish between *mine* and *thine*. His ignorance passes definition. In 1888, a cultivated Russian passed through a town of Little Russia. He was anxiously asked, "Will you be so good as to tell us if you have been in the other world?" The peasant is good natured and gentle, but his gentleness has an odd mixture of unconscious ferocity. In a retreat during the Crimean War, a wounded soldier was dragging himself along in great pain. His comrades, in deep sympathy, said: "You are suffering too much. Do you want us to end your pain? Shall we bury you?" "I wish you would," he answered. They set to work, and dug a grave. He laid himself down, and was buried alive. The general, who heard of it afterwards, said to the soldiers, "He must have suffered terribly." They answered, "Oh, no! we stamped the earth down hard with our feet." These are extreme instances, but they mark a depth of ignorance and insensibility impossible to find in any other civilized country.

Such is the Russian peasant, a strange blending of Scythian and Mongol. Such is his condition, his life, his hope—and such the hope of his son's son. And the Russian peasant is nine-tenths of Russia. What of the rest?

Greater Russia, its land and its people, exist solely for the profit of the other tenth. It consists of three classes: landowners, merchants, the only powerful non-official class; and the bureaucrats, who are usually spoken of as the aristocrats—for a landless noble amounts to so little that a prince may be a day-laborer. The Czar himself has only a slight trace of Russian blood in his veins, and his aristocracy is like him. Many of these bureaucrats are foreigners. The commercial world is filled with aliens, many of them Germans and Poles. The greater part of the capital invested in business enterprises is foreign, chiefly French and Belgian. One-third of the urban classes are non-Russian.

The bureaucracy and the merchants in collusion have built up a perfectly organized system of graft. It is openly recognized, treated with tolerance, even thought of with respect. There is no parallel to the rapacity of these privileged and high-placed thieves. Not only do admirals buying coal in foreign ports procure receipts for much larger sums than they have paid, pocketing the difference and dividing it with their under officers, but no contract is let at home which does not allow a liberal margin for a "rake-off." In this way, Russia has paid for her railroads two and a half times the amount which the Minister of Finance estimates as their value—and by American standards his estimate is 50 per cent. higher than the necessary cost. It is said that fully 75 per cent. of the large Red Cross Fund which was subscribed at home and abroad has been stolen. The magnificently equipped hospital train which the Czarina sent to the East was looted between St. Petersburg and Moscow. Not a thing of value was left in it.

Nowhere else has bureaucracy proved such an enormous burden to the state. Department after department has been created, and, before the end of the year, another will be added to the long list. Block after block of useless great office buildings has been erected. It is seriously asserted that there are as many clerks on the pay-roll of the office for dog licenses as there are dogs in St. Petersburg.

This shameless system of wholesale thievery is supported by the terrible power of the autocracy. Its chief instrument is the police, which is a national force with its own minister—the Minister of the Interior. It is in unchallenged control of all the affairs of life. The Minister must issue a permit when a townsman wishes to remove into the country, and *vice versa*. Notice of visitors must be given to the police; all social gatherings, all clubs, and all factories with their workmen, are under its supervision. A Governor of a Province has full power to declare martial law at any time. Police spies are everywhere, and an unarmed people cannot rebel.

Drink is the national vice, and the Russian must buy his *vodka* from a vender in the government employ. What the tax-gatherer leaves, and what bribes to officials do not eat up, the peasant pays into this hopper of the same insatiable machine.

Religion is seized upon as a means of exploitation and control with no more scruple. The tremendous power it wields over an ignorant and superstitious populace is in the hands of the government; for control is direct in the Orthodox Russian Church. All officialdom is in communion with it, and its head is the Czar—divinely appointed alike to throne and headship—"God's anointed." It is administered by the dreaded Procurator of the Holy Synod, a layman, who is one of the most powerful officers in the Empire.

There is less tolerance of other religions than in Turkey. The people are intensely devout, but religion means a combination of bigoted formalism and superstition. Even the Czar, with the Holy Synod and the bishops behind him, would not dare to alter a single word of the ritual. The cursing of evil spirits is as important a matter as the blessing of fields and houses. The sacraments are a matter of bargain. The peasant pays his few wretched *kopecks* to the priest, and in return expects divine protection and aid. Not long ago a luckless priest was murdered because the harvest had failed upon some land that he had blessed.

Religion is almost entirely divorced from morality. The lowest kind of criminals will pray devoutly for the success of the crimes they plan. The parish priests have become a caste, rigidly cut off from the rest of the world and held in universal contempt. It is almost impossible for the son of a priest to

be anything but a priest, and, as a rule, he can marry no one but the daughter of a priest, whose dowry is a pastorate. This lower priesthood is not religious. It is generally ignorant, and extortionate; it is often drunken and scandalously immoral. And yet, through superstition and vigorous government support, it has a strong hold upon the people.

It its way, the Church is as active as the bureaucracy in destroying the prosperity of Russia. The Russian calendar contains 132 holy days, upon which the peasant is strictly forbidden by law to do any work. Ignorant, struggling at fearful odds with disease, working hopelessly an impoverished soil, crushed with taxes, half-starved, the Church yet forces the poor peasant to remain in idleness more than two and a half days each week, that she may wrest a few *kopecks* from him when he comes to her services.

Over landowners, merchants, bureaucrats, and the Church, preying upon the vitals of the people they should protect, is a company of royal vultures—the Grand Dukes and the Czar. As the Bourbons looked upon France, and the Stuarts on England, so this family looks upon the dominions of the Empire as a patrimony personal to them, to be exploited for their pleasure. But neither England nor France has ever suffered as Russia has suffered for the pleasure of her rulers.

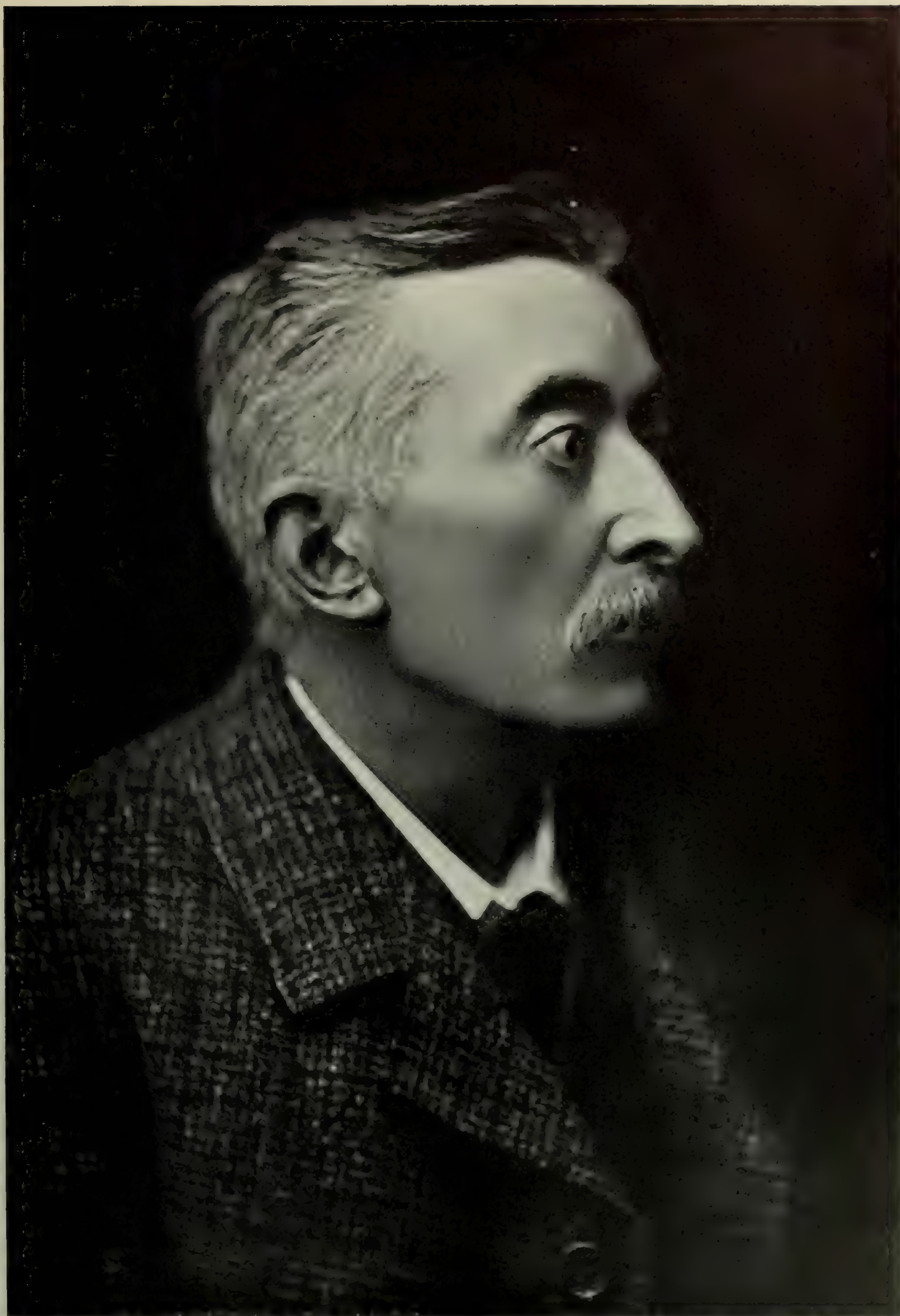
The Grand Ducal gang—consisting of three uncles and a brother-in-law of the Czar—have unlimited power. They are at the head of the great national system of graft. They and their understrappers sell and barter privileges, steal from the public crib, and wreck as they choose the national prosperity. They are all corrupt, and so shameless that they are not affected by foreign scandal at their acts. The three Grand Ducal uncles are the trustees of the fund that has been collected to erect a church as a memorial to Alexander II. Work was begun twenty-two years ago. The money has been subscribed several times over by the nation. Nobody expects that it will be completed in this generation, and yet the embezzling trustees are the sons of the murdered Czar. One leads a notoriously profligate and dissolute life. The second, the head of the fleet, is a patron of the actresses at the French Theatre. One of his mistresses lately acted as go-between in a deal for the purchase of foreign ships. The third is military governor of Moscow, and chief Jew-baiter of the family. He is so rabid an anti-Semite that he will not allow a Jew to pass the night in the city of Moscow. The royal domain embraces a territory twenty-five times the extent of Ohio. To the royal family also belong most of the mines of gold and silver, the rich output of which would supply no small part of the money needed for education and ultimate recovery. But, in want and in debt, the Grand Dukes engineered the famous lumber concession on the Yalu; secured the Czar's consent; got him to invest in the speculation; and, finally, as a direct result of their intrigue, embroiled Russia in the war with Japan.

Autocrat among autocrats, and grand beneficiary of this tremendous system of oppression, is the Czar Nicholas II. He is at once the administrative head and the victim, for, fearing for his life, he is like clay in the hands of the Grand Dukes. But, if he were free to act, there is no evidence that he has the will to work reforms. Nor has he ability or strength for a contest with a system which has become national.

Diminutive and insignificant, when he stands at full height he must peer up to see the eyes of a woman. He has an inborn weakness that approaches effeminacy. His voice squeaks in a high falsetto. His education has been grievously neglected, for he has been bred entirely by women. The Czar of All the Russias is weak and vacillating, frightened by signs and dreams.

To sum up: Russia stands at a great crisis in an evil plight. Its aristocracy is rotten and tyrannous, its people sodden in ignorance, without moral sense, dull and brutish; its priestcraft often degraded, extortionate, and sensual; its land of natural resource wasted and consumed; its imperial line counting human souls and bodies as bullion for its coining; and its Czar a grotesque weakling.

The first five months of this war have cost Russia nearly $500,000,000. Trade is stagnating everywhere throughout the Empire. The new land of Siberia, developing with remarkable rapidity, is suddenly cut off from its supplies and all communication of commerce, because soldiers and munitions of war monopolize its only railroad. The government is spending three times its normal revenue, and, while thrifty and honest Japan gets full value for every dollar spent, Russia is pouring her gold into the hands of thieves.

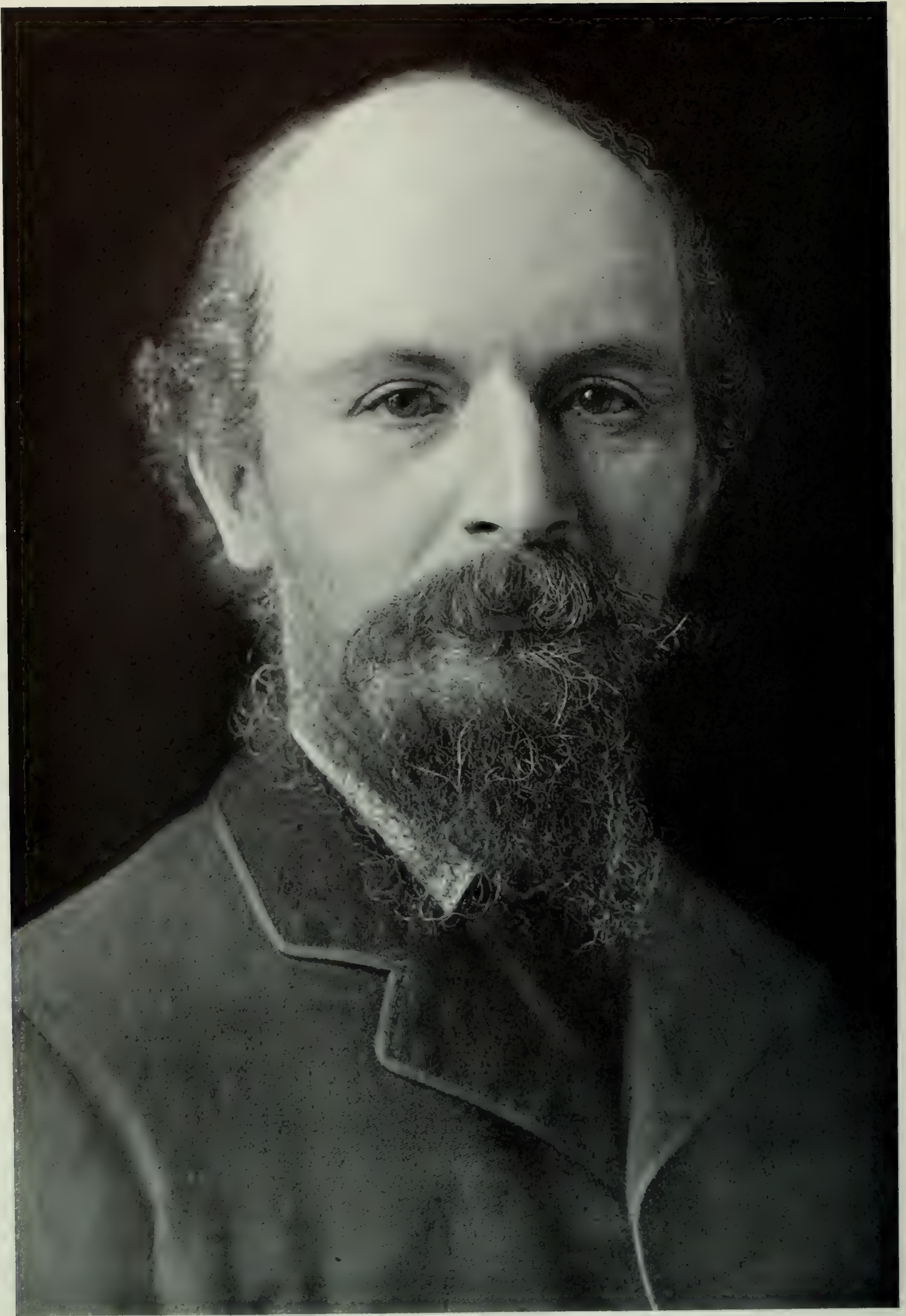


Courtesy of Houghton, Mifflin & Co.

MR. LAFCADIO HEARN (died September 26th)

His books are considered the best interpretations of Japanese life written by a foreigner at Tokio. The latest of them is "Japan, An Interpretation"

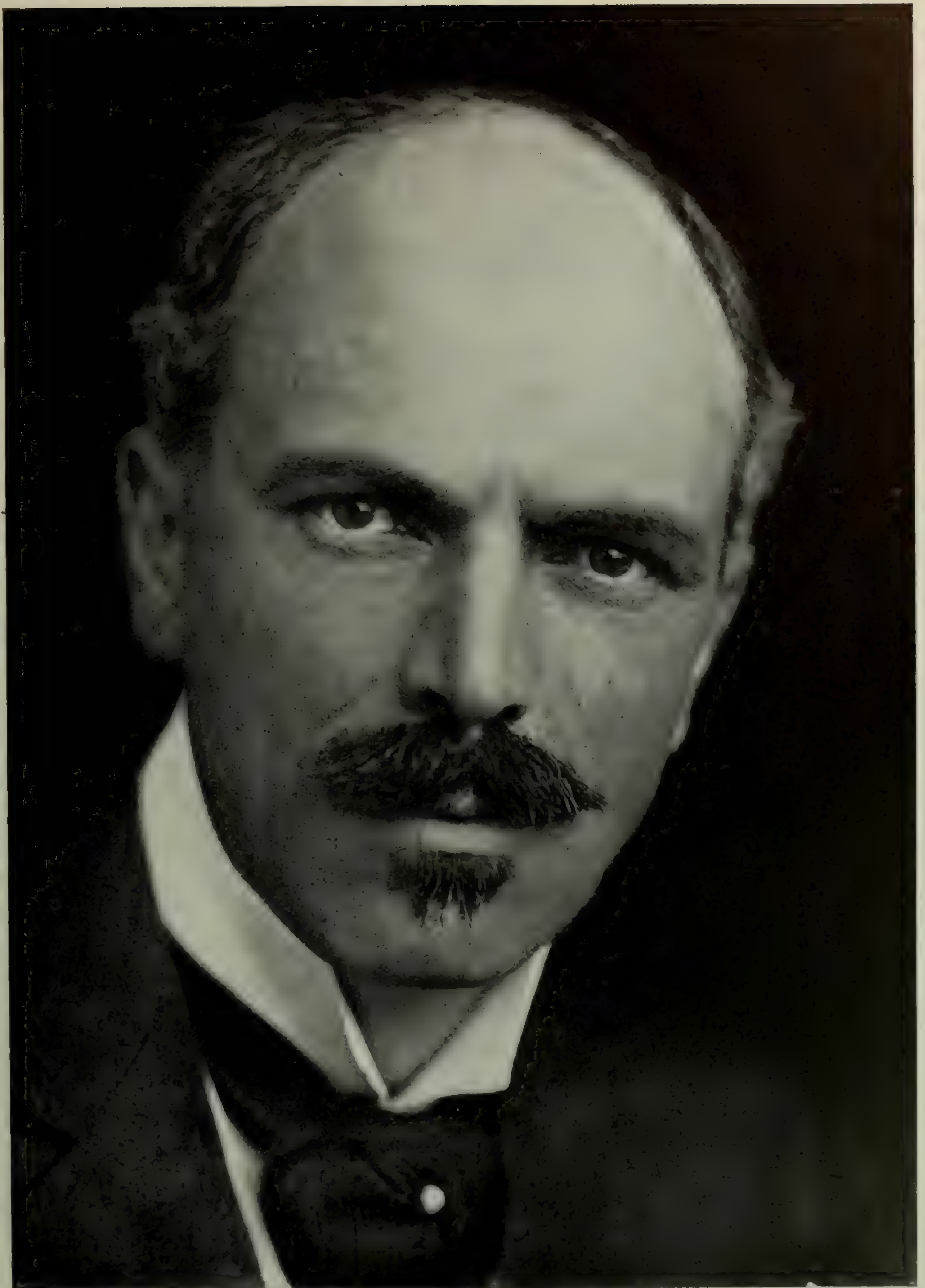
(*See page 5539*)



MR. ALGERNON CHARLES SWINBURNE

Who is putting forth a complete edition of his poetical works

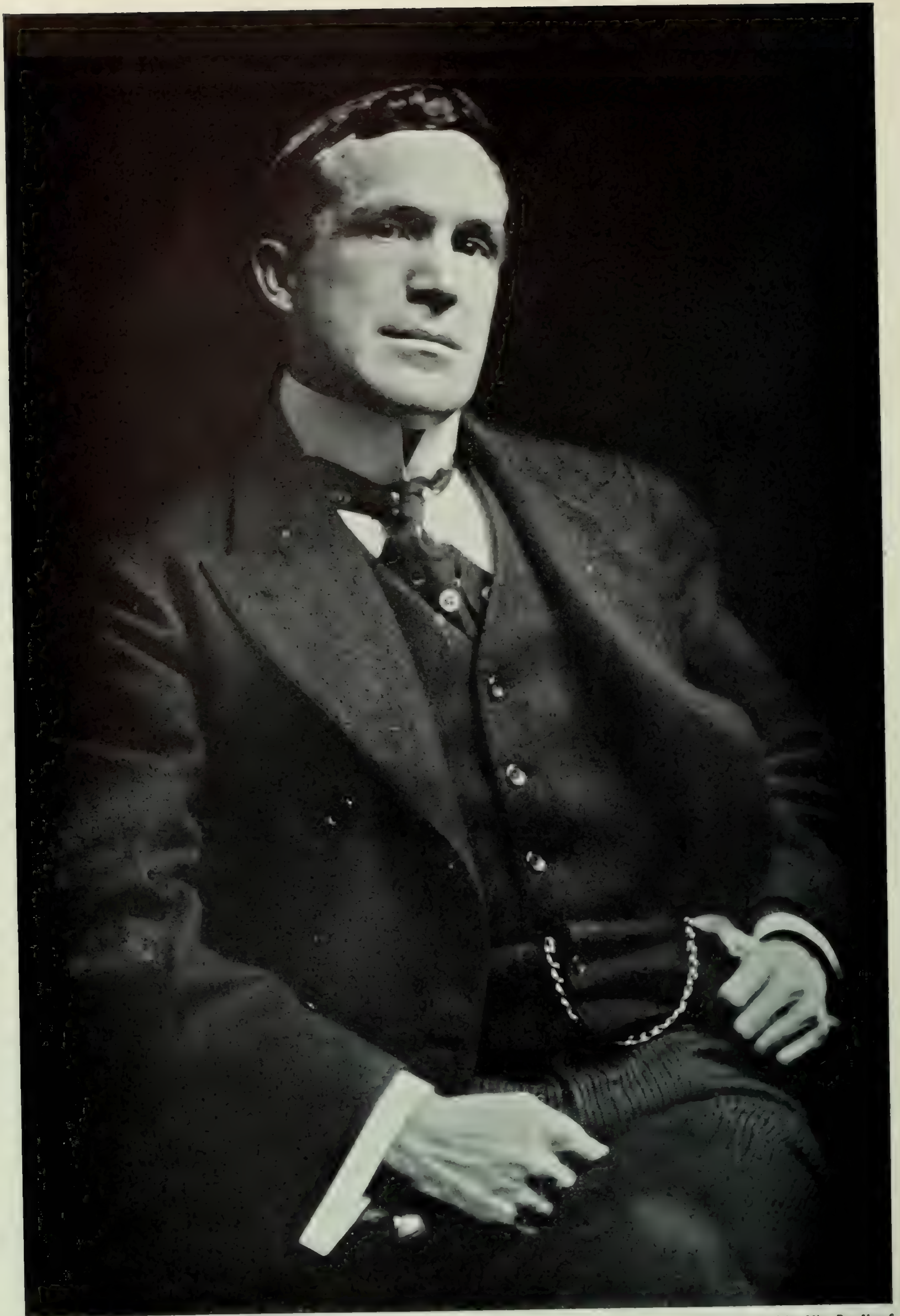
(See page 5539)



MR. MAURICE HEWLETT

Whose latest novel, "The Queen's Quair," is one of the notable books of the year

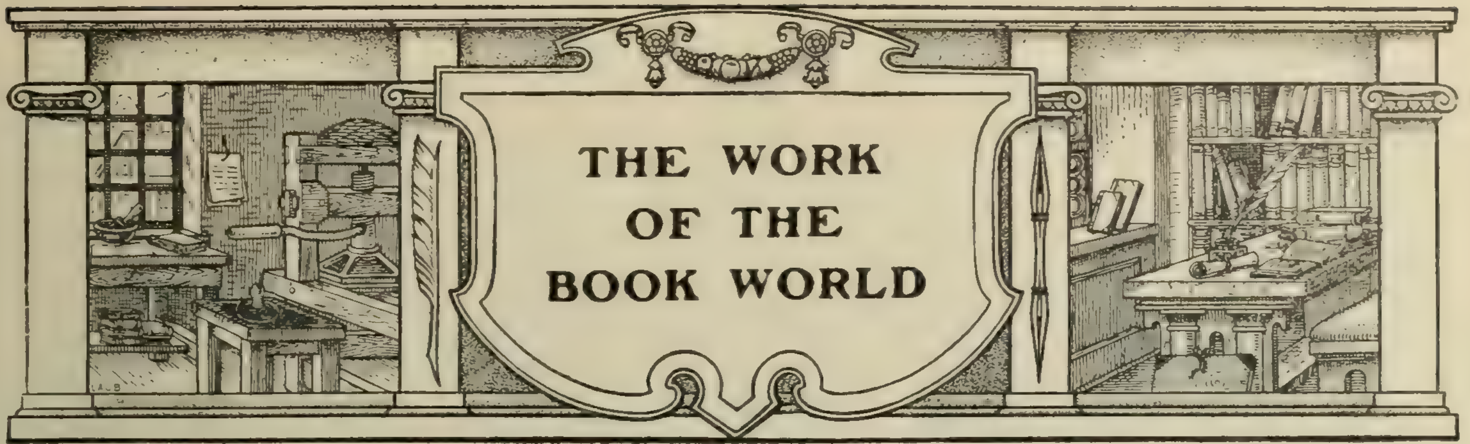
(See page 5539)



Photographed by Miss Ben-Yusuf

MR. GEORGE HORACE LORIMER

Author of "Old Gorgon Graham," a continuation of the "Letters of a Self-Made Merchant to His Son"



MR. KIPLING'S "TRAFFICS AND DISCOVERIES"

BY

FREDERIC TABER COOPER

WHILE it is undoubtedly true that Mr. Kipling's fame will ultimately rest upon a threefold corner-stone of "Kim," and the "Jungle Books," and the poems of "The Five Nations," yet, in the hearts of the generation which watched his early rise, he will remain preëminently the Kipling of "The Gadsbys," and "The Man Who Would be King," and "Without Benefit of Clergy"—the inimitable master of the short story. And the reason why a volume like his "Traffics and Discoveries" possesses to many an interest surpassing that of the poems which one after another echoed round the world, is that it proves once again that the magic touch, the dynamic force, which produced those earlier tales still survives undiminished.

A great deal has been idly written about the decline of Kipling, about "Kipling at the Cross-Roads," about the contrast between the old Kipling and the new. The plain truth is that, except for a widened horizon, the author of "Traffics and Discoveries"is today the same old Kipling of "Soldiers Three," and that he is so because he has always been the New Kipling—always doing the strange and the unexpected, always refusing to be definitely labeled as the Story-teller of India, the poet of Tommy Atkins, the Anglo-Saxon Æsop. There are some geniuses too big ever to run smoothly in a beaten track. That Mr. Kipling has grown and broadened with the passage of years needs no argument. To take the measure of that growth, one has only to compare any one of the "Departmental Ditties" with such a poem as "The Rowers" or "The White Man's Burden."

But in literature, as in life, no man can serve two masters—no man with Kipling's rugged sincerity and sledge-hammer earnestness of purpose can keep one creed of politics, morals, and religion for his verse and another for his prose. It has never been adequately pointed out how closely the dominant mood of Kipling's poems at any epoch have found an echo in his other writings. "Mandalay," for instance, you will find already blocked out in the rough in the "Letters from the East," down to the Burma girl, and the cheroot and the *hathis* piling teak. "The Truce of the Bear" was the product of the same mind that was brooding in "Kim" over the "great game" of strategy that is eternally played in India against the standing menace to the northern frontier. And the Kipling of today, absorbed in dreams of Anglo-Saxon supremacy, and voicing in dynamic verse the pent-up popular opinions of a nation, could not, if he would, keep these thoughts out of the short stories which comprise this volume of "Traffics and Discoveries." That is why a reader, here and there, who is not interested in the destinies of England, or the shortcomings of her army and navy, or the ethics of her struggle with the Boers, but who did care very much for the picturesqueness of Kipling's India, with its palm-trees and its sunshine, and its dearth of the Ten Commandments, lays down the present volume with a vague feeling of disillusion.

The essential fact, however, is that, while Mr. Kipling's point of view has shifted, his art remains unchanged. He still has that unmatched genius for taking life as a whole, with all its crudeness, its sordidness, its materialism, and flinging it boldly upon the printed page. He stands alone in his ability to see the drama latent in a motor carriage, a railway engine, the rapid fire of modern armament. The red glow of a furnace, the wild gyrations of a broken piston-rod, are to him as much a part of the vital, tingling life of today as the flush on a woman's cheek or the contortions of a man in his death-agony.

Through most of these new stories he makes you hear the throb of machinery, the hiss of escaping steam; and, as a symbol of the encroachment of materialism, our old friends, Mulvaney, Ortheris, and Learoyd are replaced by one Pyecroft, a naval machinist, who weighs and measures life in the language of the engine-room.

Of the eleven stories which make up the present volume, there are at least four which call for something more than a mere passing mention. The first of these is "A Sahibs' War," in which a Sikh, who has seen service in the Boer war, gives his experiences and his views of English tactics with an oriental picturesqueness of phrase that only partly conceals the stinging little barbs of criticism which lie beneath. "Below the Mill Dam" is a unique bit of dialogue written somewhat in the mood of the "Jungle Books." Surely, no other living writer would have seen his way to writing a pungent satire upon English conservatism and the encroachment of modern thought in the form of a discussion between a Gray Cat, a Black Rat, and an ancient Mill Wheel that creakingly drones out whole pages of the Domesday Book as it monotonously grinds forth its daily task.

The two remaining stories, "They" and "Mrs. Bathurst," have already attracted wide discussion, and have been classed together as both bordering upon the occult. Regarded as a delicate piece of poetic fantasy, a tissue of symbolic idealism, "They" undoubtedly deserves all the praise that has been lavished upon it by those who have had the fineness of instinct to penetrate the veil of mysticism in which it is shrouded. A beautiful old manor house, isolated from the world of today, a spot where the children who have passed away from this earth may be drawn back again by the force of infinite longing to the ones who mourn long enough to leave behind the clinging pressure of baby fingers, the loving touch of childish lips—all this is exquisitely done; and the perfect art is marred only by the introduction of Brahminical symbolism, which, however naturally it may have come from Kipling's pen, is as out of place in a purely English story as the symbol of a cross would be in a Buddhist temple.

But, of all the stories, the one which takes the strongest hold upon you, the one which you cannot get away from, is "Mrs. Bathurst." A great deal has been said about the obscurity of this story, its incomprehensibility, its downright opacity. As a matter of fact, there is nothing obscure about what Mr. Kipling has seen fit to tell us—only, as often happens in real life, we are allowed to know only a few of the facts—"the rest is silence." We know that Vickery, the warrant-officer with a wife living in England, met Mrs. Bathurst in Aukland. What was between them we do not know, but it is inferred that "there must have been a good deal"; at all events, Vickery leaves her, not knowing that she cares for him, and later, in South Africa, learns through the evidence of a cinematograph that she did care for him—enough, at all events, to follow him to London. Well, Vickery apparently loses his mind temporarily, is sent by his captain up country to recuperate, and, while there, is killed by lightning, and officially recorded as a deserter. Now, the whole strength to this story lies in the method of telling. You hear it from the lips of stolid, callous, naval men, rude of speech, coarse in their views of life in general and women in particular. And, through the medium of their very coarseness, their picturesque vulgarity, their lack of finer perceptions, you get an impression of a tragic drama which no amount of finer methods could possibly have given. In its suggestion of vague, unspeakable things, lying behind the written words, lengthening vistas where the imagination may stray and lose itself, it stands as an exceptional *tour de force*—one of the few stories which you cannot forget even if you would.

BIOGRAPHIES AND MEMOIRS

AMONG the serious books of the fall, biographies and memoirs easily take preëminence. Senator Hoar's "Reminiscences," though no longer a very new book, took an added interest because of the Senator's death. For a frank and intimate record of a long and high life, it summed up, by a confession, a man we shall not soon forget. No biographer could make a fairer picture of Senator Hoar than he makes himself, nor could any make one so naïvely entertaining.

Ex-President Cleveland supplements Senator Hoar's glimpses of recent history with a volume of papers entitled "Presidential Problems," in which he explains the acts of his administration for which he has been most severely criticized. His story of the famous bond issue, his account of his initiative in the Chicago riots of 1894, the spirited

narrative of his victory over the United States Senate in a controversy involving executive prerogative, are all interesting because of their point of view; but they are also contributions to American political history.

The "Memoirs" of Henry Villard wander further from the writer's personal doings and experiences than Senator Hoar's revelation or Mr. Cleveland's explanation. Some of the events recounted he really had no first-hand knowledge of. The story, however, has the value of recording the deserved progress of a German boy, landing in New York at the age of eighteen, to success as a financier and as a journalist, and of giving some new pictures of Grant and the other Union generals of the Civil War.

Of the formal biographies, the most important is "The Recollections and Letters of General Robert E. Lee," by his son, Captain R. E. Lee, which affords a rarely intimate view of the great Confederate general. In the correspondence with his wife, his children, and friends, there is revealed all his nobility of character and lofty dignity of purpose. He is really shown as a living personage. The book covers the whole interesting period of his public activities from his return from the Mexican War to his last years of usefulness as president of Washington College. The reader gets the largeness of General Lee's whole personality. This book is an important addition to American biography.

The memoirs of Mrs. Clay, of Alabama, revealed in "A Belle of the Fifties," cover a life of interest and variety. As the wife of a loyal and distinguished Southern Senator, Mrs. Clay was a conspicuous figure in Washinton society, and the narrative is packed with anecdotes of nearly all the notables of the day, who delighted to honor and admire her. The memoirs (which were admirably put into narrative form by Miss Ada Sterling) are not without dramatic features. When her husband was cast into prison, with Jefferson Davis, Mrs. Clay vigorously and unceasingly pressed his case with President Johnson, finally securing his release. This book is really a notable contribution to our social literature.

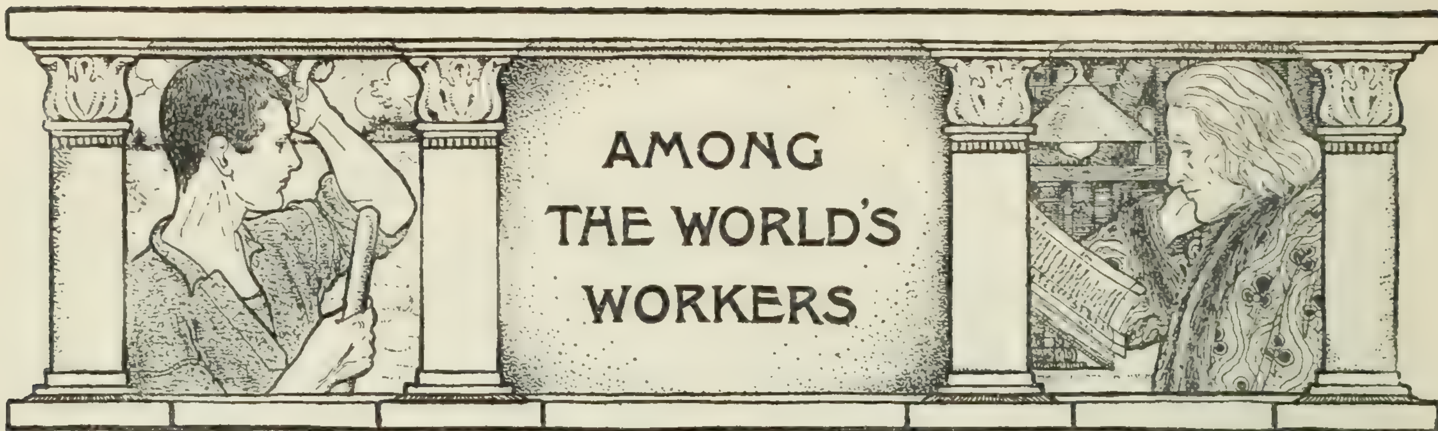
The other side of the war drama is given in Mr. Pearson's Life of John A. Andrew. He tells the story of the great War Governor of Massachusetts interestingly, rapidly, and with many amusing anecdotes. Andrew took his "abolition vows" when a lad of fifteen, and so closely was he identified with the swift progress of events that Mr. Pearson's record of his life has original historical value as a story of the war from the Massachusetts point of view. Governor Andrew was one of his own Yankees, who are "the seed-corn of the nation." No other famous man of his day had such blind confidence in himself, such unbounded optimism, or more horse-sense. His speeches and Thanksgiving Proclamations rang through the North and put heart into men as nothing else did but Mrs. Howe's Battle Hymn of the Republic. The whole man comes to the reader as clearly as if seen, and there can be no higher praise of Mr. Pearson's work.

While John A. Andrew was an active hero, Francis Parkman was an active martyr. In his "Life," Mr. Henry D. Sedgwick gives a glimpse of a great character. The book is brief, but it is long enough to tell a moving story of self-mastery. In Parkman's long life of illness or partial blindness there were times when his working opportunity was limited to a brief half-hour a day. His achievements in the face of so great difficulties are a monument to a rock-based character. Mr. Sedgwick tells the story sympathetically, and interprets suggestively.

The story of Zola's life, too, is a story of effort against difficulties. Mr. Ernest A. Vizetelly has for many years figured as the chief intermediary between the works of M. Zola and the English-speaking public, and it is very natural that the official biography should come from his pen. He has made an extremely interesting story of one of the most powerful writers of our time; and it is a dramatic enough picture which is contained between the period when the struggling young writer used to catch sparrows out of his garret window and broil them on a curtain-rod, to the time when he threw Paris into an uproar by his famous *J'accuse* manifesto in the Dreyfus affair.

"An Irishman's Story" is the simple title of the personal recollections of Justin M'Carthy, M. P., author, lecturer, and historian. It is the pleasantly written and mildly interesting reminiscences of Mr. M'Carthy, told with the gentle dignity and frank simplicity of one who associated with most of the notables of the Victorian era on both sides of the Atlantic.

Mr. M'Carthy had the felicity to enjoy the friendship of a great number of distinguished men, and he has much that is worth telling to say of them. He brings his story up to the present day and his retirement from public life. By a curious, though happy, irony he tells us that his present literary occupations embrace an attempt to learn the rudiments of his native language—the Gælic.



HOW ONE MAN INCREASED THE NATION'S CORN CROP

THROUGHOUT the Corn Belt, Prof. P. G. Holden is known as the man who, more than any one else, has improved seed corn so that our greatest crop has been increased by millions of bushels. The work began twenty years ago, when Professor Holden, then a college student, was teaching school in the summer. His pupils were all children of farmers. He heard the parents talking about poor corn crops and about crop failures. He wondered what he could do to improve the yield.

One day he asked his class, "How many hairs are there on a rat's tail?"

One child said "ten." Another said "fifty." A third said "a hundred." No one knew.

"How can you find out?" asked the teacher.

"Look in the dictionary," said one.

Finally a boy held up his hand and said, "Teacher, I'll catch a rat and see."

"That's the only way," said Professor Holden.

That night there was a general rat-hunt in the Michigan village, and the next day every child shame-facedly reported that there were *no* hairs on a rat's tail.

This experience taught the pupils to investigate and to observe. Next, Professor Holden asked every child to select an ear of corn from his father's crib and bring it to school. The pupils brought the corn. The teacher graded it. The child whose corn was the poorest went home and told his father. The parent, after remarking "What does the teacher know about corn? He is paid to teach arithmetic," came to see the teacher. When he saw the ears of corn that were fuller and richer than his own, he realized that the teacher was right.

Professor Holden then asked all his pupils to plant three seeds of the best corn in a box, and water it. The boy whose father had the finest ear was among the most enthusiastic. The children nursed the corn carefully. The result was a crop packed with large kernels. Then the pupils' fathers became interested, and planted special seed corn. There were no more failures of corn crops.

Professor Holden became Professor of Agriculture at the Illinois State Agricultural College, at Champaign. He remembered the lesson of the Michigan farmers. In a year, through his efforts, the Illinois farmers were careful about sowing the best seed corn, and soon the farmers in Iowa and in Missouri, and, in fact, throughout the great Corn Belt, were becoming experts in seed corn.

Near Bloomington, Ill., is the 25,000-acre farm of the Funk brothers, the largest in the United States. Twenty thousand acres are devoted to corn. One day Professor Holden was visiting the farm. "What is your average yield?" he asked. "Forty to fifty bushels," he was told. "But it should be more," he said. He showed the Funk brothers how to select the best seed corn and to plant it carefully.

On a 20,000-acre farm, an increase of five bushels an acre a year meant a small fortune. Professor Holden became director of the farm. From some acres he raised seventy bushels an acre. The increase in yield the first year was 10,000 bushels!

This year Professor Holden preached the gospel of corn to the Iowa farmers from a special train. As a result, millions of bushels of corn have been added to the State yield. The work which began with a class of farmers' children in a Michigan country school is now effecting an improvement in the methods of agriculture throughout the United States.

A RAILROAD INTRODUCING CIVILIZATION

ONE of the most picturesque engineering achievements of recent years was the building of the Uganda railroad in British East Africa. American interest was aroused in it because Americans were called upon to build the thirty-seven bridges on the line, not far from Lake Victoria Nyanza.

When the railroad was undertaken by Great Britain, commercial success was not so much in view as political advantage. A railroad from the east coast of Africa to Vic-

toria Nyanza would give Great Britain a firm grasp on a wide and potentially important stretch of country. After surveys covering 2,724 miles of wild country, the road was begun. Laborers were scarce. The contribution from the region itself averaged only two workers from each square mile of territory. Even pressure of a famine could not make these natives work either hard or steadily. Finally, East Indians were employed. Wild beasts, especially lions, devoured some of them. Sickness took others. The tsetse fly killed 60 per cent. of the bullocks, 20 per cent. of the donkeys, and 50 per cent. of the camels. Traction engines had to be used for hauling. Because of all these disadvantages, it cost more than $46,000 a mile to build the line.

One year's traffic, however, paid $435,000, as compared with an estimated return of $310,000 which had been prophesied. Practically all of the gain made over the estimate came in the imports. Many more goods were sent up to the capital of the British Protectorate than would have gone up under the old caravan method of transportation. Moreover, the railroad stopped the slave traffic. Civilization entered with the locomotive. Great Britain had been obliged to maintain a fleet of five cruisers off the east coast, at a cost of $500,000 a year, to check the traffic. So this expenditure was saved. Naturally, it will take the road many years to pay for itself, but its success has already demonstrated that it will one day do so.

MAKING WOOD-LOTS PAY

RECENTLY a man bought an old farm in southern New Hampshire purely as an investment in forestry. The woodland upon it consisted of a somewhat decrepit and scattered stand of old hard woods—beech, birch, and maple—under which was a thrifty but inconspicuous growth of sapling spruce and pine. There were also, here and there, several small blocks of soft woods, which required only from ten to twenty years to become merchantable. The forest, as it stood, contained a very promising and fairly complete stock of valuable young timber; but, owing to suppression by the old, overmature stand, the hindrances of over-crowding, and the effects of unrestricted grazing, the promise of this young growth seemed likely to be short-lived. The man estimated the timber on the land and the cost of marketing what was merchantable, and then ascertained the time and treatment necessary for properly maturing the younger portions. His calculations showed that it would be possible to cut the inferior hard woods, whose removal would release much of the valuable soft-wood growth, and to recover, by their sale, the money paid for the land and a little more. This was made possible by the existence of a good local market for good cordwood.

Part of the profit he spent on the thinnings and improvement cuttings which were needed in the denser portions of the young pine. He thus secured, at a cost which was soon made good, a valuable stand of timber in place of one of doubtful promise, and, as its earliest yield (such sizes as would make box lumber) would be ready for cutting within a few years, the investment was profitable.

Not every piece of woodland has as good possibilities as these, and not every owner has experience and training enough to recognize them; but conservative management is profitable in a great number of cases, and many an owner, with no assistance from a forester, is capable of improving his forest very considerably, at the same time realizing a more or less continuous return on his property.

The exact increase due to scientific management has not yet been demonstrated in the United States, since forestry has nowhere been long enough in operation. European experience, however, has shown that the managed forest exceeds the unmanaged in wood production by 20 to 40 per cent. To this must be added, for a fair estimate of the returns from forestry, the certain improvement in the quality of the timber. Therefore, if untended woodland will yield a fair interest on its value (as it often does), it would seem that the application of more scientific treatment would more than justify its cost.

A FLOATING EXPOSITION

A SURPRISING experiment in methods of securing foreign trade has just been started in Seattle, Washington. The idea occurred to Mr. John Rosene, who is known along the Pacific Coast as a daring and successful promoter, that, if merchants find it advantageous to display goods to visitors at such expositions as the St. Louis Fair, it might be profitable to send exhibits to people who cannot visit a fair. Presently, he had worked out a plan for an exposition ship, to be fitted out with exhibits and despatched to make visits to the important seaports of the Orient.

The war in the Far East precluded a voyage this fall. But already fifty of the hundred exhibitors needed to make the plan a success have engaged space for the initial trip next November. Accordingly, if nothing interferes with the project meanwhile, the steamship *Victoria* will sail from Seattle

next year, to make a round of the ports from Yokohama to Sydney, returning *via* the west coast of South America and Honolulu. The ship will remain from two to ten days at each city. United States consuls will be invited to publish word of its coming in advance, and agents will be present to meet the foreign merchants who come aboard, and to distribute catalogues, take orders, and establish foreign agencies. None of the goods carried will be sold.

There will be a rush of the commercial nations for Oriental trade as soon as the war is over. The exposition ship is expected, by its very novelty, to seize an advantage, among the first, for the United States.

HOW A RAILROAD SECURES GOOD EMPLOYEES

ONE of the great railroads of the Middle West has instituted a system of hiring and training employees which is solving a serious problem. An employment bureau has been created, through which an applicant for employment must pass. There is also a school of railway practice in which both raw men and men ambitious for promotion are prepared for new positions.

The manager of the employment bureau keeps himself informed about the young men in the company's service and the young men in the region through which the railroad runs. He thus hears of all the youths who wish to begin railroading; and he holds interviews with the boys and their parents. His effort is to draw the railroad's employees from country adjacent to the road. The company believes that it can maintain close relations with farmers and shippers along its line if it employs their sons in its service. Yet the main purpose of the employment bureau is to keep up a high standard of efficiency among its employees by a careful sifting of the applicants for positions. Character, habits, education, health, are all taken into account. In one year, the bureau received 758 applications for places, ranging from freight brakeman to station agent, and only 225 applicants were selected.

The training-school is conducted on cars expressly fitted for the service. In this school every switchman, operator, trainman, and engineman takes a course. There are classes in rules, in orders, and in signals, which the ambitious men attend. A stereopticon is used. Signals of all kinds are shown and explained, and pictures are exhibited of every kind of train, every stretch of track, and every semaphore on the entire system. Examinations are held for promotions.

Employment bureau and training-school together form a safeguard against that carelessness which is one of the chief causes of the common occurrence of railroad accidents.

A SEVERE FIRE TEST

DELIBERATELY to set a building on fire in order to test automatic extinguishing devices is a novelty in modern experiments, but this is what was recently done in Cleveland. Insurance risks on the car-barns of street-railway companies have been so bad that the companies have been forced to pay high premiums. Even the customary automatic extinguishers now installed in factories and stores have failed to make car-barns secure from fires, for overhead sprinklers simply deluge the roofs of the cars stored beneath them—which are designed to shed water from the interior where fires usually occur. So the manager of an insurance company formed to insure street-railway property set to work to invent a plan of protecting car-barns so that the insurance premiums might be lessened.

He hit on a system of sprinklers arranged, not above, but between the lines of cars in a barn. He then submitted the plan to a manufacturer of automatic extinguishers, whose company arranged to install such sprinklers if a test should prove them practicable. The only possible test was an actual fire. The president of the Cleveland Electric Railway Company at last agreed to permit a trial on an isolated barn owned by his company. So thirteen discarded cars were run into the barn, pipes were set up with sprinkler-heads plugged with a metal so composed as to melt at 150°, arranged along between the rows of cars. The water was then turned on. Fire-engines were held in readiness to be used if the fire should get beyond control. The car in the centre of the house was then set on fire under the seats, where most car fires originate.

As soon as the fire had gained headway enough to burst the windows and the transoms, the sprinkler heads melted out, a shower of water was shot forth, and in three minutes the fire was out. Another fire was then started beneath the floor of one of the cars. This gained so rapidly that there were several very exciting minutes. For a time, it looked as if the cars and the barn were doomed. But at last the water came, and, though the car was ruined, the shower from the pipes saved the other cars and the structure.

Later, an additional test was made. Air pressure was put on the water in the pipes, until it had been pushed back underground —this to prove that a water-supply could be maintained without the danger of freezing

pipes. The pipes were plugged as before at the end where the sprinklers were. This time, fires were set in a number of places, and rubbish, saturated with kerosene, was put in the way of the flames. This form of test was designed to show how the apparatus would work if an incendiary should set a carbarn afire in winter. The fire burned fiercely, but at last the plugs melted, and the water followed the outrush of air. It extinguished the flames of the burning car before the building had been harmed.

DOING FARM WORK BY ELECTRICITY

ELECTRICITY has at last been applied successfully to agriculture. Already, on farms in southern France, horses are replaced by motors. The farmers of the province of Aisne have discarded their horses and are threshing their grain, grinding their flour, cutting roots, and pumping water by electricity. The owners of large farms have their own motors. The smaller proprietors club together to buy a motor, which is moved from farm to farm as each farmer needs it.

The power to run the motors is supplied from a central station, over high-tension lines, to sixteen substations, which distribute it at the proper pressure to the adjacent farms.

Other experiments have been made in Germany. The results show that it is cheaper for a small farmer to pay his share of the cost of a motor, which he may use when he wishes, than to keep a horse for farm work. And it has been found cheaper for the large farmer to own motors, which do his work quickly and with little care, than to maintain a large stable continuously.

An even more remarkable application of electricity is the use of an electric current to make plants grow. Experiments have been carried on at the Hatch Experiment Station at Amherst, Mass., which show that electricity has very marked effects on the growth of both seeds and plants. Seeds of several kinds of vegetables were planted in insulated boxes, where they were subjected to electrical currents of various kinds and intensities. The results showed that an alternating current of rather low intensity was the most effective stimulant, increasing the growth in some cases as much as 37 per cent. The use of atmospheric electricity, drawn to the soil by means of a pole surmounted by steel points—somewhat on the principle of a lightning-rod—made the seeds grow 55 per cent. faster than normally for the first forty-eight hours, 23 per cent. for seventy-two hours, and 17 per cent. for ninety-six hours.

It was also discovered that, where the seeds were treated with a positive charge of electricity, the growth of the roots was increased more than the growth of the tops of the plant; where a negative charge was used, the tops grew more. In raising lettuce, for example, a negative charge would be best; for radishes, a positive charge would be used.

The effects of electric lights at night on the growth of plants have been established by experiments made by Prof. L. H. Bailey, of Cornell. He found that, by suspending an arc light above vegetables growing under glass, they were so affected as to grow much faster, maturing, in the case of lettuce, from a week to ten days earlier than usual. The direct rays from the lamp injures most plants, if unshaded by glass. Commercial advantage has been taken of this discovery by W. W. Rawson, of Arlington, Mass., who has fifteen acres of lettuce and cucumbers under glass. He finds that it pays to light his garden.

A WORK CURE FOR THE NERVOUS

SANATORIA where the patients are not allowed by the rules to discuss their ailments among themselves are common, but at a New England institution a plan has been tried that has given better results than rules can secure. Instead of saying that the patients may not talk about themselves to one another, the doctors have founded a hand-craft shop, as they term it, where the patients gather daily to be instructed in manual training of the lighter sort. They weave rugs of denim, or old-fashioned coverlets, or table-covers of coarse woolen yarn. They model candlesticks, vases, pitchers, pen-trays, and inkstands. They do wood-carving. The idea is to give them something to do that will distract their minds from their sickness.

That the social side of the work may be furthered, a number of the young people of the town have been invited to share the patients' instruction in manual training. This arrangement can be made, as only nervous diseases are treated, and there is no danger from contagion of any sort. These young people bring their own healthy cheerfulness into the lives of the patients. The result of the work and of the social interest that accompanies it is to keep the minds of the patients occupied with other thoughts than those of their own misfortunes, and to produce a mental state favorable to their recovery. The experiment has justified itself.

The matron is also instructor in the shop. She combines the skill and knowledge of the trained nurse with the ability to teach. The sanatorium is not even called a sanatorium, but a hand-craft shop.

INSURANCE COMPANIES AND BOOKS ON HEALTH

IN the first article of the series on modern life insurance in THE WORLD'S WORK, it was said that there has been no organized effort by the companies to disseminate literature about keeping well. This was true; but at least one company has had, for years, an elaborate system for distributing information to promote longevity. The Mutual Life Insurance Company, of New York, issues a series of little books, adapted to special seasons and to many particular emergencies and diseases, which it sends, postpaid, to any one who applies for them. These little volumes contain, for instance, advice about the prevention of sunstroke, drowning, accidents, malaria, and so on, along with a great deal of practical general hygienic admonition. They have been distributed by the thousands.

There is, however, a comparatively unworked field here for our great life insurance companies; and it is suggestive of foreign insurance methods that, in Germany, some of the health-insurance companies have found it a paying investment to establish sanatoria for the care of their consumptive policy-holders. Nothing of the sort has been attempted yet in the United States; but, when one considers that the amount of money involved in life insurance policies in America is very much greater than in all the rest of the world combined, it seems reasonable to expect in the future a greater effort to increase general knowledge of the laws of sane living.

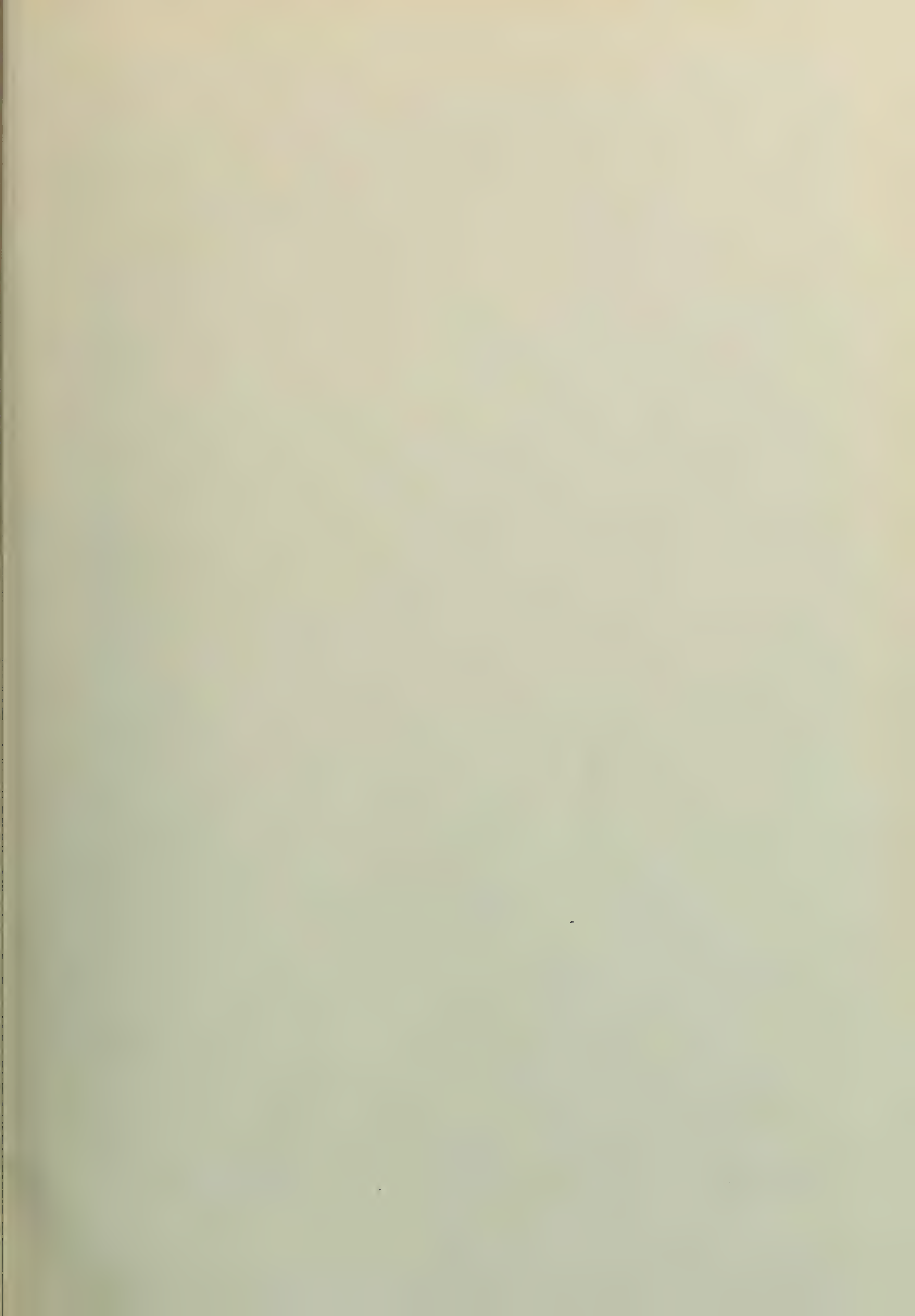
BRITISH WORKMEN AND THE BONUS SYSTEM

MEMBERS of the Mosely Commission and other British investigators of American industry have been discussing the use of the premium or bonus system, by which, in certain American factories, workmen are encouraged to do more work, and of a higher grade, than the average in their craft. British employers have been trying to introduce the system, and in certain localities they seem to have succeeded, at least to their own satisfaction. But the workmen have opposed it, as the unions do in the United States. A committee representing twenty-four trade-unions, appointed by the Federation of Engineering and Ship-building Trades to investigate its working, has issued a report strongly condemning it. The report says:

> The premium system has absolutely nothing to recommend it; it is an adaptation of the most pernicious and degrading condition of employment in modern industrial history—the task-work system; it creates jealousy and ill-feeling in the workshop, and is the cause of endless bickering and misunderstanding, owing to the complicated character of the calculations involved in many systems.
>
> It has been the cause of more men being discharged than any strike which has ever taken place in the history of the engineering or ship-building trades, and it will have the effect of keeping men whose waning physical powers unfit them for the closest and hardest labor from obtaining employment except when trade is at its busiest.

This report deals a severe blow to hopes for the introduction of the system. It is true that the Amalgamated Society of Engineers approves the bonus system where introduced under its own regulations; but this union represents only the old-fashioned trade-unionists. It has no representation on the London Trades Council, and takes no part in the annual British Trades Congress. It has only 96,000 members, as compared with 240,000 workmen belonging to the Federation, which condemns the system. One strong point in the objections is the one criticised by American workmen. A time-limit is placed by employers on a piece of work. A workman, for example, is to be paid for a job on the understanding that it will take him ten hours to do it. But if he finishes it in less than ten hours—say in eight—he receives only eight hours' pay and a bonus, which is less than the regular pay for the other two hours. Or, to make it clearer, if an expert workman worked twice as fast as an ordinary workman, he would not get twice as much pay—he would get perhaps once and a half as much. The members of the Federation maintain that the employer has no right to share the wage of the man who has put forth an extra effort, and should be satisfied with the profit on the increased output of the factory. They also fear that, with the proficient workmen increasing the output, the time allowance of all will be gradually reduced. They assert that innumerable instances are on record in which the time allowance has been cut down repeatedly, until, in spite of every exertion, the men are able to earn only a slight fraction over their time wages. Before agreeing to the introduction of the system, however, the Amalgamated Society forestalled this possibility by an agreement with the employers to the effect that no firm should establish the bonus system without intending to adhere to it, and that prices should not be altered within a stipulated time.

The British workman distrusts his employer, whom he regards as hastening to be rich at the expense of his workmen and to the injury of the reputation for excellence hitherto enjoyed by British productions.



LORD CURZON, VICEROY OF INDIA

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NUMBER 2

The March of Events

ONE can hardly say that a much-troubled world will this year find itself in a happy Christmas mood, for the bloodiest war in history is in progress. It is a war, too, that involves world-wide interests. If the European nations do not become entangled in it during its progress, they must take a hand in its settlement when it ends. All Europe, therefore, lives in a state of increasing anxiety.

Yet even this ghastly war, if one regard it over a range of years, is likely to bring a guarantee of peace that could have been secured in no other way. If we look over the world to see the largest forces that contend for mastery, we shall still see the two old tendencies that have fought for many a century. One is democracy, the other is autocracy. All the advance in thought that the world has made in recent times and all the progress in government that has been made during a century or more have not touched the autocratic, Asiatic mind of Russia, which is the stronghold of autocracy.

It is difficult for us to comprehend the Russian mind, but its steadfast belief is that autocracy is the final and permanent form of government. It regards all liberal governments such as the English and our own as merely temporary and accidental. Every nation must have its master: this is the Russian view; and the rule of the people is anarchy and can not endure. Democracy with all that it implies is a modern form of mob-rule, a passing phase of society and of government which has grown out of the settlement of new countries: it cannot last. When the United States passes its merely adventurous, frontier period of development, the delusion of popular government will end. When that ends, England will recover its sense and again have a monarch with autocratic power over the souls as well as the lives of his subjects. Asia is a heathen country to exploit and incidentally to bring into the orthodox faith.

With this deeply rooted conviction and with its millions a sodden mass of obedience, Russia stands as the great example of the Power of a King, in direct hostility to the tendency and to the aspirations of every free people and of every partly free people.

A clash was obliged to come somewhere, at some time. All autocracies have had to be whipped. Cromwell, Washington, the Napoleonic wars, the French Revolution—all history has proved this since peoples began to become free. Almost by an accident, it happened to be Japan that was provoked to war with Russia. It might have been England—it may be England yet. Whatever nation happened to be the Russian antagonist, the struggle was obliged to come; for, since the Russian people have not the capacity to throw off their yoke, the insolence of autocracy must meet its doom at the

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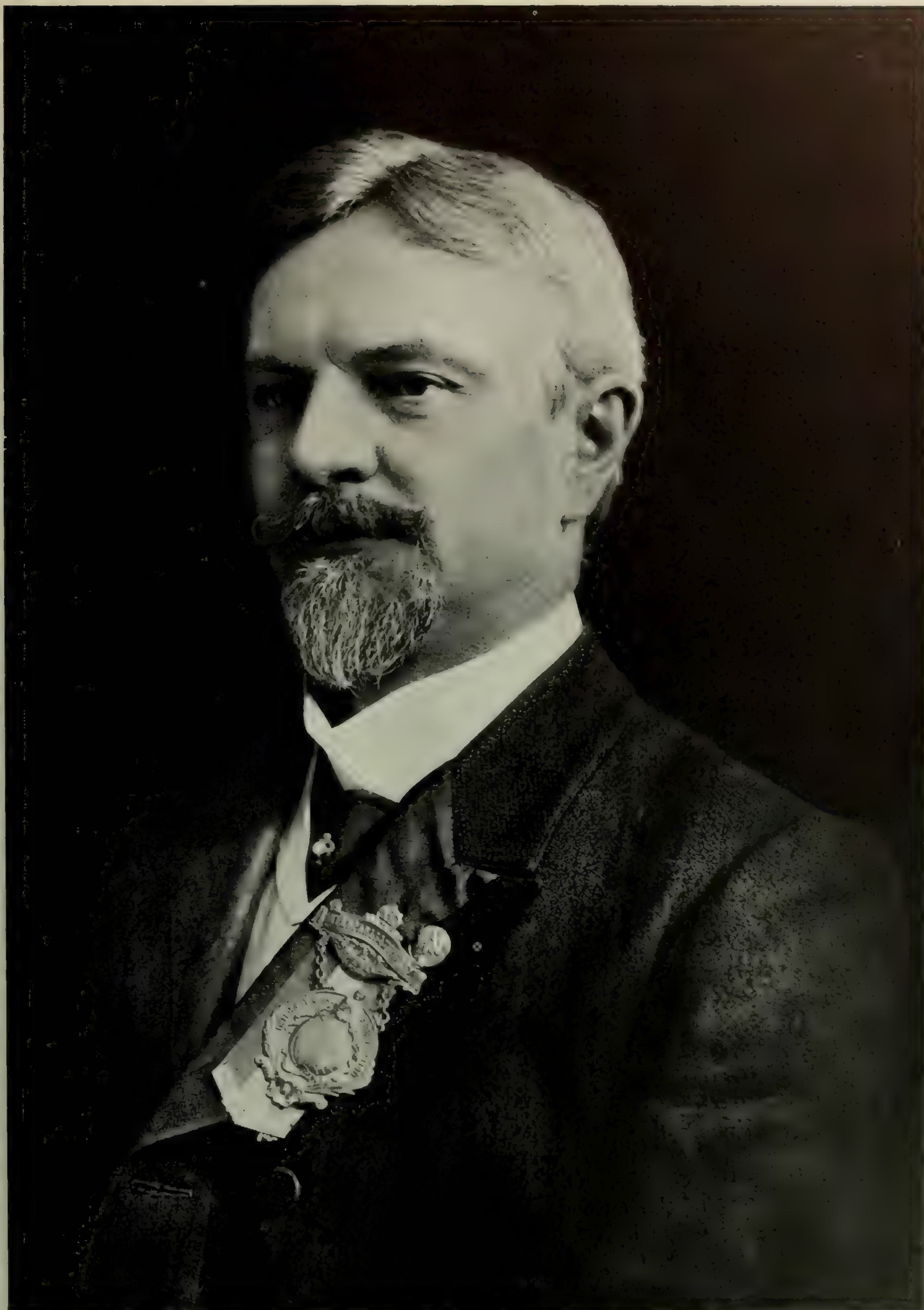


CONGRESSMAN RICHARD BARTHOLDT OF MISSOURI
PRESIDENT OF THE INTERPARLIAMENTARY UNION, FOR 1904

hand of some foreign power; for all the world is now so knit together that absolute kings have become insufferable. Human freedom has gone too far for those countries which possess it to allow it to recede.

There is a sense, therefore, in which Japan is fighting the battles of all free peoples; and it is in this sense that the great war which now darkens the world is a war for freedom. The humiliation of Russia will bring the time nearer when enlightened governments may settle the differences that arise between them in civilized ways. This can never be done as long as a brutal autocracy holds a prominent place in the family of nations, an autocracy that has a contempt for all that free governments stand for.

THE INSOLENCE OF AUTOCRACY

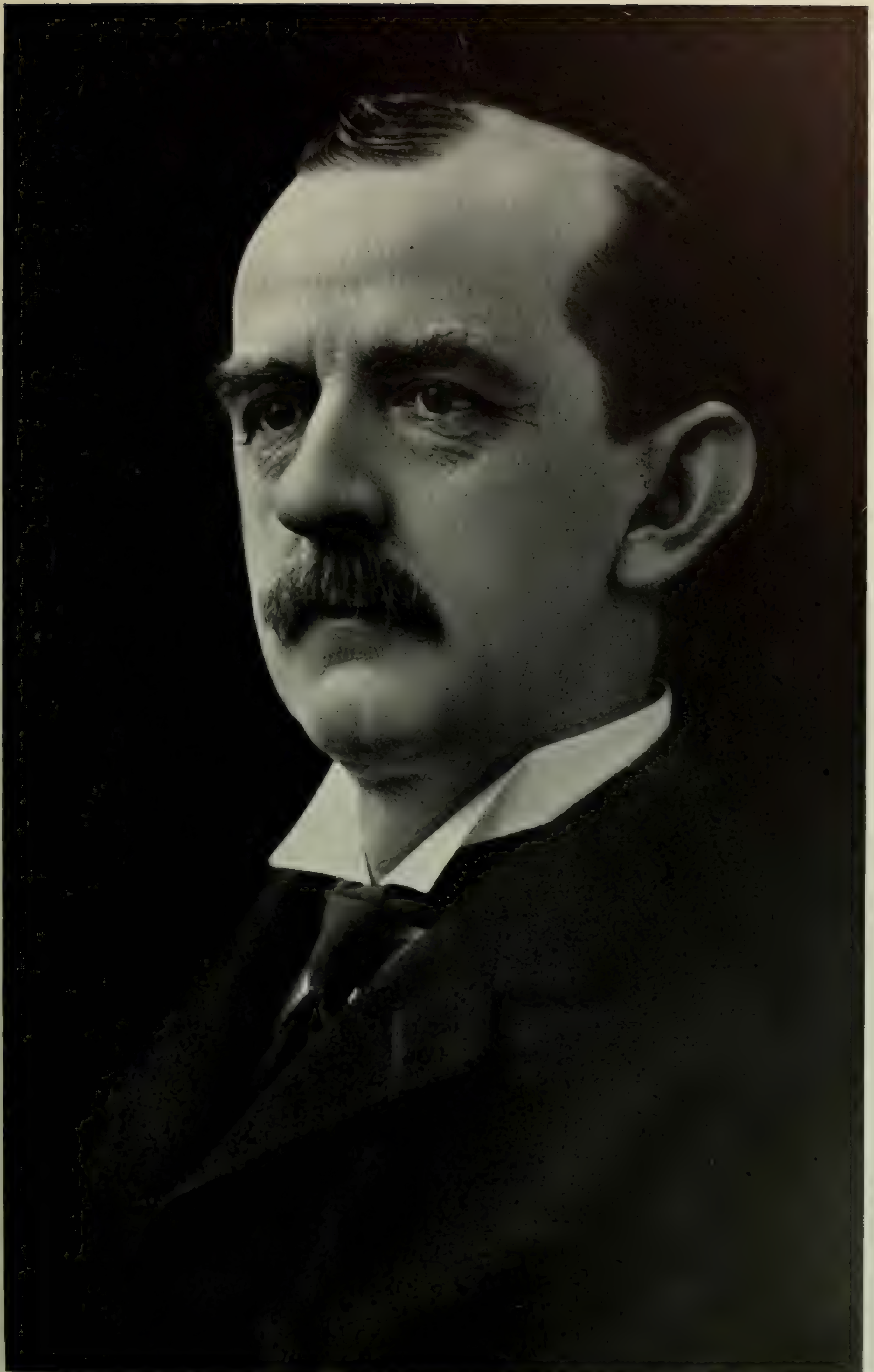
THIS insolence of the autocratic mind explains the action of the Russian fleet when they fired on English fishermen. Whatever the excuses given for it, it was a "mistake" of a kind that only the autocratic kind of mind could have made. The incident was for this reason more illuminating to the western world than any preceding incident of the war; for it showed the Russian state of mind and point of view.

There are mistakes that an admiral of any fleet might make, but this was not one of them. The incident struck deeper than the general chance of error. It showed the radical difference between a mind bred in the atmosphere of a corrupt autocracy, and other minds. It showed Russia centuries behind western Europe, and in direct conflict with it, and it was this deeper revelation that bewildered the world. If a Russian man-of-war had run down an English fishing-smack by an accident of navigation, and had killed thrice as many men, it would have attracted no more attention than any other ordinary marine mishap. It was not the lives lost that stirred England, but the method of thought that was revealed. The western world got a glimpse of the autocratic mind at work. Drunk or sober, nervous or calm, no matter. Here was a navy of the Czar of all the Russias, and there was a fishing-fleet. Though the excuse was made that fright prompted shooting, the irresponsibility of autocracy asserted itself, as when a Russian naval lord might shoot a peasant whose smack ran in the way of a royal procession. This state of mind was betrayed by the Russian commander's conduct in considering the incident of too little importance to demand a prompt report.

Now, since the world is fast becoming one neighborhood, an autocratic and insolent neighbor like this must cause serious trouble. So long as Russian warships kept at home and so long as Russian aggression was eastward, the western world forgot the real nature of the autocracy. What the war with Japan has done is to reveal its character afresh; and the revelation has carried with it a profound conviction that the Russian conception of government and the conception of government held by most western nations are so incompatible that they cannot express themselves in action at the same time in a world as small as ours has now come to be. The sympathy of the English-speaking people for Japan, therefore, has a deeper significance than admiration for the bravery of the Japanese. It rests on an irreconcilable enmity to all that Russia stands for.

During the comparatively long period of peace in Europe, the autocracy of Russia has concealed its true character chiefly through its well-trained diplomatists; and it has had an ally in the Emperor of Germany; for the development of the German people has not been in the direction of popular freedom under the present war-lord. The old spirit of absolutism has become stronger.

But it is a pleasing reflection that outside of Germany, in almost every other European country, popular government becomes more strongly entrenched or a nearer approach is made to it. An absolute monarchy is unthinkable in any European kingdom except Turkey and Russia. The progress of liberalism in Italy, the strengthening of the republic in France, the sturdy freedom of the Dutch, the relaxing of autocracy even in Spain, and at the other side of the world the astonishing progress of the people of Japan which is toward democracy and away from absolutism by a route peculiarly their own—these tendencies all make the world a better world to live in, and they emphasize the necessary alienation of Russia as the head and front of absolutism in a century that must widen and deepen the hold of democracy on mankind—unless we are to despair of human



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SENATOR WINTHROP MURRAY CRANE OF MASSACHUSETTS

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COLONEL CLARENCE R. EDWARDS

CHIEF OF THE UNITED STATES BUREAU OF INSULAR AFFAIRS

progress. This is the spirit of an age of marked human advance. Even this war, therefore, makes for permanent peace.

A MEASURE OF RELIGIOUS LIBERALITY

THE clash between absolutism and free government strikes even deeper than religious sympathy. It is a proper Christmas thought—how far human fellowship has broken over the bounds of creeds. In the first months of the war between Japan and Russia, we sometimes read of it as a war between a Christian nation and a pagan one; but the sympathies of English-speaking people took no note of this difference. The Russians continue to lay stress on their religious duty, as witness these extracts from the *Strannik* of St. Petersburg:

> "The opposition to the retention of Manchuria proceeds from a misunderstanding of the mission which God ordained for Russia. Our country is providentially called to extend and maintain the Orthodox faith in the whole world. Left to themselves, the Chinese would not experience the need of receiving Christianity, and they would remain forever in the darkness of idolatry. Hence the divine law forbids Russia to return Manchuria to the Chinese.
>
> . . . .
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> "The conquest of Korea by the Japanese would make it impossible for that country to become acquainted with the light of the gospel. In the name of her historical mission, therefore, Russia cannot allow any other State, even though it be a Christian State, but not Orthodox, to possess itself of Korea, but must herself extend her protectorate over it. God will punish China and Japan for not having recognized His ways and the wonderful works of His hand."

But such appeals are effective only with the Russians themselves. Shintoism, Buddhism, Christianity, play a small part in our judgment of the rightness of a principle or of the manliness of a people. The untrustworthiness of Russian despatches about the war has done more to destroy respect for Russian character than their adherence to a form of Christianity can ever do to restore it.

This judgment by the English and ourselves gives a good measure of our liberalization of opinion on religious subjects. The barriers of creed, church, and religion have broken down so completely that we have forgotten that they existed. Yet they hitherto played so large a part in our thought that it would have been inconceivable even a generation ago that the English and the American people should ever forget the difference between a Christian and a "heathen" nation. Such a change has cleared the atmosphere of much cant—the kind of cant that Carlyle used to rail about. The insolence of a "Christian" autocracy is the really "heathen" thing; and we are the honester for frankly acknowledging it.

WITH US—ONLY PEACE AND PROSPERITY

BUT, however much a great war may darken Asia and keep Europe anxious, our own government is at profound peace with all the world without any apparent danger of possible entanglements anywhere. We sow and reap bountiful harvests which nations across both oceans buy to our enrichment; we are becoming wealthy at an amazing pace in spite of our inability to pay proper attention to foreign trade, for our manufactured wares are sold abroad in increasing quantities, almost without intelligent effort; we lately passed through a presidential campaign without deranging trade and even without becoming excited; and the every-day, commonplace things of life so absorb us that we become more and more comfortable even at the possible risk of becoming dull.

Yet the foundation of the wisest Christmas congratulations is in these every-day, comfortable facts. In taking measure of a people's happiness, these are the things that a philosopher would observe—good food and good cooking; comfortable houses with good beds and bath-room; sanitary habits; good roads, effective community organization; schools of the right sort. In all these (and there is real social progress only in proportion to the improvement of these elementary agencies of good living), this magazine has continuously presented evidences of advancement. The most hopeful single fact in American life today is perhaps the new practical knowledge that we are all getting, of the bounty and the beauty of the earth. The cultivation of the soil, in small areas as well as large, is for the first time in human history becoming possible with comforts and profits comparable to those in other occupations.

Upon these fundamental things we go on building a sounder economic life. In small units, this tendency shows itself whenever a man goes out of town and buys an acre for

a garden. In larger units, it shows itself in the economic independence of every great section of the country. In units still larger, it shows itself in our ability to make loans to foreign governments—the recent forty-million loan to Mexico, for example.

THE AVERTED DANGER OF RUSSIAN WAR WITH ENGLAND

THE Russian Baltic fleet at last set sail in October with the pretense of going to the scene of war. What its destination will be is a puzzle to all naval students. Vladivostock, the only port that Russia has open in the east, will be closed by ice long before the fleet can reach it. There was no rational hope when it started that it could find refuge at Port Arthur; there is no other Russian port in Asia that could harbor the fleet; and it cannot take refuge in any neutral port so long as the war continues. There are grave difficulties to be overcome, too, such as securing sufficient coal, before the fleet could possibly reach the Pacific, if it really try to proceed.

But, whatever plan the Russian Admiralty had in starting it on this voyage, whether merely to affect public opinion at home or to try a forlorn hope, it made an untoward start. England was thrown into a panic of indignation by the firing of the fleet upon English fishing vessels, and for a day or two there was apparent danger of a conflict between Russian and English men-of-war. But the self-restraint of the English Government caused a settlement of the incident to be entrusted to a tribunal chosen by both governments, and the Russian fleet proceeded on its way.

The probability is that the Russian naval officers, because of nervousness and incompetence, mistook some of their own fleet for what they supposed to be Japanese torpedo boats, and fired upon them and upon the English trawlers near-by. It was a "mistake," probably made in panic, that caused the whole world to laugh at the Russian navy. Incidentally, it forced to a higher pitch the mutual suspicions of the Russians and the English, and to this extent it contributed to the danger of possible conflict hereafter. But a settlement of this difficulty in the face of inflamed public opinion is a striking evidence of the growth of feeling in favor of arbitration even by the foremost governments. Regarded at this distance, it would have been both criminal and absurd for two great Powers to go to war about an incident which, however stupid, surely was not deliberately intended as a hostile act. But while the murdered fishermen lay dead at Hull it required coolness to act with the wisdom of restraint. The English demand is an indemnity, which Russia will willingly pay, and punishment of the officers who were responsible for the "mistake." Both governments will abide by the decision of the tribunal.

THE INCREASING DREAD OF WAR

THE hope that this war will lead to a long peace in Asia is a reasonable expectation. The grave danger to peace there has hitherto been the greedy attitude of the principal European powers toward China. The development of the world has now reached a stage where the exploitation of China cannot longer be postponed. Few well-informed men ever expect to see a strong central Chinese Government. The Chinese are without a sense of nationality. They lack cohesive political qualities. The trade of the vast empire and its modernization must therefore be directed, not as the trade and modernization of Japan have been directed, by the people themselves, but by people of other nations. Every one of the principal European nations already has a lodgment on Chinese soil. The Boxer insurrection which was put down by an army of the allies would have resulted in still further partition of Chinese territory but for a mutual jealousy of the Powers and for the ably conducted diplomatic work in which our Department of State took the leadership.

Until recent years none of the great Powers would have considered Japan a serious obstacle to its ambition in securing Chinese territory. But with Japan henceforth occupying a relation to the Asiatic continent somewhat like the relation that England bears to the continent of Europe, the whole Asiatic situation will be changed. Japan disclaims any desire for a political conquest of China, but she can play a more important part in its commercial organization and development than any other nation. The spirit that the Japanese have shown is the spirit of willingness to coöperate with the European Powers in this work.

With the troublesome question of Korea and Manchuria settled (and these will be set-

tled by the war whenever it ends), and with Japan holding the place of a first-class naval power and having an alliance with Great Britain, the old danger of territorial spoliation is almost sure to be superseded by peaceful plans for the development of the Chinese people. In a word, the rise of Japan and the settlement of her difficulty with Russia seem likely to leave the whole Asiatic problem on the Pacific a problem of the sort that can best be solved by peaceful means rather than by active aggression.

Of course there will remain a more or less general danger of war at some time between Russia and England. But, if England does not become involved before the present war ends, Russia will not be in a position to seek a conflict for a good many years to come, or even to permit it if she can help it. The gravest danger that will be left on the political map will be Turkey; but even that will be less likely to lead to a general conflict than it has hitherto been. During the first decade or so after Russia emerges from her present struggle, the general danger of war in Europe will be very perceptibly less. Besides, the spirit of arbitration is growing, and civilization shrinks more and more from the horrors of battle. As the possibilities of the peaceful settlement of grave difficulties become more apparent, the added horrors of warfare such as are seen even at a distance on the battle-fields of Manchuria will not be lost on civilization. The old glory of war is fast passing. Its pomp surely is gone. Fighting now consists not in the brave marching to battle of long columns of men shoulder to shoulder, but in an organized and systematic slaughter that is conducted by electricity, telephones, long-range guns, and smokeless powder. All these have made the conduct of a battle a scientific, cold-blooded, and in a way inglorious achievement. Mines and submarine boats and torpedoes have brought a somewhat similar result in naval warfare. Moreover, every great government in the world except the Russian has to submit its budgets to public opinion, and the ever-increasing cost of war more and more deters the people of every civilized land.

In spite, therefore, of the slaughter of men at Port Arthur and on the battle-fields of Manchuria, the outlook for peace among the civilized nations constantly becomes better and better.

THE BLOODY PROGRESS OF THE WAR

AFTER the great battle of Liao-Yang, in which the Japanese drove the Russians northward to Mukden, the Russian commander took the offensive and marched south to meet the pursuing enemy. Another great battle followed—the battle of the Shakhe River—and it followed the battle of Liao-Yang so closely as to excite wonder at the endurance of both armies. The strategy that ordered the boasting Russian advance southward was probably neither part of the Imperial plan of campaign, nor a sudden whim of the Czar to call anew for the instant relief of Port Arthur. It was more likely a desperate fight for winter quarters and supplies.

By the beginning of October the Japanese had finished the rebuilding of the railway from Dalny to Liao-Yang, with its branch to New-Chwang. The line from Antung to Liao-Yang was nearing completion. The three armies of Kuroki, Nodzu, and Oku had pushed on steadily after the Russians. On the south they were within ten miles of Mukden. On the west, at a distance of twenty miles, they were abreast of it. The net was gradually being drawn around Kuropatkin. His only alternative was to retreat or to fight.

The intense cold of the Manchurian winter freezes the ground to such a depth that trenching will be impossible and military operations must be suspended. It is a country so destitute of trees that the Russians have already used all the dry cut corn and the woodwork of the houses for their camp-fires. A large city was needed for their winter quarters, and the only large city to the north of Mukden on the direct line of the railroad is Harbin, 400 miles away, a desperately long and bloody road to win back in the spring.

A further reason made a heroic effort to save Mukden necessary. It lies in the centre of a rich agricultural country, from which the Russian army could obtain almost all its provisions. Every mile Kuropatkin went north increased the proportion of supplies that must be sent from Russia, and, on account of the limited capacity of the single-track Siberian railway, decreased the number of reinforcements that could be sent to his aid; and his need of men is imperative. The Russian strategy was accordingly devoted to saving Mukden by making Liao-Yang the objective of an offensive movement.

The Japanese at first fell back before the threatened advance, and for three days the Russian army, every man loaded with pickaxe and spade and kettle, solemnly singing the national hymn, marched southward unopposed. Then the Russian right was turned and the centre was driven back by overwhelming numbers and terrific artillery fire. The left had attempted a flanking movement, but was itself enfolded by the Japanese right, swinging widely out over the hills. The whole Russian army was driven back almost to its starting-point.

For eight days the battle raged with great slaughter. During the last four days of the carnage the two great armies faced each other along a front of over forty miles. Like furious waves they surged back and forth. Guns were taken and retaken. Different commanding hills changed hands ten times. The village of Shakhe was tossed back and forth from army to army, until Kuropatkin himself, at the head of the Petroff regiment, made a desperate assault and captured and held the position. Rain fell in torrents. As the great battle wore itself out in the mud and desolation of the valley, the towering earthworks around Mukden, at which the Russians had been toiling for weeks, were completed.

We were told after the Boer War that frontal attacks had become so deadly that they would never again be attempted. But at the Battle of Shakhe neither side shrank from direct charges upon strongly held trenches. The Japanese won through superiority in numbers, the greater destructiveness of their flattened, copper-covered bullets, and the furious individual valor of their men. They numbered about 260,000; their losses were close upon 16,000.

The size of the Russian army has always been exaggerated. It could have counted no more than 175,000 of all ranks. Its total casualties amounted to nearly 46,000, or more than 26 per cent. of the entire force. No battle since the Wilderness campaign and Shiloh has been so bloody. No battle, in a field of similar size, of equal duration, has ever covered so wide a front and so short a line of direct marching. The extreme points of advance and retreat are less than fifteen miles apart. The total visible gain for the enormous Russian sacrifice is thirty Japanese cannon, a five-mile advance, and the village of Shakhe. It is not certain, when this is written, that Mukden has been saved by the Russians.

Along a front of twelve miles the two great armies face each other across the Shakhe River. In some places their trenches are only 300 feet apart. There is continual sniping and artillery practice, with night raids and occasional skirmishes on the extreme right and left. Regiments are being reorganized. Men are being rushed forward to new positions. Both sides are gathering strength for another desperate struggle.

At Port Arthur, when the Japanese resumed their terrific assaults in the last stage of the siege, both sides, giving no quarter, slaughtered each other with a fury almost unparalleled in warfare. It is probable that the entire Russian garrison will perish, and the Japanese casualties in the siege, including deaths from beri-beri, had reached 40,000.

Vladivostok is still undisturbed, and is being used as a base of supplies carried by venturesome ships. It will soon be icebound, and is not likely to engage the attention of the Japanese until spring.

A new factor in the problem for Japan is the *opéra bouffe* fleet which Russia has just sent to the East. If, by great good fortune, it should arrive in the East China Sea, in spite of its ridiculous inefficiency, Admiral Togo will have a hostile fleet in being in Japanese waters, which he must find and destroy. Until he meets it, he must remain near his present secret rendezvous to protect the transports and supply-ships that pass to and fro every day in great numbers.

In spite of the chaos of counsels at St. Petersburg, and unparalleled corruption in administration, the stock exchanges of the world believe in Russia's ultimate success. A new loan has just been floated for her benefit, and nearly a year of disasters has depreciated Russian bonds only five points; while victory after victory has not prevented Japanese securities from an equal fall. This confidence is largely accounted for by the newly bought political support of Germany. It is also in part based upon the assurance that Kuropatkin is to remain in command.

THE PERSONALITY OF GENERAL KUROPATKIN

GENERAL KUROPATKIN, now in supreme command of the Russian land forces in Asia, has a task that military critics have repeatedly pronounced all but impossible;

yet he has already done more than any of Russia's friends hoped for. Vladivostok is still receiving supplies by sea, and he has fallen back only one-third of the way to Harbin.

At fifty-six he has the same restless energy that he had in his youth when he stormed through the horrors of Plevna with Skobeleff; and he is one of the most famous military men now living. Like Skobeleff, he is a great leader of men, and he knows the value of the theatrical pomp and braggadocio that appeal to the Tartar hearts of his Russian soldiers. But, in spite of his boasting addresses, his ostentatious slapping on the back of his "brother" Ivan, the private; in spite of his carload of icons, amulets and crosses, with the exhortations and benedictions of his priest, he is a cold-blooded calculator, patient and untiring in his study of detail, modest and just. He is the idol of his army. Endless toil has been the key-note of his life.

His lust for hard work showed itself early. At eighteen he scorned the fashionable Imperial Guards, and chose a commission in the Turkestan Rifles, because he wanted work. After brilliant service ending at Samarcand, he returned to St. Petersburg at twenty to complete his studies in the Academy of the General Staff. He was a hereditary noble of Pskof, but he worked desperately hard, and in 1874 took the highest honors. On leave to study abroad after the Franco-Prussian War, he helped to reorganize the French cavalry. General de Gallifet, the first cavalryman of France, declared in his report that the most brilliant results of the work had been gained through the advice of young Kuropatkin. His remarkable strategic ability in the manœuvres near Metz made him the first Russian to become an officer of the Legion of Honor for military services.

He has been severely wounded several times. In the Russo-Turkish War he was the battle brother of Skobeleff. At Plevna, by Skobeleff's side, he saw 8,000 of his chief's 18,000 men fall. The only officer not dead or wounded, he led 300 men in a charge against a battalion of Turks. Only a hundred returned, but the Turks had been driven back into the famous "Redoubt No. 13." He has won every decoration for valor that the Czar has in his gift. Skobeleff said of him that he was the coolest and hardest-nerved man he had ever seen under fire.

The Turcoman campaign and the reorganization of the Russian army filled the next twelve years of his life. His success as administrator was equally brilliant. During the seven years of his governorship of Transcaspia, he succeeded in pacifying the wild hordes of Turcoman robbers. Railroads and carriage roads, churches and public buildings were built. Thirty schools and colleges were opened, and a judicial department was organized. He induced the natives to take to cotton planting, which is now the principal industry of the country. A rare thing for a Russian governor, he brought happiness and prosperity to his conquered province.

He was appointed Minister of War in 1898. He introduced many useful reforms, worked for honesty of administration, and brought the European Russian army up to a high standard of efficiency. A history of Algiers, a volume on the "Conquest of Central Asia," another on "The Russo-Turkish War," and frequent essays and lectures have confirmed his great reputation abroad.

But brilliancy of gifts and great public services count for little in Russia when weighed in the balance against imperial favor. Kuropatkin has always been a Russian of the Russians, and an ardent expansionist, but he has always had an open eye for facts. He had just been over the whole ground which is now a shambles. He had just returned from Japan, and with full knowledge of its naval and military resources he told the Czar that it would be quite two years before Russia could be prepared for a Far Eastern war. But Nicholas II. chose to heed the stupid and blundering Alexieff and his Grand Ducal relatives instead, and the responsibility for all subsequent disasters is his alone. The whole history of the campaign has been one of imperial orders and orders countermanded, petty intriguing and interference from Alexieff and from the Czar, and peremptory foolish commands. Supplies and money for supplies have been stolen; and the men have often been in cruel want of boots, clothing, food, and hospital necessaries.

When he arrived at Mukden, he found an army numbering only 65,000; command of the sea had been lost, and Port Arthur had become a trap. The Czar and his incompetent advisers vetoed his plan of campaign with its proposed withdrawal to Harbin, and insisted upon directing his strategy. As a result, General Stössel, with his splendid

swashbuckling heroism, was sent to hold Port Arthur, and his garrison has been sacrificed. By death, wounds, disease and capture the Russians have lost at least 100,000 men. The Japanese, by force of numbers, by careful adherence to perfect plans, rather than by brilliant military operations, have driven the Russians north slowly and irresistibly.

But through it all Kuropatkin has gone smiling, confident, unmoved, working day and night and rarely seeking his armored car for sleep. He has done so well in the face of overwhelming difficulties, that the best military critics now call him a general of the highest and rarest order of genius. For against Japanese successes are to be set Japanese failures. They allowed Port Arthur to be provisioned, armed, and garrisoned when they could have taken it in February with an army corps of 40,000. They have always outnumbered their enemies, and three times they could have turned Russian defeat into catastrophe if they had had the dash to secure the ordinary fruits of victory. Ever since mid-July they have been manœuvring against Mukden, and the sphere of their operations has been confined within a radius of about one hundred miles.

Their advantages lie in careful and perfect method, highly trained officers, some of the best infantry in the world, an artillery with a greatly superior explosive, a base near at hand, and an economy of expenditure that enables them to carry on the war for $15,000,000 per month when it costs Russia $45,000,000.

But Kuropatkin has organized and created an army, now numbering about 250,000 men, and steadily growing at the rate of 35,000 per month. Until two months ago, the Russian army was almost entirely made up of Siberian troops and reservists of thirty-five and forty years of age. Kuropatkin is at last heeded, and every new regiment now sent to Manchuria is the flower of the European army.

For Nicholas II. victory is as vital as for the Japanese. He must win to make his throne secure; and to take defeat at the hands of the despised Japanese would destroy the very fabric of his empire, built upon the ruins of a score of Asiatic kingdoms. At times the Czar has shown himself as dependent upon omens as an Athenian general. But he has found that the birth of the Czarewitch neither delayed the destruction of his fleet, nor the defeat of Liao-Yang. He remembers his "never-to-be-forgotten father's" opinion of Kuropatkin, and he is not wholly impervious to foreign expert opinion of his great general, who now has a freer hand than ever before.

THE SIEGE OF PORT ARTHUR

FOR more than three months no information reached the western world of the Japanese operations around Port Arthur, except an occasional unauthentic despatch from some blockade-runner. Then the curtain of silence was lifted by a long censored telegram, giving in outline the details of the siege since July. The tale of horror is without parallel in the history of modern warfare. And yet the narrative is dry and technical, and as unemotional as one of Wellington's despatches. There is not a word of the unburied dead, of the sufferings from beriberi and pestilence, of the frequent explosions of Russian mines—not a single pen-picture of the revolting slopes that hedge in Port Arthur. But for all that the fearful truth stands out nakedly.

The siege entered on its last stage on July 30th. By a whirlwind surprise-attack the Japanese drove the Russians from their last range of outlying hills. As they retired to their advance line beneath the almost impregnably fortified ridge that surrounds the town, the Japanese swarmed after them down over the jagged crests and into the waving corn-fields of the valley of Shuishi. Reaching from shore to shore of the promontory, they stretched their lines in a semicircle around the great range of forts.

The incessant roar of cannon, the beating and bursting of shells, the rattle of rifle fire, the clamorous clacking of the machine-guns, made the valley of Shuishi an inferno for more than one hundred days. There was no day when the Japanese did not deliver an assault upon some part of the works. Sometimes it was made openly, sometimes stealthily and by night, but always furiously. By the beginning of November, General Nogi had taken all the Russian advance lines, and by terrific sledge-hammer frontal attacks had burst through the great circle of the fortified ridge, and captured five of its strongest forts. A large part of the city then lay at his mercy. The carnage and the wonderful mettle of both forces are the facts that now stand out clearly.

The first and the most desperate assault lasted six days, and the Japanese losses reached the staggering total of 14,000. The famous exploit of the Light Brigade at Balaklava, when only 198 returned out of 670 English cavalry that charged the whole Russian army, pales in comparison with the record of one Japanese regiment during this fatal week. Of its 2,750 men, only six officers and 200 men were left after the fight. With a frank admission that they had underestimated General Stössel's ability and the valor of his men, the experiment was never again repeated on so large a scale.

But the Japanese threw the same wild energy into the work of sapping and digging parallels. They seemed to disappear in the ground and to work through it as quickly as moles. As soon as the parallels directed against a particular fort were finished, the works they intended to storm were subjected to a terrific bombardment. The fire of 400 siege-guns was at times concentrated upon a single fort. Then a regiment would climb forth and make the assault. Usually they had three successive trenches to carry, preceded by wire entanglements, and, in two cases, by a ditch twenty feet wide and twenty-five feet deep. More than once the Russians were perfectly prepared for their coming; and, when they were close at hand, dazzling searchlights were turned in their faces, and machine-guns mowed down the bewildered Japanese ranks like grain.

The rage of the combatants increased every day. After the middle of August white flags were no longer respected, and stretcher-bearers became a legitimate mark for sharp-shooters on both sides. The helpless wounded who were rescued were dragged into the trenches by their heels by men who worked slowly along the ground on their stomachs.

Facts like these give a hint of the desperation both of the attack and of the defense. The dwindling Russian army, cut off from all communication with the world, long fought with the belief that General Kuropatkin was making headway to relieve them, instead of retreating farther and farther north, and even with the hope that the Baltic Squadron would soon engage Admiral Togo's blockading fleet. This state of mind was, in a way, as tragic a thing as the slaughter on the mountain slopes.

WHAT THE ELECTION SHOWED

THE election plainly showed all four of the things that an election can show. It showed, in the first place, the personal confidence that the people have in Mr. Roosevelt and their admiration of him; for in almost every State the vote for him was much greater than the vote for the Republican State ticket. It was a remarkable personal triumph—the most remarkable in our whole political history; for it came in a time of order with an organized opposition, when there was no fear of panic and when the election of his opponent would not have brought disaster. Whatever other causes contributed to the result, then, it is certain that Mr. Roosevelt's personal popularity was one cause; for in addition to the fullest party vote, he received in most States many Democratic votes as well. He is the most popular man that has come into public life within recent times. The people like his energy, his frankness, his robust ways. To doubt this is to be blind.

The election showed also the vitality of the Republican party. The party's strength in Congress was materially increased, and that, too, at a time when there was no fear of disastrous or unsettling legislation, as there was four years and eight years ago. In every northern State where governors were elected, except Massachusetts and Minnesota, the Republicans won. The party throughout the country showed an even more than normal strength, after allowance is made for the President's personal popularity.

The election showed, in the third place, the lamentable weakness of the Democratic party—a disappointing weakness. There was no danger of the revival of free silver, and the party had a candidate free from revolutionary tendencies. It seemed to be united, too, for the Bryan Democrats and the Gold Democrats worked together. But the party polled a weaker vote than it polled when the Gold Democrats had a ticket of their own, or when, as a rule, they voted for McKinley. This result is a striking proof that a party must identify itself with some vital issue. The Democrats showed moral earnestness about no vital principle. They discussed controversies that were long ago settled, or merely academic subjects. They did not take hold on the present life or thought of the people. Their campaign was academic and feeble.

The election showed, finally, the futility of nominating an unknown and negative candidate, however respectable. The people like to know the men they elect to office. Mr. Parker was nothing more than a name to the great majority of electors.

No election could show more than these four large facts, nor could any election show all four of these more plainly. So plainly did it show them that it is almost superfluous to point them out.

THE PRESIDENT

THE President has won not only a great victory but an unprecedented personal triumph. He received the whole Republican vote plus an enormous vote of especial confidence in himself; for the Democratic attack was directed less at his party than at him personally—at his fitness for the office. In the North, it was said that he has done violence to the Constitution, and in the South that he has done violence to the Constitution and to the white race. Men were asked to vote against him not only on the usual grounds of partisanship, but also because he was an "unsafe" executive—a sort of revolutionist. The answer was the overwhelming proof that he is the most popular man in our public life—the most popular that has been in public life for a long time. Fortunately, the President is a man without the slightest trace of vindictiveness, and he will not misconstrue this personal triumph; for its real meaning is that the people understand him and trust him.

Mr. Roosevelt now has a chance that any of his predecessors in the great office might have envied. Brought into the presidency, for which he had an honorable and already avowed ambition, by a deplorable tragedy, he was not welcomed by the masters and elders of his party organization. He had not trained with them. He was not of like mind and temper with them. He had not commended himself to them by his conduct as Governor of New York. It was a party condition in which plans would have matured that would have excluded any man of ordinary qualities. He frankly avowed his wish to be elected President, but he offended the large financial corporations. There was more than one determined effort to prevent his nomination, but he appealed to the people against the silent opposition of the organization of his own party and of great financial interests; and before the convention met, opposition had disappeared. Having attained his ambition—an election to the Presidency—after an experience in the office of nearly a full term, he is free (to use his own phrase) to be a whole President. He has the office without a pledge—so he himself has declared—and the election showed that the people believed him. Mr. Roosevelt has already to his credit a large volume of positive achievement as President. The Panama Canal has been secured; a national irrigation plan has gone into effect; the army has been reorganized; the Philippine problem has been reduced to simpler terms, and there is satisfactory progress in the building up of our wards; he has toned up the public service; he has given a new impetus to American youth; our relations with foreign countries are as cordial as ever, and he has brought the world-influence of the United States to a higher point than it ever before reached.

He comes into office by direct election at a time when we have a solid prosperity, international good-will, and a growing influence in the world; he has the confidence and the approval of the people; and his administration will enter upon its second stage under as happy promise as he or we could wish—a fit and tried chief magistrate of a free and fortunate people, at a most interesting time in his life and in the life of the nation. He has freed himself from the embarrassment of again being a candidate and from the temptation to seek a renomination—a high and proper act done in the first moments of his great triumph. So far from expressing "fear" of intrusting him with power, the people have emphatically commended his energy and his judgment, and given him a commission to make the presidency an active office, and not, as it has been under most modern presidents, a refuge of solemn and ponderous "availability."

The President's triumph sweeps over party lines; and, but for the South (where his character and purposes have been wholly misinterpreted and misunderstood), his vote in the electoral college would be unanimous. This unprecedented expression of approval and admiration can mean but one thing: the United States has entered a new era and the people are conscious of it; the nation has found itself and is of one mind; and, in this

epoch of unparalleled growth at home and of increasing influence abroad, the confidence, the honesty, and the energy of Theodore Roosevelt represent the character and the aspirations of the people as their character and aspirations were never before represented except in the qualities and purposes of Washington and Lincoln. He is the best expression of the Americanism of our time.

WHERE THE ELECTION LEAVES THE TWO PARTIES

THE old and continuous danger of the Republican party—it may be called constitutional—is of course the danger of subserviency to the great commercial and financial interests. The government, whenever administered at the hands of complacent Republicans in the capitol and in the executive department, is sure to be government more or less for the privileged interests rather than for the whole people. There is always the possibility that some Republican campaign conducted after the plutocratic methods of 1896 and 1900, with a candidate for the presidency who is regarded as the tool, or even as the special friend, of the corporations, will meet overwhelming defeat.

The Republican party is the party of protection. Although the dominant sentiment of the country is overwhelmingly protectionist, no system of protection, however carefully wrought into law, can avoid giving benefits to individuals and to corporations at the expense of the public welfare. It is just at this point that the next danger to the party lies. If improperly favored interests have too strong a hold on the government it is only a question of time when conditions will drive the people to revolt.

The Republican party owes its safety, as it owes its great victory, to the personality of Mr. Roosevelt. So long as he is President there will be no favored interests at the White House. The condition, therefore, that the election leaves the party in is a condition of general danger that has been warded off at least during Mr. Roosevelt's administration. Before his administration ends, the party will, if it be wise, seriously set to work to take out of the tariff its worse abuses and to separate itself from the old suspicion of control by great corporations. If it can do this task it may reasonably look for an indefinite extension of authority.

The Democratic party is left by the election in a condition of chaos and feebleness. It frittered away its energies during the summer in the discussion of problems that had already been solved and of theories too abstract for the popular comprehension, and it did not formulate any vital principle about which the whole party may rally as a trained army four years hence. Nor did it develop a leader equal to its opportunity. The party as the election leaves it, therefore, is a mass of unrelated parts. If Mr. Bryan and his "radical" friends succeed in organizing, out of this débris, a party that shall stand for the public ownership of mines and railroads and such things, the real Democratic party—the party of Tilden and Cleveland—will have a chance to reorganize itself. But a real Democratic party must free itself on one side of the Populists and on the other side of the anti-Imperialists and the adherents of other academic isms. Thus freed, it will, of course, at some time come into power again—if it find worthy leadership. During the last forty years it has had two leaders worthy of it—Tilden and Cleveland. When another arises, the party will rise again, but not till then. These men had positive qualities and a clear-cut plan of action.

THE SORROW OF THE SOUTH

SENATOR BACON, of Georgia, was quoted as having said, just before the election:

> "If Roosevelt triumphs, many thousands of southern men will feel like throwing up their hands in despair, resigning themselves to their fate, regarding the South as forever ostracized so far as a dominating influence in the affairs of the government is concerned, and say: 'We are Americans, we love our country; we ought to be a part of the country, but we are not, and that is all there is of it; we are nothing but outsiders, mistrusted, ostracized. Very well, let the North run the government. We shall continue to be as good citizens as we can. But our hearts are broken because the people of the North are still unwilling to receive us into full national fellowship.'"

There is a tone of sadness in this sincere opinion; but it is a sorrow that is unnecessary, for the political trouble with the South may be summed up in five words: small men in public life. They live on theories or they live in the past. They do not take hold of the real problems of the nation.

For example: in half a dozen or more of the southern States the body of the Negroes

are disfranchised by the constitution. There is not the slightest danger of Negro rule. It is a constitutional impossibility. And nobody proposes to change these constitutions. If anything is fixed firmly—if anything is settled for an indefinite time—it is the necessary political supremacy of the whites. The nation has accepted this exclusion of the mass of Negroes from the polls. It was hardly mentioned on the stump in the northern States during the campaign. The northern masses thought nothing about it—it may be said cared nothing about it.

Yet during the campaign in every one of those States public speakers and the political press had more to say about the Negro than about all other subjects put together. They worked themselves and their audiences into the belief that in some way Mr. Roosevelt proposes to put the Negro into power—the absurdest supposition under heaven, and an utterly impossible one.

In other words, southern leaders of opinion hark back to the Negro instead of laying hold on large questions that concern the welfare of the whole nation.

The South might regain its old-time influence in national affairs; for the north, too, lacks able political leadership, and northern political leaders are, as a rule, of small stature. But the South, to regain great influence, must put stronger men in command. They must give their thought a less dark hue than eternal concentration on their local problem, which they have already disposed of in their own way.

In other departments of activity, southern men attain success and distinction in the same way that men in other parts of the country do. They are successful farmers, successful merchants, bankers, organizers of industry, and managers of great enterprises. In these activities, they work by the same principles that men elsewhere work. In education they show enthusiasm, and they are making progress that reveals both capacity and patriotism of a high order. In several departments of literature the South has writers who are among the most welcome in contemporary letters.

There is, too, in almost every part of the South, such an advance in well-being as was never before made there. The people are more at ease than they ever were before—they are more comfortable. As in other parts of the United States, they are better informed than their fathers were. More of them travel. In every kind of activity, they are as much the American people as are the residents of any other part of the country.

But in politics they remain apart. The South continues solid in a sense in which no other considerable part of the country is "solid." There are northern States which have not for forty years voted for a Democratic president, but some of these within that period have had Democratic governors, and in nearly all there are cities and counties and Congressional districts that are Democratic. New York city, for instance, is overwhelmingly Democratic; Chicago has had Democratic mayors for a number of years; Boston has a Democratic mayor; and Massachusetts and Minnesota have just elected Democratic governors. There is no such political solidity in any part of the North or West as there is in every part of the South.

And the South is not less solid since it excluded the mass of the Negroes from the ballot than it was before, nor does it discuss the subject of the Negro in politics less than before. The loneliness and exclusion, therefore, that Senator Bacon complains of in so pathetic a way are clearly the result of this unnecessary concentration of political thought upon one subject. If southern leaders were to arise who should show a capacity to manage great national problems and who should bring to our great national problems the results of helpful study and a broad vision, there is no reason why they should not organize their party again into a party that could win national victories; but so long as they hold their thought to this one local problem, the judgment of the nation will be that they are too local to be intrusted with national leadership; and they will continue to be a hindrance to the Democratic party in its struggle to win a national election.

A CHRISTMAS SUGGESTION

THE George Junior Republic, which makes a straightforward request in this magazine for support, is one of those helpful human things that an appeal may be made for with the feeling that you do a benefit to the man or the woman that you appeal to. There are many excellent agencies for the uplifting of unfortunate or neglected youth; but this one is constructed and con-

ducted on nothing less than the great principles that lie at the basis of good American citizenship; and mankind has yet evolved nothing sounder, whether applied to government or to the development of character in the young. If, in a world of constantly changing problems, there is anything that seems stable, these principles seem so. It is by making Christmas presents to those that need them that we best observe the season of good-will and give our own best impulses the best expression.

THE SOUND REVIVAL OF BUSINESS

[The World's Work publishes every month an article in which some timely and vital subject of the financial world is taken up]

CLEARLY the business depression of the past two years is at an end, and a new wave of prosperity has begun to swell. When Mr. F. A. Vanderlip, Vice-President of the National City Bank of New York, in a speech in October at the convention of the Illinois bankers, said "I am convinced that the possibilities of another great business expansion are at hand," his words met acquiescence in every part of the country. The facts of industry and of business corroborate the view that a renewal of activity has begun that promises to be greater and saner than the expansion of 1900 and 1901.

Two superstitions have been erased from the public mind so thoroughly that it will be a foolish generation which will believe in either one of them again.

(1) The first is that a panic must come at more or less regular intervals, say in a cycle of ten years. But before the popular imagination had begun to anticipate a repetition of the dark days of 1893, banks, business men, investors, and corporation managers had begun to discount the possible depression. They contracted their credits and their operations and investments so slowly and yet so surely that, when the depression did strike the business world, there were so few rashly inflated enterprises that no actual panic ensued. The values of securities declined, but scarcely below an ordinarily conservative level. Business men had learned how to nullify the dangers of the depression by considering them and taking measures to guard against them in advance.

(2) The second superstition was that a presidential campaign must necessarily paralyze business. Partly because Mr. Roosevelt's election was deemed for months beforehand a foregone conclusion, and partly because the business world had no fear that any change threatened either the currency or the tariff even if Judge Parker should be elected, the business world suffered less than it suffered during any presidential campaign that can be recalled. There was a slackening of industry, but nothing more.

The result of the election clears away any lurking doubt of governmental action that may unsettle business. Whatever action the administration takes against the trusts, it will not "run amuck." There is no likelihood of changes in the tariff. The currency question is settled. The administration, to keep the pledges of the Republican party, must "stand pat," and it is not likely that there will be any temptation to abandon the "stand pat" policy. The business interests of the country have nothing to fear from the government for the next four years. The election was the quietest in the memory of men now living, and never were the radical elements in national politics less prominent and less effective than they are today.

Curiously, the year began with a business depression, and fundamental conditions improved steadily as the campaign progressed. No one can now see any menace, through politics, to the fullest business expansion.

Nor were there ever fewer dissatisfied elements in the country. The farmers have had the best year they have ever had. The wheat crop fell off, but with the falling-off came an increase in the price. "Dollar wheat" is again a fact. The cotton crop was little short of last year's, and last year's prices will probably not be touched. But taking all the crops together, American farmers have received nearly two hundred

million dollars more for their crops this year than they received last year, which means more than in any single year before. For the year ending September 9th, banks in the South and the West had increased their loans $50,000,000 over the figures of a year ago, and their deposits $100,000,000. This showed marked improvement in the financial condition of the farmers—this, too, before this year's record-breaking crops had been gathered. The West, then, and the South are in a heyday of prosperity; and, when these agricultural sections are prosperous, the whole country prospers. An industrial revival is bound to follow fruitful agriculture.

Nor in considering the West can the mines be disregarded. In copper, especially, there has been a boom due to a heavy foreign demand, notably from the Netherlands. More copper was exported this year than ever before.

If steel production be considered as a barometer of industrial conditions, it is clear that no such expansion in manufacturing or building has begun as characterized 1901. But the orders have been coming in steadily to the United States Steel Corporation, and, at the time of writing, orders for 26,000 tons of steel are being received every day—an increase of 30 per cent. over the orders at the same time last year. There has been a steady growth in all manufactures. For the first time this year more manufactured goods were exported than agricultural products. If the signs of the depression now passed were most marked in the mishaps of manufacturing corporations, the effect of the depression in squeezing the water out of over-capitalized companies proved a healthful one. Establishments are now valued on a sounder basis than they were in the day of the boom, and the craze for sinking profits or capital in lavish improvements and enlargements has disappeared.

Labor, too, has become saner. No longer are the extravagant demands of a few years ago made on employers; and conflicts become fewer. Capitalists learned a lesson of conservatism from such affairs as the downfall of the United States Shipbuilding Company. Workmen, if they have learned nothing else, have learned not to strike when conditions do not warrant strikes. The new era opens with these lessons taken to heart.

The railroads have shown no improvement in business over last year. Not yet have they recovered from the lavish expenditure of the last few years in equipment and improvements, for they were as rash as the manufacturing companies in assuming before the depression set in that the unprecedented volume of business which they were then handling would continue. And the most careful management since has not resulted in an amount of traffic and an economy of operation sufficient to produce revenue to pay the charges on the improvements made, and still yield good dividends. But already the railroads of the West and the South have begun to experience the effects of the agricultural prosperity, and the eastern railroads are optimistic over the improvement in business which they feel they are bound to get. The first waves of it have already come.

The business of the United States Post-Office shows an increase of nearly $10,000,000 over last year. The banks are very prosperous, and yet they have become more conservative. They are keeping a higher reserve than they kept for several years past, and they are holding a higher proportion of gold in their reserves. Indeed, it has been estimated that of the greatly increased gold supply in the last three years the United States has absorbed 25 per cent. more than any other country. Much of it has gone into the vaults of banks. A good indication of the coming prosperity has been the business of the stock-exchanges. So great was the activity in the stock-market in October and so optimistic had the buyers become that stocks were ranging 20 per cent. higher than they did at the lowest point they reached this year. Speculation has been rife ever since the summer. Indeed, the presumption was even before the election that speculators and investors had already discounted the revival of activity.

The expansion of our commerce and industry after the war with Spain showed an unguessed national vitality. The subsequent recovery of business from its inflated condition without a serious crash showed an unguessed shrewdness. American enterprise can now be counted on for trade expansion at any period when conditions are as favorable as today. But it is the shrewdness which compels prudence that has in it the largest measure of hope for the better days that seem about to come.

WHAT THE GOVERNMENT IS DOING

The heads of the various departments of the National Government were asked by THE WORLD'S WORK *to tell what the activities of their departments have been this year. The following are their statements.*

A BIRD'S-EYE VIEW OF ENORMOUS WORK FOR AGRICULTURE

BY

JAMES WILSON

SECRETARY OF AGRICULTURE

THE work of the Department of Agriculture affects every individual in the United States. The department now has a force of nearly five thousand people, expends six million dollars annually, and publishes the results of its work in more than twelve million copies of reports, farmers' bulletins, and year-books.

The Bureau of Animal Industry this year spent approximately $220,000 in stamping out the foot-and-mouth disease, and saved the country probably not less than five hundred million dollars. Through its inspection service it opens the markets of the world to our meats. Thirty-seven million cattle were inspected last year by this bureau, at a cost of four-tenths of a cent each. Five hundred thousand hogs were inspected microscopically last year at a cost of 16 cents a head. This inspection for trichina has made it possible to put our pork into practically all countries. The Texas fever is kept in check through the quarantine service of this bureau. Last year 100,000 head of cattle were treated for blackleg with virus from its laboratories, effecting a saving of probably more than one and a half million dollars.

The Bureau of Plant Industry spends $600,000 a year in the studies of the diseases of plants, and annually saves five times this sum. Ten thousand dollars has been spent in five years on Sea Island cotton diseases. The diseases have been overcome and an industry worth from $250,000 to $500,000 annually has been reëstablished. Three thousand dollars a year for five years has been spent in encouraging the growing of rice in the South. As a result, a new industry has been established, and America now produces more than five hundred million pounds of this product, an increase of 35 per cent. in four years. Ten thousand dollars has been spent during the past four years in introducing and exploiting macaroni wheats. During this period the production has increased from nothing to 14,000,000 bushels. The bureau has discovered a way to increase the growth of clover and other crops and to cause these crops to take nitrogen from the air and to store it up in the soil. Its production of new hardy oranges will make possible the growing of this fruit in every home in the southern States. It has introduced new fruit crops like the date and the fig for our southwestern deserts. It has secured alkali-resistant alfalfas, new varieties of cottons and fruits, and many other valuable forage crops from foreign countries. It determines the purity and value of seeds; it decides on the methods of controlling the spread of weeds and preventing their introduction into the country.

The Bureau of Forestry during the past year has examined more than forty-five million of acres of vacant public lands suggested for forest reserves. Plans for more than one million acres of private forest lands are now being handled in this way. At an annual expenditure of about three thousand dollars, the bureau has prepared planting plans for more than four thousand acres in twenty-nine States. In its study of forest products the bureau has been able to suggest radical improvement in methods of turpentine orcharding. At an expenditure of from ten to twelve thousand dollars annually the bureau has, through this work, been able to increase the production of turpentine about 40 per cent. As a result of this, the total value of naval stores has increased from $18,000,000 to $25,000,000 per annum.

The Bureau of Soils is now expending more than two hundred thousand dollars annually. Twenty-five thousand dollars has been spent in encouraging the growth of Cuban tobacco in the United States. The value of this crop approximates $10,000,000, and this bureau has shown that it may be successfully grown in portions of the South. The bureau has discovered and pointed out methods of remedying serious diseases of tobacco, such as black-rot, which in Pennsylvania alone causes an annual loss of $500,000. The bureau has demonstrated that alkali lands may be reclaimed at a cost of from $15 to $20 an acre, and, when reclaimed, such lands are worth from $75 to $150 an acre.

The Bureau of Entomology, in its investigation of destructive insects, has saved millions of dollars to the South. Through the efforts of this bureau and at an expense of little more than a thousand dollars, the native home of the destructive San José scale has been found and a parasite which serves as a means of holding it in check has been discovered and introduced. This parasite has already been established in some of the largest orchards in the South. The bureau has also introduced from Africa an enemy of the black scale so destructive to the orange and lemon industries of California. At a cost of little more than $2,500, a loss of 2,250,000 feet of pine timber has been prevented.

A DEFINITE FORM IN OUR PUBLIC-BUILDING ARCHITECTURE

BY

HORACE A. TAYLOR

ACTING SECRETARY OF THE TREASURY

THE Treasury Department, which is charged with the management of the national finances, embraces many significant activities not associated with the handling of money. For example, the department plans and builds all the government buildings. It may be said that we have reached a definite form of architecture for our federal structures. For years the post-offices and custom-houses were designed after the individual tastes of the supervising architects. Now there is a general classic form of public architecture. In some cases, however, the architecture is made to conform to local conditions, as in the case of the Annapolis post-office. Annapolis is a community of colonial buildings to a large degree, and the new post-office there, which was finished this year, was built along classic lines, but with colonial adaptations.

An interesting phase in the construction of public buildings is the grouping of federal and civic buildings, as in Cleveland, Ohio, where the post-office, city hall, court-house, festival hall, railway station, and public library are all to be in one group. The post-office there is now in course of construction, and the department has coöperated heartily in carrying out the plan of a harmonious and æsthetic building-scheme, and will coöperate in all similar undertakings in any municipality that may plan such work.

The Chicago post-office, the largest one now in course of erection, which will cost $4,500,000, and which will soon be completed, is an innovation in our public buildings. While certain classic lines have been followed, the building is in the form of a Roman cross, with the courts outside instead of inside. Thus every room is a front room, and this experiment, which will result in admirably lighted rooms, will probably be followed elsewhere. During the year just closing, imposing public buildings have been completed and opened at Providence, San Francisco, and Wheeling, W. Va. Among the important buildings being built are the New York custom-house, the Baltimore custom-house and the Indianapolis post-office, the total cost of these buildings being approximately $9,000,000. The department is now building seventy-five public buildings whose total cost will aggregate $30,000,000.

THE FIGHT AGAINST DISEASE

The fight against yellow fever waged by the Bureau of Public Health and Marine Hospital Service, a branch of the Treasury Department, this year established a precedent of world-wide interest and value in the successful combatting of this disease. Yellow fever having appeared last year on the Texas-Mexican border at Laredo, the department instituted a warfare on mosquitoes,

proving conclusively that these insects are the conveyors of fever germs. When the mosquitoes were exterminated there was no recurrence of yellow fever this fall. The Yellow Fever Institute, maintained permanently by the department, is now engaged in studying the sources of the yellow-fever germ at Vera Cruz. Another significant work of this department recently initiated is the active coöperation with every State board of health in the fight against local epidemics and in the enactment of sanitary legislation. A rigid quarantine is being maintained in the Panama Canal zone.

Our mints are now coining money for nations that have no mints of their own. For example, last year the Philadelphia mint coined money for Colombia and Venezuela. The Philadelphia and San Francisco mints executed the coinage for the Philippines.

During the year just ending, 289 banks, with aggregate capital of $7,511,500, were chartered, the average capital being about $26,000. There has been a large increase in the number of chartered banks since the passage of the Act of Congress authorizing the organization of national banking associations with minimum capital of $25,000. Formerly the required capitalization was $50,000

MORE NEW NAVAL SHIPS THAN IN ANY PREVIOUS YEAR

BY

PAUL MORTON

SECRETARY OF THE NAVY

THE business of the Navy Department to create, operate and maintain the war fleet required by the American people for the defense of their shores and the maintenance of their national interests has increased very much during the year with the new tonnage commissioned, launched, and authorized. Armies of workmen in national and private yards have busily engaged in this construction, and in the case of the battle-ships *Connecticut* and *Louisiana* are contending for rapidity of completion and excellence of workmanship to our benefit. The active fleet has received in first commission the battle-ship *Ohio*, the cruisers *Chattanooga*, *Denver*, *Des Moines*, and *Tacoma*, and three torpedo vessels. No previous year has witnessed so many launchings. They include those of the battle-ships *Connecticut*, *Louisiana*, *Georgia*, *Nebraska*, *New Jersey*, *Rhode Island*, and *Virginia*, 14,600 to 16,000 tons displacement each, the armored cruiser *California*, 14,000 tons; the protected cruisers *Charleston* and *Milwaukee*, 9,600 tons each; the gunboats *Dubuque* and *Paducah*, and the training-vessels *Intrepid*, *Cumberland*, and *Boxer*, names recalling alike the majesty and power of our States, the importance of our cities, and the fame of bygone ships.

The greatest lesson taught by the Russo-Japanese War is the importance of the personnel; the next greatest is the importance of battle-ships.

Our growing fleet is forcing demands for certain changes in, or additions to, the organization of the department as a foundation for the intelligent organization of that fleet, the education and training of its personnel, and finally its distribution, and direction toward the purposes for which it is created and maintained by the nation. This requires the exercise of the highest order of talents in the office and at sea which it has earnestly been sought to obtain.

The efficiency of the active fleet depends in large degree upon the spirit and intelligence of its personnel, and in this respect we have little to fear. Upon the new Naval Academy rising at Annapolis rests the duty of educating the largely increased number of midshipmen provided for by recent legislation, while to the training squadrons we look to the early training of our enlisted force. This education and training is supplemented and completed in the active squadrons, whose cruises during the year have included work or duties in widely separated parts of the world, but more especially in Central American, West Indian, and Mediterranean waters.

Battle-ships are the sinews of naval defense. The people should not be deceived by the occasional successes scored by mines or by the vicious little torpedo vessel into calling for these defenses alone because they are cheap. It only needs to witness the anxiety and caution with which the present combatants

guard their battle-ships, the influence they exert on the command of the sea, and finally to recollect the relief with which the nation hailed the arrival of the *Oregon* on our East Coast in 1898 to realize the advantages of having such ships in the hour of need.

THE GROWTH OF THE RURAL FREE DELIVERY OF MAIL

BY

ROBERT J. WYNNE

POSTMASTER-GENERAL

PROGRESS and prosperity have marked every step in the administration of the postal service of the United States during the past year. The extension of free delivery in the rural districts is based chiefly upon the wishes of the people as expressed by petition, and the time and method of its establishment rest largely within the discretion of the Post-Office Department, controlled only by the amount appropriated by Congress for that purpose. In 1897, when the rural service was started on probation, $40,000 was deemed sufficient for its trial. During the fiscal year that ended June 30, 1904, nearly $13,000,000 was expended for rural free delivery. For the fiscal year upon which we have now entered $20,816,600 has been appropriated for the continuance and extension of the rural mail service. There were 24,566 rural routes in existence at the end of the fiscal year on June 30th last, 9,446 new routes having been put into operation during the fiscal year. On October 1, 1904, there were 27,135 routes established, and the service was being extended at the rate of about 800 routes a month.

Taking 450 people as the average number served on each route (a moderate estimate), the rural service in operation October 1, 1904, was bringing the mails within easy reach of the homes of 12,213,750 residents of rural districts. The service grows on what it feeds upon. In some sections of the country the demand exceeds the supply. It follows from this statement that the hopeful anticipations expressed in 1901 that in four years all the available territory in the United States would be practically covered by rural delivery are not so near realization as was then expected. On October 1st last, although more than twenty-seven thousand rural routes had been established up to that date, there were still pending, unacted upon, 3,859 petitions for new rural free delivery service. By far the larger proportion of these requests come from the middle western and southern States, the monthly income of petitions sometimes equaling the output of services established. Most of the eastern States have been fully supplied with rural service to fill up the interstices between the numerous post-offices existing in that section, and consequently that portion of the country may be to a great extent omitted from future computations as to the need of further development in rural delivery. In the territories and States of the far West present conditions do not favor a broad extension of the rural free delivery system.

Other advances in postal administration made this year may be briefly summarized as follows:

The exchange of money orders with foreign countries has been simplified and cheapened by the adoption of fixed rates of exchange and a reduction of the commissions allowed. Parcels-post service between the United States and foreign countries, first established by an experimental convention with Germany in 1899, has been extended during the year to Japan and the British Colony of Hong Kong, greatly to the advantage of our expanding eastern trade; also to Norway.

But the most important of all changes as affecting the revenue have been the relegation to the third-class rate of postage (one cent for each two ounces) of so-called periodical publications which are in fact books which have been carried for years at the losing second-class rates of one cent a pound because mailed as periodicals; the curtailment of abuses in the publisher's sample-copy privilege; and the stoppage of the return of dead or unsold matter by newsagents to the publishers without the payment of proper postal charges.

A FILIPINO SCHOOL-HOUSE OF THE MOST PRIMITIVE TYPE

Photographed from stereograph. Copyright, 1901, by H. C. White Co., New York

AN INSIDE VIEW OF PHILIPPINE LIFE

A PEOPLE WHO NEVER SAY "NO" AND NEVER DO "YES"—THE INFLUENCES THAT SHAPE THEIR DAILY LIFE—OUR EDUCATIONAL PROBLEM AMONG THEM—THE USELESSNESS OF CONSIDERING INDEPENDENCE UNDER PRESENT CONDITIONS

BY

FRED W. ATKINSON

FIRST GENERAL SUPERINTENDENT OF EDUCATION IN THE PHILIPPINE ISLANDS

AN EXPERIENCE of three years in the Philippines has brought me to the conclusion that the Filipinos are incapable of self-government. They are managed by a few ambitious leaders. They have not yet cultivated a sense of fair play and tolerance for those who differ in opinion. And yet, although the gift of self-government in full measure was not possible, the United States bestowed it to a degree by granting practical autonomy in provincial and municipal affairs. There are some 600 towns in which natives have, in the main, the same control over their local affairs as is enjoyed by the residents of towns of corresponding size in the United States. But a concentration of governmental powers has been found necessary in financial, judicial, and educational affairs.

The Philippine Islands lie about six hundred miles southeast of China, a few miles northeast of Borneo, and more than twelve hundred miles north of Australia. They consist of about 1,200 large and small islands. From the southern to the northern edge of the group is more than eleven hundred miles, or about the distance between the southern shores of Lake Superior and the northern

shores of the Gulf of Mexico. The extreme breadth is greater than the distance between Philadelphia and Indianapolis. Two of the islands are each about the size of Pennsylvania; four each the size of Connecticut; and two each the size of Rhode Island.

A VISAYAN GIRL: DAUGHTER OF GOVERNOR LARENA OF EASTERN NEGROS
The Visayans are among the most highly civilized of the Filipinos

The inhabitants are of four distinct races. The earliest to live in the islands were a race of a very low type, populating the entire archipelago. These little Negroes, or Negritos, who long dwelt there undisturbed, were either killed or thrust back into the recesses of the mountains, or into the jungles, by Malayan invaders. About 30,000 of their descendants dwell in the Philippines today.

Probably three Malayan invasions took

place. The head-hunting Igorrot tribes came first. About 200,000 of them live now in the mountains of northern Luzon. this invasion the Philippines owe the important tribes of Tagalogs, dwelling in and around Manila; the Visayans, dwelling in the

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WINNOWING RICE BY HAND IN PANDACAN, P. I.

The second invasion furnished the islands with the so-called "little brown people," who may be designated Filipinos. To central islands: the Vicols of southern and the Ilocanos of northern Luzon; and some forty or fifty other tribes. Their modern

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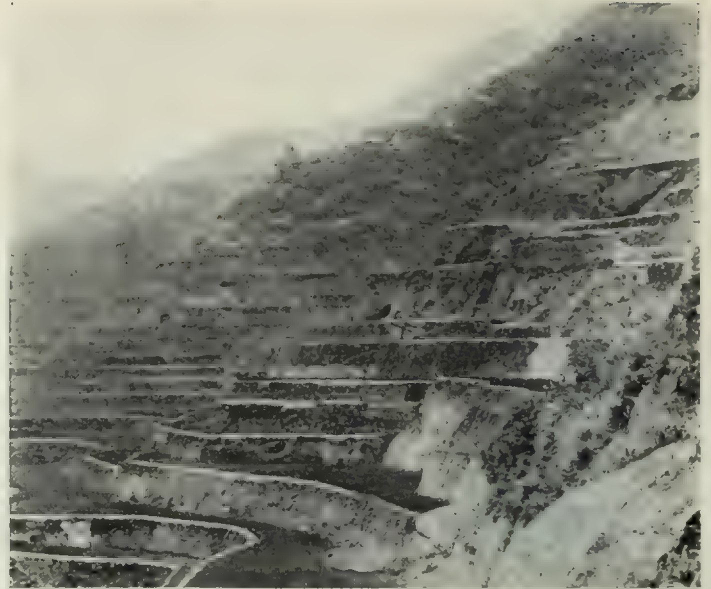
PLOWING RICE LANDS WITH WATER BUFFALO
These cattle are the chief draught animals of the islands



A MAYO SETTLEMENT PROTECTED BY RICE DIKES
The roofs of the houses can be seen in the upper centre of the picture

descendants constitute five-sixths of the total population of the islands, although they occupy only about one-half the total area.

The Moros, or Mohammedan Malays, who dwell in the Sulu Islands and on the eastern shore of Mindanao, are representatives of the third (and last) immigration—probably from Borneo. There are, in all, about 500,000 of these fanatical Mohammedan Moros.

The Spanish Government officially recognized thirty-five different languages in the archipelago. One prime cause why Philippine civilization, in all its manifestations, has been so nearly stationary and the differences in language so marked, has been the lack of proper ways of communication due to the physical aspects of the country.

The races were not combined into one people under the Spanish regime. The Spaniards paid no attention to that dwindling

FILIPINO WOMEN TRANSPLANTING RICE

race of dwarfs, the Negritos, and accomplished almost nothing with the Igorrotes. For centuries they fought, but never really subdued, the slave-holding Moros. But, however critical one may be of the character of Spanish leadership, Spain rescued the Filipinos from barbarism and made them half-civilized. The Spaniards, largely through the instrumentality of the church, gradually elevated the whole Filipino people; they influenced their customs so that these natives

A NATIVE OF BENGUET CLIMBING A TREE FERN

have acquired the surface manners of civilized people. They brought to them the Christian religion now almost universal among the large Malayan portion of the inhabitants.

HOW THE FILIPINOS LIVE TODAY

The lower classes, outside their church observances, have probably made but few changes in their ways of living during the past three hundred years. Even the upper classes, who have adopted the superficial

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THE HOME LIFE OF A FILIPINO FAMILY

habits of the Spaniards, throw many of these off in the privacy of the home. Knives and forks, tables and chairs, shoes and stockings, here become superfluities. Once after leaving a Filipino banquet, which had been as well served, as far as silver, fine linen and glass were concerned, as any American dinner, an

WOMEN WEAVING BENEATH A GRANARY

Photographed from stereograph. Copyright by H. C. White Co. New York

FILIPINOS CUTTING AND STACKING HAY IN PRIMITIVE FASHION, NEAR ERMITA

American was recently obliged to return to his host's house for an article he had left behind. He found the women of the household, who had waited upon the guests gracefully and deftly, squatting upon the beautifully

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THE CRUDEST IMPLEMENTS ARE STILL USED IN THE PHILIPPINES FOR HARVESTING THE CROPS

polished table-top, eating with their fingers the remnants of the feast.

The houses of the large majority of the natives today are untidy, even dirty; the people keep hens, horses, pigs, and even the

A GAD-DÁN TREE-HOUSE

These houses are built as a protection against enemies. The occupants draw up the ladder after them

Photographed from stereograph. Copyright by H. C. White Co., New York

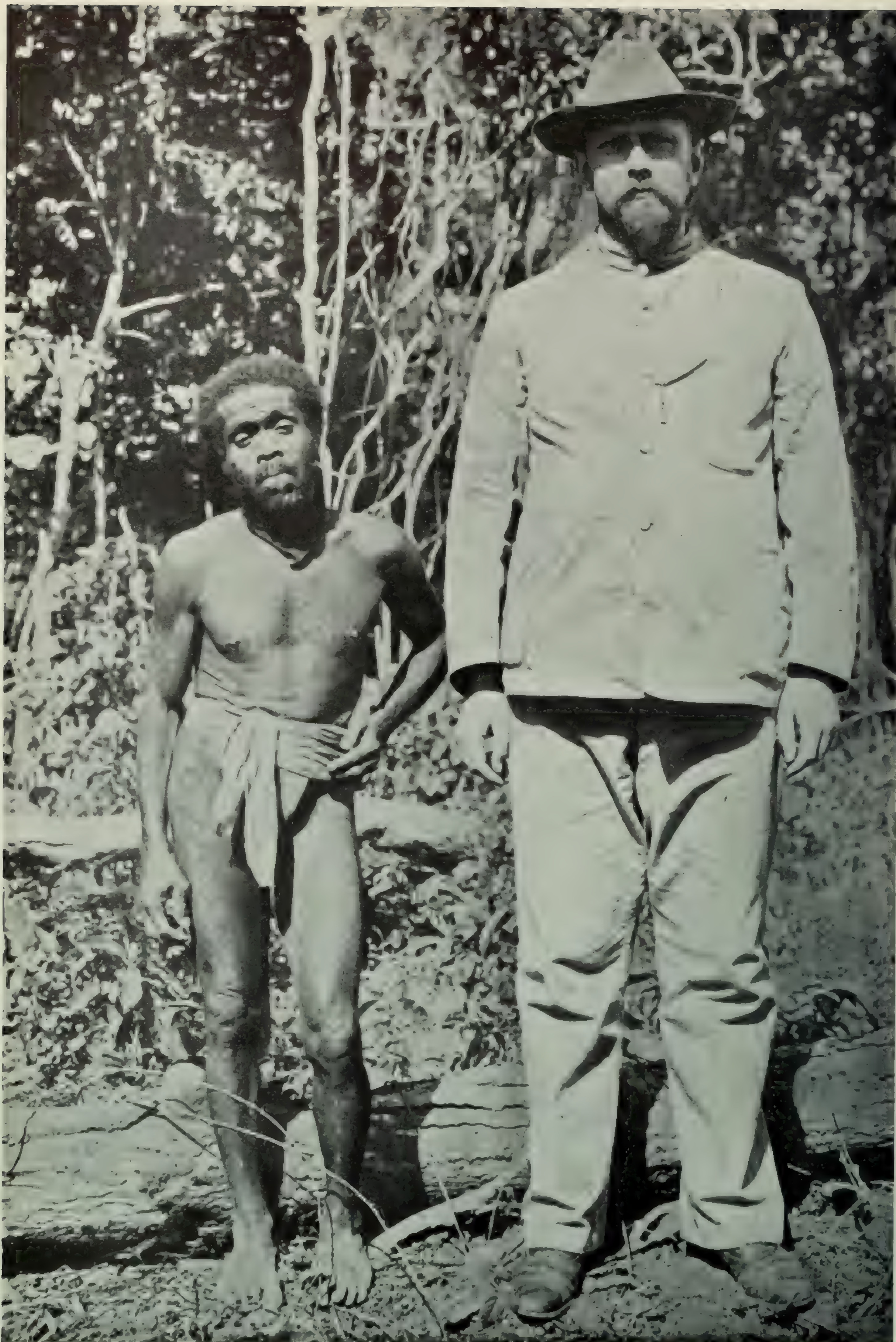
THE NATIVE METHOD OF PROPELLING CANAL-BOATS IN MANILA

A BAGOBO CHIEF OF MINDANAO

AN "ATA," OR "DWELLER HIGH UP" OF MOUNT APO IN MINDANAO

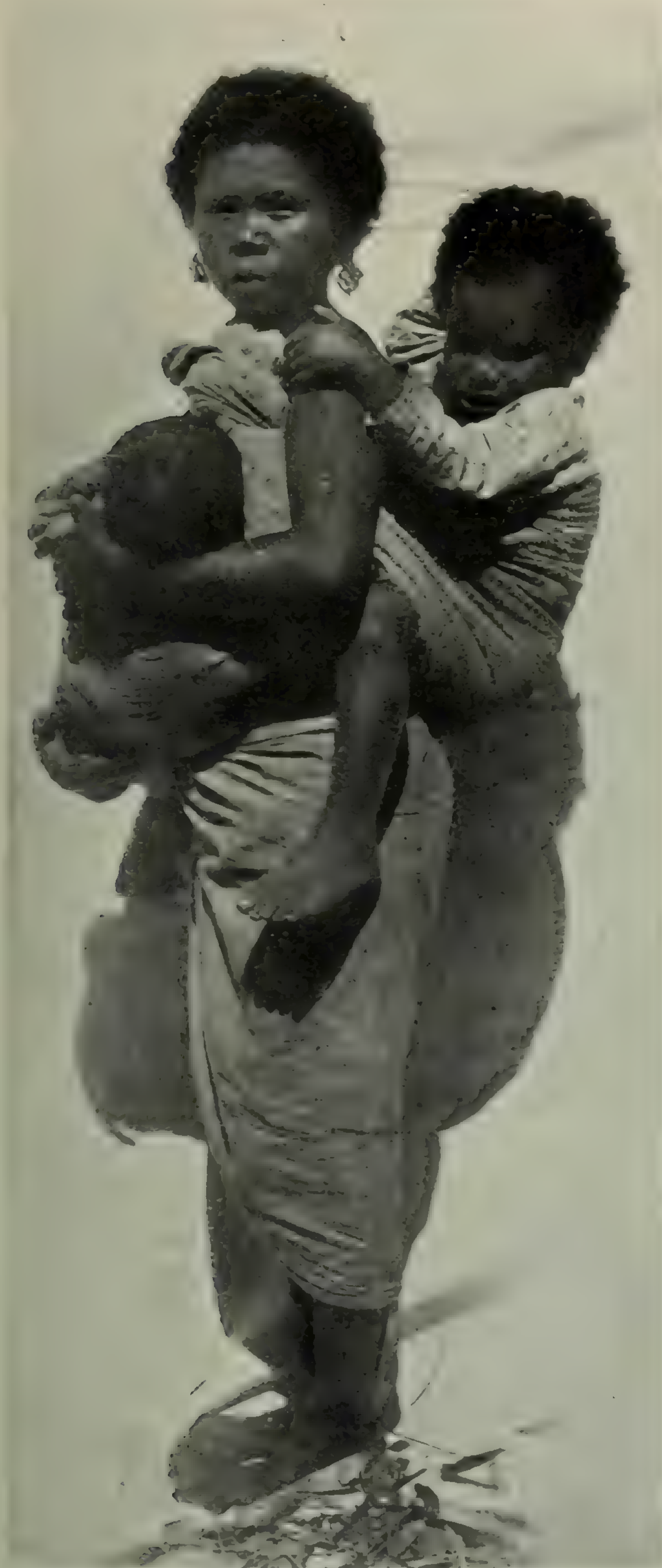
BRINGING HOME JARS OF RICE WINE

enormous water-buffalo, underneath their dwellings. At their meals, usually of fish and rice, the members of a family squat on the floor and eat with their fingers from a common dish. Usually the whole family sleeps on the floor, in one room. The framework of the houses is usually constructed of bamboo; the roofs and walls are made from the leaves of the nipa palm; and the floor is of small bamboo, split and put down with open spaces between them. There are openings in the walls which answer the purpose



A FULL-GROWN NEGRITO MAN AND COMMISSIONER WORCESTER

of windows. These are provided with shutters of nipa-leaves. There are a few ill-kept articles of furniture. Very often there is but



A NEGRITO MOTHER CARRYING HER CHILDREN IN THE CUSTOMARY WAY

one room—kitchen, dining-room, and bedroom combined—for the whole family. Although the average Filipino is fond of his home, he does not seem to care for comfort

A YOUNG NEGRITO

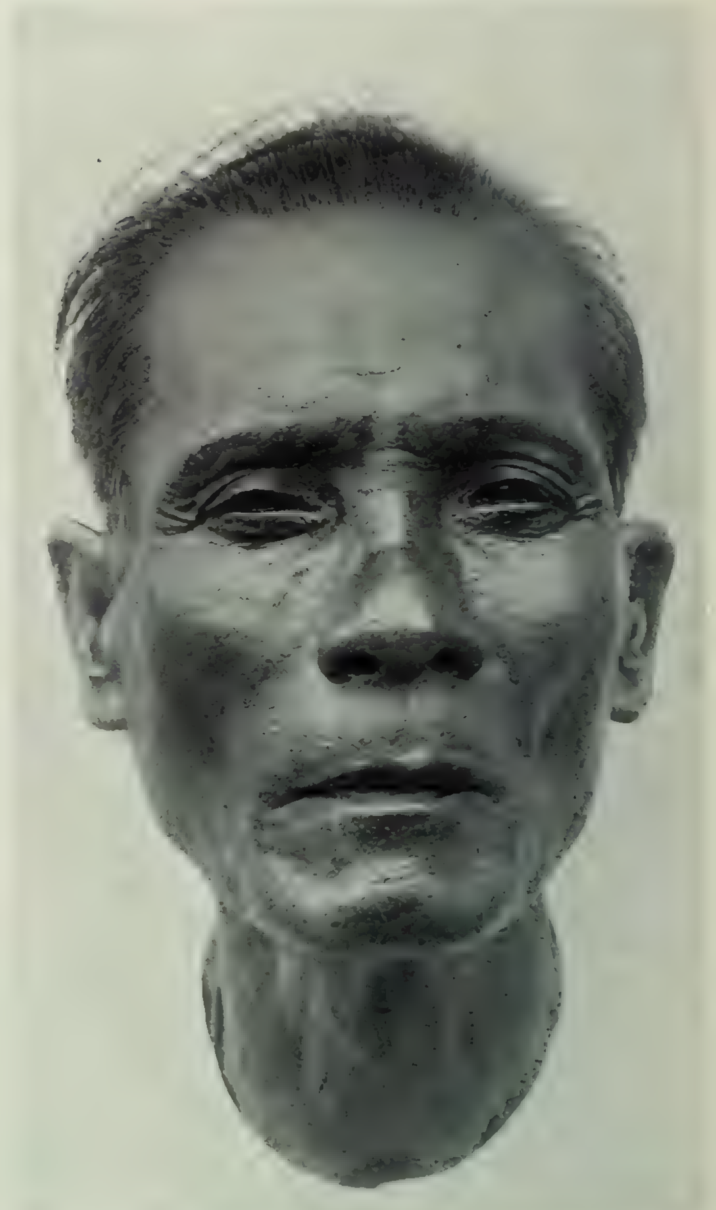
in it. In a tropical climate, people live more out of doors. People of the lower classes, in such a climate, really camp, and their

A MIDDLE-AGED NEGRITO WOMAN

A NEGRITO WITH THE FILED TEETH COMMON TO HIS TRIBE

houses are hardly much more than wigwams. Because of the enervating climate, the native is indolent, and there is no incentive to work where wants are few and easily supplied. Until there is created in the Filipino the desire for greater bodily comfort, he will remain in a low state of civilization.

Furnishings may not be abundant in the Filipino home, but there is never lacking the little altar with images or pictures of saints for use in devotions. The Christianized natives, as might be expected from their Malayan origin, hold tenaciously to certain superstitions which seem to be inseparable from Malay character. For instance, the Christian natives of the lower class share the idea that seems to prevail among all Malays that the soul is absent from the body during sleep and if death occurs at that time the soul is lost. "May you die sleeping" is one of the most dreadful of their numerous curses; naturally, then, they think it dangerous and wicked to awake anybody suddenly,



A TAGALOG HERB-DOCTOR

A MORO DATO, OR CHIEF

AN IGORROT HEAD-DANCE
The principal actor feigns lying in wait, killing an enemy, cutting off the enemy's head, and returning in triumph

and, indeed, it is a difficult thing to get a Filipino servant to wake any member of his master's family. Our soldiers often found on the bodies of the native soldiers a charm, called anting-anting—perhaps a bit of paper with writing upon it, a coin, a button, a piece of stick or bone, or, in fact, anything which could be worn, and which possessed the mysterious power of protecting the wearer from death. The Christian natives are,

THE WIFE OF THE MOST INFLUENTIAL IGORROT IN BENGUET

AN IGORROT WITH A BRASS PIPE AND A NECKLACE OF DOGS' TEETH AND SEEDS. THE IGORROTES ARE DOG-EATERS

A BONTOC IGORROT

A member of the most famous head-hunting tribe. They are a kindly, jovial people, and have now stopped the practice of head-hunting

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FILIPINO CHILDREN OF LUZON

however, less systematically superstitious than their pagan and Mohammedan brothers, they are superior persons, but, nevertheless, their Roman Catholicism has mixed with it a large alloy of paganism. The ceremonies and the solemnity of the Catholic worship have for them a deep attraction, as do also the solemn pomp in connection with the numerous feasts and religious processions. It is the type of Christianity most likely to hold these people. Revitalization, more rigid discipline, and American priests, progressive, adaptable, and in sympathy with American political ideals, are the needs of the Roman Catholic Church in the Philippines today.

A TINGUIANE GIRL SKEINING SPUN THREAD

A LITTLE TINGUIANE SCHOOLBOY

The Tinguianes are the most highly civilized of the non-Christian tribes. They are cleanly and live in good houses

The census recently completed gives the population as about 7,000,000. The average population of a square mile is about 50. In Java it is 500, and in the United States 25. The growth of the population has been restrained by violent epidemics of the most drastic character. A single epidemic of small-pox, cholera, and bubonic plague will easily sweep away the natural growth of several years. In 1902, there were more than 100,000 deaths from cholera alone. The majority of the towns are on the coast, and the distance between them is often very great. It is almost entirely a rural country, and many of the so-called towns are mere groups of villages. The means of inter-island and land transportation are entirely inadequate. There is only one railroad in the archipelago. This is 120 miles in length, and runs from Manila to Dagupan. As in other tropical countries where roads are expensive to build and to keep in repair, the watercourses form the highways of commerce. Railroads, good wagon roads, and other means of easy communication into the interior and across the mountains are needed to open up the country.

Of the 73,000,000 acres in the islands, only 6,000,000 are cultivated. The native is dependent upon the slow water-buffalo, for which no substitute can be found, for work in the swampy fields. This animal quickly succumbs to disease, and, during the last two or three years, rinderpest, an epidemic among the cattle, has destroyed 90 per cent. of them. The plows and the other implements used are very crude. The islands might easily support a population much denser than they do. If the struggle of the Filipino farmers for existence is now sometimes hard, it is due to lack of proper means of irrigation. All regions are not equally favored with rainfall. There are floods and

A TINGUIANE GIRL DRESSED FOR A VISIT TO A CHRISTIAN TOWN

A TYPICAL YOUNG TINGUIANE MOTHER AND HER CHILD

drouths; and until this water can be controlled and stored up for irrigation, loss of crops and famines will ensue. Because Java is properly irrigated it sustains ten times the number of people to the square mile. With a little more energy and with improved methods the Philippines would yield much more than just sufficient food for their inhabitants, as now. With better sanitary arrangements of the home, and a little knowledge of and obedience to the rules of health, the yearly work of disease and death might be checked. The birth-rate is very high, but at present the death-rate is higher.

The islands are exceedingly fertile and productive, and yet I must confess that I am not optimistic in my belief that immediately the Philippines will pay largely, commercially. Commercial success involves a labor problem of exceeding seriousness: the probability of American colonization in the islands, the investment of American capital, the need of new markets for American products, and the increase of Filipino wants, the character of later Congressional and insular legislation, the development of means of land and inter-island transportation, and kindred matters. Among the resources, timber is the richest, and yet, owing to the condition of the country, the difficulty of getting the wood out, and the lack of labor, nearly all the lumber used for the past three years in the islands has been Oregon pine. The mineral wealth of the islands amounts as yet almost to nothing.

THE ADVANTAGES OF AMERICAN CONTROL

There is no doubt of the advantage of the change from Spanish domination to American protection. First had to come war with the rifle, then a military commission with the rope, and, finally, civil government, with the benefits of American sovereignty: separation of church and state; division and co-ordination of judicial, legislative, and executive powers; rights of suffrage, writs of habeas corpus, assembly and free speech; abrogation of obligatory military service, and abolition of the practice of banishment. Spain justified her conquest only on religious grounds, and failed because she did not take upon herself in addition just that moral obligation which we have accepted.

Before Judge Taft became governor, certain civil experiments in the direction of municipal government were attempted under military auspices. These did not amount to much, because the native civil officials were treacherous, and not to be trusted, being really allies and spies of the insurgents in arms. It was found out later that many of the local mayors and councilors selected by the military authorities were members of the *Katipunan*, the object of which is to expel all foreigners from the Philippines. It took us some time to find that the whole structure of native society was honeycombed by this mysterious *Katipunan*, with its "blood compact."

The native officials whom one meets in the country districts are polite and easy in their manners, somewhat reserved on first acquaintance—although never cringing—and fluent talkers, and ready with promises of co-operation. The majority of the local mayors and councilors appear to be in accord with American endeavors toward good government in the islands.

Very few of them, however, show executive ability, and some of them betray obstinate inefficiency and inactivity. The tendency everywhere in the East is in the direction of one-man power; and, too often in the Philippines, the mayor, or provincial governor, dominates everything, so far as he can. He is very ready with promises; but, as some one has said, "the Filipino never says 'no,' but never does 'yes.'" When asked for information, he studies you, and is inclined to give you the answer he thinks you want. Indirectness is a trait, and the giving of gifts by subjects to those in authority a custom common in the Philippines. From instinct, the Filipino agrees with the boodler's opinion that there is no use in holding an office unless it can be turned to profit. It is hard for Filipinos to understand that the giving of presents to government officials is not right; it is very difficult for them to believe that a man, because he happens to be white, has any scruples against it. They look upon a man who refuses with contempt.

It is hardly to be wondered at that Americans hold most of the chief posts, and that they have the supreme executive and legislative powers. And yet nothing has shown the better attitude of the United States Philippine Commissioners than their absolute readiness to make use of such Filipinos as have been capable. Besides the five Americans on the

commission are three Filipino members, who, from the beginning, have been left free to do all they could do effectively. Three out of seven of the members of the Supreme Court, including the Chief Justice, are Filipinos. The provincial governorships are, in most cases, elective offices, and, as is to be expected, they are held usually by Filipinos. The solicitor-general, the assistant attorney-general, and the chief of the Bureau of Archives are Filipinos also. There is in every department and bureau of government an ever-widening door being opened by our government to native merit.

HOW POPULAR EDUCATION IS SUCCEEDING

Our educational efforts have possibly done more to give these people a true conception of the benefits of civilization and good government than all the other influences we have brought to bear on them; indeed, in this work is to be found the solution for a large part of our Philippine problem. An educational map would show, dotted here and there on every one of the larger islands, some two thousand schools in all. Some eight hundred American teachers and twenty-five hundred native ones have in charge in these schools some two hundred thousand children.

These children are young-looking and attractive. In his youth, the Filipino boy is often exceedingly good-looking and interesting, with his slight figure and rich brown skin suggestive of a bronze statue, his bright eyes, black and long eyelashes and eyebrows, and his expression of cheerfulness and carelessness. Filipino children are children of promise; they are docile, quick, and mentally alert. They have an aptness for acquiring languages —they learn to speak English very quickly— and they possess a natural talent for the lesser mechanical arts; they draw and write well. There is no doubt that Filipino children excel American children in docility, imitativeness, and attentiveness. They lack the American child's persistency and originality. Many an American teacher has expressed to me his delight with what he considered the possibilities of the Filipino children. The boys and girls all over the archipelago are willing to learn. American endeavors to introduce English as the actual teaching language have been greatly encouraged by the eagerness for it, shown not only by the children, from whom it might be expected, but also by the old people, many of whom have attended the evening schools provided for them. Antipathy to work, especially of the manual sort, has been a powerful opposing force to American attempts to introduce a system of education fundamentally industrial and utilitarian in character. Up to the present time, school work has hardly advanced beyond the teaching of the rudiments of English, though considerable progress is now being made in arithmetic, geography, and the other elementary branches; while, in the provincial capitals, work of an advanced nature is carried on.

Frequently in the press of the Dutch and English colonies of the Orient, and occasionally in our American papers, opinions have been put forth to the effect that the institution of popular education in the Philippines is likely to do more harm than good, and that the people would remain better and happier without it. With this view I cannot agree: my liking for the people and my knowledge of their character arouse in me the hope; my belief in the ability, tact, and courage of the American teacher creates in me the faith; and my own observation and judgment confirm in me the conviction that the popular education of the Filipino, if not unduly hurried and if carried along practical lines, will prove an ultimate success.

As a result of our general policy, there are signs of an increased friendliness between Americans and Filipinos. There is reason for sounding a cheerful note in the fact that the large body of the people tolerate us, even though somewhat half-heartedly; and, without overrating the intensity and permanence of the manifestations of good-will which have greeted our efforts, we may feel that the leading Filipinos, whether from expediency or real appreciation, are coöperating with the Commissioners and their subordinates.

THE FUTURE

For the moment, the Filipino is as we found him. The Filipino of the future will be an American only in the sense that he will speak English and will have adopted certain American innovations. The Filipino himself will always remain such as he was under the Latinizing process of the Spaniards. The coming Filipino will have a knowledge of the three R's; he will have acquired habits of order and regularity. As the result of an

education increasingly industrial in character, he will be rendered fit for the work lying ready to his hand; and he will secure a larger return from his labor. His desire for bodily comfort will increase, and he will become a more willing laborer. In his home, for instance, the wooden floor will take the place of the bamboo slats, and in the case of many the frame house will replace the nipa shack. Vaccination, sanitation, and the ministrations of qualified medical practitioners will alter for the better the health conditions surrounding his family. Everywhere, even in the remotest parts of the archipelago, free and prompt justice and security of property will be assured. The native constabulary, splendidly trained, will furnish protection. Roads, railways, improved harbors, deepened river channels, posts and telegraphs will open communications in every direction. Waterworks will be constructed to supply all principal towns. Irrigation will permit agricultural undertakings on a larger scale and make famines practically impossible.

It is rash to speculate on the gain which the future has in store for this people. Nearly forty years have now passed since the close of the Civil War, and the Negro problem is still unsolved; at the end of a like period of time we shall be struggling with the Philippine question. In trying to solve it, we must leave the time element out of consideration; and we shall be gravely disappointed if we do not realize that the conditions of the problem to be solved are as complex and as difficult as ingenuity could have devised.

In the firm belief that the privilege of voting is in itself an educative force in the State, and that it constantly increases the self-respect of the voter, we may expect the Filipino of the future will possess political trustworthiness and a respect for the minority —requisite conditions for a democratic government which are now lacking.

The Filipino is bound to develop in some way, and in the right one if we persist in our present course. From his many innate gifts something substantial is certain to result if the conditions are favorable, and we Americans are the conditions. He has already taken an extensive participation in his government, and as time goes on this will increase steadily. We have scratched a Malay, and at some future date we need not be surprised to find an American, at least in spirit, initiative, and capacity.

THE FUTURE OF BRITISH INDIA*

THE COLONY THE GREATEST ACHIEVEMENT OF THE EMPIRE—ITS RELATIONS TO BRITISH CONTROL ELSEWHERE—THE PROBLEM IN ITS LARGER ASPECTS—"OUR WORK IS RIGHTEOUS AND IT SHALL ENDURE"

BY

LORD CURZON

VICEROY OF INDIA

BRITISH rule in India is the greatest thing that the English people have done, or are doing now; it is the highest touchstone of national duty. If the nations of the earth were to stand up to be judged by some supreme tribunal, I think that upon our European record or upon our colonial record we should survive the test. But if there were the slightest hesitation on the part of the judge or jury I should confidently throw our Indian record into the scales. For where else in the world has a race gone forth and subdued, not a country or a kingdom, but a continent; that continent peopled not by savage tribes, but by races with traditions and a civilization older than our own, with a history not inferior to ours in dignity and romance; subduing them not by law of the sword, but by the rule of justice, bringing peace and order and good government to nearly one-fifth of the entire human race, and holding them with so mild a restraint that the rulers are the merest handful among the ruled, a tiny speck of

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white foam upon a dark and thunderous ocean? I hope I am no rhapsodist, but I say that I would as soon be a citizen of the country that has wrought this deed as I would be of the country that defeated the Armada or produced Hampden or Pitt.

But we live in a severely practical age, and I can afford to be rather more concrete in my illustrations. I should like to convey some idea of the part that India is capable of playing—nay, of the part that it has recently played in the imperial burden. My illustrations shall be drawn from recent history and from my own experience. If we want to save the colony of Natal from being overrun by some formidable enemy, ask India for help, and she gives it; if we want to rescue the white man's legations from massacre at Peking, and the need is urgent, request the Government of India to dispatch an expedition, and they dispatch it; if, fighting the Mad Mullah in Somaliland, we soon discover that Indian troops and an Indian general are best qualified for the task, we ask the Government of India to send them; if it is desired to defend any extreme outposts or coaling stations of the Empire—Aden, Mauritius, Singapore, Hongkong, even Tien-tsin or Shan-hai-kwan — it is to the Indian army that we turn. If we want to build a railway to Uganda or in the Soudan we apply for Indian labor. When the late Mr. Rhodes was engaged in developing the recent acquisition of Rhodesia he turned to me for assistance. It is with Indian coolie labor that the plantations equally of Demarara and Natal are exploited; with Indian trained officers that we irrigate Egypt or dam the Nile; with Indian forest officers that we tap the resources of Central Africa and Siam; with Indian surveyors that we explore all the hidden places of the earth.

INDIA'S STRATEGIC IMPORTANCE

Again, how familiar we are in recent times with the argument that India is the vulnerable point of the Empire! And assuredly it is true that if we were engaged in a great international war—which God forbid—it is not at Dover nor London that one, at any rate, of our possible antagonists would strike. He would not bombard Quebec nor land a force at Sydney harbor. It is in Asia that the pressure would be applied; it is the Indian frontier that would bear the brunt. It is there, in all probability, that the future of British domain might be decided.

There is an old proverb which says, "He that England fain would win must with Ireland first begin." I have always thought that this was rather a dubious compliment to our brothers across St. George's channel, but I suppose it alludes to the times when the foreign enemy who had aggressive intentions upon us used to begin his invasion in that quarter. At all events, if now "India" were substituted for "Ireland" in the refrain I do not think it would be so very far from the mark. In the world politics of the future India will play an increasing part.

I grant that the features of government in the two countries are very different. Perhaps this is the main cause of the ignorance and misconception to which I have referred. We have in India a good many of the problems that obtain at home, but they are magnified almost beyond recognition by the complexity of the factors and the immensity of the scale. We in India also have our own problems, to which the tranquil uniformity of life in England is fortunately a stranger. England has not the perpetual and harassing anxiety of a land frontier 5,700 miles in length, peopled by hundreds of different tribes, most of them inured to religious fanaticism and hereditary rapine. A single outbreak at a single point may set entire sections of that frontier ablaze. Then, beyond it, we are brought into direct contact with the picturesque but perilous debility of independent or quasi-independent native States, some of them incurably diseased and hastening to their fall; and behind them, again, are the muffled figures of great European Powers, advancing nearer and nearer, and sometimes finding in these conditions temptations to action that is not in strict accordance with the interests which we are bound to defend. That is the external problem of India.

Then we have to deal in India with races that are as different from each other as the Eskimo is from the Spaniard or the Irishman from the Turk; with creeds that range between the extreme points of the basest animalism on the one hand and the most exalted metaphysics on the other; with standards of life that cover the whole space between barbarism and civilization. We have in England an aristocracy that is drawn

from the people and that goes back to it. Our aristocracy in India consists of native chiefs of diverse races, many of them as much aliens to the people as we are ourselves, presenting every variety of status and privilege, from the magnificent potentates to the very pettiest of landed proprietors.

HOW FAMINES AND PLAGUES ARE DEALT WITH

We hardly know in England what the phrase, "land revenue," means. In India it is the be-all and end-all of millions of the population, and it is the mainspring of our internal administration. In England, railways are built, managed, and financed by private enterprise; in India, they are one of the chief charges of the government. In England, the education problem is thorny enough, but it is as nothing compared with ours in India, where we are trying to graft the science of the West onto an eastern stem; where we have to deal with religious differences compared with which all sectarian animosities at home sink into the shade; where we have a chaos of languages and stages of mental organization that extend from the transcendentalist to the savage.

Then in England we do not know what famine is. It is quite true that I had to administer in India the greatest famine that has befallen that country in modern times within the range to which it applied; and it is an experience that would wring blood from stone. We have our sunshine and our storms, our droughts and floods, in England, but we do not know the awful possibilities that are summed up in the single word "monsoon," and which spell the difference in India between life and death to areas in any one of which the whole United Kingdom might be swallowed up. We have our suffering and destitution, but we have not as appalling a visitor as the plague—the plague, now in its seventh year in India, defying analysis, defeating the utmost efforts of medical skill and administrative energy, inscrutable in its origin, merciless in its ravages, sweeping off, as our records show very often, thousands in a day and tens of thousands in a week.

Then, above all, public men in England have not before them the haunting question that is always before us in India, like the riddle of the Sphinx—what is in the heart of all these sombre millions; whither are we leading them; what is it all to come to; where is the goal?

The work in which we have been engaged during the past five years has been a work of reform and reconstruction.

PROGRESS MADE AND TAXES REDUCED

First we began with the departments themselves, the offices of the government, revising the conditions under which they work, freeing them from the impediments of excessive writing with its consequences of strangulation of all initiative and of dilatoriness in action. Then we proceeded to inquire into every branch of the government in turn. We endeavored to frame a plague policy which should not do violence to the instincts and sentiments of the native population; a famine policy which should profit by the experience of the past and put us in a position to cope with the next visitation when unhappily it bursts upon us; an educational policy which should free the intellectual activities of the Indian people, so keen and restless, from the paralyzing clutch of examinations; a railway policy that will provide administratively and financially for the great extension that we believe to lie before us; an irrigation policy that will utilize to the maximum, whether remuneratively or unremuneratively, all the available water resources of India, not merely in canals—I almost think we have reached the end there—but in tanks and reservoirs and wells; a police policy that will raise the standard of the only emblem of authority that the majority of the people see, and will free them from petty diurnal tyranny and oppression.

I am glad that our finances in India have placed us in the position to give the people the first reduction of taxation that they have enjoyed in twenty years. We have endeavored to render the land revenue more equable in its incidence, to lift the load of usury from the shoulders of the peasant, and to check that reckless alienation of the soil which in many parts of the country was fast converting him from a free proprietor to a bond-slave. We have done our best to encourage industries which, little by little, will relieve the congested field of agriculture, develop the indigenous resources of India, and make that country more and more self-providing in the future.

I would not indulge in any boast, but I

dare to think that as a result of these efforts I can point to an India that is more prosperous, more contented, and more hopeful. Wealth is increasing in India. There is no test you can apply which does not demonstrate it. Trade is growing. Evidences of progress and prosperity are multiplying on every side. Six years ago, just before I left England, a committee of experts was sitting in London to provide us in India with that which was the first condition of economic advance—that is, a sound currency policy. Profiting by their labors, we have introduced there a gold standard and established fixity of exchange, and we seem to have put an end to the fitful and demoralizing vagaries of the silver rupee.

EDUCATING NATIVE PRINCES TO GOVERN

But I think I can point to more satisfactory symptoms still. I believe there to be a steady advance in the loyalty of the Indian people. When the late Queen Victoria died there was an outburst of sorrow through India almost equal to anything that you could see in England. A little later, when the present king succeeded and we celebrated his coronation at Delhi, there was a similar display of national feeling, not at Delhi alone, but in every village and hamlet throughout that vast continent. Already the people of India knew and revered the Prince of Wales, because they had seen him. We brought home to them at Delhi that that prince was now their ruler, and that in his rule was their security and salvation. We touched their hearts with the idea of a common sentiment and a common aim. Depend upon it, the East will never be ruled except through the heart, and the moment imagination has gone out of Asiatic policy the empire will dwindle and decay.

There is another respect in which India has been advanced by leaps and bounds. In the point to which I am about to refer I doubt if modern India would be recognized by those who knew it a generation ago. Between one-fourth and one-fifth of the population there is under the rule of native princes and chiefs, though subject, of course, in all essentials, to the British power. There are many hundreds of these chiefs all included, but the most important of them number less than one hundred. We know all about their ancient lineage, their customs and courts, their liberality and their loyalty to the Crown But it has been too much the fashion to regard them as so many picturesque excrescences from the dull uniformity of Indian life; to look upon them as survivals of an obsolete era, without any practical utility, and sometimes sunk in selfishness and lethargy. This is not my idea of the Indian princes. I have always been a devoted believer in the continued existence of the native States in India and an ardent well-wisher of the native princes. But I believe in them not as relics, but as rulers; not as puppets, but as living factors in the administration.

But we cannot expect them to attain these standards unless we give them an adequate education, and accordingly, in consultation with them, we have revised the entire curriculum of the Chief's Colleges in India which have been set up for their instruction. And if we thus train and educate them we must give them an object and a career. It is for that reason that, by permission of His Majesty the King, I founded the institution known as the Imperial Cadet Corps, where we give military education to the pick of the Indian aristocracy, and which will eventuate, as time goes on, in the bestowal for the first time of commissions as British officers upon Indian chiefs, nobles, and gentlemen. This is a policy of trust, but I am confident that it will be repaid, for already the princes of India are giving to our efforts the response that might be expected of their nobility of character and their high traditions. They are coming forward in response to our appeals. They welcome and do not resent these changes, and we are gradually—nay, I think quickly creating there the spectacle of a throne supported by feudatories who not only render military service—they do that without stint—but who also vie with it in administrative energy and devotion to the welfare of their people.

MAKING THE BORDER SECURE

I ought not to conclude without a word about another and a wider aspect of our policy—the problem of frontier defense. It is not necessary for me to sing the praises of the Indian Army. The Indian Army has written its name on the map not only of India, but of the British Empire. It has recently written its name in the windy passes of Tibet. Army reform is very much in the

air, and in India we are not free from the contagion. We are doing our best there in respect of equipment, organization, and armament, in readiness to mobilize, and in facilities of communication to carry out the lesson of the most recent science and the most recent experience. We have had a period of almost unbroken peace for six years on that stormy frontier of India which looks toward the northwest and Afghanistan. And I think the reason is this—that, abandoning old and stale controversies, we have hit upon a policy in India that is both forward and backward—forward in so far as we hold up to our treaty frontier, neither minimizing nor shirking our obligations; backward in so far as we do not court a policy of expansion and adventure, but depend rather upon a policy of coöperation and conciliation than one of coercion or subjugation of the tribes.

I do not prophesy about the future. No man who has read a page of Indian history will ever prophesy about the frontier. We shall doubtless have trouble there again. Turbulence and fanaticism ferment in the blood of those races. But we have given peace for a longer period than has been enjoyed at any time during the last thirty years, and I believe that slowly and surely we are building up the fabric of local security and contentment on the border.

UNIFYING THE BRITISH AND THE INDIANS

It is self-evident that unless we can persuade the millions of India that we will give them absolute justice as between man and man, equality before the law, freedom from tyranny and injustice, then our Empire will not touch their hearts and will fade away.

No one is more ready to admit than I that if you put side by side the rulers of European races and the ruled of an Asiatic, and particularly such races as the English and the Indian, where you have a small minority face to face with a vast alien conglomeration, you cannot expect to have complete coalescence. A bridge must be built between the two, and on that bridge justice must stand with unerring scales. Harshness, oppression, ill-usage, all these in India are offenses not only against the higher law but against the honor and reputation of the ruling race. My precept in this respect does not differ from my practice. During the time that I have been in India the government has taken a strong stand for the fair treatment of our Indian fellow-subjects, who are equal with us in the eyes of God and the law. I rejoice to say that the conduct of Englishmen in general in India toward the Indians is exemplary, even in trying and provocative circumstances; but where exceptions occur I think that the sentiment of the majority should be as quick to condemn them as it is their conduct, and that the government which is above race or party and against whom any injustice is a reproach and a slur, should receive the support of the entire community. That is the policy which the government has pursued in my time, and by my conduct I am willing to be judged.

It is seventeen years since I first visited India; it is fourteen years since I first had the honor of being connected with its administration. India was the first love, and throughout all that time it has been the main love, of my political life. I have given it some of my best years. Perhaps I may be privileged to give it yet more. But no man could do this unless he saw before India a larger vision or were himself inspired with a fuller hope. If our empire were to end tomorrow I do not think we need be ashamed of its epitaph. It would have done its duty by India and justified its mission to mankind. But it is not going to end. It is not a moribund organism. It is still in its youth, and has in it the unexhausted purpose. I am not with the pessimists in this matter. I am not one of those who think that we have built a mere fragile plank between the East and West which the roaring tides of Asia will presently sweep away. I do not think our work is over or that it is drawing to an end. On the contrary, as the years roll by the call seems to me more clear, the duty more imperative, the work more majestic, the goal more sublime. I believe that we have it in our power to weld the people of India to a unity greater than any they have ever heretofore dreamed of, and to give them blessings greater than any they now enjoy. Let no man admit the craven fear that those who have won India cannot hold it or that we have only made India to our own or to its unmaking. That is not the true reading of history. That is not my forecast of the future. To me the message is carved in granite; it is hewn out of the rock of doom—our work is righteous and it shall endure.

SENATOR CRANE OF MASSACHUSETTS

A SKETCH OF THE FORMER "BUSINESS GOVERNOR" WHOSE QUIET EFFICIENCY HAS RAISED HIM TO EMINENCE

BY

MARION MELIUS

EX-GOVERNOR CRANE, of Massachusetts, who succeeds Senator Hoar, by the appointment of the Governor, has produced an unusual impression as a public man by very quiet methods. For two terms he was an excellent Governor of Massachusetts, but this record hardly accounts for the fact that he was invited by the President to become Secretary of the Treasury, and asked to consider appointments as Secretary of the Navy and as Postmaster General, and afterward was urged to take the chairmanship of the Republican National Committee. He declined these invitations. But why is it that a man who, after all, is not widely known should have the unbounded confidence of the President and the admiration of every one who meets him?

HIS PERSONALITY

He is first of all a business man. He lives quietly at Dalton, Mass., in the Berkshire Hills, attending to the business of the Crane Paper Mills, one of which manufactures the paper of which greenbacks are made. His townspeople call him "Murray," and there is hardly a man, woman or child in Dalton who has not felt his kindness. On one day he advises and aids a man to establish a business, another day he assists a widow to earn a livelihood, again he helps a young man or young woman to go to college. In managing affairs he usually has his own way, but so great is his tact that he seldom makes enemies. He is not robust, and his rapid speech and his reluctance to call attention to himself show his high-strung temperament.

He lives with his aged mother and an invalid sister. Twenty-two years ago his wife died suddenly, whereupon he closed his own house. He has not opened it since. His only son, Winthrop Murray Crane, Jr., was graduated last year from Yale.

He is not a college man, but he went into business after attending Williston Seminary. Before he became Governor he was almost unknown in Massachusetts politics. He served—but quietly—as selectman of Dalton. Soon, however, his quiet efficiency became known to the Republicans of the State, and in 1896 he was elected chairman of the delegation to the National Convention, where he strove valiantly to nominate his friend Thomas B. Reed for the presidency. A little incident which occurred in St. Louis at the convention showed his Massachusetts temperament. In his party were some colored delegates. The proprietor of the hotel where the delegation had engaged rooms refused to house the colored men.

"Then the whole Massachusetts delegation will go to another hotel," said Mr. Crane quietly.

The proprietor expostulated, but Mr. Crane would not budge. "We engaged rooms for the Massachusetts delegation," he said, "and if you cannot house us all you cannot house any of us." The colored men received rooms.

HIS SERVICE AS GOVERNOR

The following year he was elected Lieutenant-Governor of his State. After three years' service in this office he was elected Governor, according to the Massachusetts custom of promoting the Lieutenant-Governor in due course. As Governor he applied the same methods to the conduct of State affairs that he had applied to his own business, so that when he left the Governor's chair the State was richer, had been rid of numerous antiquated methods, and was maintaining a dignified attitude toward corporations.

While Lieutenant-Governor he had made a thorough business study of the institutions and practices of State governments. His first inaugural message as Governor was the shortest in the State's history, but every

recommendation in it—and this is true of all three of his short messages—was embodied into law. He is the only Governor of Massachusetts of whose messages this may be said.

When he became Governor the whole Commonwealth had long held 50,000 shares of stock in the Fitchburg Railroad, which were nominally worth about $5,500,000, but which were considered so valueless that the item was not carried on the Treasury books as an asset. Presently the Boston & Maine Railroad wished to lease the Fitchburg Railroad. The Governor insisted on having conditions embodied in the lease under which the Commonwealth's stock was converted into gold-bearing bonds which bring an annual revenue of $163,641 to the State.

VETOING SPECIAL LEGISLATION

The Boston Elevated Railroad Company introduced a bill into the legislature whereby the city of Boston was to give them great privileges in the form of a subway franchise for little compensation. Governor Crane said that he would veto the bill if it were passed. On its passage he promptly vetoed the bill and returned it, saying that it must contain a referendum before he could sign it. The corporation fought to have the bill passed over his veto, but the Governor's reasoning prevailed and the legislature reversed themselves and defeated it. He even called into conference legislators who were framing railroad bills and talked the bills over with them. He vetoed the special bill passed by the legislature to excuse a corporation which had erected a building in Copley Square in Boston six feet higher than the law allowed. The building was lowered the six feet required for conformity with the law.

FIGHTING FOR ECONOMY

Nothing required more courage than to fight for economy, for there are many commissions in Massachusetts, and commissionerships are popular. But under his recommendations bills were passed for consolidating the Cattle Commission with the Board of Agriculture, the office of State Fire Marshal and the office of the District Police, and so on. No bill was too insignificant for his notice. He scrupulously examined all that came before him. His action was always based on knowledge, and his sincerity convinced the legislature. Banking interests opposed his efforts to keep the savings banks and National banks separate in Massachusetts, by providing that the same men could not serve as officers of both a National bank and a savings bank. But in spite of all opposition his recommendations became law.

ARBITRATING THE TEAMSTERS' STRIKE

In 1902 he appeared on a broader stage. A strike of 20,000 teamsters had paralyzed the business of Boston. The State Board of Arbitration unsuccessfully endeavored to end the strike. The Civic Federation had not been able to check hostilities. When the situation had become serious, Governor Crane suggested that he be allowed to effect a settlement. The laboring men trusted his integrity. They remembered that he had once disposed of Boston & Albany Railroad stock because a sense of honor would not allow him to keep it when he knew that the matter of leasing the road to the New York Central would come before the legislature during his administration. Capitalists and employers trusted him because they knew how little he cared to become a popular hero. He had already made himself familiar with the situation. So he counseled the teamsters to return to their work, and pledged his own word that the employers should grant one of the demands made by the men. Both sides agreed. Four days afterward the strikers were all at work and the employers had yielded to Mr. Crane's request. The business of Boston was going on quietly as before.

A POWER IN NATIONAL AFFAIRS

Later, on a visit to Washington, he was talking with Postmaster-General Payne about the coal strike. He said to Mr. Payne that he believed the moral power of the President could effect a settlement. He outlined a plan. Postmaster-General Payne took him to the President, who listened eagerly to the plan and sent for the members of the Cabinet to hear what the business Governor of Massachusetts had to say. Thus President Roosevelt's settlement of the coal strike was suggested. Since the completion of his term as Governor he has carried on his business and declined important political positions till now, though his services have been called on as adviser to his party.

BUSINESS REDUCED TO A SCIENCE

HOW A DEFECT IN A SHOE IN CALIFORNIA MAY BE TRACED TO A WORKMAN'S BENCH IN MASSACHUSETTS — OTHER EXAMPLES OF SYSTEM — THE PERSONAL MANAGEMENT OF AN ARMY OF MAP-SELLERS—HOW EVERY SOLDIER IN IT IS KNOWN TO HIS COMMANDER

BY

ATHERTON BROWNELL

A BUSINESS man must now conduct his business with the precision of a military commander; and he must eliminate waste—of material, of time, and of energy. He must cut out all unnecessary transactions between the raw material and the consumer of the finished product. If it is a rare capacity that can create a business which will get beyond the power of any one man to see at a glance, it is still more rare to find one that can also create a system by which all its parts will be classified and kept separate and yet will permit them to expand without disturbing in the least the perfect unity of the whole.

A SYSTEM FOR SELLING CIGARETTES

Systems have been devised by which, with the aid of a single clerk, a more minute and accurate record can be kept of a great business house than could be kept by a large force of accountants. A good example of a perfect system is the one used by a firm of cigarette-makers who have a private trade, for they make their goods to order for individual customers. The characteristic feature of their business is that they mix the tobacco to suit each individual customer's taste. They must have direct communication with their patrons, and these patrons buy as few as 500 cigarettes at a time. To get their trade is easy; to hold it is more difficult. On their files they carry a memorandum of the tastes of perhaps 2,000 smokers and the formula of the mixture which suits every one best, together with a design of his crest or monogram which he desires stamped on his wrappers. Every customer's daily consumption is noted, and by the automatic operation of their system his name comes to the front a week before he may be reasonably expected to have exhausted his last order. So nicely has this system been adjusted that recently, during a spell of extremely humid weather, when orders could not be filled, every customer found his wants supplied, during this period of waiting, from a stock kept on hand for the purpose.

ELIMINATING WASTE IN MAKING SHOES

In a larger and more comprehensive way, the operation of a systematized organization is illustrated by a shoe factory which, in order to eliminate the greatest amount of waste between the raw material and the consumer, has become a seller, as well as a manufacturer, of shoes. The success which has followed this idea, hit upon by Mr. E. J. Bliss, is due, first, to the successful elimination of waste, and, secondly, to the completeness of the system and of the organization. From the individual cobbler at his bench to the modern factory turning out 5,000 pairs of shoes daily, and selling through eighty stores all over the country, is a long way.

Improved machinery has so multiplied the productive powers of one man that the individual shoemaker is forgotten. It has so increased the output and the physical magnitude of business enterprises that improved mental machinery is necessary to enable the executive head to handle it. He must have a daily, accurate view of a business, in all its details, whose daily output is from 5,000 to 6,000 pairs of shoes and whose sales depots are scattered all over the country. Elimination of waste created the business; organization permitted it to continue and grow. The factory must never run behind the demand, nor must it run ahead of the stock demanded. It must be possible to know the quality of work done by every man, by the tracing of errors in manufacture, discovered, perhaps, only after the shoe has gone through many hands to the feet of the wearer. Every man's responsibility must

be clearly defined, in order that all parts shall work together into one homogeneous whole. To accomplish this is the work of system of the most exact kind.

The accompanying chart shows the organization of the factory. Every man sees, on this chart, his place, the duties he is expected to perform, the measure and the extent of his responsibility, to whom he is directly accountable for his work, and who are accountable to him. There is no chance of any part of the work being overlooked through a misunderstanding about the responsibility for performing it. The bringing together of all the parts is as visible as the weaving of the multitude of strands into a cable.

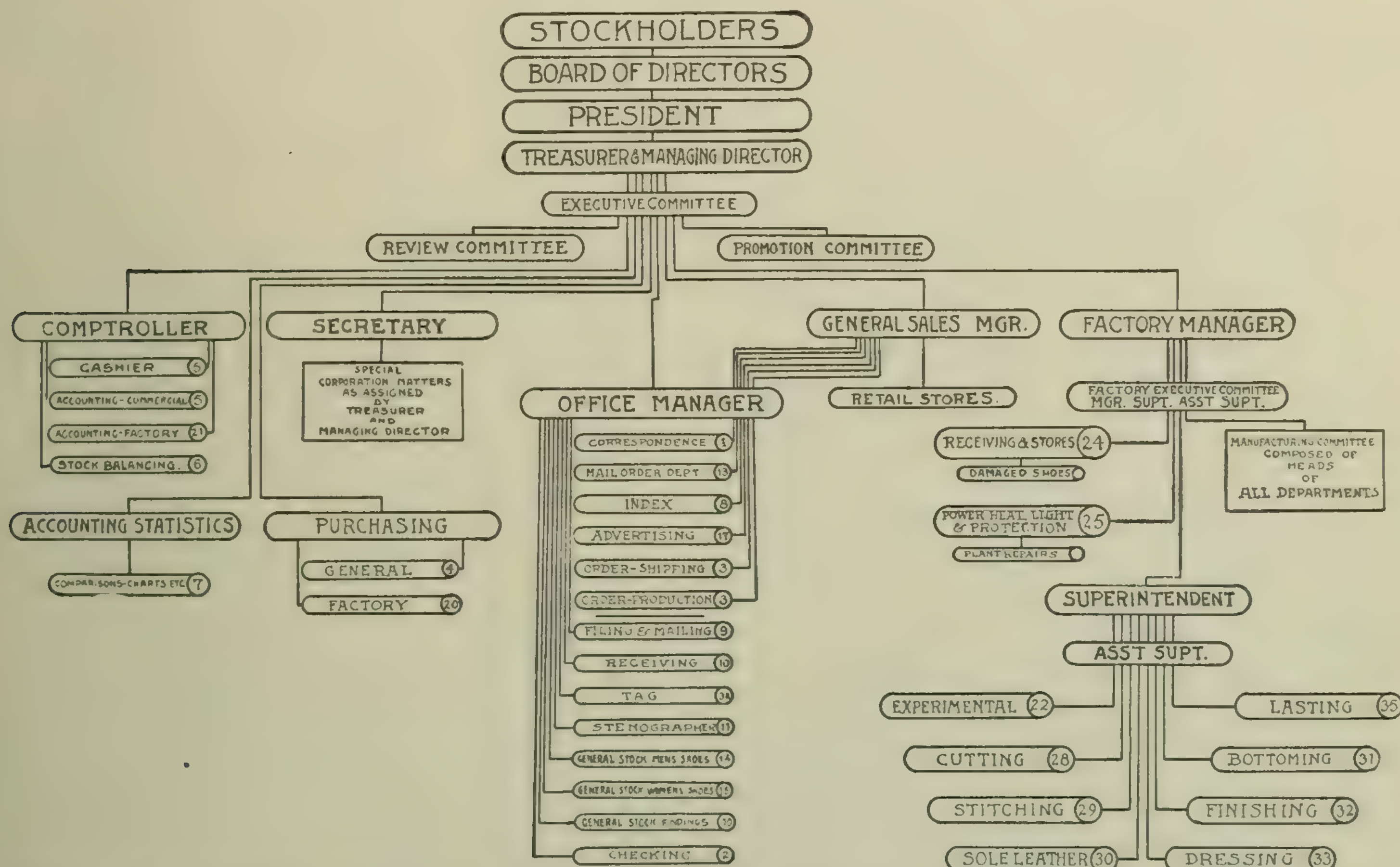


CHART OF THE ORGANIZATION OF A GREAT SHOE MANUFACTURING AND SELLING COMPANY, SHOWING THE DISTRIBUTION OF RESPONSIBILITY

When an order is given for the manufacture of a lot of shoes, it is accompanied by a tag bearing three coupons, which are severally detached and accompany the order as it goes in parts into the three departments of cutting, stitching, and finishing. Through each stage in the process of manufacture is kept the record of the work in all its details, and when the order returns completed there is also its history, to the most minute particulars, ready to be placed upon the records, showing the part that every man has played in it. In every department are kept the fullest records of its work. These records are reduced to chart-form and kept in sight, so that every one may know at a glance just how the department is running. The knowledge that here is an indicator showing just whether or not the department is running above or below its standard has its moral effect in keeping every man up to his highest efficiency in his work.

DAILY REPORTS REDUCED TO CHARTS

Through the various departments go the daily reports, gradually being condensed as they approach the head, where finally a chart is placed every morning upon the manager's desk, showing the physical condition of the entire plant, from the raw goods received from the tannery to the number of sales in each one of the widely separated stores.

The second chart shows the method of watching the three most vital and important particulars, the raw stock on hand, the output of the factory, and the daily sales. The sales fluctuate violently during the week, rising to a high point on Saturdays. The

production line, as it develops from day to day, must run practically parallel with the line of the sales. It is not necessary that this fluctuate day by day, as the line of the sales fluctuates, but the average must be maintained. The line showing the stock on hand must always run just enough ahead of the line of production so that there shall never be a loss of time through lack of stock. With this chart ever before him, the manager knows whether to reduce or to increase the output. If he finds his sales decreasing, he may learn, by reference to another chart, exactly where the weak point is, and seek the difficulty and the remedy. Without this system, the mass of details in figures would be too great to permit ready reference, and an evil in a single department might go on unchecked until it had reached a point where it entailed a serious loss to the business.

TRACING A SHOE ACROSS THE COUNTRY

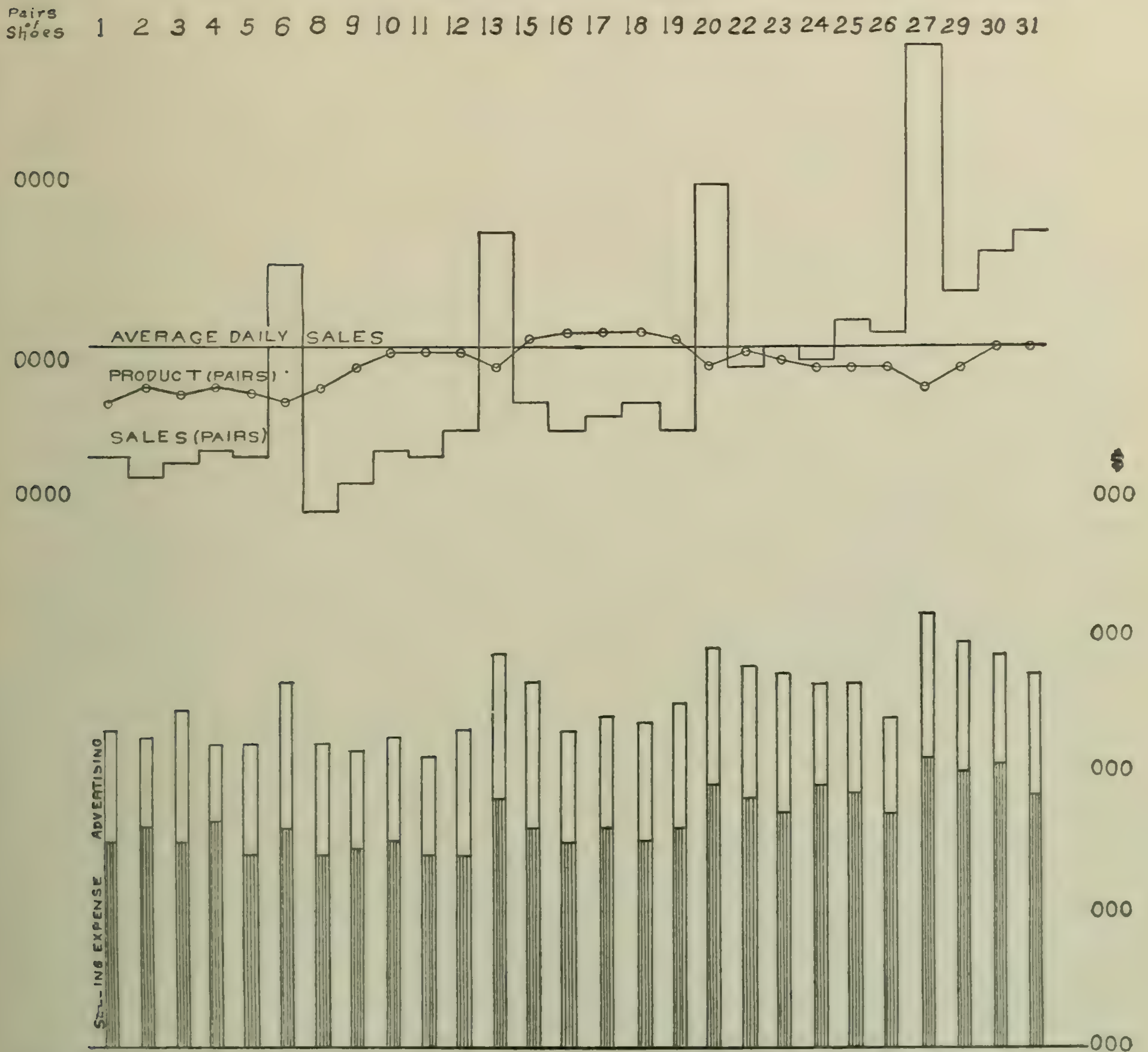
Every department likewise has its charts, showing the detail of its working; every workman's record stands forth clearly, and the detail of every element of cost is carried out in figures to the fifth decimal point. It can therefore be known to the 1-100,000 of a cent exactly what a certain pair of shoes cost on a given day and what a similar pair cost on the next day and the cause of the fluctuation can be determined. So nicely does the system work that, should a pair of shoes be manufactured in Massachusetts today, be sold in San Francisco next month, and be found by the wearer to be imperfect a week later, they may be traced back, step by step, to the man in the factory who, in a moment of carelessness, permitted a few stitches to be dropped. Conversely, should a shoe made by this company be produced for identification purposes, it would be possible to trace it from the day when it was ordered, through the hands of every man who had a part in the making of it, to discover the date on which it was shipped, by whom it was shipped and to what store, the date of its arrival in a certain city, the salesman who sold it; and, unless the purchaser wore it away without leaving an address, the name and the residence of the purchaser might be ascertained.

The production of a shoe is but the half-way step on the road to the consumer. The initial idea upon which this business has grown was the elimination of waste—including the profit of the tanner, of the leather jobber, and of the broker. After the shoe is finished there are still two profits "wasted": the profit of the jobber to the wholesaler and the profit of the wholesaler to the retailer. To be a retailer as well as a manufacturer was a part of the system. To reach the consumer direct there were obviously two methods to be pursued, either to bring the customer direct to the factory by a mail order system, or to go to the customer by the establishment of retail shops. Each method had its difficulties, and each constituted a business in itself worth one man's full attention. Both plans were adopted.

The establishment of eighty stores, extending from Boston to San Francisco, meant the multiplication of sales, and consequently cheaper production. But it also meant the multiplication of store rent, of salesmen's wages, and, above all, the employment of managers, who would be far from the home office and from its direct influence unless a system could be devised to knit them as closely to the organization as the different parts of the factory are knit. The question of actual dishonesty of the eighty store managers was considered a negligible quantity, because it has been found by experience that eighty-five per cent. of the people are honest. In the establishment of these stores, then, every one was placed under the management of a local manager and considered as a separate unit, paying its own rent, its own wages, and rendering its reports daily, weekly, and monthly. On the organization chart will be found the office of the store manager, to whom the store reports come, and under whom are his district managers who supervise the work of every store, and keep it up to its own standard for efficiency.

The daily report tells not only the number of sales made and the amount of cash taken in, but also the sales by sizes and styles, as well as the amount of stock on hand. The store manager, at the home office, knows, therefore, daily, that the amount of cash and the amount of stock must balance; or there must be an investigation. He knows what styles are selling most rapidly, as well as what sizes sell in each different locality, so that the supply of those styles and sizes may be kept up. A regiment of soldiers in San Francisco, fresh from service in the Philippines, will

require shoes of larger sizes than are usually sold in that city. This demand must be promptly met. All the details of these many reports appear in a chart on the general manager's desk. Every store has a certain standard set by itself, and a proportionate increase trade to the local stores and the other to increase the sales in the mail-order department, directly between the factory and the people. For the local stores the daily papers are used, and for the mail orders the magazines. Each kind of advertising may have in-



CHARTS LIKE THESE, BROUGHT UP TO DATE, ARE PLACED ON THE MANAGING DIRECTOR'S DESK EVERY MORNING. BY MEANS OF THEM HE CAN KEEP CONSTANT WATCH OF THE BUSINESS

is demanded of it if it is to continue its usefulness. If the efficiency falls off, the result always appears in red ink, and red is a danger signal for some one or some department.

SYSTEM IN ADVERTISING

The advertising of such a concern as this is divided into two sections, one to bring fluence on the trade of the other department. But just as the wording of an advertisement has become an art, so has it become a part of the advertising expert's business to know exactly what result follows the insertion of an advertisement in any particular journal, in order that no more time or money may be wasted upon those which do not show re-

sults commensurate with the money spent. This is accomplished by means of a "key" to each advertisement.

The methods of "keying" an advertisement are simple. In many cases the key lies in the street number to which replies are to be sent. The street number of the factory may be 105, but if in the advertisement in a certain paper it reads 109, it does not bother the letter-carrier, who probably never looks at the number when he sees a letter addressed to a large firm on his route; but the mail-order clerk who receives it knows in what paper that number was used. This shoe company uses a second key, thus: "Style 922 B" is advertised, which tells the mail-order clerk not only that a certain style is wanted, but that this particular order comes from an advertisement that was printed in a particular periodical.

The mail-order business involves an infinitude of detail, and under the old methods would have required a small army of clerks to handle it. But the system of filing and filling orders makes it possible to dispense with an unwieldly clerical force. Without a system, the mere answering of letters of inquiry and of complaint, and the adjustment of errors, would require the services of more than one able correspondent, and even then sales would undoubtedly be lost and enemies made if, on a certain morning, the corresponding clerk's digestion had unfortunately been upset and he replied hastily or without tact to an unreasonable complaint. Letter forms have been carefully prepared to fit every possible and conceivable question, and these are written in graceful language, giving just that personal touch which is required to mollify a dissatisfied customer or to make a firmer friend of a pleased one. A competent clerk has only to indicate the form that shall be used for reply to every letter received, and a typewriter does the rest.

ORGANIZING A MAP BUSINESS

A special instance of the development of a system to handle an apparently hopeless task is given again by the work of a publishing company whose business it is to publish and sell maps. Two brothers fell into possession of a large number of these maps, a few years ago, together with the plates for making them. The cost of printing them was but a few cents each, and if a sufficient quantity could be sold there would be a handsome profit. The demand for maps, however, was not extensive, and the offering of them to the trade, to be sold in the usual way, did not succeed. Advertising would hardly bring a great number of purchasers; and yet there was a large demand for maps in the rural districts, if the prospective purchasers could but be reached. The map-makers said, "We can produce maps at a cost of fifteen cents each. We ought to be able to sell them at forty-five cents net, after deducting agents' commissions—profit on each map, thirty cents."

The system developed was for the handling of an army of more than five hundred men, who are scouring the country systematically, in order that no possible purchaser shall eventually be overlooked. The country was divided into sections, and each section was then subdivided. Into each section was put a supervising agent, who, in turn, placed his sub-agents in the subdivisions. The supervising agents were instructed in the methods to be pursued and the arguments to be used, and they in turn imparted this to the men directly beneath them, accompanying each for three days while inducting him into the mysteries of the calling. In the home office was kept a colored map with its subdivisions and the memorandum of the work that was being done in each. Every section was checked off, when thoroughly covered, with a memorandum of the entire population and the number of sales made. Thus the little army moved on from section to section, the home office knowing exactly where every man was and what he was doing.

But the system did not stop here. During the three days that the supervising agent was with the sub-agent he was observing him and making notes for the use of the home office. The notes consisted of personal data regarding the agent's character, his previous occupation, his family history, and his personal temperament. This all found its place in the records of the home office, and the reports of what each agent was doing went regularly on file. In the home office was one of the principal officers of the company, a man selected for his skill in correspondence, his ability to put "magnetism" into a letter. His sole duty was to keep in touch with all the agents as rapidly as they could be addressed in turn, with the assistance of a corps

of stenographers and typewriters. Before writing to an agent, his record was looked up, in order that he should be addressed intelligently regarding his work. His personal characteristics and his temperament were referred to, in order that the letter might be suited to that particular man, and have as intimate a tone as if he were the only agent of the company. If his sales were increasing, he was told that the eyes of the company were upon him, and he was commended. Were they showing a decline, he was reprimanded or stimulated or coaxed. This army has moved on, directed by its head, and if there is a man in the rural districts of the United States who does not soon possess a map of his country, it will not be because he has not been intelligently approached.

Examples might have been cited of systems carried to even a greater extent than any of these. Just as the shoe manufacturer can, on reaching his desk in the morning, view at a glance the physical proportions of his business, so can the railroad president, from his desk, see on a single sheet the general outlines of his vast enterprise, and inquire into all details in a moment. The growth of the great department stores has been coincident with the growth of system and organization, and in such immense undertakings as the Lackawanna Steel Company and the United States Steel Corporation there is an infinity of detail, which can be kept in control only by a system that is at once microscopic and telescopic. So important, indeed, to the very life of such great enterprises has system become that the man who possesses an organizing and systematizing brain has an asset as valuable, perhaps, as any that can be conceived. The man who organized the system of the United States Steel Corporation is said to have been rewarded by a fortune for reducing all its multifarious details to a unified working basis.

THE UNIVERSAL SPIRIT OF CHRISTMAS

ITS INVASION OF THE BUSINESS WORLD — A WAY BY RUSH AND A WAY BY FORETHOUGHT — WORKERS DEPENDENT ON CHRISTMAS TRADE — HOLIDAY CELEBRATIONS AMONG OUR FOREIGN POPULATION — ALL RELIGIOUS BOUNDARIES OVERRIDDEN

HERE are two pictures of Christmas activity:

So great was the crowd of shoppers in one rush, last year, at a great New York department store that in one day 475,000 people crowded into its aisles and the doors had to be closed against thousands of others who tried to enter. For ten business days, buyers bore away 40,000 parcels a day and 20,000 more a day were delivered. For this service, from one store, more than 400 delivery wagons were required. The owners of that store spent $8,000 in decorations and music. To the 3,500 employees were added 1,700 temporary assistants. For several days the store was kept open until ten o'clock at night. The trade for the ten days of this rush was twice as great as the regular trade at any other time of the year. Thousands of dollars had been spent in Christmas advertising. For the protection of shoppers from pickpockets, a score or more of detectives had been hired to serve not only during Christmas week, but for a month before.

The other picture is one of deliberation and forethought:

As early as October 1st, one of the great toy-dealers in New York City had half a large floor piled with Christmas gifts that had been paid for, addressed, and dated, so that those for distant parts of the country would go out early in December, and those for city delivery only a day or two before Christmas—all to arrive simultaneously. Thus forehanded givers of gifts to children had avoided the rush, and besides had given themselves three months of pleasure.

THE BUSINESSES THAT DEPEND ON CHRISTMAS

But Christmas work began for one large group of people long before October 1st. In the Black Forest and other districts in Germany, thousands of families earn their living by making toys in the spring and summer for

the next Christmas. Early in the year they make toys for the American market. They do not begin working for the European market until the fall. But, in recent years, American manufacturers have been making an increasing proportion of the toys sold in our market, and we now have in the United States many men and women who earn their living all the year by preparing for the Christmas trade.

Every year, $250,000 is distributed among workers who gather wild smilax and other green things in southern woods for the holiday market in the cities. The formerly useless fir-trees in the wood-lots of Maine and New York now return a fair income as Christmas trees to the farmers, who ship them by the carload. More than a million Christmas trees are sold every year in New York City, two-thirds of which come from Maine. Maine lands that twenty years ago were exempt from taxation because they were worthless are now worth $10 or $15 an acre for the crop of Christmas trees alone. Maine receives more than $100,000 a year for the trees she sends to the cities.

THE CHANGING CHARACTER OF PRESENTS

The character of Christmas gifts is fast changing from the flimsy things that once filled the shops to things of permanent value. Even a toy-maker now says, "My horses must be, as nearly as possible, sure-enough horses—with real horsehair, etc." Twenty years ago there were four kinds of dolls on the market: now there are 400 kinds. Substantial or practical presents have in great measure taken the place of fragile gimcracks, even in toys. Children's velocipedes are now built as substantially as regular bicycles. This year's form runs to imitations of automobiles, propelled by foot-power on pedals, but in appearance like a gasolene car. Books, furs, furniture, and similar articles of good quality which give a permanent satisfaction are replacing flashy bric-à-brac and merely ornamental "trash." Articles to wear, such as gloves, dress patterns, waist patterns, and simple jewelry, are more and more coming into use as Christmas presents. Chafing-dishes, lamps, hand-bags, pocket-books, subscriptions to magazines, cameras, and a wide variety of similar articles, replace the kaleidoscopic array of the time not long past when a gift was anything not useful; and a comfortable habit has grown up of sending gifts subject to exchange at the store where they were bought. One department store in New York was visited, soon after Christmas, by a young man with a chafing-dish under each arm. He laconically explained that he already had two and Christmas had brought him two more—he wished these exchanged. He glanced at the exchange-slip he received and then inquired for the baby-carriage department. On inquiry, he said that his friends would be rather pleased at his proposed diversion of their gifts. A sane practicality, then, marks the modern Christmas gift-giving, and, if it displaces a sentiment, it was a false sentiment. For, as florists, farmers, manufacturers, and German toy-makers, in some measure, live by Christmas, the community now lives a bit better throughout the year because of Christmas.

CHRISTMAS IN THE BUSINESS WORLD

The same substantial idea marks Christmas in the business world. The habit that employers once had of giving turkeys, for instance, to their employees, has generally yielded, either to no gift at all, or to less ready-made kinds of gifts—things that imply more personal thoughtfulness. But the observance of Christmas has steadily become more widespread. One firm gives its employees gold-pieces. Another gives each employee a present at a lunch of good cheer, where co-workers in a large establishment —who, but for this occasion, might never form one another's acquaintance—come to know one another and help to make an *esprit de corps* throughout the house. For years, a large manufacturing company at Pittsburg has made a distribution of gifts on the day before Christmas, in a large auditorium attached to the establishment. A big tree is set up, with presents for all the employees. The firm pays all the expenses of the celebration. But last year the employees, who numbered 1,500, had an additional celebration. At half-past five o'clock in the morning of the day before Christmas, even before the night watchman had left the buildings, several hundred men appeared at the factory. Every one carried a mysterious bundle, and they brought several large Christmas trees. These 200 men scattered to their various departments—there

were ten departments in the whole establishment), and went briskly to work. When the women reached the factory at seven o'clock that day they found a Christmas tree in every department. Every tree was decked with finery, and grouped about every tree were scores of presents—one for every woman. The men had taken the celebration into their own hands and paid for it out of their own pockets. The example of the employers in establishing a celebration had been followed by the men, who took a genuine pride in their part in making Christmas a happy occasion. This celebration by the men did not prevent the firm's usual distribution of gifts.

As illustrating further the habit of giving presents of permanent value, take the case of one of the largest hat-manufacturing establishments in Philadelphia. This firm conducts a building and loan association for its employees. It provides the capital, and lends it at a low rate of interest to employees who wish to build modest but comfortable houses. Last Christmas, the firm presented each of its employees with a share of stock in the association. This same firm always has a Christmas tree for the children of its employees, distributing candy and toys, and sometimes clothing, among the little ones.

Photographed by A. Hedley

THE CHRISTMAS RUSH OF SHOPPERS ON SIXTH AVENUE, NEW YORK

A large western fuel and iron company, which employs 80,000 people scattered in fifty camps and towns in half a dozen States, has established kindergartens at its best camps, in charge of competent teachers. There is such a large foreign population that it prints the text-books in German and in Italian. Every year there is a Christmas tree for the children in the kindergartens. The firm pays all the expenses. There is a distribution of presents for the little ones, games, and sometimes a Christmas play. But, one year, thousands of the men were on a strike. They had been idle for months. Their funds ran low, and some had no funds at all. Christmas came. The workers faced the prospect of a dreary Christmas both for themselves and for the children. But the

Photographed by Horace Woodward
LOOKING AT THE DISPLAY—

company went ahead with its Christmas celebration for the children as if there had been no strike. When the time came to discuss a settlement, the men were more disposed to be friendly than they would otherwise have been.

In South Carolina, a large cotton mill had a Christmas tree every year for the children of the village. But some of the employees regarded it as a sort of charity. Then this rather unusual plan was adopted. The mill-owners turned the Christmas tree over to the Union Sunday School of the town, which invited all the children to a Christmas celebration. The Sunday-school authorities were told to raise as much money as possible by subscription in the community, and the company guaranteed to donate an amount equal to all subscribed. All the people (including the mill employees) contributed. The plan was a complete success, and every employee felt that he had a share in making the tree.

The building of large assembly halls and gymnasia for employees, by large mill-owners, has not only developed the social aspect of factory life, but has led to large Christmas gatherings in these places. In scores of factory towns there is a Christmas Eve dance at the company clubhouse, where there is a large tree, with a distribution of presents. A large publishing house in Philadelphia gives every employee an extra week's salary as a gift, and it is the custom of many financial institutions to give their employees additions to their salaries in proportion to the success of the year's business. In a few such institutions, in very good times, the present has been almost as large as the year's salary.

The increasing adoption of the habit of giving Christmas gifts in the business world has had to encounter two difficulties—one is the danger that gifts from employers to employees may seem a charity; the other is

Photographed by Horace Woodward
—OF TOYS FOR CHRISTMAS

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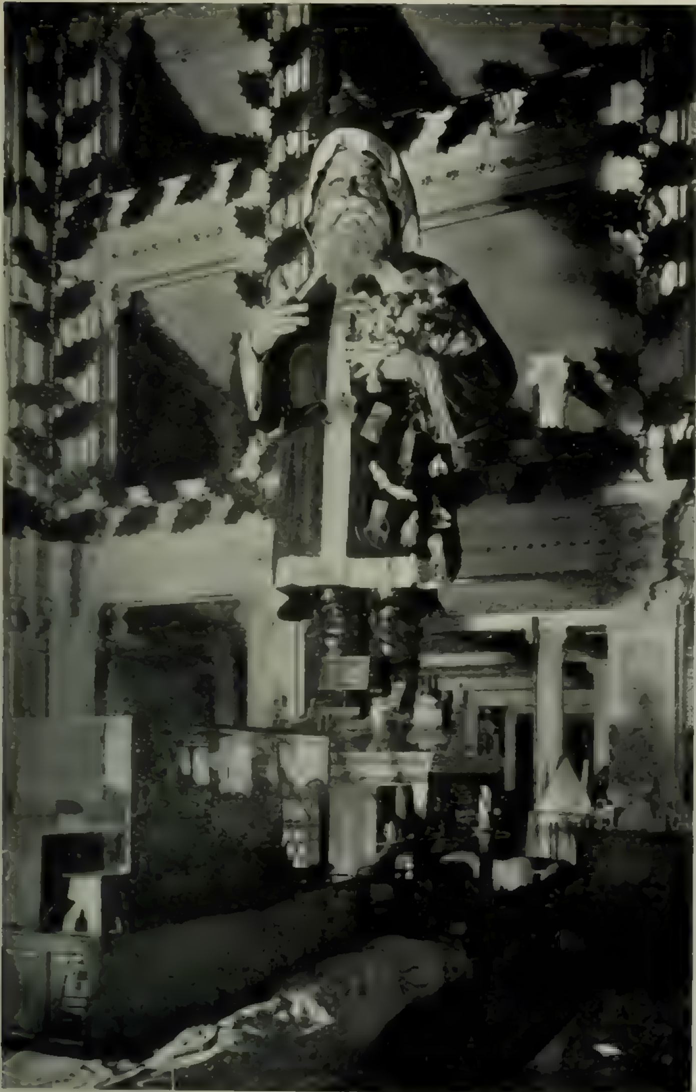
A SIDEWALK VENDER OF MECHANICAL TOYS

that they may seem a deferred part of wages. There can, of course, be no proper Christmas feeling if either of these suspicions attaches to a gift.

It speaks well for the frankness and fairness of the relations between men in the business world that the observance of Christmas has steadily grown, and avoided both these difficulties. Whenever a genuine Christmas sentiment can naturally assert itself among men who work together as employers and em-

Photographed by Horace Woodward
SELLING MISTLETOE THE DAY BEFORE CHRISTMAS



Photographed by "Byron," New York
SANTA CLAUS IN A DEPARTMENT STORE
An example of elaborate Christmas decoration

ployees, this fact goes far to explain both the efficiency of business organization and the cheerful interest that business men take in their work and their work-fellows.

AMONG FOREIGN COLONIES IN OUR CITIES

In most of our large cities, especially in New York, one may see the observance of the Christmas customs of practically every country in the world.

The Italian Christmas (in Italy) is not the festival of the kind that we have taken from the northern nations of Europe. It is more like a saint's day. In New York, the Italian takes at least a half-day on the day before Christmas. No meat comes on his table that night, but his supper is a rich one. The two dishes of honor are snails and pickled eels, which are imported in great quantities for the holidays. He ends the evening by attend-

Copyright, 1903, by Detroit Photographic Co.
CHRISTMAS FOR THE POOR
The "Volunteers of America" and the "Salvation Army" have stands like this all over New York City to receive contributions for Christmas dinners for the poor

ing midnight mass, if he is in a town where the bishop allows it. At five o'clock in the morning, every church in the Italian colony has crowded aisles. Men go to mass who are never seen within church doors or touch holy water on any other day of the year.

The Italians adopt many of our customs, which they learn from their neighbors of other nationalities and, above all, from our public schools. In most of the public schools there are three or four weeks of preparation for the Christmas exercises. The children learn songs and recite verses about Santa Claus, the Christmas dinner, and hanging up the stocking. The schools have Christmas trees, and the teachers often make trifling presents to all their children. As a result, Santa Claus and the tree are seen everywhere in the Italian colonies.

And the children enjoy the day much as little Americans do. Here, as in Italy, a *festa* means feasting. The poorest people will have a bountiful dinner on Christmas day. The chromos of saints and pope are decorated; a floating wick in a glass of oil burns under the Madonna. Festoons of gilt paper are over the doors and windows, and with the coming of night a dozen candles are lighted.

Stories and laughter and cards fill the time, and it would be impossible to find a family where sometime during the day there is not a lusty singing of "Garibaldi," and "Nicolà," to the accompaniment of a wheezy accordion or the humbler harmonica.

Photographed by "Byron," New York

CHRISTMAS ON THE STAGE

The "Babes in Toyland" company receiving gifts after the performance on Christmas Eve

Among our German citizens, the German Christmas customs survive unchanged. Perhaps most of them have become national with us. The Catholic Santa Claus, with his servant Ruprecht, who punishes bad boys, comes to distribute nuts and candies on December 6th—St. Nicholas's Day. Christ-

mas is the festival of the Christ Child, and, days before, the house is made clean for His coming. The day is, above all, a family one, and it is spent quietly at home. The presents to the children are distributed early in the morning, and usually are characterized by thrift and usefulness. The larger children often have to wait until Christmas to replace outgrown clothes, shoes, and mittens. A gift like a pair of skates is sometimes added, but practical utility is the end kept constantly in view. A goose is likely to be the principal dish for dinner, with pickled white turnips and potato dumplings. A plain cinnamon cake, with ginger-spiced deer and lions, crusted with icing and blue and red sugar, and the little round *pfeffernüsse*, are the festive additions to the board. In the afternoon, many visit the church to see the "Crib." In some churches, the story of the Nativity is told with elaborate scenic effect. An entire chapel is often devoted to a model of the town of Bethlehem, with a brook of running water, the stable, and all the human actors in the great drama.

At night the tree is lighted and the smaller presents are taken from it and distributed among the children. The family sings the Christmas hymns, "Come ye Little Children" and "The Holy Night," and the little ones go to bed. An interesting phase of the use of the Christmas tree is that frequently every member of a family—the adults as well as the children—has an individual tree.

A GREAT MANUFACTURING COMPANY'S CHRISTMAS FESTIVAL FOR ITS EMPLOYEES
Just before the distribution of gifts by Santa Claus

The American Christmas suffers a strange fate in the Ghetto. Nine-tenths of its Jews are from Russia. There every church festival is purely religious, and on Christmas the Jews crouch behind barricaded doors in terror of outrage by peasants drunk with *vodka*. Here, we lay little stress on the religious side of it, and the majority of adult Jews in the Ghetto do not know that it is anything more than the principal social festival of the year. Many of them think it a kind of children's day and nothing else. And

so, in ignorance of its origin, many a Jew who is so orthodox that he would not allow an English book to lie on a table touching a volume of his holy Hebrew, will yet permit his children to join in the merriment.

Peddlers and those who work in factories feel the difference in the season and the increasing volume of business, and fall into sympathy with their general environment. A very large number of them give presents to the children, and allow them to hang up their stockings on Christmas Eve. They will not, however, have a tree in their rooms. There are no Christmas dinners; the stores do not close, and the shops work on as usual. For their Santa Claus, the little ones must visit a settlement house or their more fortunate friends whose parents are less strict. And it is the less orthodox and their children who lead the way in adopting the new custom. Little Rachel cries for a doll like Rebecca's on the floor below, and her orthodox mother cannot resist her tears.

Christmas has so far made its way among the Jews as a social festival that it already eclipses the Fourth of July and Thanksgiving Day. In preparation for it, Grand Street, the main avenue of the Ghetto in New York, is choked for an entire week with push-carts and crowding shoppers. The stores display every kind of toy and sweetmeat for the children, with glittering gold and silver moss, candles, trees, mistletoe, and glazed colored balls. These toys and decorations are purely American, and are unknown in Russia. Present-giving is extending as well among grown-up people, and stores advertise in Yiddish lists of articles suitable for Christmas presents. Many poor families spend $8 or $10 for presents.

Photographed by Harry Coutant

CHRISTMAS IN THE GHETTO, NEW YORK

Carrying home the good things bought for the Christmas dinner. Russian Jews as well as other aliens celebrate the holiday

Last Christmas fell on a Friday, and when the people came out from the evening service at an East Side synagogue, many greeted each other with a "Merry Christmas." The strangeness of the salutation coming from Hebrew lips seemed quite unnoticed.

Photographed by Harry Coutant

MARKETING FOR CHRISTMAS ON THE EAST SIDE, NEW YORK CITY

Photographed by Detroit Photographic Co.

CARLOADS OF CHRISTMAS TREES FOR NEW YORK CITY

There could hardly be a more striking indication of the universality of the Christmas habit — of the way in which it has become a gift-giving, good-wish-bearing time of cheer, whose purely religious significance has almost been forgotten.

Photographed by A. Hedley

HOME FROM THE CHRISTMAS MARKETING

AN OLD NEW YORK CHURCH SWALLOWED UP BY AN INSURANCE BUILDING

The Metropolitan Life Insurance Company has now purchased the site of the church, securing practically the whole block from 23d to 24th streets, between Madison and 4th avenues, and the church (Dr. Parkhurst's) is to be moved to the opposite corner

BILLIONS IN TEN-CENT INSURANCE

THE VAST GROWTH OF SO-CALLED "INDUSTRIAL" LIFE INSURANCE IN A SINGLE QUARTER-CENTURY—SOLICITING EVERY MEMBER OF THE FAMILY—THE AVERAGE POLICY ABOUT ENOUGH TO PAY FOR THE BURIAL EXPENSES—COLLECTING BY HAND MILLIONS OF DOLLARS A WEEK IN DIMES—THE MOST GIGANTIC BUSINESS OF SMALL UNITS IN THE WORLD

BY

HENRY WYSHAM LANIER

THIRTY-THREE years ago, a New York insurance man's attention was attracted one day by a rather derogatory reference in the Massachusetts insurance report to the work of an English company which was insuring the lives of workingmen and children on a large scale. Today that man is the president of one of three similar American companies which stand pledged to pay in the future more than two billions of dollars to more than ten millions of people; which are disbursing half a million dollars a week to their policy-holders in sums averaging perhaps a hundred dollars; which have assets stored up of nearly one hundred and fifty millions; and, most notable of all, which collect, *by hand*, a quarter of a million dollars a day in ten-cent pieces! Such a growth within the working life of one man is amazing, even in this age of industrial miracles, and an examination of its details heightens the wonder.

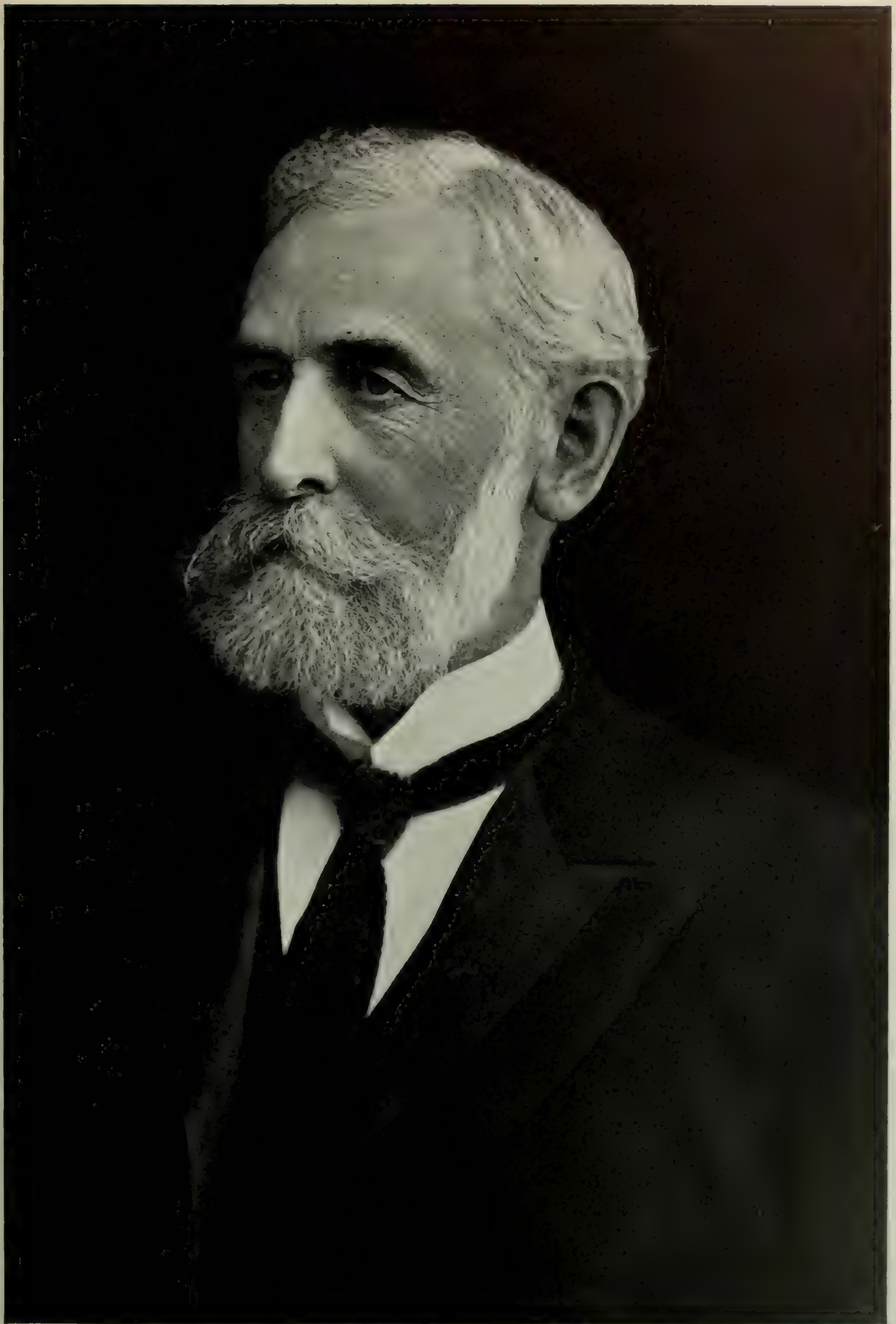
INSURANCE FOR FUNERAL EXPENSES

Strangely enough, though one family out of every five in the United States has one or more industrial policies on some member, the average well-informed man knows nothing what-

Photographed by Arthur Hewitt

THE HOME OFFICE OF THE PRUDENTIAL INSURANCE COMPANY OF AMERICA

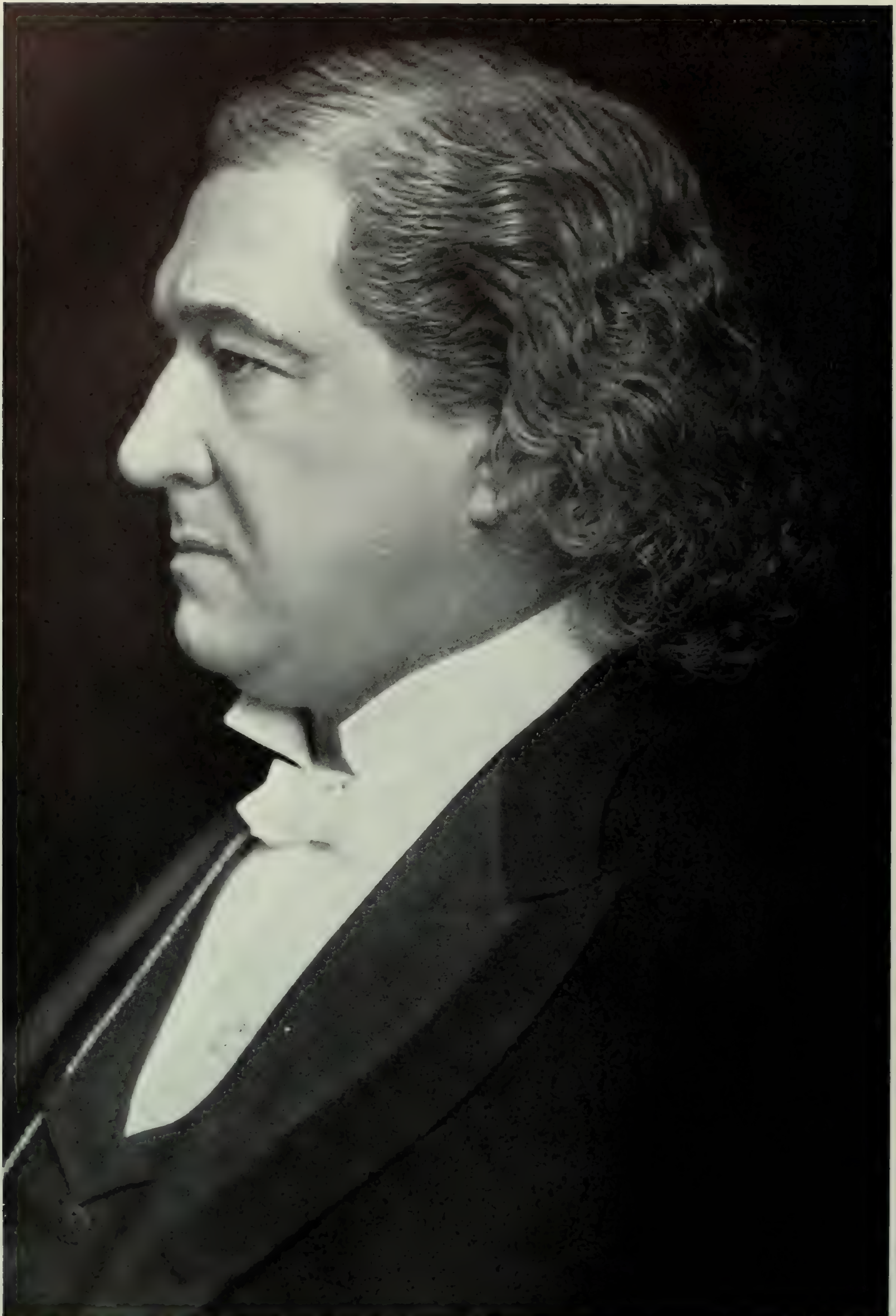
One of the two "billion-dollar" companies in industrial insurance



Photographed by Davis & Sanford

UNITED STATES SENATOR JOHN F. DRYDEN OF NEW JERSEY

Founder and President of the Prudential Insurance Company of America



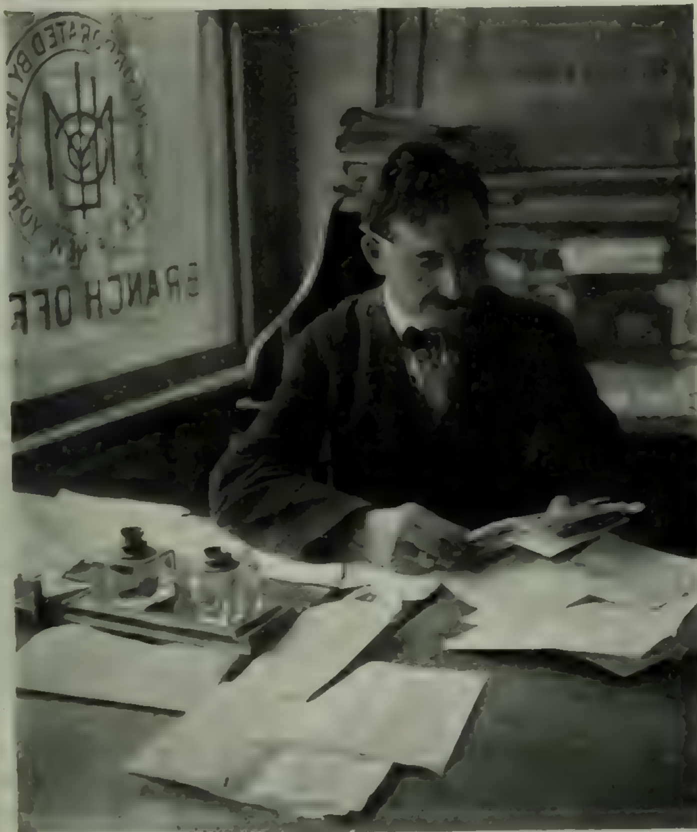
Photographed by Pach Bros.

JOHN R. HEGEMAN
President of the Metropolitan Life Insurance Company

Photographic series by A. Radclyffe Dugmore

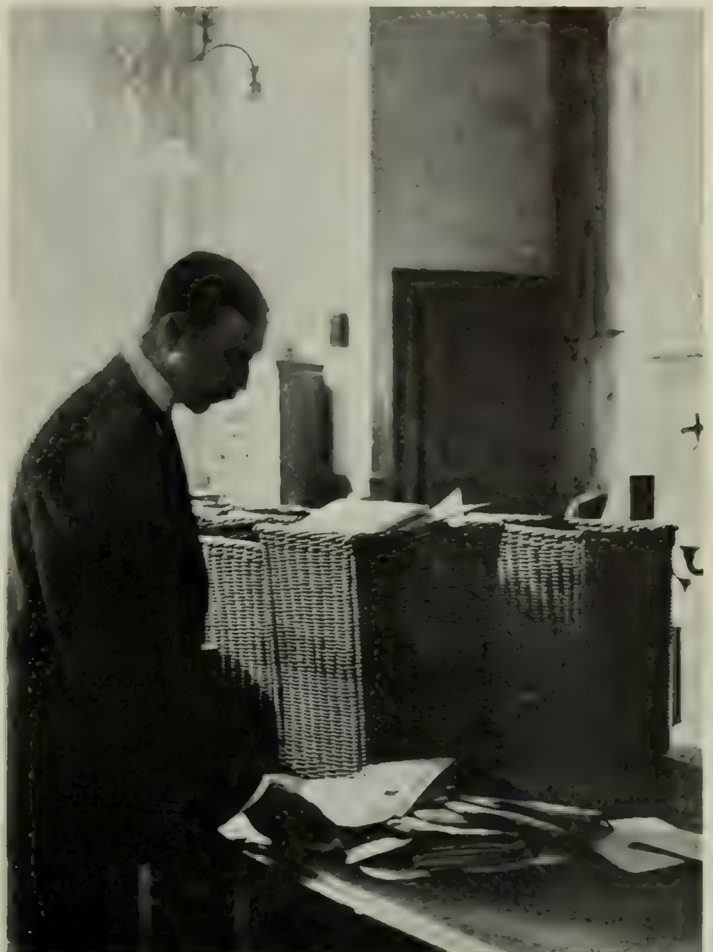
1. SIGNING THE APPLICATION FOR A POLICY
The first of eleven steps through which each one of the fifteen million existing American "industrial" policies has gone

ever about the system or its workings. But ask your household servants what they know



2. THE MANAGER OF THE BRANCH OFFICE EXAMINING THE APPLICATION

about industrial insurance, and the chances are you will find that at least one of them is paying ten cents a week to a company which guarantees her a hundred dollars or so in case of death—enough to pay for the funeral expenses. This was the foundation principle of industrial insurance, and is still the dominant reason for its existence: the avoidance of a burial at public expense, or of leaving a burden of debt upon one's family. The average cost of burial for a child under two years is from $12 to $25; the average



3. IN THE MAIL-DISTRIBUTING ROOM AT THE MAIN OFFICE
Putting the application in the "Medical" basket for the examiner

insurance on children between one and two years old is $19.48. At the age of ten, the average funeral expense is $50—the average industrial policy, $59.94.

HOW "INDUSTRIAL" METHODS HAVE EXTENDED LIFE INSURANCE

From this initial idea, however, the business has developed "cash dividends" and "paid-up policies"; and its payments of claims alone amount to twenty-five million dollars a year, in sums ranging from $15 to $1,000. Of course, too, the inevitable result of the work

4. THE FINAL CHECKING OF THE MEDICAL REPORT ON THE APPLICATION FOR A POLICY

5. CHECKING FINAL DETAILS BY THE TABLES WHICH SHOW THE STANDARDS OF MORTALITY, ETC., ON WHICH INSURANCE RISKS ARE BASED

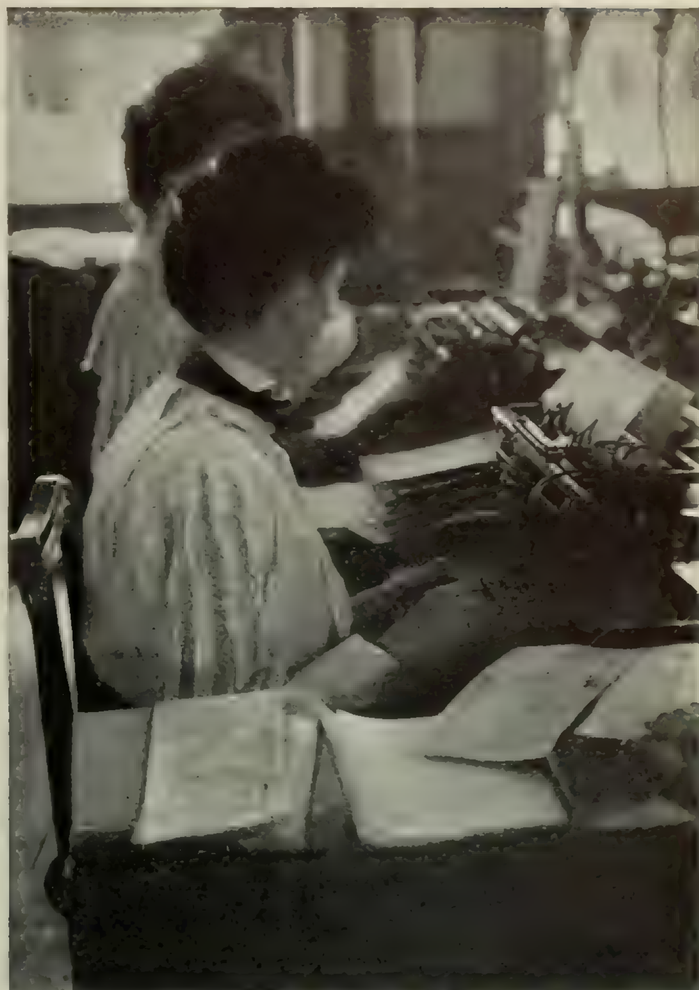
has been that the industrial companies have branched out into the ordinary field, not only doing an immense business in "intermediate" policies of, say, $500, but competing with the old, established, regular companies in their own field—with the great advantage of being able to do business more cheaply, because they have already a tremendous force of agents who are making a living out of the "industrial" work. The average "ordinary" life insurance policy, before the "industrials" started, was for $2,500; today it is about $2,100 with the "old line" companies and $1,100 with the industrials. Clearly, the latter have extended life insurance to a vast multitude who would never have been reached by former methods.

6. NUMBERING THE APPLICATIONS

If one wishes to enlarge his ideas on the subject of life insurance, and, at the same time, to get into touch with pulsing human life in most diverse forms, there could hardly be a more effective method than to take a tour in some great city for a day with an agent of a big industrial company. Here is a fair sample of such an experience.

X——, the agent, is a shrewd, tactful, businesslike little man, who explains, as we go along, the conditions under which his day's work is carried on. He is supposed to devote

the first half of each week to collecting, and the rest of the time to soliciting new business. He starts with what is known as a "debit," ranging from $80 to $90 a week—that is, he must collect this much before his 15 per cent. commission becomes operative, thus guarding against a falling off of receipts. This means that he must keep in touch with somewhat more than two hundred different families; and, as we are going to the central East Side, his district covers a square of several blocks each way—enough to supply ample exercise on a baking June day. Up in the rabbit warrens of the Columbus Avenue flat-house



8. TYPEWRITING A SCHEDULE, WHICH IS THE COMPANY'S RECORD, IN DUPLICATE, OF THE NAME AND THE OTHER DETAILS OF THE POLICY

7. SELECTING THE POLICY WHICH FITS THE TERMS OF THE APPLICATION

region, a route sometimes comprises one side of a single block, and the agent's work is cut out for him at that.

A DAY WITH A COLLECTOR

"Let me see," says X——, pausing before one of the innumerable cheap flat-houses. "I'd better introduce you as a friend of mine who's trying to learn something about how we carry on the business. They're touchy, these people, sometimes."

9. WRITING A POLICY

10. SENDING OUT POLICIES TO THE BRANCH AGENTS

"Do they often object to your calling?"

"Oh, no! They understand that, whether they really want to see me or no. But one has to know how to handle them. They come all sorts, you know, and what tickles one would make the next kick you down-stairs. I've learned a few things about human nature since I've been at this work."

He presses a button beneath the name he is looking for. The front door clicks open, and we climb to the fourth floor. A view opens into the dining-room, where a woman is clearing up dishes, with a little girl beside her. I am properly introduced, and we sit down, X—— making some remarks on the heat while he opens his record-book in a business-like way. The woman produces her book and a dollar bill; the agent gives her twenty cents in change, makes an entry in her pass-book and in his own elaborate record, says something more in a pleasant way—and we are in the street again. It doesn't seem very abstruse, after all.

Across the street, we dive into a grimy entrance and up endless flights of rickety stairs, which lead, apparently, only to Egyptian darkness. A man with a reasonably acute nose could take up his position anywhere on this stairway and with patience unravel, by odor, the day's menu of each of the score of families under that roof. Clearly, there is cabbage somewhere in every one. The cumulative effect on top of the sickening, close heat is somewhat overpowering as an introduction, and we reach the top of four flights rather the worse for wear. X—— raps on an invisible door. No answer. He bangs away vigorously. Still all is silent. A ghost-like, shapeless figure, which might be one of Woolff's heartrending caricatures, if there were light enough to make it out, passes us noiselessly. After a third effort, X—— gives it up.

"I rather thought she'd be out," he remarks. "I generally get here fifteen or twenty minutes earlier than this, and I always have to catch her early or late."

Even the scorching street is grateful after that woeful habitation, which is, however, a fair sample of thousands. We enter a similar

11. FILING-ROOM WHERE POLICIES ARE PUT AWAY

one a dozen steps away, and again draw a blank. The visitor realizes suddenly that a good deal of e[illegible] been expended in the last quarter of an hour for very small results. Also, it is hotter than it was.

Next comes a woman with two children, in a kitchen. She insists on finding us the best chairs, and pays twenty cents—wearily, poor thing. It takes little divination to see that there are perhaps a dozen other places in which those two pitiful coins are needed. We turn into the avenue, go down a step, and through a narrow alley to a rear court; then up and into the midst of a brood of dirty children, who shyly peer from corners, while the sturdy mother bids us good morning and offers us seats. Introductions and the weather follow.

"How is Neil?" asks X——.

"Oh, he's had bad luck!"

"How's that?"

"He had his hand cut off in an accident the other day"—and then follows a detailed description of the accident to her husband, a hack-driver. At the end of our expressions of sympathy, the agent takes out his record book rather ostentatiously.

"I can't do anything this morning," says the narrator, putting her arms akimbo.

"Is that so?" inquires X——, in much apparent surprise.

"No, sir; you see, what with Neil in the hospital and Jimmie laid up so long, I'll have to wait."

X—— studies her closely. "Next Monday?" he inquires.

"No, not so soon. Not before Thursday, sure."

"Where is Jimmie working now?"

"At Blank's butcher shop. You can find him there any time."

"All right, Mrs. ——. I'll be around on Friday. Good morning."

And we pass out, followed by the big-eyed youngsters.

"You see," says X——, "we have to ease them along when they're really in hard luck. Now, she was telling the truth—I could see that. She'll pay when she can."

Up more stairs we climb to an open door. A cheerful young Irishwoman, apologizing for the disorder, hands out a ten-dollar bill from which to take premiums for her husband, herself, and the two-year-old boy, amounting to $1.25. She is full of energy and contented prosperity in her two-room abode, despite the temperature.

"By the way, Mrs. Rafferty," suggests X——. "How about the baby?"

"He'll be a year old next month. I guess I'll take out that policy for him just as soon as his birthday comes."

"All right. We'll get an application ready so as to lose no time"—and it is agreed that the latest comer shall have an insurance policy for his first birthday present.

A couple of the next calls are met by empty rooms. At the third place, too, repeated knocks at the apartment door bring no answer. X——, however, has a card up his sleeve still. He descends the gloomy stairway two flights, and raps at the right-hand back door. Sure enough, there is the delinquent, chatting with another woman. She promptly produces ninety cents, while we wait in the passage. "You see," remarks the agent, "that's where a little inside knowledge was needed. Her sister-in-law lives there: I've been trying to collect that for three weeks."

Several colorless visits, and we enter a room in response to a boyish "Come in," where a lad of ten sits with a Bible before him, from which he has evidently been reading to a shriveled old woman on the horsehair sofa. She is deaf with age, her skin is like a wrinkled russet apple, and her thin hands tremble. But there is in her eyes that un-aging and imperishable humor which makes her nation such lovable children. The boy gets the money. Presently, the old lady pipes up in a cracked voice: "'Tis a quare thing," says she, 'that iv'rybody who comes to that dure do be afther takin' money away—the landlorrd, the baker, the insurrance man, an' divil knows what not—an' not a blessed wan of thim iver brings any to leave here." We all laugh, and, much pleased, she continues her shrewd fun until we leave. It's a pleasant antidote to the depression of heat and bad odors and pinching poverty with which the world seems to be filled this morning.

Coming out from this place to the avenue, a fat German woman lays hold of X——. She seems much excited; and, after an attempt or two in involved English, "Sprechen sie Deutsch?" she demands. "Ja, ja." Whereat she bursts into a torrent of German mixed with an occasional Yiddish phrase. For ten minutes they converse, and it appears that she has seen the agent talking with her husband

the day before, and wants to know in alarm if the latter has been insuring her life! The implication as to the character of her lord and master is only too obvious. X—— quiets her fears, and we cross the broad avenue to a far more pretentious residence than any we have hitherto entered.

"This man is the manager of ——'s," says X——, naming a big manufacturing house; "but he had bad luck in Wall Street, and he and his wife have their industrial insurance, just as the undertaker and the hackmen have. They've got great big rooms here, fixed up fine, I can tell you. And, if everything isn't just so, you can depend upon it, the madam won't let us come in."

At the top of the second flight he knocks. Clearly, everything is not "just so," for a feminine voice demands his business, and the money is passed out around the door, while we stand in the hall.

The visitor's thirst for investigation has by this time been replaced by a different craving. X—— agrees that it is hot, and is willing to do his part toward relieving the situation; but he does not forget his mission in life, and, while he sips his beer, he sounds the barkeeper upon the insurance he carries. That gentleman is pleasant, but firm. "The old woman," he declares, "she has three policies already; that's all a man can carry on ten dollars a week."

"How about yourself?"

"Oh, I've got two thousand in a mutual benefit association: you people can't touch their rate."

So I leave, having an illuminating glimpse of the work which is done the year round by an army of thirty to fifty thousand men, who are collecting premiums, and insuring the lives of people whom the casual observer would put among the impossible class for life insurance benefits.

A COMPLICATED MASS OF DETAIL

They would be beyond the reach of even the most expert agents on any basis but the one which has resulted in such a gigantic success. All sorts of variations were tried before industrial insurance got its start in America; premiums payable quarterly, payable monthly, or even payable weekly at the company's office were quite ineffective in really reaching the great masses whom the promoters of the idea had in mind; and not until the companies adopted the system of a scale of benefits varying in size with the applicant's age, for a fixed weekly premium of five or ten cents (or a small multiple of these), collected by their own agents at the homes of the policy-holders, did the business take any permanent hold here. That it is extremely difficult to conduct such a complicated mass of details is suggested by the fact that three companies—the Metropolitan, the Prudential, and the John Hancock—do 95 per cent. of all the industrial insurance in the United States, and seven-eighths of this is handled by the first two. Indeed, it would be impossible to carry on the business to-day except for a most ingenious system by which all the book-keeping of collections is done by the agent, who keeps the only record and turns in his money to the branch office of his district, which, in turn, reports its deposits to the central office —and for the fact that the average payment is 40 cents a family instead of five or ten cents, owing to the inevitable tendency of the insured to take out fresh policies on his own life and on the lives of other members of his household.

THE OPPOSITION TO CHILDREN'S INSURANCE

There was some very bitter opposition to the plan during the early years, the main contention being that the insuring of young children tended to infanticide. (Even as late as 1893, the State of Colorado passed a law forbidding the insurance of children under the age of ten.) It would be easy to bring strong arguments against this statement from logical theories; but more effective still are the facts: there is not a single case recorded where the murder of a child has been traced to this cause; on the contrary, the mortality statistics show a higher death-rate among children not insured —as might be expected. The English companies insure infants from birth, but here no "risks" are taken under one year old.

"The reason is rather sentimental," said Senator John F. Dryden, the founder of the Prudential. "So far as the business side is concerned, there is a tremendous added uncertainty in the life of an infant under one year, but we could easily construct a table and do the business profitably. We've always felt, however, without any evidence at all to back it up, that it was wiser to omit newly born infants, since a crime could be committed so much more easily in such cases."

Another source of unintelligent criticism has been the large number of industrial policies which lapse because the holders cannot continue even these small weekly payments. This is peculiarly unjust, for, with payments of ten or twenty cents a week, it is easy to see that a lapsed policy is a dead loss to the company, instead of a gain. In fact, superhuman efforts are made to reduce the number of lapses; the policy-holders are given as much leeway as possible in meeting arrears; and in most cases a policy can be revived even without the payment of the arrears, these standing as a loan, without interest.

Practically all this sort of criticism has disappeared, and the only attacks made nowadays on the industrial companies are due not to their novelty, but to their success: two of them today are "billion-dollar companies," ranking in this classification with the Mutual, the Equitable, and the New York Life. They have, in consequence, met with something of the hostility which socialism and demagoguery direct toward any large accumulation of money, whether for the benefit of one man or of millions.

NO PROBLEMS EXCEPT TO REACH THE PEOPLE

These companies, however, are free from many of the problems which beset the older ordinary life insurance concerns. They are not talking about curtailing new business; far from it. The discouraged agent, or the statistician who notices that in thirty years the number of policy-holders has grown from none to ten millions, while the total population has only doubled, may prophesy a lack of available "risks" in the near future; but Senator Dryden, of the Prudential, pooh-poohs such an idea.

"Why," he declares, "as I say to my agents, while you've been insuring eleven millions of people, the original forty-four millions of population in this country have increased to eighty-one millions. Where are the twenty-six millions that you've let get away? To say nothing of the forty-four millions we started with!"

The work of these companies may well stand on its record. There is no cant or humbug about the attitude of the men who run them. "A man who takes one of our policies is making a plain business transaction," said a high officer of one of the largest companies. "He knows exactly what he's buying." An expert estimates that, without industrial insurance, there would be 25,000 more pauper funerals every year in this country; and, when one finds that more than 600 of the 1,000 victims who were lost in the *General Slocum*, at New York, were insured in one or the other of these companies, it is possible to realize what a well-nigh universal influence it has become in helping "the other half" to provide for the future.

WHAT EUROPE MEANS TO US

ITS CONTROL OF THE WORLD'S AFFAIRS AND ITS EVER-INCREASING RICHES AND POWER—IT BUYS MORE THAN IT SELLS, EATS MORE THAN IT GROWS, AND DOES NOT MISS ITS MILLIONS OF EMIGRANTS FROM ITS INCREASING POPULATION —ITS VAST PURCHASING POWER AND ITS ECONOMIC RELATIONS TO AMERICA

BY

JAMES DAVENPORT WHELPLEY

SPECIAL WRITER FOR "THE WORLD'S WORK" IN EUROPE

ALWAYS buying more than it sells, eating more than comes from its soil, lending more than it borrows, and in every way apparently giving more than it takes, Europe's constantly increasing population, wealth, and power form a mystery, for they are the most wonderful and fascinating of all economic phenomena.

No definite or long-continued political or economic policy brought about these conditions. Monarchy and republic lie side by side. Free trade and protection are divided merely by political lines. The marts of European trade are carried on in many different languages. No one country recognizes the currency system of another. There is no

harmony, no concerted effort, no solid front presented to rivals elsewhere.

The United States has a population of twenty-two to the square mile. In the past one hundred years Europe has sent 40,000,000 people to the United States and other new countries, and yet today has a population of 103 to the square mile, or nearly twice as many as when this emigration began. In the meantime, wages have increased, wealth has piled up, trade has quadrupled, and the purchasing power of the people of Europe has more than kept pace with all these advances.

Nor has the power of Europe now reached its zenith. Every year it makes new and appreciable gains. There is always some industrial disturbance, but good conditions in one section balance the evils of another. England is now suffering from a serious depression in industry, yet when the City of London asked, in April, for a loan of $25,000,000, forty-four times that amount, or more than a billion dollars, was offered by her own people within the allotted time. Italy is losing a half-million people annually through emigration, yet her population gains steadily. Russia is at war in the East, yet in the western part of her vast territory trade and development are making strides. Fifteen years ago Denmark was bankrupt, yet today that country-in-miniature is the most wealthy and prosperous spot of its size upon the earth's surface. The population of France is at a standstill, but the people are buying more, and the national trade is increasing most satisfactorily. Spain is torn with political contentions, yet her ports are busy with the commerce of all nations.

There are eighteen nations within the boundaries of Europe proper. They cover an area about the same as the United States, including Alaska. Nowhere are the unoccupied arable areas of great extent. In Belgium there are 588 people to the square mile, and in Norway but 18. But most of the European countries have a population of from 100 to 200 to the square mile. This indicates how closely the people live to the soil.

Even to estimate the annual domestic exchanges of Europe is beyond the reach of intelligible figures. The foreign exchange is a quantity which can be determined with more or less accuracy, however, and its amount—$14,000,000,000 annually—conveys an idea of the tide of commerce that flows through this heart of the world.

The imports of these eighteen countries amount to $8,000,000,000, the exports to $6,000,000,000, showing an excess of purchases over sales amounting to $2,000,000,000. The imports from abroad, meaning from countries other than European, are to supply European deficiencies, and these are largely of food and raw materials.

The inter-European trade necessarily balances itself. Trade statistics, owing to their incompleteness, difference in valuation, and inaccuracies, do not prove this contention; but it must be assumed that when these inaccuracies are eliminated, transportation charges taken into account, and differences of valuations adjusted, such a balance would result. It is evident, therefore, that, speaking broadly, Europe buys from the outside world two billion dollars' worth of supplies, and that this represents the balance of trade against her, as the term is used in the United States. It is the trade for which she does not pay in goods or products.

The complications of modern commerce make it impossible to say just exactly how the $2,000,000,000 are compensated for. But the compensation will be found in the interest paid to Europeans on foreign securities held by them, in the hundreds of millions paid to her ship-owners and carriers, in the fifty millions or more left in European countries by tourists, in the fifty millions sent home by her children residing in foreign lands, and in the gradual repurchase of securities by people who have secured European loans, in extensions of credit to European buyers of foreign goods; and there is also a large compensating element in the increase in the value of imported goods between the time of their purchase abroad and their sale in the local European markets.

That a "balance of trade" for or against a country cannot be assigned as a cause for prosperity or adversity is well known. The United States has been most prosperous when the so-called "balance of trade" was largest in her favor—that is, when the country sold more than it bought—though her people have also flourished when the balance of trade was the other way. The people of the United Kingdom were never more prosperous than when the balance of trade was largest against them.

The trade accounts of the eighteen countries of Europe show that but five of them, Austria-Hungary, Russia, Bulgaria, Rumania, and Servia, now export more merchandise than they import. The other thirteen countries, including those with the largest and most profitable trade, import much more than they export. In this particular, each country is an economic law unto itself, though the general excess of imports over exports throughout Europe testifies to the continued preëminence of Europe as the great creditor of the borrowing world.

Until 1876 America drew heavily upon European resources for money to build railroads, to develop land, to open mines, and to extend manufacturing facilities. Until that date a heavy tide of capital, represented by goods as well as by money, flowed toward the New World, and was indicated in a large excess of American imports over exports. Then the tide turned, and gradually gained in volume and headway until the rush of products, returning loans, payments for services and interest on investments made an American export trade indicative of such natural wealth and productiveness as the world has never seen developed in so short a time.

About 65 per cent. of the total exports from the United States are of agricultural products, though much of this might be regarded as manufactured goods because many agricultural products are put through manufacturing processes. Roughly speaking, the American people sell $900,000,000 worth of such products a year to foreign buyers. Nearly 90 per cent. goes to Europe, hence about four-fifths of the American goods sent to Europe supply food and raw material. American products feed the operatives in the European mills and factories who are making goods for all the world. They provision the foreign ships which carry the world's commerce, and keep down the cost of living in Europe by supplementing the comparatively scanty supply of home-grown foods. These agricultural products of America are now so necessary to Europeans that they are admitted without serious restrictions to nearly all European markets.

The trade of the United States with Europe is kept up because of Europe's necessities, and not because the people lack enterprise, skill, or industry. They have found manufacturing more profitable than farming. Producing raw materials is not the natural work of crowded populations. Therein lies the weakness of Europe in time of war, and her strength in peace.

But the United States hasfostered the manufacture of her own raw materials into finished products to such an extent as to make the older nations fear our competition. Without losing ground as a food-producer, the United States has recently made its great industrial gains in manufacturing. This advance f reshadows a struggle for commercial supremacy which, while already keen, has really only begun.

Aside from the vast importations into Europe of such partly manufactured goods from the United States as leather, provisions, lumber, etc., Americans are now increasing their exports of goods heretofore regarded as peculiarly European. These are forcing their way into European markets n account of their novelty, their cheapness, their lightness of construction, or their appearance. That American export statistics do not show greater gains in this trade, or even that they show a slight decline in some directions in the past two years, is due to the establishment of American factories abroad to meet tariff discriminations and local prejudices or to cheapen the cost of production.

European farmers are now buying nearly $12,000,000 worth of American agricultural machinery a year. So many American cars, wheelbarrows and push-carts are trundled through the streets of European cities as to bring to this country $2,500,000 a year. A half-million dollars of European money was spent in American clocks and watches in 1903. Another half-million represents the annual purchase of American cotton cloth sold in competition with the product of long-established European mills. Five million dollars' worth of telegraph, telephone and scientific instruments was bought in America by Europeans in the past twelve months. European sales of American hardware reached a total of $5,000,000 in 1903. Three million dollars' worth of sewing-machines and three million dollars' worth of typewriters were bought last year. Three million dollars' worth of American shoes were worn out on European pavements and roads, and American paper to the same value was consumed. In the manufacture of such goods Europeans have long regarded themselves as supreme. They now find American salesmen at the

very doors of their shops offering competitive products at competitive prices, notwithstanding that these are manufactured under higher wage scales, more liberal expenditure in all directions, and a transportation bill for hauling them between three thousand and four thousand miles. America has long been looked upon abroad as a country of raw materials. This recent development of American foreign trade is causing uneasiness in European trade centres.

The component parts of Europe are not like one another except in this, that they are all fields for foreign commercial adventure. The limited granary of Europe lies in Russia,. Austria-Hungary, Rumania, Bulgaria, and Servia. Hence it is that these countries export more than they import. The other thirteen countries are "short" of food-stuffs, and their surplus of imports over exports is generally due to the supplying of this deficiency as well as to a deficiency in raw or partially manufactured materials. In nearly every case the sales of breadstuffs, meat, cotton, and other agricultural products to those countries represent more than their excess of imports over exports.

Similarly American trade with Europe is due primarily to the need of food and raw material and the ability of Americans to meet them. The market for manufactured goods the world over may sink to a low point through general depression or over-production; but, no matter how distressed manufacturing Europe becomes, through such a condition. the people must be fed. The absorptive power may lessen, but it can not go below the living point, and no hold upon a great market is so satisfactory or so permanent as the hold on the food wants of the people who conduct the world's exchanges. The United States now has this hold on Europe, and no probable development of the near future in any part of the world seriously threatens it.

Great Britain imports more than any other nation. The total purchases of her people abroad last year amounted to more than two and a half billion dollars. The merchandise sent out in exchange for this volume of goods amounted to less than a billion and a half. We sell to Great Britain from a third to one-half of all our American exports. The amount varies with the demand for foodstuffs, with the fulness or the scarcity of crops in the United States, and with the condition of the home market. These vast sales amount, however, to but one-fifth of the total imports of the United Kingdom, though they are twice as much as the people of that country buy from France, the next largest source of supply. The Englishman looks upon all the world as a market in which to buy, for as yet he is not handicapped by any restrictions upon his own imports.

The imports of food and drink into Great Britain represent a half of the purchases of her people abroad, and purchases of raw material of agricultural origin represent another three-quarters of a billion. That is to say, four-fifths of these vast importations are from the agricultural countries of the world, and are needed to feed and clothe the people and keep busy the looms of the spinners. With an area of but 121,000 square miles, and a climate which renders agriculture a most precarious pursuit, Great Britain is but a great brokerage office. The absorptive power credited to the British people is due to their trading rather than to their consumption. A large percentage of even the raw material bought abroad is merely in transit; and if it be held within the boundaries of the United Kingdom for any length of time, it is to change its form. Then it is sold and sent abroad.

In varying degree the people of that country have continued to prosper, as shown by a steady increase in their foreign exchange. Times of serious depression have been of frequent occurrence in recent years, due to influences from abroad, for where the welfare of the people is so dependent upon foreign trade as in this instance, disturbance in any part of the world is quickly reflected in sympathetic trouble in those branches of British industry directly or even indirectly in touch therewith.

America is, of course, the great source of cotton supply for Great Britain. But the recent high price of cotton in the United States has brought great distress to the cloth manufacturing districts of England, for it has checked the importation of raw material, and, in consequence, thousands of people are out of employment. This is a sharp example of the dependence of Great Britain upon the United States as a source of supply, and of the dependence of Great Britain upon its foreign trade for domestic prosperity.

Just across the English Channel lies France, from whose people the British buy 250 million dollars' worth of goods a year, but the trade is of a different character from that with America, for it consists more of finished products. This trade is more profitable to the French people than the American trade with England is to the Americans; but it is of less constant character, for food and raw materials are necessities, while many of the imports from France are luxuries and in times of stress can be dispensed with.

France imports $850,000,000 worth of goods, of which the United States supplies one-tenth. One-half of this American trade is in agricultural products. This amount is more than the thirty-four millions recorded by France as "the balance of trade" against her people in their foreign exchanges. Conditions in France are stable, for her large and prosperous land-holding population is self-sustaining. The national trade is not so sensitive to the rise and fall of activities elsewhere as is the trade of England. American trade with France has been a matter of slow growth, but it is permanent and stable.

We are selling to Germany $250,000,000 worth of merchandise annually, or nearly $100,000,000 more than the $167,000,000 recorded as the annual "balance of trade" against the German people. The American sales of food and raw materials of agricultural origin constitute more than one-half of the total, and come near to causing the entire deficit in the foreign exchange of the Germans.

Because of their limited area, their dense population, and their intense industrial development, Belgium and Holland patronize the American market for food-stuffs and raw materials, while maintaining and cultivating an enormous trade with the outside world. We sell food-stuffs, cotton, oil, machinery, and general supplies to Italy, Spain, and other and smaller European countries. The imports of European Russia and Austria-Hungary are heavy, but since these countries can supply their own food wants, the United States furnishes but 6 and 9 per cent., respectively, of their purchases abroad.

No review of the American trade with Europe can fail to impress the fact that its strength and size result from feeding the people of that section of the world, and that so long as America can furnish this food and supply the demand for raw material her trade will not only be maintained, but will increase at a most satisfactory rate.

But this absorptive power of Europe is not stationary. The per capita consumption of nearly every article of commerce has grown in all European countries. But the per capita increase in consumption has been accompanied by a corresponding increase in per capita production, importation and exportation, and a larger per capita wealth, a larger total of investments, and a greater savings and wage-earning power. As the consuming power of the individual expands, his wants become more complicated and his trading more varied. All these tend to increase the foreign exchanges of the world, for no country has the power to derive from its own resources all the material demands of modern civilization.

Forever increasing in population, constantly raising the standard of living, the consuming power of her peoples more than keeping pace with the increase in production throughout the world, and becoming more and more dependent upon the foreigner, Europe presents a constantly expanding market for most of the products which enter into foreign trade.

Two-thirds of our exports are bought by Europeans. We were concerned in the past with the power of Europe to lend; we are concerned at present with its power to buy. All the gains which have come to American trade elsewhere are a mere bagatelle compared with the gains of recent years from Europe, with its 400,000,000 people, possessing a present purchasing power of $5 per capita in addition to all their merchandise available for export to foreign countries.

Europe, then, is the great heart of the world. With its 400,000,000 people living on 4,000,000 square miles of territory, it keeps the rest of the world busy supplying its needs and paying interest on money borrowed from accumulations of centuries. It has sent forth millions of human beings to occupy new countries and to create new nations. Yet, despite all these contributions of men and money to the rest of the world, Europe has grown steadily in population, finance, industry, and commerce. It is still the banker of the world, the best market for all the products of the earth, the purveyor of luxuries to all civilization. Despite wars and industrial calamities, the European peoples continue to increase, European funds multiply, and Europe's absorptive power becomes greater.

THE PASSING OF THE CHINESE

THE PRACTICAL EXTINCTION OF THE RACE IN THE UNITED STATES IN ANOTHER GENERATION UNDER OUR PRESENT EXCLUSION LAW — SMUGGLED IMMIGRANTS AND BIRTHS FEWER THAN DEATHS — CHIEFLY OLD MEN IN CHINATOWN

BY

W. S. HARWOOD

IN fifty years—perhaps less than fifty, if the present laws remain in effect and are rigidly executed—the Chinese population of the United States will become practically extinct. From 1890 to 1900 they fell away from 126,778 to 119,050, a decrease of nearly eight thousand, or more than six per cent. In the fiscal year ending June 30, 1903, more than four thousand voluntarily left the port of San Francisco for the land of their birth, the total deported and returning voluntarily being 5,020. A very large majority of these Chinamen were advanced in years and went home to die.

A generation ago there were in San Francisco from thirty to forty thousand Chinamen. The Chinese Consul-General there told me that, counting men, women, and children, there are now not 10,000. The same proportionate decrease is seen in other places. It should be borne in mind that the total number of Chinese now in the United States includes 26,767 in Hawaii and 3,116 in Alaska, so that, at the beginning of this decennial period, there were living in the United States proper only 89,000. A generation ago there were at least 150,000.

According to the most liberal estimate, there are not more than one hundred and fifty legal Chinese wives in San Francisco. But the number of Chinese women is estimated at between one thousand and two thousand. Of such female children as are born to the lowest class, a large proportion are sold for immoral purposes by their parents, thus still further reducing the possibilities of an increased population.

The main adult population is male; is unmarried, or, at least, wifeless in America; and is rapidly approaching old age. Thus by 1930 or 1940 the main Chinese life in America will have become extinct.

There are only two ways under present conditions by which total extinction may be escaped, and neither of these opens much opportunity for race perpetuation. One is through the natural, legitimate growth of families. But few of the women are married, some girls are in the public school in Chinatown, a few have private teachers, the rest are in the mission schools. In the latter, the aim is to rear these girls for wives of Christian Chinamen, or to train them for mission workers in China. Relatively their number is small. Sometimes these little girls are obtained by persuasion, sometimes by strategy, sometimes by the law; and, once in the mission schools, every endeavor is made to keep them there. I was told before investigating the subject that there was about two thousand Chinese children in the public schools of San Francisco. Inquiry at the City Board of Education showed that there were precisely 149, only twenty of whom were girls. As a matter of fact, the Chinese children are denied admission to the public schools of the city, a separate school of six grades being set apart for them in the Chinese quarter. Some time ago, a wealthy Chinese merchant began suit to compel the city to admit his children to the regular schools upon the same basis as other children. The suit was fought out, inch by inch, to the highest court, but the merchant was defeated.

In July, 1904, a census of the Chinese children and youth of the city was taken. This census shows a curious disparity between the number of boys and the number of girls. Between the ages of five and seventeen, there were found 2,427 boys and only 908 girls. Under the age of five, there were 328 children. It was intimated to me that this relatively large number of boys was due to the fact that many of them had come into the country fraudulently.

Chinese merchants may lawfully come into the United States to do business, and they

Photographed by Weidner, San Francisco

A CHINESE FORTUNE-TELLER

There are more men of his age than children among the Chinese in the United States

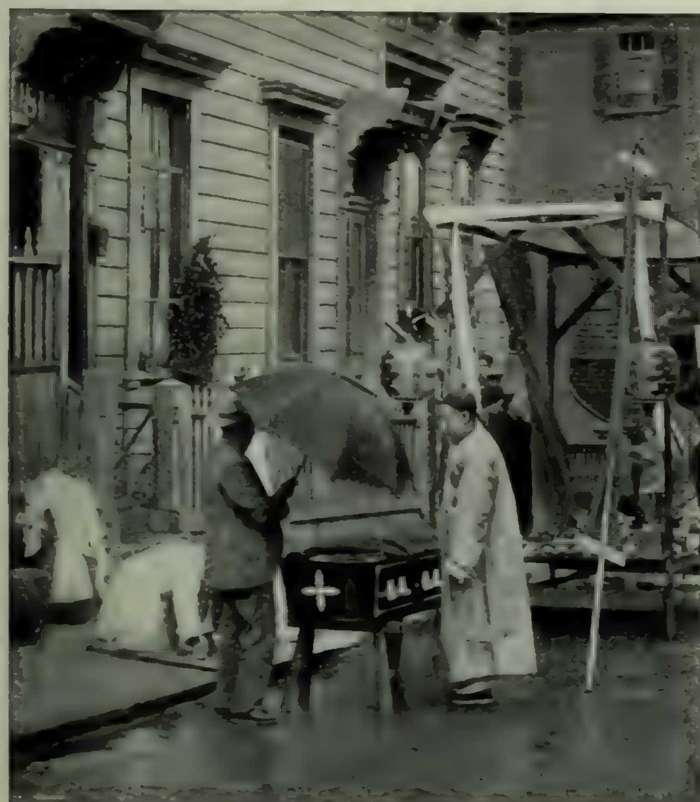
Photographed by Goldsmith Bros.

A CHINESE FAMILY IN SAN FRANCISCO

The husband objected to being photographed and turned away

may bring their wives and children, but, last year, while 452 merchants were admitted, only sixteen wives came and but five daughters.

The other way by which the Chinese may, in some slight measure retain a foothold is by smuggling in their countrymen. An elaborate system of fraud has grown up with



Photographed by Goldsmith Bros.

GETTING READY FOR A CHINESE FUNERAL

The first thing considered necessary is to get the corpse out of the house immediately after death

Photographed by Weidner, San Francisco

HIGH-CASTE CHINESE CHILDREN

The hair is smoothed down carefully with oil, and a gorgeous head-dress of silver is worn

its base in Canada. A Chinaman, say in Montreal, admitted to Canada on the payment of the $100 head-tax, or upon a ninety-day provisional term without the payment of the head-tax, is put through a regularly established coaching-school. He is taught what to say, how to act, what to do. Then he crosses the line at some convenient spot, exposes himself to arrest, and is brought before a United States Commissioner. Two witnesses are at hand to swear that the prisoner was born in the United States. The government, being unable to disprove this, fights as best it can, but in many cases it is powerless, and is compelled to admit the prisoner by discharging him. Thus the Chinaman becomes a citizen in the fullest sense. Last year, 1,420 Chinamen crossed

THE ONLY PUBLIC SCHOOL FOR CHINESE CHILDREN IN SAN FRANCISCO
It has six grades and less than 150 pupils

Photographed by Goldsmith Bros.
SETTING TYPE FOR A CHINESE PAPER IN SAN FRANCISCO

from Canada or Mexico, of whom 716 secured admission to United States citizenship simply because the government was unable to prove a case against them.

One of the Federal judges has estimated that, if the stories told in the courts by the Chinese about being born in the United States were all true, every Chinese woman who was living in the United States twenty-five years ago must have had at least five hundred children! One of the wretched features of this situation is that, since wives of bona fide Chinese natives of the United States have been declared entitled to admission, each one of these fraudulently admitted Chinamen may bring over a slave girl masquerading as his wife. She commands a market price of from two thousand to three thousand dollars.

An officer, detailed to investigate the smuggling, reports the amount needed to bring a coolie from China and land him at Ogdensburg or Plattsburg, N. Y., at $300, divided into "$20 for obtaining the applicant,

THE CHINESE PRESBYTERIAN CHURCH IN CHINATOWN, SAN FRANCISCO

Photographed by Chin K. Toy

THE HEADS OF THE POWERFUL "SIX COMPANIES" IN SAN FRANCISCO

The "Six Companies" are a combination of the great Chinese mercantile interests in the United States, and they control most of the coolies in this country

$20 for what is called 'the government inspector's fund,' $80 for the attorney, and the balance for transportation, for incidental expenses, and to pay the Chinese ring interested in getting the Chinaman into this country."

There are various ways by which the Chinese seek to evade the exclusion act—re-enacted at the last session of Congress—but it will be seen that even those who come into the United States fraudulently, whose number under more and more stringent execution of the laws will rapidly decline, are on a par with the others. They are in no sense a stable population, but are seeking to earn enough money to live on and then to go back to China to spend the remainder of their days.

Violations of the law are expected to follow the ruling of the Attorney-General, that Chinese may be lawfully landed in the United States for the purpose of being signed before a United States Commissioner to man American vessels as seamen. These Chinamen

CLEANING UP CHINATOWN IN SAN FRANCISCO

The city authorities have the debris of the quarter disinfected before burning it

work for less wages than American seamen. It is found very difficult to prevent the escape of some of these Chinese seamen or their substitution for other Chinamen during the time their vessels are anchored in port.

But smuggling will not perpetuate the Chinese in America. It bears the same relation to the passing of the Chinese as does the marrying of the few girls rescued by the work of devoted missionaries from immoral lives. There are not enough of them.

Little Chinese children have wonderfully interesting faces, whether you study them on the streets or in the mission schools, and the teachers with whom I talked said that they are as quick to learn, as retentive of memory, and fully as intelligent as American children. I have seldom seen a rarer child's face than that of a shy little Chinese girl who came up to me in one of the mission schools, bearing a book and pencil, with the request, in perfect English, that I register my name.

To stand upon the streets with the scent of burning opium in your nostrils, looking toward the swinging lanterns in front of the shops, or toward the entrances of the gambling houses or the vile dens of the most debased quarter, watching the soft-footed men going silently up and down, a black-gowned procession of hideous faces, broken in upon now and then by a solitary face of health and some moral strength—to stand thus and watch this curious throng, or to see still deeper into the festering, bestial haunts of their underworld life, is to make one wonder if, after all, it will not be a wise Providence that hastens, by as many spans of life as may be, the passing of these degenerate creatures. I turn from that hideous figure over there by the huckster's stall, opium-saturated, evil, debased, revolting, to a clear-eyed, clear-skinned, wholesome-looking fellow, one vegetable vender in a city far to the South, as honest and quick-witted and generous a man as one would meet in a day's journey: there is a wide gulf between a bad Chinaman and a good one—as wide as the gulf between different classes of some other nationalities.

A YOUNG COMEDIAN IN A PLAY AT THE CHINESE THEATRE IN SAN FRANCISCO

But the sodden, debased, horribly corrupt and corrupting figures of Chinatown—in the name of all decency, the sooner this life merges into the vanishing Chinese, the better.

Death is making great havoc among the remaining Chinese. Fully 65 per cent. of them die of tuberculosis. Many of them are advancing in years, nearly all of them are

opium users and of weak constitutions. A very large number of them, in spite of the extremest sanitary measures, live in unspeakable filth.

Out of a total estimated population last year of 15,000, this year of 10,000, there were 454 deaths. The great disparity between the sexes is shown in the fact that out of this number only forty-five were women. Since vital statistics have been available, the death-rate has steadily risen from 17 per thousand in 1877 to 30 per thousand in 1903, rising as high as 37 in 1896–97. Out of a population of 30,000 in 1877 there were only 527 deaths, while in a population of 15,000 in 1903 there were 454 deaths. It often happens that when the authorities have made a building sanitary by the introduction of good plumbing and ventilation, these strange creatures utterly refuse to take advantage of such aids, and stealthily fall away into conditions of uncleanness too horrible to be hinted at.

Two years ago or so, further burials in the city limits of San Francisco were prohibited. Up to that time, 15,000 Chinamen had been buried in the cemeteries. In the coffin of every one was a metal plate which told the full name of the occupant, the town in China whence he came, the date of his birth, year, month, and day, in both the Chinese and our own calendars. The bones from each coffin were carefully cleaned, placed in a lead-lined box just the length of the longest leg bone, sealed up and labeled with name and address, and shipped back to China. The Chinaman will not leave even his bones in America.

Upon the sand lots where Dennis Kearney, a generation ago, fulminated against the Chinese, and where many thousands of sympathizers joined in the movement which had for its aim the immediate extinction of the Chinese, there stands today the great city hall of San Francisco. Readjusting the contrast, as great a difference as this is seen in the bearing and influence of the Chinese in the two periods. Yesterday they were a menace; today they are out of the race; tomorrow they will be a memory. It is estimated that, if there had been no Chinese exclusion laws, the Mongolian population of San Francisco today would be 250,000. It is 10,000 now; tomorrow, it passes.

HOW THE GREAT POWERS ARE FARING

THE PRESENT CONDITION OF EUROPE—TARIFF QUESTIONS, PUBLIC EDUCATION, AND ARMY REFORM AGITATING ENGLAND—FRANCE AND ITALY CONCERNED WITH RELIGIOUS PROBLEMS — SPAIN RECOVERING FROM THE WAR — GERMANY MAKING TRIUMPHANT PROGRESS—A SURVEY OF THE OLD WORLD

UNTIL the unfortunate difficulty which arose between Russia and England as a result of the Baltic fleet's fatal bombarding of the Hull fishing-boats in October, no cloud was perceptible to disturb the peace which western Europe had enjoyed for a generation. Diplomacy may use at times more abrupt methods than used to be the custom. But the fact that no one could even guess the outcome of the general war which might be the result of aggressive action by any of the great powers of today kept the nations at peace for thirty-three years. There were no new international complications, and none of the standing subjects of friction, like the questions of France's revenge on Germany for her defeat in the Franco-Prussian war, or of *Italia irredenta*—the desire of an ultimate union of the Italian-speaking parts of Austria, Switzerland and France with Italy, which is the slogan of the Italian republicans—or even of the constant disturbances among the Balkan States, even now seems in a condition that diplomats cannot handle. The impression is strong that King Edward VII. and the German Kaiser, in whose hands the decision apparently lies, are bound to preserve peace if they can, and to sanction war only under the severest provocation.

The internal problems of the European States are for the moment fully as important as any of their foreign difficulties. They are too serious, however, to be settled within a few years; and there are no signs,

except in France, that any very marked advance will be made to solve them. Strangely, religion is a vital element at the same time in Great Britain, in France, and in Italy in the pressing political questions.

ENGLAND "MUDDLING ALONG"

In Great Britain the outlook for reform of any kind is most discouraging. The government's policy of "muddling along" Mr. Balfour has continued with all the jauntiness of a Palmerston. A general election to Parliament during the year is possible. It may be fought on the question of free trade and protection raised by Mr. Chamberlain. And the Liberals may win. The elections held so far certainly point to that result. But nobody in England can expect great things from a party that has been unable to develop any policy save opposition to the government's measures, and which since Lord Rosebery's retirement has been left with no real leader.

It is doubtful, too, whether, in spite of the declamation of orators and newspapers, many persons look for any great change should Mr. Chamberlain come into power and attempt to apply his "protectionist" ideas. As time goes by, the impression becomes stronger that Mr. Chamberlain's "protection" outbreak was intended to draw the Liberals from the issues on which they had strong chances of success, the Education Bill, and the conduct of the war in South Africa. He was successful to this extent: if the election occurs within a few months the issue between the parties will be free trade. Meanwhile, the effects of his actions have been to drive one section of Conservatives out of the party and to elicit from other Conservatives, notably Mr. Balfour, varying explanations of acquiescence in some kind of modified protection. His proposals have aroused no enthusiasm either from the British colonies that were to be benefited by his scheme of protection or from those Englishmen who wish to bind the colonies closer to the mother country.

The opposition to the Education Act shows no signs of abatement. The intention, and to some degree the effect, of the measure was to put the control of the national school system, which is paid for from the taxes, into the hands of the church. It was objected to not only by believers in lay instruction in the public schools, but also by the great body of dissenters from the established church. The opposition soon took the form of refusal to pay the taxes, and, however much ridiculed, this "passive resistance" is kept up, and the goods of the "resisters" are sold daily for taxes. The opposition is serious. It arouses and keeps up the thought of disestablishing the church in England, an idea that is becoming familiar also to extremists within the church itself, and may lead to a movement in that direction. The amazing decision of the House of Lords, the ultimate court of appeal, giving the property of the Free Kirk of Scotland to the few ministers and churches that held out against union, is likely to stir up the religious feeling of all Scotland.

The lesson received in South Africa will probably have to be learned all over again. The reforms proposed by the Army Commission have been stopped short. The first suggestion establishing a general staff instead of a Commander-in-Chief was put into force with astonishing haste, and Earl Roberts was shelved at once. Of the more vital reforms promised that were to do away with the mismanagement and red-tape of the War Office nothing more has been heard, while the government distinctly declined to commit itself to the principle of conscription for the army. Mr. Arnold Forster's health is reported to have failed; so it looks as if another War Secretary has been undone by the bureaucracy. For the present, Lord Kitchener seems to be having his own way in India, but in Canada and in Australia the imperial commanders have met local opposition in their endeavors to make the army efficient.

In Ireland, Mr. Wyndham's land reform, the most statesmanlike scheme evolved in a generation, is going into operation gradually, and apparently to the satisfaction of all moderate men. It is possible, however, that English politicians may propose cutting down Irish representation in Ireland and thus put an end to the lull in Irish agitation, while on the other hand the Irish members are counting on holding the balance of power in the House of Commons, whether Liberals or Conservatives win at the election.

The great British colonies do not seem to be carried away by the scheme of Imperial Federation. Their loyalty is undoubted, but they are apparently more interested in their right of independent action than in arrangements for preferential rates granted by the

mother country. They seem to fear imperial taxation and interference more than they regard imperial protection. There is no big constructive statesman left in England in either party. The one surviving man of force is Mr. Chamberlain. And his talents are destructive, and not creative.

RELIGIOUS PROBLEMS IN FRANCE

In France the question of the relations of the church with the State is paramount, and must continue to be the chief cause of anxiety for some time to come. M. Combes, the present Premier, seems determined to do away with the State church, and so far there is no sign that the voters will not support him and the party he represents. His ministry may fall at any moment, as is the fate of all French ministries, which depend merely on temporary parliamentary combinations. But the league of socialists and advanced republicans which now holds the majority will probably retain it, for all elections that have been held indicate that the voters are willing that the league shall remain in power. A change of ministry, therefore, will be only a change in men; the present policy will be continued.

The law for the suppression of religious orders was justified by the mischievous interference of some of the orders and of part of the regular clergy in political matters. It was shown clearly that they had their full share in the disaffection to the republic which has been exposed in the last few years, and which has led, among other things, to the demoralization of affairs in the army and navy. The cabinet has laid itself open to criticism by the roughness of its methods in disciplining high officers, and more particularly in its extension to the religious orders which abstained from political action and limited themselves to charitable and educational work of the law of associations which forbids all unauthorized organizations.

M. Combes seized the opportunity to suppress all but lay schools, thus making education in France compulsorily non-religious. His action has upset existing school conditions and imposed upon the nation the duty of caring for many more children than formerly. It is still doubtful whether France can immediately provide sufficient money or school-houses or school-teachers. M. Combes also took the first opportunity to break with Rome, and evidently intends to put an end to the Concordat—the understanding between France and the Papacy—on which the existence of a State church depends. The doing away with an established church is the immediate problem set before France. Some Catholics are eager for this in order to be freed from State interference with their religion, but for the time it is still possible to arrange matters by diplomatic means. Pius X. insists that there shall be two parties to a quarrel, and it must not be forgotten that, whatever the government may be, France is a strongly Catholic country.

ITALY CARRYING HEAVY BURDENS

For Italy the outlook is hopeful. King Victor Emanuel has shown the ability and honesty of his predecessors. The birth of a son strengthens the hold of the House of Savoy on the people. The first year of Pope Pius X. in the Vatican indicates that he is really a "religious" pope, who will leave politics alone as much as possible. Moreover, in his elevation he has not forgotten his Italian sympathies. It is possible that the clash between church and State will become less marked, and that the dream of harmony between the two may yet become a fact. Italy, however, must still stagger under the heavy burden of inordinate taxation, of the loss of agricultural population by emigration, and of the dread of social revolution.

SPAIN REVIVING

The effort to throw off religious burdens has extended even to Spain; where a faint effort is being made to control and repress the power of the monastic orders, and where some signs of endeavors at internal improvements appear. These are plans for tunneling the Pyrenees, for instance, to facilitate commerce between Spain and France. The natural result of the loss of her ancient colonies should be to turn Spain's formerly wasted energies to the development of her own natural resources, and some observers note a beginning. But the habits of centuries cannot be thrown off in a day, and the inclination to procrastinate, with the continued burden of official corruption, will make progress slow. Young King Alphonso is apparently growing impatient of control, and may himself take a hand in the government before long. If he should turn out to be an energetic and patriotic ruler —and his education warrants the hope—and if

he should be aided by men of honesty of purpose and of intelligence in his own generation, Spain might easily take again the rank she has held and that is her due among the nations.

GERMANY PROSPEROUS AND PROGRESSING

Germany continues in her career of commercial conquest, applying to the acquisition of foreign markets for her growing industries a typically German conscientious thoroughness. The intelligence and tenacity shown in carrying out the national programme have raised Germany to the first rank in science and made her armies victorious in war. There is some uneasiness about the condition of that army—not only discontent at repeated instances of brutality of officers toward soldiers, and general arrogance in the officer caste, but of the efficiency of the army in case of war. But German success in Southwest Africa seems to indicate that the ever ready German Army may be more able to grapple with unexpected conditions in warfare than the British were.

The Kaiser's interference in the succession to the throne in Lippe-Detmold, one of the principalities in the Imperial Federation, has aroused some resentment in the smaller States of the empire. By this time, however, Germany has perfect confidence in Wilhelm II. Impulsive and theatrical though his acts may be at times, he has proved himself a shrewd and capable ruler, who has been devoted to his public duties and has made few serious mistakes. By the concessions which secured to the government the support of the great body of German Catholics a strong and compact majority has been maintained in the Reichstag long enough to establish the semblance at least of the parliamentary action familiar to England and America.

The chief elements of opposition to the government in Germany, the men who desire reforms of all kinds and the infusion of some measure of liberalism into Imperial, State, and municipal affairs, are becoming enrolled in the Social Democratic party. The number of representatives of that party is no fair measure of the two millions and more of voters who belong to it. Nevertheless, the socialists form but a portion of the party, and it is unlikely that any measures to attain their ends by other than parliamentary means will be adopted. It is unfortunate that Wilhelm II. should be openly hostile to the political aspirations of so large a proportion of his people. But he has shown the capacity to look facts in the face and to act with sense in emergencies. So if he were to encounter positive demands from a Social Democratic majority, some compromise would doubtless be found. That emergency will hardly arise in the immediate future, for Germany seems quite content with its commercial advance, with its Kaiser, and with its own greatness.

SOCIALISM THROUGHOUT EUROPE

A socialist revolution that has been threatened for many years, when it does come is more likely to break out in France, in Italy, or even in Belgium or in Holland, than in Germany. The chief danger lies in the close association between socialists and labor unions in those countries. In Italy, recently, a general strike was called for purely political reasons, and was carried out for a few days in two or three great cities, none of the strikers knowing the reason for the action. In France, in the shipping strike at Marseilles, the strikers showed unusual unreasonableness and obstinacy, while the government authorities exhibited the weakness in dealing with them that has characterized other French strike difficulties in recent years. The history of the past century testifies to the slight causes that may bring about widespreading revolution, especially in the Latin lands, and to that danger Europe is still exposed. A good many possible occasions have passed by in late years with no consequences, and there seems to be no reason for fearing the unexpected now. The criminal side of the Commune has not yet been forgotten in France.

AUSTRIA AND HUNGARY

Austria and Hungary continue to depend on the life of one old man. Parliamentary institutions are still suspended and made ridiculous by the factious obstinacy of quarrelling nationalities, with no indication of a return to sense. Francis Joseph against his will has been obliged to govern autocratically. Here alone in Europe are active preparations for war being made, from the possible necessity of interfering in the Balkans, where, for a while at least, there is no more than the usual turmoil, and here, too, the peace of Europe may be threatened by the disturbances which would follow the death of the Emperor.

THE DECLINE OF THE MINISTRY

A DECREASE IN THE NUMBER OF STUDENTS PREPARING FOR THE CHURCH—A MORE MARKED FALLING OFF IN THE QUALITY OF THE MEN—MINISTERS NO LONGER COME FROM THE EAST, BUT FROM THE SOUTH AND THE WEST—A THOROUGH INVESTIGATION AMONG COLLEGE PRESIDENTS, MINISTERS, BUSINESS MEN, AND STUDENTS

BY

EVERETT T. TOMLINSON

IT has been said for some time that fewer men are entering the Christian ministry now than for generations past. And obviously, if this be true that the profession of the ministry no longer appeals to the young men of our colleges, then the churches themselves must be losing ground and ceasing to be the vital forces in the community that they once were. To discover the true state of affairs on this point, I have carried on a thorough investigation among college presidents, heads of divinity schools, college students, ministers, and business men.

In the report of the United States Commission of Education for 1902 the following figures are given as to the attendance of students at the theological seminaries:

Year	No. of Students	Year	No. of Students
1870	3,254	1890	7,013
1875	5,234	1895	8,050
1880	5,254	1900	8,009
1885	5,775		

Although this table, if continued to cover 1902, would show a decrease of 8 per cent. from the figures of 1900, yet the decrease since 1895 is scarcely alarming. Further, the following table shows the number of men preparing for other professions. Though it shows a steady increase since 1885, yet it showed a decrease from 1880 to 1885 without arousing any fear in the community that law cases would not be amply cared for or diseases neglected.

Year	No. of Students Law Schools	No. of Students Dental Schools	No. of Students Medical Schools	No. of Students Pharmacy Schools
1870	1,653	257	6,194	512
1875	2,677	—	8,580	—
1880	3,134	—	11,929	—
1885	2,774	—	11,059	—
1890	4,518	—	15,484	—
1895	8,950	—	21,354	—
1900	12,516	—	25,213	—
1902	13,912	8,420	26,821	4,427

Further, it must be remembered that with the possible exception of law, more men enter the ministry without full preparation in the school than in any other calling.

If, however, there has been no marked decrease in the number of men studying for the ministry, there has been a very remarkable shifting of the source of supply. The contributions of students from eastern States and colleges have very materially decreased. Letters recently received from twenty-one of the most prominent eastern colleges reported, with only three exceptions, a decrease in the number of men from the East and a steadily accelerating decrease at that. Yale gives an excellent illustration. Yale has not been backward in contributions to the pulpit, or to other places of influence in our social structure, and yet a study of her recent triennial catalogue gives the following suggestive figures:

Year	Total No. Graduates	Men who entered the Ministry
1850–5	567	123
1860–5	644	134
1870–5	680	84
1880–5	796	53
1890–5	1,183	49

That is, from 1850 to 1895 Yale's total number of graduates doubled, and in the same period the number of Yale graduates who entered the ministry decreased more than 60 per cent.

From other New England colleges comes information of a similar kind. There seems to be no escape from the conclusion that in our oldest colleges, those best equipped and richest in tradition, in many cases founded mainly to train men for the ministry, there has been a surprising decrease in theological students. Yet, with scarcely an exception, almost every college reports a greater number of church members among the students than

ever before, and the tone of college life is as high and interest and help in Christian work are certainly as keen today as ever.

Turning to theological seminaries which are national in scope, the same fact is apparent. In the Yale divinity school, one small western college has nearly half as many students as Yale herself. The Drew Theological Seminary of the Methodist Episcopal Church, located at Madison, N. J., reports that last year, out of 168 students, only three came from States east of New Jersey, while ninety-five came from the States west of New Jersey. In the junior class of this institution twenty-three of the thirty-seven college men were from western colleges, most of which were small colleges. Out of twenty students enrolled by the educational societies in the fall of 1903 at Newton Seminary near Boston, only two were from New England, and out of sixteen enrolled in 1904 still but two were from New England, and only three were graduates of New England colleges. The Southern Baptist Theological Seminary of Louisville, Ky., had more students last year than all the seminaries of the same denomination in the Middle States or in New England. So did the Divinity School of the University of Chicago. As far as numbers are concerned, certainly the eastern colleges are far behind the western and southern colleges in the promise of men for the ministry.

I asked the presidents of prominent colleges and seminaries whether the quality of the men now preparing for the ministry had deteriorated. Almost with one accord the presidents of the seminaries denied that there was any decrease in the quality of the men at their own institutions. Most of the college presidents, however, reported a decided deterioration. Bright students, natural leaders, strong men were not unknown, but apparently they were the exception. And the exceptions were much more apparent than among the students preparing for journalism, teaching, law, medicine, or business.

One distinguished college president (who reports a decrease in theological students) writes: "The present deficiency is much more marked in the quality than in the quantity of ministerial supply. In fact, the failing numbers do not particularly alarm me. The dearth of men thoroughly competent to do the work of our churches of the first and second rank does. I think the undue proportion of third- and fourth-class men is largely due to our beneficiary system, to which we cling. We bribe men poor in intellect and efficiency to enter the ministry by our scholarships and special aids."

Another president, who holds perhaps the foremost place in the educational world, writes: "The average quality of divinity students has, in my opinion, been deteriorating for at least two generations, because the ministry as a profession has lost ground in comparison with both the old professions and the new. I see no remedy for this state of things until the ministry is given the same liberty and independence which the other professions enjoy, and is better paid. In a few small Protestant denominations the minister already has a reasonable degree of freedom, but in all denominations he is badly paid, and in the large denominations he is far from being free."

A third president writes (himself a Christian minister and at one time pastor of a city church): "The great cause of this [deterioration] is the relative decrease of the power and scope of the church in modern life. If the church is less dominant than once, less weighty in the solution of social, civic, national, moral problems than once, its pulpits furnish correspondingly less opportunity and summon young men with feebler voice. This is unquestionably the fact. The churches of Boston, New York, Chicago are not decisive factors in the life of those cities. Hence a young man who wants to mould the city's life may be drawn—usually is drawn—to some other calling. This leads to another reason [for the deterioration]—the broadening of fields of opportunity outside the ministry—social settlements, Y. M. C. A., philanthropy, charities, etc.—all drawing their power from Christian men, absorbing energies that once pulsated through the church. A third reason lies in the dazzling opportunities in scientific research and in industrial organization. The remedy? Ah, that is another story."

Still another writes: "One reason [for the falling off in numbers] is that the salary of the average minister is only about half the salary of the average college graduate. Churches do not treat ministers decently. They select them on superficial grounds, in ways that injure self-respect. It is a short-lived profession for most men, the active work usually ending at about fifty."

One says that he has noticed a marked decrease in the number of students who have the ministry in view, and still another declares "I do not note any decrease in the quality of ministerial students. As I look back to the men in my seminary, when I was a student, thirty years ago, I think we had as many deficient and cranky men as we have now."

With the figures apparently showing a very marked shifting of the regions from which students are drawn, the evident conclusion is that the older and larger colleges, the stronger and larger churches, and the sources where a deeper and more ingrained culture are found are no longer those from which the greater body of students for the ministry are drawn. All this without any disrespect for the more recently settled regions of the West or the South where the schools and colleges have not attained the standing of some of the older and better equipped institutions of learning.

Now why should such a condition of affairs exist. Are culture and wealth and social life barriers to young men, who otherwise might entertain serious thoughts of entering the ministry? To solve this question I addressed the same college and seminary presidents to whom the previous queries had been sent, representative business men who were directly interested in various churches, a certain number of successful clergymen, and a selected body of young men about to be graduated from college and upon whom the problem of a vocation was strongly pressing at the time. I asked them, "Why do so few men from homes of wealth and culture become clergymen?"

From college presidents the following replies were received (among others):

President Eliot, of Harvard: "Young men from well-to-do families can ordinarily choose their profession. Nothing drives them into the ministry, and they are not altruistic enough to adopt it of their own accord, just because it is depressed, though its ideals are of the highest."

Secretary Phelps, of Yale: "The supposed narrowness of the ministry is an obstacle. It is commonly believed that men entering the ministry have to give their assent to a much greater number of theological statements than are demanded by most denominations. Many parents discourage their boys from entering the ministry because they do not feel that it affords so great an opportunity for distinction as do other positions. Even looking at the ministry from the very lowest standpoint possible, that of opportunity to distinguish one's self, I am confident that there is no position where the chances are greater. It is natural for boys to enter the business or profession of their father. Consequently law and banking and mercantile affairs draw most of the strong men. The most important reason of all is that there is a lack of vital religion in most of the homes of the type to which you refer. There is generally morality and, to a certain extent, observance of Sunday and religious service, but a deep family religious life is not often found today in the homes of our most prominent people."

President Merrill, of Colgate: "Possibly fewer men from homes of culture and wealth now enter the ministry, but I do not think very many ever came from such homes. The supply has usually been in every generation from the middle-class homes, and I think it is largely so now. I think the appeal to the ministry is somewhat less strong than it was in former years for several reasons. First, the minister's work has come to be less distinctive as a scholarly calling and has degenerated by the demands of the churches more to the level of a business, calling for organization and all sorts of secular activity. As such the people no longer respect the minister as they once did, and young men see less opportunity in it for their ideals of service. Again, the churches have practically reduced the working period in the life of a minister to twenty or twenty-five years. I often hesitate myself to advise the most able young men to enter a calling in which it is probable that their usefulness will be thus curtailed. This result is chargeable to the frivolous character of our churches, which demand variety and entertainment rather than weight of character, experience, and wisdom in their preachers. Still further, many professions have arisen within the last decade which prove inviting fields for earnest young men."

Dean Hodges, of Cambridge: "I suppose that the ideal of success in life in many such homes is commercial and material. The many divisions into which we have fallen have discredited the church. It does not seem so dignified and strong as once it did. The conservative emphasis upon tradition

and the attacks which are made on men who are intent on truth deter other men who value liberty of thought."

Dr. Harris, of Cornell: "May it not be explained by the spirit of commercialism or money-making which has swept over the country of late years, with the rapid advances which have been made in the industrial world, which spirit is also exercising an evil influence over liberal culture in general and is sadly telling upon the colleges of arts and sciences all over the country?"

Dean Sanders, of Yale: "Wealthy students as a rule seem attracted, almost dazzled, by the power which comes from the management of corporate resources. Nevertheless, these men will respond if properly appealed to and the home influences are not deterrent."

President Raymond, of Wesleyan: "The homes of luxury furnish few men to the ministry because the ministry is not a place of luxury. The habits that are cultivated in these homes are such as demand money, and I think the conviction is cultivated in these homes that they cannot go on without money."

President Strong, of Rochester Seminary: "Our great increase in wealth and the commercial progress of the day have set before our young men other prizes than those of the spirit, and the greater our prosperity the more these things are felt. Where there is least luxury there is most desire to preach the gospel."

President Rhees, of the University of Rochester: "The stronger accent on material good and luxury in life in the homes of culture and wealth. The hesitancy of parents of culture and wealth to encourage sons to enter a calling in which petty vexations sometimes seem to overcloud exalted interests and spiritual compensations. The dearth of ministerial candidates from homes of culture and wealth is simply a phase of the lessening number of church members from such homes. The care of the first evil is in the thorough mending of the second."

Many other replies from college presidents were received, but the points emphasized are all included in these above given.

Condensed and classified, the explanations which were given by thirty prominent business men, representing all the prominent denominations, were as follows:

1. The comparative and compulsory poverty of the minister.

2. Much of a minister's time and strength are taken from the primary work for which he is supposed to stand and frittered away in a multitude of petty details.

3. The office swamps the man. The type developed by the calling is ordinarily negative, almost feminine, rather than positive and virile. As one man expressed it: He felt toward his pastor as he did toward his grandmother. She was a fine old lady, and he was more than willing to do all in his power for her comfort, but he would no more think of consulting her in the perplexities of his daily life than he would his minister.

4. The opportunities of the pulpit are not so great today as are those of many other callings even in the line of direct power for good.

And yet many of these men declared that they would not attempt to hinder their own sons from selecting the ministry as a vocation if it should be an intelligent choice.

The replies and explanations of twenty successful ministers, also condensed and classified, are as follows:

1. The lack of freedom. The minister is looked upon too much as one who is hired or employed. If he deviates from the theological position he assumed when in his inexperience and immaturity he declared his views, then he is certain to feel the force of the opposition often shutting him out even from opportunities of labor and service. He is looked upon not as the minister of Christ, but as the minister of the church. He is expected to be a defender of the faith rather than a teacher or a student.

2. The short and shortening period of service. The reasonable certainty that after he is forty years of age his services will be less in demand, and the dead-line of fifty no imaginary bogie.

3. The difficulty of maintaining a home on the meagre salaries given. That a clergyman's salary usually was a little less than what was expected of him.

4. The continual shifting of his home and field.

5. His subjection to the pettiness of the attacks and demands of petty people.

6. The present "beneficiary system," which degraded the entire body.

These twenty men, every one of whom is a successful pastor, were asked, if they had their lives to live over again, if they would

select the work they were now doing. Seven replied "Yes" enthusiastically, three were somewhat undecided, nine replied "No" positively, and one declared that if he could avoid being "ordained" he would be only too glad to take up the work. And every man of the twenty declared that "preaching" in itself is the highest pleasure of his life.

Perhaps the most interesting replies of all were those that came from members of the graduating classes in various prominent colleges. Without exception, the men were members of some church, and in the majority of instances were active workers in distinctly Christian lines. Some were athletes, some were high-stand men, and pains were taken to select men who were devoid of cant and were respected thoroughly by the student body. Many frankly declared that the poverty of the calling repelled them. Just one-half declared that before they could enter upon the work of the minister they would be compelled to give assent (as they fancied) to beliefs concerning which it was impossible for them to be dogmatic or positive. One modestly expressed himself, "It is no time for a man of mediocre ability to go into the pulpit." This man was clean-cut, clear-eyed, president of the college Y. M. C. A., without a trace of "gush" about him, and at the time seriously contemplating taking up some distinctively Christian work as a life vocation.

One said "I won't put myself where I know people will be 'taking up collections' for me." Another said, "If a thing is right it's right, and that's all there is to it. But if I'm a minister, I can't do a great many things the church people will do, just because I am a minister. I am willing to do my best, but I won't be labeled and tagged and put off from the rest of the world. 'I, too, am a man,'" etc. Some expressed fear that they would not be permitted to think for themselves. Heresy trials and controversies stood out in the foreground of the life as they pictured it.

From these opinions, facts, and figures certain conclusions can be drawn that shed light upon the problem.

There is no real "dearth" of students for the ministry. There is a slight back-set at the present time, but it is not so great as has occurred in other years, and reports of attendance of students in the theological seminaries, when compared with similar reports twenty-five years ago, show a marked and marvelous increase.

In some quarters there is a deterioration in the quality of students, but the reports are not altogether unanimous. Methodists and Episcopalians report a decided increase in numbers and in quality, and other religious bodies vary in localities and colleges in this respect.

There is a marked change in the sources of supply. The West and South provide a much larger proportion of students than the East. The response is greater in the newer regions than in the old, in the country than in the city, in the small churches than in the larger. There is also a steadily increasing drift away from the seminaries located in the country to those that are located in or near the large cities.

The chief causes keeping young men from the ministry are the poverty of the calling, the fear of the lack of intellectual and moral freedom, the conviction that the petty outweighs the larger in the work, and the suspicion of the present "beneficiary system" which casts a blight over all. "Heresy," or the fear of its smirch, is the greatest obstacle.

There is a greater dearth of men from homes of wealth and culture in America than in England or Scotland. This condition is due, in the minds of many, more to the parents than to the sons, because of a lack (perhaps increasing) of family religion in such homes. It is, however, pertinent to inquire (whatever may be the defects in the home life or in the churches) if strong financial inducements were held out to prospective ministerial students, would the supply be improved?

There is a practically unanimous report of a higher type of life and of more Christian students in our colleges than ever before.

The deepest interest of the communities now is in questions that might be termed spiritual rather than religious, certainly not theological. Theology as a "science" has given place to Christianity as a life. The church as an organization has a weaker hold, while at the same time there is a greater interest in all vital questions and affairs. As a consequence, what our forefathers heard as a distinctive "call to the ministry" is now finding expression in other and widely varied forms of service.

There is a blotting out of the former false distinction between "secular" and "sacred."

Whatever men may think as to certain men or peoples, all history is now believed to be "sacred," and every day and every honest work as "holy." This fact has led many earnest young men, who in former years might have believed themselves to be "called" to the work of the ministry, now to believe that they can make their lives count for as much, perhaps more, if they give themselves to other lines of work that at one time were termed "secular."

The official position of the minister counts for less. The man behind the cloth has taken precedence over the cloth in front of the man.

Many of these so-called causes that keep young men out of the ministry today represent a distinct gain in the life of the world. It is better that a thousand men should be elevated an inch than that one man be raised a thousand inches above his fellows.

Most of the preventive causes given are essentially superficial and well-nigh puerile, and most of the lions in the pathway are imaginary. The man with a message is not deterred by any or all of them. The man who has "something to say" is welcomed today as almost never before, while the man who has been trained merely "to say something" is not so much spurned as ignored, which is even worse to his own feelings. Thoughtful men weigh today the claims upon them as well as count them. The priest may go, but the prophet comes. The unavoidable conclusion of the whole matter is that the regions in which the churches have been longest established and in which there is the greatest demand have almost ceased to be sources of supply. The cause of this is to be found in the condition of these churches themselves, but that study is not within the scope of this article.

THE RELATIONS OF EUROPE WITH THE UNITED STATES

As a contribution toward a review of the large forces active in the world, THE WORLD'S WORK *asked a distinguished representative student of international affairs in each of the principal countries of Continental Europe to explain the relations of his country with ours. The following are the interesting statements thus gathered.*

GERMANY, WITH FRANCE HOSTILE AND ENGLAND ANTAGONISTIC, HOPES FOR OUR COÖPERATION

BY

EMIL REICH

AUTHOR OF "SUCCESS AMONG THE NATIONS," ETC.

THREE decades of unbroken peace have passed over Europe, which, despite this respite of tranquility, has undergone changes so profound that the politician of thirty years ago would scarcely recognize the old field of his labors. The greatest of those changes has been caused by the uninterrupted progress of the German Empire; its might increases daily and its ambitions disturb the calm of the powers that encompass it. But there have been yet other changes more subtle but of no less magnitude.

There have been States which have found it possible to stand outside the arena of European conflicts, always threatening to add their weight to one side or the other of the nicely poised balance and always selling their inaction dearly to the combatants. Such a power up till 1870 was England, favored greatly by her geographical position. It is thus, though not exclusively thus, that England was able to rise to a height to which her rivals struggled vainly to attain.

But today the vortex of European rivalries has widened and England can no longer act the spectator. Up to 1870 she was courted

by Germany, who knew that in the coming struggle [with France] the neutrality of England meant the very existence of the German Empire. But since her victorious issue from that trial, the ambitions of Germany have grown, and can be assuaged only at the expense of the British Empire. Look where she will, Germany finds in Europe no steadfast friend; some have humiliations to revenge, others fear humiliations to come.

This it is that explains the extraordinary interest manifested by Germany in America; for America no longer remains isolated from European politics. Henceforth it is possible for her to take up the part of umpire-Empire no longer played by England.

German imperialism has a character of its own. It is the outcome of high ambition and lofty ideals upon the one hand, and of stern necessity on the other. Whether it be granted to any nation to accomplish so high a destiny as that which Germany has set before herself may well be doubted. Germany aims at more than mere conquests of power, more than the achievement of an outlet for her teeming sons. She wishes also to impose her intellectual stamp upon the world: she wishes at the same time to play the part of both Greek and Roman. In both directions she can find no more powerful ally than the United States.

It was upon recognition of the lofty aspects of German imperialism that Cecil Rhodes based his counter moves. His foundation of scholarships was not only an attempt to check the spread of German influence in America; it was also intended to give the English an occasion for studying German ideals. Whether he will obtain success remains to be seen. The influx of American students into Germany is unabated; they flock thither by the thousand annually, although there are no scholarships, no pecuniary attractions extended to them. And after becoming steeped thoroughly in German ways of scientific thinking and German methods, they turn homeward to spread the light of German civilization in America. They form an offset against three million German colonists who have been lost to the Fatherland during the last forty years in America. The most patriotic American would not deny that the greatest developments of American science are due to German influence. Thus the United States is the field in which Germany now seeks to exercise her nobler ambitions.

For the satisfaction of her more crude, her more Roman ambitions, Germany needs no nation more than the United States. With England there is no possible bond of lasting amity. Both nations have awakened to the knowledge that their imperial careers are mutually irreconcilable. If one succeeds, the other must yield. Silently and with the dark consciousness that a conflict is drawing nigh in which one side or another must witness the destruction of all that it esteems, of all for which it has fought and labored so long, they are making ready for the final struggle. With France firm, friendship for Germany cannot be: the stigma of defeat still burns. Should Germany be inclined to soothe its pain by liberal sacrifice, it is questionable whether she would meet with anything but rebuff. Let no man take too seriously the prattle of peace which is spoken today in France; it is but the outward sign of a humiliation which as yet dares not to be revenged: it is but talk which would be quickly hushed were once the occasion offered for revenge.

The only power which can give Germany solid advantages either in America or in the Pacific is the United States. The good-will of the United States to imperial Germany is infinitely more precious than was the good-will of England to territorial Prussia.

There are advantages for Germany in a closer union with the United States—not political, but none the less important. If Germany is likely to give intellectual stimulus to the United States, Germany will undoubtedly receive a moral stimulus in return, which must not be lightly valued. It is precisely because the two nations are almost diametrically opposed in character, that the contact between them is likely to prove fertile in grand results. Being contraries, they are each able to supply the deficiencies of the other. The building up of the German Empire has taken a thousand years of stupendous effort; the American Empire is the work of one or two generations. Socially, politically, emotionally the contrast between the two peoples is immense. The over-cultured, perhaps over-idealistic Germany will perhaps give the real power to the American thirst for knowledge, and convert its sterility into abundance. But the Americans on the other hand are capable of teaching Germany invaluable lessons in political ethics, in public-spiritedness, in independence.

The gains for both parties in drawing closer together are incalculable, and the two nations are evidently even now so well aware of the fact, that we may be sanguine that they will allow no trivial causes of difference to disturb their friendship. For Germany, at least, the assistance of the United States is likely to be of such paramount importance that she will pursue to its utmost her present conciliatory policy.

As for the Americans, they will construe aright all their political problems, if in their foreign policy they will let the truth sink deeply into their minds, that they are not "Aryans," not "English," not "Teutons," but Americans — that is to say, something novel which has not been before, and accordingly something which requires the Americans to view every great political relation from a novel standpoint. The Americans are one of the clear evidences, to such as can read signs, of that continuous creativeness of things which all of us instinctively feel, and which gives to the sacred period of Christmas its peculiar thrill. Christ was born. The deep secret of it is that everybody feels on that day of the year that humanity was regenerated, as in reality it is regenerated every day of the year. In this consciousness of the new and creative powers of the American people they ought to find the true appreciation of the present moment and their safe guidance in their future foreign policy.

THE CONTRAST BETWEEN THE SCANDINAVIAN COUNTRIES AND THE UNITED STATES

BY

GEORGE BRANDES

AUTHOR OF "MAIN CURRENTS OF THE LITERATURE OF THE NINETEENTH CENTURY"

PEACE on earth—at one time one might have thought that the United States, of all lands on earth, under every circumstance, would have been the Power of Peace, unassailable as it is, and destined, as it seemed, not to attack any other State by force of arms. Since the conquest of the Philippines one can no longer hold this opinion. Since the United States has appeared no less imperially inclined than Great Britain, Russia, or Germany, it is probable that it, too, on subsequent occasions, when its interests demand it, will carry its point by warlike means.

In the present condition of the world, although a friend of peace and regarding peace as the ultimate and ideal state, I fail to see that their doing so would be an evil. For so long as the supremacy of the earth is fought for by the armed hand, it is always a thousand times better that the lot should fall to a strongly progressive power like the United States, than to reactionary powers such as Spain or Russia. If the right of the stronger be still the only decisive right, it is fortunate when the stronger is the one whose victory is desirable for mankind's sake.

The United States has hitherto been almost the only goal of emigrants from the Scandinavian lands, the place whither the youth tended for whom the conditions of their native country were too small and too confined. It has been an incalculable loss for the northern countries that such a stream of young endeavor was regularly diverted. But perhaps in a measure the loss is counterbalanced by the advantage, namely, that not a few of the emigrants have attained a far better position in life than they could have reached at home. Moreover, the horizon of those left behind is enlarged by learning from their relatives how both men and women, independent of oppressive traditions, have found their place in the great Republic. The gain for the small European States would have been greater had the emigrants possessed so high and old-established a degree of national culture that, generation after generation, they would have been able to retain their own language side by side with the new. As it is, the attraction of the English language has proved itself so strong that even in the second generation the old speech disappears, and the assimilating power of the great Republic is so overwhelming that the old nationality is devoured. Only when this state of affairs is altered will the intellectual life of Scandinavia in Europe be able to derive the full benefit of the work of her departed children.

In the meantime, Scandinavia must be content to enjoy what advantage she can from the existence of the United States, heedless of how few or how many Scandinavians are absorbed by the New World.

First and foremost it is an important point that the United States is a republic, and thus a grand example to old monarchical Europe of the fact that the costly royal household, which acts everywhere as a drag of unnatural weight, is superfluous even for a powerful realm. The President of the United States rules over thirty times as large a population as the King of Denmark, and his yearly salary is one-fifth of what the latter receives.

One might imagine that Switzerland, or France, being European republics, might afford the Northern States an equally good lesson and example; but in France the republican spirit has not yet permeated a population occupied with the problem of the State's relations to the Church, a problem solved in America long ago; Switzerland, which in other respects stands so high, is prevented by its feebleness as a State from living up to its ideal. The political right of asylum, so long Switzerland's pride, is nowadays hardly more than nominal. The little State is compelled, for its own safety, to show the door to immigrants pursued by the police of the great Powers. In America, not only does freedom rule as in Switzerland, but the government is also strong enough to maintain this freedom. It does not even occur to any one to demand that it shall be infringed.

Still, the form of government is of least importance. The vital thing, with regard to the United States, is the *tempo* in which life there is lived, its drive and hurry. That is the country in which they accomplish in one hour what in the Scandinavian lands takes twenty-four. Dilatoriness is our besetting sin. It is as if time were of no value. Everything crawls at a snail's pace. The electric trams in Scandinavian towns stop so often and so long that they proceed no faster than an ordinary horse-tram. And this trait is typical. The same dilatoriness extends into the domains of social and political life. The dominant force is time-wasting tangle. Nothing is more usual than indecision, dependency, lack of all initiative. If a man has a bold idea, he finds every one prejudiced against him beforehand. Compared with such a mental attitude as this, that dominant in the United States may be regarded as highly educative. There boldness does not appal, but is approved of; there all cry out for personal initiative.

We are far behind in individual independence. But we are at the same time far behind in public spirit. A rich man keeps his money for himself and his family. Men like Nobel and Jacobsen are rare exceptions. That a royal prince or a large proprietor should give funds for the establishment of libraries or universities is an unheard-of thing.

The curse of the Norsemen is their armaments. A quarter or more of their entire revenue is wasted in the equipment of an army and fleet which they are not in a position to keep up to date. They feel themselves threatened by powerful and conquest-loving neighbors. Denmark is threatened by Germany, who robbed her of the Duchies of Holstein and Schleswig and is perpetually irritating the little land by the oppression of which the Danes in Schleswig are the object. Norway and Sweden feel themselves menaced by Russia, who recently began to Russify by force the half-Scandinavian Finland which lay like a buffer between herself and the North.

If one could talk of a mission for the United States, it would be that in some not too far distant future it should step forward as protector of the lesser peoples and make it possible for them to devote their strength and means to deeds of peace.

AMERICAN INFLUENCE ON AUSTRIA-HUNGARY

BY

COUNT LÜTZOW

CHAMBERLAIN OF THE EMPEROR AND FORMER MEMBER OF THE AUSTRIAN PARLIAMENT

It is not easy to give a general account of the opinions of the inhabitants of Austria-Hungary on any subject; for the inhabitants of the Hapsburg empire "agree to differ" on every matter. I am entirely justified, however, in stating that sympathy with America is great in Bohemia—my own home in the Austro-Hungarian empire. The Bohemians have emigrated to America in large numbers, and with the linguistic talent that is innate in the Slav they have, while of course acquiring the English language, continued to cultivate their own. I can speak here from personal knowledge. When, a few years ago, I had completed the task of editing and translating

into English the greatest masterpiece of the Bohemian language — Komensky's "Labyrinth of the World"—I wished my little work to be known in the United States. I therefore wrote to Mrs. Naprstek, whose husband lived for some years in the United States, asking for the names of some American papers published in the Czech, or Bohemian language. Mrs. Naprstek replied, sending me a long list of papers, but added that it was by no means complete, as more than a hundred papers in the Czech language were published in America.

I should here devote a few words to Mr. Vojta Naprstek, who labored largely to establish a better understanding between the Americans and the Bohemians and other Austrian Slavs. Being a strong liberal, Mr. Naprstek left Austria for America in 1848, and only returned to his country in 1858, "bringing"—as the celebrated Bohemian authoress, Sofie Podlipska, wrote, "many new thoughts and plans from the land of liberty." I have not space here to give an account of the many enterprises which Mr. Naprstek—aided by his gifted wife, Mrs. Josephine Naprstek—undertook for the purpose of introducing American culture into Bohemia. I may, however, mention that they founded at Prague a "club of American ladies" the members of which endeavored by means of lectures to further the formerly neglected education of the Bohemian working-women.

The inhabitants of Bohemia and Moravia, and, indeed, the Austrian Slavs generally, are very democratic in their views, and have great admiration and respect for the United States. The Bohemians, who were among the earliest fighters for religious liberty, naturally sympathize with a country in which that liberty is so firmly established. It may here be mentioned that during the war between the United States and Spain Bohemian feeling was entirely favorable to the free country; all remembered that Spain largely contributed in 1620 to the destruction of the Bohemian national church.

There is no doubt that in my country the fact that the United States has taken up a firm and prominent position in the world's politics has been hailed with great pleasure. Writing as a liberal, I cannot but welcome the fact that the greatest democracy of the world is extending its interests and its influence. That influence can but be used in the interest of progress and of those countries which have suffered in the past. We cannot imagine the great republic otherwise than

> "Holding up a beacon peerless
> To the oppressed of all the world!"

It would not be fitting that one who is not an American should express an opinion on American politics, but I do not hesitate to affirm that the more determined and wider policy of the present President of the United States has greatly appealed to the various races which inhabit Austria and Hungary. To many it has only now become evident that America is one of the great nations.

There, as elsewhere, I can and will only write as a Bohemian—that is to say, as one belonging to the great Slavic majority of the population of Austria-Hungary. I wish, therefore, again to mention that the links which connect Bohemia with the United States are numerous and strong. The artists who at least on the field of art have revived the ancient glory of Bohemia have gathered their greatest laurels in the United States. It will be sufficient to mention the great names of Ondřiček, Kubelík, and Kocian. As regards the sister-art of painting, the talented Bohemian painter, Mr. Alphons Mucha, has himself told me that he was much touched by the kindness and appreciation that he met with in America. Bohemia and Moravia have shown great interest in the literature of America. Thus the talented Bohemian writer, Mr. J. V. Sládek—who several times visited America—has translated Longfellow's "Song of Hiawatha" into his native language, and quite recently Mr. Klašterský has published translations of some of the poems of Colonel Hay. Of these translations, that of the "Wreck of the Prairie Belle," which is excellent, deserves special notice.

I have hitherto referred only to the Slavic majority of the population of Austro-Hungary. Of Vienna, the official, though by no means the intellectual centre of the vast empire, little need be said. The municipality of Vienna is now in the hands of a clerical and anti-semitic faction. In this environment the cause of progress finds few friends, and sympathy for the United States is scant.

Matters in Hungary are different. Writing as a Slav, it is my duty to record that our grievances against Hungary are great. The

Slavic population of Hungary—which furnishes so large a part of the emigrants to America—lives in a state of oppression, and every attempt is made to engraft the Magyar-Turanian language on a people that belongs to the Slavic, that is to say Aryan, race.

This should not, however, render us blind to the fact that the Magyars of Hungary are born statesmen—I will not say politicians, as I am aware of the fact that that word has a displeasing sound to Americans. The Hungarians regained their independence little more than thirty years ago, and in the comparatively short time since then they have succeeded in developing the trade and industry of their country in a manner that is unrivaled except in America. Budapest itself has to a certain extent assumed the appearance of an American city. While thus the German element in Austria is imbued with clerical and reactionary views, Hungary is undoubtedly a "go-ahead" country. Even as regards legislation there is a vast contrast between Austria and Hungary. To give but one instance, while civil marriage has existed in Hungary for some years, the Austrian marriage law is still founded on the old canonic right.

I will end by stating that Hungary as a progressive country greatly admires America, and that that feeling will no doubt be increased by the visit paid recently to America by Count Apponyi and other distinguished Hungarians.

THE UNITED STATES A LESSON TO EUROPE

BY

ANATOLE LEROY-BEAULIEU

MEMBER OF THE FRENCH ACADEMY AND AUTHOR OF "FRANCE, RUSSIA, EUROPE" AND "THE EMPIRE OF THE CZARS"

TO my view, what makes the greatness of the United States among the nations is less its tremendous economic development than its political institutions and its consciousness of liberty in every field of action and life. This comes back to saying that what has made its greatness is less the country itself than the men who inhabit it. It is less the great expanse of its territory and its natural resources of soil and of wealth underground than the qualities and the energies of the people who have cultivated the magnificent plains and the beautiful mountains of North America, and made them pay. Nature had provided between the two oceans for a great empire and a great nation. But for this empire to be born and for this nation to take form, live, and prosper, it was necessary that it should be inhabited by people capable of exploiting and binding together these vast expanses. In this sense one might say that it is the American who has made America, although between the Atlantic and the Pacific, as elsewhere, there was a mutual influence of men on the land, and the land on men. But as great as this last was, the first seems to have been even more powerful, and this is one of the causes which, from my point of view, bring about the originality and the superiority of the United States.

The causes of its success and of its greatness are not merely material causes due to the generosity of nature toward it. They are, above all others, moral causes, due to the character, the education, the energy and the spirit of enterprise of Americans.

The qualities which the people of the United States have had on account of their origin, and which they continue to possess with no diminution, they owe in large measure, it seems to me, to the way in which as a people they have been formed and recruited through the last three centuries.

The earliest Americans, the founders of the future Republic, were colonists—that is, men enterprising and resolute by habit, with enough energy and initiative to dare to leave their own country and the Old World, and to go out and found a new home in an unknown continent. Ever since, and especially perhaps during the last century—the nineteenth,—the United States has not ceased to attract the most enterprising and adventurous spirits of Europe. From one continent to the other there is a constant current of them, which, with immigrants of all nationalities, has never ceased bringing to the United States young and new energies. In this sense, one could say that the United States is the product of a sort of secular selection made

at the expense of our older Europe. For even today, although from afar the great republic appears to them as a kind of Eldorado, the peasants who cross the ocean in their search for a new country must have a resolution and a hardihood which are lacking in timid spirits and weak characters.

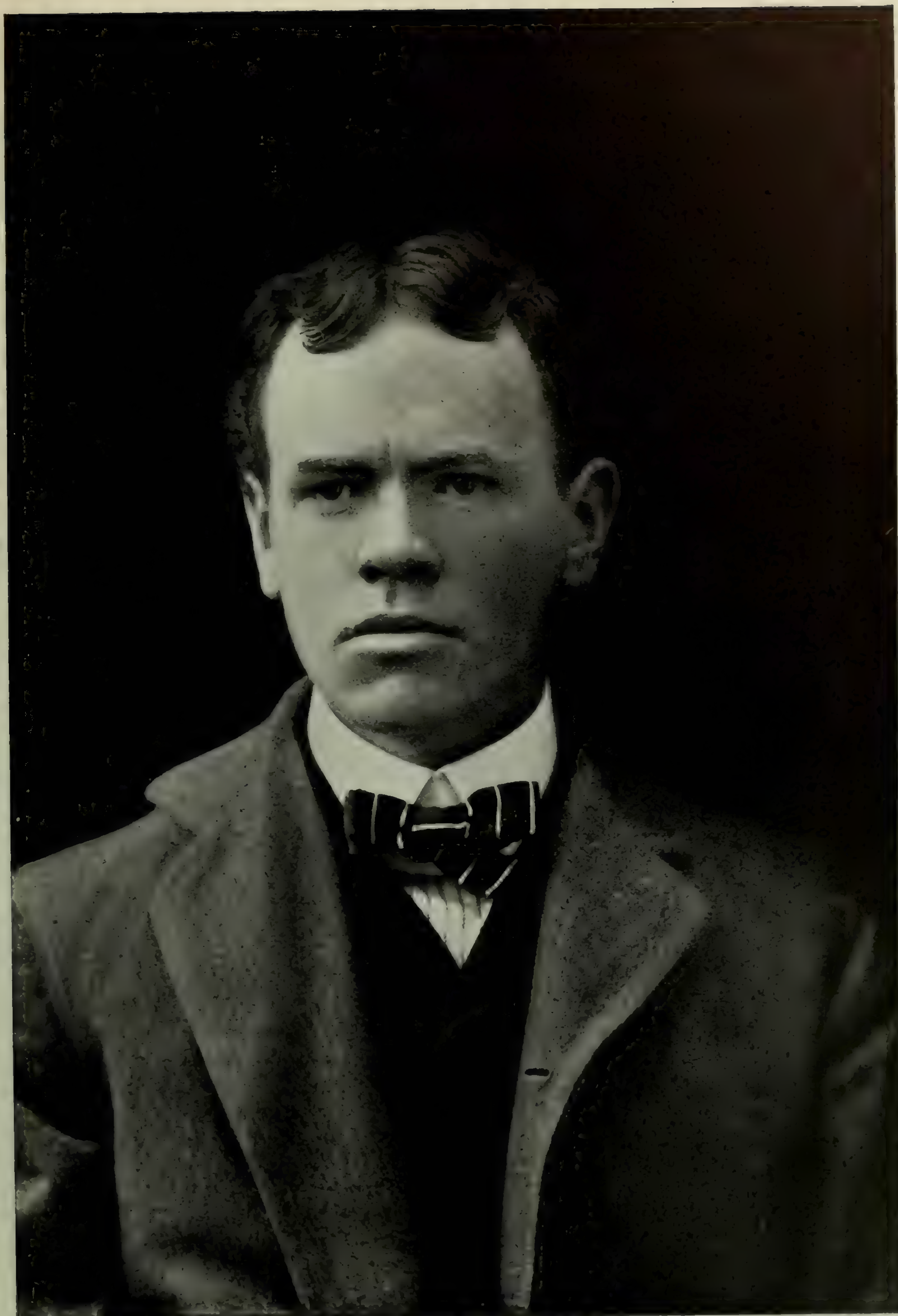
Why should not a nation formed thus distinguish itself among the nations by the intensity of its life and action? I venture to say that in remaining open to all the refugees and the oppressed of the Old World, in continuing to absorb energies unemployed elsewhere, the United States has followed the best policy for a new country; the one that could most surely contribute to its force and power. What it has done, unconsciously, perhaps—at first by necessity and then by tradition,—by a kind of generosity toward the religious and political refugees of all countries, it has done also designedly for its own interest; for this incessant flood of energetic immigrants has been one of the principal explanations of their rapid advance in wealth and power simultaneously with their advance in population.

The danger was that the original American people and the original American spirit should be submerged under this flood of strangers of diverse origin. Happily nothing of this kind has occurred. The stamp impressed on the United States by the generation that lived at the time of the War for Independence, and by their successors, has been deep enough not to be effaced by the crowd of new-comers. The constitution, the laws, and the very spirit of the United States have been like a sturdy mountain against which have beaten the successive waves of the diverse generations of immigrants flooding in from outside. Now that the experiment has been made, one can justly say that all danger is passed. The proportion of people of foreign origin is too slight to extinguish the American spirit.

One other thing which has struck me most about the United States is the rapidity with which the descendants of the immigrants begin to Americanize themselves, and to appropriate the ideas and feelings of native Americans. On the other hand, these new sons of America are far from losing every trace of their origin and of their national genius, but even this is an advantage for the United States which will become more and more visible. Thanks to the national complexity of racial elements of which it is composed, the great Republic across the ocean will find in itself a versatility of aptitude and a wealth of talents which in Europe are found only in people of different nationalities and in different countries. Diversity and unity will be more characteristic of the American spirit and the American genius And this alone permits us to base great hopes on the United States in the domain of art and of literature, as well as that of the sciences.

For a people of such complex descent and of so varied talents to be able to come to a rounded development two things are necessary—time and liberty. Of these two things neither was lacking. When one compares the United States with Europe one must always bear in mind that the United States is young, and that, however fruitful this youth may already have been, it has not yet given us all that it promises to give. Yet it has only to remain faithful to itself, to its institutions, to its traditions, and to its principles. It has a mission in the world which is not merely to become the richest people on the globe. It should show us that a great democracy can develop peacefully in every sense and in every activity, with liberty and by liberty.

That, one may say, is the mission awarded to it by destiny, and the one which it has up to the present time carried out with glory. It has made the peoples of the world understand that in a well-ordered republic under the protection of just and equitable laws, liberty satisfies all. That is an example and a lesson for the peoples of the old world. While in certain nations of Europe political factions and religious or anti-religious sects still seek to oppress one another—as if the modern State, like the republics of the Middle Ages or the ancient monarchies, could not tolerate variety in opinion and diversity in religious beliefs—the United States has shown that men of every opinion and of every religious faith should be able to live peacefully like brothers side by side, each serving God and humanity freely, according to his faith and his convictions. Liberty is the best hosanna to the glory of God and the best or the only means of establishing peace among men: it is a great honor for the United States to have understood and proved it. That alone renders the nation deserving of the admiration and sympathy of all free spirits.



Photographed by J. E. Purdy & Co.

MR. J. B. CONNOLLY

Author of "The Seiners," etc.

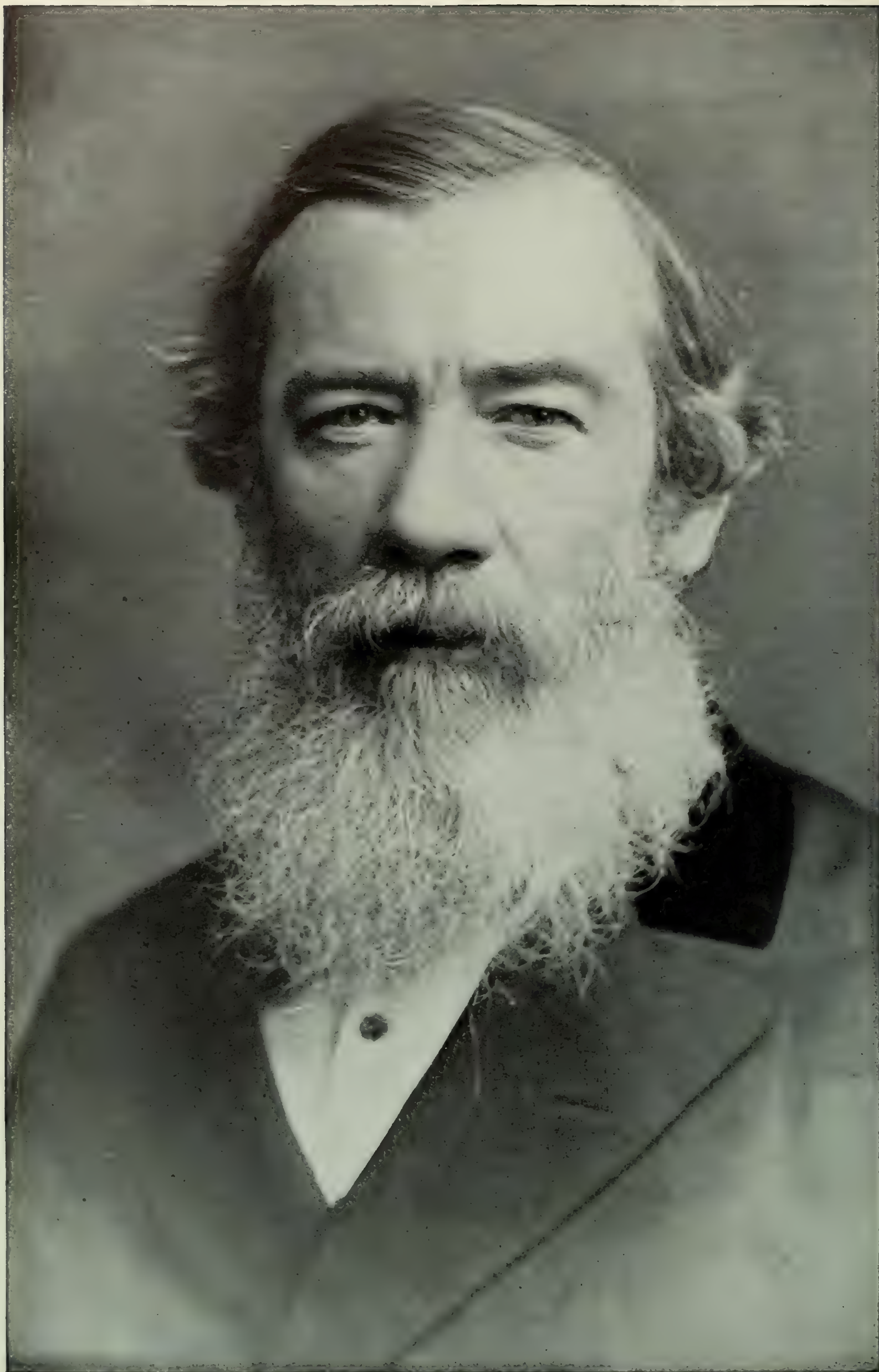
Photographed by Habenicht, San Francisco

MISS MIRIAM MICHELSON

Author of "In the Bishop's Carriage" and "The Madigans"

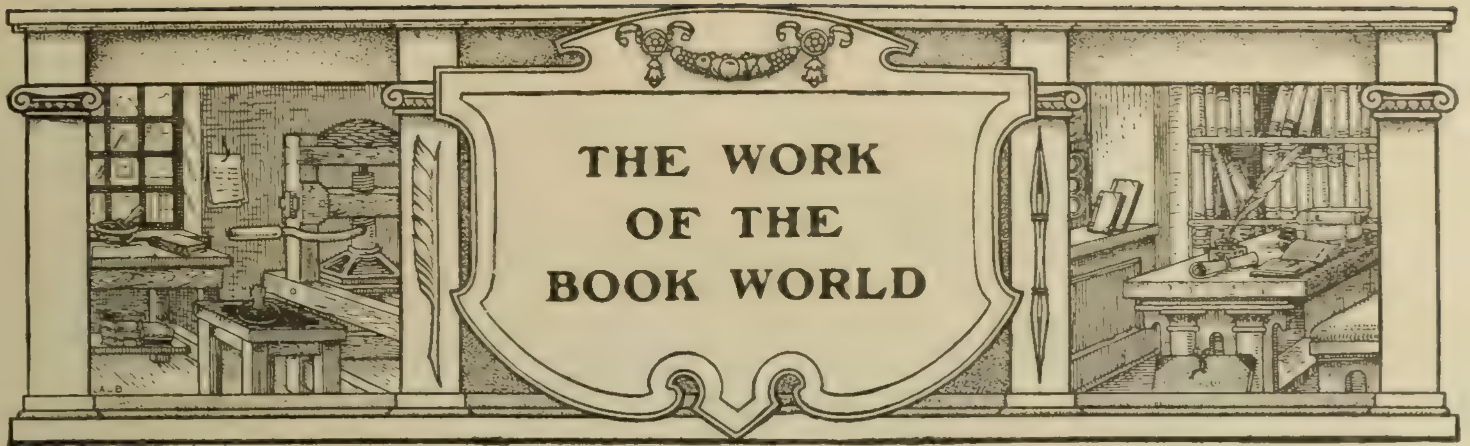
MRS. VIRGINIA CLAY-CLOPTON

Whose recollections of Washington social life have just been published under the title of "A Belle of the Fifties"



MONCURE D. CONWAY

Whose autobiography has just been published



SOME SIGNIFICANT BOOKS OF THE YEAR

BY

FREDERIC TABER COOPER

A BACKWARD glance over the publications of the year at this period of annual stock-taking is a reminder that much sterling history, biography, and autobiography has been published, including many brief lives and studies of famous men, singly and in half a dozen admirable little series. Their number suggests that the interest in earnest, fruitful lives has never been more widespread than now.

Herbert Spencer's "Autobiography" heads the list, as the story of a great man, if it is not a great autobiography. It is seldom that a man who has so profoundly influenced the intellectual life of his age gives the history of his own mental growth, and sheds what light he can upon his works, or, if he does, can command either the leisure to write it, or a style as facile as Mr. Spencer's. The more recent "Autobiography" of Moncure Daniel Conway is a volume teeming with memories of Concord and Thoreau, of Washington life before the war, of Hawthorne and Holmes, Ruskin and Carlyle. There is hardly a personality of importance on either continent, of the last half-century, whose character is not explained by some reminiscence in these volumes. The "Letters of John Ruskin to Charles Eliot Norton," full of the personal touch of intimate understanding, form another of the year's literary treats. "Thackeray's Letters to an American Family," forming a correspondence with the Baxter family of New York which continued down to the novelist's death, represent Thackeray in his most genial mood, and are enjoyable in spite of their purely personal scope. Mrs. George Bancroft's "Letters from England," written during the years 1846–49, the period of her husband's ministry at the Court of St. James, shed many a side-light upon the leading British statesmen and authors of that time. And Vizetelly's "Zola" must not be forgotten, a volume of permanent value to students of the great French realist.

With few exceptions, the biographies of American men of action this year centre in the period of the Civil War. The significant books of the year are the "Recollections and Letters of General Robert E. Lee," forming an intimate revelation of the great Confederate leader; Henry G. Pearson's life of "John A. Andrews," the great War Governor, whose ringing utterances did as much as any general to thrill the Northern troops with a dauntless enthusiasm; the "Memoirs of Henry Villard," who was famous as a war journalist before he even dreamed of becoming a power in the financial world, and who sheds some new light upon Lincoln, Grant, and other figures of the time; and lastly, Albert Bigelow Paine's "Thomas Nast," whom New Yorkers think of primarily as the destroyer of the Tweed Ring, but whose style was formed and reputation made in that wonderful series of war pictures that led Grant to call him "the most prominent figure in civil life to come out of the War." To this list may be added the memoirs of two Southern ladies, Mrs. Clay of Alabama and Mrs. Roger A. Pryor, both of them conspicuous figures in Washington society, who have respectively embodied their memories in "A Belle of the Fifties" and "Reminiscences of Peace and War."

The former was discussed in the last number of this magazine. The latter is one of those rare books imbued with the charm of a gracious personality. Having lived in the forefront of American social life during a series of crucial years, Mrs. Pryor sheds light upon that part of the nation's history which eludes the sober historian—the history which is made in the street and in the home, at theatre and ball and

party; the gossip and small talk, the etiquette and fashions, the flare of skirt and cut of hair. Mrs. Pryor takes us through the gay life of the capital under the Fillmore, Pierce and Buchanan administrations; she gives us glimpses of stately functions at the White House and the foreign embassies. There is a whole portrait gallery of statesmen and soldiers, authors and musicians; and many a piquant anecdote of Jefferson Davis and Sam Houston, Washington Irving and G. P. R. James, Dion Boucicault and Adelina Patti. Then from peace the scene shifts to war, the camp hospital, the anxious days of besieged Petersburg, when clothes and shoes, coffee and flour were luxuries well-nigh out of reach. The book reflects the heroism, the tragedy and pathos, but not the rancor, of the Civil War. Another important book is Renan's "Letters from the Holy Land," translated by Lorenzo O'Rourke. Considered as biography, these letters are fragmentary. Their charm lies in their intimate and spontaneous personal note. They show, moreover, Renan's unrivaled gift of evoking vanished centuries from the scrap-heaps of antiquity, conjuring up the pageantry of a dead civilization, and making it seem an event of yesterday.

THE REVIVAL OF THE METRICAL DRAMA

We have had in poetry Mr. William Vaughan Moody's version of the Promethean myth, "The Fire-Bringer," and Stephen Phillips's "Sin of David." Mr. Phillips's new drama opens in the army of Cromwell, during the English Civil War, and the dramatic interest centres in Sir Hubert Lisle, commander of the Parliamentary forces in the Fenland, who becomes enamoured of the wife of one of his colonels, and commits the sin of David—the sin recorded in the lines, "set ye Uriah in the forefront of the hottest battle, . . . that he may be smitten and die." Having sent the colonel to his death, Sir Hubert woos the woman he has coveted, and marries her. Here, as in his previous dramas, Mr. Phillips builds in Greek fashion, and works steadily and relentlessly toward the inexorable punishment of fate. The two have sinned, the man deliberately, the woman unconsciously, and both must suffer. The instrument of their suffering is to be their innocent child, which sickens and dies, from no cause that medical skill can name. In the end, however, there is a curious blending of the Greek fate motive and the Hebraic doctrine of atonement. The child has died as a punishment for their sin, yet by its death it has taken that sin away. It has been withdrawn, that they may—

> "feel the sting of flesh
> Corruptible; yet be in that withdrawal,
> Folded upon the bosom of the Father,
> Hath joined us in a marriage everlasting."

THE YEAR'S DISTINCTIVE NOVELS

A survey of twelve months of novels leaves the comfortable assurance that, setting aside a few writers of unique quality, American fiction is today in a more healthful and promising state than English fiction. A great deal of ephemeral matter is still produced in both countries, and will continue to be. The swash-buckler romance and the Colonial novel are still with us. Advocates of historical fiction will point with satisfaction to such stories as Mr. Gardenhire's "Lux Crucis" and Irving Bacheller's "Vergilius"; to "The Crossing," by Winston Churchill, and "Robert Cavelier," by William Dana Orcutt; and "The Rose of Old St. Louis," by Mary Dillon, and a noteworthy number of other stories that receive an added interest from the Louisiana Purchase centenary. The host of novel readers has multiplied so rapidly during the last decade that there is ample room for every school of fiction, and no one type is likely to die out. But in this country and in England, the majority of the best novelists are devoting themselves to portraying contemporary life—with this difference, that in the English books one meets more frequently with a strain of pessimism, an unuttered sneer, a morbid note. In our books, on the contrary, there is a wholesome breath of outdoor air, a clean virility, a growing tendency to picture the serious business interests of life, rather than the drawing-room and the boudoir—to reflect the world of politics and finance, the rough life of ranch and mine, the freedom of woodland and ocean and northern ice-fields.

But Rudyard Kipling, Maurice Hewlett and Joseph Conrad stand apart from these generalizations and each is a law unto himself. It is a red-letter year when each is represented by a volume, as they are this year—Kipling by the wonderful art of those new short stories, "Traffics and Discoveries"; Hewlett, by that marvelous piece of verbal tapestry, "The Queen's Quair," like some rare, old silken hanging that has kept its lustre undimmed by centuries; Conrad, first by "Romance," wherein you lose yourself in a fog of strange adventures; and more recently in his masterpiece, "Nostromo."

Anthony Hope is represented by "Double Harness," a caustic satire upon married life, presenting some half-dozen young couples in various degrees of matrimonial unhappiness, ranging from mild incompatibility to dishonor and death. In "The Farm of the

Dagger," Eden Phillpotts reverts to his early style of Dartmoor stories, and tells the trials of a modern Romeo and Juliet, separated by the feud of their fierce and vindictive parents. E. F. Benson has produced some finely drawn types in "The Challoners," but the story itself is a gloomy study of a conservative English minister, who mars the happiness of his son and of his daughter, because the lad's heart is set on being a professional musician and the girl loves a Catholic, and the father feels it his duty to thwart them both. Arthur Morrison is at present turning out ingenious detective stories, on the order of "The Green Diamond." The diamond has been hidden in one of a dozen magnums of old Tokay, which have been scattered broadcast by an auction sale. The problem, of course, is to find the diamond. Mr. Crockett has produced his annual tale of a winsome Highland lass, "The Loves of Miss Anne." Jerome K. Jerome has published a characteristic and humorous little story, "Tommy & Co." The title sets one in mind of another volume of blended humor and pathos, "Jess & Co.," by J. J. Bell, of "Wee MacGregor" fame. It is merely the story of a young Scottish wife whose husband is all too prone to loiter in his garden and let his business go to rack and ruin. She undertakes to save him in spite of himself; and the way she does it and the price she pays are all told with commendably simple art. One of the strongest novels of the past season, though one of the most unpleasant, is Morley Roberts's "Rachel Marr." It is a morbid study of an exceptional woman, fundamentally pagan in her instincts. Though separated by laws human and divine from the man she loves, she brushes them aside when he summons her, and goes to him, although she knows that her pathway leads to death.

After Morley Roberts, Stewart Edward White is like the tonic breath of outdoor life, the balsamic fragrance of the forests he loves to picture. He has two books to his credit this season: "The Silent Places," describing a dogged, patient man-hunt over the ice-fields of the far North—a hunt that stretches out, month after month, year after year, until the Indian who attempted to play false with the powerful Fur Company is run to earth. Secondly, there are the "Blazed-Trail Stories," short sketches written in northern lumber camps, or on the arid plains of the Southwest, but one and all paying tribute to the man who at any cost does the allotted task, the "Man Defending His Work." "The Seiners," by James B. Connolly, is another book that one cannot afford to miss. It takes you out with the fishing-fleet, where the mackerel are caught, and makes you feel the exhilaration of a brisk breeze and a taut sail and the sting of salt spray in your face. Sail on the "able Johnnie Duncan," through the race described in the book, and you will know how thrilling a sea story may be made by an adept.

Politics is becoming a favorite subject with the younger novelists. "The Grafters," by Francis Lynde, deals with a fight over a railway, which incidentally would make or mar a booming western town, and incidentally was the means of corrupting aldermen, judges, senators, and even the Governor of the State. Then there is "The President," by Alfred Henry Lewis, a clever satire on political life at the national capital, showing how the most careful wire-pulling does not necessarily secure the nomination for the presidency. "The Mastery," by Mark Lee Luther, is a dignified and vigorous story tracing a young man's rise to the highest office in the State, because he knows how to master men; and showing also how he was handicapped, by submitting to the mastery of a woman.

The social and business conditions of modern American life form the theme of the most important novels of the current month, from the pens of such writers as Mr. Howells, Robert Grant, and Robert Herrick.

SOME RECENT FICTION

Miss Miriam Michelson follows her successful novel, "In the Bishop's Carriage," with "The Madigans," short stories with a connected interest and a neatly original climax. "In the Bishop's Carriage" is a swift little story of a woman pickpocket who reforms and becomes a successful actress. At first it has the picturesque interest, and later its revelation of contemporary theatrical methods gives a glimpse of a hectic corner of New York, which is vivid rather than pleasant. It is the breathless kind of story with plenty of surprises. "The Madigans" is more strikingly original. Six young daughters of a disappointed, dreaming, irritable recluse manage to cram their existence in a Nevada mining-town so full of whimsical strenuousness that life to these remarkably human children is a drama of unfailing entertainment. Their pleasures, their quarrels, their

revenges, their adventures, are exuberantly lived through to the last savor of enjoyment. And a reader who cannot delightedly live through the book with them is a misanthrope. A half-dozen readings would not dull one's interest in "The Madigans."

"Old Gorgon Graham," by George H. Lorimer, is a continuation of "Letters From a Self-Made Merchant to His Son." Here are more of the letters—the wisdom of Ben Franklin and the Book of Proverbs, coming from a Chicago pork-packer in the language of the world of business, vitalized with modern instances. So pointed are the admonitions of "Old Graham," so humorous his keen observations on people of easily recognizable types, that a knowledge of contemporary business methods and much hearty laughter seem at first to a reader to be the total of the book's results. But Old Gorgon Graham remains so persistently in mind that one at last realizes that Mr. Lorimer has really introduced us to an actual character, whose lovable qualities linger when his crusty manners have been forgotten. There is more sense and more fun in this volume than in a barrel of sermons and a library of contemporary farces.

If the children in Mrs. George Madden Martin's "The House of Fulfillment" had only remained children all through the book they might be sisters of "Emmy Lou." For the chapters of child life have rare depth, sympathy, and insight. But Mrs. Martin has chosen to make the children grown-up, and when she does this she becomes conventional, and they become conventional and have love stories like any other heroines.

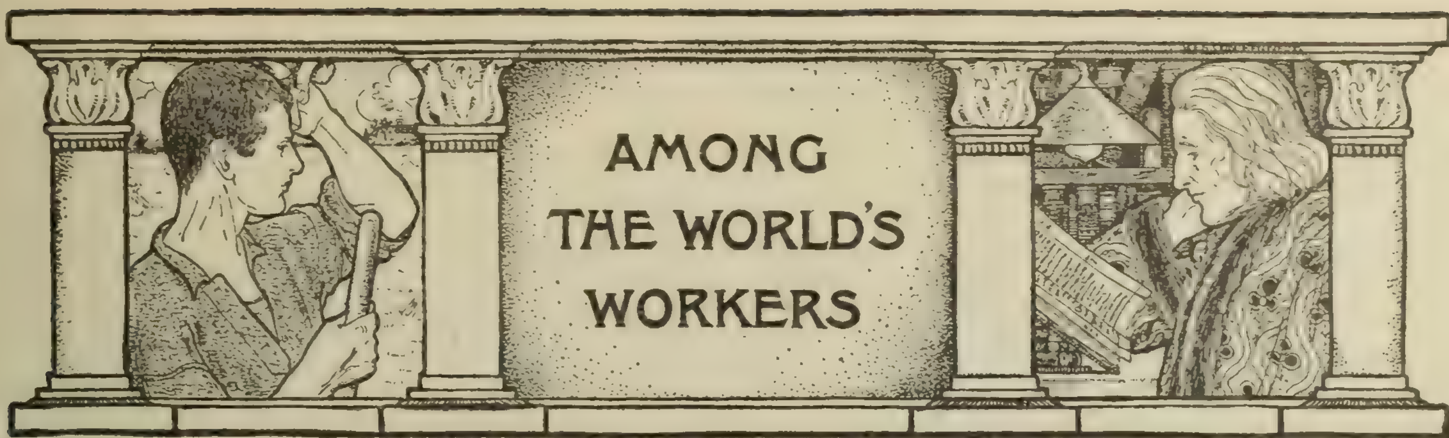
Robert Grant's "The Undercurrent" is an undisguised problem novel. Divorces of all sorts, from the difficult South Carolina kind to the easy ones of Utah or Arizona, are probed and argued over, now as if by a zealous churchman, and again with the cold logic of the trained jurist. Constance Stuart in the story is a deserted wife. Her worthless husband, gambler, bankrupt, embezzler, disappears, leaving her destitute, with two small children. As stenographer in a law office, she fights her own battles successfully. After three years, she may have a divorce for the asking. Her employer asks her to be his wife. Love, social position, assured advantages for her children, hang upon her answer. But Constance's Episcopalian rector seeks to convince her that such a union would be incompatible with the highest spirituality. The theme is developed with a delicate art; but as is the case in most problem novels, the problem continually tends to overshadow the novel.

A flash of old-time vigor illumines Mr. Howells's new story, "The Son of Royal Langbrith." His theme is a young man's misplaced reverence for a disreputable father whom he lost in childhood. The dominant influence of the young man's life has been his silent cult of this man whom he has never known. Yet the truth finally comes out, and very dramatically.

In "The Sea Wolf," Jack London preaches the same doctrine that a flabby man may be made virile by a vigorous life; but the ship on which fate casts his hero is a floating purgatory. The captain, Wolf Larsen, is a survival of the stone age, physically a giant, but destitute of a moral sense. His disordered, abnormal brain finds a keen enjoyment in Shakespeare and the Rubaiyat; yet a moment later he will turn the ship into a human shambles, from wanton lust of cruelty and bloodshed. There is a gruesome strength about this picture of an abnormal brute, going blindly to an inevitable doom. "The Sea Wolf" is the strongest book Mr. London has written.

In "Nostromo," Joseph Conrad has converted a fictitious South American republic into a tangible reality, more vital and significant than some states actually existing on our maps. He tells a rapid, crowded story, flinging out characters and incidents with spendthrift lavishness; he creates the illusion of gazing down an endless vista of tragic, blood-stained years. His republic is a seething hotbed of treason and revolution, a social and political volcano, with periodic eruptions; its people a scant handful of decent folk and a horde of mongrel thieves, who are the offscourings of two continents. The story is a grim tale of human avarice.

"The Common Lot," by Robert Herrick, is a study of the compromises which an ambitious young architect makes with his conscience when confronted with the realities of modern business life. Coming fresh from the Paris schools, he finds small scope for the high ideals of the Beaux Arts in Chicago, where lath and plaster count for more than Norman arch or Corinthian column, and where the royal road to success seems to lie through the favor of unscrupulous contractors and the venality of building inspectors. He has only to connive at the violation of city ordinances, to aid in putting up cheap and imposing fire-traps, and a golden harvest seems assured. But a disastrous fire, a sickening loss of life, and a coroner's jury that promptly lays the burden of blame where it belongs, dramatically point the moral of the strongest story Mr. Herrick has written since "The Gospel of Fiction."



HOW GENERAL OYAMA LEARNED SNAP-SHOOTING

BY

HORACE FLETCHER

THE success of Marquis Oyama's compaign against the Russians has been due in some measure to the good shooting of the Japanese soldiers. A little incident which occurred years ago adds a peculiar interest to this efficiency of the Japanese Army, because it shows how ready General Oyama has always been to learn anything bearing on his profession.

Twenty-five years ago I was an experienced rifle-shot, and could hit a moving object every time. The twenty-two-calibre rifle and machine-made cartridge, which came into general use in the seventies, made extensive rifle practice possible. I wrote and published at the time a pamphlet on how to shoot with a rifle, entitled "The A B C of Snap-Shooting," which came to the attention of regular-army officers attached to the Department of the Pacific at San Francisco, and was used for a manual by the Regulars. It happened that copies of the pamphlet reached Japan, where I spent some time soon after. Japan had just begun to make a military organization on the most modern lines, and Marquis Oyama was Minister of War. He invited me to visit him in his home at Tokio, and showed great interest in the method of learning to shoot at a moving object with a rifle. He had already seen the pamphlet.

I had a number of American rifles and ample ammunition with me in Japan, and Marquis Oyama and the then Colonel Murata (inventor of the Japanese Military rifle) joined me several afternoons at target-practice. They entered enthusiastically into the spirit, Oyama, in particular, showing the enthusiasm of a boy. I shall never forget his keen joy the first time he hit a moving object with a bullet. It was a tea-pot thrown in the air, I believe, and when it came down in dust and pieces he capered about and screamed in his delight like an excited school-boy.

After several afternoons at practice Marquis Oyama and Colonel Murata became nearly as skilful as I was. They could hit the centre of the target 80 per cent. of the times tried, and that was only 20 per cent. less than my own average at that time. They were full of confidence that they could close the gap of difference between us in a few more afternoons of practice in spite of the fact that I told them 20 per cent. of practice readily brought 80 per cent. of skill, but that it required 800 per cent. of habituation to acquire the last 10 per cent. of absolute sureness. I had expended hundreds of thousands of cartridges to learn this.

I was invited to give a demonstration of skill with the rifle before the Imperial Prince Higashi and 300 officers of the army and navy and heads of the departments of war and marine. It was an interesting experience. Mrs. Fletcher, who was present in a landau with other women spectators, took the rifle from my hands and executed some skilful shots, equaling my own best record, and winning much applause.

An amusing incident happened. After the formal programme had been carried out, many present requested that some object that they had about them be thrown in the air and marked by one of the bullets as a souvenir of the occasion. Some one threw up an old-fashioned *tempo*, an elliptical coin with a small square hole in the middle for stringing. As it was clumsily thrown up and wobbled badly, I missed it. Then I decided on some horse-play. Following the first real miss I purposely missed the same coin half a dozen times in succession, much to the amusement of my new-found admirers. I then turned to the interpreter, Nehe Yamasan (the first American to take to himself a Japanese wife and become a naturalized Japanese citizen), and requested him to inform the prince that I had been shooting through the hole in the

tempo, but now I would hit it on the rim. The next shot was a true one, and the pieces of the brittle coin were gathered up for souvenirs in a dust-pan. The next morning the Tokio newspapers mentioned the shooting through the hole as the feature of the afternoon.

But the significant feature of the practice on this and other occasions was that Marquis Oyama became firmly convinced that a surprisingly high percentage in hits is possible with strict attention to practice in snap-shooting.

A FREIGHT RAILWAY UNDERGROUND

A SYSTEM of underground tunnels ramifying throughout a city to provide for swift transportation of freight is the latest development of a wide-spreading movement toward underground railways. Such a system with twenty miles of tubes is now in operation in Chicago, and other cities are likely to follow Chicago's example.

Like other public improvements in Chicago, this tunnel was not constructed without difficulties. It was conceived by a telephone and telegraph company, which took the first step in competing with the telephone service already well established in the city by securing from the city council a franchise, extending over thirty years, to build a system of tunnels for their wires beneath the centre of every street in Chicago. This gave the company the right to construct altogether 4,000 miles of tubes. Property-holders objected to the beginning of the work, and it was impossib'e to secure permission to tear up the streets. The company, however, was permitted to begin excavation under the saloon of a Chicago alderman; and, once begun, the work went rapidly ahead, often at the rate of 300 feet a day. Five million dollars were invested to push the work on, but as the scope of the company's plans widened, stock and bonds were issued amounting to $60,000,000. When the tunnel was nearing completion the company secured from the Chicago common council the right to transport mail and freight through it, although the idea had originally been to use it simply to contain telephone and telegraph wires.

So far no arrangement has been made to transport mails, though there is no feature of the backwardness of the Post-Office Department more marked than its failure to take advantage of tunnels like this and the New York Subway. But sooner or later mail must be carried underground in cars, as well as through pneumatic tubes such as that in use in other cities and installed in Chicago about the time this telephone and freight tunnel began operation. Freight, however, is being carried daily, and the possibilities of increased speed of transportation are immeasurable. No passengers are transported, but the twenty miles of tube already in use have a capacity of 20,000 tons of freight a day. Just as plans are on foot to connect such institutions as large department stores with the New York Subway, plans are on foot in Chicago to connect the basement shipping-rooms of business houses with this freight tunnel, so that goods can be carried to the railway stations without the inconvenience of carting them through the streets.

If one consider to what extent a comprehensive system of passenger subways, such as that being designed by the Rapid Transit Commission of New York City, will free the streets of the rush of vehicles, and to what an extent a system of freight tunnels in any city will succeed in removing the trucks and other wagons which make most of the blockades, the vision is presented of the new city of the future. Will not the streets be cleared of everything but pedestrians and automobiles?

TRAINING MEN TO BECOME COLONISTS

IN the development of new lands the German "colonial school" is a departure from the haphazard methods which have hitherto obtained in colonization. The purpose of the school is to train young men in such knowledge as shall especially fit them for the work of the pioneer in an undeveloped country. It is a part of Germany's great ambition to become the controlling power in Africa.

The first school of this sort was founded in 1899 at Witzenhausen with the special purpose of preparing practical farmers and planters, stock-raisers and vine-growers, who might become settlers in the German colonies. Of the fifty-four students who have already come out from the school, two have become farm-land inspectors in East Africa; one is the manager of a large farm in Southwest Africa; another is the general manager of a large plantation in Paraguay; another is a tobacco-planter in Sumatra, and others hold positions in the Philippines, in Mexico, and in China.

The instruction of the school alternates, winter and summer, between theoretical and practical instruction in such subjects as chemistry, botany, physics, forestry, and vine-growing. Courses are given in tropical plants and agriculture and in colonial enterprises and politics. The practical work is done on a farm purchased for the use of the school. The students, of whom there were

fifty-nine in 1903, range from seventeen to twenty-seven years of age.

A second school, similar to the one at Witzenhausen, is now being established under the direction of Prince Karl von Urach, Count of Würtemberg, at Hohenheim. It will give especial attention to information relating to new lands, and will find suitable positions for practical study in schools or experiment stations, and with farmers and stockmen.

The work of these schools is of vast importance in view of the special efforts now being made by Germany to advance her interests in the tropics. Great inducements are being held out to inventors in Germany who can improve the manufacture of agricultural and manufacturing machinery for use in the German colonies. A machine for splitting cocoanuts, cotton presses, light plows and cultivators, machines for removing the kernels from cotton, and machines for extracting the fibre from bananas, are all in demand, and their manufacture is being encouraged by the German Government by the offering of prizes and other incentives to improvement.

That there is a great field for young men of such equipment as the "colonial schools" give is evident from the experience of the British in East Africa. In the Kikuyu region, on the equator, there is a fertile and well-watered expanse of from five to six thousand feet elevation on which European settlers are taking up lands and greatly increasing their value. From this region the exports for the last fiscal year amounted to $740,300 and the imports to $2,215,800. Ten years ago they were nothing. The Uganda Railroad has opened up great stretches of the high plateaus, where Europeans find a climate that is endurable, with the result that a colony is being rapidly built up which gives promise of becoming one of Great Britain's richest possessions.

The schools for Germany's emigrant sons are fitting out young men for colonial life who shall be prepared to meet the problems of developing their new country and who will strengthen Germany's hold upon her colonies.

THE VALUE OF AN ACRE

A FARMER in one of the great agricultural States of the Mississippi Valley gave his son one acre of land, from which he was to have all the produce raised by his own efforts. The lad went to work earnestly. He fertilized the field with twenty loads of manure, which he hauled morning and night, before and after his regular work. He then plowed and harrowed the field until he had it in as good condition as a garden. One-half of the acre he planted with the very earliest potatoes, and the other half with blackseed onions. The potatoes he cultivated with a horse-cultivator, the onions with a hand-cultivator. Later in the season he hired several boys to help him weed the latter crop. All this work was done by him in his spare moments.

The financial statement of the one-acre experiment is this:

RECEIPTS	
60 bushels of potatoes, at $1 per bushel,	$60.00
250 bushels of onions, at 45 cents per bushel,	112.50
Total	$172.50
EXPENSES	
Paid for seeds	$7.50
Paid for help	15.00
Total	$22.50
RECAPITULATION	
Receipts	$172.50
Expenses	22.50
Profit on the acre	$150.00

The lad now has his acre planted with winter wheat, and as the average yield per acre is twenty-five bushels, and the average price 70 cents, he expects to add $17.50 to his receipts for the year. Thus the total earning capacity of his acre, with small garden truck in the early spring, will easily aggregate $200.

An average Western farm consisting of 160 acres, if it were worked as thoroughly as this one acre was worked, would bring in an annual gross income of $32,000!

RAPID TRANSIT BY WATER

AS a means of quick transit by water, motor-boats are developing rapidly the necessary qualities of speed, endurance, and reliability. While public interest has been mainly centred in their development as racing crafts of high speed but small utility, there have been other experiments, less exploited, but of more permanent value. The races have proved that it is possible to make a small boat which is capable of very high speed. One, the *Onontio*, on a trial trip up the Hudson River, recently made nearly twenty-nine miles an hour. That such speed is possible for more than a short distance has been demonstrated in the challenge race between the *XPDNC* and the *Vingt-et-Un*. In this race, the *XPDNC* maintained an average speed of nearly twenty-seven miles an hour for a distance of more than 136 miles—from New York to Poughkeepsie and return—without

mishap and without a stop to take on gasolene.

In addition to the racing types of motor-boats, builders have begun to construct larger, more commodious, and more comfortable pleasure boats. The largest of these is the *Edithia*, which is 114 feet long and about eleven feet beam. She is comfortably fitted up with cabins, and is propelled by two 150-horse-power standard gasolene motors. Smaller boats of her type were used last summer on the St. Lawrence River to carry people from their houses to distant hunting-grounds, and for this purpose proved both speedy and reliable for runs of thirty miles and return.

The motor has also made its appearance in the every-day work of sea-going vessels. Already the fishing-fleets of the Atlantic coast of the United States are using gasolene engines as auxiliary motive power, because, in case the wind fails, the motor can be depended upon to bring the boat into port before the fish have time to spoil. It is estimated that gasolene motors are installed in 50 per cent. of the New England fishing-boats, and the New York and South Coast boats are rapidly adopting them. They are now in general use in the fishing-fleets of Scandinavia, where they have greatly stimulated the fishing industry.

The attention of the various governments has been drawn to the utility of motor-boats in case of war. It is known that the Japanese Government has maintained agents in the United States for some time past, who have made a careful study of the progress in the manufacture of gasolene engines. One man who has had unusual success with motor-boats has been offered large inducements to become the superintendent of a Japanese Government shop for their manufacture.

The Italian government has ordered several motor-boats for its navy. These will be used as tenders and despatch-boats for a fleet at anchor. Another novel use which is expected of them is to generate electricity for recharging the exhausted batteries of a submarine boat.

With the constant improvements and variations in types that are being made there is every reason to believe that from the mere racing-shell built for the sport of millionaires, the motor-boat will soon become a recognized force of great importance in rapid transit by water, in the lighter uses of commercial fleets, and as auxiliary craft to the navies of the world.

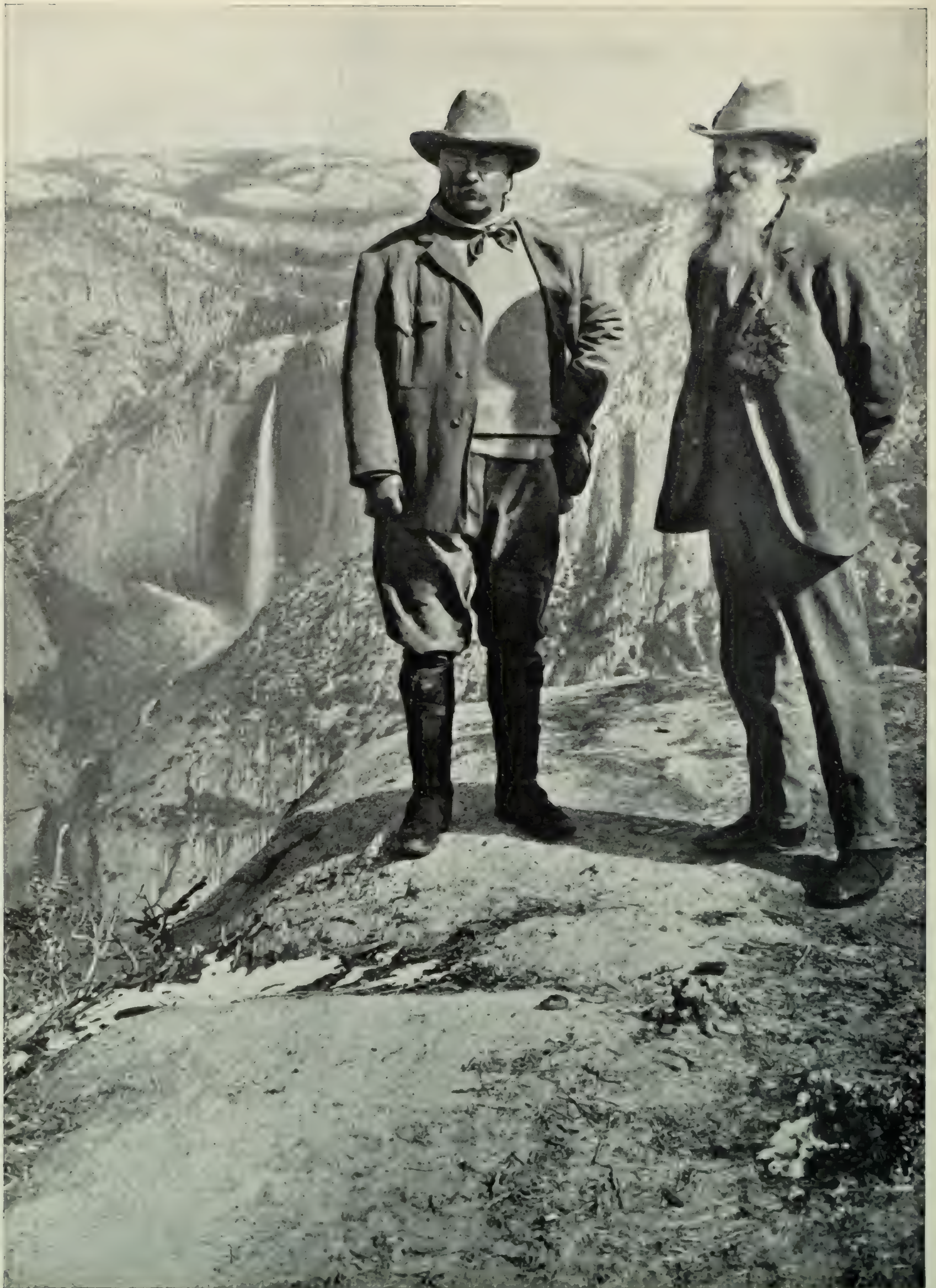
AN AGRICULTURAL FAIR FOR FACTORY WORKMEN

THERE is a new and suggestive kind of Labor Day celebration at North Plymouth, Mass. The leading manufacturing establishment in this town employs 1,200 people. Formerly the men devoted their Labor Day holiday to a parade. Now they hold a fair and celebrate the day in a helpful, practical way. The company pays all the expenses, including the purchase of a tent where the main exhibit is made. Here, under the canvas, the working people show with pride the products of their gardens. Prizes are offered by the company for the best vegetables and fruits, the fattest poultry, the most successful flowers. The competition is open only to the employees, and it is keen. To prepare exhibits for the competitive features of the fair gives the employees an interesting and profitable diversion throughout the whole year. The day of the fair is a gala one. In the morning there is a baseball game. In the afternoon the exhibits are judged and the awards made in the tent. At night there is a dance. The programmes for the fair are printed in English, Italian, and German. The fair is a practical example of welfare work and has made a whole industrial community happier.

WAR CORRESPONDENCE UNDER DIFFICULTIES

THE special correspondents have had unprecedented difficulty in reporting the Russian-Japanese War.

Two newspapers combined to establish a wireless telegraph station at Wei-hai-wei, and to maintain a vessel equipped with the wireless telegraph mechanism, whose business it was to keep the shore station informed of events before Port Arthur. The correspondent aboard the vessel duly reported some very stirring scenes, including the blowing up of the *Petropavlovsk*, but his shrift was short. One day the *Haimun*—his vessel—was boarded by Russians from the cruiser *Bayan*, and, though the boat was then allowed to proceed, shortly after the Russians announced that the occupants of the *Haimun* would be treated as spies if caught again. Meanwhile, some of Admiral Togo's wireless messages to his fleet had been interrupted by messages sent to Wei-hai-wei from the *Haimun*. The result of this was that the Japanese forbade the *Haimun* to cruise near enough the naval operations to make any satisfactory observations. The wireless telegraph was thus boxed up effectually. Nothing was left but to cease operations.



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PRESIDENT ROOSEVELT AND MR. JOHN MUIR, THE NATURALIST

TAKEN LAST YEAR ON GLACIER POINT
ABOVE THE YOSEMITE VALLEY, CALIFORNIA

THE WORLD'S WORK

JANUARY, 1905

VOLUME IX

NUMBER 3

The March of Events

IT was a stirring and interesting year that is just ended. In our own country, we held a great world's fair which was in some respects the most noteworthy of a long series of such expositions. But it came on a year when the people were, perhaps, somewhat fair-weary, and the lessons that it had were not learned by as large a mass of the people as might have gone to see it. Another reason for a smaller attendance than was hoped for was the political activity of the summer and autumn. Whether or not a presidential campaign changes our usual habits and gives us one year of indecision out of every four, we have fallen into the habit of thinking that it does.

But the great event at home was, of course, Mr. Roosevelt's overwhelming triumph and the political consequences that will follow it. For the present, the independent voter has so nearly obscured the unyielding partisan that new political ideas and forces must come into play. No previous election showed such independent voting as these results indicate—the election, for instance, of Democratic governors in Massachusetts, Missouri, and Colorado in spite of the victory of Mr. Roosevelt in all these States and of the Republican "tidal-wave" that greatly increased the Republican majority in the House; and all over the Union there was an unprecedented demonstration of independence at the ballot-box.

Yet the steady rise of values throughout the year, in a way meant more than either the fair or the election. The reckless rush to organize and "merge" all sorts of great properties that took place the year before came to a halt when the decision in the great railway merger case gave notice that the national government could step in at some point in such processes of consolidation. Thereafter a steadier and much slower gait was taken in consolidating activity. But the country remained normally prosperous, and proved that for once at least a presidential campaign did not mean disaster. The country, in fact, kept a very high level of prosperity, if prosperity be measured by the right standard. We had good crops. The South and the Southwest in particular became noticeably richer. Long strides were made in 1904 in most departments of American work that have a fundamental economic significance; and we go into the new year at a distinctly more prosperous gait and with a more confident outlook than we had at any time during the past year. It would be hard to recall a time when there were better reasons for confidence and cheerfulness.

Perhaps the most important lesson that we learned during the year, in the conduct of practical affairs, is that a possible period of severe depression can be avoided by careful forethought; the most important lesson learned in the larger economics is that

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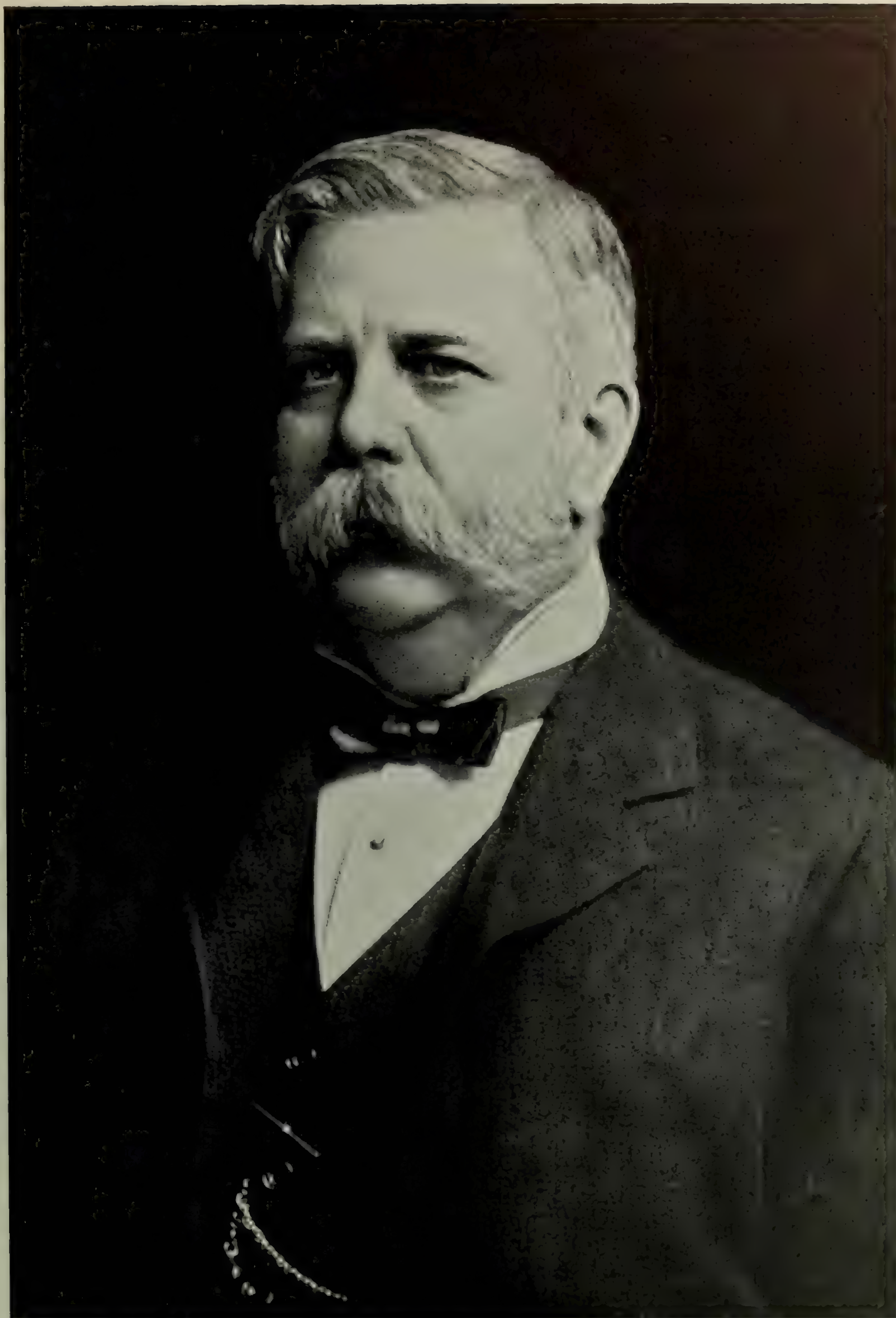
MR. JOHN A. JOHNSON

THE DEMOCRATIC GOVERNOR OF MINNESOTA, CHOSEN BY A PLURALITY OF 10,000, THOUGH PRESIDENT ROOSEVELT RECEIVED A PLURALITY OF 125,000 IN THE STATE

(*See "The March of Events"*)



Photographed by Patton, Pittsburg

MR. GEORGE WESTINGHOUSE

INVENTOR OF THE RAILROAD AIR BRAKE, AND A GREAT ORGANIZER OF INDUSTRY

(See page 5744)

the possibility of great combinations has a limit under the Federal government backed by public opinion; and the most important lesson in politics is that our democracy has the undiminished vitality indicated by the independence of party which hundreds of thousand of citizens showed at the polls.

THE GREATER EVENTS OF THE YEAR

IT is such commonplace facts as these that show our growth in character and in safety and the continuous elevation of the people. But the events of the year in our own country are tame in comparison with the great tragedy, the first act of which has now been played, in farther Asia. This last modern stubborn struggle in war between the East and the West has as large a meaning as the ancient struggle between West and East when the defenders of civilization were the Greeks. But there is this difference—the East was then the barbarian aggressor, whereas now (as most English-speaking men regard it) the barbarian aggressor is Russia. The world has found itself turned around since the days of Marathon.

The first stage of the war in Manchuria is ended. General Kuropatkin has so far saved his army. That is the most that can be said for the year's fighting by Russia from the Yalu River to Mukden. The fleet at Port Arthur has been practically destroyed and the fleet at Vladivostok kept harmless. Japan is in possession of Korea and all the important part of Manchuria, and the practically impregnable fortress of Port Arthur seems sure to fall. The first winter of the war finds the Japanese with every advantage, including the sympathy of the most powerful public sentiment in the world. Japan is no longer regarded by Europe and America as a toy kingdom. It has won a place, whatever come, among the Great Powers of the world.

That is, of course, the great event of the year. It is an event of world-wide importance, and it will have an influence in shaping international relations for centuries to come. It is an unusual thing that we have witnessed —the rise of a people from obscurity and weakness to a secure place among the Powers. The rise of the United States after the Civil War was gradual. Gradual also was the rise of Germany after the war with France. We came to the front rank, after proving the vitality of the Republic, by the gradual development of our land. Germany rose by uniting its little kingdoms and by educating its people. Japan has sprung forward by a much quicker leap.

To most of Europe the war in the East has been of more absorbing interest than any European event. Every government has had to keep its attention on the conflict. For instance, the brilliant victory of the Russian Baltic squadron over an English fishing-fleet caused far greater excitement in the United Kingdom than any other event of the year. And the rulers of Germany and of France have paid as much attention to the Asiatic war as to their own domestic problems. It has changed European alliances and made new groupings of the Powers. It has for one year at least given quiet in the Balkans and permitted the world to forget the Turk.

In England, Mr. Chamberlain's radical proposal to return to protection has not apparently made headway. In France, the state has achieved its independence from the church by a struggle of much bitterness. In Germany, the Kaiser has bent his energies to the strengthening of his navy, and he has found himself somewhat isolated in the new groupings and alliances because of the German sympathy with Russia, which is stronger than in any other part of Europe. The English alliance with Japan and the cooling of the French sentimental friendship for Russia have left Germany somewhat isolated. And the German commercial hostility to the English has steadily grown.

In the meantime, the most noteworthy tendency in recent European political life has been the growth of the feeling for peace. Arbitration treaties have become the fashion. The Hague Tribunal is becoming a real moral power, to the strengthening of which President Roosevelt's movement to assemble a second Peace Conference has gone far. It will now require a greater provocation to bring war in Europe than it would have required at any previous time for many years. A larger common sense is asserting itself in international dealings.

THE LIBERAL MOVEMENT IN RUSSIA

THE year may become a notable one in Russian history because of the possible beginning of a peaceful revolution; and, possibly, nothing may come of it. But the effort of the Liberal Minister of the Interior and his

Photographed by Miss Zaida Ben-Yusuf

MR. JOHN W. ALEXANDER

THE DISTINGUISHED AMERICAN PAINTER

(*See page 5682*)

PRINCE FUSHIMI

THE COUSIN OF THE MIKADO, WHO HAS BEEN VISITING THE UNITED STATES AS THE EMPEROR'S PERSONAL REPRESENTATIVE. HE COMMANDED THE JAPANESE FIRST DIVISION AT THE BATTLE OF NANSHAN HILL

followers to lift the burdens of the bureaucracy from the people at least go a certain distance toward freedom of government; for this effort is practically a new thing in Russia for this reason—it has been made openly and openly discussed. It is not another effort to change the character of Russian government by violence. The movement has the approval of the most thoughtful people and it contemplates no violence. It is a petition to the throne for a reasonable and very conservative change from sheer tyranny toward the freedom of the individual—for freedom of speech and meeting and deliberation and a slight participation in some form of local self-government. The programme is a very moderate and conservative one. The specific changes asked for do not seem in themselves very important. The important thing will be the change of the tendency and the temper of the Russian government, if any real change come. The process of "Russification" will cease. Such an act as the utter destruction of freedom in Finland will be impossible in the future.

The outside world, especially the American world, can know so little about what takes place in Russia that no good judgment can yet be formed about the probability of a relaxation of tyranny there. The movement may seem to have life for a moment because of the necessity to preserve domestic quiet during the war with Japan, and then it may come to nothing; or it may be the beginning of a real reform in the Russian government. This at least is a hopeful sign—it is an effort of the kind that the friends of freedom everywhere welcome—a peaceful, gradual effort directed by one of the Czar's own ministers and supported by thoughtful, peaceful men. It is not a blindly led revolution of physical violence which deepens terror and leaves men unfit either to govern or to be governed.

Prince Sviatopolk-Mirsky, the new Minister of the Interior, the successor of the oppressive Plehve, seems to be making the most strenuous and sincere endeavor to win from the Czar, against the determined opposition of the grand-ducal clique and of the orthodox hierarchy, permission for local assemblies of representatives of the zemstvos (which are the natural units of population for any start toward local government), the relaxation of the censorship, the privilege of public meeting, the abolition of sheer personal tyranny by subordinate officers of the government, and similar rudimentary privileges. A meeting of liberal men, representing the zemstvos, was called and permitted at St. Petersburg. Although the meeting was not permitted to be public, according to promise, it was held in private and a temperate and orderly petition was drawn up. Most significant of all, a very free discussion of the whole subject was allowed in the Russian press. If this be the beginning of a more liberal government in Russia, the Russians of the future will look back to this meeting as a landmark in their history.

THE TARIFF IN THE HOUSE OF ITS FRIENDS

IN his bearing and in his utterances since his great triumph, the President has shown a characteristic and admirable temper. There is a becoming solemnity in his attitude toward the people and to his duties, by which he shows in a fine spirit his appreciation of the unusual conditions under which he goes into the second stage of his presidency. At the World's Fair, at St. Louis, for example, he said:

> "Lincoln said, two days after his second election, that he was gratified because his countrymen had seen fit to continue him in office, but that it did not add to his satisfaction that any one else was pained by the result. Those were the words of Lincoln in 1864, and I feel that any man who even tries to be fit to be President of the United States should approach his duties in that spirit; that any man worthy of serving the people not merely in that position but in any position of weight in public life should feel that anything personal in his triumph does not lessen the sense of infinite responsibility thereby cast upon him, and the weight of duty he owes to all his fellow-citizens, and he should realize that whatever the difference among our people before election, once the election has taken place the President is the President of all the people of every section socially, of every section industrially, of all the people of the North or South, East or West, and that he is bound, again to quote the language of Abraham Lincoln, with malice toward none, with charity for all, seeking after the light as God has given him to see the light, to strive so to conduct himself toward all of them, and toward his manifold duties as those duties arise, that the results of his efforts may be for the good of our common country."

The defeated minority in turn have, in the presence of a popular plurality of 2,250,000 votes or more, ceased to talk about Mr. Roosevelt's "recklessness"—as becomes them.

There is no longer any excuse for misunderstanding his character nor even a partisan occasion for misrepresenting it. If any man could ever say that he has been commissioned to be the President of the whole people it is he.

But will the dominant party with its almost brutal majority in Congress show the same spirit? The President's term will end in four years, and his responsibility will then end. It is not so with the Republican party; for, whether a party's control cease or continue, it is itself a continuous thing with a continuous responsibility; and it has a responsibility also, not less than the President's, to the whole people. Its majority in Congress is so great that it owes its strength not to any special class or influence. The voice of the people was louder on election day than the voice of the trusts or of the favored interests; and it is to the whole people that the party must answer.

If it rise to its responsibility in soberness and with a breadth of view, it will prove the sincerity of its contention that the tariff ought to be revised by its friends. There is no indication of a loud demand for an abolition of protective duties. The great Republican victory proves this. A tariff for revenue was lost at the ballot-box. But a "square deal" was not lost; and the present tariff contains many deals that are not square.

Already very properly the discussion of a revision of the tariff has been begun; and the subject will not down. The question now is, whether the very strong and reasonable public demand for a conservative revision will be heeded. This demand has long been expressed, not only by the minority party but by strong Republican sentiment in Minnesota, in Iowa, in Massachusetts, and in other States.

There are only two or three great subjects on the congressional horizon. They are the tariff, the trusts, and the railroads—in a word the subjects that are presented by our new industrial machinery. The currency question is practically settled, although additional safeguarding legislation is needed; and our colonial policy is fixed. The way, therefore, is clear. Now it has happened many a time in political history that a dominant party has taken its most important cue from the party of the minority and has made reforms before it should be whipped for denying them. So far as congressional elections in recent years have indicated legislative policies, the people of the United States hold fast to the principle of protection; but the voice of discontent with its maladjustment cannot be stifled. It was the one clear voice of protest heard in the whirlwind of November as an undertone of local elections. The tariff can be robbed of its most flagrant injustices in the house of its friends, and its friends may thus keep the confidence of the people; or, its inequalities can be let alone and encouragement be given to a radical programme of revision. Much future political history will depend on the temper of this huge majority—whether it accept its responsibilities in the spirit in which the President accepts his, or uses its power in disregard of the one great duty that now presents itself in three forms—a revision of the tariff, the regulation of trusts, the fair restraint of railroads from improper discrimination.

RECIPROCITY WITH CANADA

THE cry for trade reciprocity between Canada and the United States is becoming louder. It played a definite part in the recent elections on both sides of the line, as witness the election of Sir Wilfred Laurier as Premier of Canada, and the election of Governor Douglas of Massachusetts.

Under the present tariffs, the United States makes a considerable and steady gain in exports to Canada and Canada a smaller gain in its exports to the United States. In the fiscal year 1903–4 the value of our exports to Canada was nearly $151,000,000, and of Canada's exports to us $73,000,000.

On our side of the line the sentiment for reciprocity has been for some time strongest in Massachusetts and in Minnesota. Massachusetts wishes to find a market for its shoes and its other manufactures across the border, and to secure cheap fish and coal and other minerals from Nova Scotia and Cape Breton. Minnesota needs timber and wood for paper pulp, and minerals and live stock from Canada; she has rebelled against the obstructions in the way of the American milling of Canadian-grown wheat; and at the same time has objected to the Canadian tariff wall which stands in the way of export into Canada. In some measure the election of Governor Douglas in Massachusetts was a

rebuke to the deafness of the national Government to the demands for reciprocity, even though the election of a Democratic governor was an extremely round-about way of conveying this reprimand. The election of Governor Johnson (Democrat) in Minnesota has the same meaning.

But Massachusetts and Minnesota are not the only States concerned. Canada increased its imports from Great Britain last year in many kinds of goods that are produced also in various parts of the United States. The Dominion bought from the mother country, for instance, in 1903, cotton goods to the value of $500,000 more than in 1902; $200,000 more of fancy goods; nearly $3,000,000 more of iron and steel, and there was almost as great an increase in woolen goods. All these things we should be able to sell to Canada more cheaply than Great Britain can.

In Canada the voice for reciprocity has been far louder than it has been here. The Conservatives in the recent political campaign made a sharp issue of "Chamberlainism." They fought under the Tory banner of loyalty for the ideal of British Empire. The Liberals, taking to themselves the credit of the present prosperity, maintained a more practical issue. They ignored the doctrinaire ideal of Mr. Chamberlain, stood for an independent Canada and an independent Newfoundland; and decisively registered their wish for the establishment of such trade relations with the United States as would redound to their obvious commercial advantage. The election declared very sharply that Canada is now prepared to throw in its lot with us—not politically but commercially.

THE ELECTION AS SEEN ABROAD

THE continued discussion by the European press of Mr. Roosevelt and of the meaning of the election is interesting because of the light it throws on the foreign attitude to the United States. The English journals, in spite of their usually scrappy information about American subjects, presented in bad perspective, have shown a very clear comprehension of the meaning of the election. The well-balanced comment of the London *Times* differs little from the comment of thoughtful and sympathetic American journals. The *Spectator*, which spoke of the influence that the President would have on the future of English-speaking men, had its imagination aroused by the unusual result of the election. We see our country and its executive in these serious studies of our English kinsmen as a country that is safely going forward in its great career under the guidance of an extraordinary political leader. In contrast with these friendly and thoughtful comments, which give a view of American conditions as seen at a distance that is both instructive and inspiring, is the evil prediction of the *Saturday Review*, of London, which is the professional prophet of impending disaster, especially to the United States. As the *Review* sees us, we are going headlong to ruin, as we deserve to go, and the President is by nature and training a proper leader of all the forces of decline. But English opinion is no more accurately reflected by the *Saturday Review* than American opinion by some of our own professional journals of doom.

The French newspapers, too, show a good understanding of the larger currents of American opinion. In recent years, thanks to the increasing number of French writers who visit us, there has been far better informed discussion of American subjects in the French press than there was before. The *Figaro* spoke of the President's election as "the greatest triumph of individual force that the world has recently seen." The *Temps* analyses Mr. Roosevelt's political strength with accuracy, saying that he appealed to the love of the new, the active, even the sensational, and at the same time he held the confidence of the conservative part of American life. The French seem frankly to accept the election as a popular approval of our Government's action in Panama, which had naturally aroused much criticism because of the investment of French sentiment and of French cash in canal plans in the past. But there is a tendency in a large section of French opinion to regard the United States as a country now bent on conquest and the President as a sort of conqueror. Sane and well-balanced as most of the French comment on Mr. Roosevelt is, you see in some of it a dim picture of Napoleon.

In most of the German comment, you see a plain image of the Kaiser. The Germans have never learned to speak in any political vocabulary but the vocabulary of their own government and institutions. There is much

talk in their papers about "the tide of imperialistic passion"; and some comment gives absurd importance to the Socialistic vote. Both these ideas are adaptations to American conditions of familiar German discussion of their own affairs. As the English press discusses the election with reference to the future of the United States and to the future of the world, characteristically the German press discusses it almost always with reference to Germany alone. Thus the *Nachrichten* (Hamburg) thinks it worthy of remark that Mr. Roosevelt desires to live at peace with Germany (it would be interesting to know who holds the contrary opinion!). But it does not propose to fool itself or its readers; for he "is no such friend of the Germans as his supporters would have us believe." He is "an American, a nationalist" who cares for neither Germany nor England, "but only for America." The Germans, therefore, have neither any "reason to exult over the election nor any reason to be unhappy." The *Kreuz Zeitung* (Berlin) discusses the subject in its wider bearings but still with reference to Germany. It interprets the election as indicating a closer connection between the United States and Great Britain and "a break with Germany as soon as the United States are so powerful as no longer to need the British crutch"—still harping on imperialism. But the personality of the President is praised because he is "brave and high-spirited."

The comment of the Russian, the Italian, and the Spanish journals is either merely commonplace or merely curious. The Madrid *Epoca* remarks, perhaps not unnaturally, that the election was a triumph of "all the exuberance of the prosperous republic whose people consider the whole American continent too small a field for them."

It would be a hard task to convince most men in Europe, outside of well-informed English circles, that ninety-nine out of every hundred American citizens who voted for Mr. Roosevelt had no thought of "imperialism" and no thought of our foreign relations. They cast their votes for him for such simple reasons as these—because they are Republicans, or because (to use a phrase that all American citizens understand) they thought he would do the job better than Judge Parker. It is always interesting and often amusing to see what "doing the job" means when translated into German or Spanish or Russian political phraseology.

THE REAL DANGER FROM SOCIALISM

SOON after the election there was a good deal of discussion of the great increase of the Socialist vote. The party, as a direct political force, is yet so small that it is regarded by most persons as an expression of the kind of social discontent that rises and falls with hard times or with bad conditions in the labor world. But it has become something more than a floating body of the dissatisfied. The Socialists know what they want; they have a definite doctrine and they held to it last year under conditions of very general prosperity.

But the real menace of Socialism presents itself elsewhere than in election-returns. The danger from it was clearly pointed out in a recent address by President Eliot of Harvard University before the Economic Club of Boston. He insisted that employers and the community should more heartily encourage the improvement of the labor unions so as to strengthen them against the attacks of the Socialists. These attacks are made with increasing vigor at every important meeting of such bodies as the American Federation of Labor. At the recent session at San Francisco the Socialists were again voted down. It would be hard to put more good sense or clear analysis of present tendencies into two paragraphs than President Eliot put into these:

"Employers must be better and more strongly organized, and unions must be better and more strongly organized in order that the needless part of the industrial strife be averted. . . . At present our policy toward the existence of trades unions is at best not more than neutral. I urge with all my power that the time has come to change this policy to one of definite purpose to make the unions better by encouraging our best and most valuable employees to join them and to become active members in them.

"Once we have generally changed our policy to the new one I have outlined, then the wisest union leaders will, I believe, change their present union policy of expedient opposition for one favoring incorporation, for they will know that the increased responsibility that will come to unions with incorporation will make the hot-headed, hasty members more conservative, wiser, less hasty, and more ready to listen to good advice, and that this will strengthen their own (the leaders') power. . . .

"I am forced to believe there is a present danger

of Socialism never before so imminent in America in so dangerous a form, because never before imminent in so well-organized a form. The danger lies in the obtaining control of the trades unions by the Socialists. They have been fighting for that control for years, fighting of late years within the unions; fighting unsuccessfully thus far, but with such power and zeal that if circumstances bring about another great, widespread struggle between employers and employees, with its attendant loss and suffering, then the victory which wise leaders like Gompers and Mitchell have in the last few years won over the Socialist faction in the unions may be changed to defeat. If this happens, we shall again be forced to endeavor to weaken the unions in every way, and many years of struggle and loss to both sides must pass before we can again place ourselves and the unions in the favorable position we are in to-day—a position which enables us to handle these industrial questions by themselves on their merits, which would be impossible if the case were complicated with radical political questions and prejudices. And the danger is not so far distant in the future as to make it less than imperative that we should deal with it now."

REDUCED REPRESENTATION AND THE NEGRO

A BILL to cut down the number of Congressmen from the Southern States that have restricted the suffrage may or may not at some time be passed by Congress. Mr. Crumpacker, of Indiana, has made an unsuccessful effort for several sessions to induce the House to take up the subject; and now Senator Platt, of New York, has introduced a bill in the Senate which was prepared by the Republican Club of New York City. This preliminary activity may mean nothing, or the agitation may be kept up, North and South, till action be taken. Of course no law could be put into effect that did not apply to the whole Union

The subject opens an endless field for discussion. But the large consideration that first presents itself is this: What would be the practical result of reducing Congressional representation from the southern States? After the first angry struggle against it, the South would submit without great regret. It would say, in effect: "We disfranchised the Negro. You have reduced our representation in Congress. Very well; that's a bargain. We accept it, and the Negro need not ever expect any political consideration from us." By such a bargain, therefore, the Nation would in effect agree to the practically complete exclusion of the Negro from political activity for all time to come; and a strong impetus would be given to such exclusion even beyond the extent to which it has now been carried.

The restriction of Southern representation would thus work ill for the blacks. The Nation's acceptance of complete exclusion would give a freer scope in the South to men of the Vardaman type than they now have. The Negro's worst enemies would gain leadership in proportion to the excitement that would be stirred up; and the conservative, helpful sentiment of the South would be discouraged.

This is not the only thing to be said, *con* or *pro*, about the proposal to reduce Southern representation; but, whatever other fortunate or unfortunate results would follow, the Negro would suffer. And he would suffer in other than political ways. He would find himself, after the excitement and discussions were all past, one step nearer serfdom.

MUST A FREE PEOPLE BE HOMICIDAL?

JUST as there are at times epidemics of crime, so we have also at times epidemics of discussion of crime; and we have one now. Almost every newspaper in the land is bewailing the increase of homicides; Mr. S. S. McClure has gathered together in his magazine for December the most trustworthy statistics concerning them, which make a shameful showing; the London *Spectator* has been preaching us a sermon on this evidence of lingering, if not increasing, barbarism; and Judge William B. Thomas, of the City Court of Montgomery, Ala., has published the paper on the subject that he read at the Congress of Arts and Sciences at the St. Louis Fair, which is the most instructive presentation of the whole matter that has been made.

Unfortunately, there are no trustworthy records of homicides in the United States. Every student of the subject relies upon the statistics compiled by Mr. Upton of the Chicago *Tribune*, which are as accurate as could be compiled by anybody from newspaper reports, and even by correspondence, over so great a territory as the United States and a territory of such diverse habits of life. The *Tribune* has for many years done a conspicuous public service by this work. But there is a chance for a wide margin of error in its tables. Twenty years ago, for instance,

or even ten years ago, there were fewer Associated Press correspondents and fewer local papers in the rural parts of the country than there are now. There were more unreported homicides then than there are now. Again, the newspapers, not the yellow journals only but almost all newspapers, are more likely to report "killings" committed in brawls (which are half of them all) than they were a decade or two ago. It is very doubtful, therefore, whether there has been any increase in the number of such crimes in proportion to population in the United States; and it is practically certain that there has been no such large increase as the Chicago *Tribune's* statistics show—from twenty-four for every million people in 1881 to 152 per million in 1895, and to 112 per million in 1903, and a total of 89,464 in the last ten years, more than in any other civilized country except Russia.

But, after making all possible allowances for error, it is certain that the number of such crimes is even now larger than this report shows, for there are still unreported ones—a horrible record surely. Geographically divided, they fall thus:

HOMICIDES IN THE UNITED STATES

Geographic Divisions	Per cent. of Population Foreign-born	Per Annum	Per Million of Population
New England . . .	25	254	47
Middle Atlantic . .	18	1,688	86
Central	14	2,843	100
Southern	2	3,914	223
Pacific	18	1,191	284

Even as careful a student as Judge Thomas finds it impossible to discover a clearer explanation than this table suggests. It is obvious in a general way why there are more "killings" in the Pacific States and in the South than in the rest of the country; but why should there be in proportion to population three times as many in Rhode Island as in Connecticut, and twice as many in Connecticut as in Massachusetts, and why as many in Maryland as in Louisiana? Following his general assumption that laxity in enforcing the law has much to do with the number of homicides, Judge Thomas's conclusions are:

First—Variations in the enforcement of law are not so much due to climate, race, density of population, illiteracy, form of government, length of governmental experience, as to a varying leniency in the spirit of its administration

Second—This varying toleration of crime is largely the result of an impatient desire for individual power, born of unlimited opportunities, causing men to disregard their duties to the social compact.

Third—Beneath it all is a moral unrest.

This diagnosis does not go very far; but it would be hard to go further. The "impatient desire for individual power," or privilege, or dignity—that is, no doubt, the root of the trouble. In other words, more homicides are to be expected in a democracy than in a monarchy; for men are under less restraint and are more bumptious. It is clear, too, that the "newness" of a country and its sparseness of settlement remove restraints and make men more reckless. The remedy is not alone in the swift and certain punishment of crime, but in the building up from within, in every community, of an orderly and law-abiding life. Public sentiment lies back even of the administration of the law. Although the evidence that crimes of violence are increasing is not conclusive, surely we continue to hold human life too cheap—an indication that we are, as a whole people, yet on a lower plane of civilization than we like to confess.

THE DEATH-ROLL OF THE RAILROADS

LONG as the list of annual homicides is, the list of lives lost by railroad accidents is longer. If we had a continuous war in which 10,000 men were killed every year and 75,000 more were wounded, we should be horror-struck. Yet we all go into precisely this danger when we travel by rail; for the railroads kill 10,000 of us a year and hurt 75,000 more. When men go into a war they sadly bid their friends good-bye, they make their wills, they prepare to die. It has now come to pass that we must do all these things when we take a railway journey, if we are prudent.

There is a sense in which this loss of life is worse than the loss by homicides. In the first place, most men who are killed in brawls and in frontier life are economically and socially worthless. But most of the men killed on railroads are wage-earning employees of roads. Again, in a rural democracy, the recklessness that results in homicides is, in a way, the necessary price that we must

pay for the largest measure of individual freedom of development. But the men killed on the railroads are the victims of a lack of proper organization and equipment.

The President in his message to Congress insists on the passage of a bill requiring inter-State roads to use block-signals, and he suggests the limiting of the hours of work by men in responsible railroad positions. Public opinion must make itself heard by such laws or in other ways, else we, who boast of our organizing ability, will continue to be killed, 10,000 or more a year, by our railroads, which ought to be the best examples, in all our industrial life, of good organization and of perfect equipment. The railroad managers do not answer the indictment when they say that, whatever rules or equipment they have, there is always a fatal margin for mistakes in men's carelessness. There is such a margin; but this is only the sounder argument for such double precautions as will remove it. When a man is in a position where a mistake made by him may cost human life, the work should so be arranged that two men must make the same mistake simultaneously before it could be fatal. And what is our aptness at devising mechanical safeguards for, if it is not to be applied to the saving of life? The streak of barbarism that runs through a democracy—that strange carelessness of the public as a body—shows itself more fatally in the public indifference to this daily loss of life than in many petty crimes that we sometimes become hysterical about. If public opinion have the quality to become robust, here is an occasion for it to assert its robustness.

THE FIGHT ABOUT THE "OPEN" SHOP

THE American Federation of Labor, at its annual meeting at San Francisco, held fast, of course, to its programme of the "closed" or union shop. The Citizens' Industrial Alliance, which is an organization of employers, at its meeting in New York made as its main contention the employer's right to have an "open" shop, or a shop in which he shall be free to employ whom he pleases, union or non-union workmen. This is now the line of fight—the chief matter of contention. The President in his message to Congress upheld the Government's right to an open shop—that is to say, the Government in its workshops, the printing-office, for instance, can make no discrimination between union and non-union men. The organized campaign made for the open shop by employers all over the country during the last two years has made good headway. The President of the Industrial Alliance, Mr. D. M. Parry, announced that 250 business houses in Chicago alone have adopted the "open shop," and he expressed his belief that fully 1,000 establishments throughout the country have done so. The Anti-Boycott League reported at the same meeting that their efforts to destroy the boycott had made progress. The League has brought suit against 250 members of the Hatters' Union, and has tied up by attachment $180,000 belonging to the union men. The League had also helped forward the suit of the Kellogg Switchboard Company, of Chicago, the decision in which declared that a strike to enforce the adoption of the closed shop is an unlawful conspiracy, and that "picketing" also is unlawful. Much emphasis was laid on the fact that the activity of the unions has increased the cost of production in many industries—which is, of course, true.

The activity of the labor unions also, during the year, was fruitful of results. The American Federation reported an increase of more than 200,000 in membership, so that there are now nearly 1,700,000 union workmen in this organization, almost as many men as voted for Lincoln in 1860. This means that the great labor combination contains about 2 per cent. of all the inhabitants in the country. And there are many thousands of union workmen who do not belong to the federation. Though there was a slight falling off last year in the receipts of the organization, which perhaps measured the effectiveness of the campaign carried on by the Citizens' Alliance and the employers' associations, the Federation has a balance of about $17,000 as a "defense" fund. Reports of the various unions showed a greater number of strikes last year than ever before, with the proportion of victories high, though some of these victories were successful protests against reduction in wages rather than contests for increases.

Both unions and employers' associations are growing stronger—a condition that makes for conservatism and industrial stability. The contest between them will now continue to be chiefly about the open shop.

THE CAUSES OF HIGH PRICES

ALTHOUGH it is impossible to say precisely how much the cost of living has increased within the last few years, there is no doubt that there has been a considerable increase. The Massachusetts Bureau of Statistics of Labor in its investigation of the causes of it, has brought out some interesting social and economic facts. The Bureau sent to 654 heads of business houses a letter asking for information about the increased cost of necessities. One hundred and fifty-one replies were received, and 254 opinions were given. The writers assumed that prices are higher, though many of them declared that in their particular business they had not increased. Indeed, only half of them admitted that prices were higher for the commodities that they themselves sell.

The most prominent cause assigned was the increase in wages, and many attributed the increase in wages to the activities of the labor unions. There were 117 replies giving labor as the cause. Seventy-seven writers thought that the trusts were to blame, and thirty-three of these expressed the belief that trusts restrict the output of commodities. The surprisingly large number of sixty declared that prices were higher simply because the general condition of the country makes it possible for business men to secure higher prices. These believe that supply and demand have the greatest influence on prices and that the increased prosperity of the people, together with their insistence on better things, has brought up the level of cost.

But there was no unanimity. Speculation was held responsible by several, and some believed that the overcapitalization of organizations has made it necessary to raise prices to pay dividends on watered stock. The tariff also was blamed; likewise increased freight rates. One man advanced the idea that consumers are obliged to pay in increased prices the advertising bills of business houses.

This inquiry no doubt brought out the main causes of higher prices; for of course there are many causes. The higher price of coal was justly attributed to a combination of capital and to a combination of laborers. The increased expense of building was laid at the door of the same agencies. One man reported that all the material in the house that he was building was controlled by some trust, and he declared that the labor trust cost him more than all the others. Those who held speculation accountable had the cotton-market in mind, and few of these Massachusetts business men lost sight of the fact that all the causes are interwoven, and that an increase in the cost of a few commodities brings about an increase in many more. It is interesting, too, to observe that no general note of alarm was raised, but that there was rather a cheerful feeling that the increase hints at national prosperity.

THE INCREASING COST OF GOVERNMENTS

IF during the last twenty years the cost of living has advanced by leaps and bounds in nearly every civilized country of the globe, the increase of government expenditure has been even more rapid. A higher standard of life affects the government as well as the individual. Education costs more and more every year. New necessities and new discoveries require the development of natural resources, frequently at great expense. A system of irrigation, a more efficient department of agriculture, a better bureau of fisheries, a larger staff of the weather bureau, a better and larger consular service, a rural free delivery of mail, an increasing regard for the value of human life, and the extension of humane and philanthropic endeavor by the government all add to its legitimate expenses. Then there are the increased navy charges. The general progress of the world within a very few years has increased enormously the cost in every one of these directions. Greater pomp, ceremony, and dignity in the conduct of the government also swells its cost. In these ways the greater part of the increased expenses of our own Government are caused.

But a still heavier burden of increase has fallen on the nations of Europe. Between 1877 and 1900 Russia, Germany, Norway, Portugal, and Roumania more than doubled their expenditure. During the same time Switzerland trebled hers; and Japan has doubled hers in the nine years succeeding the Chinese war. Russia spends more money a year than any other government in the world, and the interest on her national debt requires about one-quarter of her entire revenue. Germany's vast military establishment brings her annual expenses up to within $70,000,000 of that of our own Government with its far greater territory and population. France

and Great Britain with moderate economy have permitted an increase of about one-third in their taxation, while Italy and Spain have been content with an added one-sixth. Not a single nation of Europe is retrenching.

The national debts vary greatly, from $6.50 per head of her population for Japan, to $25 for Russia and $165 for France. The civil lists of the different rulers vary more widely and with less reason. Norway and Sweden pay their king about $800,000 a year. The Imperial Household of Japan costs $1,500,000 a year. King Edward's civil list reaches $2,350,000. The German Emperor's is the heaviest of all the constitutional rulers' and amounts to $3,000,000. Greater than these large sums are the enormous tribute of $4,000,000 paid to the Sultan of Turkey, and the vast plunder of the Czar Nicholas II., with his $16,525,000.

BIG FACTS ABOUT RAILROADS

THERE are now, according to Poor's Manual of Railroads for 1904, which contains reports and statistics for 1903, nearly 207,000 miles of railroad in the United States. In spite of Mr. James J. Hill's prophecy, a few years ago, that the limit of railroad building had then been reached, more than 7,000 miles of new track were laid in 1903. There was a gain of more than 10 per cent. over the previous year in total earnings, which reached a volume of $2,000,000,000. There was no decrease, however, in rates. The average rate per ton of freight carried over one mile in 1902 was 7.64 mills. In 1903 it was 7.85 mills. The average passenger rate per mile was 2.01 cents in 1902, and 2.05 cents in 1903. The increase was caused in part by higher operating expenses proportionately in 1903 than at any time since 1897, chiefly on account of the many improvements being made.

While the railroads are growing thus and their business is increasing, the control of the lines is becoming more and more concentrated. New Englanders built the great transcontinental lines, and for many years their control was in New England hands. Many of the great railroads, as for example the Pennsylvania, the Louisville & Nashville, and the Missouri, Kansas & Texas, were financed by foreign capital, and control was largely by foreigners. But gradually the great lines came into the hands of a very small number of capitalists in New York; and, very recently, so many other roads have been acquired by the same capitalists that New York may now be said to control the railroads of the whole country. And the number of capitalists holding the great system is becoming smaller and smaller. Mr. E. H. Harriman, Mr. J. P. Morgan, Mr. James J. Hill, the Moore brothers, Mr. George J. Gould, and the Standard Oil interests may be said now to control the great thoroughfares of American inland transportation.

As the railroads have steadily grown, some abuses have persisted. But the people have been more eager to remedy these through legal and governmental action than they have been to attack or to attempt to control any other industrial undertakings. If rebates are yet given to shippers, there is still an effort made by the Interstate Commerce Commission to abolish the system of giving them. The people of Wisconsin have insisted that the railroads pay taxes on the full value of their property. Governor Van Sant of Minnesota, Governor La Follette of Wisconsin, and Governor Cummins of Iowa, held a recent conference with the President about the possibility of greater governmental supervision; and the President recommended in his message that Congress restore to the Interstate Commerce Commission the power to regulate rates—a somewhat sweeping recommendation. The Commission is now practically powerless except to cause publicity about railroad abuses. But this much is clear, that, though the railroads have become more powerful and more concentrated, the public is anxious that they shall not be wholly beyond the reach of popular control.

A NEW EPOCH IN ARMY MORTALITY

IN our brief war with Spain, there were few deaths from wounds but a large loss of life by disease. Major Louis L. Seaman, a surgeon of our army, who made a tour of the Japanese hospitals, has published his observations; and he reports that the loss of Japanese soldiers by disease in the hospitals at Tokio for the first four months of the war was only 1 per cent. Such efficient and general use are the Japanese making of sanitary engineers, that they have brought into play a wholly new influence in war; for, if the loss of men by disease can practically be prevented, the value of an army may be multiplied by

at least ten. The Japanese generals, in fact, from the first reckoned upon this saving of human life as an important contribution to their chances of victory. They count on losing only those men who are killed in battle.

Sanitary engineers go forward with the first scouts of their armies; they analyze every water supply; they label every well and every stream. If they find contagious or infectious diseases in the country, they quarantine the region in which they exist and set guards around them; they go with the commissary officers and make scientific tests of all the food supplies. They direct the laying out of camps, and they control every sanitary arrangement. After a battle as few surgical operations are performed on the field or in field hospitals as possible. The wounds are dressed and the wounded are rapidly sent to well-equipped hospitals. Those that can stand the journey are sent as far as Japan. In the hospitals at Tokio Major Seaman found that not a single death had occurred among a thousand wounded men, and there were so small a number of patients suffering from disease as to mark a new epoch in military mortality..

Of course, to accomplish such a revolutionary result, work must be begun long before the soldiers go into battle. They are trained to eat a proper diet. "They have treated their intestines well and their intestines in turn serve them well." In other words, the Japanese armies have practically no cases of intestinal diseases, and these are the diseases that in all armies have proved tenfold more fatal than the enemy's bullets. Not only is the diet of the Japanese soldier digestible, healthful, and moderate in quantity, but he has been taught to take the best sanitary care of himself. It is not enough to have medical officers in hospitals or even at the front. They are everywhere among the men. They see that they bathe properly. They give instructions even about the care of the finger-nails to prevent the accumulation of bacteria. And the Japanese soldier is of course scrupulously obedient.

But the Japanese had no such good fortune in the terrific siege of Port Arthur. The desperate nature of this continued conflict often prevented even the proper burying of the dead, and the havoc of disease among the troops there was more nearly like the record of previous armies.

But the armies in the field, if not General Nogi's army on siege duty, have carried into effect for the first time the principles and practice of the best sanitary knowledge, and the result is such a revolution in the saving of life as to make all preceding army management stand out as a crime. Yet the surgeons and the physicians and the sanitary engineers of Japan have no scientific knowledge that ours do not have. The difference is in organization and in the obedience of the men. If a Japanese soldier is told what food and what water are unwholesome, he will avoid them. But there is something in the relation of Americans to the medical profession that prevents men from implicitly accepting medical advice. Is the fault a general fault of our society, or is it due in part at least to the professional attitude of our physicians—or mainly, after all, to the general incredulity which is born of ignorance?

THE FINANCES OF JAPAN AND RUSSIA

RUSSIA and Japan have of course both been fighting in great part with other peoples' money, and contracting debts for future generations to pay. Their positions as borrowers present many striking contrasts. Russia's reserve accumulated for war purposes amounted to nearly $188,000,000. But this was of course a small sum. Loans recently made in Paris and Berlin have brought $260,000,000 more, and negotiations are now proceeding with French bankers to secure an additional $200,000,000 before April. The total of money borrowed from France in fifteen years will then have reached $1,600,000,000. By an internal loan and an increased note-issue, Russia has raised $130,000,000 from her own people. Her estimated expenditure for the first eleven months of the war reaches the total of more than $500,000,000.

But in spite of a taxation so overwhelming that it cannot be increased, and in spite of the thievery and extravagance that prevail in every department of the government, Russia's credit remains fairly good. She borrows without guarantee, and retains unencumbered her railroads, customs and excise. Her annual revenue amounts to $1,000,000,000. But her borrowings have been enormous, and in the money market more than elsewhere she has felt the effect of her naval and military reverses. Unless her fortune

turns, it is probable that within a year she will be obliged to suspend specie payments.

Japan's sole weakness lies in her finance. Her victories have been uninterrupted. Her government is honestly and economically administered. Her industrial progress is without a parallel. Her national debt is less than half as much per capita as that of any other civilized nation. In gross amount it is about one-fourteenth that of Russia. But commercially she is the youngest of all nations, and she has no accumulated wealth. Her income-tax produces $3,000,000; England's at the same rate yields $120,000,000. She has few rich men. There are only two persons in all Japan with as large a yearly income as $125,000; and only 140 with as much as $5,500 a year. The purchasing power of money is high, and wages are extremely low. A blacksmith earns about $7 per month. Japan's total estimated revenue for this year, both ordinary and extraordinary, amounts to but $125,000,000—about one-eighth of Russia's income.

As a result, though Japan's export trade has increased, while Russia's has decreased during the progress of the war, when she comes to place her loans of $110,000,000, she is forced to guarantee them by pledging her customs revenue, and still she realizes no higher price for her securities than Russia does for hers. Her own people have taken $100,000,000 of her unsecured bonds, but for her future foreign loans the only further guarantees she has to offer are her railways, the tobacco monopoly and the excise. Russia has the confidence of the great bankers; Japan has the confidence of a multitude of small investors, but she must soon win a decisive victory, or her financial standing in the money-markets of the world will not rise.

PRINCE FUSHIMI'S VISIT

PRINCE FUSHIMI, the kinsman of the Mikado of Japan, who has been paying an official visit to the United States, was commander of the first division of General Nogi's army. He won the sanguinary battle of Nanshan Hill in the Port Arthur campaign, and he had previously distinguished himself in the war with China. But part of his military success and much of his wide popularity at home are due to the personal loyalty that he inspires in his soldiers by his unaffected comradeship. Before starting for the war, he gave a dinner to his lesser officers, the sons of artisans and tradespeople, and throughout the campaign, until he left for the United States, he lived on the simple commissariat fare of his men. He is the only royal prince who has taken advantage of his privilege of sitting in the national Diet. In all these activities he has shown the democratic spirit that is beginning to animate the new Japan. There was a special fitness in a man of his kind coming as a representative of the Japanese Emperor on an official visit to the United States; for he repays (as it has quaintly been regarded) the call that Commodore Perry made on Japan in 1853.

THE SUNDAY USE OF SCHOOL-HOUSES

WE sometimes show a denseness and an inertia about popular education that are astonishing. We organize, reform, and push forward almost everything else that we undertake. But the last thing to be taken out of century-old ruts is the public schools. Here, for instance, comes Doctor Leipziger, who has developed the system of free public lectures in connection with the public schools of New York City, making a plea for the opening of the school-buildings on Sunday for the instruction of adults. Here are millions and millions of dollars of school property dedicated to public instruction, but until recently no school-house was open at night. None is yet open on Sunday. Yet there is so much common sense in the suggestion that we ought to feel ashamed that it was not long ago carried into effect. We have opened libraries and museums and art galleries on Sunday in many cities with uniformly good results; and, if we were really in earnest about public education, we should long ago have used the public schools on Sunday in the large cities for some system of instructing those whose early training was neglected. Just as competent lecturers have been found at most reasonable prices for the lecture system that has already become a strong educational influence, so instructors could be found for such work as might properly be done in the public schools on Sunday.

How easy it is for any community to regard its schools as a part of mechanical routine is shown by the recent declaration made to the Public School Association of Boston by President Eliot, that the management of the parks, the water-system and similar things

about Boston is much more efficient than the management of the schools. One is done in a businesslike way, the other by tradition. If the public were once to wake up to its full duty to public education, there is hardly a community in the country that would not suffer an educational revelation. We are yet only half in earnest about it.

A VOCIFEROUS SIMPLICITY

THE Rev. Charles Wagner, the famous preacher of Paris, during his visit to us gave many Americans the pleasure of meeting him; he preached to us his gospel of the simple life; and a number of American gentlemen will very properly and generously make financial contributions to further his work at home. All these things it is a pleasure to record and to think of. But is the gospel of the simple life a new gospel in the United States, and are we just learning it from—a Frenchman? These questions are not asked in a spirit of criticism of M. Wagner; for both he and his message were very heartily welcomed; and we have outgrown the narrow spirit (if we ever had it) that would hinder us from receiving a good gospel from any source.

But is there not a certain shallow simpleness of mind that is a long way from intellectual simplicity in the assumption that M. Wagner's sound philosophy is a newly discovered one? Boys sold on the street his little book of rather labored sermons, the translations of which are not simple in English, and newspapers printed them as a "feature." These facts suggest the fear that simplicity must be upholstered and proclaimed before it is recognizable in our democratic life; and this is a suggestion that does us little credit. There is doubt whether the simplicity that becomes a fad is simplicity at all. Gluttony and extravagant houses and the weary dissipations of the inane rich are bad diseases of a small section of American society; but, bad as they are, they startle one less than the making of simplicity a sort of cult; for whosoever seeks it in any way but in modesty and by personal habit cannot find it. It begins in a state of mind, the very state of mind that abhors a fad. To go about acquiring simplicity with great ado—that justifies the jibes of all our enemies. Must we seek our very silences noisily?

Most of American literature that we prize is in praise of the simple life, from the writings of Benjamin Franklin to those of John Burroughs, who both use simple English; and all our preachers, in and out of the pulpit, have made their best sermons about it—to name two laymen for examples, Charles William Eliot and Theodore Roosevelt.

To consider this a new gospel is the most ominous sign that our minds have been upholstered with cheap fiction, commercial living, and department-store decorations. It is as true as it is commonplace, by the way, that the simple life was perhaps never learned from sermons, but always in a home.

THE SLOW MOVEMENT OF THEOLOGY

AN event occurs now and then which surprises the non-theological world by showing how the other tenth thinks. The Union Theological Seminary in New York has for some time been "liberal," from a rigid Presbyterian point of view. Yet, when its directors recently formally abolished the old requirement that every member of its faculty and of the board should subscribe to the Westminster confession of faith, much discussion was provoked and protests were heard from some quarters. But the surprising revelation to most men—even religious men—must have been, not the action of the board in abolishing this requirement, but the fact that it had not been abolished before. Fast as popular thought moves away from the orthodox formulas, the formulas are changed very slowly. This is the reason why theology lags a long way behind religion in the minds and lives of most good and thoughtful people of this generation.

A LITTLE NEW YEAR SERMON

ALL enlightened men are now fast becoming citizens of the world; and a citizen of the world may find personal comfort and artistic satisfaction and win personal distinction, if he be rich or capable, in any country in civilization. Still, an American who takes stock of the great forces now at work in human society will feel a deeper gladness even than philosophical men have hitherto felt, that he is a citizen of the Republic. Nowhere else does life seem so well worth living to those who have the qualities by normal activity to win a triumphant satisfaction from useful work.

It remains as true as it ever was that the democratic structure of society gives the freest opportunity for individual development that has ever existed among any large body of men. As we once measured opportunity by free land, we measure it yet by free action.

Perhaps no man's vision is wide enough nor his judgment steady enough to make an accurate measure of the larger social and economic forces that shape contemporaneous life. But if a man try to take stock of such forces in the United States, in a New Year mood, he will still find such a widely diffused well-being as no other country enjoys; the swiftest progress in comfortable and sane living that a large population is anywhere making; and more men who think clearly and act wisely—in a word, greater comfort, greater intelligence, greater public spirit.

All these things are the commonplaces of our every-day life; but once a year at least they are worth recalling with thankfulness. For, if the structure of American life still be sound, even the most difficult problems, social or political, will in time be solved. And American life will remain sound so long as opportunity is free and prosperity is within the reach of normal activity.

The one real danger, if there be any grave danger, that besets American life is our rapidly growing wealth, which may work harm in two ways: it gets a firmer grasp on government as it becomes concentrated and develops better machinery for controlling public officials; and it does this the more easily because it has a tendency at the same time to soften the fibre of the people's character. The London *Spectator* recently expressed the opinion that the plutocrat is everywhere in Europe gaining distinctions and privileges such as hitherto have been conferred only by birth or great deeds. "The tendency" in England "is to place parliamentary power in the hands of the rich." In Germany rich men of the Krupp type "attain the position of great nobles." In Italy "the owners of the great banking fortunes are potentates"; while in Russia "the noble is great or little in proportion to his wealth." "The plutocrat, in fact, from having been the subject of savage criticism, has become the ideal man." In the United States the rich man is not the ideal man—that would be saying far too much. But he is the powerful man.

We see, then, no direct social danger from plutocracy. True, the rich have their imitators among the poor; they inspire envy; they set a "fast" pace. But the common sense of the people of our democracy saves them from making "great nobles" of rich men. Many rich men among us are, in fact, sincerely pitied; and many of them lead lonely and barren lives. The normal American does not care for a "patron"; he has not been accustomed to look upon any class as "superior"; and he does not regard a plutocrat as the European masses may.

But, if the rich are not likely to construct a social nobility among us, they are already too nearly our political masters. This is the danger that plutocracy has for a democracy. Those who like to find dark places in our sky may watch this cloud. It is great "interests" and syndicates that degrade the tone of public life. It is they that keep commonplace men in office—not many directly venal men, perhaps, but complaisant men, men without strong convictions or robust character, who yield to gentle pressure. This tendency explains the commonplace level of governors, members of the House, and senators, not to speak of mayors and members of legislatures. One of these days this political use of wealth may arouse the people against plutocracy, and the gentle zephyr of Mr. Bryan become a whirlwind of the masses. Fortunately we do not seem to have reached a place of acute danger. But it is in this direction that danger lies.

A PERSONAL PARAGRAPH

THE WORLD'S WORK and its companion magazine, *Country Life in America*, now have the good-fortune to be housed in a building of their own. They have room for their increasing business and for their growing staff of workers; and, under the same roof, both magazines are edited and manufactured. This is a gratification to their editors and publishers, which their readers may be presumed to some extent to share. For we who make these magazines have the habit of mind—perhaps an old-fashioned habit, but we make no apology for having it—of regarding the public that reads them as closely bound to us. Surely we are closely bound to them, and most gratefully. The rapid and steady growth of THE WORLD'S WORK and of *Country Life in America* into prosperity

and influence we owe to this public and to nobody else. If a sincere gratitude on our part provokes a kindly interest on the part of the public, this personal paragraph will be pardoned—especially since it is a birth-notice also; for the first number of a third magazine is now on our presses. The name of it tells its character and purpose; for it is *The Garden Magazine*. The wonder is that there has not been such a magazine before.

A WARNING AGAINST SPECULATION

THERE are indications of an outburst of speculation. And what wonder? The intangible thing called "confidence" asserted itself on election-day in a very remarkable fashion. Of course that was confidence in the President and his party and its policies. But it is an easy transition in feeling, if not in exact thought, from confidence in the Administration to confidence in business conditions. While confidence in business conditions is the most powerful force in the business world, a blind confidence in business conditions breeds the speculative spirit—is the speculative spirit, in fact.

Then there are other facts, the right use of which should cheer us, but the wrong use of which will inebriate us. It is the first of the year—let us plunge into its activities with energy: this is the natural mood of the American man-of-affairs. We have had good crops, too. The cotton-crop, for instance, exceeds all preceding ones. And, beneath it all, the structure of business is sound. The railroad earnings are good. The steel trade is active, though at somewhat lower prices. Add to these satisfactory conditions a confidence in the stability of all such public policies as the tariff and the currency, and we have a state of trade and a state of mind at once satisfactory and dangerous.

The danger of the coming of a speculative mood is shown in several ways—for examples, the amount of money that is passing through the banks is so much in excess of the usual amount as to suggest the buying of things beyond ordinary uses; and the continued rise in the price of stocks, suggesting speculative rather than investment purchases, broke with sensational violence early in December.

The encouraging fact has been pointed out in these pages several times—that the business world grows in common sense. A boom or a panic is more difficult to start than it used to be. A presidential campaign does not disturb commercial conditions as it once did. The superstitions of finance are losing their hold on the faith of men. We see a little farther ahead of us than we once saw, and we look a little farther backward. The better organization of finance has given us better machinery to prevent wild action.

Still we are human. Still at bottom we are speculative. We still love to become rich quickly—and to take any chance of doing so that presents itself enticingly. In financial life there is credulity that continually astounds us. There is, therefore, in spite of all the checks of organization and of the growth in common sense, the same fundamental love of speculation that we have always had. The financial world, like other worlds, can resist anything better than temptation. When confidence runs high, it is a good service, while we thank our stars for it, to put up a danger-signal. If every man of affairs will use the tide for the safe conduct of his enterprises, we shall now have a period of steady growth and prosperity, perhaps without parallel in our history. There are many good reasons to hope for this; and the gravest danger in sight is the danger of speculation.

The speculation that makes havoc of success is not all done in Wall street. The speculative spirit, when it runs high and strong, takes humbler channels as well. A man who is building a house spends twice as much as he at first meant to spend. We begin to reckon on the results of prosperity before these results have been wrought out. We rob the future of its profit. By a subtle contagion, a whole community will become venturesome, then more or less reckless. The most commonplace transactions and occupations give an opportunity for speculation.

The future seems to offer a continuous prosperity, if we take it with balance and sanity.

HOW THE COUNTRY HAS VOTED SINCE THE WAR

COMPARISONS OF PERCENTAGES, PREPARED BY THE NEW YORK "WORLD," WHICH SHOW THAT PRESIDENT ROOSEVELT WAS THE STRONGEST REPUBLICAN CANDIDATE FOR PRESIDENT, AND JUDGE PARKER THE WEAKEST DEMOCRATIC CANDIDATE, NOMINATED IN THAT TIME

	POPULATION (ESTIMATED)	POPULAR VOTE	PROPORTION OF VOTES TO POPULATION	PERCENTAGE OF POPULAR VOTE	PERCENTAGE OF VOTES TO POPULATION	PERCENTAGE OF ELECTORAL VOTES
1868	34,200,000 Exclusive of 3 southern States which were disfranchised	5,724,686	1 to 6	Grant .53 Seymour .47	Grant 8.8 Seymour 8.0	Grant .73 Seymour .27
1872	41,000,000	6,466,167	1 to $6\frac{1}{3}$	Grant .56 Greeley .44	Grant 8.8 Greeley 7.0	Grant .82 Greeley .18
1876	45,000,000	8,412,733	1 to $5\frac{1}{4}$	Tilden .51 Hayes .48 Scattering 1	Tilden 9.4 Hayes 8.9	Tilden .50 Hayes .50
1880	50,155,783	9,209,406	1 to $5\frac{1}{2}$	Garfield .48 Hancock .48	Garfield 8.8 Hancock 8.8	Garfield .58 Hancock .42
1884	55,000,000	10,044,985	1 to $5\frac{1}{2}$	Cleveland .49 Blaine .48	Cleveland 8.9 Blaine 8.8	Cleveland .55 Blaine .45
1888	60,000,000	11,380,860	1 to $5\frac{1}{4}$	Cleveland .49 Harrison .48	Cleveland 9.2 Harrison 9.1	Harrison .58 Cleveland .42
1892	65,300,000	12,059,351	1 to $5\frac{1}{2}$	Cleveland .46 Harrison .43	Cleveland 8.4 Harrison 8.0	Cleveland .62 Harrison .32 Weaver 5
1896	70,500,000	13,913,102	1 to 5	McKinley .51 Bryan .46	McKinley 10.1 Bryan 9.2	McKinley .61 Bryan .39
1900	76,303,387	13,959,673	1 to $5\frac{1}{2}$	McKinley .51 Bryan .45	McKinley 9.6 Bryan 8.3	McKinley .65 Bryan .35
1904	83,000,000	13,400,000 Estimated	1 to $6\frac{1}{3}$	Roosevelt .58 Parker .38	Roosevelt 9.2 Parker 6.2	Roosevelt .71 Parker .29

JOHN W. ALEXANDER

THE PAINTER OF IDEALIZED SENTIMENT THROUGH PORTRAITS OF WOMEN IN POSES — SOME EXAMPLES OF HIS WORK

BY

CHARLES H. CAFFIN

IT is as a painter of portraits, of a series of mural decorations, and of many figure pictures with a distinctly decorative purpose, that Mr. John W. Alexander has attained distinction.

Originality of feeling and a lively sensitiveness are conspicuous features of his work. They are the qualities in himself which first made him an artist and directed him through the early years of his study. Starting from his home in Allegheny City, Pa., where he was born in 1856, he made his way to Paris, only to leave it in a few days for Munich. There he entered the drawing-class at the Academy, but he escaped the cut-and-dried methods then prevailing, because his teacher, Benczur, encouraged him to follow the bent of his own inclinations. This gave him a confidence in himself and in his point of view that has been of great benefit to him. But his lot at that time corresponded with that of many other students. He was dependent on his own exertions, and living at Munich was beyond his means. Accordingly, after a few months he went to the little village of Poliez in upper Bavaria, where he enjoyed the companionship of many Americans, among them Currier, Walter Shirlaw, and Frank Duveneck. The influence of Mr. Duveneck was especially valuable. With him he first took up the practice of painting, and for two years worked under his supervision.

Incidentally one may remark how singularly unselfish and self-effacing Duveneck's career has been. Ripe in achievement, with promise of yet more, he abandoned personal ambition; and the record that he has since made is one of help and encouragement to others. In this capacity his subsequent life has been spent as a teacher at the Cincinnati School of Art, and many are the students who acknowledge their indebtedness to the high artistic ideals and practical help that he has imparted.

Some time after Mr. Alexander had left Munich, he was invited to submit drawings to the competition at the Academy, and he gained the Prize Medal. The scene of his work now shifted to Paris. He entered no school, but he continued to be an indefatigable student; and soon he began to obtain notice among the younger artists who exhibited at the Champs de Mars. Meanwhile he maintained some affiliation with Munich; for, when the Secession, or revolt of the younger artists from the dry-as-dust rigor of the Academical body was started, he was invited to become a member. Later on he was elected a corresponding member of the still more important Secession in Vienna. It might be inferred, therefore, that he was an artist of the aggressive kind; but nothing could be further from the truth. He is, in fact, a singularly uncombative person, continually busy with his own work and thoroughly absorbed in it. But he is modern to the finger-tips; his work is racy of the modern feeling and independence, so that he has been in sympathy with every movement making for artistic liberty, and his identification with them has been only natural.

During a long stay in Paris, from which he returned only a year or two ago, he was intimate with many of the leading spirits in modern French art, and among them with Rodin. He painted a portrait of Rodin which was a conspicuous feature of the American Section in the Paris Exposition of 1900. It is a work of close sympathetic observation, indicative of personal admiration of the subject. Indeed, one may detect the influence of Rodin in Alexander's work, particularly in the expressiveness of gesture and movement that he imparts to his figures.

Of course, expression of gesture and movement is the aim of many modern artists, especially portrait-painters; it is, in fact, a characteristic of the modern artistic ideal.

Courtesy of the Metropolitan Museum of Art, New York

PORTRAIT OF WALT WHITMAN

"THE BLUE BOWL"

Copyright by Curtis & Cameron

But the marvel of Rodin's work is that, however extreme may be the intensity of emotion embodied in gesture, however unusual the movement of the body, the figure yet has a suggestion of repose, a plastic immobility. He preserves always that subtle border-line between immobility and life, between the ideal and the real. Apparently he maintains this poise by the nicest calculations of what is essential in a gesture or a movement,

" PANDORA "

Copyright, 1899, by Curtis & Cameron
"THE POT OF BASIL"

and then by a severe restraint which avoids an emphasis even of the essential.

Now the characteristic of all Alexander's best work is a mingling of reticence with spirit. He loves to seize the fugitive gesture or expression which must be taken by surprise. This is easier to secure at the outset of a picture than to retain through any long process of elaboration. He, therefore, reduces the amount of work upon the canvas to a minimum. The pigment is applied thinly, so that the canvas is visible through it; and the canvas is coarse-grained, with the result that its unevenness of surface entices the reflections and refractions of light, which gives animation to the stretches of flat tints.

There may be a disadvantage inherent in this method. Where the means employed are so slight, the least deviation from the original appearance may frustrate the artist's purpose. For example, the gradual sinking of the pigment into the pores of the canvas, a process which will continue for some time after the completion of a picture, may reduce the sprightliness of the color and of the figure's gesture. Just such a thing seems to have happened in the case of Alexander's portrait of Mrs. T. Hastings. When it was first shown, some two years ago, its charming vivacity was recognized; but, at the latest Portrait Exhibition in New York the sparkle of its color seemed to have faded out, the flesh tints to be noticeably dark and inflexible, and rigidity to have crept even into the animation of the pose.

Such excess of spirit, however, is not symptomatic of Alexander's work. On the contrary, as I have said, it usually involves a very charming reticence, as may be seen in his "Woman in Gray," which hangs in the Luxembourg. This is not so original in feeling as his later works, being, indeed, in that category of full-length figures derived from Velasquez, probably through the immediate inspiration of Whistler. Here is the characteristic sweep of line, if not the subtly winding movement of the body that Whistler loved; the familiar gray and the modeling by tones. It is, in studio jargon, a very "swell" picture, conceived and executed with admirable assurance and a considerable measure of authority. In a pictorial way it is a charming decoration. In a human way it does not attract or interest us. Its great merit is that it offers a signal example of the applied principles of line and tone and lighting which have occupied the study of artists so much during the last half-century. It is also excellently characteristic as a negation of the *bourgeois* motives which Alexander had found prevalent in Germany, and which, since his return to America, he may have found to survive elsewhere. One should note in this picture the dainty contrast between the gray dress and the warm white of the curtain and the varieties of tint occasioned by the difference in the textures of the satin and the drier fabric of the gown, also the handsome patterning which the figure and the curtain make in the open spaces of the picture, not without a reference to the

"MEMORIES" Courtesy of the Pennsylvania Academy of Fine Arts

voluminousness of the skirt. It was occasioned in this picture by the prevailing mode of the day, but Alexander shows a frequent partiality for large, balloon-like masses of skirt, which lend a certain discreet voluptuousness to many of his compositions.

"FLOWERS"

This sensuous suggestion, limited, it should be observed, entirely to the abstract æsthetic impression aroused by the composition, and not at all reflected in the sentiment of the subject, appears very charmingly in several small upright canvases; such as "A Rose," in which a single figure, with a gesture of delightful spontaneity, is adjusted in most admirably decorative manner to the shape and size of the frame. In the comparative

"A RAY OF SUNLIGHT"

reticence of these smaller pictures, it is quite possible that the artist is at his best.

If so, it may be because the decorative arrangement is not produced by a large expanse of drapery, but by the form and movement of the figure, and because the drawing in these cases is so interesting; the actual movement of the figure and the gestures of the head and hands are so full of feeling and of the charm of unexpectedness.

PORTRAIT OF MRS. LEDYARD BLAIR

On the other hand, before a picture like "The Blue Bowl" one may be conscious of a certain exaggeration and barrenness of interest. Yet in "The Quiet Hour," although one loses apprehension of the figure in the buoyant volume of the skirt, it would be difficult to resist the graciousness of the effect. Very lovely also is the sentiment of pensive reverie which pervades the whole canvas. In fact, the sentiment in this picture plays the

part that the character of the figure does in "A Rose." It is a prevailing motive, sustained throughout—a very simple one, but delicately elaborated.

When, however, as in "Memories," the sentiment is, if I may so describe it, an associated one, suggesting various ideas to various minds, carried further than an artistic motive and made the basis also of a subject picture, I doubt if Alexander is so successful. He is approaching that gentle sentimentality which in his Munich days he probably contemned.

If this reasoning be correct, that Alexander's *forte* is the expression of sentiment through form and color, rather than the elaboration of a subject, it may explain the fact that, notwithstanding his skill in the arrangement of a decorative composition, his mural

"A ROSE"

"WOMAN IN GRAY"
In the Luxembourg

decorations in the Congressional Library at Washington are disappointing. The six almost semicircular panels commemorate "The Evolution of the Book," and treat, respectively, "The Cairn," "Oral Tradition," "Egyptian Hieroglyphics," "Picture Writing," "The Manuscript," and "The Printing Press." They are, in fact, a series of illustrations; as such of considerable interest, but from a

MISS DOROTHY ROOSEVELT

decorative standpoint surprisingly inadequate. The composition of the full and empty spaces (that is to say, of the figures and other objects with the background) is not what the artists call *architectonic*—in other words, it lacks structural relation to the space and surrounding architecture. The foreshortening of a figure or an extended perspective destroys the flat suggestion of the wall. No rhythm of line or color runs through the series. Each panel is a separate illustration, arbitrarily inserted. It is strange that it should be so, since in a great number of his canvases Alexander has proved himself to be possessed of a very pronounced feeling for, and skill in, decorative design; and the only explanation I can find is in the fact that he was hampered and diverted from the natural bent of his mind by the necessity of embodying incidents and of telling a story. The truth is, he had a very hard problem. In one panel he was called upon to represent a nude Egyptian, and in another three figures in the doublet and hose of the time of Gutenberg. This alone would account for the lack of sequence of feeling through the series, but it scarcely condones the unmural arrangement of the compositions.

If, then, the introduction of incident seems to impede the freedom of Alexander's invention and technique, how does he fare when he is called upon to depict the incident of character in portraiture? Here his deeper mental qualities of sympathy and insight come into play and mingle most harmoniously with the dignity and the refinement of his artistic impressions. It is not every artist nowadays who can make the portraits of

PORTRAIT OF MADAME BARTLETT

PORTRAIT OF MRS. ALEXANDER

Copyright by Curtis & Cameron

ladies suggest that they have breeding and refinement as well as elegance. Indeed, at the recent Portrait Exhibition in New York it was most noticeable how little reverence for the sitter many pictures demonstrated. Whether we take, as example of Alexander's work, the portrait owned by the Carnegie Art Galleries, which is rather in the nature of a charming girl-study, or the standing portrait of a lady in black, illustrated on an accompanying page, or that portrait of his wife, so "swell" in style and yet so exquisitely reverential in its tenderness, we find the artist seeking not to exploit himself,

PORTRAIT OF DR. FRANCIS L. PATTON
President of Princeton Theological Seminary

but to discover the personal charm of the sitter, and to infuse into the particular flavor of it his own susceptibility to beauty of expression. The portrait of a lady in black sums up the general outward demeanor and gives also a hint of deeper

Courtesy Carnegie Institute, Pittsburg
PORTRAIT IN ROSE

PORTRAIT OF MRS THOMAS HASTINGS

traits of character. The portrait of the artist's wife has yet more suggestion, though it is a veiled one. Indeed, the non-committal expression of the face, which prompts conjecture and leaves it guessing, and then the almost plaintive appeal of the pose, combined, as they both are, with a composition that is strikingly ample in feeling, seem to me to epitomize very satisfactorily that quality of Alexander's work which for want of a better

PORTRAIT OF MRS. HERMAN DURYEA

term I have described as "discreet voluptuousness."

In his male portraits, such as those of Walt Whitman, of Rodin, and of Mr. James W. Alexander, the expression of character is much more pronounced. This is partly due, no doubt, to the fact that the respective characters are strongly marked upon the exteriors of these men; but partly, also, we may suspect, to the fact that they are men, and therefore outside the bent of Alexander's usual study. On the one hand, therefore, he turns upon them a scrutiny that is the keener because the object of the study is compara-

PORTRAIT OF GERALDINE RUSSELL

Owned by the Cincinnati Art Museum. Copyright, 1903, by Curtis & Cameron

PORTRAIT OF ELEANOR ALEXANDER

tively novel, and on the other, since they do not wear skirts or otherwise lend themselves to his special kind of pictorial motive, he views them with an eye sole to what they are. Further, they are all men who mean much to him, and what they mean he has tried very zealously to put into their portraits, so that they must be reckoned among his most important works.

Still, I believe, it is as the painter of an idealized expression of sentiment, conveyed through a girl's form, arranged in decorative pose,

Courtesy of the Wheaton Seminary

PORTRAIT OF MRS. WHEATON

that Alexander is most characteristically himself. This is something which no other American artist accomplishes with the same mingling of ample handsomeness and delicate subtlety.

THE RAILROADS' DEATH-ROLL

TEN THOUSAND LIVES A YEAR AND SEVENTY-FIVE THOUSAND INJURIES—PERFECTLY PRACTICABLE METHODS OF REDUCING THESE BY SAFETY APPLIANCES AND BETTER EQUIPMENT—THE REMEDY IS WITH THE PUBLIC

BY

LEROY SCOTT

IN 1898 about five hundred soldiers were killed in Cuba and about twenty-five hundred died in hospitals. There was an outburst of public wrath over the unnecessary deaths from disease that shook the whole United States, and that will be remembered as long as the Spanish-American War. In 1903 almost ten thousand persons were killed, and more than seventy-five thousand were injured, by the railroads of this country. If there is any public wrath about these deaths every man of the public is keeping it close within himself.

War becomes mild when compared with the human havoc wrought by our railroads. After wars there come treaties when the killing ends; but the killing and maiming on our railroads goes on year after year, every year's death record usually surpassing its predecessor, the increase in casualties keeping right abreast of our vaunted American progress. In the last sixteen years the railroad casualties have amounted to 113,000 killed and two-thirds of a million injured. It is an appalling record. But the record is less remarkable for its figures than for the indifference with which those figures have been received by the American people. Save for week-long flurries of indignation like that recently aroused by the nearness in time of two such disasters as the disaster at Newmarket, Tenn., and the disaster at Warrensburg, Mo., we read the almost daily train-wreck paragraphs with the same calmness with which we read of the other commonplaces of life—untroubled even by any such mild question as, Must this be so?

Yet such totals should force upon us the question, Is it necessary to the efficient management of our railroads that 10,000 persons be killed a year and 75,000 injured? Comparisons are generally of value in reaching conclusions. Here, side by side with our own casualties, is the number of killed and injured by the railroads of the United Kingdom. It will be borne in mind that passengers are numerically the smallest sufferers from railway accidents.

KILLED AND INJURED BY RAILWAY "ACCIDENTS"

		United Kingdom	United States
Passengers killed	1901*	None	282
" "	1902	6	305
" injured	1901	476	4,988
" "	1902	732	6,683
Employees killed	1901	491	2,675
" "	1902	435	2,969
" injured	1901	4,214	41,142
" "	1902	3,806	50,524

* Throughout the article all annual statistics for the United States are of course for the fiscal year ending June 30th

Persons with a first-rate instinct for espousing fallacy have urged against this comparison that since the railroads of the United States have ten times the mileage of those of Great Britain and Ireland they are entitled to ten times the number of accidents. But it is easily seen that between railroads on which traffic is very condensed, as it is on most English roads, and railroads on which traffic is light, as it is on many of our western and southern lines, mere mileage does not afford any basis of comparison. In fact, it can be said that the United Kingdom, by reason of the greater frequency of its trains, which increases the chances of accidents, is entitled to a great many times the number of accidents suffered in the United States. It is set down here as a significant fact, but not as a basis of comparison counter to mileage, that in 1902 the railroads of the United Kingdom carried considerably more than one billion passengers, as against less than seven hundred million for the railroads of the United States.

The fairest basis of comparison, and the one allowing the nearest approach to accuracy, is the ratio between the casualties and the number of passengers and employees. Here are the figures for 1902:

PROPORTION OF KILLED AND INJURED TO TOTAL

	United Kingdom	United States
One pas'gr killed of every	198,036,545	1,883,706
" " injured "	1,623,250	97,244
" empl'e killed "	1,324	404
" " injured "	151	24

No possible twisting or suppression of figures, no deduction to be made for the difference in the method of collecting statistics or the difference in the length of "hauls," can essentially alter the fact proclaimed by the second table—the great black fact that the railroads in the United States kill and injure from three to six times as many employees as the railroads of the United Kingdom, and kill and injure from sixteen to one hundred times as many passengers.

The first inevitable question is, Why should there be this great difference between the deadliness of the two railway services? The answer to this can be deferred to a later place in the article. The next question is, Is it possible for our railroads to reduce the number they kill and injure? In answering this it will be necessary to make at least a partial analysis of the causes of railway accidents. Here are the chief ones:

Collision.

Derailment.

Defective equipment.

Natural danger of railroading to employees, greatly increased by defective equipment.

Grade-crossings and (legally) unguarded tracks.

Unforeseen disasters to bridges and roadbeds.

Increase of traffic to proportions larger than railroads can safely handle.

In order not to load the reader with bewildering detail and argument, the last cause (noted here for the reason that to an extent it is a cause of the other causes) can be dismissed from consideration, though there is much that could be said upon it in condemnation of the railroads. As this article is chiefly concerned with avoidable accidents, those due to the sixth cause should also be dismissed. It would be easy to produce a long list of unforeseen disasters that should have been foreseen, and in justice to the railroads it must be said that a long list could be produced for which they could in no way be held blameworthy.

In grade-crossings and unguarded tracks we have the cause of more deaths than result from all other causes combined. More than five thousand persons—in this number passengers or employees are not included—lost their lives from this cause in 1903. The carriage-load of persons struck while on a railroad crossing, the man or woman or child run over while walking on the track—these are the material of common news items in the local papers throughout the country. This is a class of accidents readily preventable—a class, therefore, for which great blame is somewhere due. The blame belongs partly upon the railroads and partly upon the public—upon the State. The railroads have done little of their own volition to prevent accidents of this sort, and outside the larger cities and the State of Massachusetts the public has done little by legislation in the way of prevention. The remedies for this class of accidents are obvious; and, since they are different from the remedies for train accidents, to be suggested later, they are given here. In the first place, the grade-crossing should be abolished; the road should pass either beneath or above the railroad track. In the second place, instead of being public thoroughfares for pedestrians, which they now practically are, railroad tracks should be made private property in the strictest sense, rigid laws should be made against trespassing upon them, and provisions should be made for the rigid inforcement of those laws.

The natural dangers of railroading to employees are of course very great. Collisions and derailments, the two chief dangers that menace the passenger, constantly threaten the trainman, and many more dangers besides. Falling from cars alone was the cause in 1903 of 700 deaths and more than nine thousand injuries. The trainman may be hurled from the top of a freight-car by a shock received by his train; he may jump off a train going at too high a speed; he may slip while jumping on or off a moving train or engine, or accidentally fall while on one, and drop beneath the wheels; or some other cause may bring about the dangerous

fall from the top of a moving freight-train, or send him beneath the heavy cars. Despite the reduction in loss of life and in injuries brought about by the adoption of the automatic coupler, great danger still attends the operation of coupling. Another principal cause of death and injury is overhead obstructions. A trainman may be on the top of a freight-train that is moving rapidly through a dark, windy night. The engine of the freight passes under a low bridge; the wind has flung aside the ropes of the bridge-guard which should have warned the trainman to duck. The next instant the head of the unsuspecting man strikes the bridge.

The natural dangers of railroading are greatly increased to trainmen (and to passengers also) by the defective equipment of the trains placed in their charge. It seems to be the theory of many companies that any car is a good car until it drops to pieces. The reports of the inspectors of the Interstate Commerce Commission are full of statements concerning the constant use of worn and imperfect cars that should be repaired or destroyed. In 1902, of the cars inspected, 26 per cent. were reported defective. Any old engineman will tell stories of being sent out to draw a train with a leaky, rattling, old engine that at best was fit for nothing higher than a spectacular head-on collision at a county fair. Usually the engine gets through safely, but something may snap, or the engine may suddenly give up with an exhausted puff, like a worn-out horse that lies down in its tracks; and, if a careless flagman happens to be a part of the crew, there are good chances for a collision.

Of the many possible disastrous results of defective equipment, derailment is the most destructive to life and property. During 1904 there were almost five thousand derailments on the roads of the United States, and of these more than 65 per cent. were due to defects of roadbed and equipment—that is, were directly traceable to neglect or carelessness or lack of a sufficiently rigorous inspection on the part of the railroad companies. Paragraphs could not make more clear the awful danger that lurks in defective equipment. This bare statement, therefore, is left without elaboration. It is an interesting point that of the total number of derailments less than 1 per cent. were charged to the negligence of employees.

About defective equipment the railroad officers say in extenuation of themselves that traffic has developed so rapidly in the last dozen or so years that it has been simply impossible to have new cars and engines made rapidly enough to take the place of those that would, in less active service, have been withdrawn from use. There is much in this plea, and many roads are doubtless doing their best to keep track and rolling-stock equal to the demands of their traffic. But very many are not. The fact that their equipment is dangerously defective does not, however, cause the railroads the least hesitation in soliciting passengers to intrust their lives to their dangerous care.

We now come to the cause of by far the greatest number of deaths and injuries among passengers, the collision—the most dramatic and most terrible of all train accidents. Here that much-discussed cause of railway disasters, the "human factor," makes his most prominent appearance. The "human factor," it is hardly necessary to say, is the railroad employee. There is not a railroad official in the United States that cannot talk to you by the hour about the carelessness and inefficiency of the trainmen, yardmen, signalmen, and stationmen on his pay-roll. And he can cite you facts, indisputable facts, to prove every point. Asked what is the chief cause of collisions, he will tell you that the vast majority of them are directly the fault of employees.

Is this true? It seems so. One need go back only to that terrible collision near Newmarket, Tenn., on September 24th, to find most tragic confirmation. It will be remembered that the two approaching trains had orders to pass at Newmarket. But the engineman of the westbound train disregarded the order—whether he forgot it, or lost his mind, or was the victim of some incapacitating seizure, no man knows, for the time between disobedience and death was but a few minutes. His train dashed through Newmarket, and a little beyond met the train which it should have passed—met it head to head, at forty miles an hour. To describe the wreck would be to write down commonplaces, so inured have the frequent disasters made us to such details as telescoped and crushed coaches, the flames of the wreck, mangled bodies, groans of the injured and dying, and the chopping out of the

living. It is enough to set down that when the chopping was done and the counting was over, the dead were more than sixty and the injured more than one hundred.

Here is another wreck of the same sort—out of the plenteous history of the past year. It is as much like the preceding as two printed forms are alike whose blanks have been filled with different figures. A freight-train on the Big Four road was ordered to stop at a certain station to allow a work-train to pass it. Something slipped in the head of the engineman of the freight, and he rushed his train past the station. A little beyond, the track runs through a deep cut and around a sharp curve. As each engine swung about this curve, there, hardly a score of yards ahead, was the other engine. A terrific, crashing impact. Result, thirty-one killed of the thirty-five workmen on the work-train. And these thirty-one workmen, it may be said in an aside, did not even have (at least, not in eastern papers) the customary distinction—their names printed in capital letters under the heading "The Dead."

In these two instances the enginemen disregarded orders. Now and then an engineman, instead of obeying orders to the letter, uses his own judgment. If luck is with him, his train gets through. If luck is not, the next morning there is a paragraph or a column in the papers, according to the number killed. One typical incident will illustrate this class of accidents. The place is Willard, Kan., the time the middle of a midwinter night, the road the Rock Island. The engineman of an express, twenty minutes behind time, had orders to wait at Willard for a stock-train. As the express drew into Willard, the engineman saw a train on the siding, and, thinking this was the train he was to meet, he failed to identify it, and put on all steam to make up the lost twenty minutes. He sent his train whizzing through the night at sixty-five miles an hour. The train on the siding behind was of course a freight, and out on the prairie the express and the stock-train crashed into each other like colliding comets—or as comets might collide if heavenly traffic were under the management of mundane railroad officials. The usual details, with such variations as could be afforded by a midwinter prairie at 2 A. M., and by the bellowing of dying and panic-stricken cattle, and by others running crazed about the wreck. A score of persons killed and twenty-seven injured. "No one else was to blame but the engineman of the express," said the General Passenger Agent.

So much for the engineman, though these two varieties of error by no means exhaust the mistakes of which he is capable. Against the flagman, who is less experienced and less responsible, even more can the charge of carelessness and inefficiency be urged. The result of an engineman's blunder, when it has a disastrous result, is usually a butting collision. The result of a flagman's blunder is more likely to be a tail-end collision. When his train makes an unscheduled halt, perhaps stopped by a hot-box or some obstruction on the track, it is the flagman's duty to run back about half a mile and to take his station there to warn any following train. That is his duty. Perhaps it is a black, slippery night, with a high wind and a cold, stinging rain. His train is brought to a halt between two stations by some mishap that apparently will delay the train for only a few minutes. He stands hesitatingly at the rear of the train and looks into the wild blackness. He thinks of the run back over the track, of waiting in drenched clothes with the raindrops driving into him like cold needles, of the run he must make to his train when the engine whistles four times, and of the not improbable chance that he will be left altogether. He thinks of these things; the stop is but for a few moments; there is no danger. So he does not go. The delay is longer than he had counted on. Suddenly from around a curve a headlight flashes its awful shaft through the darkness. The next instant——

Or perhaps, when his train comes to an unexpected halt, the flagman uses his judgment, as the engineer did when he saw a train on the siding. There is no discomfort in discharging his duty as prescribed by rule, but his train is going to start up in a minute or two, so it would be foolish to run back. His judgment tells him to stay where he is.

There was a careless flagman on an Erie train that was bearing 400 picnickers to Greenwood Lake, N. J., on July 10th of last year. The train halted near the station at Midvale to take on water. The flagman went back no more than three or four hundred feet, and did not unroll his flag. Another excursion train, following on the same track, came about a curve with the usual result.

The dead numbered sixteen and the injured sixty. It may be added here, not as having any bearing on flagmen, but as having significance on the subject of defective equipment, that the second train had slowed down, and that eye-witnesses declared the shock of collision was no greater than when freight-cars are coupled, and that most of the passengers did not at first know anything serious had occurred. But this slight shock was enough to crush the rear coach of the first train as though it had been a match-box. And it may be furthermore added that at the coroner's inquest a signalman who also should have warned the second train, and who also failed so to do, testified that his failure was due to the fact that his signal was out of order.

But enginemen and flagmen are not the only "human factors" to blame for train accidents. Perhaps a dispatcher may make a mistake in sending out a train order An operator may make a mistake in taking an order from his instrument, or he may forget to deliver an order. A switchman may leave a switch open. A signalman may forget to operate his signals, or he may forget and think that a train which has passed has not passed, and so admit a second train into the block. Employees not only may do these things, but have done them thousands of times, and will continue to do them to the end of time. But in so short an article on so large a subject it is out of the question even to mention each possible mistake, much less to exemplify its resultant disaster. The result is the same; the dead are dead and the injured injured, no matter what employee is guilty or of what error he is guilty.

The "human factor," however, has been so much discussed, and is of such vital importance, especially in any study of collisions and their prevention, that it is worth while to give a further glance at the subject of his widely advertised carelessness and inefficiency. Ask any railroad official the reason for this carelessness and inefficiency and his answer will probably be, "the breaking-down of discipline." Asked for the cause of this, ten to one he will tell you that it is due to the leveling influence of trade unionism, and will contrast the employee of today with the employee of twenty years ago, who stood solely on the basis of his own worth, and who was energetic and alert in the discharge of his duty. This statement will bear looking into. First of all, it may be asked, what made the employee of twenty years ago more watchful and alert?—if he were so. All things considered, the fairest explanation of the *esprit de corps* of that time seems to be the close contact that existed between employees and officials. A division superintendent had two or three hundred men under him; he was able to take time to pick them carefully; and he was able to become acquainted personally with every one of them. Hence good-fellowship. Since then the railroads have passed through a stage of great expansion and consolidation. The division superintendent of today has ten times as many men under him as the division superintendent of twenty years ago had. How can the old personal relations exist—the *esprit de corps?* Ask any railroad employee, even of the grade of conductor or engineman, how often he comes in contact with the higher officials of the road. Very rarely, he will tell you. "I have spoken to my superintendent once in eleven years' service," said a conductor.

Now, the simple fact is, that railroads are still depending upon a method that, however adequate it may have been to the conditions of twenty years ago, is certainly not a sufficient safeguard against accident under the very changed conditions of today. Discipline must exist, and should be as good as possible, but it must be supplemented by precautionary contrivances that will rob the flaws of discipline of their present disastrous results.

One thing that weakens somewhat the officials' assertion that collisions are chiefly due to the carelessness and inefficiency of their employees, is the fact that frequently it is a trusted, experienced man who is guilty of the disastrous error. There is nothing remarkable in this fact, since as far as is possible trusted and experienced men are of course selected for positions in which a serious mistake is possible. And there is nothing particularly remarkable if now and then a most trusted and trustworthy employee blunders or forgets. There are about a million and a quarter men employed by the railroads, and of these perhaps half a million are in positions where an error might result in a train accident. If every one of these half-million employees be allowed one

critical blunder during his railroad life—and some officials, after checking up their past, might find that they had exceeded this allowance—there would annually be something like twenty-five thousand serious blunders, counting the average railroad lifetime as twenty years. Instead of wondering that employees make so many errors, one might be excused for wondering that they make so few. Where is the responsible business man or the accurate clerk that has not made one blunder in the course of his lifetime? Perhaps the blunder entailed no loss or no exposure. But in railroading the exposure of a trifling error may be instantaneous, and may take the awful form of a head-on collision with a score of lives lost.

And perhaps the one mistake of a lifetime may be such as the very president of the road, with his supposedly perfect control of his faculties, might have made under the same circumstances. A train dispatcher whose only child had been ill for weeks was called up by telephone one day while on duty and told that the child had just died. His work was pressing, and he could not at that instant leave his post. In the next order that he sent out there was a mistake—that so frequent mistake, the omission of a "second"—and the death of the child was followed by the death of a dozen passengers. To most men some such distracting crisis comes once in a lifetime, and as like as not comes while they are on duty.

"Careless and inefficient"—the railroads admit that their men are so. They proclaim them so. Whether the men are excessively careless, or whether they are a careful, responsible body of men, committing as few errors as human nature can commit—this is a matter of no consequence here. So admit that they are careless and inefficient. But because they are so, does the mere blaming of the employee wholly excuse the railroads for the 6,000 and more collisions of 1904, when there is a way to prevent a large part of these collisions and the resulting deaths and injuries?

For there is a way of prevention. So long as imperfect man exists, the best will now and then be guilty of an error; and it must be remembered that every imperfect man has to make but one critical mistake in a lifetime to give the railroads a total of 25,000 critical mistakes a year. Since, then, we cannot hope to prevent disaster by evolving 500,000 infallible men, there is but one other way to seek prevention—that is, to eliminate as far as possible fallible man's chances to make mistakes.

This last phrase gives the whole theory of the principal system for prevention of railway collision—to reduce to the minimum the possibility of danger from the "human factor." This system is the block system. No new scheme is suggested here, for a few of the most progressive railroads are already installing block signals, and the Interstate Commerce Commission has submitted an act making the adoption of the block system compulsory on all railroads. A technical description of this system would carry this article to too great length. It will be sufficient to say, for the sake of the uninformed, that the block system prevents the progress of a train unless the track ahead is clear. It is a system of signals—automatic or operated by men, the first greatly preferable—which tells the engineman indubitably the state of the road ahead. The dispatcher, the operator, the flagman, are not done away with, but danger from their mistakes is eliminated. If one of these employees makes an error, the block system reveals this error to the engineman, and no disaster results. The system does not absolutely do away with the possibility of collision, as witness the terrible accident of January 27, 1903, on the Central Railroad of New Jersey, at a point where that line is thoroughly equipped with block signals. No system can insure absolute immunity from collision. But the block system reduces the possibility of danger from several men to one, the engineman, who is the best paid, and, as a rule, the most trustworthy man on the train.

In the early part of the article, the fewer number of persons killed and injured on British railroads was left unexplained. It is proper to say now that the greater safety of British lines is very largely due to almost complete reliance on signals to guard their trains against accident. Since the block system would prevent a large part of the appalling number of collisions and their resultant injuries and deaths, why, then, it is inevitably asked, is not this mechanical supplement to discipline forthwith installed on every railroad in the United States? The answer is simple. Because it costs money.

That is the only reason. Because it costs money. A few of the best roads, as has been said, are installing the system. The other roads excuse themselves by saying that their business has so developed in recent years that they have not enough cars and engines and branch lines to handle it all, so there are many more pressing matters to be attended to before they can afford to give attention to block-signaling. That is, they must arrange to carry more passengers before they can afford to make safe the passengers they are now carrying.

But, in fact, would it actually cost so much money to block-signal the roads of the United States? The number of collisions during 1904 was more than six thousand, and the loss in property was more than five million dollars. We can only guess how much more the railroads lost in damages paid for injuries and deaths. Perhaps another five million. Now, this ten million, or its far greater part, could have been saved by the block system. In ten years collisions cost the railroads about one hundred million dollars. This amount would come very near covering the cost of block-signaling the roads of the United States. Here, then, is a simple problem. If the railroads were now to install block signals, at the end of ten years what will have been the actual cost to the railway companies? Nothing. And think of the lives that would not have been lost, and of the injuries that would not have been suffered!

This is one great life-saving improvement that should be installed by the railroads. There are others. Closely related to the block system in its theory of reducing to a minimum the danger from the "human factor," is the interlocking system. Many collisions and a great many more derailments are due to "open switches." The interlocking system, not to go into the details of its working, means the elimination of the "open switch" danger."

Then there are the fragile day-coaches that "collapsed like pine boxes" or were "crushed like eggshells" while the heavy Pullman coaches "stood uninjured on the track." It is obvious that under the block system the danger of crushing the light coaches would practically be removed, for there would be few collisions to crush them. But nevertheless, the strength of all coaches (whatever their furnishings) should be equal to the strength of the Pullman.

The railroads should be compelled, by a rigid system of inspection backed with heavy penalties for infractions, to keep their equipment up to a certain safe standard—this chiefly for the protection of employees. Twenty-six per cent. of cars defective in 1902, and in 1904 65 per cent. of the derailments due to defective equipment, show how well this is done at present.

Five chief suggestions (and many minor ones could be added), all of demonstrated worth, have been made for improvements that would vastly reduce the number of killed and injured. When can we expect that the railroads on their own initiative will make these improvements? This can best be answered by glancing at the record of the railroads in the installation of improvements that prevent injury and death. The attitude of the railroads toward the safeguarding of life will be shown by that record, for in the past the adoption of life-saving measures has been left almost wholly to their initiative. What have they done in the matter of defective equipment? What have they done toward making all passenger coaches of strength equal to the Pullmans? What have they done toward installing interlocking signals? What have they done toward installing block signals? .

Nothing, very little, or at best far from enough. They have had their chance voluntarily to make life safe on their lines. They have had their chance to give proof of their purpose to make life safe in the future. They have failed to do either. The only way, then, to reduce railroad fatalities is to force the railroad companies by law to adopt measures that will insure safety. This is inevitable if life is ever to be secure on our railways. "Why, then," some one may exclaim, "if these improvements are forced on the railroads by the government, and the government by its inspection forces a strict maintenance of improvements, is this not equivalent to government control?" To an extent it is. It is government control of safety. And until the American people rouses itself indignantly from its calm perusal of the statistics of casualties and demands and secures this government control of safety, they can be very sure of one thing—that the railroads will continue killing and injuring their 85,000 a year.

NEW WAYS ABOUT THE WORLD

THE EFFECT OF THE PANAMA CANAL ON CURRENTS AND IN MAKING NEW MARKETS FOR US — SOME STRIKING INSTANCES OF SHORTENED DISTANCES AND OF FAR-REACHING CHANGES IN OUR COMMERCIAL AND INDUSTRIAL LIFE

BY

ATHERTON BROWNELL

MORE than a quarter of a century ago, the writer of a pseudo-scientific novel pictured the physical result of the opening of the Panama Canal. In his vivid imagination he saw a final blast which removed the last barrier between the waters of the Atlantic and the Pacific oceans, incidentally opening up a vast subterranean cavern into which the released waters rushed in such volume that a new ocean current was created, diverting those which have been charted since navigation became a science, and setting the wisest calculations of navigators at naught. Chief among these imaginary diversions was a deflection of the course of the Gulf Stream and the consequent removal of its influence upon the climate of the countries contiguous to its course, thereby changing the nature of the agricultural products of the east coast of the United States, of France, and of Great Britain.

If, instead of ocean currents, we read commercial currents, the prophecy of the fiction is in a fair way to be fulfilled, even to the remote point of the result of changing the nature and character, to some extent, of the product and commerce of the countries and sections which will be most largely affected by the opening of the canal.

The water-borne commerce of the world follows certain currents which are as clearly defined as those ocean currents that determine the invariable routes for sailing ships. The piercing of the isthmus must necessarily be followed by an alteration of economical routes for the transportation of freight, and this change, lifting, as it will, obscure ports into prominence, and stripping others in part of their present advantages, will produce, in turn, new courses for commercial currents which will be almost revolutionary in their effect. Moreover, the alteration of established distances will produce new relations between points now far removed from each other, thereby creating a new commerce.

In this sense, the opening of the canal presents a largely different aspect from the opening of the Suez Canal, which merely shortened existing routes and made a quicker voyage possible for certain classes of freight, but which operated chiefly in increasing commerce only through a lowering of the freight charges between distant points. It made no material or general change in the course of commerce, and its influence, great as it was, can hardly be compared to that which may be expected of the Panama Canal.

To give one example of the sweeping changes which may be expected: The cotton States have crude phosphate which is needed for fertilization in Florida and South Carolina; but an equally essential ingredient is the nitrate of soda which is found in commercial quantities in Chile. The present transportation distance from Iquique, the chief nitrate export port of South America, to Charleston, S. C., where the chief fertilizer manufactures are located, is 9,156 miles, if brought direct through the Straits of Magellan. In fact, however, the greater part of the nitrate of South America finds its way first to England, because British merchants control the trade, and is transported thence to this country. Liverpool is practically as near Iquique as is Charleston, being 9,591 miles distant; but the current of commerce established for other considerations makes it true of this commodity, as well as of most others, that the American merchant can better afford to buy in Europe and to pay the extra transportation across the Atlantic than he can to buy direct. The opening of the Panama Canal will bring Charleston within 3,638 miles of the source of its supply for this purpose. The distance to Liverpool is likewise shortened to 6,760 miles. This difference of distance might not in itself be sufficient to change the course of importations of nitrate from a roundabout to a direct one; but the new course to Liverpool will lie so close to the Atlantic seaboard of the United

States that it is not probable that, in the future, any amount of this commodity will take the longer route. It may reasonably be argued, therefore, that the reduced cost of production of fertilizer will be of sufficient benefit to the southern States to make a substantial increase in their cotton output. Both China and Japan are increasing their demands for American cotton, and this export now labors under the difficulty of having to go overland to the Pacific and thence by steamer, or eastward via the Suez Canal—both long and expensive routes. By the opening of the Panama Canal, New Orleans will be 9,234 miles from Yokohama, via San Francisco, instead of 14,929 miles via the Suez Canal as at present.

If it were possible to trace a single particle of nitrate of soda from its removal from the earth in Peru until it had partly fulfilled its mission to commerce, it would illustrate forcibly one of the effects of the opening of the Panama Canal. Under present conditions, it makes its voyage from Iquique to Liverpool, a distance of 9,000 miles, in round numbers, around Cape Horn. Thence it travels to this country across the Atlantic Ocean, a distance of 3,000 miles or more. Here it is combined with the crude phosphate and becomes a part of the small amount of fertilizer which is manufactured in this country destined for foreign consumption. In its new form, it travels, let us say, to the wool-growing section of Australia via the Cape of Good Hope, a distance of 15,000 miles, still speaking in round numbers. It fulfils its mission there in fertilizing the grazing-land, and it appears again in commerce as Australian wool, destined for use in manufactures in the United States. In that form, it travels through the Suez Canal to London, the world's great wool market, a distance of 12,000 miles, and again across the Atlantic to New York or Boston, another 3,000 miles, making a total distance traveled of 42,000 miles from the crude nitrate to the raw wool ready for the mill.

This great journey is not wholly necessary so far as the simple question of distances is concerned; but this long route must be followed because of the natural flow of commerce established on old currents which have become fixed by the establishment of markets, by custom, and by banking facilities. The influence of the Panama Canal in this special instance is most strongly defined. The new route would bring the nitrate to Charleston from Iquique, a distance of 3,638 miles. As fertilizer, it would go by rail from Charleston to New Orleans for shipment to Sydney, a distance of 9,251 miles by the canal. In the form of wool, it would return to New York over a course of 9,852 miles, making a total of 22,741 miles traveled, or a little more than one-half the present course.

There is no commercial principle truer than the economic axiom that commerce follows the established lines of transportation. Commerce seeks the course of least resistance, and it is the working out of this theory which shows us the spectacle of commodities going by devious and roundabout routes which have become established, with all of the artificial aids which spring up around commercial centres. It requires more than a simple saving of a few miles to offset the other advantages which have become cumulative through many years of use and practice. Thus, London handles nearly all the wool that comes to the United States, regardless of the fact that our use of the raw material is enormous. In 1903, this country imported and consumed $27,000,000 of wool, practically all of which was used here, as we exported but $2,000,000 of manufactures from the raw material. This raw wool comes to us now through the ports of Boston and New York via London from China, Oceania, the west coast of South America, the west coast of Mexico, and, for the higher grades, from Australia. Liverpool and London have the advantage of us in being much nearer to nearly all of the ports where raw wool is shipped, though the difference is not sufficient to offset the necessary trans-shipment across the Atlantic. Along with the established lines of commerce, appliances for handling have been installed, the system has been developed, including credit and banking facilities, to such an extent that the old order of things is strongly intrenched and the wool markets of Great Britain, Germany, and Belgium are not to be easily assailed nor their supremacy wrested from them.

What is true of wool is equally true of nearly all of the commodities from the Orient, for one reinforces the other, because of the popularity of mixed cargoes; and thus our European commerce, as it appears in the yearly statistics, includes a large part of our export and import trade with the Pacific markets. Until recently, the only alternative has been to ship to the Pacific Coast, and to

pay the cost of railroad transportation across the continent; but, more lately, the establishment of regular lines of ships from New York to the Orient via Cape Horn, and by the Isthmus of Panama, has reduced the cost materially, and proved so popular that additional ships have been put on to meet the demand. Our handicap of distance will be overcome entirely, and an advantage shown in our favor, by the opening of the canal—an advantage which, expressed in miles, will be from 2,000 to 3,000, except in the case of the Chinese ports, which will still remain nearer to Liverpool by way of the Suez Canal. But these imports, together with the vast export trade which will go by the most direct route, will divert the flow of commerce to such an extent that one of the most probable results will be the direct importation from the Orient of practically all of the wool used in this country without its passing through the wool markets of Europe. This should raise New York and Boston to even greater importance as wool markets than at present, and what is true of wool is equally true of nearly all of our imports from and exports to the Orient.

Inevitably, the most radical change of all will be in our trade relations with South America, particularly with the west coast, which is now easier of access from England than it is from the United States. The larger part of the continent of South America lies to the east of the United States. A line drawn north and south through New York would fall 2,600 miles inland from the extreme eastern point of Brazil, and, if drawn through Washington, it would pass through Callao on the west coast of Peru. To reach the west coast of South America, a sailing vessel—and up to the last few years the bulk of our South American trade was by sail—bound from New York must sail eastward nearly to the Canary Islands in order to take advantage of the trade-winds to make and pass Cape Saint Roque, on the east coast of Brazil. But the European sailing vessel lays a direct course, and thus makes a saving of perhaps ten days on the average over its American competitor. If steam transportation is used direct, there is the necessary trans-shipment at Panama across the isthmus, costing the American shipper from 30 to 50 per cent. more to use an American line than to follow the established current and to take his goods over a course of 14,000 miles via Europe. Freight steamers from New York to South American west coast ports charge much higher rates than those from Europe. In spite of these disadvantages, American line ships are in demand and are increasing in number.

By the opening of the canal, New York and the ports of the Atlantic coast of the United States will be from two thousand to three thousand miles nearer than those of Europe, and this shorter route may bring to us direct that part of our trade with South America which now goes by way of Europe. The tendency is toward direct trade, and in the decade ending with 1900 our exports to that section increased 225 per cent. The impetus which will be given to the direct trade with the west coast of South America by the opening of the canal is likely to make a call for more tonnage than can be furnished by our attenuated merchant marine unless its growth in the next decade is greater than is hoped for by the most sanguine; but the British tramp steamers can be depended upon to supply an amount of tonnage which will force down the rates now charged by the American ships which trade direct. This will be the logical outcome, for, to take advantage of the shortened route to Europe—the saving by the canal being about three thousand miles—it will be necessary for these vessels to pass within a few hundred miles of the Atlantic coast of the United States, with its many ports and rich freights. By adding those few miles to the voyage, it will be possible for a vessel to load at Liverpool for New York, there to discharge and take on additional freight, to stop at our southern ports and to take on cargoes for South American ports, and to return by the same route, thus doubling the possibilities of profit while still saving more than two thousand miles. This diversion of the current of European trade with South America would give our Atlantic seaports the same commercial advantage that a city has which is on a trunk-line railroad over one which is at the end of a spur track.

A similar advantage ought to follow in European trade with the Orient. It is probable that, in the future, a large amount of European trade with the Orient will go by way of the Panama Canal, for a vessel loading at Liverpool or any European port can touch at New York and at our southern ports on the way down, picking up freights for the east, and, by touching at our Pacific ports,

HOW THE TRADE ROUTES OF THE WORLD WILL BE SHORTENED BY THE PANAMA CANAL

		TO NEW YORK	TO LIVERPOOL	TO NEW ORLEANS
SAN FRANCISCO	via Magellan	13,714	14,084	14,144
	via Panama	*5,299*	*8,038*	*4,698*
YOKOHAMA	via Suez	13,564	11,640	14,029
	via Panama	*9,835*	*12,574*	*9,234*

		TO NEW YORK	TO LIVERPOOL	TO NEW ORLEANS
HONG KONG	via Suez	11,655	9,731	13,020
	via Panama	*11,711*	*11,183*	*11,143*
SYDNEY	via Good Hope	13,658	12,234 (*Suez*)	14,624
	via Panama	*9,852*	*12,591*	*9,251*

participate in our heavy grain and lumber trade with Japan and China. This would result in a shorter voyage in most instances, though even where the voyage was lengthened the commensurate gain of stopping at so many rich ports would more than offset the longer distance. Vessels of American registry would obtain a slight advantage over foreign vessels by being enabled to participate in our coasting trade, an advantage which is not to be lightly considered, now that our coasting laws apply, or will soon apply, not only to the Hawaiian Islands, but to the Philippines. In this way, the canal will give an impetus to the favor in which around-the-world voyages are coming to be held, in contradistinction to the shuttlecock trips of the old packet-ships which were wont to ply with great regularity between fixed ports.

The peculiarly favorable position of Europe, in being able, through the nearness of its ports to those of the Far East, to grasp and to hold the trade and trade currents, was emphasized by the opening of the Suez Canal, which, however, is used principally for passenger and fast freight transportation. Much slow freight from Europe for the Orient still goes by way of the Cape of Good Hope because of the Suez Canal toll of $2 per ton. The tolls by the American Canal will probably not exceed $1 per ton. In the case of American exports for Australian ports, the Suez Canal has given little advantage over the Cape of Good Hope route, for the distances are not materially different, and the latter route is favored because of the advantages of winds, currents, and temperature.

In examining the alterations in the conditions which will bring about these changes in the commercial currents of the world, there are one or two features besides the simple matter of distances which must be borne in mind. The ability to get profitable cargoes, the fuel-supply, and, in the case of sailing vessels, favorable winds and currents, must be considered. A voyage between two distant points by a route which has many intermediate ports of importance and activity is more profitable than a shorter route which presents no opportunities for trading by the way. The bulk of the world's commerce today is carried in the so-called "tramp" ships, largely British, which go from port to port, having no fixed or definite route except that they follow the natural flow of commerce, and are ready for charter in any port of the world, and ready to go to any other, preference, of course, being given to those ports where the greatest amount of freight may naturally be expected to be waiting. This has brought about the system of around-the-world voyages of today in contradistinction to the regular trips of the "liners" and packet-ships. It must be borne in mind that the United States exports more than it imports, and hence that its flow is mostly outwardly, while the contrary is true of Europe. But our exports are so diversified and are in such demand in all parts of the world that, even were the distance a little greater from Europe to the Orient and to the west coast of South America, by way of the canal, instead of shorter, as it will be in most cases, the advantage of being able to trade with all of our Atlantic, Gulf, and Pacific ports in transit will be a strong factor in bringing about the change of routes. Our Atlantic ports are able to supply fuel, and on our Pacific Coast there is a supply of coal in excess of the present demands, with further resources at Puget Sound. Japan and China are also so well able to meet the demands upon them for fuel that there is no physical reason to offset the manifest advantages of around-the-world voyages. Such voyages would make a great central current of commerce along the entire coast-line of the United States on both oceans and on the Gulf, placing us in the direct line of the natural flow, which will bear the richest freights for all parts of the world, and which will remove us from our present position of partial isolation from these currents as they now run.

MAKING NEW TRADE FOR US

All the Gulf ports, and particularly New Orleans, must of necessity be vastly increased in relative importance. This will be partly because of the increased activity of the southern States, and further because the commodities of the already immensely active central West, which now seek an outlet by hauling one-third of the distance across the continent, will have the opportunity to ship by way of the Gulf ports. Besides being increased in importance as ports of export, the Gulf ports will become import ports for the reception of, and distribution of, goods from the South American countries; and a port cannot truly develop into greatness unless it handles both the incoming and the outgoing freights. New

York now handles the larger share of the products and manufactures of the central West which are destined for the west coast of South America and the Orient; but the opening of the canal will establish a new route via the Ohio and the Mississippi rivers, or by rail to the Gulf ports and thence direct by steamer. Already the people and merchants of the Ohio Valley are bestirring themselves in order to be able to take advantage of the change in the situation as soon as it is actually accomplished. The dredging of the Ohio River from Pittsburg to Cairo is the corollary of the opening of the canal in order to provide cheap water transportation for the great industries of that section to New Orleans.

The handicap which the central West suffers in its manufactures is no light one. Producing, as it does, commodities which are in demand in every part of the world, it is about as badly situated for reaching its markets as can be imagined; and, great as its trade now is, because necessity knows no law, it is restrained and restricted because, in addition to the disadvantage under which New York labors in reaching the Pacific countries, the West has the further disadvantage of the overland haul to the seaboard. From a report of actual exports made to the Isthmian Canal Commission, the immensely varied products of this section—mostly in the form of iron and steel, machinery and builders' hardware—sought its markets by the following routes:

To the coast of Central and South America: via New York by rail and around Cape Horn; or via the Isthmus of Panama, involving transshipment.

To the west coast of the United States and Canada: Southern Pacific Railway via San Francisco; over various railways and lakes; via Panama Railroad.

To Japan and China: via New York by rail and the Suez Canal; via San Francisco by rail, thence by steamer to Vladivostok and by steamer to Nagasaki.

To Australia and Oceania: via New York by rail, thence by steamer around the Cape of Good Hope; by rail to San Francisco, and thence by steamer.

To the Indian Ocean: via New York by rail, thence by Suez Canal.

A comparison of the distances traveled now by these commodities with the distances by the canal may be made by the use of the map of routes previously given.

A certain loss to the Pacific Coast seems inevitable from the operation of the canal in diverting from it the freights which now seek the East by way of its ports. That this will not be a net loss is due to the compensating effect of the canal, which will give with a more liberal hand than it will take away. For years, the wheat crop of California has not increased, and it is probable that the ease with which the necessary fertilizers can be obtained by means of the canal will largely increase its crops for export. And, as the canal will open up the markets of the East to our Atlantic States, so will it open to our Pacific States the markets of Europe where the demand for the products of our western coast has been kept down only by the extreme difficulties of transportation. Just as the canal will bring the west coast of South America in closer touch with our eastern States, so will it bring the east coast of that continent in closer touch with our Pacific Coast.

The California redwood, for instance, is in great demand in all the Atlantic countries, but it costs $15.85 per ton to transport it in sailing vessels around Cape Horn to Europe. The use of the canal for this traffic should reduce the transportation expense at least one-half. The immense traffic in California wines and green and dried fruits is now shipped overland and to Europe, or by the Panama Railroad, or, to some extent, around Cape Horn; and all of this traffic may be expected to seek the canal. In 1899, the three Pacific States, California, Oregon, and Washington, shipped 13,354,000 feet of lumber to Europe, 3,149,000 to Argentina, and 15,944,000 to South Africa, practically all of which went around Cape Horn. In the same year, their exports of wheat to Europe were one-seventh of the total of the United States. About 75 per cent. of all the hops grown in this country is produced in these States, largely for the use of European brewers, and all these shipments are reasonably certain to constitute a large part of the return traffic through the canal rather than to seek the longer route around the Horn. There is, moreover, a competition which is increasing steadily, and making inroads upon the present commerce of these western States with Europe. Argentina is already a large exporter of grain, wool, and hides, and is becoming a producer of wines and fruits, and the same is true of South Africa and Chile. The maintenance of the European markets

now enjoyed by our western States depends to a large extent upon their ability to meet this competition, and in this connection it may reasonably be said that, without the canal, it would be an impossibility.

Thus, the great changes in trade currents, and in the making of new currents and the bringing of new markets, and in the creation of new trade, will make the canal a revolutionary force in civilization. Its enormous benefit to our country can only be foreshadowed—not foretold.

FREEING A CITY FROM A RAILROAD'S CONTROL

PITTSBURG AS IT WAS WHEN IT HAD ONLY ONE RAILROAD SYSTEM—INDUSTRY DISCOURAGED, GROWTH HINDERED, CONSTANT TROUBLES OF TRAFFIC—PITTSBURG AS IT NOW IS AFTER A SUCCESSFUL FIGHT OF FIVE YEARS FOR A COMPETING SYSTEM—THE GREATEST WORKSHOP IN THE WORLD—THE STRUGGLE IN THE COURTS, IN THE COUNCIL, IN LEGISLATURES, AND IN CONGRESS—GREAT ENGINEERING DIFFICULTIES OVERCOME

BY

JOHN L. COWAN

FIVE years ago a single railroad held Pittsburg, the roaring centre of American industry, in its grip of monopoly. All the great business of the city had only one railroad outlet. But another railroad has now broken that monopoly and given the city another outlet. The contest between the two was one of the most dramatic battles in the annals of business warfare. It was fought out in city councils, in legislatures, in the courts. The struggle of the owners of the new road was carried on against apparently insuperable natural obstacles, also, for the topographical conditions of the country through which any new road could be built were considered impracticable even by expert engineers. But the thing was done. The financial opposition was overcome, the franchises were secured, and the natural difficulties mastered; and the second road is in operation. The story of this contest is as thrilling as the story of any other kind of war, and it illustrates the forces that make and that mar great business undertakings in these days of eager competition—the forces of personalities, of money, of local politics, of engineering.

Pittsburg itself has a population of somewhat more than 325,000, and is the business home and commercial and financial clearing-house of more than 700,000 people. Its banking business is exceeded by that of but five cities in the country. It holds first place in the world's production of iron, steel, tinplate, iron and steel pipes, steel cars, air-brakes, electrical machinery, brass, coal and coke, fire-brick, plate-glass, window-glass, tumblers, tableware, petroleum, pickles, white lead, and cork. Within the district are 5,000 manufacturing establishments, with invested capital in excess of $500,000,000, turning out annually a product valued at $450,000,000, and giving employment to more than 250,000 persons. It is the centre of 100,000 square miles of bituminous coal lands, as compared, for example, with Great Britain's 11,000 square miles. In 1902 the district produced 712,000 tons of steel rails. Its production of coke, plate-glass, lamp-glass, structural shapes, tubing, tinplate, and crucible steel exceeds that of all the rest of the United States. It originates a tonnage of freight nearly five times as great as that of either New York or London; and greater than that of New York, Chicago, and Philadelphia combined. It shipped in 1902 76,950,000 tons of freight by rail and 9,686,680 tons by water. To take care of this enormous freight traffic, a year ago, there was but one great railway system, the Pennsylvania, inadequately supplemented by two insignificant lines to the Great Lakes—the Pittsburg & Lake Erie Railroad, a part of the Vanderbilt system; and the Bessemer Railroad, controlled by the United States Steel Corporation, and designed primarily to carry iron-ore

from Lake Erie to the Homestead Steel Works.

The Pennsylvania Company's lines east of Pittsburg handle 75,000 tons of freight daily for every mile of track of the main line; and in 1903 the earnings of that portion of the system amounted to $165,000 a mile. This was the gold mine of railroad business—the richest and most valuable in America; and it was this that the Wabash Railroad fought to share and the Pennsylvania to retain.

Great and well-managed as the Pennsylvania Railroad system is, it proved unequal to the demands made upon it. No serious competition compelled attention to the requirements of the public. Pittsburg shippers paid high freight-rates and could not secure satisfactory service. Many manufacturers were driven to other cities, and many more were deterred from locating in or near Pittsburg. The owners of scores of small coal mines and manufacturing establishments were forced to the wall or compelled to sacrifice their properties because they could not secure cars to carry away their products; and tens of thousands of miners, laborers, and skilled workmen were kept living from hand to mouth because their employers suffered from the dearth of cars. To many, the situation for years was intensely serious, though it was relieved now and then by an incident almost ludicrous. For example, the people in a thriving town not far from Pittsburg bitterly complained that they had to miss their annual visit to the circus because the railroad company refused to haul the circus train, on the ground that they were unable adequately to care for the ordinary traffic.

The climax was reached in the fall of 1901 and 1902, when the great wave of industrial prosperity reached its height. The freight service in and around Pittsburg collapsed utterly. Freight-yards and side-tracks were packed and jammed with cars that could not be moved; train-crews were worked to the limit, powerless to bring order out of the chaos. Meanwhile the unprecedented flood of products from mill, mine, factory, and farm came pouring in. Thousands of workmen were idle for weeks waiting for materials that were rusting in cars blocked on side-tracks, within a few squares of their destination but inaccessible; and the owners of mills and of factories canceled orders, paid forfeits, and closed down their works. Never before did such a condition confront the managers of a great railway system; and never again, it is safe to say, will the managers of the Pennsylvania Railroad permit themselves to be caught so unprepared to meet an emergency. But this great traffic block awakened the public to a realization of the vital issues in the contest that the Wabash had even then begun in order that it might share the Pennsylvania's business.

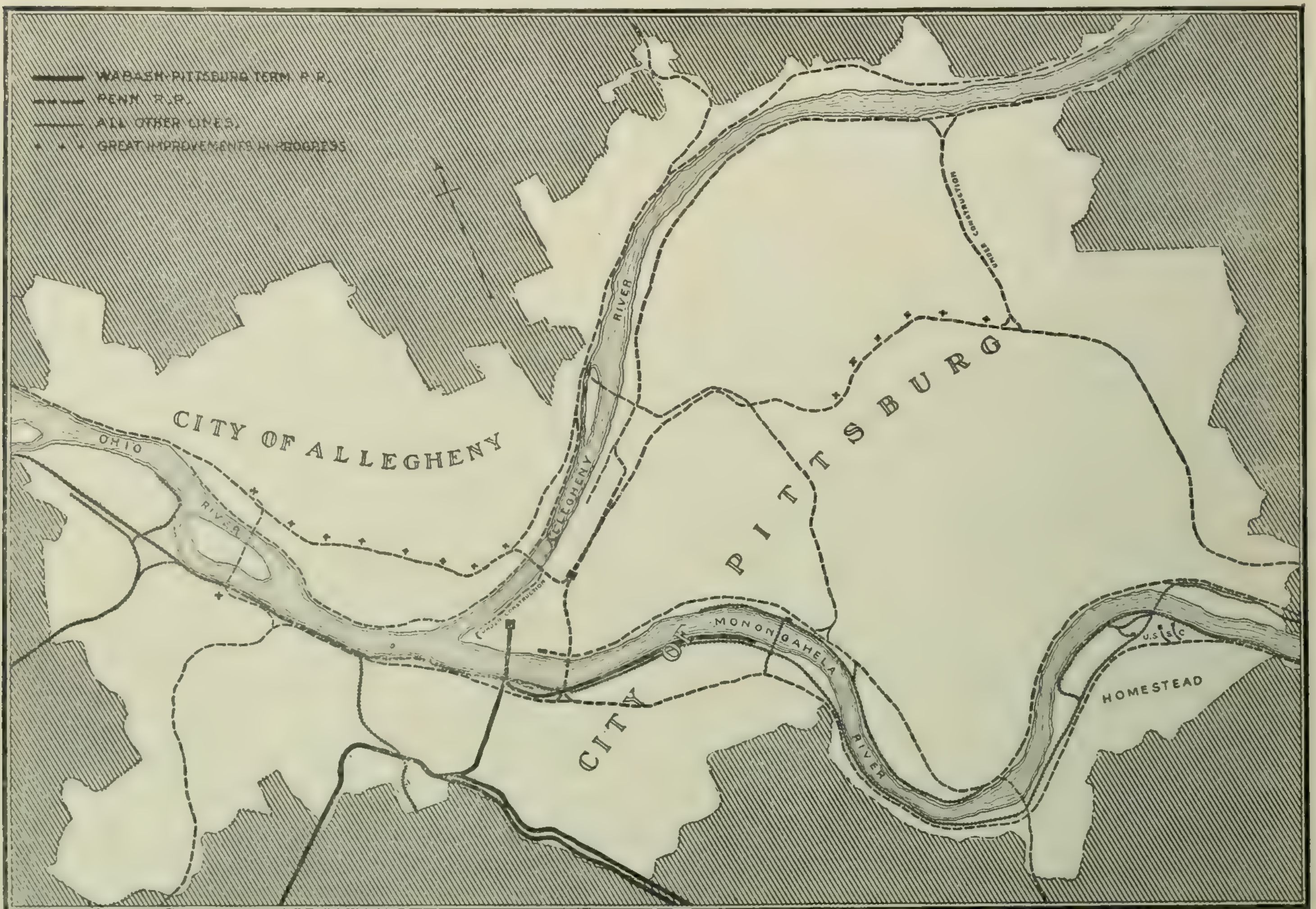
At this time it had long been assumed that every available railroad route into Pittsburg had been taken. The Pennsylvania system in its chief stronghold seemed to be unassailable, not only financially and politically, but even physically. Both sides of the Ohio River and both banks of the Allegheny and the Monongahela were occupied by the tracks of the Pennsylvania railroad and the allied lines—all bound by a "community of interest" agreement. Every valley furnishing access from the north, east, and west was crowded with tracks which were nearly always blockaded with freight-cars; and the whole South Side of the city was thought to be effectively barred by the solid rock-ribbed ramparts of Mount Washington and Duquesne Heights. When the rumor was first heard that the Wabash was about to enter Pittsburg, therefore, the managers of the competing lines merely smiled.

President Joseph Ramsey, Jr., of the Wabash, however, was born and reared in the South Side of Pittsburg; and he knew the topography of the adjacent territory as well as any man living. He received his engineering training among the mountains and hills of Pennsylvania, and he can see a railroad route with low grades in places where others may see nothing but obstacles. For a quarter of a century he cherished a project for a great railroad to connect his native city with the West. As early as 1882, he made a survey for a line following practically the route finally taken by the Wabash.

Five years ago Mr. Ramsey laid his plan for a line to tap the Pittsburg district before Mr. George J. Gould, who controls the Wabash system. According to Mr. Ramsey, a Pittsburg terminal was a strategic necessity; but Mr. Gould hesitated when he was told of the probable cost. Forthwith, President Ramsey played a trump—an agreement signed by Andrew Carnegie, still effective although it was made before the United States Steel Cor-

poration was born, guaranteeing to the Wabash an enormous annual tonnage of freight from the Homestead mills, beginning just as soon as the Wabash was able to handle it. He produced similar contracts signed by the largest shippers of manufactured products in the Pittsburg district. These seemed to show that the new railroad would pay. The agents of the Gould railway system were at once put to work. It was necessary to keep the plans a secret.

The scene now shifts to Washington. Years before, Congress had authorized the construction of a railroad bridge across the Monongahela River into Pittsburg. The bridge was never built, and the rights lapsed by limitation. But in the closing days of the Fifty-sixth Congress a joint resolution was produced providing for a revival of this right in favor of a company called the Pittsburg & Mansfield Railroad Company. This company was organized, it was explained, to build a trolley line into the suburbs south of the city. It is a question whether the gentleman who introduced the bill would have done so if he had suspected the attack on the Pennsylvania railroad that it contained. The chances of its passage in the hurry and bustle of an expiring session were exceedingly remote, for Congress is at all times filled with watchdogs, alert to detect hidden motives in apparently innocent legislation. If the purpose of this resolution had been suspected, some of the most powerful interests in the United States would have been arrayed against it: and a single objecting voice would have killed it.



THE NETWORK OF RAILROADS MONOPOLIZING THE BUSINESS OF PITTSBURG AND OCCUPYING THE STRATEGIC LINES OF APPROACH. THE HEAVY LINE SHOWS WHERE THE NEW RAILROAD ENTERED

But the measure passed. Two diminutive piers were built in the Monongahela River, and then the Pittsburg & Mansfield Railway project went to sleep. No one dreamed that the Wabash was the power behind it. But it was.

The next step was to secure a local road already in existence. In the fall of 1900 the Wabash bought the Wheeling & Lake Erie Railroad, a modest single-track coal road—owned by Myron T. Herrick and his friends. This road extended from Toledo to Wheeling.

THE TERMINAL OF THE NEW RAILROAD IN PITTSBURG

In the background appears the new bridge above the Monongahela River over which the line comes into the city

THE SITE OF THE TERMINAL
Before work was begun

The Pennsylvania company had not considered it of sufficient importance to absorb

BUILDING THE TRAIN-SHED FOR THE STATION

it. At Jewett, this road turns sharply to the southeast, reaching the Ohio River twenty-

THE SHED NEARING COMPLETION
Tracks laid and framework finished

five miles below, at Warrenton. Then a branch turned off to the north and followed the river to Mingo and Steubenville, making a roundabout journey of nearly forty miles to go twenty. One day President Ramsey tramped across the hills from Mingo to Jewett and decided that a cross-country line along the route he traversed was practicable, and almost immediately work was begun, cutting a line through the hills. Then the scales fell from the eyes of the managers of competing lines. They knew that the Wabash was not spending millions to secure a short cut to an obscure way-station like Mingo. They soon found that the Pittsburg, Carnegie & Western Railroad Company had purchased the charter and the franchises of the Pittsburg & Mansfield, the Cross Creek Railroad Company, and the Pittsburg, Toledo & Mingo to Pittsburg. That these roads were all figureheads for the Wabash was apparent to them all. And when Wabash engineers began to bore a tunnel more than a half-mile long through Mount Washington and another a mile long at Greentree, doubt was no longer possible. It was evident that the feat of putting a new line into Pittsburg was to be attempted; so the managers of competing lines prepared to fight.

Then the fight was transferred to the courts. The advance of the new road was opposed in the courts of Ohio, West Virginia, and Pennsylvania; and all the resources of the law were used to prevent, to obstruct, or to delay the enterprise. Wabash ordinances were held up in Pittsburg Councils for two years, until the question of their passage became the supreme political issue of the city. In the end they were forced through by public opinion—and by the election of new councilmen. The power of the Supreme Court of Pennsylvania was invoked to stop the progress of the work within the limits of Pittsburg, involving exasperating and costly delay. The bitterness of the struggle was shown by this act of the Pennsylvania Railroad Company—it had every Western Union Telegraph pole on its right-of-way in Pennsylvania cut down in one day, because the Western Union was a Gould corporation. More than $50,000 worth of property was destroyed.

A physical misfortune also overtook the Wabash people—a portion of the great Monongahela River bridge collapsed, killing nearly a score of workmen. A section of the bottom

THE WHISKY RUN VIADUCT
One of the costliest pieces of engineering on the Wabash extension line

MR. JOSEPH RAMSEY, JR.
President of the Wabash Railroad, who carried on the fight to give Pittsburg a new outlet

of the Greentree tunnel settled, because a coal mine that had been abandoned so long ago that its very existence had been forgotten extended under it. The repairs cost $40,000 and delayed the work six months. Strikes, riots, and labor troubles; epidemics of smallpox among the workmen; floods and landslides, added new difficulties to the enormous natural, legal, and financial obstacles, until it seemed that man and nature had conspired to keep the Wabash out of Pittsburg.

But not once was the work allowed to lag. When stopped in Pittsburg, the Wabash contractors worked all the harder outside. Although the railroad was barred from the streets of the city, and it was freely predicted that the necessary ordinances for its admission would never be forced through the city Council, the bridging of the Monongahela River went steadily forward. For every move made by its enemies the Wabash was ready with a counter move. And at last the Wabash triumphed.

The terminal railroad, as the Wabash is there called, begins at the new Pittsburg ter-

LAYING TRACK BY MACHINERY
This device enabled the Wabash to build its extension in a month's less time than would have have been required by old methods

CAISSON WORK FOR THE NEW BRIDGE
At high water in the Monongahela River

minus, a massive steel viaduct four blocks long—a ten-story station that cost more than a million dollars. This station stands on historic ground. It is within the limits of the old stockade that surrounded Fort Duquesne, and near-by stands the old blockhouse—the

BEGINNING THE MASONRY WORK
For a pier of the Monongahela bridge

last remaining relic of Fort Pitt. Workmen excavating for the foundation unearthed a number of relics of historic interest and value.

Where the viaduct ends, the most notable cantilever bridge in the Western Hemisphere is built across the Monongahela River. This bridge is the greatest engineering feature of

CAISSON WORK ON THE BRIDGE PIERS

the whole new line. Only the bridge across the Firth of Forth in Scotland is a larger bridge of this type. When the structure across the Firth of Forth was built, a structural-steel plant was erected on the ground, in which every beam was made from measurements taken on the spot. The structural material for the Pittsburg bridge was made in Pencoyd, Pa., from plans drawn by the architects; and it was shipped to Pittsburg, every piece numbered and marked ready to be put together as the parts of a watch are put together. No false-work, scaffolding, or temporary supports of any kind were used. The workmen built straight out over the water from the terminal piers. When the two halves met in the centre, before the con-

FILLING THE CAISSONS WITH CONCRETE
For anchorage piers

necting pins were driven, the overhanging weight dependent on each pier was more than 2,500 tons. The bridge is more than a half-mile long.

Across the river from Pittsburg the road plunges into a tunnel 3,333 feet long, cut through the solid rock of Mount Washington; it passes over another great viaduct and through another short tunnel; it skirts a hill-side and enters the mile-long Greentree Tunnel. At the end of this tunnel are the rail-road yards, and then comes Whisky Run Viaduct, spanning a valley that was the scene of the famous Whisky Insurrection in 1794, when vats and hogsheads of whisky were poured by the government officials into the stream. A long series of arches, bridges, cuts and fills then carried the track through the thriving towns of Carnegie and Bridgeville; and here Gould City, where the car-shops and

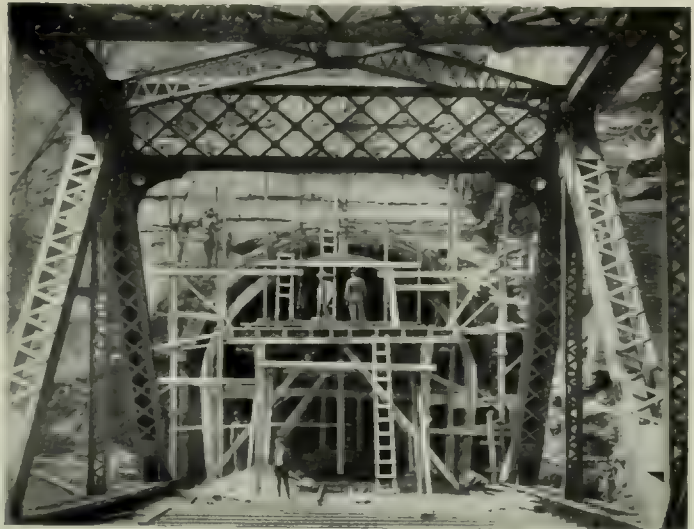
repair yards will be located, is springing into being with the rapidity of a boom town in Oklahoma. The route through the valley of Miller's Run is the only portion of the sixty miles of track where anything resembling a level grade was found. Here are half a dozen busy coal-mining towns. Between the last two is a country of fertile farms and broad woodlands.

Beyond the last of these, Venice, begins a

WHERE A TUNNEL WAS DUG
The rocky side of Mount Washington, showing the tower which was used to fix the line of the tunnel

series of tunnels, all blasted through solid rock. In one place are twin tunnels, so-called, only a hundred yards apart. At another place the course of Cross Creek was changed, and 60,000 cubic yards of solid sandstone were blasted out to provide space for the double track along the side of the precipice. A little farther on is the State Line Tunnel, one end in Pennsylvania and the other in West Virginia. Three more tunnels inter-

BEGINNING THE TUNNEL
Under Mt. Washington



THE PORTAL OF THE TUNNEL
Ready for the masonry

THE TWIN TUNNELS ON THE NEW LINE

STARTING THE WABASH CANTILEVER BRIDGE OVER THE MONONGAHELA
The bridge finished above the tracks of the competing railroad

vene, and then the track emerges upon the mile of bridge and viaduct that crosses the broad Ohio River bottoms at Mingo Junction. This bridge is the next largest cantilever bridge in America. Trains emerge from the tunnel through the West Virginia hill directly upon the bridge, and, on leaving it on the Ohio side, pass immediately upon a 180-foot truss bridge over the Wheeling & Lake Erie Railroad tracks. Then follow two more truss spans, a trestle 70 feet high and 1,150 feet long, and three more truss spans, over the Cleveland & Pittsburg Railway and the tracks of the Carnegie Steel Company. Then the trains run for 200 feet over a trestle 70 feet high; then over Cross Creek on a three-span bridge, and along a fill 500 feet high for 900 feet, then over some more short bridges and fills, and enter the first of the Ohio tunnels, of which there are eight.

THE METHOD OF CONSTRUCTION
Using a traveling crane and no false-work

In New Alexandria, at the foot of Chapel Hill, may be seen the largest single mass of concrete in the shape of an arch in the world, supporting the Wabash tracks. It is a 50-foot span, with a barrel 18 feet long. This arch, through which McIntyre Creek flows, contains 17,000 cubic yards of concrete, or about twenty thousand barrels of cement, and cost $135,000. On the new line there are eight of these arches, all of similar construction and equal height; but the barrels of the other seven are shorter.

THE BRIDGE APPROACHING THE CENTRE

When the Wabash interests finally won success, their achievement had cost them $35,000,000. They had spent $12,000,000 to buy a small railroad called the West Side Belt Line, with its branches and associated companies—property which included 15,000 acres of coal land, seven coal mines with an annual output of 3,000,000 tons, and thirty-six miles of railroad with valuable terminals in Pittsburg and Clairton which furnished access to nearly all the important establishments in the Pittsburg district. They had spent $23,000,000 to construct the terminal railroad, which carried the Wabash at last into the heart of the city. The line was only sixty miles long, but it cost more than $380,000 a mile to build it.

It cost $5,000,000 for the single item of a right of way in Pittsburg, from the Monongahela River front to the site of the new terminal station. A railroad was constructed which consists of the most remarkable series of viaducts, bridges, tunnels, cuts, fills, arches, trestles, and culverts ever put together by human ingenuity. There are twenty tunnels. There is a bridge for every mile, including the two largest cantilever structures in the United States. Yet there is no grade heavier than 1 per cent., nor any curve exceeding three degrees. After the feat of building such a line as this, it will be long before railroad engineers again say that anything is impossible in railroad construction.

The day of inefficiency and monopoly in the

THE STRUCTURAL BEAMS CONNECTED AT THE BOTTOM

business of transporting freight in the Pittsburg district has passed. The period of strife, bitterness and conflict is over. What of the conditions now?

Not only what the Wabash has done, but what it has compelled its competitor to do as well, has opened a new industrial era for the district. The shipping and receiving facilities of Pittsburg in 1905 will be more than double the facilities in 1903. Manufacturers are now in a position where competitors seek to do business with them. Shippers no longer beg in vain for empty cars regardless of freight rates and conditions, but study their own advantage rather than the convenience of transportation companies.

The first regular train that went out of the Wabash station at Pittsburg put into effect cut-rates to the Louisiana Purchase Exposition. The cut was promptly met by every other road that was in a position to bid for a part of the Exposition traffic, so that every person in the Pittsburg district who has visited the Fair has enjoyed one of the benefits of the new régime. Freight rates to the Atlantic seaboard on iron and steel and their products intended for export have been lowered. Exports of these products from Pittsburg and the vicinity have exceeded all previous records; and for the first time in the history of this country the exports of manufactured articles have exceeded the exports of agricultural products. Merchants, manufacturers, and jobbers, seeking business in adjoining States, have traveled on special trains, enjoying facilities, courtesies and accommodations impossible even a year ago. In and around Pittsburg, wherever the terminals of the Wabash extend, or improvements are under way or projected by the Pennsylvania system, rows of shaky tenement houses and antiquated dwellings have been torn down to make room for great warehouses, skyscrapers, and business blocks. Great manufacturing establishments are being enlarged, and small ones are springing into existence daily. Along the line of the new railroad, mines are being opened and prospected for, manufacturing sites purchased, towns are springing up as if by magic, and real estate values have doubled. The industrial depression of last year was probably as severely felt in Pittsburg as anywhere else; but it created little alarm. It is now regarded as the precursor of an industrial renaissance that will make the Steel City more conspicuously than ever the world's greatest workshop.

THE COMPLETED WABASH BRIDGE INTO PITTSBURG
The largest cantilever bridge but one in the world

A WATERMELON PARTY OF THE SMITHONIA HANDS

Photographed by Salter

A GREAT FARMER AT WORK

COLONEL JAMES M. SMITH, WHO HAS MADE A FORTUNE FROM THE SOIL—BEGINNING AFTER THE WAR WITH SIXTY FIVE UNPROFITABLE ACRES, HE NOW MAKES FROM 23,000 ACRES $100,000 A YEAR—THE DAY'S ACTIVITIES OF A BENEVOLENT AUTOCRAT WHO MANAGES A BIG INDUSTRY BY HUMAN TOUCH

BY

HARRY HODGSON

MILLIONAIRES who have won their wealth by farming are few, for men are rare who can make a farm an institution. It is therefore not strange that Colonel James M. Smith, of Georgia, is considered perhaps the most remarkable man in the State. He began to grow corn and cotton in Oglethorpe County directly after the war. The result of his first year's work was a loss of $400. Now his net earnings are more than $100,000 a year. Yet this is but one measure of a singularly successful life. For "Colonel Jim" or "Marse Jim," as he is affectionately called, has shown what may be done in southern agriculture, and he has made Smithonia, his farm, a monument to an individual kind of unusual efficiency.

His first year's farming, on sixty-five acres about ten miles from Athens, resulted in a yield of two bales of cotton and fifty bushels of corn—an unprofitable crop, though cotton was then worth 42 cents a pound and corn $2 a bushel. That was in 1866, when the land was depleted and a drought had blighted the crops so that many farmers made no attempt to harvest the little that grew. The people in Georgia who had owned land and slaves had nothing left after the war except poor, worn-out plantations. Most of the houses were dilapidated, with rotten roofs and walls ready to fall. Most of the farm buildings that had not been burned—the barns, corn-cribs, and other structures—were roofless. Stark and naked chimneys marked the spots of former homes. Labor was demoralized. The Negroes were rushing from the farms to every near-by town in which there was a Federal garrison, filled with the

Photographed by Salter

PULLING FODDER FOR THE SMITHONIA STOCK

notion that they were wards of the government, to be fed and clothed at the government's expense. Moreover, the report had gained circulation that Uncle Sam was going to confiscate the land of the white men and distribute it among the Negroes, giving each Negro forty acres of land and a mule.

Land-owners had little hope for the future. Some of them even believed that the Republican Congress, under the leadership of Benjamin F. Butler and Thaddeus Stevens, would pass laws confiscating landed property in the South and parceling it out to the Negroes. The uncertainties of the situation made achievement almost impossible.

Knowing the story of that hard first year, I once asked Mr. Smith if his courage failed him. His reply was characteristic.

"No," he said. "It was a disappointment, of course, and retarded me a good many years by burdening me with debt that I was only able to overcome by very slow degrees, but I

Photographed by Salter

A FIELD OF TOPPED COTTON
Part of a thousand-acre tract

COLONEL SMITH ON HIS VERANDA

Where he transacts most of his business and from which he directs the farm

ALL HANDS RECEIVE A WATERMELON AT THE END OF THE DAY'S WORK

had sense enough to know that a man must look further ahead than one year. Nothing is so generous as Nature, and I knew results would come in time."

They did come. Last year there was produced on his 23,000 acres, much of which is in timber and pasturage:

3,000	bales of cotton
25,000	bushels of corn
12,000	" " wheat
15,000	" " oats
6,000	" " cowpeas
6,000	" " sweet potatoes
10,000	" " turnips
500	tons of hay and forage

But this is not all. On his highly diversified farm he raises great numbers of hogs, beef cattle, etc., and his dairy turned out last year more than 20,000 pounds of butter.

Facts like these tell the story of his achievement. He has wrested prosperity from devastation. He is now sixty-four years old. His life has been one long struggle, and the habit of fighting through difficulties has so fixed itself upon him that he cannot shake it off. Though possessed of great fortune, he still works as if his very life depended upon it. He has never married. He has lived as a general in command of an army of workers. His house is conducted somewhat after the fashion of an army camp. There is an absence of feminine charm and influence about the place, but no lack of genuine hospitality. In my frequent visits to Smithonia during a number of years, I cannot recall a single meal at which several visitors were not present. They are as certain to be there as at a public inn, and provision is always made for them.

On his front porch, all through the day and often until after midnight, Colonel Smith receives couriers with reports from all parts of the farm, and here he gives them his orders to carry back.

"A farmer," he says, "must be possessed of the qualifications of a good general. Farming is not like ordinary kinds of business. A good superintendent can be employed to

Photographed by Salter

A SMITHONIA TRAIN ON THE PRIVATE RAILROAD

Owned and operated by Colonel Smith

manage a cotton-mill or an oil-mill, and, if he has good capacity and intelligence, he will conduct the mills to your satisfaction, for they are always managed in the same general way. But it is impossible to obtain the right sort of men to operate farms. The plans made tonight for tomorrow's operations may be entirely upset by a change of weather before morning. Hundreds of my laborers set out in the early morning to plow, and before ten o'clock a heavy rain comes which not only puts the ground in bad condition to be plowed, but wets the men and the stock.

Photographed by Salter

FOUR GENERATIONS—MOTHER, SON, GRANDDAUGHTER AND GREAT-GRANDCHILDREN—OF WORKERS

Colonel Smith has overcome the desire of the Negro help to move from job to job

Unless I give them personal attention, and see that the men change their clothes and the stock get rubbed dry, the chances are that many will catch cold and be out of condition for good service for a week or longer. The entire force is thus disturbed, and new plans must be made at once to give the hands something worth while to do. It is a case that requires good judgment."

He possesses a keen and intimate knowledge of every detail about the farm. I sat near him one sultry evening in September and listened to the reports of the day's work from his field-bosses. It is his custom to call them up each evening after supper, and after hearing these reports to formulate plans for the next day's work. It was unusually late that evening before he dismissed the men with his usual phrase, "I guess you had better go to bed now."

His cottonseed-oil mill superintendent had been overhauling the mill, and expected to begin the new season's run the next day. His report took up more time than usual, for not only did Colonel Smith ask questions about every main piece of machinery in the mill, but he found out the condition of every belt and pulley, every knife in the big seed-huller, every box in the oil-presses, every screen in the separator, every saw in the linter gins, and, one might say, every nut and bolt in the whole mill. Then he discussed the personnel of the force that should operate the mill. Some of the laborers suggested by the superintendent did not suit him for one cause

Photographed by Salter

MULES GRAZING IN A PASTURE

Colonel Smith knows the names and the distinctive traits of more than two hundred of these animals

or another, and he selected others. He was even more familiar with the traits and the abilities of each individual laborer than the superintendent. After he had gone over the situation, there was little doubt that the oil-mill on the morrow would start its long season's run under the best conditions possible.

Photographed by Salter

A CORNER OF THE DAIRY

"Now, Stephens," he said to the superintendent, "you mustn't forget the weather is mighty hot, and you must be careful how you work the hands. You haven't very good judgment sometimes, and you don't show as much consideration for the men as you should. You must remember that some of the niggers are too free workers, and will overdo the thing at the start if you don't watch them. Men are like a lot of mules—some of them high-strung and faster than others. If you have a very heavy load on your wagon, and the day is hot, and the mules strike a hill and go pulling up it like cats a-fighting, you would hold up on 'em, wouldn't you? And make 'em take it

Photographed by Salter

MAKING SORGHUM SYRUP

WEIGHING THE SEED COTTON

RECEIVING THE COTTON FROM THE FIELDS

easier, wouldn't you? Well, it's the same way about some of the men when they start to work. They don't realize how hot it is, and many bosses lack judgment about these matters and they make a man sick before he gets a good start. Now, that don't pay, does it, Stephens? You must be prudent and considerate when you commence a work of this sort, and I want you to be careful this time, for you know when a fellow gets in too big a hurry he's apt to run by more than he overtakes."

The Negro bosses or foremen were out in the front yard, about twenty steps away, awaiting their turn while the white men holding the more important positions were making their reports. When these had finished, one of the two young Negro messengers who are always within a few feet of Colonel Smith went out and quietly an-

Photographed by Salter

COLONEL SMITH SENDING OUT ORDERS BY A COURIER

nounced that they could come in. They came up quietly, each man removing his hat as he approached. They sat down on the long front steps. Thus they put their backs to their employer, but it was far from an evidence of disrespect. The steps were simply a convenient seat and their accustomed place on hot summer nights, when making their reports. Not a word was said for perhaps ten minutes and one could hear a pin drop. These men—many of them, at least—have come every night for fifteen or twenty years to report their day's work to "Marse Jim" and to receive instructions for the next day. They feel a deep reverence for the man who employs them, for he is the best friend they have, and year in and year out he has directed them as a father would direct his children.

He now seemed preoccupied, and they knew he must not be disturbed. The silence was absolute and the men as immovable as statues. The little messenger, Filmore—or "Coochie," as he is called by the servants around the house—was the only one who had the temerity to move, and he is so small that he can slip around in his bare feet with no more noise than a mouse. He glided around to my chair to whisper a plea for the pencil I had in my hand, but he was wary lest his whisper should he heard by the "Colonel."

Suddenly Colonel Smith came out of his reverie, and, looking at the line of a dozen backs, noted the absence of one man, though his substitute was in his place.

"Where is Caz tonight, William?"

Photographed by Salter

ONE OF THE SIX SCHOOLS ON THE FARM

"He's laid up with a risin' in his head, Marse Jim."

"Seem pretty sick?"

"No, sir. I think he will be out in a few days, Marse Jim."

Then to his larger messenger Colonel Smith said:

"Johnnie, get a buggy first thing in the morning and bring old Caz up here. I'll give him something to fix him up."

That being off his mind, he continued:

"Harrison, how did you get along with that well-digging today?"

Harrison made his report on the well-digging.

Then Fayette and Fletcher told of the progress of house-building. Every man had had some particular task, and he gave the details of the day's work. Every one reported for varying numbers of workmen who were under their direction. Most of them represented from fifty to sixty other laborers.

The principal reports were on the progress of the cotton-picking, as the fields were white, and almost all the hands were doing their utmost to get it picked before it should drop from the bolls or be stained or injured by rain. But interesting reports were made by the foremen of the stables and by the men in charge of the cattle. These men were long experienced in caring for stock, and their reports on the ailments of certain of the animals showed clear insight into the diseases of stock and their proper remedy. For any serious illness of man or beast full detailed directions for their treatment were always necessary from Colonel Smith. I was surprised at the way he diagnosed the cases and the intelligent way he applied the remedies. But I learned that he had studied medicine when a young man, expecting to be a physician, and that his skill was the result of hard study for a number of years.

One of the men who seemed to be a collector of cotton due from certain tenants who paid every year a certain weight for rent of their land, presented a report which indicated that some young Negroes whose father had died during the summer had practically abandoned further effort, and, under the influence of an uncle, were preparing to default in their payment.

Referring to the uncle, Colonel Smith said: "That man exerts all his efforts in the wrong direction. He is like a calf hitched to the hind end of a wagon—always pulling back. There's no good in him. He's a hypocrite; talks one way and acts another. I never see him but he has something to say about how smooth things are going on down in his bailiwick. You would imagine he was the best friend I had in the world. But, Uncle Joe (Joe is the collector), the most dangerous man in the world is the one who always wants to see you for your own good. He is advising those boys to act this way. Boys generally want bad advice, and did you ever notice when anybody wants bad advice, he can always get it? Now, Joe, you hustle down there the first thing in the morning and make it plain to those boys that we cannot have any foolishness about the rent. See that it's paid promptly."

Some of his Negro foremen reported that the carpenters' work required new implements. The proper size, shape and weight of the tools to be purchased were all decided by Colonel Smith.

The next morning he was up before eight o'clock, though his usual habit is to sleep later.

Soon after breakfast, old "Caz," the foreman with the afflicted head, was brought to the house for treatment. He was doctored and admonished to take care of himself.

The rest of the day Colonel Smith spent on his front porch. Every few minutes some tenant would come to get an order on the commissary, or authority to do something. With these thousand and one details he burdens his time to such an extent that it is difficult to secure his attention for other transactions that are seemingly more important. Numerous traveling salesmen who journey oftentimes great distances to sell him large amounts of machinery, engines, mules, cattle, fertilizers, and supplies of all sorts, find that they must always wait several hours, sometimes a day or two, to see him. When his attention is finally secured it is often ruthlessly broken into, if something goes wrong on the farm. The luckless salesman must bide his time and then begin all over again.

I once had to see Colonel Smith on a matter of business in which, fortunately, his interest was as keen as my own. He took me at once from the porch into his bedroom, which is also his office, and we soon finished our interview. As I came out I noticed on the porch a downcast young man, and I stopped to speak with him. He was from Massachusetts, and had been sent out to interest Colonel Smith in some machinery. This was his second day on the front porch and no interview yet. I comforted him with the assurance that two days was quick time for a man's first transaction with Colonel Smith, the usual initiation requiring a week. Just then he was sent for, and his steps did not drag as he answered the summons.

Colonel Smith leaves home but seldom. People desiring to see him must go to Smithonia. When his annual cotton crop of two

to three thousand bales is sold, the buyers have to come to Smithonia to buy it, and they can make no appointments by telephone, for he will not have a telephone. He believes in personal contact in business. To see him, a twelve-mile trip through the country is necessary, for the railroads which enter Smithonia are his private property, and the trains are run on most uncertain schedule, being operated for the freight traffic. Notwithstanding this, whenever the news gets out that Colonel Smith is ready to sell his cotton, a half-dozen buyers are promptly on the scene. The sale takes place once a year on the front porch—that is, it takes place if the bidding goes high enough to suit Colonel Smith. If it does not, the sale is indefinitely postponed, and the half-dozen cotton buyers drive back to Athens.

For several years Colonel Smith has received more than one hundred thousand dollars for his lint cotton every year. His cottonseed also yields him very large returns. And when other products are to be bought or sold there are always a number of traders on hand. Large sales of farm supplies of all sorts are made to him at frequent intervals, and in nearly every case the seller has many trips over the country roads before he closes the contract.

On the farm itself one of the noteworthy features of administration is the treatment accorded the laborers. His are among the freest and happiest laborers in this country, and yet they are like the ante-bellum slaves in their dependence upon their employer. He directs their work with fatherly kindness. He keeps them busy and provides them with comfortable homes and clothing. They seldom leave him, but stay as his tenants for long terms of years. There are no happier, healthier or better satisfied Negroes in the South than those at Smithonia.

Colonel Smith maintains on the farm six schools, three for the Negroes, three for the white children. During the school season every child is encouraged and given every opportunity to attend.

Another notable feature of Smithonia one finds in Colonel Smith's methods. Some seem wasteful of time and labor. One sometimes sees forty women and children flailing seed from amber cane, when two men and a machine could do the work just as well and in much less time. His wheat is cut with the old-fashioned scythe and cradle instead of with the modern reaper. The reason is that no machine has been invented that can successfully pick cotton, so that an abundance of Negro laborers must be kept on hand to pick the crop; Colonel Smith employs old-fashioned methods to keep his laborers at hand for picking-time. In the interim he must keep them busy.

He grows wheat and corn, though cotton is the main crop. Smithonia, by liberal fertilization and by close personal attention, has been made more productive by far than the average cotton farm in Georgia. Two bales an acre are produced on some of the fields containing as much as 100 acres. The average crop is about one bale of 500 pounds to every two acres. Cottonseed, formerly thrown away as worthless, has become an important source of revenue. Colonel Smith was among the first to build in the South a cottonseed-oil mill and convert his seed into oil and cottonseed meal. He has a fertilizer plant, and makes about 3,000 tons of fertilizers a year, all of which is used on the farm. He has a blacksmith-shop equipped at a cost of $5,000 and run by steam, which is kept busy all the time in the necessary repair work.

There are about five hundred houses on the plantation. The barns are numerous and spacious, with every convenience. There is an electric-lighting plant. There are corn mills, grist mills, a cottonseed mill, a syrup mill, a wood-working shop, a buggy-repair shop, a system of waterworks, and, in fact, everything necessary for so large an establishment.

As an evidence of what can be accomplished on Georgia soil, note this example: From one plot of 200 acres the product last year was:

Wheat, 4,800 bushels at $1	$4,800
Cotton, 200 bales at $50	10,000
Total	$14,800

Colonel Smith kept an accurate account of the expense of caring for the crops on that ground from the time the wheat was planted until the cotton crop was gathered. After deducting the expenses, his net profit on that ground was a little more than $51 an acre. He utilizes his other lands in like manner for two crops a year, rotating the crops so as to make the ground richer all the while. It is not unusual for him to make $50 an acre by planting two crops.

So far-reaching is the reputation of the farm that the Khedive of Egypt on one occasion sent a Pasha as his personal representative to look into the methods employed there. The Pasha was impressed with what he saw and has since endeavored to introduce Smithonia methods in Egypt.

But Colonel Smith is not only the general in command of the biggest farm in the South; his influence extends throughout his State. He is known from one end of Georgia to the other, both through his achievements and on account of his personal traits. He has served twelve years as a representative in the House and the Senate of the Georgia Legislature. On many occasions he has been looked upon as a probable nominee for governor of the State, and it would not be surprising if he were yet given this distinction.

He has twice been a delegate at large to the National Democratic Convention, once in 1892 and again in 1904. Although he had not been actively in politics for twelve years, he received for this latest honor the second largest vote in the convention.

Of his career Colonel Smith says:

"I don't think I have done more than others should have done under similar circumstances. I have stayed at home and attended to business, stuck to it through sunshine and storm, tried to work up to certain plans ahead of me. I made up my mind early in life not to drink whisky or other intoxicants, and I have never done so. I also resolved to steer clear of immorality and have done so. These two rules are necessary to success, and no man can truly succeed without observing them. In my life there has been but little frolicking around. I have always believed in the efficacy of churches and schools, and that people are made better citizens through them."

Many of Colonel Smith's best traits have not been emphasized in this article—his genial humor, his rugged philosophy, his loyalty to his friends, his kindliness of heart—but they explain his widespread popularity and influence with the people of his State. Nor has reference been made to his broad mental culture. A college graduate and a student by instinct, he has by deep study and close observation kept fully abreast of the times, and he splendidly illustrates the advantages which a college training brings to the farmer and the man of affairs.

But the fundamental traits of his character, described in his own words above, are, after all, mainly responsible for the success of this truly remarkable man, who may well be ranked as one of the most individual of the great captains of industry of our country.

HOW TO BUY LIFE INSURANCE

THE AGENT A NECESSARY GO-BETWEEN, WHO DOES A USEFUL SERVICE—HIS TRAINING—HIS COMMISSIONS—WHAT KINDS OF POLICIES ARE BEST FOR DIFFERENT CLASSES OF MEN—EXAMPLES OF THEIR COST AND ADVANTAGES

BY

HENRY WYSHAM LANIER

(THE FOURTH OF A SERIES OF ARTICLES ABOUT MODERN LIFE INSURANCE AND ITS PROBLEMS)

A CLEVER insurance agent was closing a long campaign upon a wealthy merchant whom he wished to insure for $100,000. The merchant had been a "tough proposition," and the solicitor's arguments and eloquence dropped from him so ineffectively as to arouse all the professional pride of a dozen years' success. He redoubled his efforts, and was at last just about to give up in disgust, when the merchant swung around in his revolving chair and fixed him with a cold, gray eye.

"Young man," said he, "if you can satisfy me on one point, I'll take out this policy."

The agent braced himself, for the tone contradicted the encouragement of the words. "I guess I can," he remarked.

"Well, then," demanded the other in a high voice, pointing a big finger sternly at his visitor, "how much do you get out of this first

four thousand dollars which I am to 'invest,' as you call it?"

"I've no objection, personally, to telling you," replied the insurance man uneasily, "but I've agreed not to give the exact figures."

"Is it half?"

"Yes, more than that."

"More than half! And will you kindly inform me why I should pay you more than two thousand dollars? Do I get anything from it? What reason is there for such an absurdity?" He was angry, insulting, triumphant.

The agent rose. He felt his chance was gone, and decided he had earned the luxury of a little plain speech.

"Well, I'll tell you. I've been here twelve times, haven't I?"

"I can well believe it," replied the other, rather brutally.

"And I've spent hours and days you knew nothing about, finding out all about you and your affairs, and laying out my facts so that they'd appeal to you."

"Well?"

"Well, if the world wasn't full of obstinate idiots like you, who have to have a good thing hammered clear through their skulls before they recognize it, my company wouldn't need to employ and pay men of intelligence like me."

It is said that this venturesome person left that office with the signature for which he had striven so hard. In any case, he expressed a truth which impresses one as soon as he begins to investigate insurance conditions. If people who ought to be insured would all go to the insurance companies, instead of having to be fairly clubbed in, one of the largest expenses would be eliminated —with the obvious result of lower rates or larger dividends to policy-holders.

AGENTS A NECESSITY

To insurance men who are willing to discuss the subject on a purely theoretical basis, from the standpoint of the policy-holders in a mutual company, the agent is a necessary evil—with an accent on the "necessary." They will grant at once that a "sacred" business should not in theory be represented to the public almost exclusively by forty or fifty thousand missionaries whose financial existence is directly involved in extending it, but not at all in the truth of the statements they make, and who cannot, from the very nature of the case, be under direct supervision by the responsible officials of the company; but, they will add, life insurance is a great blessing; it simply could not be extended in any other way; and (hopefully) the standard of character among the agents is being remarkably elevated all the time. The most independent person I met among active insurance workers, a man who held violently heretical views on some of the fundamental principles of the profession—even this gentleman refused to admit the possibility of ever conducting the business without agents.

"Why," said he, "if our company were to discharge all its agents, I don't believe we'd do a business of a million a year, and that would be chiefly the undesirable 'risks' and those who want to beat the company."

His company is issuing between two and three hundred millions of new insurance a year. Yet the universal opinion seems to be that even such a colossal stream of business gives the concern no momentum whatever apart from its agents.

An interesting attempt has recently been made to sell insurance by mail, with the premiums payable in instalments, and this experiment seems directly in line with the experience of merchants dealing in other commodities. It has been demonstrated, during the last few years, by scores of magazine advertisers and workers by circulars, that the "mail order" plan can be adapted to almost anything from courses of instruction to ready-made clothes and real estate; and, following out this suggestion, one clever insurance agent has succeeded in selling by mail, at a cost to him of $15, a policy for which the standard insurance companies pay their agents $65. But, as hinted above, the insurance people simply pooh-pooh such attempts, and, when one refers to them, begin at once to talk about undesirable business, and the failure of the same sort of thing started as a circulation-scheme some years ago by a Cleveland newspaper.

"Life insurance isn't like anything else," say these gentlemen. "The appeal must be mainly or entirely to an unselfish motive; and it takes a good agent's personal presentation, backed by a very selfish motive on that agent's part, to do this successfully."

This is plausible enough, and it is somewhat confirmed by the fact that the policies which have proved the easiest to sell by mail are the "endowments," which give the insured person himself the proceeds, after a certain time, instead of merely swelling his estate. But, while there is little evidence yet from actual experience, I believe it to be true that *the right man* can convince people by mail as effectively as any but the very best agents; and that some day the right man will come along and will work out a scheme to utilize the postal facilities, instead of agents, as a means of enlightening the public regarding insurance—not only with a great monetary saving, but with the advantage of direct and recorded communication from the responsible officials of the company, in place of agents' personal and occasionally deceptive word-paintings.

But at present, when one asks how the insurance companies get new business, the answer is brief enough—by agents. They may advertise, but this is either for the purpose of getting agents or to make the agents' work easier.

THE REWARDS OF AGENTS

As might be expected from the magnitude of the business—nearly two thousand millions a year—the men who are able to carry conviction to the hearts of multi-millionaires reap a proportionate reward. Some of the general agents, who control exclusively a specified territory, pay all their expenses, and turn over the business secured to one of the great companies on a commission basis, clean up $200,000 a year. The best "field men," the actual solicitors, may make $50,000 a year each; and there are thousands of agents whose annual commissions range between $5,000 and $10,000. It should be noted that the tendency now is to abolish these general agencies and to concentrate the responsibility more at the home office. And the majority of insurance experts believe that the 5 per cent. or 10 per cent. of each policy-holder's total payments which the agent now receives is too high.

These chances for a successful career, combined with the unremitting efforts of the companies themselves, have changed remarkably the standard of life-insurance solicitors. "Insurance agent" is no longer a term of obloquy, as it was made by the unleashed imagination and conscienceless scramble for any sort of business paying a commission which characterized only too large a proportion of the agents' work twenty years ago. One plan now in vogue to secure better men and more responsible policy-holders is to give the agent, not most or all of the first payment to the company, but a much smaller percentage of this, and a continuing percentage of the subsequent annual payments. The officers of the Equitable Company, for instance, declare that by this method they have increased by one-fourth the number of policy-holders who continue their payments. Another scheme which has proved most successful in raising the average character of agents is the free instruction of college men in such work. Several years ago, one of the largest companies brought a number of graduates to New York City in July and put them through a course of training for field solicitors. The results of the experiment were so encouraging that the idea grew and spread. Last summer, several hundred young men, from forty different colleges, attended one of these summer schools; they heard lectures on the theory of agents' work and the extraordinary chances offered; the cleverest agents from all over the country told them how they set about getting new business; some unsuccessful amateurs related their tales of woe, and the causes of their failure were pointed out; and actual object-lessons were given on the platform of each step in the process, from the first greeting of the intended "risk" to the persuasive sliding of an application for signature beneath his fountain pen. These young men advance further in a month of this education than in a year of blundering along alone. Half of them stick to the business, and make a body of picked, live, intelligent agents, and an admirable leaven of cultivated workers in this once semi-disreputable occupation. Many of the companies have adopted similar plans for reaching this desirable class of solicitors, one of them sending around a lecturer and "whipper-in" among the western colleges each season.

Of course, the handling of these thousands of agents is a most important matter. Generally, one of the high executive officers of the company has especial charge of the whole organization, and is responsible for maintaining and improving the efficiency of the

business-getters, while devising plans for increasing the business and decreasing the expense of getting it.

And now, what is it that these gentlemen are offering to the public?

THE VARIETIES OF LIFE INSURANCE

There are today some thousands of varieties of life insurance policies, each of which has a technical name and is capable of being made quite unintelligible to the average man. Some unscrupulous agents trade on this; many do not really understand the meaning of terms themselves, but have learned their lesson, parrot-like; and most of them apparently find it unnecessary to describe in plain English to those about to insure what they are contracting for. The result is a mass of misinformation and confusion about the whole subject.

For instance, an agent was trying to insure an editor on some new plan. The editor had a theory that any fact could be put into plain every-day English if the man behind the fact really knew what he was talking about. After listening to an involved flow of "premiums," "deferred dividends," "cash surrender values," and "optional choices," he said gravely:

"See here, I don't understand what you're talking about. But I'll tell you what I'll do: if you'll write that proposition out in ordinary English, so that an ordinary man can understand it, I'll not only take the policy, but I'll publish the explanation as an article and pay you a hundred dollars for it."

"Will I? Sure, I will!" exclaimed the overjoyed agent, thinking that he had indeed struck an easy job. And he departed, adjuring the editor not to forget.

A week passed by. The agent called up on the telephone to say that he was working on the thing. There was less exultation in his voice.

Two weeks more elapsed. The editor had forgotten the whole thing, when the agent's card came in one day. It was followed by the man himself.

"Well," said the editor. "Got my article?"

"N-no," said the agent sheepishly. "The fact is, I guess I can't do it the way you want it, after all. Let's call it off."

It is hardly too much to say that this is typical. Yet the fundamental principles of insurance policies are most simple. There are, to begin with, two great divisions, "participating" and "non-participating" policies: that is, those in which the insured person shares in the "profits" of the company, and those that furnish protection against death for a given term, and nothing else. A man of twenty-five may, by paying \$50 to \$75 a year, know that if he dies within ten years his estate will receive \$5,000, but if he is still alive at the end of that time he has nothing to show for his money. This whole class of policies can practically be disregarded, since, in this country at least, hardly anybody wants "term insurance," as it is called.

Of the participating policies, the main kinds are: the "endowment," which pays to the insured himself a certain annual sum at the end of a term of years; the "full term," by which annual payments are made by him until death; and the "limited payment," which calls for a higher premium through ten, fifteen, or twenty years. The subdivisions from these are various, but they are not necessarily complex.

An example of the confusion which is taken advantage of by unscrupulous agents is offered by the "5 per cent. gold bonds" recently exploited. These policies are themselves "straight" as a die: but it is certain that many people who have purchased a \$10,000 policy for the sake of the 5 per cent. interest did not realize that they were paying the premium on \$13,000. Of course, this is necessary, for the insurance companies make their estimates now on a 3½ per cent. basis—but the point was at least left vague by some of the agents. It is hardly necessary to say that the companies themselves take every precaution in their power to guard against such misunderstandings; but from the very nature of things the matter must be beyond their immediate supervision.

One of the most recent policies is that held by one of the vice-presidents of a great insurance company. He calls it a "bread-and-butter" policy, and it insures his life for \$200,000, which is payable beginning with his death in annual instalments of \$4,000 *for fifty years*. This means that if his wife survive him she will have enough to live on while the two children are growing up; his children will have a small assured income

throughout their lives and during the time when their children are being educated.

There is, apparently, a general delusion that a man "on the inside" could lay out, if he wished to, a graduated scheme of the best policy for a man of twenty-five, of thirty, and so on. This, of course, is just as impossible as it would be for a tailor to make a suit for a man aged twenty-five.

"When one of my friends asks me for advice about what policy he should take," said a very well informed insurance man, "I always begin by warning him that I'll have nothing to do with him unless he'll permit me to ask him some impertinent questions. If he agrees, I find out how much money he makes, whether he saves any, what are his family responsibilities, and what is his personal temperament. Then I can advise him intelligently. For instance, a young fellow who earns a fair income, but ordinarily spends it all, might best take a twenty-payment, deferred dividend endowment; while a man on a small salary, who has a mother and family dependent on him, should take out every dollar of straight insurance he can carry."

If one has a friend in the business, the best plan is to go to him, tell him all the facts, and trust to his judgment. If not, a little common sense and insistence upon understanding in plain English what he is to pay and what he gets for it will go a long way toward setting him right in the matter of selection.

Guaranteed cash-value policies on the three great forms—ordinary life, limited payment life, and endowment—furnish straight protection with investment, the two features varying in relative importance in the three forms; ordinary life assurance provides the maximum of protection with a minimum of investment, while endowment assurance is the direct opposite. The following table shows the guaranteed net cost per annum of the three forms at the end of the twenty-year period—policies issued at age thirty for $1,000 each.

Form of Policy	Annual Premium	Total Premiums	Guaranteed Cash Value	Net Cost of Assurance per $1,000 per annum
Ordinary Life	$24.38	$487.60	$276.00	$10.58
Limited Payment..	34.76	695.20	555.00	7.01
Endowment.......	51.31	1,026.20	1,000.00	1.31

(Plus a dividend)

It will thus be seen that, at the end of twenty years, the ordinary life policy will have cost *little*, the limited payment *less*, and the endowment *least;* and, paradoxical as it may seem, those who have paid the highest premium have really paid the least.

In the case of the 5 per cent. gold bond policy, bonds bearing 5 per cent. interest are issued instead of cash in settlement of claims under this contract. These bonds are payable in gold, and are practically as secure as government securities, in addition to bearing a higher rate of interest.

These bond contracts are issued on the three forms of assurance. On the ordinary life form, the annual instalment payable for life is, at age thirty, $31.69 per $1,000 bond, and the ultimate cost depends on the lifetime of the purchaser. On the limited payment and endowment forms, the cost can not exceed a certain moderate amount, and may be much less if the purchaser should die.

Gold Bond	Annual Premium	Gross Cost of Bonds	
Limited Payment..	$45.19	$903.80	Bonds to be delivered at purchaser's death
Endowment.......	66.71	1,334.20	Bonds to be delivered to purchaser himself

In case the assured or beneficiary does not wish to have the bonds, they can be sold at a guaranteed price of $1,300 for each $1,000 bond.

The continuous-instalment contract enables one to provide an absolutely sure and certain income for his wife, daughter, or minor child that can neither be lost, squandered, nor dissipated. It is one of the best means ever devised for the absolute protection of a beneficiary.

The annual payment by a man aged thirty, to secure to his wife, aged twenty-eight, an income of $1,000 after his death is $429.20, payable for life, or $605.40 payable for twenty years. If the annual payment is $995.80, the annual income of $1,000 will commence twenty years after the first deposit is made, and will continue as long as either the assured or beneficiary live. The beneficiary may draw out many times the amount deposited, for she may live a long life after the death of the assured, at which the income commences.

On all these forms of policies, a dividend of profits earned is guaranteed at the end of the tontine period.

EVENING SCHOOLS FOR FOREIGNERS

EAGER PUPILS, MEN, WOMEN, BOYS, AND GIRLS—THE LIFE-STORIES OF SOME OF THEM—HOW THEY BECOME AMERICANIZED—WHY SHOULD A PUBLIC-SCHOOL HOUSE NOT BE OPEN DAY AND NIGHT?

BY

ADÈLE MARIE SHAW

IN the Chicago evening schools, forty-seven different nationalities are represented among the pupils, and more occupations than could be set down in many pages. The Greek flower-seller, the Yiddish photographer, the Belgian teamster, the newsboy born in Croatia, the Calabrian huckster, often sit side by side in the class that struggles "for spik the Englis." Last winter, among the 13,000 pupils were "500 fruit-venders, 175 hand-organ men, 40 street-cleaners." In the summer, some of the older men drove sprinkling-carts, some of the younger ones loaded trucks, piled barrels, sold pop-corn, or ran errands. Most of those whom I saw were workers, earning a way for themselves and their families, eager first of all for a knowledge of English to increase their earning power, but eager as well to get closer to the life of their adopted country.

Ambition accounts for the full classes of the evening school. "If a laborer cannot understand an order," said a teacher, "he finds it hard to get a position. When they come here, many of them can answer a question only by a despairing shrug. You can imagine the effect of such an answer on an employer."

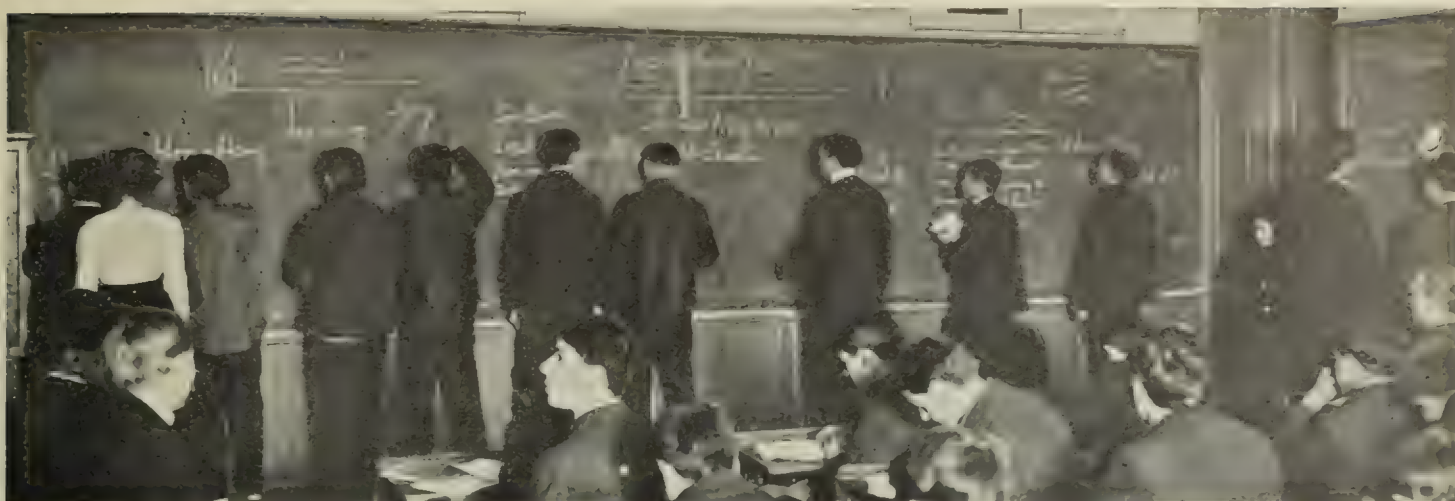
"A little knowledge of English helps them to rise," said the principal. "Here is John Bubino, an Italian. He was a member of a railway section-gang and was offered an increase of salary to serve as foreman, but he had to refuse it because he could not sign his own name. He has attended school regularly all winter, and his old employer has given him a better position than the one he first offered him."

The ambition of an evening-school pupil does not stop after he has acquired an English vocabulary. This year there were 5,000 pupils in graded classes, modeled after the classes in the day schools. Small proprietors, armed with some English, need a knowledge of American money in business. These men, advanced to the higher classes, work out neat sums upon the blackboards and recite their lessons in English.

In these graded classes are children who "left school early." Some of them left gladly. But they have found out the value of book knowledge, and are returning to geography and simple fractions. Some, coming to this country at twelve, were set to work at fourteen. Many have never before passed beyond the lowest primary grades. These graded classes extend all the way to the high school. The more advanced the class the more striking is the evidence of increased earning power.

In the school with John Bubino was a type-writing and stenography class. Every member who had attended faithfully for the five-months' term had secured a position in a good business house. One young man who had been taught pyrography in this school is now "demonstrator" in a large department store, designing and decorating burnt-wood frames and boxes. He is doing work that he likes and receiving more money than he ever earned before. In the Washington school the mechanical-drawing class of thirty men represented fifteen trades. Nearly two-thirds of these men have already obtained an increase in wages because their efficiency has been increased by the instruction they have received. The manual-training classes have the same record.

The sewing and cooking classes show that dexterity of brain and body is a household asset. Of the thirteen hundred pupils in different evening schools, few intend to use the knowledge gained for anything outside their homes; yet there is an addition to the earning power of the family. The girls and women in the sewing classes ranged all the



CHINESE STUDENTS WRITING AT THE BLACKBOARD
At the Jones Evening School, Chicago

way from the helpless to the "facultied." All were learning. One girl who "looked in" a moment, on one of the last evenings, to get further directions about the making of a dress that she was finishing at home, was "on her way to a party." She did no sewing for money, yet she increased the buying power of the family income. The dress in her hands was dainty, in good taste to its last frill, and beautifully made. Ten times the money expended would have bought neither the beauty nor the good work.

At least ten girls in one class of twenty-six have this winter taken over the management of their households as a result of their study of the hygiene of foods. Not that the more domestic arts are never used directly for money. Last year a man went to Mr. Bogan, principal of the Washington school, and asked to be taught how to make pastry. When he was last heard from he was earning $125 a month as cook in a lumber camp.

STORIES OF SOME EVENING-SCHOOL PUPILS

Sometimes there come to light stories full of interest. One is the story of an Armenian boy who fled to this country in 1896, after escaping from the massacre. His mother had been horribly murdered by Turkish soldiers, his father had died attempting to defend the mother, but his aged grandmother had managed to save the child, to bribe the soldiers, and to get away to Naples. They finally drifted to Chicago. The little boy went to school, and earned their support outside school hours by selling papers at night and by delivering them in the morning. Finally the boy worked all day and dropped out of school, and when the grandmother died he was able to bury her with his savings.

THE FINNS ARE FAITHFUL WORKERS
At the Franklin Evening School, Chicago

A COOKING CLASS
At the Englewood Evening School, Chicago

When he was left alone he entered the evening school for mathematics and bookkeeping.

A SEWING CLASS
At the Garfield Evening School, Chicago

He is now filling a good position in New Orleans with a firm of Armenian importers.

I saw in more than one school the man poor in English but well educated in his own language, and the man who a few months ago could not read nor write in any language. Here is a letter by an educated Chinaman. He writes a good hand—small, fine, legible. The letter, uncorrected, is exactly as it was written in class.

"CHICAGO, Ill., February 25, 1904.

"*My Dear Teacher:* When I was a small boy in China I went to the Chinese school eight years. When I was 14 years old I left my home and went to Hongkong to help my father in his store. He imported and exported cargoes. I took care of his store very well. Everything I managed all right. My father and his friends all praised me very much. When I was 17 years of age my father gave me charge of all the business of his store. I became a merchant.

"After three years I was 20 years of age. I had an intimate friend who wanted $20,000 to pay his due draft at the bank. He begged me to help him and asked to lend the money to him. Then I lent him $20,000. A few months after that time my friend's store was bankrupt. He became poor and he could not give back my sum to me.

A CLASS IN TYPEWRITING
At the Medill Evening High School, Chicago

THE KIND OF BOY THE EVENING SCHOOLS HELP

"When my father knew this he punished me very much and scolded me not wisely.

"I heard the United States of America was the richest nation of the world. I determined to leave Hongkong for the United States. I wanted to pay back the money to my father.

"I have been in the United States of America about 14 years, but I have made nothing. I have felt very much ashamed of this manner of myself.

"First I was in Boston about two years. Then I was in New York about ten years. When I was in New York I wanted to find a public evening school to learn English or to find a teacher to teach me, but could not. I have been in Chicago two years. Last November I happened to meet my friend. He told me about the Jones evening school for teach anybody very well and free. I begged him to guide me to the school.

"Now you have so kindly taught me with the English I am obliged to you very much, but I do not know when I can requite your favors.

"When I know English well, surely I shall go back to Hongkong. I can make a large profit and I shall become a great merchant again.

"Very sincerely yours, "Jean Sam Yee."
(Pronounced Yahn Sam Yee.)

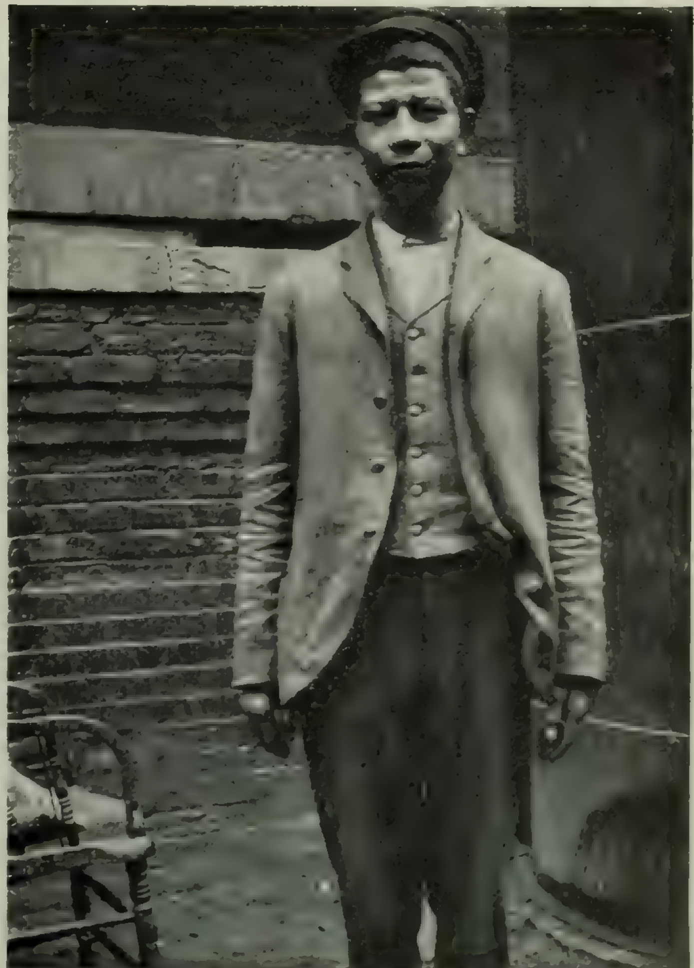
NEWSBOY IN THE DAYTIME—STUDENT AT NIGHT

AN ELEMENTARY MANUAL-TRAINING CLASS
At the Medill Evening High School, Chicago

Of the large number learning English my note-book gives some average records.

"*Joseph Lateif*, a young Syrian boy, is all alone. He hires a room and supports himself by selling papers. One day last year as he emptied paper in the waste-basket a roll of bills fell from his pocket and his teacher discovered that he was carrying about with him forty dollars, his savings. She went with him to a bank, and ever since Joseph has deposited regularly He now has about $125 in the bank.

"*Wadji*, also a Syrian boy, earns his livelihood selling papers. He has lost one leg, but not his



AN ITALIAN BOY WHO IS BETTERING HIMSELF

quickness of movement. He is a member of the Newsboys' Club, and seems to combine business, study, and recreation in good proportions.

"*Nicias Calogeras*, age sixteen, is one of three Greek boys. He was born in a small village near Corinth. A friend sent for him and employs him in a fruit store. In his own country he attended school eight years, and he knows and loves Greek history, heroes, philosophy, and sculpture. Though he reached America only in the summer of 1903, his English can be readily understood. The second is *John N. Keller*, twenty, who was born near Sparta. He has been in the United States three years. In the summer of 1903 he was a road laborer in Montana; he now has a good position in a fruit store, because he learned to speak English. The third is *Peter Athanasuluser*, a slender little fellow of thirteen, very quick and bright. He speaks good English, though he has been here but a few months. 'I like to go home,' he says, 'and see my father and mother, but I want to come back.' He lives with an uncle who brought him to America, and it is evident that he comes from a good home, with the right influences. He is one of the stand-bys of the evening school."

The members of the eldest class are quite as earnest to improve as the youngest of the boys. If we remember the awkwardness of most grown people in acquiring a foreign language some of their letters seem no small triumph.

"I learned a great deal to read and write and talk the English. I have been studying the Fifty Famous stories and Colonial Children, and the Seven Little Sisters and the Ten Boys. I think the English language is very hard to learn for the people who do not know to read or write their language. I never went to school in the old country. I wish to learn English as soon as I can.

"I will be an honest American citizen. I was born in Italy. Your respectfully pubile,

"MICHAEL NIGRO."

The grace and genuine willingness with which "Mike" performed a service for you but partly accounted for the instant friendliness he inspired. You felt certain that here was the "honest citizen" that he declared he would become.

"I am born," began another, "Palevhorion in a small town the state of Arckadia. I spend all the time in the our country in the mountains and the rocks because my grandfather was a sheep farmer. After my father came to the United States and sent me a ticket to come to this country. Before to take the ship to come here I rich the beautiful city of Athens. There is the great Parthenon in the Acropolis. There the Miltiades the Athenian general beat the Persian army and won the battle September 28, 490 B. C. There is a beautiful theatre Dionisius. There is the great Marathon. Athens is cleanest city. There is the palace of the king George A. In the Museum in Athens is many statues and arts.

"Your humble scholar,

"CHARLES G. LEMBESIS."

GREEK STUDENTS LEARNING TO SPEAK AND WRITE ENGLISH
At the Scammon Evening School, Chicago

"It is very hard for me to learn that language," says a Polish man who does not think the English language an "easy one,"

and adds with truth, "the another thing for bick person it is offly hard to study."

Impressions of the languages and lands they have left are often full of pride and of affection. Phrases in class exercises show it. "China is the oldest country in the world." "In the Italy we have many free school. Wen I have six years old I been stard go to school. Wen I have been to the Italy school I am was onest boy and I have been studying in five book." And from another letter: "Those Italian people who have got good education in Italia they learn the English language very quickly." (This man's letter proved that.) "In our country there is every nice thing to eat. If I was in my Country I would go in the fram I get fresh egg."

The hunger for beauty that has been left behind plainly makes up a great deal of the most poignant homesickness of Chicago's crowded quarters.

"We have a nice sweet music from Rome, in part of Cisily we have nice and good vineyards, and Olive tree and very pretty garden with oranges and lemons with different fruit and so many pink flower and rose tree with nice and sweet smalls."

Some have memories not so pleasant. One writer believes the evils that exist in his country are the fault of the "Zare."

"I tak the plasur to tell you something about my on country No dout that you have read a great deal about the world and about my country Russia. Russia are a beautiful country to live in there is every convenience every town even cities is like summer resort. But what good is it there is no liberty at all. The Zare is treating the people very cruel. in general and also he made the country poor. He has a great big army standing all the time. That thakes cancedrabul money to kip them goeing, and the Zares famely are thanking enormous big salery—so he put tax an every articul that can be named. I would like to say that the school suld be open for three more weeks. Every night that I atand school I enjoy and I learn very much."

WHAT THE SCHOOLS HAVE PROVED

The evening school is worth far more than it costs. The moment it closes, crime increases in the neighborhoods where it has existed. It has already cost the Illinois taxpayers about $60,000 to try for murder three boys whose crimes were in imitation of the penny-dreadful heroes they most admired. A small fraction of that sum might save hundreds of boys.

One of the evening-school teachers told me that he had been surprised by a special skill in hand-work of a certain boy who had learned what he knew in the juvenile prison school of the city. The night-school doors were open; the evenings following on the boy's release from prison, evenings that might have been spent on the street, became the pleasant road to self-respecting work.

Profit to the girls is no less. A place where a girl may go for a few hours and trim a pretty hat or invent a pretty dress is a social gain. If the teacher is what she should be, she sets a standard in other things than needlework. The busiest hour may still be vital with human fellowship.

And fellowship is a patriotic gain. The homesick alien is in frequent communication, in the friendliest relations, with his American teachers. In the evening school tolerance is the lesson first learned. I saw people from twenty-eight different countries studying together in one lighted, orderly building. They took the most kindly interest in one another. In the evenings that I spent at the Jones school I was impressed with the perfect courtesy and the grace of the men and women studying there. The manners of these adopted Americans are a reproach to most of us. They do not "clump"; they step lightly, move gracefully. They speak in voices pleasant to hear.

They are polite not only to one another, but to strangers. When Mr. Megan, the director of the evening schools, came with the photographer, more than one pupil gave himself pleasantly into the hands of the trusted supervisor contrary to a strong prejudice against pictures of themselves for exhibition.

One Friday, when work was ended, I saw them crowd by hundreds into the largest room. There they sang, Greek with Persian, Jew with Gentile. One might live a long life and never have an experience so thrilling as the hearing of those songs—"Funiculi, Funicula" with English words, "Santa Lucia" in English, and finally "My Country," with those who knew the words helping and cheering on the others.

It was late in the evening. A large proportion of the men had been up since four o'clock in the morning, but there was no

flagging, not a drowsy glance, and when, urged by Miss Caverno, the principal, a tall man stepped to the front of the group about the door and sang the song for which every one was waiting, the place might have been La Scala on a first night. Such pure melody seemed impossible in any other spot. The singer was an iron-worker. This singing-hour is a regular Friday-night event.

As we left the building a boy who seemed to be in no class lingered till the doors were closed. "My first assistant," said the principal, smiling. "Good-night, Carmen." "Good-night," called the little boy, and went away, I hope to bed. Half a dozen of these "assistants" I discovered quietly spending the evenings about the halls, running Miss Caverno's errands, discussing "current events" with the obliging janitor. Some of them were day-school boys, some were just from a day's work, some had neither home nor work, but the principal knew them. For the keenest and brightest to whom the streets would be moral miasma, and for the slow of wit who needed a refuge, a few hours' safety was secured.

Chicago's evening schools prove that there should be hundreds more in Chicago alone. They are a better solution of "strikes" than arbitration.

The evening schools now are clean and strong, but they have yet much to do. The floating groups of children who "hang about" should find occupation in hand-work. There should be evening trade-schools. The school should become a centre in ways which its bare and poor equipment now forbid. Every school should contain a lending library and a salaried librarian. "This school building should be open all day, Saturday and Sunday," said one school principal. "Think of it, in this crowded neighborhood, shut up and dark two days in the week!"

Some results of the beginning already made are:

1. Every cent Chicago expends on her evening schools is worth many dollars to the city. By these schools crime is lessened, prosperity is increased, good-feeling is promoted. One evening school is worth a thousand "strike-breakers."

2. Chicago is not a solitary instance. The establishment of good evening schools modified to meet local needs would add enormously to the prosperity of any city, town, or village in the United States.

MR. GEORGE WESTINGHOUSE

THE STORY OF THE GREAT INVENTOR AND ORGANIZER OF INDUSTRY — HOW THE AIR-BRAKE WAS SUGGESTED AND PERFECTED

BY

THEODORE NEVIN

ONE day, many years ago, Mr. George Westinghouse happened to see a collision between two freight-trains that was caused by the ineffectiveness of the hand-brakes then in use. He wondered how trains could be stopped more quickly, and he set to work to invent a device to do it. He decided that the brake must be worked from the engine, since the engineer is the first to see any danger. He tried chains, but they would not do. Reading of the use of compressed air for driving drills in the Mount Cenis Tunnel, he experimented with this form of power. His planning and designing were begun all over again, because compressed air required new apparatus. He made drawings of an air-pump and a brake-cylinder and valves, and from these drawings he constructed an apparatus which he felt worthy of a practical test.

Forthwith he went to the superintendent of the New York Central Railroad and asked him to try it. The superintendent declined. But this disappointment was merely part of the severe schooling through which Mr. Westinghouse passed in his remarkable career; for, undeterred, he went on urging the merits of his brake. There was no railroad

in the country whose managers and superintendents did not know him directly or indirectly, but they would not try his device.

At last he got permission to explain the brake to Commodore Vanderbilt, the greatest living railroad man of the period. He was himself so thoroughly convinced of the merit of his invention that he felt that, if he had the opportunity of explaining it, Commodore Vanderbilt would immediately order every car of the New York Central Railroad to be equipped with it. The interview took place in Commodore Vanderbilt's New York office. Mr. Westinghouse spoke and Commodore Vanderbilt listened. At last the old man asked, "Do you mean to tell me that you can stop a railroad train by wind?"

"Well, yes, inasmuch as air is wind, I suppose you are right," said the inventor.

Then the great railroad man said something like this: "I have no time to waste on fools"; and the interview was ended.

But Mr. Westinghouse kept on. Even at that time he was persuasive, but he could find no backers who would risk their money in his "wild innovation." Some of his business associates considered him a crank; they told him that he was a man of one idea, and playfully dubbed him "Crazy George."

About this time he invented a railroad frog which appealed to railroad men at once. He went to Pittsburg to make arrangements with a steel company to manufacture the frogs. There he became acquainted with Andrew Carnegie, Robert Pitcairn of the Pennsylvania Railroad, and Ralph Bagley. All were young men and Mr. Westinghouse became their companion. He told them about his brake, and asked them to take up his project with him. At last Ralph Bagley, who owned a foundry, agreed (for one-fifth interest in the invention) to make an apparatus to equip a single train. The superintendent of the Steubenville division of the Pan Handle Railroad from Pittsburg to Steubenville agreed to place a train of cars at the inventor's disposal, and the work went ahead. The first trial took place in October, 1868. The first application of the air-brake prevented a collision between the train and a wagon. The brake had proved itself.

But Mr. Westinghouse did not sit down and rest. The newspapers and scientific journals were enthusiastic about it, but he realized that his work had merely begun. He saw better than others that the brake was still defective. When he went home from the first test he made new plans. The Westinghouse Air-brake Company was formed, and a factory was built for making the brakes to fill the orders which began to come from various parts of the country. But he bent his mind also to improving the brake and bringing it to a degree of perfection which he had conceived on the day the two trains collided near Troy.

Having now convinced the railroad men of the United States of the practicability of his invention, he went to Europe to introduce the brake there. The European trains had hand-brakes upon brake-vans, and the other cars had no brakes at all. His efforts to persuade the railroad men that a brake must be applied to the locomotives as well as to the cars was no easy task. It required seven years to convince the conservative railroad men of England. From that time he has developed his brake to keep step with the development of the railroad business.

His next big project was that of piping natural gas into Pittsburg. While natural gas was piped into the steel city as early as 1883 by a few individual manufacturers for their mills and factories, the gas-fields with large supplies were so far away (according to the limited ideas of the time) that no one had the courage to lay a pipe-line to bring the gas in quantity to the city. It would be too expensive. No one dared to take the risk of sinking the millions of dollars necessary to do the work. But Mr. Westinghouse carefully computed the cost of bringing the gas from the Murraysville field, about forty miles distant, the nearest of the large gas-producing fields, and also the possibilities of profit in selling it in the mills and homes of Pittsburg. He became convinced that the project was entirely feasible and that the profits to the man or the company who undertook it would be incalculable. So in May, 1885, he set about to form a company—the Philadelphia Company. He needed $6,000,000 to carry out his plans, and twenty years ago $6,000,000 looked much larger in Pittsburg than it does now. The scope of the work was outlined and public subscriptions were invited. So confident was he that he feared there would be such a crowd in front of the bank where the subscriptions were to be received that policemen would be needed

to keep order. The day for receiving subscriptions came, but not the expected crowd. But this rebuff only spurred him on. He went among his friends, used his magic powers of personal solicitation, succeeded in inspiring them with his own enthusiasm, got all necessary money subscribed, and carried his plan to completion. It made a fortune for every one who went into it, and by cheapening fuel it gave a great impetus to the manufacturing industries of Pittsburg.

In the meantime, Mr. Westinghouse had found other battle-grounds. During his sojourn in Europe he had studied the system of electrical distribution then in vogue, which interested him. Electric lighting was in its infancy. Mr. Westinghouse, with characteristic foresight, soon recognized the possibilities of the "new" element of light and power. In Paris he learned of Gaulard and Gibbs, two engineers who had recently obtained patents on the "alternating current" system of electrical distribution. The "direct current" system then in use was too costly for general introduction as a means of lighting. The alternating current system was cheaper. Mr. Westinghouse bought Gaulard and Gibbs's patents, though not even he foresaw the tremendous advantages of the new method of distribution.

After returning to the United States, he engaged William Stanley, Oliver B. Shallenberger, and other young electricians to develop the new system. The apparatus was designed, and a corporation known as the Westinghouse Electric Company was organized to manufacture, sell, and install alternating current apparatus for electric lighting. At this time Mr. Westinghouse no longer had to depend upon others to foster his plans. The air-brake had already made him rich. So, apparently well fortified to carry his project to a quick and satisfactory conclusion, he really entered upon the "fight of his life."

The electrical industry of the country was very small, but it was headed by Thomas A. Edison, and it was backed by a coterie of powerful financiers. These men had never been known to give up anything without a fight. The opposition aroused against Mr. Westinghouse and his new system was most powerful; it cropped up everywhere—in courts, in the legislatures of States, in the council chambers of municipalities, in Congress even. In the daily press, in scientific papers, in the magazines, the Westinghouse system was stigmatized as the "deadly alternating current." It is steadfastly maintained by adherents of Mr. Westinghouse that a law was passed in the State of New York to execute criminals condemned to capital punishment by electricity solely to prove to the world that the Westinghouse alternating current was most deadly, and not from motives of humanity. Mr. Westinghouse's opponents hired agents by the score—lawyers, scientific men, engineers, and detectives—to go about the country and harangue against the introduction of this "pernicious, death-dealing system of electricity."

Mr. Westinghouse met his adversaries at every turn. In spite of the opposition, contracts kept coming in; and the apparatus was installed by almost every company in the country. It was installed in London, England, in what was then the largest electric lighting establishment in the world. In the end, the opponents of the alternating system were compelled to recant, and from that time the direct current system of lighting was no longer heard of. Then the adversaries of Mr. Westinghouse turned other batteries upon him.

An older electrical company was manufacturing an incandescent lamp patented by Mr. Thomas A. Edison, known as the Edison lamp. Wherever Mr. Westinghouse sold his alternating current machine, his customers were obliged to buy lamps from his opponents. So it was intimated to the Westinghouse customers that, if they bought Westinghouse apparatus, they could not buy any lamps. On discovering this fact, Mr. Westinghouse brought out a lamp known as the Sawyer-Man incandescent lamp, manufactured after a patent granted to Sawyer & Man. Litigation began. A legal battle, which lasted for years and cost hundreds of thousands of dollars, was waged, till the Supreme Court of the United States decided in 1893 that the Sawyer-Man lamps were an infringement on the Edison patent. At this time Mr. Westinghouse had just received the enormous contract of the World's Fair at Chicago to supply ten 5,000-horse-power generators and 250,000 incandescent lamps. But Mr. Westinghouse was not deterred. He smilingly assured his friends that there was nothing to be alarmed about.

The surprise came in February, 1893. Mr.

Westinghouse placed upon the market a Sawyer-Man stopper lamp, an incandescent lamp made in two parts, entirely different from the Edison lamps in its essential feature. It is not so durable as the Edison lamp, but for a short period it gives as brilliant a light. He then took the initiative in legal proceedings. He called the representatives of the Edison interests into court to show cause why he should not manufacture this lamp. This was a master-stroke of strategy, and his success was complete. He supplied the machinery at the World's Fair and he supplied the lamps, presenting the most marvelous display of electrical illumination that had been seen up to that time.

But the saddest trial of his life came in 1890 and 1891. Owing to the financial situation of the country and the mismanagement of the affairs of the Westinghouse Electric Company, that company stood at the brink of ruin, before he knew. But, with characteristic energy, he discharged the general manager and other employees and tried to restore order from the chaos. He invited Pittsburg bankers into a conference. They declined to help him. He offered his large private property, his own house in Pittsburg, as collateral, but they declined. The situation was grave. When he was finally persuaded that there was no hope of doing anything in Pittsburg, he boarded his private car and went to New York, where he was then comparatively unknown. In New York he secured all the money he needed. The electrical company was reorganized and placed upon a better footing than ever. But the experiment caused him to keep always a close grip on his affairs, and there is no doubt that today he is one of the world's hardest and most tireless workers. One may see him in New York on Monday morning, stepping off the train which has brought him from his home in Lenox, Mass. At his office, No. 120 Broadway, he will meet financiers, heads of his different companies, inventors, commercial men, capitalists. When his day's work is done, he goes to his private car in Jersey City, which will carry him West. The following morning, before the superintendents and managers are at their desks, he visits the work-shops in East Pittsburg, going from one department to another, casting his penetrating glances here and there. Where tests of some new device or of important improvements in machinery are under way, he will be there. His skill and his knowledge of mechanics and machinery are invaluable to the workmen.

Of course, of late years he has been very busy looking after the executive part of his many enterprises, and it is very rarely that he goes into the machine-shop to work at the vise, at the lathe, or at the drill-press. But not long ago, it was an ordinary thing for men who wanted to see him personally to be told to go and find him in the machine-shop. True enough, there he was, with his coat off, his white shirt always immaculate. In this respect the man is remarkable. Even if he worked about machinery all day, the oil and grease and dirt never seemed to come near him. He was always clean.

He stays at the factory until noon, when he lunches with some of his lieutenants. From there he goes into the city of Pittsburg, where he has an office in the large building which is named after him. Here he may have conferences, dictate letters or transact business, or make appointments over the long-distance telephone, talking to New York, Boston, Chicago, or St. Louis. Then, as likely as not, he will leave again that same evening for the East or the West, to return to Pittsburg, when?—the day after tomorrow.

And note the business enterprises he has to look after:

The Air-Brake Company, The Westinghouse Electric and Manufacturing Company, The Westinghouse Machine Company, The Union Switch and Signal Company, The Pittsburg Meter Company, The British Westinghouse Electric Company, The French Westinghouse Electric Company, The German Westinghouse Company, The Russian Westinghouse Company, The Canadian Westinghouse Company, and several minor concerns, with a capitalization of $100,000,000 and employing about thirty thousand workers.

He has a remarkable power over men. An incident demonstrating this occurred in the president's office in one of the largest Pittsburg banks a few years ago. The president's private telephone rang several times, and finally answering it, the president said, "Mr. Smith is not in now."

A visitor hearing the remark, looked astonished, and asked, "Mr. Smith, why did you tell him that you were not in?"

Mr. Smith answered: "That was Mr. West-

inghouse at the other end of the line. He is a peculiar man and has a marvelous influence over other men. It is impossible to refuse him when he asks for anything. He wants me to come to see him, and if I should go and he should ask me for a large sum of money I would let him have it. And we are not now in a position to make the loan."

Here is another incident, illustrating how business problems pursue him. A few years ago a game of whist was progressing smoothly, when, after one of the deals, Mr. Westinghouse did not pick up his cards, but kept drawing on a piece of paper before him. The others watched him curiously, remarked that they were ready to proceed, and then waited and waited, unable to understand why he would pay no attention to them. Suddenly, with a flash of triumph in his eye and exultation in his voice, he cried out, "Brown, I've got that natural-gas meter fixed—here it is; it cannot fail to work successfully," and picking up his cards he asked, "Whose turn is it to play?"

The great problem which made the production and sale of natural gas a paying enterprise, and which laid the foundations for a successful business for the great Philadelphia Natural Gas Company of Pittsburg, had been solved.

Mr. Westinghouse is more than six feet tall and well proportioned, erect as an oak, with large hands and feet, with broad, square shoulders, a full chest, a short bull neck, a massive head covered thickly with almost white, well-trimmed hair, a pleasant, open countenance with bright, brown eyes full of life and vivacity, a ruddy complexion, and the face distinguished by a heavy white mustache and not too closely clipped side-whiskers; a being of permanent mobility. While walking, his step is quick, long, elastic, and when sitting, either his feet are moving or his hands are toying with whatever object is nearest—a pen, a pencil, a sheet of paper, or perhaps eyeglasses, which are used only when he reads. Add to this that the man before you is dressed in a single-breasted coat, of quiet, sombre pattern, cut in the simplest fashion, and you have a picture of him.

In closing it might be asked: What is his ambition? What is he working for? Not money, for he has that in superabundance. Not fame, for he has that. He strives, because the energy is in him. But then there may be something more. One day when the air-brakes had saved a train from disaster, he said:

"If some day they say of me that with the air-brake I contributed something to civilization, something to the safety of human life, it will be sufficient."

WHAT AWAITS RURAL NEW ENGLAND

HOW WESTERN METHODS MIGHT DEVELOP THE REGION OF ABANDONED FARMS—THE PEOPLE AS SEEN BY A TOUR ON HORSEBACK

BY

T. N. CARVER

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LAST August and September I made a horseback journey through rural New England, covering about five hundred and fifty miles—a tour of investigation similar to one I took the previous summer through the Corn Belt, an account of which has appeared in this magazine. My purpose was to study not only the agricultural conditions, but the whole life of the people. My route ran northward from Cambridge, through eastern Massachusetts and New Hampshire as far as Tamworth, thence west across New Hampshire and into Vermont, then south to Watertown, Conn., and homeward to the starting-point. I carried my luggage in saddle-bags, and stopped wherever night overtook me.

My most salient impression was that agriculture as an independent industry able in itself to maintain a community does

not exist in the hilly parts of New England. Outside of such exceptionally fertile sections as the Connecticut Valley, the farmers engage in such occupations as lumbering and keeping summer-boarders, often carrying on farming merely to supply their own tables with vegetables and their horses and cows with forage. I found few farmers who could secure sufficient revenue even from sales of hay and milk, the most profitable of New England farm products.

It is fortunate that in so sterile a part of the country the landscape is picturesque. In many of the communities I visited nearly every member shared in the prosperity brought by summer-boarders—some by supplying poultry and dairy products, some by performing services, and some by hiring out their horses and wagons. Lumbering, too, brings money into these rural communities. Practically every farmer becomes a lumberman during part of the year; some work in the sawmills throughout the year. There is an appreciable income, too, from pensions. A tavern-keeper in a New Hampshire village, who was also postmaster and liveryman, told me that the chief occupation of his town was "general shiftlessness." I asked him how the people lived.

"Well," he said, "most of the farmers are pensioners; and when a farmer gits a pension, b'jiminy, that's the end of his farm." Hard cider I found to be another enemy of successful agriculture. It produces a serious problem.

I found very few taverns or "hotels," even in the smallest villages of New England, that did not have well-filled bar-rooms, whereas such resorts were rare exceptions in the corn country.

These facts, however, do not indicate a decline in agriculture. Farming never was a self-sufficing industry in New England. In the days of so-called prosperity domestic manufactures were carried on in farm-houses. The transfer of manufacturing from the farms to the towns accounts as much for the decline of rural prosperity as anything else—the rise of agriculture in the West, for example. Moreover, the development of farming, dairying, and market gardening near the cities offsets the decline in the remote districts.

There is some degeneracy in rural New England, but not a uniform degeneracy. There are many remote towns and villages where, in spite of the falling off in the population and in wealth, moral and social conditions are as sound and wholesome as they are anywhere. There are certain neighborhoods of bad reputation, but there have always been such neighborhoods. They have tended to disappear in the West because the land has become so valuable that industrious and thrifty farmers have been able to replace their shiftless and vicious neighbors. In some New England towns, however, the degenerate descendants of the degenerate first settlers still occupy the land. I could find no evidence of a general tendency of sound New England stock degenerating, though many old families have died out. The enterprising and ambitious youth of the disreputable neighborhoods have moved out, and in some cases a degenerate class has taken their places. The process is like that in cities where an aristocratic neighborhood becomes a slum.

But the problem of the degenerate country towns is serious. It is easier to improve conditions among poor foreign immigrants than among people whose ancestors have failed to take advantage of the stimulating influences of New England democracy. The isolation and the narrowness of their lives, however, can be removed, so that individual initiative may have scope. I talked one day with a New Hampshire farmer who took pride in his fifty-acre farm. He informed me that he was once offered $1,800 for it, and that it was now worth all of a thousand dollars. He regarded himself as a substantial citizen. I asked him the distance to the next village. He could not tell me. "I have not been over there," said he, "for more'n twenty year, but I guess it must be mighty nigh on two mile and a half—maybe three mile." I found that it was three miles. Such ignorance of the outside world is almost incredible.

WHAT NEW ENGLAND CAN DO

Now, domestic manufactures can never be revived in New England, though an attempt is being made to revive them at Deerfield, Mass. Summer boarders cannot support the whole country, nor can lumbering. But I asked myself, as I rode over the hills of New Hampshire and Vermont, why should not northern New England become a great stock-raising country? The land has become so cheap, and the grazing lands of the far West

have become relatively so dear, that New England offers advantages to sheep- and cattle-breeders. One acre of New Hampshire hillside pasture is worth three acres of grazing lands of western Kansas, Colorado, or Montana. There is plenty of water, so that one western problem does not exist. Fifty men with whom I talked on my journey agreed that New England is a good cattle country, but no one knew why more cattle are not raised. I believe that the two chief obstacles are: first, the difficulties of providing winter forage, and, second, the small size of the average farm.

When a man owns a farm of from fifty to one hundred acres, he must plow some of it if he expects to make a living from it, but plowing these steep and rocky hillsides is ruinous, for the rains wash away more fertility than the crops extract. But no farmer's family can live from the produce of so small a farm if it is used only for pasturing. If the farms ran from 400 to 600 acres each, enough stock could be pastured on each one to support in comfort the average farmer's family. There would still remain, however, the question of winter forage, for these hillsides can not even produce hay to advantage —that is, hay-making machinery can not be used, and in this age hay-making by the old hand-processes is as much out of date as the hand-loom or the flail. Profitable stock-raising on a farm of this kind would therefore be limited by the amount of level land, relatively free from stones, upon which hay-making machinery could be used.

But there is another possibility. In Europe, wherever stock-breeding has developed on a large scale, cattle are driven from the hills to the valleys in the fall and from the valleys to the hills in the spring. The owners of pasture land in the hills and mountains buy their stock in the spring, pasture them during the summer, and sell them in the fall to the feeders in the valleys; or the feeders in the valleys drive their stock in the spring to the hills and mountains for summer pasturage and bring them back in the fall to be wintered on the forage grown on the valley land. The next fifty years may see the development of a considerable industry of this kind in New England. Some experiments are already being made. Mr. J. W. Clark, of Wilmot, N. H., was formerly a sheep-rancher in Montana He recently sold his interests there and returned to New Hampshire to start a sheep-ranch. He has acquired about one thousand acres of the ordinary rocky, hillside pasture land, which, he holds, is much more productive than the Montana land, and about as cheap.

The measures taken by the public authorities to encourage agriculture in New England are generally useless. Foreign immigration to the hill farms was foredoomed to failure. The money which the States appropriate for the county fairs would be better expended in suppressing the worst of them or in reforming them. The three principal features of the average New England fair are oxen, gambling devices, and horse-racing—all three demoralizing to agriculture. Oxen belong to a primitive state of civilization. Prizes offered at New England fairs to encourage ox-farming helps on agricultural progress about as much as would prizes for a display of wooden plows or for contests in reaping grain with old-fashioned sickles. In countries where labor is dear, it is the poorest kind of economy to work with these slow and stupid beasts. In my ride of a thousand miles throughout the Corn Belt the preceding summer I did not see nor hear of a single yoke of oxen.

Here again the smallness of the farms checks progress. As a German peasant finds it economical to use his milch cow as a draft animal, since he has so little land that he could not employ a horse economically, so on a fifty-acre corn-farm it may be economical to use oxen. But in that case the State would do better to encourage capable farmers to buy out their neighbors and acquire enough land to make modern methods worth while.

There is a great difference in agricultural fairs. Some are relatively free from gambling devices; others are surprisingly "wide open." At the Willimantic, Conn , fair I counted twenty crude gambling devices. The moral obtuseness of the managers of some fairs is remarkable. The correspondent of a Boston newspaper commented on the disreputableness of one cattle-show. The managers simply took the ground that the correspondent must have lost money gambling; they could account for his objection on no other basis.

The horse-races furnish diversion but do not encourage agriculture. Even offering prizes for winning teams of oxen is of no

practical value. Almost universally, the prosperity of western agriculture and the poverty of New England farming are explained by the difference in the fertility of the soil. Yet this difference is offset in part by the better markets in the East. If a western farmer should try to make a living at ordinary staple farming on so small a farm as the average one in New England, using the primitive New England methods, he would have as hard a time as the New England farmer to make a living. On the other hand, if the New Englander would use as much land as the western farmer, and have modern labor-saving machinery, he would probably be able to make as good a living. A young man wishing to start out as a farmer would do better to invest in New England land than in western land. A good Iowa farm will cost from $75 to $100 an acre; good New England pasture land from $10 to $25 an acre.

New England writers on agriculture have made the mistake of looking to Europe rather than to the West for their models. They have held up as examples to the New England farmers European peasants who cultivate a few acres to a high degree of intensity to yield larger crops *per acre*. But they forget that these mean small crops *per man*. Where labor is cheap and land dear, as in the Netherlands or in the valley of the Po, it is economical to raise crops with much labor and little land. In the United States, where land is cheap and labor dear, the opposite method is better. And it is to be hoped that conditions will never arise in the United States where labor is so cheap and land correspondingly so dear as in densely populated Europe. Since the price of labor in New England conforms pretty closely to the price in the West, and general social conditions are much the same, prosperous parts of the West ought to be the New England models rather than Europe. With this idea in view, the managers of New England agricultural colleges have begun to draw on the West for teachers. Within less than two years Mr. Kenyon L. Butterfield, trained in Michigan, has been made president of the Rhode Island State Agricultural College. Mr. W. D. Gibbs has been made president of the New Hampshire State Agricultural College. There are western men in the faculties of all the New England agricultural colleges.

The nearness of eastern markets, too, is a very appreciable advantage to New England. On the railroads covering the section run the milk-trains which enter Boston every morning. The farmers along any of these railroads deliver cans of milk at the nearest station every morning, and receive the cans there again in the evening, receiving from twenty to thirty cents for each eight-and-one-half-quart can—though Boston consumers pay a considerable advance on that price. A western farmer who could secure such a price would regard himself as opulent. Again, Boston is one of the best apple markets in the country, but the market is supplied largely from New York and Michigan. Yet New England is an excellent apple country. Every year seedling apple-trees grow without planting and flourish without care. Even where grafting is done, it has been the custom to graft only such trees as came up themselves along old stone walls and other such places. Apple-growing, then, is a New England possibility.

In the Connecticut River Valley, where extensive cultivation is possible, the agricultural prospects are very hopeful. I saw many fields of corn which would astonish a Kansas farmer. The census returns show a larger yield of corn per acre in New England than in a great part of the Corn Belt itself. It is grown, however, in small fields highly fertilized and intensively cultivated, whereas the western farmer never even hoes his corn, yet he grows the largest crop *per man* in the world.

THE MENTAL ATTITUDE

As for the general mental attitude of the dwellers in rural New England, I recall a conversation in a certain blacksmith shop where I was getting my horse shod. The speakers were referring to the occupants of an automobile which had just passed:

First loafer. "That's a swell outfit."

Blacksmith. "That's Jim ——."

First loafer. "Well, I be danged! Who give it to 'im."

Blacksmith. "Oh, he's got money now."

Second loafer. "Yes, and he's just like the rest of 'em. Soon's he gits some money he comes back here to show off."

Blacksmith. "No, but he's got a lot of it. They say he's made a fortune down in New York."

First loafer. "How'd he git it?"

Blacksmith. "Well, Jim always did have plenty of *cheek*, you know."

Both loafers. "That's so." (This seemed so full and satisfactory an explanation that the conversation turned.)

First loafer. "Who's that with him?"

Blacksmith. "That's his wife. Used to be Belle ——."

Second loafer. "*Humph!* Don't look much like she used to when she was a kid."

Blacksmith. "They say she's quite a society swell now."

First loafer. "I be danged."

Second loafer. "Well, *she* always had cheek, too."

These remarks, typical of a great many others which I heard, led me to conclude that the average rural New Englander regards *cheek* as the chief qualification for business success, especially in the city.

One noticeable difference between corn-growers and the New England farmers is in the willingness of the Westerners to talk about farms and crops. They seemed to like to talk about their farms, their crops, and their cattle. Even the young men and the boys had "views" on corn-growing and cattle-feeding. Among the New England farmers I found little of this spirit, and the difficulties of securing information were materially increased. The New England farmers were distinctly disinclined to talk about their farms or their leading crops—were anxious, rather, to ask me questions regarding other matters. This may argue greater mental alertness, but I think it also argues a lack of interest in their own occupations. I do not recall talking to a single young man or boy on a New England farm who expressed views on farming.

But on the whole there is every reason to believe that the decline in New England agriculture is at an end. With the practical exhaustion of free public land in the far West, the rise in the price of land in the middle West, and the development of cities for their markets, the consequent rise in the price of agricultural products will give a value to New England farms which they have not had for many years. It is to be hoped, however, that the process of "abandoning farms" will continue, if this simply means that several small farms are to be used in one fair-sized farm upon which the farmer can economically use superior draft animals and labor-saving machines, for New England methods of agriculture are fifty years behind the times.

AN INSTRUCTIVE FACTORY VILLAGE

HOW THE MILL OPERATIVES LIVE IN LUDLOW, MASS., WHERE AN ENLIGHTENED CORPORATION FOSTERS UPLIFTING CONDITIONS

BY

EDWARD KIRK TITUS

NOT every New England factory village is like Ludlow, Mass., but Ludlow shows what a factory village may be made by intelligent effort. It is even typical of the best kind to be found in a study of New England industrial conditions. Two groups of giant mills give it work. One company owns almost the entire village, and employs 1,800 operatives, including English, Irish, Italians, more Scotch, still more Poles, and an even larger colony of Canadian "York-State" French. Beyond the mills are not squalid tenements, but tasteful homes for overseers and an effective library building, placed about a lawn planted with trees—all suggesting some finished city suburb like Montclair, N. J., or the Newtons in Massachusetts. Across the village green are the cottages built by the company for their operatives. In August the streets smile with hydrangeas and golden glow.

Twenty-five years ago, when the mills came to Ludlow, it was a tiny hamlet. Most of the operatives soon found shelter in typical barracks, with dark halls, pervasive dirt, and sodden air. To better this condition, the

company built some cottages and sold them to employees at less than cost. An anarchy of back yard resulted, with pig-pens, chicken-houses, cows in tarred-paper sheds, omnipresent goats, and pink and yellow fences. The company soon bought back nearly all the cottages at an increased cost, and rented them. It now has about 350 tenements, mostly single houses. In these, provision has been made for easy housework for women with large families and without servants. The sink with running water is always within arm's length of the stove; pantry and dining-room are close by, and the woodshed is attached to the house. The walls are solidly built so that heating is not expensive. The houses are simple, but of varied architecture. A typical dwelling of five or six rooms, with hot and cold water on each floor, bath, sewer connection, and furnace, rents for about $7.75 a month. With eight rooms it is about $9.75. Corresponding houses on outlying streets of the near-by city of Springfield cost from $15 to $20. A four-room Ludlow house rents for $5.50 to $6. The rents include water and sewer charges, the building of sidewalks, and the planting of shade-trees. Half the income goes into frequent repairs.

The company gives the village recreation association the use of an immense amusement room, where every evening pool, bowling, and checkers keep seventy-five to ninety young men off the street. An enormous floor in one of the mills is given for basket ball. Proceeds of frequent entertainments have provided a piano. A physical director furnished by the company serves as social secretary, and the association provides an athletic instructor. The company gives the association control, free use, and the income of an athletic park, which is to be provided with dressing-rooms and baths. The total expense is estimated at $10,000.

A boarding-house, in a brick block recently erected by the company for retail merchants, affords unmarried women comfort and protection. These girls have steam-heated rooms and board for $2.50 a week. Breakfast includes cereal, eggs, meat, doughnuts, coffee, tea and milk; dinner, two kinds of meat, two kinds of vegetables, pie or pudding, tea, coffee, milk; and supper corresponds.

The girls' institute, with quarters in a former company office beautified by rugs, palms, and pictures, provides classes in physical culture, dressmaking, cooking, reading, elocution, and dancing. About thirty-five young women from the mills meet regularly for reading aloud. Those who feel uncertain of themselves quietly pass the book along, so that inferiority is tactfully ignored. Twenty-five cents a quarter is the charge for institute privileges. There is an evening school for instruction in arithmetic, book-keeping, stenography, and drawing, taught by the village pastor and office employees.

The beautiful library building with its 7,000 volumes was a gift to the town as a memorial of the late company treasurer. The company pays all expenses except the subscriptions to magazines.

Every cottage has its well-kept lawn. Almost every house has shrubs and flowers. Many are overrun with creepers. New arrivals from abroad have many misgivings about bath-tubs, but only a few who have had a tub give it up. The house interiors represent a certain groping after artistic effects. Although the average wages of the men is but about $9 a week, three-fourths of the householders can afford ice. The houses are liberally supplied with carpets, rugs, and pictures, while the sideboards, couches, lamps, tables, and table furniture are not cheap. A young woman was speaking of singing and dancing at the girls' institute.

"Who plays?" I asked.

"Almost any of our girls."

"But where do they learn?"

"Oh, lots of them have pianos. There are twenty-four families on our street, and eighteen of them have mandolins or violins or organs or pianos."

The company built a high school, and formerly paid one-fourth of the salary of the public-school teachers. It makes this contribution no longer, and rents the high school to the town for the nominal sum of $100. The village savings bank asks help from nobody, and has $215,903 of deposits, largely from operatives.

When the boarding-house matron gathers her flock for a little singing and class-work, she does not intimate that they do not know the multiplication table.

"Do you ever have trouble at the stores in making American change?" she asks. And then she easily drifts from dollars and pounds into the cents and ounces. Some time ago the boarding-house girls were given to leaning

out of their windows from the waist up for social intercourse with the sidewalk. But no rule was made.

"We are going to have some screens to keep out those horrid mosquitoes," was the matron's smiling announcement.

Village wiseacres say that company sales of milk and wood and rents of tenements bring big profits. If they are right, Ludlow is the more significant. For if this betterment work is philanthropy and nothing else, it is magnificent. But if money can be made thus, a new industrial principle has been worked out. The housing system is expected to pay but four per cent. and the profit often falls below that. One can but guess whether the other social enterprises return a cash profit or a loss. But at all events, labor troubles have been remarkably few and the workers are satisfied.

A GLIMPSE OF JAPAN'S AMBITION

A TYPICAL STORY OF A JAPANESE OFFICER WHO SERVED HIS COUNTRY IN STRANGE WAYS IN MANY PARTS OF THE WORLD—HIS DESTRUCTION OF A LOST RUSSIAN COLUMN BEFORE LIAO-YANG, AND WHAT IT SHOWED

BY

O.

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YINKOW, September.

THE Foreigner was unutterably bored. Only those who have to attend similar functions, buttoned up to the neck in an absurd tunic in artificially heated salons, can realize the boredom bred of a succession of diplomatic *soirées*. The Foreigner was bored. He had nodded to the men he knew from his Embassy, had bowed himself low in answer to the courteous salutations of other foreign mocking-birds like unto himself, had kissed the tips of the fingers of perhaps two smiling dames, and had settled himself to lean on the balustrade until the season might be seemly for him to slip down the grand stairway into the cool outside. The chatter of feminine voices, the flashing of dazzling jewelry, the nodding aigrettes, the electro-plated magnificence of waist-laced cavaliers interested him no more. The panoply of peace. He gazed at the stream of smiling faces as they moved past him. There was not one that interested him. He fell musing to himself. Was it a diplomatic reception, was it a carnival, or was it a *corroboree*—the modern development of those orgies the description of which had fascinated him in perusal when a boy? There was a temporary dissolution of the crowd. An archduke or a princess was passing, and the ushers divided the crowd of gilded guests to make a passage. As the way opened, the Foreigner caught sight of a face on the far side of the salon which seemed to reflect the very thoughts that were passing through his own mind. A little, swarthy face. A face which, in spite of the low forehead, beady black eyes, and Mongolian bluntness, was full of intelligence. At the moment, cynical intelligence. The dwarfish body which supported the head was clothed in an unobtrusive uniform, and the long, ingenious fingers of the yellow hands were playing nervously with a plumed shako. An impulse seized the Foreigner, and he walked across the room. Though he had not an acquaintance with the little yellow soldier standing against the salon wall, with his shoulder scarce reaching to the dado, yet he knew him to be an extra-attaché to the Japanese Legation, and his own thoughts seemed to be so accurately reflected in the expression on the stranger's face that the Foreigner was drawn toward him.

At the first salutation the diminutive attaché started visibly, and, taken unawares, bowed deeply and apologetically, as is the custom of his people. The Foreigner uttered a few commonplaces in the diplomatic tongue, which resulted in more nervous agitation of the shako. It was evident that the little man

did not understand. He glanced furtively up into the bigger man's face, smiled inanely, and drew in his breath between his teeth. The Foreigner tried English and German in turn, but their use elicited no reply beyond the deliberately sucked-in breath. An awkward silence, and then the little attaché thrust his hand in his breast-pocket and produced a card. This was handed to the Foreigner with a courtly bow. It read:—

LIEUTENANT H. KAMIMOTO,
Imperial Japanese Army.

The Foreigner bowed, shook hands with his tiny acquaintance, and then, the time being propitious, passed out into the cool of the night, hailed a fiacre, and drove home. The little olive face remained in his mind, the cynicism and cunning in it when he had first seen it, the instant change to apologetic courtesy as soon as he spoke, and the depth of intelligence contained in the eyes, which for the rest had an almost brutal setting.

. . . . . .

Three years later the Foreigner found himself among the guests at a midsummer party. After the usual compliments, he accompanied his hostess into the garden, where the younger folk were disporting themselves upon the tennis-courts. For a moment the Foreigner was left alone to watch the play. A lithe little figure in flannels was the heart and soul of the game. Few could persevere against his returns, none place a ball beyond his reach. His play was an exhibition of marvelous skill, the subtle strength of controlled energy.

"Who is your dark little Ravenshaw?" asked the Foreigner as he rejoined his hostess.

"That is Mr. Kamimoto, a Cambridge friend of George's. He is a Japanese; doesn't he play a splendid game, and such a funny little fellow, too?"

Kamimoto and the mental vision of the Foreigner went back to the little apologetic figure with nervous fingers playing round the edge of a full-dress shako.

The set was over, and when the congratulations had lulled, the Foreigner had a look at the little olive face. It was the same, only the cynical suggestion of superiority had gone out of it. The infinite courtesy remained. Presently the Foreigner was able to step to the little man's side. He put out his hand to him.

"Have we not met before?"

A smile flickered under the stiff little impertinence of a mustache, and the answer came in perfect English.

"You have often called at the Japanese Legation: perhaps you have seen me there."

"No; Paris, I think!"

The breath was drawn in between the closed teeth. "You are, I think, mistaken. We Japanese are so much alike. I have never been in Paris." This answer given, the little man gave the Foreigner a signal glance which he understood. A soldier's freemasonry. The Foreigner understood, and as he moved away he noticed that though the little attaché appeared quite at ease with the men, yet he was awkward in his courtesy to the daughters of the house who flitted round him with refreshments. The Foreigner's interests were aroused. He would cultivate this little oddity who was an attaché to a legation one year and a Cambridge undergraduate the next, and who politely denied past acquaintances. The Foreigner moved aside to do his duty by his hostess and her daughters, and wherever he turned he noticed that the olive tennis-player was observing him.

Later in the evening, when the guests were retiring early in anticipation of a long day's boating picnic on the morrow, the Foreigner found little Kamimoto at his elbow. "May I come to your room and talk to you a little before we turn in?"

"Certainly, I shall be more than pleased," was the Foreigner's answer. Five minutes later they were seated on a sofa in the Foreigner's bedroom.

"Well, my student-militant, explain it all. What is the reason of the present masquerade?" and the Foreigner greeted the little attaché with a genial slap on the knee.

The breath was drawn in again. It might have been that the familiarity was resented, or—and this is more probable—it gave the speaker an extra second to debate his answer.

"It means that the educational institutions of England are suitable to the improvement of my mind!"

"But such improvement as you desire is surely not among schoolboys—the military academy and college are surely more in your particular line? Remember, there was a first lieutenant's braid on that shako in Paris."

The smile, which immediately drives out the unintelligent look from the average Japanese face, flickered for a moment, and then

the attaché answered, "You are very clever to remember that. But you know that your military institutions are closed to me."

"My dear sir, you can go and see them any day you like. I can arrange——!"

"You are very good, and I thank you, but you couldn't arrange for me to become an inmate—a cadet, fellow of your cadets. I expect that I know all that could be learned through the 'open door.' It is the shut door that I must study."

"But being a soldier—why try the universities? In their educational attainments they profess to despise us. We are to them no more than the blue-bloused butcher—a very necessary evil, necessary to the economy of life—salaried assassins!"

"But you draw your officers from the same class as fills your universities. You even have university candidates. It is not the system so much as the man that I desire to know."

"To what end?"

"There is only one end for us Japanese: that is the service of our country."

"How long have you been at Cambridge?"

"Two years: my period there is now finished. I seek a new field!"

"And that is——?"

"The reason of my coming to see you in your room to-night!"

There was a pause: the Foreigner looked earnestly at his little companion. It was evident that he was working upon some line, and the Foreigner was not quite satisfied that the line was unmasked.

"Anything I can do!" was tamely interpolated.

"You can supply what I most want—I wish to see the life of your people as you see it."

"Certainly; if you will revert to your military rank, I will have you put up for my club!"

Kamimoto shook his head. "I have already received that honor. As far as your 'open door' is concerned I know most things. I have moved about your service clubs, meeting with courtesy on every hand—the courtesy that chills, that brackets one in the estimation of your countrymen with a little piece of lacquer. I am interesting because I am Japanese and small of stature. Finding no sympathy among the Englishmen of my own calling, I tried the women. What was open to me? The women of the streets. There was nothing there. Then I tried your colleges. Perhaps that was better; but your young men are such children. One tires of them. And even though I can equal them in all their games, and maybe pass them in their work, yet I am to them the little piece of *bric-à-brac* still."

The Foreigner leaned back in his chair and smiled. The line was unmasking itself. "Surely you are not suffering under the lash of forced abnegation: is not humility the soul of the Japanese nation—the ethics of Bushido?"

"Bushido?"—and the little man's eyes sparkled like coals of fire. "Do you know the meaning of Bushido in English? It is 'bosh.' The fanciful hallucination of some countryman of yours, who, living among us, has sunk his nationality—which is his sense of proportion—his reason. This brush-business in cheap-colored virtue is as painful to us as the patronizing tolerance which classifies us as children. Only let me know you, and I will disabuse your mind of the many Japanese fables which pervert the understanding of the western world. If all our antiquaries were not foreigners, this load of libel would not have been added to the burden which my country has to bear." The line was now unmasked, and from that day there sprang up between the eastern and western soldier a friendship which ripened into affection as months cemented the acquaintance.

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Kamimoto was sitting in the Foreigner's room in Jermyn Street. It was not the same Kamimoto we had known a year before. In rank, in stature, in dress even, it was the same man. But in expression of face it was another. The face was the true type of the Japanese Samurai aristocrat, but it was the face of the Japanese aristocrat who had conquered the mysteries of the West.

Kamimoto blew the ash off the end of his cigar before he answered the question which the Foreigner had put to him. Then he answered in that grave manner which characterized his more thoughtful conversation. "You are in error. If you consider that our national morality as typified by our diplomatic morality is based upon, or even influenced by, the old Bushido doctrines, then you pay a poor compliment to those doctrines, and upset the labored calculations of those foreigners who find in a fashionable idiosyn-

crasy of a past age an ideal standard for modern molding. Don't be gulled by the enthusiasm of fanatical savants. There is one creed which rules all Japanese public morality. Balance the chances, and then pursue the wisest course. All conditions must be subservient to the means by which you attain and maintain the wisest course. Take, for instance, our alliance with you. You and I have split a bottle over this diplomatic issue. In common with the beetles that crawl, you believe that we have both served our own ends by this diplomatic stroke. What your aims are I suppose only your diplomats know; what are the aims of Japan every Japanese knows. This alliance, for the nonce, was, to all intents and purposes, the wisest course, for it was the only course. But it is not what we desired most. You come out of it, as far as we are concerned, as a Hobson's choice. It would have suited us better to have effected the alliance with Russia which Ito failed to negotiate. This alliance would have been offensive against you. Having with Russia's aid destroyed your power in the Far East, we could have dealt with Russia in our own time. We do not fear Russia, and we have cause for our confidence. This latter will soon be brought home to you as the outcome of this new alliance, in spite of the fact that it has been heralded by you as a guarantee for the peace of the East in the immediate future. Are you so blind as not to see that our aspirations to blot you out, our main menace in the Far East, failed through Russia's rapacity. Well, her blood be upon her own head; but we all wish it had been the other way. Come, let us drink another bottle to our alliance, and 'our enemies our friends.'"

"I wish you would not talk such nonsense in such a serious tone; you almost make me believe that you mean what you are saying!"

A smile flickered across Kamimoto's face. "In which you have the true diplomatic force. That is one thing you Englishmen cannot teach us. You can teach us how to build ships and guns, to make armor-plate and gas-engines, but you can teach us nothing in diplomacy. The pop of that cork proves it. We will drink to our alliance, with three times three!"

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The world has revolved for another year. The Foreigner's headquarters were now at Tientsin. His country had required his services in the field for Military Intelligence which North China had opened up. Trouble was in the air, and an anæmic Cabinet was now in terror lest the diplomatic stroke which eighteen months ago it had vaunted as a peace-insuring measure should prove diametrically the opposite. The Foreigner, in the pursuance of his duties, found himself at Port Arthur. His mission was that of a coal-contractor, his bearing that of a British officer. His disguise would not have deceived an Englishman, therefore the fact that he was not interfered with meant that the police had already sampled him and found him harmless. The Foreigner felt that his chin was rough, so he turned into the first hairdresser's the highway presented which looked both respectable and clean. It was a Japanese institution. The majority of petty industries on the Russian-Manchurian seaboard are Japanese. The Foreigner looked for a chair. For the moment there was none. Four Russian officers from the garrison were filling heavily all the available space. The Foreigner knew sufficient Russian to warrant his being discovered as an Englishman if he attempted to speak it in Port Arthur. He was surprised at the freedom of speech of the Russian officers with regard to their professional duties. It seemed that this hairdresser's was a sort of morning club-house. *Vodka* and beer could be served from an *auberge* next door. In due course the Foreigner took his place in the chair. One look in the cheval-glass, and in his agitation he nearly jumped out of the seat. There, behind him, lather and brush in hand, and a spotless apron round his waist, stood Kamimoto.

"Shave or hair cut, sir?"

The Foreigner composed himself in a moment and settled back in his chair. He was reflecting. Kamimoto's question had shown him that, though he was himself masquerading as a German coal-merchant, it was patent to all that he was British; while here stood his Japanese prototype, a perfect barber, reading the minds of the Russian officers from morning till night. The barber's words came back to him. "You can teach us how to make armor-plate and gas-engines, but you can teach us nothing in diplomacy!"

As Kamimoto handed the Foreigner a towel he said: "If you are staying in the hotel, I can come and shave you before breakfast. Very good, sir! What number?—23? Very good.

Seven o'clock tomorrow. Good-morning, sir. Thank you!"

The Foreigner left, marveling greatly.

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The Foreigner was again desperately bored. His government, seeing that he had knowledge of Russia and Russian Manchuria, had selected him to represent them with the Japanese Army. He, with some fifteen other foreigners, as weary of life as himself, had now been with the Japanese Army the matter of a month or so. Courteous discourtesy hedged them in on every side. They were within sight of everything that they came to see, yet they saw nothing. Everything had to be done by rule. On the march the horses must proceed at a walk, and no foreigner might be out of sight of the interpreter told off to dry-nurse him. For three long, hot, desperate weeks they had been confined within the four walls of a filthy Manchurian town. Many of the number were down with abdominal complaints bred of bad feeding, want of exercise, and mental annoyance. Yet the Japanese officer in charge brought his spurred heels together with a snap, bowed low, smiled his superior smile, and expressed his sympathy. This sympathy was as insipid and cheap as the thin Japanese imitation of lager which the unwilling hosts produced on rare feast-days.

The Foreigner was walking moodily and in solitude round the broad rampart of the town.

Every indication of war stretched away to the north. But it was not for him. A sabre clinked behind him. He imagined it was worn by some officious sentry sent to chase him from the wall, and he refused to turn. Then an arm was slipped through his. He turned. It was Kamimoto.

The little soldier looked hard and fit. He was less sleek, it is true; but his eyes showed that he was more a man than when he had shared the Foreigner's rooms in Jermyn Street. The star and three tapes on his sleeve showed that he now commanded a company. The Foreigner took the delicate little hand and shook it warmly. The beady eyes twinkled.

"Aha! it is not all beer and skittles," Kamimoto said, smiling.

"The beer is not beer, and there are no skittles."

Kamimoto looked serious a moment, then he said: "I had heard this; I feared as much. It was foolish of you to come. Do you not remember all that I used to tell you in England. You thought I was deceiving you. That shows that I knew you better than you knew me. Take us, we two, as examples of our types. We Japanese know you foreigners better than you know us. Hence the fact that you look darkly toward our outposts and almost wish that you were a Russian. But I liked you too well to deceive you. As you know, I am not of the bigoted anti-foreign section. If we had done worse than we have at present, if we should chance to do worse ultimately, I shall be ruled out by the popular feeling of my own country — that is, if the bloody work ahead should spare me. But it is all wrong, all this slaughter——!"

"What have you seen?—what have you been in?"

"I—I, the Kamimoto that you know, have been in nothing; but my company was at Nanshan, Telissu, Tashichaou, and Haicheng. It has lost 90 per cent. of its original strength. What do we gain? Knowledge of the truth of the belief that we are better men than the foreigner whom we were bred to despise! If we were so assured of this fact, why should we purchase the proof at a price that must eventually tell against us? No; I am Samurai enough to do my duty. But I have sipped of the West long enough to value the lives of my fellows more than the aggrandizement of a particular selfish and hidebound sect. Do you not know what success spells for Japan? Militarism, the curse of the past, will be the curse of the future, and its new foundations will be Japanese and Russian tombstones——"

"Come, come, Kamimoto; this is strange talk, coming as it does from you."

The little man burst out laughing. "Forget it, then. But how about yourself?"

"I—well, I have seen nothing."

"What do you wish to see?—surely in another's quarrel a telescope is good enough."

The Foreigner put his hand on his little friend's shoulder. "Can I not give you back your words, Kamimoto? You should know me better than that."

Kamimoto was silent for a moment; he was gazing into the distance. Presently he turned to the Foreigner.

"Remember," he said, "that I am a Japanese officer, and I possess, perhaps, Japanese secrets. But I will do for you all I that can. I came to see you today because I felt for you

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THE CREST OF NANSHAN HILL, PORT ARTHUR

These few feet of earth were taken at the point of the bayonet by the Japanese after nine assaults and the loss of 3,500 men. The posts bear inscriptions in honor of the dead. Shoten, a son of General Nogi, was among the killed. The news reached the father on the same day as the Mikado's message conferring on him his appointment as Commander-in-Chief of the land forces moving on Port Arthur. The General said of his lost son: "I am glad he died so splendidly. It was the greatest honor he could have. But the funeral rites in his honor might as well be postponed for a while. A little later on they may be performed in conjunction with those of the two other members of his family, his brother Hoten and myself."

in the trouble which I knew, and many of us knew, was gnawing at your heart. Now, look where I point. Do you see that long, low ridge of down, the one to the left of the two peaks with a saddle between them?" The Foreigner nodded assent. "Well, and you see the whole plain covered with tall, waving *kouliang?* Well, on the day when they let you march out of here it will be easy for you to lose yourself in the *kouliang;* try and reach that down just before sundown. And now, *Sa-yo-nara!*" He saluted the Foreigner gravely, and in a moment had slipped down the ramp. It must have cost him much to have

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GENERAL NOGI AND HIS STAFF AT LUNCH

At the Japanese Headquarters, within four miles of Port Arthur. The General is the gray-bearded man in the dark uniform at the farther side of the table

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THE JAPANESE ADVANCE ON PORT ARTHUR

Transporting supplies on hand-cars over the Manchurian Railway tracks five miles north of Port Arthur

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IN CAMP NEAR LUCHUPO

Orderly rows of transport wagons in the foreground; picketed horses and tents beyond

told even so little. What a quaint paradox was this little scrap of an infantry captain!

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The Foreigner felt that there was truth in his friend's remark, to the effect that a man was a fool to court hurt in another's quarrel. All through the long day, as he had lain with his body squeezed against the squelching sides of a two-foot mud head-cover, this thought had been forced upon him a hundred times. He was in the front line of a great battle. The ceaseless screech and whir of the countless shells passing backward and forward overhead was sufficient evidence of this, even if at the moment, five yards away, two little Japanese infantrymen had not been levering the corpse of a comrade with their shoulders onto the mud parapet to make the head-cover better. Even if behind a Chinese grave-mound, ten yards in front of him, a hard-hit *sous-officier* had not been nursing a horrible wound, the excruciating agony of which, though it could draw no sound from the tortured man's tongue, caused a thin blue stream of blood to trickle from the sufferer's lip, bitten through and through. There was a lull in the din of war. A restful lull, broken now only by the song of the bullet, slapping its way

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DISMANTLED RUSSIAN SUBMARINE MINES

Removed from the channel of Port Arthur by the Japanese

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A RUSSIAN PIT NEAR KINCHOW

Taken by a Japanese assault last May with a heavy loss of life

GENERAL STÖSSEL
The heroic defender of Port Arthur

through the millet-stalks, or sousing into the wet mud with a sound that reminded the Foreigner of a horse landing in bog. The din of battle! Only those who lie in the firing-line and hear the constant screech of the shells as they cleave their terrible way through the air above know the true sounds of modern war. The whip-like smack of the bursting shell, the swish of the scattering bullets, are nothing to the mocking screech of these damned messengers of death as they pursue each other, as if in competition to complete the awful object of their hideous mission. The whole welkin is discordant with their tumult; you feel the rush of misplaced air, splinters sing in your ears, the earth is in constant tremble with the violence of the discharge; you feel it pulsate against your cheek pressed to the moist mud of the parapet, and then a bullet saps the life-blood of the comrade whose elbow has touched yours day and night for forty hours. There is a limit to human endurance in these straits.

There was a lull, and the Foreigner peeped over the parapet which sheltered him, and communed with himself. Here he was, like

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THE JAPANESE BRINGING IN THEIR DEAD AND WOUNDED

The procession moving along the Manchurian Railway, four miles north of Port Arthur, under the Red Cross flag. The poles on the left are all that remains of Port Arthur's telegraphic communication with the outside world

Uriah of the Holy Writ, in the forefront of the battle. What had he seen? What could he see? He peered through the stalks of the millet. Ten yards from the trench the crops had been cut—the fallen plants showing that necessity, not season, had caused their downfall. Beyond the cut millet, 800 yards away, was a gentle turf rise. Then a sky-line. That was all, if he excepted the entanglement at the foot of the rise. This could not escape his view, for the barbed wires were hung like a butcher's shop with forms that had once been men. The firing recommenced. Surely he would have done better not to have accepted his friend's hospitality, and to have remained upon an eminence in the rear with the staff. There was a shrill burst of laughter at his side; a wretched soldier had been shot through the brain, and his comrades gave vent to their overstrained feelings in hideous, mocking laughter at the contortions which a shocked nervous system forced from the lifeless limbs.

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Day was just breaking. Kamimoto took the Foreigner by the shoulder and woke him up. "There is some food now; you had better take something, for who shall say when we may move again or find food." It would have been hard to have recognized in Kamimoto, as he now stood, the Cambridge undergraduate of a few years ago. He was still mild in manner, but his cheeks were drawn and sunken with privation and sleeplessness; his uniform—he was a *chef-de-bataillon* now, where he had been a company commander three days ago—was torn, dirty, and weather-stained. A dull-brown patch above his belt showed where a bullet that traveled round his ribs had bled him. The toes of his boots and his knees were worn through by the rough scarps of the hillsides; even the scabbard of his two-handed sword, the blade of which had been wielded by Kamimotos of his house for six hundred years, was scarred and friction-marked. Yet withal, save for his eyes, he was mild and even feminine in his appearance.

The Foreigner sat up and partook of the sodden rice that served this little residue of a battalion for food. They were still among the corn-stalks, but in a very different place from where the Foreigner had received his baptism in Russian fire. Since that day he had seen Kamimoto lead five forlorn hopes that had failed. He had seen half the battalion blotted out amid the entanglements, and had followed the remaining half over the Russian breastworks, and on, on into the plain, to the little rise upon which they now lay. They had barely reached it in time to throw up the sketchy trenches, in which the Foreigner, dead-beat, had cast himself down to snatch a moment's sleep.

"Eat, and pray your gods that you may never again see the like of what you have seen. Think of death in thousands, and wish for peace, pray for peace, work for peace!" And the little officer mixed some tepid green tea with his rice, as is the custom of his country. The Foreigner had no comment to make. He had seen his fill of death, of suffering, and human tribulation during the past three days.

A man hurried back from the sentry-line, and, shooting a suspicious look at the Foreigner, whispered in his commander's ear. He repeated his story twice, and with a smile and an apology Kamimoto left his European friend and dived into the corn-stalks in the direction of the outpost-line. The Foreigner continued his meal, and then, expert that he was, little evidences around him could not fail to warn him that something unusual was happening. The *sous-officiers* went round and awakened such men as were sleeping. These jumped up, clutching their rifles, and disappeared into the cover to the north. Men came back for ammunition-bags, and a support came up from the rear. Unable to resist that magnetism which takes men into danger zones, even against their better judgment and often their design, the Foreigner also dived into the corn-stalks. Thirty yards and he had reached a firing-line. It was lying down—a glance told the expert it was endeavoring to make itself as invisible as possible—each man was in the posture of a hunter who feels that perhaps he is too near to the wind to stalk successfully a timid quarry. The Foreigner threw himself into the line, and then, wriggling forward, saw what the men saw.

The little rise commanded a funnel-shaped depression through which the Liao-yang road struggled. It was a poor road, but on either side of it the corn had been pulled and cast by ruthless hands into the rut-morass to make the going firmer. For half a mile it was possible to trace the roadway as it wound along the base of this little amphitheatre, then it was

lost in the standing millet. Along this track a weary column was plodding. The Foreigner looked, and then rubbed his eyes. It was a Russian column. There was no misinterpreting the white tunics and blue breeches, no mistaking the figures which loomed colossal in comparison with the little fellows with whom he lay. A counter-attack? His trained eye told him that the dejected movement of the draggled column savored not of aggression. The men's rifles were across their backs and their pale, worn faces were whiter than their blouses. There was no speech, no sound other than the squelching of their boots in the mire. A surrender? No man came forward to arrange quarter for men too tired, too whipped and beaten, to defend themselves. No Japanese went forward to recommend to them such mercy as they had earned. A misdirected column? That was it. The thought just flashed through the Foreigner's brain, when the voice of the *chef-de-bataillon* rose superior to the silence. The rifles crashed like one. The Russian column stopped dead in its tracks. The leading fours were so close that the Foreigner could see the look of amazement, horror, and despair upon the blanched features of the wretched men. Then, as the magazines ground out their leaden avalanche, the leading fours tried to surge backward, tried to save themselves in flight. It was awful!—the rifles made no smoke to hide the hideous spectacle; it was like the execution of a bound man. Flight was impossible, for the magnitude of the confusion prevented retreat or retaliation. The little Japanese, shouting and jeering, were now upon their feet and redoubling the rapidity of their fire. With blanched cheek and set teeth the Foreigner watched this terrific curtain to the bloody drama in which he had participated. He saw the white tunics melting into the mud like snow under a sleet shower. He saw a mad rush toward the cornstalks balked by the intensity of the fire. He saw such of the Russians as remained upon their feet throw their arms into the air and stretch out their naked hands toward the rifles that were annihilating them. Their shrieks were in his ears. Then as if by magic the firing stopped. A little figure—he knew it well; the whole battalion knew it—leaped in front of the firing. For a moment the face was turned toward the Foreigner. The mildness, the culture, the charm were gone: animal ferocity alone remained. It was Kamimoto as he would have been a hundred years ago. His two-handed sword was bare in his hand. He raised it gleaming above his head and dashed down into the amphitheatre. Like a pack of hounds his men streamed down after him. The Foreigner covered his face with his hands. The end was too terrible, and was he not a white man too? He turned and fled back to the trench. Here he collected his rain-coat and water-bottle, and then, with the horrible picture ever before him, went south to collect his thoughts.

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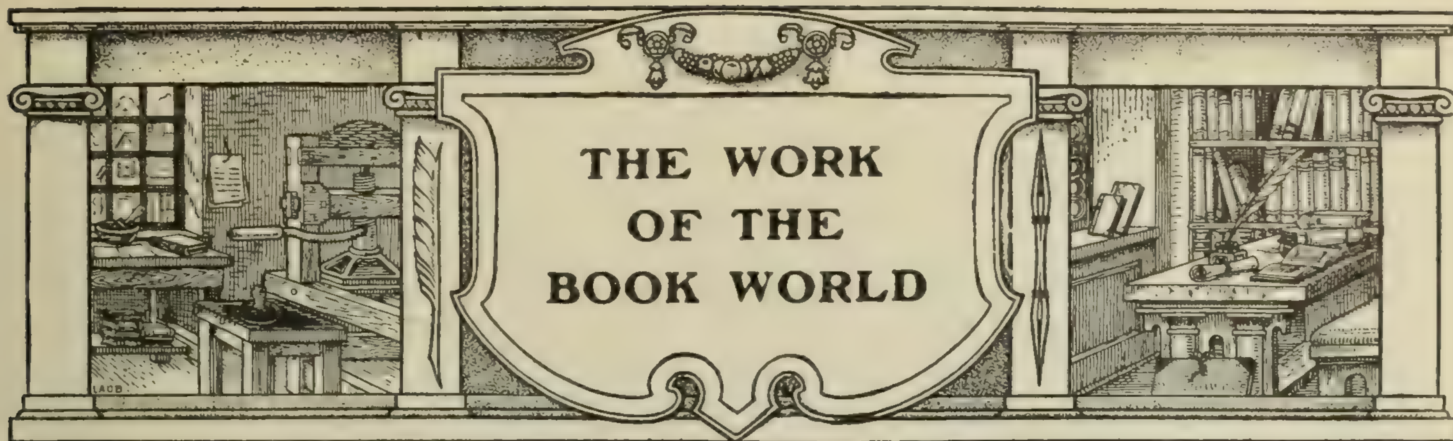
The Foreigner was still lost. Fighting had prevented him from rejoining after witnessing the untoward end of the Orloff Regiment. He found food and lodging for the night with some Buddhist monks, and at daybreak on the following morning, now that the enemy had completely evacuated it, climbed to the nearest position. A Japanese fatigue-party was toiling—carrying the corpses of their comrades up the slopes. At the top stood Kamimoto. The same old smile; the same pleasant, mild, and friendly Kamimoto. He greeted the Foreigner warmly; but no reference was made between the two to the yesterday. His men were carrying the corpses up the hill and throwing them into the enemy's trench to mingle with the Russian dead.

"Would it not have been simpler to have burned or buried them at the foot of the rise?" the Foreigner asked in all simplicity.

"Of course; but you must remember that at ten o'clock their excellencies the honorable foreign attachés will come round to see the positions which our infantry won with the bayonet. Therefore, most honorable Foreigner, it were better that you went back to your camp. It would not please any of the staff to know that you had already been here. It is very unfortunate that one so humble as myself should have to request your honorable good self to remove!"

There was a merry twinkle in Kamimoto's eye. But he was expecting an officer from the staff immediately. The Foreigner made his way down the hillside deep in thought. The speculation uppermost in his mind was whether Kamimoto would have the first field-dressings taken off those corpses. It would prove a bad case for Bushido if this were forgotten.



NEW BOOKS ABOUT JAPAN

THE late Lafcadio Hearn did as much as any man to send messages across the eternal gap that exists between the Oriental and the Western mind. In "Japan—An Attempt at an Interpretation" he does with considerable success what no other man could have done. He lived long enough in Japan to penetrate some of the intimate recesses of the Japanese mind and to absorb the Japanese spirit; and, with his remarkable clearness of explanation, he elucidates for Westerners the Japanese ideas and motives, and interprets the large facts of Japanese history. The extraordinary self-subordination of the soldiers and sailors, the love of beauty and peace, the ambition to emulate the leading nations—all these are no longer matter for wonder in the light of Mr. Hearn's interpretation. The Japanese, he shows, are so coerced by social pressure and so imbued with the ghostly philosophies of Buddhism and ancestor-worship that individualism, as Western nations know it, is atrophied. Japan, in brief, is like the Spartan and the early Roman commonwealths. Is it odd, asks Mr. Hearn, that the Japanese are a puzzle to the West? For two thousand years the Western individual has been acquiring greater and greater freedom; in the same time the Japanese have as individuals tied themselves closer and closer to their fellows. Thus Mr. Hearn makes surprisingly clear what underlies the things that have generally been regarded as incomprehensible by the Western world.

One of the most important works that have yet appeared to explain the miracle of modern Japan is "Dai Nippon," by Professor Dyer, who has set down the broad facts of industrial and economic progress during the past forty years. Omitting minor historical details, he tells the story of Japanese transformation and the fulfilment of the Mikado's oath on his accession, that knowledge and learning should be sought throughout the whole world, and then be so diffused that there might not be a village with an ignorant family nor a family with an ignorant member.

The study of these forces is followed by an account of the main results accomplished. He presents a complete picture of the influence of Western civilization in the Japan of today. Here at last we have an adequate description of the new civilization. Here is the Japan of one thousand newspapers and magazines; of labor problems and factory legislation; of insurance laws, civil service, consular reports, commercial sample museums and veterinary colleges; of coöperative stores; of trades unions; of vast schemes of harbor improvement and road building; and a national passion for imperial expansion.

Supplementing this is an equally important volume compiled by Mr. Alfred Stead. Men of every nation have written of Japan, but the Japanese, busied in their great works of organization, have had little to say about themselves. But in "Japan By The Japanese" we have an authoritative record of national achievement. It is made up of articles treating of every side of political, industrial and social advance, written by the builders of the Empire, and by experts, or prepared by the different Ministries. The Constitution and growth of Japan are treated by Marquis Ito, the author of the Constitution. Yamagata and Oyama deal with the army; Rear-Admiral Saito with the Navy. The report on finance and banking has been prepared by the Minister of Finance; that on mining and important industries by the Minister of Commerce and Agriculture. Baron Shibusawa, the President of the United Chambers of Commerce, and Japan's foremost merchant prince, contributes a general survey of Japanese commerce and industry. The success of Japan's sole colonial enterprise is described by an ex-governor of Formosa. There is a valuable historical sketch of Japanese diplomacy, and a history of its educational system.

Tables of statistics, speeches by the Mikado, excerpts of laws, and a discussion of the problem of the Far East complete the most valuable work of reference relating to Japan yet published.

"With Kuroki in Manchuria" is the vivid tale of a great campaign. It tells the story of marches and battles, every chapter making a picture as clear as a photograph. But the book has a deeper significance than this. It explains the national efficiency and the organization of the Japanese Army. Every newspaper tells us how machine-like and perfect the army is, with every private soldier, as Mr. Palmer calls him, "a possible Horatius at the bridge." Mr Palmer does better. He shows how thoroughly Japan has made the new methods her own, and at the same time has remained unchanged in heart, jealously preserving the spirit of old Japan.

The best of Doctor Seaman's sketches in "From Tokio through Manchuria" illustrate the same efficiency. The Japanese are making good their boast to eliminate disease as a factor in modern warfare. Nearly every man who dies in their armies falls on the field of battle, and Doctor Seaman's strongest point is made in criticism of our government, which sent attachés to all the "killing departments," but which sent none to the medical, where the Japanese lead the world.

In "The Awakening of Japan" Mr. Okakura Kakuzo makes an objective analysis of the phases of Japanese life and character which made it possible evenly to assimilate Western civilization. He shows that art and culture are old among his people, and that, despite the acquisition of strenuous ways, the ancient arts and crafts will endure. He maintains that the "yellow peril" is but the creation of an uneasy European conscience and that the real danger to Asia is "the white disaster," more Russian than Mongolian. He deplores the fact that Japan's truest friend is the sword which, he says, is drawn for peace and not for aggression. "The Awakening of Japan" is a fresh and illuminating discussion of a remarkable advance in civilization and efficiency.

SOME NEW FICTION

THERE is no greater surprise among this season's novels than "The Divine Fire," by May Sinclair. The background is bohemian and journalistic London; the central figure is a little, cockney poet, bred in the dust of second-hand book-shops, vulgar in habits, painfully aware of his own deficiencies. But he has in him the divine spark, and it needs only love and suffering to fan it into the flame of genius. The book is a complex picture of metropolitan life, a panorama of Piccadilly and of Paternoster Row, of second-rate music-halls and third-rate lodging-houses, containing, for contrast, pictures of downs and seashore and a dignified old country house—of starving genius and prosperous vice. It has something of the complexity of life itself, and it is drawn with the assured touch of an artist. From any point of view it is an unusual novel, as much better than some of the "best sellers" as a painting is better than a chromo.

An antique bowl of gilded crystal, its value ruined by a hidden flaw, symbolizes, in "The Golden Bowl," by Henry James, the marriage of an American girl to an Italian prince. The secret flaw in the marriage is the prince's past relation with another woman, who later becomes his wife's stepmother. In no other book has Mr. James succeeded in hiding, beneath a shimmering mist of words, so many strange, repellant, unspeakable things.

"The Masquerader," by Katherine Cecil Thurston, is an exceptionally clever story, based on the startling physical resemblance between two men: a hack-writer with an inborn genius for statesmanship, and a statesman who has wrecked his career and his health with morphine. The two secretly change places, and all England profits by the change. But neither has foreseen the complication caused by the statesman's beautiful wife, who, after long estrangement, finds her love reawakening, when she sees her supposed husband throw off his lethargy and rise, step by step, to the very summit of national fame.

The alluring young woman whom Eleanor Hoyt christened Nancy has augmented the joy of living with a new series of "misdemeanors." Unconventional she may be, but there is no offense in her, even when, with blithe irresponsibility, she leaves the train at the wrong station, and is stranded over the holidays at the house of a young man she never saw before. Like its predecessor, "Nancy's Country Christmas" has not only sparkle and piquancy, but that much rarer quality, feminine sense of humor.

MACHINES DOING THE WORK

NO fallacy is more widespread than that American workingmen are more efficient than Germans, Englishmen, or Frenchmen in their actual labor. Extended observation proves that they are not. For, after all, a surprisingly large number of the American workingmen who are so commonly rated high above their foreign prototypes are foreigners themselves whose apprenticeship was served abroad; and breathing American air has produced no transforming effect. No, the secret of American industrial efficiency lies in machines; and the United States secures efficiency as no other country does by encouraging invention. A workingman invents a machine to displace human labor. Or a supervisor or manager makes the invention—a commoner case. The laborers who tend the machine are not called on for preëminent efficiency. It is the combination of labor, which is not especially able, with American machines, that results in our industrial efficiency.

An example of the typical process was recently presented in a tobacco factory in St. Louis. The factory had long produced boxes of plug tobacco, ten of which were nailed together by strips of wood to make a convenient case for shipment. But when the factory reached the limit of its production the business became stifled, for the packers sent the boxes to the shipping-room faster than the shippers could pile them up, nail on strips of wood and wheel away the heavy ten-box units. But while the firm were worrying, a young employee was thinking out a method by which the difficulty could be overcome. At last he hit upon the design of a machine for nailing the boxes together. The company had one made and set up on wheels so that it could be rapidly moved about the shipping-room. Formerly fifty men could not ship boxes fast enough to keep pace with the factory's production. Now ten men and the machine dispose of 100,000 boxes a week. Six men pile up the boxes in piles of six each. One runs the machine, while another feeds the machine with strips of wood and nails. In one movement the machine slaps on the strips, driving four nails into each box. The other two men wheel away the finished units. The manufacturing department cannot now provide the full boxes fast enough to fill the rapacious maw of the shipping-room.

Here, as in many another factory, the workingmen are not especially efficient. It is the factory that is, and it was made so by a bit of individual initiative that minimized the need of human labor.

AN AGRICULTURAL EXHIBIT CAR

THE practical education of the farmers of the Middle West has reached the point where practical education is brought almost to their farms. The success of the "corn gospel train" last year, from which Professor P. G. Holden lectured to the Iowa corn-growers on the proper methods of planting corn, thereby increasing materially our greatest crop, has led the Missouri Pacific Railroad to send out an agricultural exhibit car to all the large towns along its lines. Although designed to exploit the resources of the country contiguous to the road, it was equipped with literature and speakers as well as with an exhibit. The car was sent out as a means of teaching the farmers how to increase their crops. When the car was about to start, circulars and hand-bills were sent to the farmers living in the vicinity of the stopping-points. A crowd was assembled at each place when the car arrived. The speakers were men acquainted with the resources and the possibilities of the section visited. Corn experts, for example, discussed all phases of corn-growing with the Iowa farmers. Most of the meetings were held in the car, but in some cases overflow meetings were held outside. One result of the trip was the planting of 300,000 fruit-trees along the line of railroad. The missionary work brought the railroad in touch with the farmers, so that the railroad's representatives discovered their resources and their needs.

What has happened along the route of the Missouri Pacific Railroad will happen along

the line of other roads, thus making for a wider and better education of the farmers who are unable to attend the State agricultural colleges. It means more intelligent farming and larger crops.

THE GOVERNMENT'S LESSON TO FARMERS

THE United States has gone into farming on a large scale to make money. It has purchased thirty farms in the Southern States, which it intends to run as ordinary business enterprises to yield all the profits possible. The intention is to make models of diversified farming which shall be self-supporting and which shall be examples for the farmers who live about them.

The Southern States were chosen for the experiment on account of the habit Southern planters have of growing cotton exclusively. In bad years for the cotton crop, there is nothing else grown to yield any sort of income. The result is an uncertainty in Southern agriculture that makes farming a precarious business. To insure that there shall always be some resource when cotton fails, it is necessary that several products shall be grown at the same time. This is the idea of the diversification farms, and it is to spread this idea that the Government has gone into the business of running them. If the experiment prove its utility in the South, similar farms will be established in other sections where they may be needed.

One of these farms may be taken as typical. Last September the Government acquired the 500-acre farm of Mr. C. Weichsel, near Dallas, Tex. It has been placed in charge of a resident manager, who is expected to conduct it under the direction of the Bureau of Agrostology at Washington, making all the improvements with the money yielded by the farm, without any appropriation. About one-fourth of the land will be planted in cotton each year, but in order that the cotton may not wear out the land, it will not be planted on the same quarter of the farm any two consecutive years. Of the remainder of the farm, ten acres have been planted in rye and ten acres in barley for winter pasture: and several acres have been prepared for truck-gardening. Thirty-two acres have been planted in alfalfa. Next summer large fields of wheat and oats will be sown. After they have been harvested, cowpeas will be sown for stock feed. As soon as the business justifies it, the farm will be stocked with hogs and cattle. These will be fattened from the grain produced on the farm and then sold. This is considered a better disposition of the grain than to sell it direct.

If the boll-weevil ruins the cotton crop next summer, the farm can sell alfalfa hay. If that also fails, there are onions and potatoes to fall back on, or there are wheat and oats, or cattle. It is hardly possible that every source of income should fail where there is such diversity of products. It is this lesson the Government is trying to teach—that diversified farming is practicable for every farmer and that it is the best system of making an assured income from agriculture.

HOW WEATHER PREDICTIONS ARE MADE

NOT the least valuable assistance the Government renders mariners and farmers is furnished in its weather forecasts, four-fifths of which turn out to be correct. Indeed, the record of the weather bureau for the past five years has been that no serious storm has occurred that has not been predicted sufficiently long in advance for all people whose interests are affected by the weather to take due precautions. Daily at eight o'clock in the morning and at eight o'clock in the evening by Eastern time, observers at more than two hundred stations in the United States, Northern Mexico, Southern Canada, and the West Indies telegraph to map-making stations observations on every detail of the weather, such as temperature, humidity, the kind and the direction of clouds and so on. At each of these stations, charts, made from the information in the reports, are prepared for free distribution over the adjoining district. In many places in the West the weather forecast is telephoned from central telephone stations to all the farmers in the neighborhood.

The approximate accuracy of the forecasts results from the fact that the Government observers know how the weather conditions move. Seven-tenths of our storms, for example, begin in the Northwest, move southeast and then curve north again over the Great Lakes and disappear to the east down the St. Lawrence Valley, though the West India hurricanes move first west and then northeast. The storms are located by low barometric readings and by the direction of the winds—which whirl about a storm-centre in the opposite direction to that of moving clock hands, sometimes spinning around a circle a thousand miles in diameter. To the east of the storm blow southerly moist winds which bring rain. To the west of the storm come winds from west or northwest bringing colder weather. So by experience the weather observers, receiving reports of the conditions at storm-centres, can predict from the rapidity of the movement from west to east how far a storm will advance in twelve or twenty-four hours and what kind

of weather will result in every quarter of it. Predictions can thus be made two or three days in advance. And now the Government is building on Mount Weather, Va., an observatory for weather research. Efforts will be made there to establish forecasts of whole seasons.

ALASKA NOW IN COMMUNICATION WITH US

ALASKA now has as complete a system of intercommunication by telephone, telegraph and railroads as our western States. She is no longer the silent, frozen land of our past imagination. Even cable connections have been made, so that the Alaskans are in constant communication with the rest of the world. Railroads run over White Horse Pass, where four years ago thousands of pack animals died on the trail.

Five cable stations connect with Seattle by cables which, if drawn out in one straight line, would reach from Newfoundland to Ireland. Forty-two telegraph stations are connected by more than 1,500 miles of wire, which would reach from Washington to Texas. One hundred and seven miles of wireless communication has been established between St. Michaels and Safety Harbor.

The work of building the telegraph lines was undertaken by the United States Government as a means of maintaining communication with our army posts scattered throughout Alaska. General Greeley, who directed the Signal Corps of the United States Army in the work, proceeded on the assumption that the Government's control of the lines was merely a temporary expedient, and that ultimately they would be turned over to private enterprise, as soon as any one could guarantee the maintenance of communication for the purposes of the Government.

The first effort to connect Alaska and Seattle was made in 1865, as part of a scheme of reaching Europe by telegraph across Bering Strait. This was abandoned when the success of the Atlantic Cable was assured. After the discovery of gold in the Yukon, and after the rush of prospectors to the country made communication with the United States necessary, the work was resumed. The laying of the cable was completed last October. While this work was proceeding, parties from the Signal Corps were busy stringing telegraph lines connecting Point Seward, on which Nome is situated, with the settlements up the Yukon to the Tanana River, and up the Tanana to Valdes. Dawson City completed a system of telephones for local service. Juneau, Skagway, Dawson City, Eagle City, Tanana and Nome were all connected by telegraph.

The first railroad was begun in 1898. It extends from Skagway in Alaska to White Horse in the Yukon territory, a distance of 112 miles. This road cost $5,000,000. In some places it cost $250,000 a mile. Yet it paid $2,000,000 profit during the first two years in operation.

From West Dawson to Stewart River, eighty-two miles of railroad has been built which draws on the rich mining district in that direction. Another road is now being built to connect Port Simpson on the Pacific with Fort Churchill on Hudson Bay. Another line is under construction from Port Simpson to Dawson City; another from Dawson City to Nome; still another will connect Valdes, on the south side of the Alaskan Peninsula, with Nome. This road will connect with steamers from Vancouver at Valdes. To complete the direct railroad communication with the United States a railroad is projected from North Dakota with the northern terminal at Fort Churchill. When these lines are completed one may start in Dakota, ride to Fort Churchill on Hudson Bay, to Port Simpson on the Pacific Ocean, and from Port Simpson to Dawson. From there railroad connections are now in operation with Nome, Valdes, White Horse, Skagway, and Juneau. The purpose of all this activity in railroad building is to tap rich mineral districts and large tracts of fertile land on which oats, rye, and barley are now being grown.

The result of communication with the outside world by means of railroad and telegraph has been to transform Alaska from a savage wilderness, whose inhabitants were pioneers, into a prosperous and comfortable region whose activities are part of the industrial progress of the day.

WELL-BEING IN ALASKA

A SIDE light was thrown on life in modern Alaska by a single incident that happened recently in Seattle. Seven thousand five hundred cases of canned cream, fifteen freight-car loads, was ordered by one Seattle firm for shipment to Alaska from a single cannery in Kent, a town in White River Valley lying just south of Seattle. The entire order went north on the first departing steamer.

This condensed milk is the kind Alaska uses. The milk received at the cannery in Washington is reduced to a little less than half its volume. The product is called cream, and bears various titles according to the factory turning it out, as Carnation Cream, Primrose Cream, or Chrysanthemum Cream. All steamers, trains, camping parties, pros-

pectors, mining and logging camps on the North Pacific use it. All Alaskans drink it as freely as they eat bacon. So the territory, a country of ready money, with a fast increasing population, is supporting a rapidly growing farming population in the State of Washington.

This, then, is the great difference between Alaska and any former gold camps in America: the people who are developing the country live well. In farthest Nome there is a newspaper whose type is set up on a linotype machine. There, too, the shut-in months are enlivened with dances at which the men are required to wear full-dress. There are carpets on the floors of the log huts; there are pianos in the quickly built clubs; Associated Press news is printed in the newspapers; and there is cream on Alaskan tables. Alaska is far from being a wilderness.

THE REBUILDING OF MANILA

PLANS have been perfected and the work begun of rebuilding Manila and making it the beautiful city of the Orient. It will not only be clean and healthful, with wide streets and attractive plazas, but it will be a capital of art as well. It is seldom that such an opportunity has presented itself in the Orient to make a model city, and the insular government, with the active coöperation of the United States Government, is taking every advantage of it.

For example, for years open ditches throughout the city have been used for sewerage purposes, so that the public health has been put in jeopardy. These ditches will be made into clean canals, spanned by numerous bridges. Pleasure boats will ply on them. A complete sanitary sewerage system will replace the present ditches.

But the most interesting feature of the reconstruction of the city is the preservation of the famous Walled City, which was erected 300 years ago to repel the Spanish and Dutch invaders. This Walled City has a distinctly historical as well as a picturesque value.

The work of filling in 155 acres adjoining Mallaco will give Manila an ideal pleasure-ground for all the people. This drive is a favorite resort, and the view is said to be one of the most beautiful in all the Philippine Islands. Band-stands will be erected for popular concerts. Another important step is the construction of a complete waterworks system, for which there has been a bond issue of $4,000,000. The water will be piped from the Mariquina Valley, fifteen miles away.

A summer capital will be established in the mountains 100 miles from the city. This project is in charge of Mr. H. Phelps Whitmarsh, the adventurous Englishman who was governor of one of the provinces after the American occupation. He expects to see in the successful consummation of this plan an ideal summer community, which shall be the centre of official life and which will mean to the Philippines what Simla means to East Indians. The work of rebuilding Manila will be after plans furnished by many experts, chief among them Mr. Daniel H. Burnham, a Chicago architect, who is now at Manila, and who will have the coöperation of the island engineers attached to the insular service. Thus Manila, hundreds of years old, once a scene of Spanish splendor, will be made into a model city.

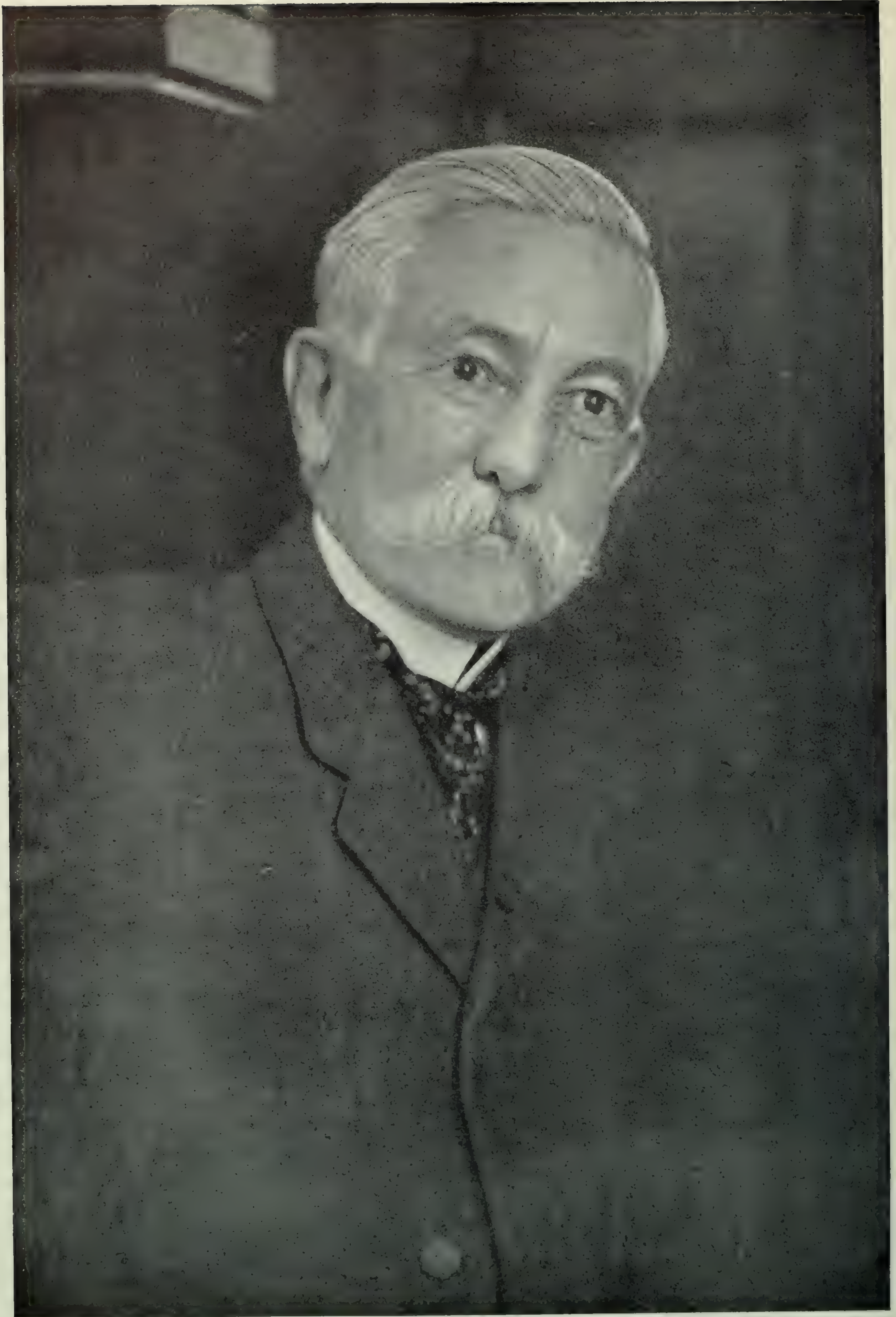
PROVIDING COMPLETE HOUSES TO ORDER

A SHORT time ago, a New York firm undertook an unusual contract. They agreed to design and build a house; to make and arrange the furniture; to decorate the house and to supply it with napery and bed-linen, glassware, china, and kitchen utensils. They carried out the contract. They even engaged servants. Dinner was ready to be served when the owner first stepped into the completed house.

The members of the firm call themselves "contracting designers." They plan, build, and furnish houses to suit the character and tastes of the persons that are to occupy them.

The house mentioned had been started by an architect, and the usual succession of decorators, furnishers, and other purveyors were to follow. But the owner, who was a semi-invalid, turned the whole contract over to this firm. Though plans, drawings, and samples were shown to the owner, the whole work was completed without his supervision, for he was absent. The contract amounted to about $90,000, and the result was entirely satisfactory. Such details as harmonizing the coloring of the china with the tone of the dining-room, and attending to the positions and the color of the pictures, were carefully worked out. The cost of this undertaking exactly matched the sum set aside for it.

The same firm moved a bank into temporary quarters over Sunday, built a new building, fitted it with vaults, furniture, and furnishings of every kind, even to inkstands and pin-racks, and moved back the books, records, and other paraphernalia—again over Sunday—exactly thirty days later. The total cost of this contract was $23,000. Here is a new profession of great possibilities.



Photographed for THE WORLD'S WORK by Arthur Hewitt

DR. R. S. WOODWARD

THE NEW PRESIDENT OF THE CARNEGIE INSTITUTION

(*See "The March of Events"*)

// THE WORLD'S WORK

FEBRUARY, 1905

VOLUME IX

NUMBER 4

The March of Events

WE seem about to enter on a new national policy and a new period of national politics; and the promise is that political thought will have to do with the present activities of men instead of the worn-out artificialities of old party wrangles. The President has promptly brought the government face to face with great economic problems. We have passed at one step from the weary folly of cheap money and "anti-imperialism" to the most difficult economic subjects of our time and civilization.

First, what may the government do to regulate interstate traffic so as to make the railroads real public servants? This is an old problem that we have vainly and hesitantly wrestled with for a long time. The Interstate Commerce Commission attacked it with a promise of definite results until it was shorn of its power by the Supreme Court. Since then it has been only a bureau of statistics. The President proposed in his message that power be restored to it to fix rates of traffic when they are unjust—subject to judicial review. The discussion that has been provoked has already shown that the public mind is ready for some degree of real governmental regulation. There are several bills before Congress to restore power to the Commission. None of them is expected to be passed during this short session of Congress. But it does seem probable that some new legislation will be enacted before the subject is dropped. The Administration has, therefore, done a constructive task in so emphasizing these evils of railway management as to bring public thought to bear on the problem in a calmer and more serious mood than it has before had. For, when the Commission was created, it was created mainly to silence the "granger" demand for the punishment of the railroads; and it was at best only a crude experiment.

But the regulation of railroad rates is a small task beside the proposal made by Mr. Garfield, the head of the Bureau of Corporations of the Department of Commerce and Labor—that all corporations which do an interstate commerce shall in some way be under the regulation of the Federal government. A method whereby Federal regulation may lawfully and safely be brought about is hard to determine even in discussion, to say nothing of practice. Mr. Garfield proposed a plan of Federal license. The gist of the proposition is, of course, that corporations which do an interstate business (which are practically all corporations) shall in some way come within the regulative power of the national government. This is a change that every thoughtful man knows must come sooner or later, in one form or another. Just as the general government took control of the currency, which was once issued by State banks, and made modern trade possible, so it must at last put

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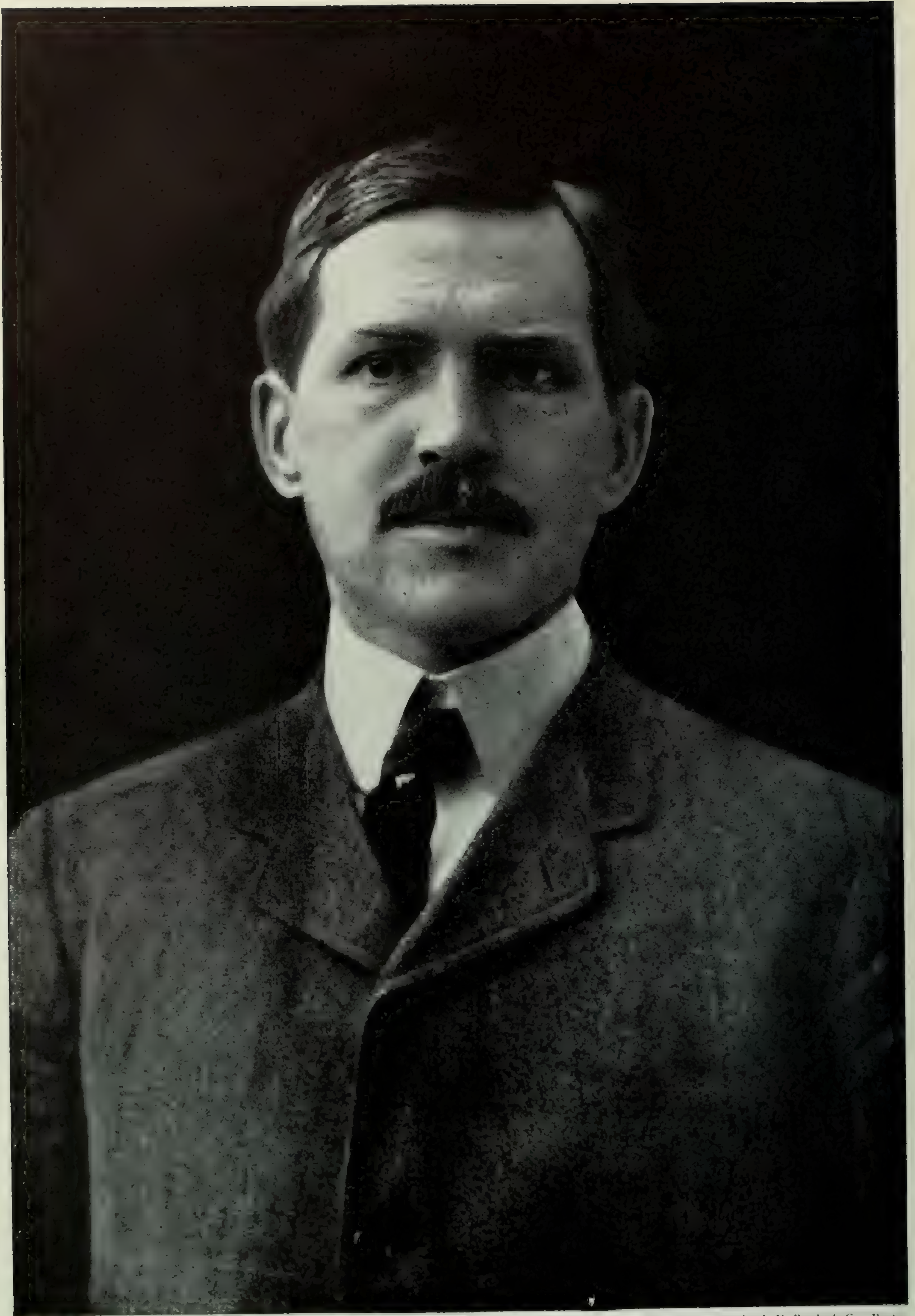

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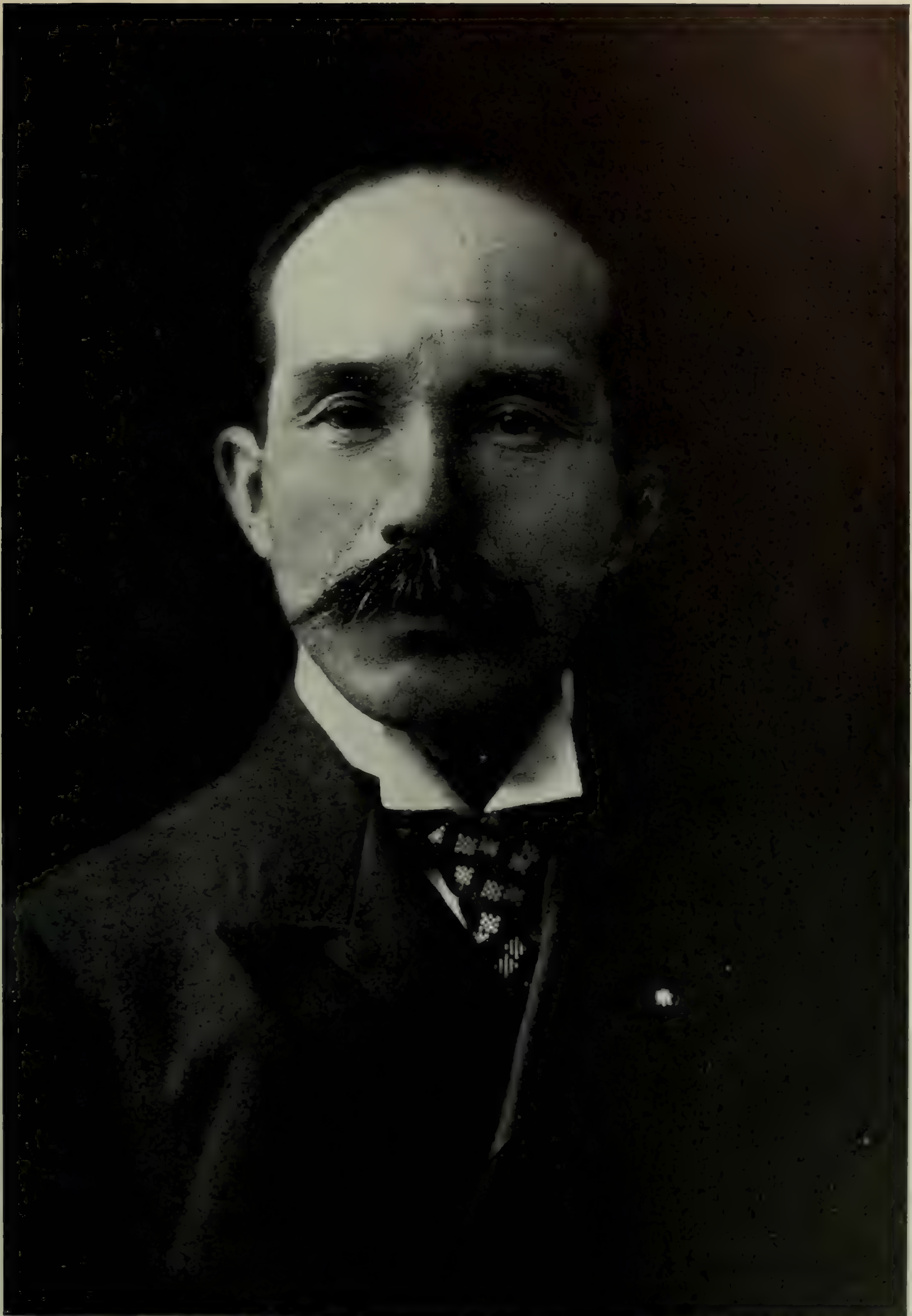
MR. JAMES R. GARFIELD

COMMISSIONER OF CORPORATIONS IN THE DEPARTMENT OF COMMERCE AND LABOR

(*See "The March of Events"*)



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BARON KENTARO KANEKO

FORMERLY A MEMBER OF THE MIKADO'S CABINET, WHO IS NOW IN THE UNITED STATES

(See page 5868)

an end to the confusion and dishonesty of the State regulation of corporations. But the political, legislative, and administrative difficulties are so many and so grave that we may be sure of a long period of discussion and of experiment before the task is done. The important fact that presents itself now is, that the Administration has brought the subject to public attention as the foremost duty of our time, and thereby begun a constructive piece of work. It seems likely that Mr. Roosevelt's administration may win the distinction of bringing our political life in touch with the life of the people—of substituting economic service for traditional and partisan inanity. Such a change, if it really come, will bring new party divisions and new men into public life; for public life has had for forty years little intellectual attraction for men of first-rate ability.

A NEW ERA IN NATIONAL POLICY

WHAT a relief it is to turn from the old policies of reminiscence and obstruction to positive tasks! The problems of industrialism are now becoming clearly defined, difficult as their solution is; and sooner or later the general government must solve them. They may be attacked radically or conservatively. Danger of radical action lurks in every period of financial depression and in the activity of every unwise leader. The longer we are content to go on ignoring or winking at the abuses of corporate power, the greater the danger that some sharp turn of events will bring us face to face with a public opinion made furious when at last it is aroused from its long patience; and an infuriated public opinion is never logical or just. The only other way to deal with these problems is the way in which we are now approaching them—in a prosperous time, under normal conditions, and at the hands, not of revolutionists, but of men and a party that have won public approval at the polls. These conditions permit calm thought, free discussion, and conservative experiment.

The old party lines will probably suffer change by any serious political action that shall touch our economic life. For instance, the Democrats have for many years denounced the misuse of corporate power; but Federal regulation of corporations would mean a strong central government which runs counter to the principal doctrine of the conservative wing of the party. Yet the radical wing of the party will be content with nothing less than governmental ownership of many public utilities. The Republican party, on the other hand, has been the party to which most of the great corporations have been especially friendly; and any serious Republican action in restraint of corporate power would meet strong resistance within the party and cause many men to desert it.

But these possible party changes are as nothing in comparison with the changes that may come in industry and finance if the worst evils of corporations should be abolished. If improper stock-watering were forbidden; if the financial and physical condition of all large corporations were known to the public or could be found out; if directors could really be held to an accountability to stockholders, as they are now theoretically held; and if artificial causes of the fluctuation of values were removed, we should have such a change in industrial and financial conditions as it is now hard to conceive. It would mean a new era in the safety of investments, in the conduct of industry, and in the orderliness of practical affairs.

Such a change must come at some time if we are to become industrially civilized. We must have great administrators where we now have great promoters and adventurers. In government we have passed the stage of the rulership of chiefs and conquerors and have reached the stage of the orderly conduct of the public business by men chosen for its tasks. So in industry, we must pass from the rule of buccaneers and irresponsible captains to the orderly conduct of manufactures and distribution under leaders who, though no less great, shall be chosen not as conquerors, but as guardians of industrial liberty. The transition may be slow, as the transition in government was slow; but the march of civilization must bring such a change at last.

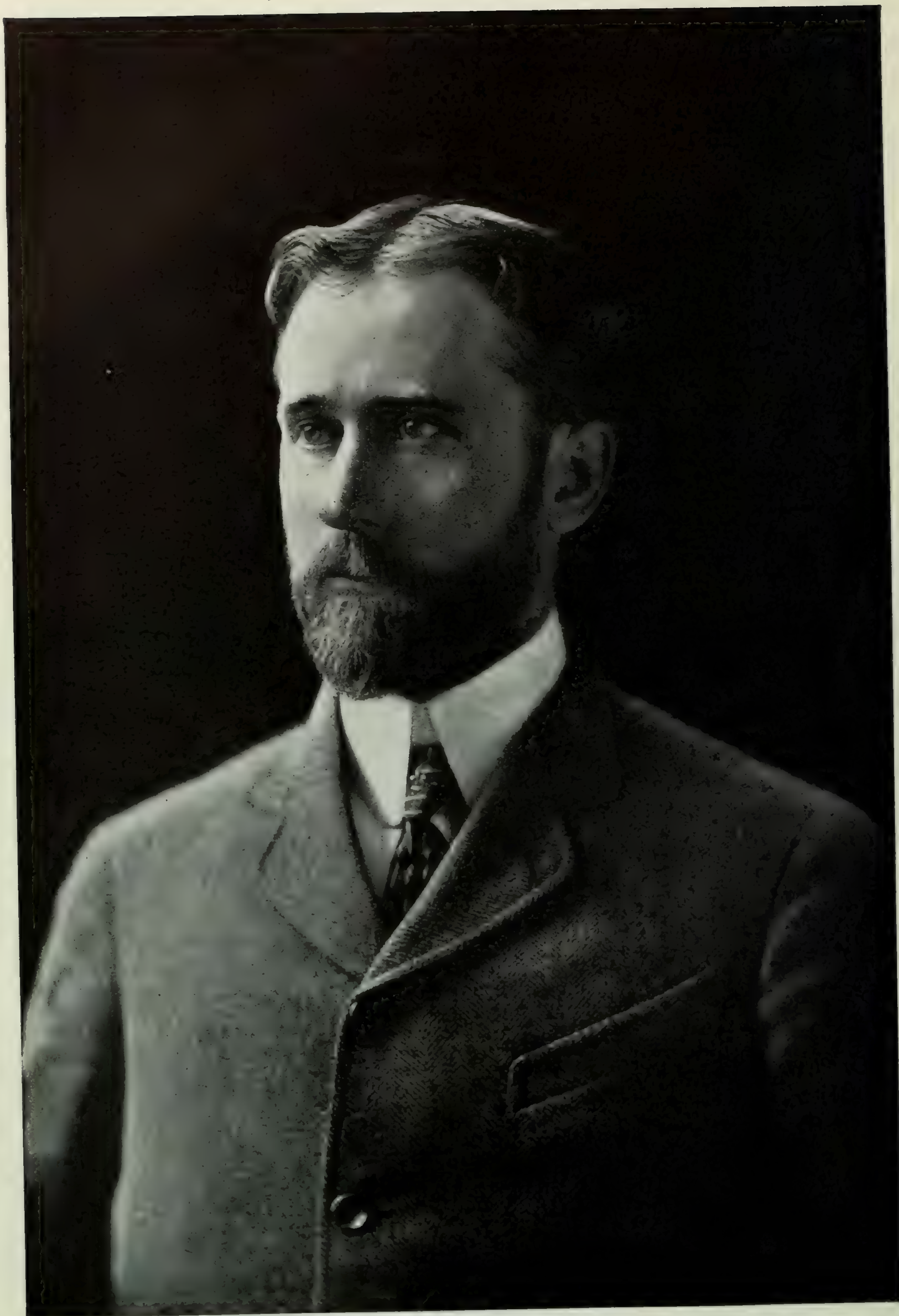
We cannot flatter ourselves that we are yet within sight of such a change in industrial life. Federal regulation may not be tried for a long time to come; for the real ability of our present political organizations is their obstructive ability. Even when it is tried, the early experiments may encounter some of the serious troubles that its friends fear and its opponents predict—the possible abuse of Federal power, for instance. The subject is at every step beset with great difficulties.

Photographed by Aime Dupont

MR. JAMES SPEYER

THE HEAD OF THE GREAT BANKING HOUSE OF SPEYER & COMPANY

(See page 5822)



MR. CHARLES P. NEILL

THE NEW COMMISSIONER OF LABOR

(See "*The March of Events*")

But to bring it forward so as to give it precedence over all the stale subjects on which political thought has long fed and become lean—this is courageous, hopeful, and constructive work, worthy of the opportunity won by an unprecedented popular victory.

EARNESTNESS ABOUT RAILROAD REGULATION

THE discussion of railroad rates and their regulation has necessarily become a technical discussion, and for this reason public opinion bears on it indirectly rather than directly. The public knows the general fact that discrimination in rates has given some shippers such an advantage over others that some could prosper and others could not; that personal fortunes, the fortunes of particular industries and of particular towns or regions, have been built solely by discriminations and rebates; and that, in fact, a considerable number of great aggregations of wealth were made possible only by these abuses. They know, too, that by the ownership of cars individuals and corporations have had unfair advantages over their competitors; and that even the ownership of side-tracks has been used to extort rebates from competing railroads. The general fact that the railroads have made some men and corporations rich at the expense of their competitors—this the public does understand. But the proposed remedies are intelligible in their details only to experts in railway management, which has become a very technical business.

Secretary Morton, who has spent almost his whole working life in railroad work, has set forth a plan of Federal regulation through the Interstate Commerce Commission that contemplates the fixing of rates upon complaint, the Commission's rate to go into effect on the approval of a special court which shall be created for that purpose. He would legalize pooling and prohibit the use of private cars and private side-tracks. These proposals strike directly at present evils. Senator Elkins has revived the suggestion of Interstate Commerce courts which shall have a judge in every Federal circuit.

On the broad proposition that by some proper machinery the general government shall prevent discriminations and rebates, the great body of public opinion is agreed, and is in earnest about it.

Among railroad managers, too, the growing opinion is in favor of some form of Federal supervision. While, in their competition with one another, they have done injury to others, they have done great injury to themselves also. They will welcome a stable system of supervision which will prevent disastrous rate-wars. There is still another reason why the conservative opinion of railroad men and of investors is favorable to governmental regulation. The more radical demand for governmental ownership, which slumbers in prosperous times, is not dead. It has not yet become dangerous, but in bad times and under energetic leadership an agitation for it might do infinite harm to property and to politics.

TWO OBJECTIONS TO FEDERAL LICENSE

THE two very grave difficulties that any plan for the Federal regulation of corporations will encounter are the opposition of some strong corporations and the opposition of the advocates of State Rights.

Naturally those corporations that profit by the lax laws of some of the States will object to a change which would make them honest or cause them to retire. But there is another kind of corporations which will raise honest objection, even if it be ill-judged. The managers of many a strong company say that their business is their own; that they conduct it honestly; that they object to supervision or even to publicity because their success often depends on the utmost freedom of individual action and upon secret action; that to place strong men in a position where they may be watched by government officers is not only to humiliate them, but to rob them of their freedom, which is the very secret of their power; and that the Federal supervision of the work of such men will destroy initiative and daring and reduce all corporation management to the routine level of the conduct of savings-banks.

There is enough truth in this objection to give it force. Yet, at bottom, it is not a sound objection. The managers of a corporation are the agents and trustees of all those who own its shares; and when, by any action, this trusteeship is denied or forgotten, hurt is done to the fundamental idea of a corporation. If a man wish to keep his full power of initiative and his full measure of daring, or to take risks that are great, let him do these things on his own account.

The truth is, the corporate idea has been

too much extended. It has been applied to many undertakings that should be personal or firm undertakings, wherein the managers risk or lose their own money and not other people's. It is not too much to say that every corporation that has been organized solely to enable its managers to escape personal liability is a fraud in its conception. Any supervision that would eliminate these would be a gain in public morals.

As for the discouragement of personal initiative, no such result has followed in States (Massachusetts is one) that have rigid corporation laws. Freedom of action is, indeed, necessary for men to do their best work; but freedom with other men's money is not necessary. Even if supervision did lessen individual initiative, it is better that corporations be safely rather than daringly managed. Brilliant deeds and grave risks fit personal rather than corporate action.

As for the violence that would be done to States Rights—that is an academic question which will be raised chiefly by those who have other reasons for opposing the suggestion. To start on an argument of that question implies the hope of a long life with abundant leisure and an abnormal appetite for disputation.

A CHANCE TO JUSTIFY A GREAT VICTORY

THESE plans for real governmental regulation of railroad rates and for the Federal licensing of corporations are not new. They have been made many times before. Mr. Bryan, we believe, definitely proposed the Federal regulation of corporations. But the seriousness with which the country now receives the suggestions of the Administration hopefully show two important facts—that a radical proposition made by one man or by one party becomes a conservative proposition when made by another man or another party; and that the radical agitation of yesterday becomes conservative to-day. Mr. Bryan has made Mr. Roosevelt's task easier; and Mr. Roosevelt, with a conservative public record and with a conservative party, can command public approval of the very measures—at least, serious consideration of them—which would not be tolerated when coupled with unsound economic and financial proposals.

It is here that President Roosevelt's energy shows to the best advantage. He has the courage and the constructive force to try to lead a brutally victorious party to positive action. Here, too, is his great opportunity. A president of the brooding Buddha type would consider a plurality of 2,500,000 votes as a command to stand pat and to contemplate the glory that has been won. Not so he; for his party had not had time to make an official count of its victory, before he brought it face to face with the most serious economic problems that our democracy has evolved. The public mood seems to be serious and determined enough to keep these subjects in mind till something shall be done by Congress.

CONSTRUCTIVE AND CRIMINAL WALL STREET

THE description of Wall Street and its activities by Mr. Nelson in this magazine is a true and fair description. But a stranger to the intricacies of American life would find it hard to believe that this is also the community of "frenzied finance"; for Wall Street is today the centre of some of the strongest constructive and conservative forces in the world, and, at the same time, the home of the most reckless buccaneers that ever scuttled an industrial ship. The trouble is, nobody seems wise enough to find a plan to put an end to piracy—unless the plan of Federal supervision of corporations will do it. If the Federal Government had had any such supervision, whereby the manipulators of Amalgamated Copper, for instance, might have been held to account when they robbed the public, "going and coming," as petty swindlers who use the mails are sometimes held to account or put in prison, we might possibly have been spared The Story of Running Amuck, by one of the Muckers.

The plain truth is, that Wall Street is yet a den of thieves; and the pity of it is that their thievery goes unpunished, even by adequate publicity—goes on even almost unknown, until they fall out. Then comes a publicity that causes the plain people to suspect that none but thieves live and work there.

The bottom of the trouble is the low level of corporate morals. If a group of men get control of a corporation, by honest means or foul, they may do with it what they please. The minority stockholders are at their mercy; and public opinion does not hold a board of directors accountable to the minority stockholders. We may gloss the crime over as we please, but the fundamental fault lies there—the irresponsibility of the directors of corporations.

The corporate form was in its beginning as simple a conception as it is a useful device. The directors and other officers of a corporation ought to be trustees for the stockholders. In theory they are trustees. The moral baseness of making personal profit out of such a trusteeship is as great as the moral baseness of making personal profit out of any other trusteeship — of the property of minors, for instance, or of the deposits in a savings-bank.

But the corporation is a flexible form of legal existence, and it has become a marvelously intricate piece of mechanism under our diverse State laws; for many of these State laws have been enacted especially to make the intricate manipulation of corporations a safe art of criminal practice; and the public morals have become weak. Directors that do not direct, and corporations that are made for fraudulent uses—these are too common to excite remark; and public opinion has so refused to hold men to a rigid honesty in managing corporations that we have two codes of honor—one for dealings by private persons and firms, and another for dealings by the managers of corporations with their shareholders, present or prospective; and we have, in practice, two codes whereby offenders are punished. That is to say, an individual is usually punished for cheating; but a director of a corporation is seldom punished for cheating minority stockholders. In corporations, the form of the law is more than its substance; and conduct that conforms to legal formulas is regarded as moral—at least, as permissible.

Now it was probably not the direct purpose of the Administration to clean Wall Street of licensed thieves when the plan of licensing corporations was proposed; but some such plan of governmental supervision seems to be the only way to make it clean. Practically all the Wall Street rascality is done in manipulating corporate property. If the management of corporate property could be made as honest as the management of private property, there would be little chance for frenzied finance; and the public morals in the financial world would be helped as much as public morals were helped in New Orleans when the Louisiana Lottery received its death-blow by a postal ruling. The United States Government would not carry its mail, and it died after a struggle to survive this fatal blow.

THE LESSON OF LAWSON

THE unpunished rascality of Wall Street has given Mr. Thomas W. Lawson a larger audience for his articles in *Everybody's Magazine* than any other man in the land has recently had. This popularity indicates the central scandal of all our business life. In most towns there are men who have been tempted to gamble in stocks. Their local brokers have Wall Street correspondents. A "tip" goes over night to a thousand towns and is spread abroad the next morning. It may be a guess, or it may be a downright lie. No matter—it pricks the curiosity and raises the gambler's hope. At one time it is Steel stock; at another it is Ship-building, or Amalgamated Copper. Men outside the dominant financial circles have no chance to get authentic information about any "wild-cat" experiment in industrial organization or about any common fraud that a gang of scoundrels may put upon the market. But the gambling spirit does not balk at a lack of authentic information. The brokers who solicit and receive and transmit and fill orders make their commissions. In the accepted code they are not responsible for the losses of their patrons. Some great power in Wall Street is responsible. That great power is an object of universal curiosity.

Now Mr. Lawson set out with the promise to explain and to describe one of these great powers of robbery in Wall Street. By an adroit mixture of confession and accusation, of truth and imagination, and in a reckless and egotistical way (Heavens! man, am I not risking my fortune, my *future*, my LIFE for you?—and meantime advertising myself?) he tells some of the scandalous things that have been done, heaps abuse on abandoned criminals who do not dare to have their conduct examined in court, and upon other men who might lose more than they could gain by suing him. Mystery and audacity can always get at least a temporary hearing, and all the wider if mingled with confession.

This kind of a narrative of facts, exaggerations, and inventions, charged with self-advertisement, is distasteful to sober historians; but of its popularity there is no doubt. Nor is there any doubt of some good results—the same sort of good results that reformed drunkards have had when, as temperance lecturers, they have scared the bibulous into soberness. A man who reads Mr. Lawson's

articles is obliged to learn (if he did not know before) that intricate games are played in Wall Street solely to fleece the public; that some directors of great corporations use their positions for their own profit; that public servants are corrupted; and that investors are robbed. Most men knew before that such things are done; but nobody has before written down so many names and dates.

Mr. Lawson's sensation brings us to the same point that we reach by methodical inquiry—that it is the abuse of the corporate form that is at the root of the evil. Suppose there were a method of holding directors accountable to stockholders, could such frauds flourish? Practically all the demoralizing gambling (except betting on the price of cotton and of grain and on races) is done with the stocks of corporations. Mr. Garfield's suggestion of a Federal license for them may never become a law, or it may turn out to be impracticable after an experiment. But some plan to accomplish the result that he aims at must be found in the interest of national morality. The lesson of Mr. Lawson is that we should not have had him if we had had any respectable supervision of corporations.

There is another reason why Mr. Lawson's articles are popular—the narrowness of range shown in the literature of Wall Street, which adds to the public's suspicion. Men read about "the balance of trade," "bank clearings," the "flotation of securities," and "periods of liquidation" without receiving a single clear idea. The circular letters from brokers' offices that go out all over the country are unintelligible to nine-tenths of the persons who read them. But simple souls who hope for a financial heaven by some mysterious if not miraculous process accept phrases that they do not understand, as the wisdom of experts. The very mystery of this jargon helps the illusion; and the fools send their money to the lottery that is prearranged against them.

In the reviews of the business condition of the country which come out of Wall Street there is much of the same mystery and confusion of thought. What does it matter to a merchant or to a manufacturer or to any common mortal in any common town whether "flotation" or "liquidation" be the thing that is going on? Wall Street and the financial world in general—even the honest Wall Street and the honorable financial world—will create Lawsons, big or little, as long as they avoid speaking and writing the English language and mystify the people with a jargon that half the men who use it do not understand. If Mr. Lawson were even further from the truth than his severest critics say, he would have an eager hearing and an influence because he speaks from behind a veil, out of a region of mysterious words and phrases and of confused thought; and thus Wall Street reaps what it has sowed. It created Lawson, and the moral sense of the country holds it responsible for him.

A NEW PLAN FOR THE PANAMA CANAL

THE report of Mr. Wallace, the chief engineer of the Panama Canal Commission, contained a surprise to the public, though not, we believe, to well-informed engineers. The popular supposition, based on preceding reports and taken for granted in political discussion, was that the canal would be constructed with locks and would cost about 200 million dollars. The chief engineer's report discusses several lock-levels—one of ninety feet above the sea, which, of course, will require deep locks and a high dam, for which bedrock has not yet been found; one with a level of sixty feet, which will require locks and dams and a great spillway; and still another level of only thirty feet. The estimated cost of cutting the canal at these several levels runs from 200 million dollars to 250 millions, and the time required from ten to fifteen years.

But better than any of these plans, in Mr. Wallace's judgment, is the plan to cut the canal to the sea-level, which would require only a tidal lock at the Pacific end. This would cost 300 millions for construction and it would require twenty years to cut it; but it would be cheaper to maintain, and vessels could pass much more quickly. If this last suggestion and estimate meet the best engineering approval, there is little doubt that it will at last be accepted, although it may require additional legislation to carry it out. The canal that will permit the most rapid passage and require the least cost and trouble to maintain will commend itself to the judgment of our public and of the world, in spite of the additional initial cost. If there was ever an enterprise that called for the best plan and the most permanent work possible, this is it; for the traffic that will go through

it and the important changes that it will make in the commerce of the world are incalculable. If we have yet built nothing on our continent, except our municipal subways, that is likely to survive 2,000 years, a sea-level canal across Panama will be one thing that will last as long as the continent itself, unless a new volcanic mountain-range should be thrown up across it; and its utility to the whole world will be so great that no addition to the estimated cost should hinder us for a moment, if the plan be the best one for eternal use. The additional tax on the commerce of the world will be inappreciable when it is distributed over, say, a thousand or two years.

THE NEXT STEP IN PHILIPPINE DEVELOPMENT

THE Philippine Islands will enter upon a new stage of development when the bill for the construction of railroads becomes a law, which was passed by the House at the last session of Congress, and was passed (with changes) by the Senate in December. It authorizes the Philippine Government to issue 4 per cent. thirty-year bonds for railroad construction, at the rate of $1,500,000 a year, till a given number of roads are built; and the United States Government will guarantee the interest. By this measure, four railroads will be built in Luzon, whereby the best parts of the island will be developed; and one railroad in each of four other islands—Panay, Negros, Cebu, and Leyte. The same bill gives authority to Philippine municipalities to issue bonds to the limit of 5 per cent. of their assessed valuation of property, and permits the insular government to borrow $5,000,000 for public improvements.

Assuming that these expenditures will be wisely made, they will begin the second stage of Philippine history under our guidance. The first stage was the substitution of peace and orderly government and a school system for the stagnation of centuries, tempered now and then with bloody barbarism. The next stage will be the development of industry.

ABOUT OUR AMBASSADORS

IT has been reported that American residents of Paris may buy a handsome residence and present it to the United States Government for the use of our Ambassador. The mention of such a plan ought to stir our government to provide worthy homes for all our important representatives abroad. At all the principal capitals they are obliged to rent residences. Their salaries and allowances are so small that, if they are poor men, the houses that they occupy are unworthy of their position and of our country; and, if they are rich men, the rentals are paid from their private fortunes. It is almost, if not quite, true that none but a rich man can afford to accept a high place in our diplomatic service. Of course, too, the dignity of our government often suffers from the unworthy residence of a minister. If our niggardly provision for our diplomatic servants were excusable at an earlier time, it is inexcusable now when the influence of the United States has become far greater at every foreign capital than it was even a generation ago.

As a rule, the Great Powers own the residences of their ambassadors and ministers in all the principal capitals, and they pay salaries large enough to enable them to live worthily without drawing on their private incomes. The only home of a minister owned by our government at any capital is at Pekin; and we came to buy that for the safety of our minister there after the Boxer insurrection four years ago.

Among the diplomatic changes, by the way, that will come in March, there are two in which the enlightened public have an unusual interest—the retirement of Mr. Choate and of General Porter. One has most worthily represented our government for six years at the Court of St. James's. He has had the good-fortune to be our spokesman in England during this time when the two peoples have come more closely together in sympathy than at any time in their history, and he has done the task so well that we shall long associate his name with this era of good-will and the growth of American influence abroad. General Porter has been our Ambassador to France for eight years, he has spent twenty-five years in the public service, and he has well earned retirement. Both gentlemen will return home to private life with the lasting and hearty appreciation of their countrymen

THE PRESIDENT AND THE SOUTH

A CHRONICLE is hardly a fit place for a prophecy; but the prophecy of an event that is certain is only a chronicle in anticipation. In other words, President Roosevelt will soon become as popular in the South as for several years he has been unpopular.

The full tide of abusive oratory, caricature, and editorial denunciation of him flowed in the South for two or three years—without result, of course, except to degrade those that indulged in it. The greater part of this unworthy temper was the deliberate work of partisan malice; but much of it came from an honest misunderstanding of his character and aims. But there is no vindictive quality in the Southern people. They are even more responsive to friendliness and to frankness than the people of other parts of the Union.

A plurality of 2,500,000 votes suggested the inquiry whether the man who received it could be such a monster as Southern caricaturists and small orators had declared; and the President's kindly bearing since the election has caused the Southern people to recover from the emotional error about him into which they were led. There has been no other man in our recent public life whose manner and character more happily commended him to the Southern temperament than Mr. Roosevelt; and it was a strange turn of frenzied politics that heaped coarser abuse on him in the South than any President had received anywhere in the Union for forty years. Even the abuse of Mr. Cleveland was less vehement. It is pleasant to recall, by the way, the recovery of Southern sentiment from its hatred of Mr. Cleveland; for the ex-President's sturdy character is now as highly esteemed in this emotional latitude as it is elsewhere. The turning of the tide in a similar way to a proper appreciation of Mr. Roosevelt's high qualities was inevitable; but it is pleasing that it is taking place during his official life.

Honorable partisan opposition is one thing. Personal abuse is another thing. A very cheerful sign of the times is the becoming agreement that the Southern political leaders at Washington are said to have made—not to talk during this session of Congress about their old topics. There is, therefore, the better chance that the Southern people will now think for themselves. Meantime, of course, these people, in spite of the fall in the price of cotton, are becoming more and more prosperous, are building up the ever-increasing trade of their inland cities and of their seaports, are earnestly extending and deepening their educational work, are training men for new duties, and are growing in national spirit. The low tone of political emotionalism seems to have spent itself during the campaign, and the generous qualities of the people are now likely to find expression not only toward the President, but also in many other ways.

NEW PROBLEMS PRESENTED BY MORMONISM

THE inquiry by a committee of the United States Senate intc the eligibility of Senator Smoot, of Utah, who is one of the Apostles of the Mormon Church, was resumed almost as soon as Congress assembled. The main matter of the inquiry at first was whether Mr. Smoot is a polygamist. It seems to have been clearly established that he is not. The only other question that could directly affect his eligibility to the Senate is, whether he has violated the United States law by upholding polygamy; and this is very difficult to answer. It soon becomes a sort of theological question. The Mormon creed upholds polygamy; but, after it was made unlawful, the President of the Church had a convenient "inspiration" whereby plural marriages were forbidden in the future. Still, the doctrinal approval of them remains.

Of course, all this is a miserable subterfuge. A polygamous President could not really condemn polygamy without incriminating himself and doing disrespect to all the old hierarchy. Yet the present hierarchy naturally wished to keep out of jail. Polygamy was, therefore, retained as a sound doctrine but discouraged as an unsafe practice. To a certain extent it has been practised since it was made unlawful. Now, whether Mr. Smoot has been an accomplice in perpetuating this practice—that is the question.

But the inquiry has naturally taken a wider range. Some of the secrets of the "endowment" house have been confessed by witnesses. This is the house wherein men and women, draped in crude symbolical garments, are "sealed" to one another—some "sealed" to the dead, some "sealed" to the living; and where they take oaths of secrecy and terrible threats of vengeance are made to them. They must swear, in one old oath, to regard the United States as an enemy and to take vengeance on it for the blood of the prophet. This dates back to the time when the "Saints" hoped and expected to found a government of their own. To all but the simplest minds it is now an ancient form. But

it seems that it remains in the primitive and pitiful secret ceremonies and formulas of the church, most of which were made to fit conditions of the past, when the simple victims of the hierarchy were brought by these oaths and ceremonies into a fearful obedience to their masters.

But the mastery of the church is yet unbroken, not only in spiritual things, but in economic and political things. The primitive ecclesiastical machinery yet enables the priesthood safely to continue and to connive at unlawful practices and to keep and to gain the political control of their followers. Mormonism has spread into Wyoming and Idaho and other adjacent States; and it has built up political machines there. A Mormon first, an American citizen, whether Republican or Democrat, afterward—that is the state of political subjection of many men; and this means that the church may issue political orders that are obeyed.

Any church has the right to issue political instructions to its communicants, if they are abject enough to permit it to do so—provided the church does not thereby build up a power that is treasonable to the United States or encourage conduct that is unlawful. But the spirit of the Mormon hierarchy at all times has this possible threat. Polygamy will die out only under compulsion, and the church would defy the government if it dared and could thereby keep its temporal power intact against the innovations of civilization.

The time is passed when the country can become hysterical about Mormonism; for the new cases of polygamy, few or many as they may be, are too few to excite us as we once became excited under the influence of lecturers and writers who "exposed" the secrets of the church. But the building up of a political machine under ecclesiastical control presents a problem as serious as it is difficult.

THE NATIONAL CIVIC FEDERATION

THE National Civic Federation has done good service in emphasizing the value of reasonableness in discussing labor troubles and of the personal contact of employers and labor leaders. It has done a valuable educational work; and its local branches have by conciliation prevented and ended many troubles—without credit from the public, too; for most of the work of this kind must be done secretly.

But the Federation has no power except the power of its personalities. How it would affect public opinion depended, in the first place, on the public estimate of the disinterested spirit of its leading members. Senator Hanna, who was its president from its organization till his death, often had his motives criticised; but he received at last almost universal credit for an unselfish aim—certainly unanimous credit from those who were associated with him in this work; and to it he showed devotion and self-sacrifice.

The election of Mr. August Belmont as his successor promises well; for Mr. Belmont accepts the responsibilities of an employer of labor seriously. But he has hitherto been best known to the country as a banker, a patron of sport and a rich man. He has an opportunity by his conduct of this office to show to the public—the labor public in particular—the solid and sympathetic qualities of his character; and any man is to be congratulated on such an opportunity to lead a wider life.

THE FALL OF PORT ARTHUR

THE fall of Port Arthur will loom large in history, because of the great military feats of its defense and capture, and still more because it may turn out to be a decisive event in the war in Asia. For it is not only a land victory, but the culmination of a great naval victory as well. For the present, Japan is complete mistress of the sea in the Far East. The capture makes, too, the first mighty achievement that revealed the new Japan to the world since she set out to prove her strength in battle.

The immediate importance of the victory is quite as great as its historical significance may become. Having driven Russia out of Korea and maritime Manchuria, Japan has won almost everything that was in dispute; and she has done more. By the standard of force, she has established her complete equality with the western world; and, though the suggestion of peace was spurned by Russia in the first days after the fall of Port Arthur, this great blow to her may become the real cause of peace, for her wandering and ill-starred Baltic squadron has been called home, and internal troubles and dangers continue to increase.

The Russians never proved more brilliantly their dogged pluck in defense than they

proved it at Port Arthur. Only one-fourth of the original garrison survived the siege, and of these the majority were sick or wounded. The Japanese took about 48,000 prisoners of all kinds. The courageous and desperate persistence of their attacks for nearly eleven months on fortified mountains which experts had repeatedly pronounced impregnable was more wonderful still. The Russian losses in killed and wounded were close upon 40,000, and the Japanese probably sacrificed 100,000 men.

From the military point of view the impressive fact is that, for the first time in modern warfare, all the latest inventions of science were used in the attack and the defense of the fortress. But, in spite of searchlights, wireless telegraphy, telephones, high explosives, and the newest machine-guns and range-finders, war remained what it has been from the beginning—a question of the valor of the individual soldier. Frontal attacks on intrenched positions were costly, but they were often successful. But probably no western general would have sacrificed so many men even for such a victory.

General Stössel's surrender had no immediate effect on the situation south of Mukden. The two armies are deadlocked, and for their winter quarters have built two great cities of "dug-outs." Their only fuel in the Arctic cold of Manchuria is a poor native coal. Here they are waiting for spring. Skirmishes have been of frequent occurrence, and there is daily artillery practice. But they will probably remain underground till warmer weather comes. Kuropatkin is reported to have received about 70,000 reinforcements. The Japanese are resting on their arms, and they, too, have been joined by large numbers of fresh reserves. The fall of Port Arthur will enable them still further to reinforce General Oyama. How large each army will be by April we shall not know until events reveal their strength.

OMINOUS EVENTS IN RUSSIA

THE military misfortunes of Russia seem more and more likely to hasten the political betterment of her people. The course of the autocracy is wavering—that much is certain. What may happen, no one can foresee. But it is sure that new liberties have been enjoyed by the press and the people, for a brief space at least, tempered, as was to be expected, by recurrent repression. But that liberties have been enjoyed at all is significant.

In his prison, Captain Klado, of the ill-starred Baltic fleet, received addresses of sympathy and admiration. He sent letters to the newspapers, assailing the Admiralty; and the censorship seemed abolished. The press has loudly demanded the punishment of those responsible for the Red Cross scandals —the great thefts of hospital supplies. It has discussed proposed reforms. It has pointed out the vagueness of the terms and the lack of guarantees in the Czar's manifesto. The *Russ* boldly declared that the administration of the navy had covered Russia with shame. *Our Days* was no longer afraid to print the truth that "Russia is marching to national ruin." Count Tolstoi opened book-shops in Moscow and St. Petersburg. Three years ago the press was prohibited from printing his name. Professors have lectured at the University on the dawn of the new era. At a public dinner Russian generals declared that a constitution is necessary for the welfare of the country. Resolutions have been passed by assemblies, guilds, professions, and even government institutions, and the gist of them is that betterment is impossible until a constitutional government replaces autocracy.

The Czar has been almost openly defied. In spite of his threats, the Moscow Town Council has advocated popular control of the government and the freedom of the press. Sharply rebuked, it adjourned *sine die*, to express its protest. The Czar called a petition from one zemstvo "presumptuous and tactless"; and straightway another zemstvo sent it a message of congratulation. The streets of Moscow have rung with cries of "Down with autocracy" and "Long live Freedom." There have been riots both in Moscow and in St. Petersburg, which were not sternly suppressed. The civil population has talked disloyalty.

The real grievances of the nation are the oppression and terrorism of the bureaucracy, universal corruption in high places, and the lack of constitutional guarantees. But in his manifesto to the nation, the vacillating Czar devoted not a word to these subjects; and his specific promises were hedged about with qualifying phrases that make them as valueless as his famous decree on religious tolera-

tion. To make matters worse, their fulfilment was intrusted to a reactionary council, composed of his fourteen ministers, a number of ex-ministers, and the six grand dukes.

Russia seems to have struggled to national consciousness. Demands for a constitution have been made before, but now for the first time the public opinion of the Empire has found more or less open expression, and the zemstvos have become its mouthpiece. For forty years there has been a union of all classes in these small local assemblies. Their leaders and presidents are not radicals and revolutionaries, but great land-holding nobles. And yet the zemstvos have not become aristocratic in spirit, for through them the peasant has risen to a new position of respect. The peasant is now spoken of as a "citizen of the Empire." In January, 1892, Alexander III. was seriously planning to send back to serfdom more than twelve millions of these free men. Today their political power is an important thing, to be reckoned with. It has been slowly acquired. When they were newly liberated the serfs often abused their freedom. They drank more and worked less. In the zemstvos they took bribes, and their ignorance was appalling. But they gradually learned to choose delegates from among themselves; and they made their influence felt until Grand Duke Sergius angrily exclaimed, "These peasants think that Russia exists for them as the fleas on a dog think it exists for them." The training of the zemstvo has given the needed preparation. Russia throughout its length and breadth has become a great political debating society, and once again the power of discussion is proving itself.

Such real reforms as have been conceded have been wrested from the Czar, and not freely offered. The passport system has been made easier; martial law has been suspended in the large cities; the exiled members of the Finnish Diet are allowed to return, and to speak in the Senate in their native tongue; men and women imprisoned on administrative order have been freed; and governors have been ordered to drop the secret arrest and exile system. But Prince Mirsky's policy of confidence in the people seems to have come (if it has really been adopted) too late to save the autocracy anything like its former power. The most momentous consequences of the war for Russia seem likely to be at home rather than in Manchuria.

THE WITHDRAWAL OF BRITISH SQUADRONS

THE British Admiralty have made, for the first time in many years, new dispositions of their fleets. They have greatly strengthened the home squadrons and so arranged them that immediate concentration is possible.

But the most important fact to the United States in the change is the withdrawal of warships from Canadian waters. The North American squadron at Halifax and the North Pacific squadron at Esquimault, B. C., are to be recalled, and there is no indication that either of these stations, which appear so conspicuously in naval charts of the British Empire, will ever be permanently occupied again by warships. Probably not more than two or three second-class cruisers will be left. It has not been announced whether the garrisons shall also be withdrawn from Halifax and Esquimault. One meaning of these withdrawals is that the English Government regards American friendliness as a permanent asset.

So far as Canada is concerned, these changes are both a rebuff and a test. It has long been a reproach to the Dominion that, while she has had the protection of the British fleet, she has not contributed a penny to its support, although Australia, New Zealand, Cape Colony and Natal have made such contributions. But some of the best Canadian officers, and many other influential men, regard the withdrawal of the squadrons as an opportunity to show their independent spirit. The British tax-payers, 12,000,000 of whom are declared by Lord Rosebery to be on the verge of want, contribute $8.30 each for military defense, while the Canadians tax themselves only fifty cents each; and the contention is that Canada should bestir herself for her own defense. Whether the dockyards at Halifax and Esquimault shall be maintained at colonial expense depends upon the self-respect of the Canadians.

THE REBUILDING OF GREAT CITIES

THE Archæological Institute of America was reminded the other day that the subways in New York and Boston are probably the only things that we have built which will survive 2,000 years. But they have a quality that is more important than their durability—they show the way, for the first time, to solve the problem of travel in

large cities. The subway in New York, as soon as it was opened, made it plain that many others must be built; and the plans that have been definitely made and other plans that are under discussion will, within a few years, give this aggregation of 5,000,000 busy people a rapid, comfortable and safe means of travel up and down each side of Manhattan Island, under the Harlem River to the district beyond, and under the Hudson River and the Sound to New Jersey and Long Island. The great streams of urban travel in every direction will be underground. At some time the elevated railroads, it is hoped, having become relatively unprofitable, will be removed. Their dirt and noise gone, the streets along which they ran will be redeemed to civilized and quiet uses.

The subways that are to come will, like those already built in New York and Boston, be constructed under charters that retain to the cities themselves ultimate ownership or control that carries the chance of future ownership. They are, therefore, great public works that have been rightly done from the first. They take away from life above ground the rush, the noise, the dirt, the danger and the obstruction of surface travel; they have comfortable, swift and safe cars—in a word, the great city of the future must be a city of two stories, the lower story for travel, both from place to place within the city and from the stations of railroads that go farther. In time it may come about that shops and stalls for the sale of other things than newspapers will be built at important underground stations. We cannot yet foresee all the good results, some of them unexpected results, of underground urban travel; but it is plain that it will extend the habitable area of a city as no other means of travel has done, and at the same time make the crowded areas more comfortable and safer. If we have built nothing else that will endure as long as our subways, it is true also that we have found out no other remedy of so much promise for making urban life sane and healthful.

THE CARNEGIE INSTITUTION

THE trustees of the Carnegie Institution, which has a fund of $10,000,000 given by Mr. Carnegie to promote research, have chosen Dr. Richard S. Woodward, of the mathematical faculty of Columbia University, as president to succeed Dr. Daniel C. Gilman, resigned. This unique institution appropriated more than $350,000 last year to more than one hundred men to enable them to make scientific investigations. Much of the work that it has done during the three years of its existence is of a very special and technical nature. But under Dr. Gilman's guidance it has found a clear plan of action; and in the years to come it may be expected to add much to positive knowledge. The opinion in the scientific world is that the choice of Dr. Woodward as president is fortunate and wise. He has a large volume of work to his credit, and he has had a long, practical experience as well as an academic one; for as engineer and geographer he held important positions on the United States Lake Survey, the Geological Survey and the Coast Survey.

It is doubtful whether great discoveries will be made by the organized effort of an institution whose purpose was once described by one of its trustees as the purpose of "finding men of genius and helping them." But it is surely an interesting experiment. Even if no great discoveries be made by such help, a vast mass of knowledge will be gained by men in routine ways. For, earnest as the search for "genius" may be, most men that the Institution will help will be of that better class—well-trained, earnest investigators who do not bother themselves at all about genius nor greatly about present results, but who work from the impulse to know.

UNREWARDED HEROES OF THE STORM

THERE is no more heroic work done in the world than that done by the life-saving crews along our coast. The dry, formal reports of the service give the thrill of courage to anybody who reads them; and the stories of the rescues that they make, which often appear in the newspapers and the magazines, are the most stirring stories of triumph over physical danger and of the unselfish risk of life that can be found perhaps in the whole world. Among these vigilant, weather-beaten men there are many heroes, and they show the stuff that makes the very sturdiest manhood. They are not highly paid; but, worse than that, no provision is made by the government for them after the period of their physical endurance is passed; and no other department of the public service—neither the army nor the navy—

puts such a severe strain on men's endurance. The proposition to pension these men meets the private approval of everybody who knows the nature of their work. Yet the practical difficulty of providing a pension for them still balks the project. Any member of Congress who wishes to do an act of high justice and to win the gratitude of an heroic body of men for all time to come may do so by making it his business to procure pensions for them. A hitch comes, of course, when any proposal is made to pension a hitherto unpensioned class, because the very word "pension" smells of abuse. Call it by another name, if need be; but let the government show its appreciation of unceasing heroism by doing a simple act of justice.

THE UNION LABEL AND PERSONAL LIBERTY

PRESIDENT ELIOT, of Harvard University, has set himself the task, with great public spirit and self-sacrifice, of making known his conviction that the closed shop, the union label, and such methods of the labor unions to create a monopoly of labor in any trade, must fail because they run directly counter to the growth of individual liberty. His argument is historical. The kings of England granted monopolies till the people took away the power to grant them; for a monopoly, except of a clearly public product or utility for the public good, has always been and is the most offensive and repressive thing that popular liberty can encounter. It is out of the very fulness of popular liberty that corporations are now permitted to struggle for the monopoly of products and utilities and that labor unions are permitted to try to make a monopoly of labor in any industry. Any such monopoly, therefore, is a step backward.

The argument is irrefutable, with this modification: So long as open war is carried on between labor unions and employers, each will use weapons that it is not permissible to use in peace, as other warriors do. The union label and the closed shop are weapons, justified, if they are justified at all, by the necessities of war. When open war ends, if it ever ends, they must be discarded because they abridge personal liberty. The whole question is whether, without some such weapons, the unions can make as effective a fight, not for individual liberty, but for the definite advantages which they count for the moment of greater value than liberty. Among these advantages are higher wages, shorter hours and the like. There is no doubt that in the meantime liberty is abridged; and it is certain that an indefinite continuance of war will undermine personal freedom.

But the union label and the closed shop are not in a fair way to win general approval. They are used by the unions in their belligerent stage—used as weapons of war. But it is not likely that a general public sentiment will ever approve them.

THE PAY OF TEACHERS AGAIN

THE old subject of the pay of teachers in the public schools will not rest. It comes up to worry the conscience of the people first in one State and then in another. Every time, it is made plain that we are yet only half in earnest about public education; for the majority of the teachers are women of commonplace ability and insufficient equipment. Yet, of all the professions, teaching demands the highest tact, the most patient nature, the finest spirit—the best possible all-round man and woman. Such persons cannot, as a rule, be got into the school-room for $300 or $400 or even $800 a year. In as rich a State as Indiana, for example, where the public-school system is highly developed—and in some of whose cities there is an extraordinary enthusiasm for good training—12,000 teachers out of the 16,000 received last year less than $500 each. Throughout the whole United States the average pay of the women who teach in the public schools is less than $40 a month. As a schoolmaster in North Carolina has pointed out, a man who is paid by sportsmen in his neighborhood to train puppies for the quail-fields receives a higher salary than any teacher of children in that community. When we become really in earnest about the training of children, we shall make the teachers' profession less a refuge for those who cannot win success in other callings; and better pay is one force, though not the only force, that will draw into it a higher average of ability and equipment.

NEW GLIMPSES INTO JAPANESE CHARACTER

THE character of the Japanese becomes plainer to us as we see their conduct in victory. No conquering general was ever more courteous to his enemy than General

Nogi was to General Stössel at Port Arthur. Nor was it a mere formal military courtesy that he showed; for you feel that his was the conduct of a man of as sincere kindliness as earnestness of purpose. Consider the grim heroism of General Nogi when General Stössel spoke sympathetically of the loss of his two sons in battle: "Yes," said the Japanese warrior, "I am glad that it was in important actions that they fell. Their loss is as nothing compared with the great purpose in view."

Another glimpse is given into the depths of Japanese character by the simple address to the spirits of his warriors that Admiral Togo delivered at Tokio. There is something Homeric in these words:

"As I stand before your spirits I can hardly express my feelings. Your personalities are full in my memory. Your corporal existence has ceased, but your passing from this world has been in the gallant discharge of your duty, by virtue of which an enemy's fleet has been completely disabled and our combined fleet holds undisputed command of the seas.

"I trust this will bring peace and rest to your spirits.

"It is my agreeable duty to avail myself of my presence in this city, whither I have been called by our Emperor, to render a report of our successes to the spirits of those who sacrificed their earthly existence in the attainment of so important a result as that above rendered.

"Most humbly, myself in person,

"HEIHAFHISO TOGO,
"Admiral of the Combined Fleets."

The spirit of the Japanese, as explained, for example, in Dr. Nitobé's little book, "The Soul of Japan," is an irresistible national force—irresistible, certainly, up to the point of the practical annihilation of the race. Their self-restraint and courtesy in victory are as strong testimony to the sturdy quality of the people as their unwearying self-sacrifice in war. These qualities are not a part of the new Japan. Their contact with the western world has given them their mastery of the machinery of war; but the spirit they show is the product of the old forces of their own civilization.

KRUGER'S FUNERAL AND THE NEW SOUTH AFRICA

MR. KRUGER'S funeral marked in a dramatic way the great change that has come over South Africa since the close of the war. The State that he had created was the most striking modern example of a patriarchal system of life and government, and with his death the passing of the old Boer ideal was complete. Thousands of burghers came from long distances to his funeral. The flags at half-mast, the draped buildings, the crowded square, were a great tribute of national sorrow. For a few they meant a political demonstration. But the great mass of the Boers have turned their eyes to the future. General de Wet was their spokesman when he urged the building up of the people by education. And General Botha, the greatest of living Afrikanders, expressed the new ambition that is bringing peace and prosperity: "Let us seek to unify the white races of South Africa, and do all we can to hasten a federal union of its States."

The majority of the Boers are already well content to accept things as they are. They realize that the new organization of society under British direction means equal laws and universal freedom. It is already plain to them that their own blood will predominate in their own land. The life of the veldt has no attractions for the English-speaking emigrant, and with the ultimate exhaustion of the mines the gold-hunters will abandon the land they have ruined for so many years.

The English Government boasts that no case of real distress caused by war has gone unrelieved. The burghers are taking up the duties of their new life so honestly and peacefully that the conservative *Spectator* urges that the constabulary be confined to the people of the country, and declares its opinion that the Transvaal is already prepared for representative institutions.

The best proof of their national advancement lies in their industrial progress. They have had to contend with new and terrible stock diseases. They have had two bad winters in succession. Shortage of labor in the mines for many months dislocated the whole industrial machine. And yet they have done well. Through whole districts it is almost impossible to discover any trace of the ravages of war. In spite of the abuses of forced labor, the 50,000 Chinese now toiling on the Rand have restored Johannesburg to its old importance. The total output of gold for last year amounted to more than $79,000,000, or within 10 per cent. of the largest sum ever taken from the mines in a single year. And even more significant than this is the growing

prosperity of the Boers, and the firm and universal belief among them in the agricultural possibilities of their country.

THE LATE THEODORE THOMAS

THEODORE THOMAS did more than any other man has done to cultivate in us a taste for the best music; and for that we owe him lasting gratitude. He lived long enough to conduct several concerts in the new Orchestra Hall, the permanent home of his notable orchestra in Chicago; and this experience made a fitting climax to an unusually devoted and single-minded life. From the time he came to the United States in 1845, at the age of ten, first as a performer and then as a leader, he cultivated, with remarkable versatility, the music not only of the older composers, but of Wagner as well. Declining always to present inferior programmes, he kept his standard high, and his concerts and festivals were not always a financial success. An unquenchable devotion to his art brought him through the many disappointments he met until his life-work was at last crowned with its triumph in Chicago. He dared to give programmes of Wagner when the critics and the public stormed against that misunderstood master. Never did he swerve from the purpose of giving to the American people the best music until familiarity bred them to demand the best music; and for this reason his life was a triumph. It is to the credit of Chicago and not to the credit of New York that his crowning years and his crowning work found support in the inland city.

A MAN WHOSE FRIENDS WILL NEVER FORGET HIM

THE late Mr. William H. Baldwin, Jr., of New York City, was as good an example as our industrial era has produced of a man of strength in practical affairs, who had the fine spirit, the high courage, and all the winning qualities that we associate with the best men of periods of gentle leisure. He reorganized and managed several great railroads, and he had become an important influence in financial life; yet his capital was his energy and his character—nothing more; and he succeeded in his practical tasks because he won the confidence of all with whom he had to do. Soon after he left the post of general manager of the Southern Railroad, our war began with Spain; and, while he was on a visit in the South, he was several times told that the employees of the road wished that he would lead a volunteer regiment—they would all go. He was the least belligerent of men, and he had no thought of war; but this was their way of expressing a willingness to follow him in any enterprise. They all knew him. Everybody seemed to know him—that was one form that his genius for leadership took.

Before he was forty (he died in his forty-second year) he had become an important figure in the railroad and financial world. He was a director of one of our greatest insurance companies, of several banks and of many important institutions. Yet he had gone out of Harvard College without money less than twenty years before—gone to the Northwest to begin his career in a subordinate place in the service of the Great Northern Railroad; and he had risen only by his work. He would have scorned to rise in any other way.

Yet more men knew him as a courageous leader in civic reform than as a railroad manager. Perhaps still more knew him as a promoter of sound education for the Negro and for everybody else as well. As mere by-works he established a school for white girls in the South; he had an important part in founding a school for boys near New York; he was the chief and wisest adviser of Mr. Booker T. Washington; and Harvard College had no more loyal alumnus. He was the President of the General Education Board, as he had been the dominant personality in its organization, and he was a member of the Southern Education Board. These and many similar activities were the necessary expressions of his rich human sympathy and of his tireless organizing faculty. The same sympathy and unresting zeal for making the world better expressed itself in his work as chairman of the Committee of Fifteen, which did more to clean the moral atmosphere of New York City than any other agency in the city's recent history. The familiar story has been repeated many times since his death—how, when he was asked if his activity on this committee would not interfere with his railroad work, he replied, "If it does, I'll resign from the railroad." In fact, he did more than once resign his position as President of the Long Island Railroad Company when he felt impelled to give more time to other kinds of work; but his resignation was never accepted.

In spite of all these forms of activity, most men who knew him best thought of him, not as a railroad president, not as a civic reformer, not as a promoter of education; but they thought of him simply as a man—as a character that always rang true, as a high spirit without evasion or compromise, as one man at least (if there were no others) who measured men by what they were really worth and not by station nor by any incidental or accidental facts.

There was a clear light in his eyes, and a boundless energy in his work (he always stood at his desk); he made all good men his friends; and humble workmen on his road knew him as well as the men of great power with whom he was associated. There was something so fine in his character that no one who felt it once will ever forget him. Many another man has the habit of leaving any company that he may have, to go for a moment to the bedside of his children before they fall asleep; but he never went home without greeting every servant in his house before he sat down. This energetic and gentle man made a deep impression on New York City by the sheer force of his character before he was forty years old—and that is almost an impossible task for any man to do at any age.

All the while, too, he was a great industrial leader, plunged headlong, but never lost, in the unceasing toil of practical tasks. He was an inspiring example of the chivalry of a democracy.

OUR GROWTH IN WEALTH

THE IMMENSE EXPANSION IN THE VALUE OF THE COUNTRY'S PROPERTY IN THE PAST HALF-CENTURY

BY

CHARLES M. HARVEY

WHEN, in 1850, the census first showed the value of real and personal property, the United States stood in wealth below England, France, Austro-Hungary, Russia, and the provinces that make up the German Empire. Since then, we have left all those countries far behind.

THE WEALTH OF THE UNITED STATES

Year	Billions of Dollars	Per Capita
1850	7	$ 308
1860	16	514
1870	30	780
1880	42	850
1890	65	1,039
1900	94	1,236
1905	110	1,325

To and including 1890, these figures are the Census Bureau's; those for 1900 are the government's provisional computation; those for 1905 are my own estimate, based on the rate of expansion between 1890 and 1900. Alaska and our island possessions are omitted in all cases.

Thus, in the half-century in which the country's population was multiplied by a little less than three and one-half, its wealth was multiplied by a little more than thirteen. Every person's share in that wealth was quadrupled.

The great ratio of increase from $7,000,000,000 in 1850 to $16,000,000,000 in 1860, the largest ratio in any single decade, was caused partly by the annexation of Texas in 1845, by the British Oregon Treaty of 1846, and the Mexican cession of 1848, which gave us Texas, New Mexico, Arizona, California, Nevada, Utah, Oregon, Washington and Idaho, and parts of Montana, Wyoming, Colorado and Kansas. More than a million square miles of territory were added to the previous two million square miles, and the country's boundaries were pushed from the Sabine, the Red and the Arkansas rivers and the Rocky Mountains westward to the Pacific. Then, too, discoveries of the precious metals in California vastly increased the world's stock of gold and silver, stimulated industry everywhere, and added greatly to the value of all kinds of property. In the year 1850, California pro-

duced twice as much gold as all the territory comprised in the United States to-day had produced from the time of Columbus to 1848. President Fillmore, in his annual message of 1851, pointed out that the gold output of California was already inciting an "enhancement of prices and a rising spirit of speculation and adventure." Moreover, the Crimean War of 1854–56, in which England, France, Turkey, Sardinia and Russia were engaged, and the Italian War of 1859, participated in by France, Sardinia and Austria, increased Europe's demands for American products. Under all this stimulus, the railway mileage of the United States tripled during the decade ending with 1860. Immigration into the country from the various countries of Europe during those ten years was larger than it had been in all the previous century.

By 1870 the $16,000,000,000 of 1860 had grown to $30,000,000,000, despite the destruction of billions of dollars' worth of property, including a billion and a half of property in slaves, which was counted in the country's assets of 1850 and 1860. In all the ex-slave States except Delaware, Maryland and Missouri, none of which seceded, the value of property decreased in the decade ending with 1870.

There was an advance to $42,000,000,000 by 1880. In this decade, the Free Homes Law signed by Lincoln in 1862, Oakes Ames's and C. P. Huntington's transcontinental railways, completed in 1869, and Nevada's bonanza mines and Colorado's, Montana's and Wyoming's gold product began to swell the total. In that decade also the Franco-German War of 1870-71 and the Turco-Russian War of 1877-78 largely increased the demands on America's farms and factories for products to fill European deficiencies.

The decade of 1880–90, in which immigration touched higher figures than were ever closely approached except in 1903, 1904 and 1905, in which railway mileage made an unprecedented expansion, and in which the output of the country's farms, factories and mines made increases never equaled until that day, ended with a total of $65,000,000,000.

Wealth grows at a steadily increasing ratio. Invention and discovery have made the 83,000,000 Americans of 1905 three times as productive as were the 41,500,000 of 1875, and ten times as productive as were the 23,000,000 of 1850. The increase of $29,000,000,000 in the ten years ending with 1900, through half of which the country's trade was seriously disturbed by the panic of 1893–97, indicates that the total wealth is at least $110,000,000,000 in 1905.

The order of value of different forms of property in 1890 was as follows:

1. Real estate of all sorts, and improvements thereon.
2. Railways and equipments, including street railways.
3. Machinery in mills and products on hand, raw and manufactured.
4. Live stock on farms, farm implements, and machinery.
5. Mines and quarries, including product on hand.
6. Gold and silver coin and bullion.
7. Telegraphs, telephones, shipping, canals, and equipments.

Through the discovery and utilization of coal, iron, copper, gold, silver and other minerals, the invention of labor-saving machinery, the application, first of steam and then of electricity, to industrial uses, and the general improvement in methods of production and distribution, the power of every individual as a producer of wealth has been greatly increased, even in agriculture.

In 1840, the first year in which the census gave figures of the yield of farms, the production of the principal cereals (corn, wheat, oats, barley, rye, buckwheat, rice, and Kaffir corn) was 617,000,000 bushels. It was nearly 4,500,000,000 bushels in 1900. In the sixty years in which population increased four and one-half times, cereal products multiplied more than seven times, and the ratio of increase has been twice as great since 1870 as it was between that year and 1840. Machinery has played a smaller part in cotton growing and gathering than in other farming, but in the thirty years ending with 1900 the output of cotton was multiplied by three, and the population was only doubled.

If Swift was right in saying that the man who made two blades of grass grow where only one grew before deserved better of mankind than did the whole race of politicians, how doubly blest must be the inventors of the steam plows, cultivators, reapers, and harvesters whereby one man is able to do more work on a farm in 1905 than four could have done in 1845! The value of agricultural implements manufactured in 1850 was $6,000,-

000; in 1900, $101,000,000, fifteen times more. The increase in the use and the power of farm machinery in the half-century was far greater even than these figures indicate, for the machinery became cheaper and more effective. In some other occupations machinery is more extensively used than on farms.

Between 1850 and 1900, while population was increasing three and one-half times, farm animals increased in value six times, wool five times, the product of manufactures twelve times, pig-iron production twenty-five times, railway mileage twenty-one times, and railway capital and activities in a far higher ratio. And in the decade ending with 1900, the horse-power of our machinery increased 88 per cent.

The primacy of Great Britain in manufactures was transferred to the United States in 1880. We passed her in iron and steel production in 1895, and in coal production in 1900. In each particular our lead is rapidly lengthening. The untouched coal deposits of the United States are twice as great as those of all Europe, and twenty-five times as great as England's. In deposits of iron ore our supremacy is equally noteworthy.

Although the United States comprised only 5 per cent. of the world's population, it produced, in 1900, 22 per cent. of the world's wheat, 30 per cent. of its gold, 32 per cent. of its coal, 33 per cent. of its silver, 34 per cent. of its manufactures, 35 per cent. of its iron, 36 per cent. of its cattle, 38 per cent. of its steel, 50 per cent. of its petroleum, 54 per cent. of its copper, 75 per cent. of its cotton and 84 per cent. of its corn. New York City has more wealth than was in the entire country in 1840.

Though the United States has only a twentieth of the world's inhabitants, it has a fifth of the world's stock of money and a fourth of its gold coin and bullion. The United States has two-thirds ($14,000,000,000) of the world's banking power—capital, surplus, deposits and circulation. Our preeminence in these directions has been obtained in the past twenty years. Between 1890 and 1904 the banking strength of the world grew 105 per cent., while that of the United States increased 165 per cent. and that of New York City 190 per cent.

How is all this wealth distributed? The farmers and planters of the country received, or will receive, $6,000,000,000 for their products of the year 1904. This equals the wealth of the entire country in 1845. The product of the country's mines for 1904 amounted to $1,500,000,000. The United States has a third of all the money deposited in the savings-banks of the world. The depositors number 8,000,000. Deposits and depositors have almost doubled since 1894. At the beginning of 1905 we had 212,000 miles of railroad, as compared with 300,000 miles for the entire world outside the United States. The railroads earned $2,000,000,000 in 1904 and have in their employ at this moment 1,300,000 persons, or more than were in the national armies at the time Lee surrendered. Our present product of pig-iron is greater than that of Great Britain, Germany and France combined.

Le Rentier, a Paris financial journal, says that not more than ten persons in France have a fortune of 100,000,000 francs ($19,000,000) each. It is safe to say that there are more than 500 such persons in the United States. There are more millionaires in New York City than in London, Paris, Berlin and St. Petersburg combined. The United States has more of them than are to be found in all the rest of the world.

The American laborer's condition has advanced step by step with the country's growth in wealth. The ordinary wage-worker has better command of the world's products than kings had in Washington's time. His standard of living is constantly getting higher and higher. Though working fewer hours each day than he did in 1860, he gets more dollars for his work, and every dollar buys more commodities and services than it did then. He wears better clothes, lives in better quarters, and has more leisure. In 1904 he spent twice as much for newspapers and twice as much for the education of his children as he did in 1880. He spent double as much for sugar in 1904 as he did in 1890.

Here is how the principal countries of the world stand in wealth in 1905:

WEALTH OF COUNTRIES

Countries	Billions of Dollars
United States	110
United Kingdom	55
France	50
Germany	48
Russia	35
Austria-Hungary	30
Italy	18
Spain	12

ETHIOPIANS DANCING A FANTASIA

Singing the "Song of the Elephant" in the desert

MAKING A TREATY WITH MENELIK

THE STORY OF THE AMERICAN MISSION TO ABYSSINIA — EXPERIENCES ON THE WAY — HOW THE EMPEROR SIGNED THE COMPACT WITH THE UNITED STATES — THE MEANING OF OUR NEW RELATIONS WITH THE FLOURISHING ETHIOPIAN EMPIRE

BY

ROBERT P. SKINNER

UNITED STATES CONSUL-GENERAL AT MARSEILLES, HEAD OF THE EXPEDITION

WHEN the President's intention of sending an official mission to Ethiopia was announced in the summer of 1903, vague and curious views of its purpose prevailed everywhere. It should have occasioned no surprise, either in America or in Abyssinia. The United States has maintained friendly official relations with a number of small powers with which we have no commerce, but has had none with Ethiopia, where for years we had profited by a flourishing trade. In the main, however, comment was friendly and encouraging, though when I found myself on the Red Sea coast, as chief of the mission, directed to establish official relations there, my errand took on mysterious importance. And as I persisted in talking about cottons, tariffs and plain facts interesting only to plain people, the American mission became more incomprehensible than ever. But whatever people may have thought, politeness surrounded us from the 17th of November, when we landed at Djibouti, the capital of the French Somaliland coast, until we said good-by and began our journey homeward.

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Necessity for a coaling station created Djibouti. With the public works came the French merchant, the railroad and a "boom." When the railroad had pushed its winding length 125 miles across the desert, Djibouti resumed its status as a port of call for numerous African steamer lines, and waited, as it is still waiting, for the great expected development of Ethiopia. When that development comes, the French capital will be Abyssinia's natural point of contact with the modern world. It was this expectation of a future for Ethiopia, and the partial completion of the railroad to it, that took me to Africa. Hitherto, trade in

general, and American trade in particular, had drifted to Aden, thence across to any one of half a dozen points, where camels took it up and plodded into the interior. The railroad meant evolution and revolution. It was time for a watchful people like ours to be up and doing.

Our two days in Djibouti passed quickly. Our experiences there ended in a blaze of glory at the "Government," where we were most gracefully and hospitably fêted. The next morning, when the sun rose out of the Indian Ocean, we set forth by rail for Ethiopia in a train of French-made cars, with double roofs as a protection against the sun.

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The Ethiopian frontier was crossed some time before we reached Diré-Douah—a boom city, created within a twelvemonth—but there we first encountered in outward and visible sign the orderly administration of him who signs himself "The Lion of the Tribe of Judah has Conquered! Menelik II., by the Grace of God, King of Kings of Ethiopia." The Somali railroad guards were drawn up at attention to receive us. Across the street from the new railroad station was the new hotel, and thither we walked between two rows of undressed, amiable savages.

The next day, the task of organizing our party began in earnest. Our expedition was remarkable in that it had started off in a ship of state to visit a country without a seaport, and, aside from the staff, I was accompanied by a party of but twenty-four marines and blue-jackets. These were immediately mounted upon mules. The mules had been well selected in advance, but when the sailors took their first lesson in riding there was excitement in Diré-Douah. The Issas and Gourgouras poured out of their native village to see the sight, squatting on their haunches in the sun, and impassively brushing their teeth with the ends of green twigs.

EMPEROR MENELIK'S PICTURESQUE SOLDIERY

Escorting him on a morning call

When the mules had been distributed, and the saddles adjusted, we received applications for service from an army of native youths, who were eager for employment at only twice the normal rate of pay. A tent boy and a mule boy were necessary for each officer, and there had to be a considerable number of boys to perform miscellaneous duties for the enlisted men. When our party finally disbanded, some of our servants were employing servants of their own, and I suppose that if we had remained in Ethiopia long enough, these servants of servants would have been hiring other servants still.

I had already found an interpreter at Djibouti, young Oualdo, Son of Mikael.

MENELIK II., "KING OF KINGS OF ETHIOPIA"

WHERE WE MADE CAMP AT OURSO

He spoke French fluently and half a dozen of the local languages. He was an excellent horseman and a good shot, and whether he wore his fresh khaki suit and riding leggings, as he did in the European settlements, or his flowing snow-white "*chamma*," as at the capital, he made a smart appearance. I also employed one Gabro Tadick, or, in English, "The Slave of the Holy Ghost." He was of wistful countenance, wore a pair of blue overalls, a huge hat, and a red-bordered white "*chamma*." He also carried a gun to indicate his superiority over the other servants.

II

Modern Abyssinia consists mainly of the unified and organized kingdoms of Godjam, Tigré, Amhara, and Choa. These are the mountainous highlands that have been ruled over successively in our time by the three great emperors, Theodore, John and Menelik. The race occupying these provinces is vastly superior to any other in Ethiopia, having descended from the natives and the Jews who, according to tradition, followed the Queen of Sheba back after her visit to Solomon.

The flux which before our day had driven the Ethiopians back into these four kingdoms was succeeded under Menelik by a reflux which carried the boundaries of the Empire beyond the limits of Harar and the Galla country, beyond numerous vaguely defined provinces to the west and south, and gave it effective control over the barbarians

ARRIVING AT A CAMPING PLACE

Unloading the camels and preparing for the night

A PART OF OUR CARAVAN ON THE MARCH THROUGH ABYSSINIA

of the lowlands and the desert, as far as the borders of the European coast colonies. Thus the modern Empire consists of a vast extent of territory, including not merely the conquered tribes, but whole nations not yet assimilated, and in some cases almost impossible of assimilation.

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The shortest, and in some respects the best, route from Diré-Douah to the capital, Addis Ababa, follows along the base of the mountains, across Mt. Assabot, usually in sight of the great desert, yet never quite upon it. Following this route, we expected to move on after some delay. The camp-stove was promptly put into commission the first night, and the aroma of bacon and other homely American things floated over the Ethiopian desert. A ring of tents upon the poles of which appeared the historic words, "Santiago, Cuba," was formed around the stove. The camels were brought within the circle after they had eaten their fill of mimosa twigs. Among the animals the Arabs and Danakils constructed huts of our boxed effects, thatching them with their straw pack-saddle mats. A crescent moon rose over our camp, and after "taps" had been sounded by the bugler the post guards called out the hours. Then only the howling of the hyenas broke the stillness.

On the march our caravan spread its thin length along a short mile. It was quite impracticable for us to keep together, and we determined after our second day to detail a rear-guard to follow the camels, and to send the main body of the escort and the servants, as rapidly as they could travel, to each day's rendezvous. The halting points were fixed naturally by the condition of the water-supply. By following the base of the mountains, we came occasionally to small streams, or wells; farther to the north these same streams lost themselves in the sand.

THE EMPRESS TAITU (in the centre)
Her confidante, and the prince, the emperor's little grandchild, with her

The sixth and seventh days of our journey were across arid, stony plains; and then for two days over rich prairie land. Our ninth night found us near Mt. Assabot. After three days more of varied country, we got our first glimpse of the telephone poles which mark the way to the capital of Abyssinia. Five minutes later we were upon the king's highway, out of the desert, and in Menelik's hereditary kingdom of Choa. From this point we traveled along the main road in Abyssinia, and encountered frequent caravans laden with hides, coffee, and ivory. We had left the savages behind and were in a realm of law. We had proceeded not more than five miles in Choa when we passed beneath a tree from which was still suspended a head-rest and gourd which had been placed there

KING MENELIK AND HIS GRANDCHILD AT HOME

THE HOST OF MENELIK'S SOLDIERY
Escorting us into Addis Ababa

THE PALACE AT HARAR WHERE WE LODGED

with the body of some unfortunate malefactor who had been hanged for his sins.

There was now before us the longest and most trying stage of the journey. The Hawash plain and the Fantellé range have an evil reputation in Ethiopia. The long stretch before the Kassan River is reached is without water except such as may sometimes be found in the crevices of certain rocks. The sun beats down mercilessly upon an unshaded trail. Even the dark-blue spectacles we wore failed to do more than temper the blinding white sunlight. As there was no longer any occasion in prudence for the party to remain together, we now rode in groups, as fancy might dictate. The only rule of the road seemed to be that one of our Somali policemen should lead the advance party, and that one should bring up the rear with Oualdo, Son of Mikael, whose powers as an interpreter were required to settle small difficulties that might arise.

We were now crossing a level plain, and were in the richest game country between the coast and the capital. We saw gazelles and antelopes, not one at a time, but frequently in groups of from four to a dozen. When we returned two months later, we saw whole regiments of antelopes, some of them containing two hundred beasts. To the right of

THE MARKET AT ADDIS ABABA, MENELIK'S CAPITAL

ONE OF THE "GUEBI" OR GROUP OF IMPERIAL BUILDINGS

our route lay the huge mountain range, in the rocky fastnesses of which is hidden the ancient city of Ankober. Numerous caravans of apparently interminable length crept toward us across the Ankober trail. Farther on, we found a herd of from five to six thousand female camels grazing under the supervision of herdsmen.

After leaving the Hawash River we began to climb gradually. Now it became very cold as soon as the sun had set. There was little or no wood for fires around which our servants could sleep, and how they stood the low temperatures is incomprehensible. They wore nothing but cotton garments, and although most of them had blankets, many had preferred to retain their blanket money, and to keep warm as best they could. Somehow, they managed to huddle together in their "*chammas*," and turned out in the

OUR RETAINERS DRESSED IN THEIR FINERY

LORDS OF THE DESERT

morning after an apparently refreshing and warm night's slumber.

On our second day in the kingdom of Choa we were visited by Atto Paulos, Governor of Baltchi, who informed us that we were now the guests of the Emperor, and that orders had been issued to all the chiefs to receive us with "the traditional hospitality of the kingdom." This meant that the right of "*durgo*" had been extended in our favor—in other words, that we might legally demand supplies of the inhabitants, who headman, would bring a sheep or a goat, with a thousand apologies for his inability to do more. It was to no purpose that we sometimes protested against receiving this largess. The grave and polite "*Choum*" invariably said that the law enjoined the delivery of food to the nation's guests, and the law must be obeyed. A scarcely less inexorable law imposed upon the stranger the necessity of recognizing the gift. Later, when we left Addis Ababa upon the completion of our errand, we had ten steers and fifty sheep and

RAS GUBSA, ONE OF MENELIK'S PROVINCIAL GOVERNORS, AND HIS STAFF

later, as a return for their gifts, would obtain some slight concessions from the tax-gatherers.

The daily arrival of the "hospitality" was an event of much solemnity, and the occasion of great rejoicings among the servants, who gorged themselves on food which we were utterly unable to consume. In the rich agricultural provinces a procession of perhaps forty people would arrive toward sundown leading steers, sheep, and goats, and carrying baskets of eggs, bread, barley, and jars of *hydromel*—the native champagne—curdled milk, and beer. Elsewhere the "*Choum*," or

goats that we had not needed. Ultimately, we were obliged to give them away. Our compound at the capital during our stay bore some faint resemblance at all times to the Chicago stock-yards.

On entering the fertile and magnificent province of Mindjar we crossed vast expanses of well-cultivated fields yielding two and three crops a year. There were fine cattle and prosperous-looking villages everywhere. Some of the threshing scenes were most picturesque. In some cases the straw was strewn about a small area and beaten with

ATTO MANAYÉ, ONE OF MENELIK'S SOLDIERS

Who has slain five elephants with his sabre, and fifteen lions and three rhinoceroses with his rifle

flails; but the usual process seemed to be to drive cattle round and round over it in a circle.

In one of the first of these villages we passed the first church that we had seen since the beginning of our journey. It looked something like the pictures of the Chinese pagoda upon a willow-pattern plate. It was round, as are all the Abyssinian churches, which tradition says are copied after Solomon's temple. All of our Abyssinian servants bowed reverently when we passed the church, some of them kissing the soil or the wooden gateway.

At length, on December 18th — twenty days after leaving Diré-Douah—we saw in the far distance the shining roofs of Addis Ababa. High mountains were on both sides and ahead of us, and we marched across fields of waving grain. We halted, after two hours, at a spot called Shola, to receive M. Chefneux, the Emperor's Counselor of State, who had promised to come to escort us into the city.

We mounted our mules at two o'clock, and moved slowly in the direction of Addis Ababa. Soon we discerned in the distance an entire division of troops coming toward us. When the two forces met, the Dedjazmatch, or General in Command of the Abyssinians, dismounted. Introductions followed. The escorting troops then wheeled, and moved on in advance. Their numbers increased so rapidly as we approached the city that we were finally preceded by 3,000 men.

Surrounding their chiefs, the warriors marched in most extraordinary confusion, sometimes performing evolutions, sometimes walking their horses, and sometimes galloping. It was a beautiful spectacle. No two costumes were alike. Saddles and bridles were decorated with gold and silver fringe. Bucklers of burnished gold were carried by the soldiers, and from their shoulders flew mantles of leopard and lion skins, of silk, satin and velvet. They were picked men riding well, their "*chammas*" flowing in the wind. Only the bright rifle-barrels marked the difference between these Ethiopians and the army of their forbears who followed the Queen of Sheba when she went down into Judea. We were spellbound by the moving mass of color, across which floated the weird music of a band of shawm players—playing as they had played when Jericho fell. With the probable emotion of the Yankee at the Court

OGAS MOHAMMED, IMPRISONED FOR TWO YEARS FOR REVOLT AGAINST MENELIK

Released in October, 1903, in order that he might lead his tribe against the Mullah in Somaliland

of King Arthur, we approached the throne of the King of Kings.

Having entered the outskirts of the city, we found ourselves traveling over one of the smooth and well-built roads with which Menelik is introducing modern civilization. The crowds became denser as we neared the palace. We climbed steadily higher, for the Emperor's palace occupies the crest of a hill, and dominates the whole city. The "*Guebi*," as the group of imperial buildings is called, is surrounded by a thatched stone wall, and everything about the premises conveys the impression of orderliness and thrift. We passed through a number of courtyards, then across a spacious campus, in the background of which a battalion of artillerymen stood by the guns captured from the Italians, and saluted us as we passed. Upon reaching the wide Indian doorway, we dismounted and prepared to enter.

The "*Aderach*," or audience-hall, was large and half church-like, its roof supported by pillars of timber bridge-work. The throne at the opposite end made it seem more church-like. Back of the lines formed by the pillars on either side were massed hundreds of the chief people of Addis-Ababa, garbed like the soldiers in many-colored raiment, and waiting in respectful silence.

KAGNAZMATCH ABABA, NEPHEW OF RAS MAKONNEN, THE GOVERNOR OF HARAR
In war costume, with his chiefs

At the farther end sat the Emperor upon his divan or throne. It was placed upon a platform extending entirely across the hall, and under a canopy supported by four gilded columns, the gift of the French Republic. On each side of the throne stood two young princes holding guns, and back of it, and extending on both sides until they merged into the crowds waiting in the aisles, stood the ministers, judges, and officers of the Court. A subdued light softened the colors and blended them harmoniously.

Our small column, both officers and men, advanced half-way across the wide and empty space, where the officers bowed low. In complete silence the procession continued on to the elevation on which the throne stood. Here the rest of the party halted, as I stepped forward to shake hands in the most friendly and informal manner with the Emperor, who held out his own hand and smiled cordially. He sat in oriental fashion,

AN ETHIOPIAN SCHOOL-MASTER
And a pupil from the upper classes

THE WIFE OF RAS OUALDO GEORGIS
Governor of Kaffa

his legs crossed and his arms supported on two cushions. He wore a red velvet mantle, barely disclosing the snowy-white under-garments. Around his head a white hand-kerchief was closely bound. He also wore diamond ear-drops, and several rings upon both hands. His face was full of intelligence, and his manners those of a gentleman as well as of a king. Distinctly, the first impression was agreeable.

After a short formal address, I presented my commission from the President. This the Emperor scrutinized with polite indifference, laying it aside at once, and replying in a few words. He spoke in the Amharic language. All the other conversation and translations were in French. The officers of

RAS MANGASHA
Son of the late Emperor John—an Ethiopian noble

A YOUNG ETHIOPIAN GENTLEMAN

the mission were then presented, and were asked to take chairs. The Emperor told us of the arrangements made for our comfort, and we separated with his promise to fix in writing an hour for a first private audience on the next day. As we left the "*Aderach*" the captured cannon roared out twenty-one

PASHA BALEINE
Who guided the British troops in their operations to Somaliland

guns, and the band of native musicians played "Hail Columbia."

The same immense escort which had led us into the city headed by the shawm players, now augmented by the artillery men and the Emperor's band, led us down the mountain-side to our temporary home. The generals, judges and colonels entered with the officers, and together we inspected the quarters of the Ras Oualdo Georgis.

The Ras Oualdo Georgis, a nephew of Menelik and ruler of a province, had erected this palace for his own comfort on his visits to the

A TRAINED ELEPHANT
Presented to the Emperor by King Edward VII. of Great Britain

capital. It stood in a large park which was subdivided into compounds. It was oval,

THE DOORWAY OF THE ADERACH
An audience hall, where King Menelik received the American mission

probably one hundred feet long by eighty wide, one story high, and divided into two rooms. There were several large doors and two windows in each room: the latter had solid wooden shutters, but no glass. Upon the floor were numerous oriental rugs, and in the front room was a divan, or throne, a long table, and many chairs.

After the departure of our visitors, the tired sailors and marines had to make a camp. The tents were put up in front of the palace, and the flag was raised over "Camp Roosevelt." A large number of spectators had found their way within the grounds, and the soldiers' labors were beguiled by the music of the Emperor's band.

THE EMPEROR AND HIS SUITE ENTERING THE ADERACH TO RECEIVE THE MISSION

The second day at the capital was almost as strenuous as the first. The Emperor had given me an appointment at ten o'clock. A divan in a small chamber awaited his Majesty. He entered quietly and promptly, accompanied by a number of important personages. They disappeared at a given signal, and to the Emperor's amazement I handed him a copy of a treaty, written in his own language by Professor Littmann of Princeton University. This enabled him to grasp our intentions immediately without the intervention of an interpreter. After this meeting, either business interviews with the Emperor himself, or exchanges of views with his responsible ministers, took place daily.

III

The rôle of the various legations in Addis Ababa is purely political. America has been the first country to establish diplomatic relations for the avowed purpose of protecting and extending commerce, without having a political issue to discuss.

Our trade with Abyssinia grew under shadowy political arrangements, when the Abyssinians claimed an outlet upon the sea which the Egyptians contested with them by force of arms. In our time the Abyssinians were forced back until they were land-locked, with Italy, France and England standing guard upon the Red Sea. Later came the active occupation of the French possession by keen-witted Frenchmen, the

MENELIK'S DOMINION, ABYSSINIA, OR ETHIOPIA, SURROUNDED BY STATES UNDER EUROPEAN CONTROL

creation of the port of Djibouti, and the building of the railroad to the Ethiopian frontier. After many delays and political intrigues, the line was finally put into operation in the summer of 1903. It has recently been announced that all preliminary questions

have been satisfactorily settled, and that the railroad will now be completed from Diré-Douah to the capital. It will require three or four years to connect Addis Ababa with the line already built, but when this great enterprise is accomplished Ethiopia will be in a position to convert her vast treasures of natural wealth into money and to join her sister trading nations of the world.

The present foreign trade of Ethiopia is not great. Exports and imports together amount to $2,316,000, of which the share of the United States amounts to $1,389,600—large in proportion to the trade of other countries, but hardly important. American cottons account for $579,000. As imports we receive, from Abyssinia and Somaliland together, skins and hides to the value of $675,000, and $135,000 worth of coffee. We naturally look to the future to develop a commerce of really important volume. The two great obstacles to the increase of American trade at present are: 1. The absence of American navigation lines assuring rapid, direct, and cheap transportation. 2.The absence of American business firms in Ethiopia capable of representing our interests.

THE IMPERIAL SEAL OF MENELIK

There are gems and gold in Ethiopia. The gems we saw were found scattered over the desert wastes, washed down from the mountains above. Gold is hidden away in the mountains in quantities which can be estimated by no existing data. Even now the annual production of gold by methods as old as Moses amounts probably to $500,000. As for copper, iron and the ordinary metals, their extraction is merely a question of finding facilities for shipment and, probably more important still, a market capable of absorbing them. Petroleum has been discovered in large quantities, but the Emperor is currently believed to regard as the most important of Abyssinian activities the cultivation of his fertile table-lands.

The hope of the country does depend upon agriculture. A bountiful Providence has given Abyssinia a climate and a soil which produce two, and even three, crops a year. On the table-lands of Ethiopia nearly every grain can be grown that will grow anywhere. Here is the original home of the coffee plant, and cotton has been successfully grown here for many years. This fact has inspired half a dozen French cultivators to undertake cotton-growing upon a large scale. They have had such success that others are about to copy them, and there will probably be systematic efforts to make Ethiopia an important cotton-exporting region. But stock-raising, including beef, sheep and goats, is now by far the most important industry of the empire.

. . .

A visit paid to the American encampment by the Emperor was the certain signal that our serious business discussions were practically over and that we might prepare for our homeward journey. The final audience with his Majesty was arranged for Sunday afternoon, December 27th. He received us in the small audience chamber. The serious business of the hour was to affix the official seals to the treaty, which had previously been drafted in the Amharic and French languages.

As the actual comparison of the two copies of the treaty had preceded the audience, nothing remained to be done except to affix the signatures and the official seals. The Emperor never signs any documents, attaching instead to his letters his seal, impressed with black ink, and to formal documents the great seal of state. A white-robed secretary appeared with the instrument by which this is imposed, and, placing it on the floor, stamped the lion of Ethiopia under the sign manual of the President's Commissioner. We all shook hands and exchanged congratulations. Our soldiers presented arms and retired. Then the officers bowed low and followed.

HOW INSURANCE LAWS WORK

THE ENACTMENTS OF NO TWO STATES ALIKE—CASES IN WHICH THE DECISIONS OF THE STATE AND FEDERAL COURTS ARE EXACTLY OPPOSITE—OFFICIALS THAT INVESTIGATE FOR PRIVATE GAIN—HEAVY TAXATION AND INEQUITABLE LAWS THE CHIEF OBSTACLES TO THE SPREADING OF THE BENEFITS OF LIFE INSURANCE—THE NEED OF FEDERAL CONTROL

BY

HENRY WYSHAM LANIER

(THE FIFTH OF A SERIES OF FIRST-HAND ARTICLES ON LIFE INSURANCE)

THE first life insurance policy of which the details are on record resulted in a law suit: William Gybbons insured himself on June 15, 1583, for £383 against dying in twelve months; he did die on May 28th of the next year—and the disgusted underwriters (the company of those days) contested payment on the plea that he had lived twelve months of twenty-eight days each! From that day to this the managers of insurance companies have been striving to avoid contact and conflict with legal enactments.

In the matter of contested policies they have to a large extent succeeded—partly because it is seldom worth while to take such cases into court. If a policy-holder commits suicide and the widow sues for the insurance, the chances are about ten to one that the jury will decide against the company. Consequently, only the cases of patent or suspected fraud ever come to trial, for the effect is bad on the company's reputation with the unreasoning public in almost any event. Owing to the confused policies issued by American companies in the early years and to a habit then of contesting every loss when there was a point which could be made by an astute lawyer, this prejudice used to extend to the judges themselves. An insurance lawyer tells the following story:

"Some years ago, as counsel for one of the soundest and most reputable companies of the country, I tried a case before a former judge of our court, who listened patiently to the testimony of men of character and unimpeachable business reputation whom I introduced as witnesses. On the argument I submitted my authorities based upon the testimony as offered. After some weeks I was surprised to learn that the court had decided against my client. Knowing that the decision, if not set aside, meant great financial loss, not only to the company interested, but also to every insurance company in this State, I stated that fact to the judge, and he promptly said that my law was all right, but he regarded all the testimony as only "insurance buncome." I succeeded in obtaining a reargument of the case and convincing the court to the contrary, and the decision was opened and reversed."

When one comes to legal supervision, however, one finds the insurance companies today groaning in secret over a grievous burden.

To begin with, it is hard to see why a mutual life insurance company should be taxed at all—any more than a savings bank. Yet the January, 1904, report of one such concern in New Jersey shows an expenditure for taxes, fees to State officials, and licenses amounting to 20 per cent. of its total yearly expenses—outside of payments to policy-holders. And this in addition to 2 per cent. of taxes on the real estate it owns.

This is absurd on the face of it. The causes are the chaotic condition of insurance laws and the natural tendency of legislators to consider any wealthy corporation fair game.

In effect, the companies have to pay fees and taxes to maintain about fifty different sets of supervisors, commissioners, and office machinery, nine-tenths of which does no good to any earthly being except in providing political jobs. Each State and territory has its own separate laws as to licenses, fees, taxes, statements and what not, and any one can see at a glance what a chance such a situation offers to pompous ignorance or dishonesty.

An expert on the subject, Mr. Charles E.

Gross, has recently put the matter very strikingly:

"I can start," says he, "from New Haven today with an insurance policy in my pocket which has one judicial interpretation in the State of Connecticut, but will receive another when I reach New York, a third in Ohio, one entirely different from all in Iowa, and possibly a new one when I reach the territory of New Mexico and the jurisdiction of only the United States Courts; and all of these decisions would be rendered upon the simple request of the insurance company which issued the policy to be informed to whom it can safely pay the proceeds of the policy."

So it is not only the diversity of law in the various commonwealths where a company does business with which an insurance man has to contend, but with radically different interpretations of laws and precedents made by State legislatures and Federal and State courts often working with deliberate independence of each other. Mr. Gross says further:

"Some years ago, one of my clients, a life insurance company, was sued on a policy in a State court of another State where it was transacting business. As the exact question involved had been previously decided by a court of the highest standing, we all supposed that the company had a complete legal defence. Upon further examination of the question, however, after suit had been commenced, I found that the Supreme Court of said State, within a few months prior to my examination, had decided the same question exactly opposite to the previous decision which had been rendered by the United States Supreme Court. I then advised my client to remove the suit from the State Court into the Federal Circuit Court (as in that State it had the right to do) in order to escape the obnoxious State decision and to avail itself of the more satisfactory decision of the Federal Court. Had the suit been removed, all liability under that particular policy would have been avoided, but unfortunately the lawyers to whom the case was sent failed to file the removal petition within the time allowed by the statute, and the company was compelled by the State court to pay the policy. Upon the same question of liability involved in that case there were two exactly opposite decisions—rendered respectively by two of the ablest courts in our country—in force at the same time, and in the same place—and the liability of the company depended entirely on the forum in which it could have its cause tried.

"Some few years ago another of my clients was ready and willing to pay a policy which it had issued in one of the western States and which had matured by the death of the insured and which was payable by its terms to his executor, administrator or assigns. The policy was a personal asset of the decedent's estate, and by the law universal, as you know, personal property of a decedent passes by law to the personal representative, while real estate descends to the heir. My client notified the family that it was ready to pay the policy as soon as an administrator should be appointed. They refused to take out letters of administration, and so the policy was not paid and the matter lay dormant for over a year until finally the heirs-at-law brought suit against the company, and I then found that in that State in another case, which was a suit by the heirs-at-law upon a similar policy payable to the personal representatives of the decedent, the highest court had held that the title to personal property, the same as to real estate, descends upon the death of the owner to the heirs-at-law subject only to the rights of creditors to take out letters of administration within a reasonable time, and as such a time had elapsed and no letters had been asked for, the heirs themselves could maintain a suit for the policy without taking out letters of administration. It is only necessary to remark that this was a suit against a life insurance company in a western State, where life insurance companies were not popular. But it was a decision which declared the law of that State, and my client was obliged to pay, without a receipt from any personal representative of the insured."

Some years ago the insurance department of a western State had at its head a man who proved to be an adept in graft. His method was simple in the extreme: he merely intimated to the great companies that unless they agreed to "stand and deliver" they would be denied the right to do business in that State. One of the three greatest companies to which this alternative was presented saw its chance: the State was not an important factor in its business—so it withdrew absolutely. As it had foreseen, this radical action produced a cyclone of public disapproval which promptly swept the dishonest superintendent out of office.

In another State the superintendent proved pompous. He demanded that a separate examination of the companies' affairs, at their expense, must be made for the benefit of that State—though all the other States are content to accept the sworn examinations supplied to the New York and Massachusetts departments. Then he saw a chance for political capital, and announced that the system of "deferred dividends" was contrary to the laws of that State: dividends must be

annual or the company would be debarred. In this case the field was too important to abandon; the companies had to fight; and a long, expensive legal battle was necessary to establish a principle which could do no harm to anybody and had been proved to be a public benefit.

Insurance people will not talk of these matters. They argue that it can do no good, and that the only result will be to arouse the enmity of these powerful opponents. But it is not difficult, even today, to get authentic accounts of such incidents as this:

The superintendent of an insurance department came to the home office of a great company. He was made welcome with the dignity befitting his position, but he did not unbend. Presently he announced:

"I've come to make an examination of your books."

There was a hurried consultation. It would be a nuisance and an expense to stop all the office machinery for this ridiculous farce, but the man was clearly within the authority given him by the law. The officers notified the visitor he could go ahead.

"Um-m. Very good. The charge will be a hundred dollars and my expenses," he remarked.

The first instinct of the gentlemen in charge was to throw him out. But when they considered the matter, they decided that the only sensible thing to do was to pay the blackmail, since the fellow could have cost them ten times as much without exposing himself. Needless to say, the examination was indefinitely postponed upon receipt of the check.

If those in charge of the great insurance companies would tell the facts, it would make a story of "graft" equal to any of the recent "revelations." The instance noted before was chiefly singular in that the managers did not at once see what the rascal was after and were actually about to let him go ahead with his examination.

Some years ago the political party in power in a certain State which had never taxed insurance companies announced that one of the forthcoming bills would be for a tax which would cost the companies hundreds of thousands of dollars annually. The latter at once entered upon an energetic campaign of education, circularizing all their policy-holders throughout the State and telling them just what this law would mean in reduced dividends.

When they thought they had constructed a respectable opposition, the spokesman of insurance interests went to the State capital to see the Governor. Finding that gentleman obdurate and determined, he hinted that the companies were not so defenseless as the politicians seemed to think.

"Pooh," said the Governor, "I know about the work you gentlemen are doing—but you might as well save your money. You do not appreciate the force of a party in power: you'll find I'll take your men from out of your hands whenever I need them."

Sure enough, the very next day there was a preliminary skirmish on the insurance bill—and the companies beheld the men upon whom they had depended absolutely, falling into line at the crack of the party whip.

There was another trip down to the capital and another interview with the Governor—after which the insurance interests were glad to compromise on a bill which prescribed half the rate named in the first one.

Of course, the obvious relief from the onerous and ramified system of conflicting supervision and its possibilities for "graft" would be found in the substitution of a Federal insurance department, which could give a charter authorizing a company to do business, say, in every State except its own. The suggestion to insurance people of Federal control generally brings out a reference to the "Paul and Virginia" decision—a famous case in which the Supreme Court's language has been interpreted as holding that life insurance is not commerce and is not, therefore, subject to United States laws. The fact is, however, that in the recently created Department of Commerce, the Bureau of Corporations does cover insurance to some degree. It is to be hoped that this may be the first step toward a more intelligent scheme of supervision and taxation. The United States is behind every country in the world in this matter: in England and on the Continent life insurance is not only encouraged, but is in some instances made compulsory; whereas here, with the largest interests in the world (one American company last year did nearly 50 per cent. more business than all the eighty companies of Great Britain combined) the insurance laws are among the chief obstacles.

A "CORNER" IN PACIFIC RAILROADS

HOW MR. E. H. HARRIMAN HAS ACQUIRED CONTROL, OR PART CONTROL, OF ALL THE LINES BUT ONE BETWEEN THE ROCKY MOUNTAINS AND THE PACIFIC—A DRAMATIC STORY OF A CONSTRUCTIVE AMBITION

BY

C. M. KEYS

ONE of the greatest, if not the greatest, of the railroad problems west of the Mississippi River to-day comes of the personal ambition of one man to dominate all the through routes from the Rocky Mountains to the Pacific Ocean. The one man is Mr. Edward H. Harriman, president of the Southern Pacific and of the Union Pacific railroads.

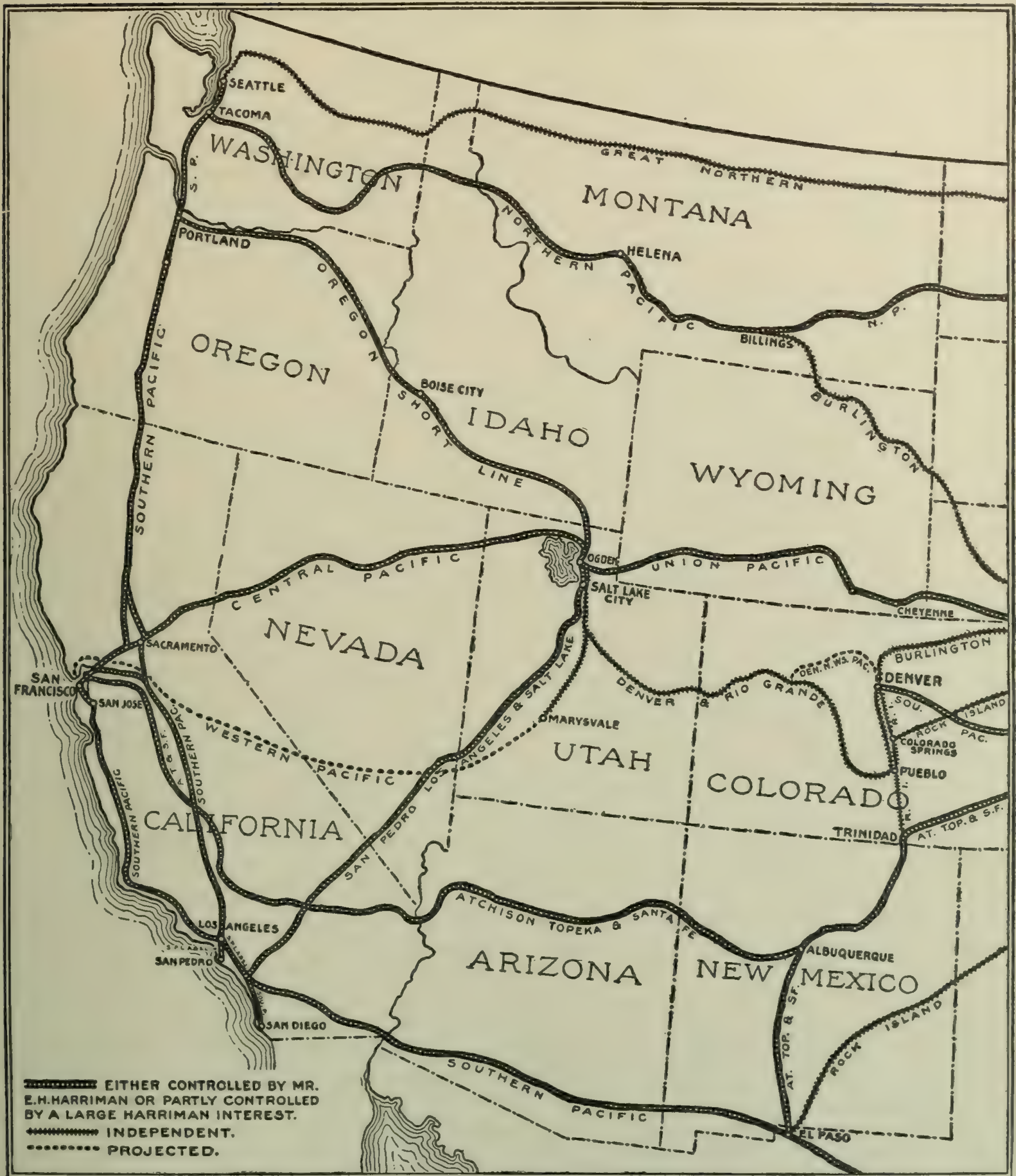
There are seven so-called transcontinental railroads. They are the routes by which all the traffic of the East reaches the western coast, namely, the Great Northern Railway; the Northern Pacific Railroad; the Portland Route, consisting of the Union Pacific and the Oregon Short Line; the Overland Route, consisting of the Union Pacific and the Central Pacific; the new trunk line to consist of the Denver & Rio Grande or the Union Pacific and the San Pedro, Los Angeles & Pacific Railroad, now about ready for operation; the Atchison, Topeka & Santa Fé; and the Sunset Route, which is the Southern Pacific from New Orleans to San Francisco. Of these lines Mr. Harriman and his friends control four: the Union Pacific—Oregon Short Line route, the Overland Route, the new route via the San Pedro, and the Sunset Route. In addition, Mr. Harriman holds a very large interest in the Northern Pacific, and has recently bought a considerable interest in the Atchison, Topeka & Santa Fé. Only one, the Great Northern, is free from his or his associates' influence.

This practical "cornering" of transcontinental railroads is not viewed with equanimity by the other railroad magnates of the West, who have noted with increasing alarm the announcements from Mr. Harriman's office that new interests have been acquired in new lines. In every instance, out of confusion, rumor, and even panic, the Harriman interest has emerged to announce the acquisition of a part in the control of another transcontinental railroad.

This progress culminated in two announcements made public in the past four months: the first, that the Union Pacific had bought a half interest in the new San Pedro, Los Angeles & Salt Lake Railroad; and the second, that Mr. Harriman and some of his associates had purchased about $25,000,000 worth of the stock of the Atchison, Topeka & Santa Fé Railway. The San Pedro Route was begun three years ago by Senator William A. Clark, of Montana. It was designed to be a rival of the Central Pacific, which is owned by the Union Pacific. The Santa Fé, as it is commonly called, is the one railroad from the Great Lakes to the Pacific which has remained, since 1897, independent of the great merged systems. It has been a common saying that, so long as the Santa Fé remained independent, the railroad situation in the West was safe. Now Mr. Harriman has acquired the largest individual interest in it. He has not bought control, but he has made it impossible for any one else to buy control.

This tremendous centralization of railroad power is the culmination of the "merger period." When, eight years ago, the Union Pacific Railroad Company was bought from the receivers and reorganized under the name of the Union Pacific Railway Company, the era of consolidation began.

The government, after the building of the Union Pacific, had lent it sums of money. By 1892 the amount of these loans and their interest had reached $52,000,000. The entire debt was due in 1895 and later. Year after year the directors appointed by the government appealed to Congress for some settlement that should remove this fearful load of debt. Congress paid no attention. Finally, in 1893, the mortgage on the road was foreclosed.



THE HARRIMAN RAILROADS WEST OF THE ROCKY MOUNTAINS, AND THE COMPETING LINES

On January 22, 1897, however, in a letter signed by Mr. Jacob H. Schiff, an offer was made of $48,000,000 for the government's share in the railroad. Mr. Schiff represented a syndicate which included Messrs. Marvin Hughitt, President of the Chicago & Northwestern; Mr. George J. Gould and Mr. Winslow S. Pierce, of the Missouri Pacific; Mr. James Stillman, President of the National City Bank; Mr. Harriman, and others. The names meant very little. Mr. Harriman's meant nothing at all. Most people guessed that he was associated with Mr. Hughitt in representing Mr. W. K. Vanderbilt. At the close of the year the government sold its share for $58,000,000. In January, 1898,

the courts approved the sale. The new owners took immediate possession of the railroad and appointed the board of directors.

This purchase was a gigantic gamble. For the government's share, for $8,400,000 worth of Oregon Short Line stock, bought in that year, and on account of other smaller purchases, the new syndicate paid more than $81,500,000. They did not secure actual ownership such as a man secures when he pays for a house and gets a deed for it. They acquired merely a second lien on the road. There stood ahead of their equity nearly $75,000,000 of first mortgage bonds which had to be paid—or the owners of which had to be satisfied—before the new syndicate could get a dollar of interest on its investment. But the gamble was based upon the belief that the country had already passed through the worst times it would experience for many a year.

The name of Mr. Harriman first appeared in an official notice in January, 1898. It was the last name on the list of directors of the new company. He held no office. Men spoke of him as possibly the representative of Mr. W. K. Vanderbilt or as associated with Mr. George J. Gould. No one but Mr. Schiff knew exactly what sort of man Mr. Harriman was. He had worked quietly with the syndicate, yet his was the master mind that had conceived and guided its gigantic project. The plan to make this wreck of a railroad the centre of a system whose divisions should themselves be systems was his. He had planned that the credit of this company should arm him with power and credit to accomplish things then undreamed of among financiers, for the wreck of Union Pacific, the offer of the syndicate, the long-delayed purchase, the quick rehabilitation — all these things happened in Wall Street before the era of consolidation and merger had fairly begun.

FIGHTING COMPETITORS

In February, 1898, the syndicate added to its holdings the line that had been the Kansas Pacific, from Kansas City to Denver, once a plaything of Jay Gould. In March it offered to purchase the remaining stock of the Oregon Short Line. It was not wise to allow other lines to use the Union Pacific's one outlet to the Pacific Coast, and therefore the Union Pacific offered to exchange its own stock for Oregon Short Line stock, share for share. The offer was accepted. In January, 1899, possession was formally taken, and the traffic of the Great Northern and the Northern Pacific was turned away from the Oregon Short Line.

At this juncture Mr. Harriman stepped from the ranks. One day he was simply one of the directors of the Union Pacific; the next he was chairman of the executive committee. Men talked of him at the clubs. His name became prominent in gossip at the Waldorf-Astoria and about the posts on the floor of the New York Stock Exchange. Still, except to the firm of Kuhn, Loeb & Company, he was hardly known. On Wall Street they still spoke of him as the representative of Mr. W. K. Vanderbilt, and Mr. Harriman never denied it.

In the spring of 1899, one man, Mr. C. P. Huntington, came to a different belief. The story of his awakening is told in various ways in Wall Street. In the bad years he had gathered together his scattered lines and had made of them the Southern Pacific. Early in 1899, representatives of the Union Pacific asked him to sell them the Central Pacific. Mr. Huntington smiled. Let Union Pacific into California—his own territory?

"No, I guess I have the Union Pacific where I want it!" said he.

A week later it was announced that the Utah & Northern Railroad had been incorporated, to build from Salt Lake City to San Francisco. Its stock was all owned by the Oregon Short Line. It was to compete with the Central Pacific. It was to be the main line of the Union Pacific beyond Salt Lake City. It threatened to cut off the Central Pacific from its richest traffic, and leave it stranded in the wilderness without an eastern connection. Surveys were run through. Rails were laid. In the early summer of 1900 the road had reached as far south as the Nevada State line.

"Who is running the Union Pacific?" asked Mr. Huntington.

From 1898 to 1900 the Union Pacific grew in wealth and power. Earnings increased beyond the most extravagant dreams of the early '90's. With the boom the great railroads of the West prospered, the Union Pacific most of all.

Mr. Harriman grew with it. Day by day his profits mounted into the hundreds of thousands of dollars, then into the millions,

then on into the tens of millions. By the end of 1900 he had become a financial power. Swiftly commerce piled up wealth for all who had ventured their fortunes in the syndicate of 1897. The banking house of Kuhn, Loeb, & Co., at the end of 1900, stood in the foremost four among the great banking houses that are not national banks.

Yet Mr. Harriman was nearly unknown to the public. Mr. Horace G. Burt was still president of the Union Pacific, and Mr. Winslow S. Pierce was still Chairman of the Board of Directors. Men in Wall Street spoke of the Union Pacific as "the Kuhn, Loeb Railroad." The genius of the syndicate was as yet unrevealed. But cautiously, slowly, conservatively, he created and fostered the credit of the Union Pacific. He believed that in this alone lay the hope of his plans. On this he should build his system of systems that was to lay at his feet the commerce of the whole Pacific Coast.

In his office at 120 Broadway, New York, he worked as few of the wealthy men of the country have ever worked. Day after day, week after week, month after month, he labored at his task. At his desk in the big inside office he was to be found at almost any working hour. He is a small man, very slightly built, narrow-chested, delicate in appearance. At his desk he is a regular whirlwind for energy. He goes through his correspondence and through the hundred reports that reach him at a pace that is not rivalled in any office on Wall Street—the region of speed. His stenographers must keep the pace. He has a small army of them, and, report says, they work in relays. He can keep them all busy. He is one of the most rapid thinkers in the Street, and his action is as quick as his thought.

Between 1897 and 1900 Mr. Harriman mastered the detail of his railroads. No one who does not know the detail of a railroad can understand what this means. Through those years he watched the growth of the traffic of his roads and of all their competitors. He learned to judge of the comparative advantages of declaring war and of declaring peace with his rivals in the western markets. He measured with a careful eye the chances of successful war and profitable peace in the rich valleys of the Coast, where his Oregon lines met the lines of Mr. J. J. Hill, and out on the plains of Nebraska, where his traffic agents met the agents of the Burlington, the Northwestern, and the St. Paul. He mastered the rate problem. Perhaps he learned the wisdom of paying rebates so long as one is never caught. He learned to charge the traffic as much as it would pay, so long as no one else was near to charge it less. He learned the necessity of making rates that would bring the grain of western Nebraska, the lumber of central Oregon, the mineral ores of Idaho and Wyoming into the cities of the central West, where markets throve. He followed close upon the heels of Mr. J. J. Hill, that master of cheap transportation. He imitated Mr. Hill's methods, and it is said that he improved upon them. Sometimes, by cutting rates, he fought his great antagonist on the north. Sometimes, by a traffic truce, by a joint schedule, even by the surrender of a market, he placated him. Always, say the western railroad men, for every yard he yielded he gained two.

Quiet, persistent, aggressive, subtle, he spread his empire into the North, pushing in the outposts of the Burlington, the Northern Pacific and the Great Northern. Gradually the business of Wyoming, even the business of Montana and of Washington, paid toll more and more to the Harriman lines. Butte and Spokane, important feeders of the Hill roads, welcomed his lines and gave them business. He gathered traffic from all fields competitive and non-competitive; made markets where no markets had been before; helped the Great Desert develop; nursed Portland and San Francisco into greater power. He made the Union Pacific; and the Union Pacific made him.

In August, 1900, C. P. Huntington died very suddenly. He had held the South against Mr. Harriman and had defied him. For five months after his death the stocks of the Southern Pacific stood at high prices. Rumors flew thick and fast. One authority declared that the Vanderbilts had bought the control of the Huntington properties; another, that the election of Mr. C. M. Hays to the presidency was the cause of the great advance in the price of the stocks. But on February 1, 1901, Mr. James Speyer, head of the New York banking house of Speyer & Company, announced that the holdings of his firm and other stocks of the Southern Pacific had been sold to a syndicate "composed of Messrs. Kuhn, Loeb & Company and their associates."

The purchase amounted to $75,000,000 worth of stock out of a total of $200,000,000. It was enough to control, for no other interest could gather enough stock to outvote the holders of this amount of stock in annual meetings. In March the entire block of stock was sold to the Union Pacific, which issued bonds to pay for it. The credit of the Union Pacific, created by Mr. Harriman, was beginning to get results.

THE BATTLE FOR THE NORTHERN PACIFIC

Yet, even at that late date, he was but little understood. Even in Wall Street he was still considered "a Vanderbilt man" or "a Gould man." The awakening was to be sudden. At that very time events were shaping which would reveal him in his full power. In April he demanded representation in a tremendous deal whereby the Great Northern and the Northern Pacific were to buy joint control of the Chicago, Burlington & Quincy. Almost peremptorily Mr. Hill and Mr. Morgan refused the demand. They did not know Mr. Harriman.

It was not until the blow was struck that they awoke to the full truth. On May 5, 1901, the office of J. P. Morgan & Company, in a half-panic, cabled to the great financier, then spending the summer in France: "Union Pacific interests are buying Northern Pacific. They may have bought control. Instructions." The answer came back: "Buy the control and hold it!"

Panic was let loose. By May 7th the instructions had been carried out to the letter. The bankers associated with Mr. Harriman, too, having secured all the stock they wanted, ceased buying and let the market look out for itself. They simply called in what stock they had lent. Unhappy men, who had sold stock they did not own but had merely borrowed, were called upon suddenly to return the stock to the lenders. To get it they paid fabulous prices. Several hundred shares changed hands at $1,000 per share.

Wall Street was shaken. There is a story that Mr. Schiff came to Mr. Harriman and besought him to say a word that would check the terrible selling of stocks that was going on. Men were pouring out their securities to raise the money to meet their losses in the great corner and so save their business houses from ruin. Mr. Harriman stood firm. He had played the game, and he believed he had won it. He seemed to have the control of the Northern Pacific. It was at this moment that Wall Street saw him as he really is—the genius of the Union Pacific. For two short days he dictated terms of peace, it is said, even to Mr. Morgan and to Mr. Hill.

On May 11th, two days after the great panic, a select company of financiers gathered in Mr. Harriman's office. From the house of J. P. Morgan & Company came Mr. Charles Steele, the brilliant lawyer, and Mr. Robert Bacon, right-hand men of Mr. Morgan. From the Great Northern office came Mr. Hill. From the banking house of Kuhn, Loeb & Company came Mr. Schiff. They gathered at the call of Mr. Harriman.

Mr. Hill tells the story of that memorable meeting very briefly and naïvely.

"There was no discussion," he says, "of the amount of stock held. I think Mr. Schiff said 'We hold control of the Northern Pacific!' and I think Mr. Bacon said, 'Mr. Schiff, before you are through, you will find you don't!'"

Before the meeting was over, Mr. Schiff found that Mr. Bacon was right. The Harriman representatives had bought in round numbers $78,000,000 worth of stock out of a total of $155,000,000 worth. It looked like control. But only $37,000,000 of it was common stock—the rest was preferred stock. The Morgan forces held $42,000,000 of the common. They told Mr. Harriman that, under the reorganization plan of the Northern Pacific, the preferred stock could be retired. They coolly told him that the preferred would be retired immediately, and that the house of Morgan would still hold control, through the common stock.

The thing was done. Mr. Harriman, rather than go to law in a hopeless cause, acquiesced. He was appointed a director of the Northern Pacific and of the Burlington. In October, after a summer of peace, Mr. Morgan formed the Northern Securities Company, to own both the Great Northern and the Northern Pacific. Mr. Harriman turned in his Northern Pacific stock and received Northern Securities stock instead. When, in 1903, the Northern Securities Company was ordered by the courts to dissolve, Mr. Harriman wanted his own stock back. Mr. Hill offered him only his just share of all the stocks the company had owned. Mr. Harriman refused the offer. He went to law over it, and the question is

still in debate. But whatever the outcome, Mr. Harriman will still be a very large stockholder in the Northern Pacific.

This status, giving him an interest in a fourth line to the Pacific Coast, is probably the crowning event in his great campaign. His acquisition of the Northern Pacific stock showed at once the innate power of the man and the tremendous ambition that brought that power into play. It betrayed, also, the basis of his great financial strength. The credit of Union Pacific had been called upon for an issue of bonds to pay for the purchase of the Northern Pacific stock. Wall Street bought the bonds without question. The Union Pacific had come to be recognized as a magnificent weapon of railroad conquest.

WHAT MR. HARRIMAN'S CONTROL MEANS

Since then, there has been but one head in the Union Pacific—Mr. Harriman. He has boards of directors, but they meet to approve the actions of the executive committees. The executive committees meet to listen to a typewritten statement dictated by the chairman, to signify their approval, draw their fees, and go their ways. Mr. C. M. Hays, a strong and stubborn man, came in conflict with Mr. Harriman after three short months of service as President of the Southern Pacific. He resigned. Mr. Horace G. Burt, after years of great service, likewise encountered the will of the autocrat. He, too, resigned. Today Mr. Harriman is President of the Union Pacific, of the Southern Pacific, and of all the subsidiary companies.

This is the story from 1901 to 1904. It is a story of wonderful earnings, of millions paid out in dividends, of millions piled up in treasuries, of millions upon millions paid out for new lines, new equipment, labor, and luxuries. But after three years of peace, the announcements that Mr. Harriman had secured a large interest in the Atchison, Topeka & Santa Fé, and that he had acquired the San Pedro Route followed, one after the other, in two successive months. Both had been denied flatly many times. Both are true. There are but few opportunities left for further conquest.

The net result of this tremendous eight-years' campaign is perhaps best summarized in the following table, showing in concise form the mileage of the Pacific roads operated, directly or indirectly, under the influence of Mr. Harriman, and the entire capitalization, stock and bonds, of the companies that own the mileage:

RAILROAD	MILES	CAPITAL
Union Pacific*	6,105	$487,639,687
Southern Pacific†	9,621	596,393,678
San Pedro Route	1,100	65,000,000
Atchison, T., & S. F.	8,004	458,039,780
Northern Pacific	5,976	338,689,178
Total	30,706	$1,945,762,323

* Including the Oregon Short Line and the Oregon Railroad & Navigation Company lines, which give Union Pacific the Portland route.

† Including the Central Pacific, which furnishes the present overland route from Salt Lake City to San Francisco.

The list does not include any lines east of Omaha, either owned or controlled by the Harriman interests. Nor does it note his ownership of more than 50 per cent. of the stock of the Pacific Mail Steamship Company, which owns steamers operating from San Francisco to the Orient.

THE OUTCOME

What is to be the outcome? The surveyors for a new syndicate are running lines between Thistle Junction and San Francisco. Mr. David H. Moffatt, of Denver, is building, at tremendous expense, a line from Denver west to Glenwood Springs, Colo. Both projects are hostile to Mr. Harriman and his railroads. Representatives of Mr. George J. Gould are on the board of the Western Pacific. So also is Mr. Edwin Hawley, once a Harriman man, now an enemy of Mr. Harriman. The companies are further backed by railroad interests of the West with lines dependent on the Harriman railroads at Ogden, Albuquerque, or El Paso—the three gateways to the southern Pacific Coast.

A tremendous personal ambition, now seemingly on the verge of accomplishment, has led Mr. Harriman into a position that many other railroad men believe untenable. It may go still further. Mr. Hill is on record as saying that, in case the Harriman forces win in their legal fight for the Northern Pacific, the Great Northern will also be for sale. The Chicago & Northwestern, the Chicago, Milwaukee & St. Paul, the Great Northern, the Burlington, all great systems, will put up a tremendous fight along the northern routes against the usurpation of sovereign railroad power west of the Rocky Mountains. In the

central railroad territory, the Missouri Pacific and the Rock Island are endeavoring to pass beyond Ogden. At El Paso, again, the Rock Island and the Gould lines of the far Southwest are turning over millions of tons of freight a year to the Harriman lines, and are getting inadequate return. Mr. Gould and the Moore brothers are too powerful and too progressive to keep up this arrangement very long without a bid for power in the Pacific Coast railroading field. No great railroad interest will long pay tribute to a monopoly. The situation is rapidly shaping for resistance, which may take positive form at any time. It may even have taken form already—in the Western Pacific Railway.

Meantime, Mr. Harriman, triumphant, has apparently grown beyond the reach of enmity. No power in the Southwest or in the valleys of the Pacific Coast can dare to compete with him. His railroads are dominant from New Orleans to San Francisco and from Denver to the ports of Puget Sound. Perhaps his opponents are waiting for his delicate health to drive him from the field. The great syndicates can wait. Perhaps peace will give them victories that they do not care to take the chance of war to win.

WALL STREET AS IT IS

NOT MERELY A MARKET FOR STOCK SPECULATION, BUT A FIELD OF CONSTRUCTIVE FINANCE—HOW THE UNITED STATES HAS BECOME A NATION OF INVESTORS AND HOW THE COUNTRY'S ACTIVITIES ARE PROMOTED BY NEW MEN, NEW INSTITUTIONS, AND NEW METHODS

BY

S. A. NELSON

WALL STREET has far more important functions than furnishing the market for the stock speculators of the country. True, the most dramatic part of its activities is the purely speculative stock market; and for this reason Wall Street is conceived by many as a gambling hell. But the day is near when the public will distinguish between the market of speculation on margin, which has been the ruin of so many, and the market of investments sought by American and European investors.

Since it is the first money market of the country, its banks are more numerous, richer, and more powerful than those elsewhere. They are depositaries, not only of the United States Government, of great railroad and industrial corporations, and of a multitude of minor important interests, but also of the national banks throughout the country. Almost every bank outside Wall Street has a Wall Street correspondent. When one of these banks cannot lend its money profitably, it can send any amount, from thousands to millions of dollars, to its Wall Street bank, which will lend the money on the best terms, on the highest form of collateral, in the open market. The great borrowers and lenders who want a particular collateral must go to Wall Street, too. Hence, there is an invisible thread which binds the bankers of the country in the web that has its centre there. Every bank must draw drafts on New York, which is the final American clearing-house, where domestic accounts are balanced. The great staple crops and the country's mineral and manufacturing output are connected with Wall Street, for Wall Street is the banking-house of the country. The transactions necessitated by our activities are often carried to the uttermost parts of the world, thence to London, the clearing-house of the world, and finally back to Wall Street, and thence, if need be, to the mines and factories in any part of the country.

In the stock market and in the money market the country has an elastic mart, responsive to every condition of business. The stock market reflects the work of the entire population of the United States. When a country bank requests its Wall Street bank to lend its money on the best terms,

the Wall Street bank must obtain the highest type of collateral: namely, stocks and bonds that can be sold for cash in twenty-four hours or less, if necessary. The stock market makes such a sale possible. Here are securities for sale which are valued at billions of dollars; here are borrowers; here are lenders. If a borrower default, the lender can sell his collateral on the Exchange. The machinery never breaks down. If stock speculations were eliminated, the greater money, investment and security market would remain.

THE WALL STREET DISTRICT

Twenty years ago I stood on Broad Street in the Wall Street district and watched the construction of the Mills Building. It is now a relatively small building, but then it was regarded as the giant of the district, and pedestrians feared that Mr. D. O. Mills, who built it, could not find enough tenants to fill it. But other larger buildings soon followed, until the district was almost entirely rebuilt. Some of the buildings now house enough people to make a city. Under one roof one will find banks, trust companies, brokers, lawyers, railroad and industrial corporations, safe-deposit vaults, lunch clubs and restaurants, mining, telegraph, telephone and steamship companies, branch newspaper offices, detective agencies, publishers, stenographers, stationers, and cigar stores. As fast as new buildings go up, tenants fill them. All the important cities in the country, and many in Europe, are represented here by offices. Wall Street land is now even more valuable than London land correspondingly situated. The block in which the Stock Exchange is located is worth $30,000,000.

CONSTRUCTIVE FINANCE

Within this district—the institutions of which are summed up as "Wall Street"—is the field of constructive American finance. Wall Street has financed the construction and reconstruction of the American railroad; it is now looking forward to funding about $250,000,000 of railroad notes on which the great railroads borrowed money in 1903 and 1904, owing to the high rate of money and the difficulty of disposing of securities. The great industrial corporations also are financed by Wall Street. The most important constructive work in Wall Street is that of the great private bankers.

They call into life new railroads and industrial corporations, harmonize discordant elements within corporations, and investigate business propositions. It is of the utmost importance that no mistakes be made. One banking-house, that of Speyer & Company, in twenty-five years has floated a multitude of loans, involving millions of dollars, and had only one default in payment of an obligation. And this obligation Speyer & Company paid. Cities issue bonds in an unending stream. When the city of New York wants to borrow $25,000,000, the private bankers of Wall Street form syndicates and bid for the bonds. The bankers who secure them then slowly distribute them among investors at a small profit. A number of houses specialize in municipal bonds. They retain lawyers to investigate the legality of the issues, and they guarantee the bonds to investors. In selling them, they block out the country in sections, and send salesmen out on the road to dispose of the bonds on a salary and commission. Names of investors are collected, filed, tabulated and indexed with the greatest care.

The work of the national and State banks, the trust companies, and their officers and directors is always constructive. So is the work of the best kind of promoter. It is related of a coterie of very successful promoters, who have gained control of a great railroad system, that they frequently gather before a map picturing it, and discuss plans for increasing its power—making its upbuilding their life-work. Auditors and accountants, too, have taken an important place in modern constructive finance. The new form of business rendered necessary by great corporations has resulted in new accounting methods and in the introduction of labor-saving systems. A mining company recently paid $25,000 for an accounting system, and did not consider the price exorbitant.

The great lawyers of the country find their way to Wall Street unerringly. They play a conspicuous part in the consolidation of industry, reaping huge fees for their work. A comparatively new and successful kind of Wall Street man of business is the lawyer who is also, in a sense, a promoter. Directors' meetings are rarely held without the presence of a legal adviser, and just as every railroad corporation has a legal department, so have many of the banks, trust companies, and life-insurance companies.

CONCENTRATION AND DISTRIBUTION

The growth of concentration of banking power has been very rapid. Wall Street has been accustomed to hear that its banking power is divided into two sections, one controlled and directed by Rockefeller-Stillman interests and the other by the so-called Morgan interest. Allied to the banks in each group are the life-insurance companies, the trust companies, and numerous smaller financial institutions. Related to them are large corporate interests and banks in other cities, notably in Washington and Chicago. The National City Bank has grown until it now has deposits of $220,500,000, the Bank of Commerce has $204,600,000, the First National Bank $120,600,000, the Hanover National Bank $96,600,000, the Chase National Bank $66,900,000. Another wonderful development in Wall Street has been in the trust companies. Ten years ago the trust companies in New York City held less than $26,000,000; now they hold $875,000,000.

The National City Bank, commanding the backing of the Standard Oil Company, has a remarkable position. When the government paid Spain $20,000,000 for the Philippines, the foreign exchange department of the bank arranged the payment in Paris, and completed it without publicity. The bank assisted in the organization of the Amalgamated Copper Company. Its relations to the Treasury Department at Washington are so intimate that organizers of new banks are impressed with this fact, and urged to make the City Bank their Wall Street correspondent. It conducts a bond department, and has attempted to make foreign government bonds popular in the United States. "In short," remarked a banker, "it has introduced the successful methods of the Standard Oil Company into the banking business. Its interests are so vast that it could hardly afford to undertake a financial proposition unless there were a round million dollars' profit in sight."

Wall Street does not fear the concentration of banking in wise and patriotic hands, when the power it brings is employed constructively and conservatively. If, however, it were to be used speculatively it would create a serious problem for the public.

The development of the United States into a country of investors has been very rapid. As yet, however, it is in its swaddling clothes. During 1903 and 1904, many Wall Street firms discovered that new investors had become more discriminating, and demanded investment rather than highly speculative securities. Brokerage houses proceeded to open bond departments to fill the demand. There are many private banking houses making a specialty of investment securities, and dealing with banks, estates, and fiduciary institutions; but small individual investors appearing in large numbers were a new financial force to be welcomed. During the last quarter of a century and more, European houses having agents in New York have invested many millions of dollars in our railroad and other securities. When these increased in value with the increase of wealth and prosperity in this country, American investors paid the European investors a handsome profit in order to get them back. Great Britain and Germany, however, continue to buy our securities, and it is quite probable that France will buy them to a greater extent in the future. That American investors have bought foreign securities freely has been capable of proof only in recent years. American banks and bankers are now selling in Wall Street English consols, Japanese war bonds, Mexican government bonds, and the obligations of various European municipalities. Canadian, Mexican, South American and West Indian industrial and mining securities are gradually gaining a wider market.

The stocks and bonds of the great railroad and industrial corporations were never more widely distributed. Today the stock of the Pennsylvania Railroad is distributed among more than 40,000 stockholders—twice as many as ten years ago. The average holdings of shareholders of some of the great dividend-earning railroads are less than 100 shares. The industrial corporations rival the railroads in the favor of investors. The United States Steel Corporation has not far from 45,000 stockholders; the American Sugar Refining Company has more than 10,000. Where the earning power of a corporation has been demonstrated, and the management is of proved integrity, investors will buy its shares. There is a never-ending demand for securities of the highest grade; and many which were purely speculative ten years ago are now considered very good securities for investment.

THE FOREIGN EXCHANGE

Wall Street now occupies a more important place in the adjustment of world credits than ever before. The world money movement is very complicated. Paris may owe London, London may owe New York, Australia may owe London. London directs Australia to ship gold to New York via San Francisco. Cross currents are moving in every direction, and balances must be settled with as few shipments of metal as possible. Not long ago, an exportation of gold to Berlin and an importation of gold from Paris were announced in Wall Street at the same time. It was hard to understand, if Paris owed us the money and we owed Berlin, why the natural method would not be for Paris to ship to Berlin and eliminate the two transfers of money and the loss of interest involved in the voyages of the gold across the Atlantic. With international clearing-houses established and reserve points in London, Paris, Berlin and New York, the necessity for transporting gold would be reduced to a minimum. The balance of trade in imports and exports is in our favor, but there is a larger balance of trade—that produced by European investment in American securities and American investment in European securities and Japanese war loans. Is this in favor of us or against us?

London is, of course, the clearing-house of the world. As long as Great Britain continues to carry the ocean-going freight of the world and to dot the earth with British banks, just so long will London occupy a dominant position in finance. It would take centuries for the American financial system to rival the British in international power and influence. But with our great productive energies and our increase in population and wealth, the United States may yet give Wall Street the distinction, among the money markets of the world, of having practically unlimited investment money at its command.

THE STOCK-BROKER OF TODAY

Stock-brokerage houses have arrived at a degree of perfection in organization that was not dreamed of ten years ago. A modern house deals in stocks and bonds, but it may carry grain, cotton and coffee departments, necessitating a very delicate accounting system. Sometimes, from 50 to 100 clerks are employed, and the expense account runs up to $100,000 and even to $200,000 a year. Before 1896 the 1,100 Stock Exchange memberships were pretty well confined to New Yorkers. Chicago, Boston, Philadelphia, Baltimore, Richmond, Washington, and one or two other cities, were represented by a single member apiece. With the first McKinley boom and the expansion of industrial corporations came a radical change in Stock Exchange membership. Many brokers from interior cities acquired membership and built up private-wire systems of their own.

Six years ago, a prosperous grain and stock-brokerage house had its home in Minneapolis. It maintained communication with Wall Street over its private wire to Chicago, where its correspondents relayed its orders to New York. The Chicago house had New York correspondents who executed its orders. Today, both the Minneapolis and the Chicago firms have magnificent offices in New York. The Minneapolis firm has a Chicago office, and has its own correspondents on its main wire from Chicago to New York. Not only is business gathered in Minneapolis and in Chicago, but also in Detroit, Toledo, Cleveland, Buffalo and other cities. A member of the firm now makes his residence in New York and has built up a large local business. Customers from out of town are enabled to use the firm's private wire for office or home messages. The "market information" is more diversified than formerly, and in many ways the "wire house" can fill a place that the old-style "local house" cannot.

When a customer of the western "wire house" which had moved to New York wished to trade in cotton, the house formed connections with cotton brokers. "I will put a loop in your office," the New York partner of the western house proposed to the southern cotton men. "I will give you all our grain and stock gossip if you will give us all your cotton gossip. Turn to us all the grain and stock orders you can, and we will give you all our cotton business." The thing was done. Expenses are very heavy, but the business has paid.

The hundreds of telegraph wires running out from the modern brokerage office search the country for business. The house does not wait for trade to come to it, after the old fashion, but seeks it. In recent months the trade of some of the brokerage houses has been so great that the clerks and accountants

have again been forced to work until far into the night. The most sanguine believers in the future of the stock-brokerage business say that they expect to see the day when Stock Exchange memberships will sell at $100,000, when 2,000,000 shares of stocks will be commonly sold in one day on the Exchange, when the membership will have to be increased, and when the London system of fortnightly (or weekly) settlements will have to be adopted instead of daily settlements, as at present. The business of a brokerage house with sufficient capital, good customers and members of the firm who do not speculate is one of the best money-making concerns in the world. The interest of the public in speculation is no longer confined to the big cities. In a New Hampshire country town, last summer, I counted three brokers' offices. A Wall Street man traveling on the Pacific Coast was recently asked in a small town to address a gathering of men at the Y. M. C. A. on the stock market. One New York "wire house" controls a dozen Exchange members in cities from Canada to the Gulf and from the Atlantic to the Pacific; and it has correspondents in Europe.

THE SPECULATORS

There are all kinds of speculators, from those who speculate in corporations to the smaller fry who buy and sell ten shares at a time. The speculator in corporations is one who already controls one corporation or more. He wants another. Together with his friends he proceeds to buy it. Having secured control, he sells it to his own corporation, or he has bought it with the funds of the corporation. He aims for increase of power as well as for increase of his personal wealth.

But a new type of stock speculator has arisen. Professional Stock Exchange traders who dealt in 200 shares a day ten years ago now trade in the thousands. A new class of millionaire speculators has arisen, who deal in speculations of from 10,000 to 50,000 shares; and there are more of these men than is popularly supposed. They win and lose fortunes with very little publicity.

Take the Moore brothers, of Chicago, for example. Less than ten years ago they failed in Chicago in the "Diamond Match crash," which was the sensation of the hour. They compromised with their creditors. Then, as promoters, they organized the National Steel Company, the American Tin Plate Company, the American Steel Hoop Company and other corporations. When the United States Steel Corporation was formed, the Moore brothers were taken in on a very profitable basis. As soon as possible, they sold their holdings of steel securities and wisely bought control of the Rock Island Railroad system. Forthwith they proceeded to enlarge the system and readjust the capitalization. Today, their financial position is considered by railroad men and Wall Street men to be impregnable. Such men as the Moore brothers constitute a new force in Wall Street.

THE LITTLE SPECULATORS AND THE FRAUDS

Cynical Wall Street men believe that almost everybody speculates. They know that the clerks and office boys do; they occasionally stumble over that unfortunate person, "the lady speculator"; they hear of "bucket shops" suspending with liabilities of from $750,000 to $1,000,000, and they wonder where the money comes from and how outsiders are so easily deluded. Investigation shows that the number of small speculators imbued with a desire to get rich quickly increases every year. Some fraud is sheltered in every pretentious office-building in the district. Lithographed stock certificates of mining, oil-well, and other prospective companies are scattered everywhere throughout the country. The frauds send out millions of seductive circulars to savings-bank depositors and business men. Women, too, are their victims.

THE FUTURE

Wall Street is always looking ahead. It is its business to discount the future. Already it is taking stock of the crops. Will they be good or bad? Day by day the reports will be eagerly investigated and made the subject of research and statistical study, before the seed is planted, when the crops are growing, during and after the harvest, until a new year rolls around. Seasonable and unseasonable markets, interest rates and dividends, railroad rate-making, tariff revision, Federal control of trust companies, the attitude of the government to corporation publicity, government supervision of insurance companies, and increased banking reserves are some of the subjects that will interest Wall Street this year.

A JACK-RABBIT "DRIVE," FRESNO, CALIFORNIA

Every summer thousands of rabbits are surrounded and killed to stop the damage they do to the raisin vines

Photographed by Maxwell & Mudge

BUILDING A WONDERFUL COMMUNITY

HOW A SANDY WASTE BECAME A PROSPEROUS AGRICULTURAL REGION, AND A WATERING-STATION THE MODERN CITY OF FRESNO, CALIFORNIA—NOVEL ADVERTISING TO BRING SETTLERS—HOW THE FARMERS LEARN AND APPLY SCIENTIFIC AGRICULTURAL METHODS AND COÖPERATE IN BUSINESS—A TYPE OF AMERICAN CIVILIZATION

BY

FRENCH STROTHER

THIRTY-TWO years ago there was but one house in the town of Fresno, in the central desert of California. A hole was dug under it, forty feet deep, into which the inmates lowered themselves by a bucket and a windlass to escape the heat of the day. Around it, as far as the eye could see, stretched the glaring desert, unbroken by any cultivated spot of green. The whole country seemed a hopeless waste—dead and profitless.

Today this spot is the centre of a cheerful community of 8,000 homes, in a land made fertile by irrigation. Ten thousand children attend its public schools. The industries there yield $14,000,000 annually. The raisin crop of 1902 put into the farmers' bank accounts $2,300,000. All the raisins imported into the United States in 1902 amounted in value to only $400,000. In 1902 the oil wells of Fresno County yielded 570,000 barrels of crude petroleum, worth $200,000 before refining. Eighty-nine thousand head of cattle graze on its rich alfalfa.

HOW THE SETTLERS CAME

When a few straggling fortune-hunters came to the county late in the '60's, they were welcomed by this sign, hung over Fresno's one building: "Bring your horses. Water, one bit: water and feed, three bits." Fresno was a "watering station" only. In 1872, however, Mr. M. J. Church conceived the idea of bringing water in ditches from Kings River, twenty miles away, to irrigate the land. His proposal was laughed at as a dreamer's scheme. But persistence won; in 1876 he had water on land within three miles of the town of Fresno, and the first year's crops proved the soil to be fertile. The area of watered ground was rapidly extended. Today there are 360,000 acres under irrigation.

Mr. Church's success revealed the vast

Photographed by Maxwell & Mudge

A RANCH HOME

Covered with climbing roses

possibilities of the region. Here were 5,600 square miles of land, an area larger than the State of Connecticut, with resources to support millions of people. The problem that met the handful of inhabitants was to attract other settlers. The solution of this problem has engaged the energies of the people ever since, and has brought their prosperity.

The Southern Pacific Railroad first tried the time-worn "boom" plan. A city was plotted out on paper, and lots were offered for sale on seductive terms. One original scheme was added to the usual "boomer's" stock. A sort of bargain-counter sale of city lots was held on the following terms: "Buy them on approval, hold them for a few months, and keep them if you find them satisfactory, or get your money back." Women school-teachers in San Francisco bought lots. Speculators bought a few more. Then the promoters of the community went back to the history of New England and Virginia for a lesson in territorial development.

Through agents they organized "colonies" to leave Eastern and European homes to try their fortunes in the land of promise. A ship-load of Danes were persuaded to come in a body to settle a rich tract of land which is still known as Scandinavian Colony; and they met success almost from the start. Their example stimulated others. Fresno Colony, Holland Colony, Central Colony, Perrin Colony, and other colonies were soon filled with farmers. Some were failures, because designing real estate dealers had misrepresented some of the land; but most of them were successful. Most important of all, however, these colonies filled the district with men who were willing to work, and who had to stay because they had staked their whole fortune on the change.

Photographed by Maxwell & Mudge

PICKING ORANGES

The crop is ripe in January

Doctor Eisen gave the country its next great impetus in development. He had come to California from Germany. To save the expense of importing his wines, he experimented in growing grapes. A few acres planted in vines throve well, good wine was made of the vintage, and a new industry was started. So widely has his success been imitated, that to-day Fresno County produces 12,000,000 gallons of wine a year. But the value of his work did not cease here. A look at the vineyards of the county tells an added story.

Photographed by Maxwell & Mudge

IRRIGATING AN OLIVE NURSERY

Showing the method of running the water in ditches between the trees

In the hot September sun that beats down from an unclouded sky, thousands of acres of spreading vines cover the sandy soil, hiding beneath their luxuriant growth of leaves the huge bunches of white grapes from which raisins are made. Into the country at picking time flock thousands of Chinese and Japanese, followed by other thousands of white laborers from all parts of the United States. Even the dull Digger Indian, the lowest type of savage in America, knows the time of the ripening grapes, and comes from his home in the Sierras to join the pickers. In a few days the vineyards are alive with men, cutting the bunches from the vines, and spreading them out on square, wooden trays, that lie on the ground, tilted to catch the sun. A few days more and the trays must be turned, to expose the under side of each bunch of grapes. In two weeks the plump grapes have withered and shriveled to a third of their former size, becoming a deep purple. In the process the sun has drunk up most of the juices, and has crystalized all the latent sweetness into sugar within the skin. The grapes have become raisins.

Now the raisins are put in close boxes to "sweat" for several days. After this "sweating" is over, long lines of wagons, loaded high

with boxes, begin to deliver their tons of fruit to the packing-houses. In these huge, barn-like buildings they are fed by thousands of men and women and children to endlessly moving machines that tear the raisins from their stems, squeeze the seeds from them, and bring them out at last ready to be packed into pound boxes to make mince-meat all over the world. The crop of 1903 that had been packed by March 31, 1904, was 92,000,000 pounds.

With this vast development of raisin-growing, the county has come into a large share of its agricultural prosperity. The problems that have arisen since have been mainly those of organization, rather than of development of untouched resources.

Photographed by Higgins & Howland

THIRTEEN THOUSAND TRAYS OF RAISINS DRYING IN THE FIELD

A typical picture of Fresno County

COÖPERATION IN RAISIN-GROWING

From the beginning, the final marketing of the vast output of Fresno raisins was controlled by the men nearest the market—the packers. But a few years ago, when one packer cut the price to the New York jobber, another packer responded with a bigger cut. Neither suffered; they both simply bought so much cheaper from the growers, who had to sell to them at the price they offered. For years the growers were in the power of the packers. But at last, in 1898, 649, or 78 per cent. of all the raisin-growers, organized the California Raisin Growers' Association, and incorporated it for half a million dollars.

Every member of this association must be a producer of raisins. He must sign a contract by which he puts his crop absolutely in the hands of the association, to be packed and marketed as the directors deem wisest. Every one delivers his raisins at a packing-house where an inspector of the association sees that they are properly weighed and credited to him. When all the raisins are packed, the directors place them on the market at the best terms available. At the end of the year the net proceeds are divided among the members in proportion to the amount and value of their several crops.

In the first year of its existence, the association handled 32,500 tons of raisins, which netted an average of $2\frac{3}{4}$ cents a pound to the growers. In 1902, 42,500 tons were marketed for $3\frac{7}{8}$ cents a pound. In 1898 the crop brought $1,300,000; in 1902, it brought $3,100,000. The increase in the crop was due to greater confidence in the market, by reason of which greater efforts were made to produce the full capacity.

As this is being written, internal dissensions threaten to disrupt the association. So grave has the danger of a general break-up of settled conditions become, that many men have begun digging out their vines, to fall in with the latest, and probably the final, phase of the country's agricultural development. This is the reduction of the great estates into much smaller lots for "diversified farming."

SCIENTIFIC DIVERSIFIED FARMING

The movement is part of a movement now in progress throughout the United States. The National Government has purchased thirty-two farms in the Cotton Belt, on which experiments to increase the yield of a given piece of land will be carried out under expert guidance and with daily records of results. The latest of these farms to be purchased is Mr. Weichsel's 500-acre home near Dallas, Tex., which Doctor Spillman, an agrostologist from Washington, and Prof. L. E. Corbett, a horticulturist in the Bureau of Plant Industry at Washington, have recommended for the purpose.

Photographed by Maxwell & Mudge

DRYING PEACHES

The track is used to carry the trays of fruit from the sulphur-house, in which the pitted peaches are subjected to the fumes before being put in the sun

So in Fresno County, the great ranches of a few years ago are broken up into twenty- and forty-acre lots. Take the Fruitvale Estate, owned by Mr. M. Theodore Kearney. Mr Kearney bought a great tract of land in the early days, when land was cheap. In the first enthusiasm of the raisin industry he planted most of it in vines. Now he is dividing most of his estate into small lots. He plants part of each lot in alfalfa and puts cattle on it. He builds a house and barn for each lot. Then he invites some small farmer

to take the place, all ready for business, and run it for two-thirds of what he can make on it, with the privilege of buying the house and land after a term of years.

The result of this movement is already apparent to those who remember the Fresno County of five years ago, when one great vineyard after another, many hundreds of acres in each, stretched miles or half-miles into the distance. Now, where these big estates used to be, are small farms of about twenty-five acres, on each of which a neat frame house stands among a grove of fruit and shade trees. Behind the house is a handsome barn; behind the barn, and on both sides of it, are fields of alfalfa, on which graze a small herd of cows. A hay-stack, hives of honey-bees, and a few pigs complete the scene. The picture of five years ago suggested the first conquering of the desert, and conveyed a hint of the crudeness of the earlier days. The picture of to-day is of a settled community, in which progress has gone on until the conditions of life have become stable.

Many of the small farms are devoted mainly to producing milk. The Danes who settled in Fresno began the business of making butter for sale. In 1895, fifty Danes organized a creamery association on a coöperative plan. They built a frame house for a creamery Each member of the association was supplied with enough large milk-cans to hold all the milk that his cows could give After the evening milking, when the cream had been separated from the milk, the farmer put his milk-can at his gate beside the main road. In the early morning the creamery wagons rattled by on their rounds, collecting the cream from all the colonies. Danish Creamery butter soon began taking medals at State fairs. Fresno butter became famous throughout the State. A greater demand arose than the county could supply.

Realizing that the industry could be much more widely developed, the San Joaquin Ice Company, in 1898, added to its establishment a creamery with a capacity of 6,000 pounds of butter a day. The manager set about to improve the conditions of the dairying business. That the milk might not sour before it could be delivered to the creamery, he established skimming stations at several towns in the country. At these stations the butter-fat is extracted from the milk and shipped at once in refrigerator cars to Fresno. To improve the dairy stock of the county, he imported from eastern States and from the other counties of California animals of carefully selected breeds, which were sold to the dairymen at just what they cost, until 5,000 head had been distributed.

Photographed by Maxwell & Mudge

IN THE FRESNO OIL FIELDS

These barren hills are within thirty miles of the fruit ranches shown on the two pages preceding

NEW METHODS WELCOMED

For many years, every orchard and vineyard in the county has been laid out on a mathematical plan that economizes every foot of soil and reduces the labor of cultivation. Every bearing fruit-tree is carefully pruned every year by an expert to remove all waste growth and to give the branches

proper light and air. No weeds are allowed to grow in any orchard or vineyard. It is a refreshing sight to look across a vineyard a half-mile square, along the straight rows, without a weed in sight.

Soils are studied to learn what can be done to make them yield best. Nearly every farmer in Fresno County subscribes to a fund for agricultural education. After the fall work is done, Professor Hilgard, or Mr. Bioletti, of the State University, comes down from Berkeley to give a series of lectures on soils, on how to fight the "scale" that ruins some of the fruit-trees, or on some other subject of vital, practical importance at the moment. The farmers leave their work for three days and gather at the district school-house, where their wives serve a mid-day luncheon, so that they may spend the whole day hearing lectures, asking questions, and discussing what they have heard. The lecturer proceeds from one school-house to another, leaving behind him a body of farmers awakened to the latest progress in scientific agriculture and eager to put what they have learned into practice.

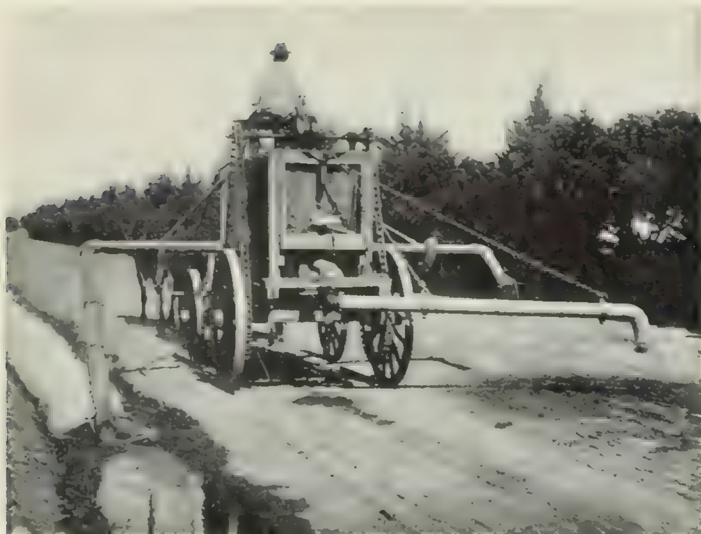
When over-irrigation began to bring the alkali in the soil to the surface, blighting the crops, the farmers appealed to the Bureau of Soils at Washington for expert advice. The Bureau offered to detail one of its men to make experiments in removing the alkali. Two farmers, Mr. Taft and Mr. Hansen, each gladly gave up several acres for experimental work. Other farmers in the county subscribed to a fund to defray all the necessary expenses. The government expert, Mr. Means, came to Fresno, and has continued for more than a year, with the assistance of another expert, a series of costly experiments, which have resulted in the discovery of a cheap and practicable method of removing the alkali from the soil. The farmers paid the bills. They realize that money spent to acquire new ideas and methods is a good investment, and they are willing to spend it freely for that purpose.

Photographed by Maxwell & Mudge

AN IRRIGATION DITCH

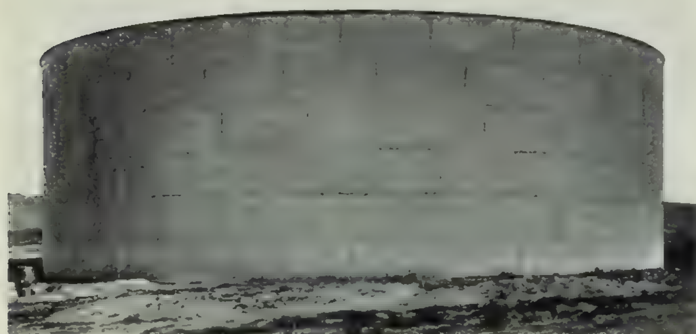
The posts indicate the location of a head-gate, by which the volume of water beyond it is regulated

Nor are the people of the county content to accept the ordinary use of a product as its final one. Their utilization of oil is a case in point. Years ago, when the San Joaquin Valley was a sand-heap, teamsters who had to cross it found in the southwestern part of Fresno County what they called "tar


Photographed by Higgins & Howland
A ROAD SPRINKLER
Automatically fed with water from the ditch

Photographed by Maxwell & Mudge
A FIG ORCHARD IN WINTER
Showing the careful cultivation of the ground around the trees

wells." From holes in the ground oozed a thick black fluid, which made a good substi-


Photographed by Maxwell & Mudge
A STORAGE TANK FOR CRUDE OIL

tute for axle-grease. It was not thought of further until about 1890, when the substance was recognized as petroleum. The usual rush to the oil fields followed, and in 1897 70,000 barrels were taken out. In 1902 the output was 570,000 barrels. The Standard Oil Company and the Atchison, Topeka & Santa Fe Railroad Company became interested and bought oil lands. If nothing further than the usual oil development had come of it, there would have been no unusual significance of the "strike." But the enterprise of the people would not stop here. Crude petroleum runs 15 per cent. in asphaltum. The oil can be bought for about fifty cents a barrel. A mixture of asphaltum and sand makes one of the best pavements known. The roads of Fresno County are almost wholly of sand. Somebody tried a little crude petroleum on a stretch of road. With a few weeks of travel, he had a roadbed that was much like an asphalt pavement, at

Photographed by Higgins & Howland
WHERE THE IRRIGATION WATERS ARE STORED
The first head-gate on the Kings River in the foothills

Photographed by Higgins & Howland
A FRESNO COUNTY COPPER MINE
A comparatively recent development of the mining industry

Photographed by Higgins & Howland

AN ELEVEN-MILE DRIVEWAY

Lined with palms, eucalyptus trees, oleanders, and pampas grass

Photographed by Maxwell & Mudge

ONE OF MANY FINE RANCH HOMES

Where thirty-five years ago the wild antelope grazed

a cost of about $80 a mile. Today there are more than 200 miles of these oiled roads in Fresno County.

Another use has been made of the oil. Heretofore, factory fuel has been very scarce and costly in California. Since the discovery of oil, engines have been invented and are now sold that use crude petroleum for fuel. These engines are much simpler than engines burning wood or coal, and oil is a cheaper fuel. Chiefly as a result of the use of oil as fuel, the manufactures of California have quadrupled in the last eight years. The railroads have found it worth while to reconstruct their locomotives, so that nearly all the engines in California on the Southern Pacific and the Atchison, Topeka & Santa Fe railroads burn oil, which is smokeless, cinderless, cheaper to buy and easier to handle than coal, and requires less attention from the firemen, whose labor has been reduced almost to a mere turning of stopcocks. The railroads also took up the idea of oiled roads. The Atchison, Topeka & Santa Fe alone has oiled more than 1,000 miles of its tracks, making them almost wholly free from dust.

Another example of the invention of new methods to overcome natural difficulties is in the lumber industry. The eastern side of Fresno County extends a considerable distance into the Sierra Nevada Mountains,

Photographed by Maxwell & Mudge

FRESNO COUNTY COURTHOUSE

Set in a 13-acre park in the centre of the city

Photographed by Maxwell & Mudge

A TYPICAL RANCH HOUSE AND YARD

The blossoming tree at the right is an oleander

Photographed by Higgins & Howland

THE CHAMBER OF COMMERCE BUILDING

In which exhibits of the county's products are shown

Photographed by Higgins & Howland

THE METHOD OF HAULING WHEAT

The team is guided with a "jerk-line," and the brake is worked by a strap

where, at an elevation of from 5,000 to 7,000 feet, are heavy forests of white and sugar pine. To cut and saw this timber is not difficult. The problem before the lumbermen was that of transporting the lumber to the nearest railroad station, forty-two miles away, on the floor of the San Joaquin Valley. There were no streams down which it might be floated. Hauling it in wagons was costly, and much too slow. The solution of the problem was the building of a V-shaped flume from Shaver, in the mountains, to Clovis, on the plains, and the building of a reservoir at Shaver to supply the running water to fill the flume. Practically, what was done was to build an artificial stream forty-two miles

Photographed by Maxwell & Mudge

A WHEAT-HARVESTING OUTFIT

Including headers, header-beds, thresher, stacker, and "grub-house"

Photographed by Higgins & Howland

A COMBINED HARVESTER

Which cuts a swath eighteen feet wide, and heads, threshes, and sacks the wheat, and shocks the straw

long, with wooden banks, on a wooden trestle, and to supply it with water. The lumber is now cut and sawed at Shaver, and run from the reservoir into the flume, down which it floats to Clovis, where it is discharged, and either shipped by rail or manufactured into pine boxes. The construction of the flume was no mean feat of engineering. An idea of the difficulties may be had from the illustrations on pages 5838 and 5839. A fairly constant down-grade had to be maintained along steep mountain sides, across canyons, and over six miles of the plains; and the flume had to be so carefully constructed as to accommodate the 180,000 feet of lumber which the mills at Shaver saw every day. The waste water in the flume, after the lumber has been removed at Clovis, is turned into a canal, and carried on into the plain, to be used for irrigation.

Each of the two daily papers of Fresno has a staff of boys mounted on bicycles, who deliver the papers to farmers twenty miles from the city within two and a half hours after publication. The morning paper is delivered in time to be read at the breakfast-table, and the evening paper before supper. The large San Francisco morning dailies reach

Photographed by Higgins & Howland

THE OTHER SIDE OF THE COMBINED HARVESTER

From which the sacks of threshed wheat are thrown. Once a harvester carried a grinding attachment and a stove on the platform, and wheat-cakes were cooked and eaten within a few minutes after the grain was cut—to show that this feat could be performed

Photographed by Higgins & Howland

A CHARACTERISTIC WHEAT-HARVESTING SCENE

Fresno about noon, and are carried to the subscribers at once by a third independent system of delivery. For the longer routes, the papers are carried by an automobile.

THE COMMUNITY ADVERTISING ITSELF

But the most potent element in developing the resources of Fresno County is the public sense of the value of advertising. The people of California have made the State known in and county chambers of commerce, the California Promotion Committee, and the whole system of consistent advertising of the State.

The Chamber of Commerce of Fresno County has nearly 600 members—business men and farmers. In 1903, it spent $2,560 for advertising the advantages of living in the county. This item includes the printing of booklets that are distributed throughout every country of the world. Every one in the United States has a vivid idea of it—probably exalted beyond the truth: of a land where the climate is perfect and where a fortune may be had for the asking—but at any rate, some alluring idea. The wide-spread knowledge was brought about by persistent advertising. It has been good business. Men are needed to develop the land, and they must be attracted to it. Out of this necessity have grown up the city the Mississippi Valley. I picked one up from the counter of a railroad office in Chicago a short time ago. The Chamber spent $2,696 for salaries to men who took care of exhibits of Fresno County products conspicuously placed in public buildings in Los Angeles, San Francisco, and Fresno. It has built for itself a handsome Mission building, costing $2,000, where its meetings are held and where an elaborate display of local products is maintained for visitors to the town.

Photographed by Maxwell & Mudge

A LUMBER FLUME IN THE SIERRA NEVADA MOUNTAINS

The lumber is sawed near where it is cut, and it is floated down this flume to a railway station on the plains, forty miles away

In every one-pound carton of seeded raisins that leaves Fresno for other markets is a small sheet of paper on one side of which are printed a number of receipts for using the fruit. On the other side of the sheet is a map of California on which Fresno County is blocked out in red. A hand points to it bearing the motto, "That's the place." Statistics of the county are printed beside the map. The Chamber of Commerce supplies these to the raisin-packers. Three million copies were printed on one order and inserted in packages of the fruit which went to all parts of the world. The Chamber of Commerce takes a page in each issue of a widely circulated monthly magazine, to advertise Fresno County. Two years ago, it paid a man to go through the Mississippi Valley giving free stereopticon lectures about California and about Fresno County in particular. And it called on the county government to contribute toward making an exhibit at the fairs at Buffalo and St. Louis.

A novel and very successful scheme of advertising was undertaken by one of the railroads. It sent a stenographer along its line in a private car, which was sidetracked every few miles. With the car as a base of operations, the stenographer went from house to house in a buggy. He would make this proposition to every farmer who had come from some other State or country and had prospered in his new home:

"I will take down in shorthand all the letters to personal friends in the East or the old country that you want to write. I don't care what you write, provided only that you will be sure to include something about your success here and what you think of the country. I will bring you the type-written letters to sign, and then I will pay the postage and mail your letters."

Photographed by Maxwell & Ma[illegible]

WHERE THE FLUME DISCHARGES ON THE PLAINS

The mountains from which the lumber comes are in the background

Many took the opportunity to write the letters they had promised and had been too busy to write before, and thus the county secured some of the best kind of advertising.

Visitors from the other States, or from other countries, are never allowed to leave the county without first having impressed upon them the resources of the community and the civic hospitality of the people. Two summers ago a party of German scientists made a tour of the United States to study the agricultural methods of this country, with a view to in-

Photographed by Maxwell & Mudge

A DAIRY HERD GRAZING ON ALFALFA

The men in the field beyond are cutting one of the four crops produced by an alfalfa field in a year

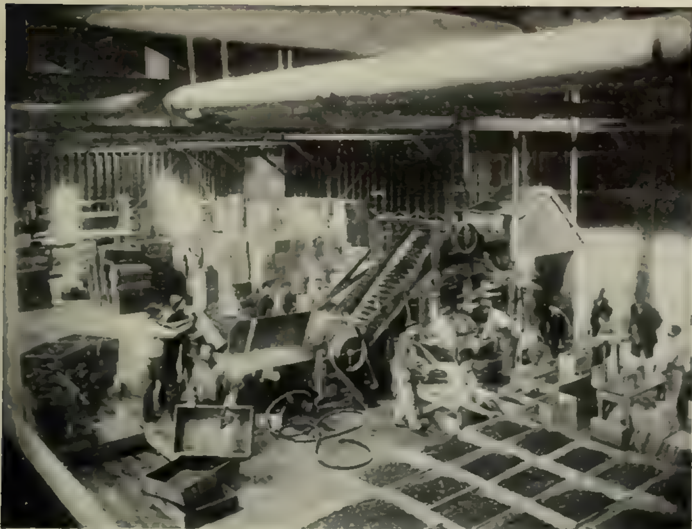
troducing improvements into Germany. They were received in Fresno as the guests of the Chamber of Commerce, and the welcome was extended to them in German by one of the local editors. A large number of the business men of the city left their offices for the day to entertain them. After a rest at their hotel, they were invited to see the more interesting agricultural processes in the surrounding country. A special train was on hand to take them to one of the large vineyards, where the methods of wine-making were explained. At the vineyard, a score of carriages were waiting to carry the party through other parts of the country. In the evening, they were guests at a banquet that had been provided for them, and when they left on their special train to continue their journey, they found it bountifully supplied with cases of wines and crates of fruit.

The nationalities that are represented in the membership of the Chamber of Commerce are symbolic of what is, perhaps, the most remarkable fact in the building of the community—that the public spirit which is manifested by that body is not confined to Americans, but has permeated the foreigners who make up a large proportion of the county's

Photographed by Maxwell & Mudge

A "BAND" OF SHEEP

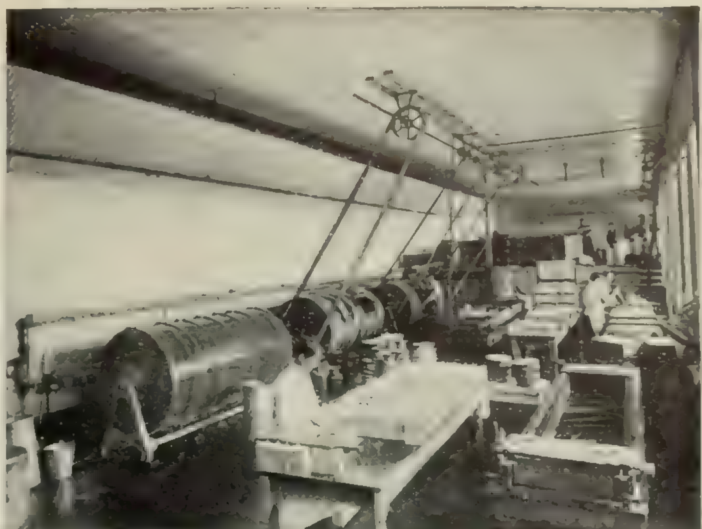
The white splotches among the trees are plumes of pampas grass lining an avenue



Photographed by Maxwell & Mudge

IN A RAISIN-PACKING HOUSE

The machine in front is a stemmer



Photographed by Maxwell & Mudge

THE INTERIOR OF A FRESNO CREAMERY

Packing the butter in tins for shipment

population. Among the members are many Germans, Scotchmen, Englishmen, Danes, Norwegians, Armenians, and Italians; several Frenchmen, one Austrian, and one Chinaman. They include farmers, merchants, bankers, doctors, lawyers, newspaper-men, fruit-packers and commission men, contractors, druggists, lumbermen, paper-hangers, carpenters, electricians, and blacksmiths, whose businesses range from a few hundred dollars a year to several millions. Yet all are united into a harmonious body that works together persistently for the welfare of the community.

To review what has been accomplished by the people of Fresno County, it is sufficient to say that they have built up a civilized community where antelope grazed thirty-five years ago—civilization with characteristics which are distinctive, a combination of the East from which it came, with the new, virile elements of a new country.

Photographed by Maxwell & Mudge

PART OF A 160-ACRE MELON PATCH

A man may walk almost half a mile across this field by stepping from one melon to another

A COMMUNICATION CHART OF THE MARCONI WIRELESS TELEGRAPH

This shows approximately how far from each side of the Atlantic Ocean and from one another certain steamships were on every day of a certain month, and it shows what steamships may be communicated with every day from the land stations and from other steamships. The heavy lines indicate the places from which the steamships start and the places to which they go. The slanting lines show approximately how far the ships advance from one side to the other every day. A new chart is made for every month.

THE ADVANCE OF "WIRELESS"

TRANSATLANTIC LINERS IN COMMUNICATION WITH THE LAND AND WITH ONE ANOTHER — FAR-REACHING SYSTEMS INSTALLED ON ALL THE CONTINENTS — HOW THE GOVERNMENT IS USING THE INVENTION — THE NEW DEVICES BY WHICH EXPERTS ARE PREVENTING "INTERFERENCE" AND BRINGING THE ELECTRICAL IMPULSES UNDER CONTROL

BY

EUGENE P. LYLE, Jr.

WIRELESS telegraphy is already making a commercial success. Go, if you wish, to the nearest telegraph station, and thence you may communicate with a friend on almost any transatlantic liner on the high seas. The service will cost you, exclusive of land tolls, $2 for ten words. Or you may send your friend money, or give notice of legal action against him, or play a game of chess with him. And you might reach him similarly from Canada or England, or from another steamship. The United States, Great Britain, France, Italy, Germany, Holland and Belgium, and Lloyds and the British Admiralty, all have steamship lines carrying Marconi installations. In all, about 100 vessels are equipped. The Atlantic Ocean is charted into squares, as shown in the illustration on the opposite page, and since every ship is constantly in range of communication from land and from other ships, it can be located at any moment and rung up to take a message. Moreover, every vessel is reported hours before her arrival in port.

Newspapers printed on the steamships contain wireless messages. The Cunard *Daily Bulletin* appears every morning on every ship of the Cunard Line, alongside of every passenger's plate at breakfast. The dispatches are labeled "Marconigrams—direct to the ship." On one day the column of news is headed "Received from the Marconi station at Poldhu, England, 280 miles from Liverpool"; next day the head is changed to this: "Latest news received from the Marconi station at Poldhu, England"; the third day the distance is 1,400 miles. The fourth day Cape Cod is picked up, England is cut off, and the head reads: "Latest news through the Associated Press of New York, received from the Marconi station at Cape Cod, distance 1,000 miles."

At the loneliest and dreariest of wireless stations the operator hears the world's pulse beat better than the stroller does on Broadway in New York. A passenger on an ocean grayhound no longer loses a week out of the world's happenings. As the ship plunges on, he learns that the Russians are retreating in good order; he notes the wheat crop reports from Argentina, and straightway orders his New York broker to sell or buy; he learns that a bishop has opened a saloon in New York; he knows which ships have passed during the night, and perhaps has learned something of the people traveling in them.

Each boat has two receivers which do not interfere. The news service, therefore, does not interrupt messages from one ship to another, warnings of icebergs, or messages to the shore. It is from the news service that the men interested in the Marconi system hope for rewards, and, incidentally, the steamship companies which publish the paper secure profits for railroad, hotel and summer resort advertisements. The present news rate to ships is 25 cents a word. But even at a fifth of this a large yearly profit is possible.

There are wireless newspapers on land, also. Towns on islands not important enough for cables depend on wireless messages for their news dispatches. The *Post-Dispatch*, at St. Louis, and *La Presse*, in Montreal, have been receiving the De Forest service. A land newspaper in Amsterdam takes the London stock market exchange reports by the Marconi system. Even the London *Times* has published wireless messages. Last year's yacht races were reported by wireless.

ITS VALUE IN NAVIGATION

Of course, as an aid in navigation the value of wireless telegraphy would be hard to overestimate. Two great ships approaching in a

fog can now warn each other off. With the Marconi instruments the operators can tell approximately their distance apart and the rate of their approach. Marconi declares that he will have his device for estimating distance perfected to accuracy itself, and he is working on a device to direct wireless messages so that they will travel for, say, ten miles without spreading. De Forest has announced a "ship localizer" which will indicate to captains their distance from shore. It should be invaluable during storms—as on the Great Lakes, where a boat three miles from shore can be lost for twenty-four hours. A lighthouse-keeper will set an automatic sender to operating, so that the charge of electricity keeps repeating the signal. With the electrical impulse regulated so that the signal travels only five or ten miles, the operator who receives it will know at once that he is within the danger zone. A number of ships have already been saved by wireless warnings. Finding themselves in distress, they send appeals for help. The *St. Paul* was crippled and delayed, and her exact condition was reported, so that the families of those on board were spared anxiety. Ship-dispatching will some day be made as definite as train-dispatching, and the loss of $40,000,000 in wrecks on our seaboard every year should be decreased enormously.

Wireless is an aid to river navigation. The Marconi system has been installed for the Canadian Government in a series of stations which makes a chain from Belle Isle to Labrador and virtually patrol the dangerous St. Lawrence River. The stations at Belle Isle, Heath Point, Point Armour, Chateau Bay, Fame Point, Sable Island, Cape Race, and other points are doing commercial business. The chain, when completed, will have a scope of 500 miles. The stations keep boats advised of ice and of weather conditions ahead, so that they may steer a clear course. Here wireless systems cover a country where storms constantly blow down wires. Through wireless telegraphy Labrador, for the first time, has telegraphic communication with the rest of the world. An extension of the system on the eastern Canadian coast will do away with many of the perils of ocean liners.

COMMERCIAL WORK ON LAND

For land service several wireless systems are doing commercial work. There is Marconi communication from London to Italy, to Gibraltar, and even to Russia—overland communication for 1,500 miles. It is now maintained that wireless is as adaptable to mountains and valleys as to the sea. In England there are now twenty-four Marconi stations operating on islands. There are four on the Isle of Wight, one in Belgium, one in Holland, one in Germany, two in Italy, and two in Montenegro; and even the Congo Free State possesses two. The most powerful station of all is being built in Monte Mario in Italy, to connect with a similar station in Argentina, 6,000 miles away, where 4,000,000 Italians live. The intention of the builders of the stations is to charge six cents a word for messages which now cost $1.50 by cable.

The De Forest Company have three vast circuits in prospect; one system is to send messages via the Great Lakes to Montana and Seattle, thence to Alaska, Siberia, and the Orient. There are to be stations in San Francisco and Honolulu, Guam, Manila and Hong Kong. This will make a double line of wireless communication across the Pacific. The second system is to be a branch to the Middle West, to El Paso, Sante Fé, Los Angeles and San Francisco; the third will run down the eastern seaboard to Panama, then across and up the Mexican coast to San Francisco. Connecting with this system will be the Insular branch connecting Guantanamo, Key West, Pensacola and Porto Rico. The contract for installing this system has already been made with the United States Navy Department. All of these big systems will be in communication one with another.

The De Forest Company announce that they have now more than thirty stations open for business. The P. D. Armour Company have been using those at Chicago, Kansas City, St. Louis, Omaha and Fort Worth in order to eliminate the expense of maintaining a private wire, which costs $100,000 a year. The stations at Nome and Norton Sound earned, last October, $12,000. Messages are also being received at points in the East and along the Great Lakes, including Providence, R. I., Paterson, N. J., Atlantic City, Washington, Cape Hatteras, Cleveland, and Chicago, and in the Middle West there is communication from Illinois to Texas.

The war in the Far East has shown some of the possibilities of wireless. Admiral

Matussevitch of the Russian Navy tells how, during the naval fight of August 10th of last year, the apparatus on board the *Csarevitch* kept in close communication with other vessels of the fleet, and proved quicker and surer than flag-signaling. Moreover, the apparatus kept working until it was shot away. Early in the war the little dispatch-boat *Haimun*, equipped with De Forest instruments, sent news for the London *Times* and the New York *Times* from its cruising ground off Port Arthur to a bamboo pole 180 feet high at Wei-hai-wei, 200 miles away. In and out among squadrons it would dart, informing the public and the world's cabinets alike of torpedo attacks on Port Arthur, of the sinking of transports, of the destruction of the *Petropavlovsk*. The *Haimun* did efficient work until both Russian and Japanese commanders warned it to stop. On the field the Russians are using a compact little German system. It can be moved as easily as a machine-gun, requires three small cars for power, apparatus and implements, and keeps in communication bodies of troops within four days' march of one another.

THE IMPROVEMENTS BEING MADE

During the experimental stage of wireless telegraphy, the skeptical feared that it might never attain a full usefulness because of certain imperfections. The electrical impulses sent forth by a powerful station would shatter those of a feebler rival. The question was whether such "interference" could be rendered impossible. Moreover, any operator might "tap" his competitor's connections. It was a question whether secrecy could be obtained. A third question was: Could more than one message be taken at the same time?

The inventors have been busy trying to remove the flaws. With Marconi are Edison and Prof. M. I. Pupin as technical colleagues. I asked Mr. John D. Oppe, general manager of the Marconi Company, how far they have succeeded in working out these problems.

He declared that numbers of messages can now be taken simultaneously by a multiplex receiver, the details of which are as yet secret. Moreover, with recent devices the effects of atmospheric disturbance are almost entirely eliminated. During the storm last November, when wires were down out of New York, the city's only communication with certain points was by wireless.

The answer given me concerning competitive interference is that "the circumstances under which a Marconi station could be rendered ineffective by a more powerful one would be not only peculiar, but extraordinary." Immunity from "interference" was promised for the near future. Meantime, codes should suffice for secrecy, and only malicious interference need be taken into account. Several Marconi circuits can, and do, work in harmony, simultaneously, as they do in England, where there are several stations of varying power operating simultaneously for long distance, for naval and for ordinary purposes.

Other inventors are more assertive. To understand what they are working on, one must use a technical word—"tuning," or "syntony." This tuning involves the theory of the wave-lengths of electrical impulses. Receivers are adjusted to take only oscillations of the ether occupying a definite period. All other waves than those for which the instruments are tuned are screened out, so that they cannot mix in and confuse the original message. Prof. John Stone Stone has a system

6 · CUNARD DAILY BULLETIN

MARCONIGRAMS

DIRECT TO THE SHIP.

EDITORIAL OFFICE,
R.M.S. "ETRURIA."

Wednesday, October 5th, 5-00 a.m.

Reuter's latest news received from the Marconi Station, at Poldhu, England. 1400 miles from Liverpool.

THE WAR.

No trustworthy news has come to hand from the seat of war.

THE PEACE CONGRESS.

Senator Hay in welcoming the delegates of the International Peace Congress which was held at Boston, said that the American Government would continue to advocate arbitration in all cases where diplomatic negotiations failed

LADY CURZON'S CONDITION.

London, Tuesday.

Lady Curzon passed a rather disturbed night and is not quite so well.

Wednesday, October 5th, later.

Received from the Marconi Station, at Poldhu, England.

THE ARCHBISHOP OF CANTERBURY IN PHILADELPHIA.

Dr. Davidson, the Archbishop of Canterbury, preaching at Trinity Church, Philadelphia, on Sunday last, said that England and America had resolved to go forward, shoulder to shoulder against the wrong which can be righted.

STOP-PRESS.

We regret to announce that Mr Payne, the United States Postmaster General at Washington, is reported to be dying.

In replying to an address from the Trinity Corporation, the Archbishop expressed the hope that his visit to the United States might contribute something towards cementing more closely the links binding the two great peoples into one.

THE STOCK MARKET

Wall Street.

Rise in steel, issue lifted generally, with market closing firm and active.

Wheat remained steady, but Cotton closed lower.

OBITUARY.

We regret to announce the death of Auguste Bartholdi, the well-known French sculptor.

Bartholdi will be best known to our American readers as the builder of the famous Statue of Liberty in New York Harbour which was commenced in 1889. He is also well known to Americans by his statue of Lafayette in Union Square, and other works.

A FACSIMILE (REDUCED) OF A PAGE OF THE CUNARD STEAMSHIP LINE'S WIRELESS NEWSPAPER

whereby secrecy is made more certain by a "combination lock." There are a group of signals, each signal of a different length, any or all of which, even if received by an outsider, would make only a blur of sound. To be intelligible, the entire combination must be combined by a set of receivers especially tuned to it. On the other hand, all outside electrical influences are cut off, since they are not tuned to "work" the receiving combination.

The De Forest Company maintain that they alone possess tuning devices which prevent interference with messages. Mr. Nikola Tesla declares that he has solved the problem. His invention employs two simultaneous waves, each tuned differently, and working the receiver only when combined. The Fessenden Company refers to the Navy tests at Fortress Monroe, when their station "shut down on request because messages could not be received by the other systems while we were sending, whereas the working of the ships did not interfere with the working of our stations in the slightest." They point also to the working of their New York or Philadelphia stations, where out of thousands of messages only about thirty had to be repeated. They do not maintain that their system cannot be interfered with, but they say that results show that in the near future wireless will be entirely free from the danger of interference.

The coherer, which was the device formerly used for recording messages, has been abandoned for what the inventors maintain is a better device. The coherer consisted of a tube of metal filings. The filings cohered under the influence of the impulse received and completed a circuit. The electrical impulse thereupon made a dot or a dash. But, each time, a tap against the tube was required to make the filings de-cohere, or drop apart. This complicated the apparatus and put a limit on speed. The new device, called a "responder," allows an ordinary telephone-receiver to be used for distinguishing the dots and dashes, though the signals may be recorded on a tape or given on the Morse telegraph sounder.

In the telephone receiver one hears, apparently, the sparks at the sending instrument, no matter how great their speed. This is because the responder recovers after transmitting each impulse. Rapidity, therefore, is limited only by the operator's ability "to take." The responder is an extremely sensitive instrument with a closed circuit. That is, when there are no wireless impulses, the local current is passing through a conducting solution between two electrodes. But with a wireless impulse there is at once a greater resistance in the solution. The reason for the increased resistance is not yet known. This effect of the wireless impulse causes a clicking sound in the telephone receiver. Hence one believes that one hears the very sparks of the far-away sender.

Now, if the diaphragm in the telephone receiver is replaced by a steel rod which is sensitive only to vibrations of a certain length, its note cannot be heard unless the sparks at the sending station correspond in frequency to the adjustment of the receiver. Thus the instruments may be "tuned." In the Fessenden device is a receiver which consists of a minute cylinder of liquid whose resistance is likewise changed by the wireless impulses.

THE GOVERNMENT'S ADOPTION OF WIRELESS

The government, through the Navy, has tested eight systems, the Ducretet, the Rochefort, the Slaby-Arco, the Braun, the De Forest, the Fessenden, the Bull, and the Telefünken. Referring to these experiments, Rear Admiral Manney, chief of the Bureau of Equipment, says that "the question of interference was believed to be much more serious than now appears to be the case."

Five departments of the government early began experimenting, and each had its own pet system. The Weather Bureau wished to erect and control certain coastwise stations. But the Navy Department protested that the Navy should control the entire coastwise system as a part of the national defense, maintaining, however, that the Navy would "interfere with commercial interests as little as practicable, though commercial stations should be so placed and conducted as not to interfere with the operation of the government coastwise stations." The Navy also desires and expects that the Department of Commerce shall make all regulations for the conduct of the commercial wireless business, to prevent "interference." At the same time the naval stations will transmit all Weather Bureau reports to and from ships at sea. The Navy maintains, too, that its operators should be employed in time of peace so that

in time of war they may be familiar with their duties and with the secret codes and signals of the coast neighborhoods and the character of the shipping around them, arguing that civilian operators, such as Weather Bureau men, could not so well be relied upon in time of war. Briefly, then, the Navy demands that it have first place on the coast, and supply to other departments the service that each needs.

But the other departments prefer claims also. The Army has operated six stations and is installing two others like those at Nome and St. Michaels, at Fort Wright, Fisher's Island and Fort Schuyler, in New York Harbor. These are for use by the Signal Corps. The Treasury Department contemplates stations for the Life-saving Service and the Revenue Marine Service; it at present employs a leased wireless system. The Weather Bureau has a station at an important point on the Pacific Coast, where the Navy wants one, and the Navy has others where the Bureau wants some, too.

The Navy now has twenty-one shore stations and thirty-one ships equipped with wireless. The department's Bureau of Equipment is also establishing some long-distance stations around Colon, Guantanamo, San Juan, Key West and Pensacola. Sixty more are in contemplation, to form a complete system embracing Porto Rico and the Panama Canal zone. One hundred and two ships will be equipped, besides torpedo-boats and gunboats.

As a result of these activities, the President appointed an inter-departmental Board to consider the government's attitude to wireless. The Board first ordered all the planning suspended. It concluded that the Signal Corps and the Weather Bureau, as well as the Navy, by their experiments had done much for the science of wireless telegraphy. It concluded that wireless is of paramount interest to the government through the Navy Department, and for interior uses through the Army also; and that interference between stations of these two departments should be provided against. It concluded that the coastwise service is not a necessity for the Weather Bureau, provided the Navy can collect for it the necessary weather data. It decided that representatives of more than one department should not be quartered at any station. And, finally, it concluded that the government must regulate commercial wireless among the stations and between nations.

The Board recommended that private stations should be placed under full government supervision, not only for their better operation, but "to prevent the exploitation of speculative schemes based on a public misconception" of wireless telegraphy. And to prevent the control of wireless by monopolies or trusts, the Board deemed it essential that the supervision be placed in the Department of Commerce and Labor.

On the Board were Rear-Admiral R. D. Evans, Rear-Admiral Manney, Brigadier-General A. W. Greely, Willis L. Moore of the Weather Bureau, and Joseph L. Jayne, Lieutenant Commander in the Navy. In the opinion of Admiral Manney there will be some definite wireless legislation during the present Congress. It is "most necessary to prevent chaos," he declares.

It may be reasonably taken for granted, then, that technical difficulties are overcome, or will be soon. This means that the widespread and commercial use of wireless is assured.

WHAT THE FUTURE HOLDS

What, in consequence, does the future hold? Are wires and cables to become obsolete? What new and marvelous services are to be performed for the ordinary citizen? How will commerce be affected? What will the political effects be? And the nations—huge belligerent individuals that they are—how will they be affected?

Cables are expensive things to abandon. Three hundred millions of dollars are invested in them, and two billions are invested in land wires. Yet expensive machinery is constantly thrown aside for newer machinery that does the work even a little better. So consider the menace of wireless to wires and cables. Estimates would show that a wireless system can be established, operated and maintained at from 1 to 5 per cent. of the cost of telegraph and cable systems. Even after construction the telegraphs and cables cost tremendously for maintenance, while the current expenses of wireless are extremely light. The annual cost of cables is $100 per mile; the cost of land wires, $30; of wireless, $5. "In three years," says Professor Fessenden, "the cost of a wire line will amount to more than the total cost of installing a wireless system.

The speed of wireless—thirty to fifty words a minute—equals the speed now maintained by wires, and exceeds that of the cables."

But will wires and cables go out of existence? A cable company in Brazil has installed a wireless system. The Eastern Telegraph Company will use a wireless system in the Azores, where the steep banks make a cable landing difficult. Yet the telephone did not drive out the telegraph. Elevated railroads did not ruin the surface lines in New York. Business grows faster than facilities. But whether the argument will hold good after wireless stations exist at every crossroads remains to be seen. For the present, however, the new device has a field of its own to develop, and some time must elapse before its competition can be alarming. Many promoters of wireless systems say that they would not sell cable stock if they held it, while others predict a slump of two-thirds in its value within twenty years.

Experts point out another possibility. Trolley lines, electric-light establishments, all electrical industries cause disturbances which weaken the power of land wires. They see in wireless an escape from this menace.

Law already controls not only the surface of the earth, but its depths. And now civilization requires that law shall control the atmosphere. The ownership of the sky calls for regulating. So eight nations have been conferring and drawing up protocols to prevent the monopoly of the heavens.

In the preliminary congress at Berlin the delegates from America, Germany, Austria, Spain, Italy, France, Hungary and Russia drew up a plan for an international convention, as follows: The service of operating wireless stations is to be organized so as not to interfere with the service of other nations. Coastwise stations are to receive and transmit telegrams from ships without distinction as to systems employed by the ships. The tolls for such international communication are to be fixed. Stations, where possible, must give priority to calls for help from ships at sea. Furthermore, there must be a universal code and universal tuning (except in secret cases), and the bickerings of rivals must be silenced for the common good.

This recognition forecasts a mammoth expansion of wireless communication. Prof. A. E. Dolbear, of Tufts College, the first to enter a wireless patent at Washington, says that its "possibilities seem well-nigh limitless. At the time of the introduction of the telephone, hardly any one imagined its commercial importance; so it is not unlikely that wireless telegraphy will have a similar history." Then he adds: "When the wireless waves can be directed like light waves, instead of being allowed to scatter as now, the efficiency of the wireless method will be enormously increased—but what is the use of trying to tell what a healthy baby will grow to be?"

It may be, however, that wireless will enter almost every sphere of human activity. In railroading, there will be small excuse for collisions when an engineer can be overtaken between stations, or when he can hear from a fellow engineer on the same track long before the fatal curve is reached. Already London is trying a wireless fire-alarm system. Perhaps the device can even be made automatic by a thermostatically controlled attachment.

An inventor is in the field with a wireless telephone, another with a submarine wireless telephone. A Frenchman declares that he has a tel-autograph which by wireless reproduces handwriting. Airships will of course wish to communicate with one another; at the St. Louis Fair one has already "talked" with the earth by wireless. And can a torpedo be guided to its victim without a wire?

Indeed, the most astounding prospect of all is that suggested by Mr. Nikola Tesla—for Tesla proposes the use of wireless in transmitting energy. Ponder a moment on what such a thing would mean. A central plant would generate power and send it out to customers via the air alone, whether across a desert or over the high seas. An automobile climbing the Alps might get its "push" from London or Paris. An ocean liner would need no boilers, no engines, no dynamo, no coal. Steam, heat, light, would all come to it from the land. A lone ranchman in Arizona might set up a pocket-receiver and learn the latest news. Millions of such little receivers might be operated from a single central station. Even the mantel clock in a country home might tick in unison with every other clock in the world, all responding to the same wireless impulse.

Other inventors say that the wireless transmission of energy can never be; it is impossible; it is contrary to all natural laws. But, before now, experts have declared a thing impossible which has later come to pass.

A PLAN FOR SIMPLER LIVING

ADHERENCE TO A FEW SIMPLE LAWS WILL BANISH THE ILLS ATTENDANT ON MODERN CITY LIFE AND INSURE PHYSICAL WELL-BEING

BY

GEORGE P. BRETT

PRESIDENT OF THE MACMILLAN COMPANY

THE enormous increase in recent times of our urban population has brought about many changed conditions of life to which our personal habits have not yet adjusted themselves either with nicety or to our best advantage and most thorough well-being. There is a constant drift of country-bred young men and women to our large cities. Many of these come in time to positions of prominence and trust and acquire wealth and influence. But they continue the diet of their earlier life, except as increasing luxury conduces to greater personal indulgence, and they adopt sedentary habits and refrain from the exercise necessary to bodily health, which was obtained earlier by the natural demands of country existence.

Owing to the absence of the necessity of manual labor, there arises a need for such artificial exercise as golf in one stratum of the community, bicycle riding in another, or the various exercises, descriptions of which appear in advertisements in the newspapers and magazines. Still other people, usually of the wealthier class, indulge in massage, which, taken without effort, has become so prevalent among certain people as to be called "the lazy man's exercise."

Any of these, if persevered in, would keep one in bodily health and strength; but, unfortunately, few people have strength of mind and energy enough faithfully to pursue any artificial course of exercise for any length of time in the face of the increasing demands made by modern business life and social engagements. Hardly a day passes that the newspapers do not chronicle the death by pneumonia or other preventable disease of some widely known citizen still in the prime of life, or the disablement of some man of affairs by "nervous exhaustion." Many business men, especially between the ages of forty and sixty, are taken, at least temporarily, from active business life by "nervous prostration," a disease, so-called, which is also found among women. Indeed, so prevalent are these nervous troubles that the newspapers are never without advertisements of articles for their amelioration and cure. A recent series ascribes all such ills to a favorite breakfast beverage, and it has evidently achieved success in inducing many people to forego it.

The fact is that we of the cities are in danger of forgetting what our arms, legs and bodies were given to us for and to what use they were put through countless generations of our forefathers. We no longer take thought of the activities of man in his earlier struggles with nature, through which he acquired strength and sound health. Having obtained dominion over the earth, we forget also that our bodies must surely deteriorate unless artificial activities and exercises take the place of the earlier struggles.

It may be objected that we, especially those of us who are city-dwellers, now live in an age when machinery performs most of the tasks formerly requiring the brute strength of mankind, and that the cultivation of the mind is now our chiefest aim. But what boots it, if our bodies waste and grow impotent and our years are dragged out in increasing bodily infirmities and disease?

If, then, artificial exercises are impracticable for the majority of our city populations, as they now live, it stands to reason that we must modify our habits in some other way to adapt them to the new conditions. And I think it quite possible to adopt a method of living much more suited to urban existence than that now commonly pursued and one that will increase the energy of the race rather than decrease it, thus qualifying it for the moderate physical exertion called for in

modern crowded communities. That a change in our habits is desirable, especially in our diet, is shown by numerous fads. An association of individuals whose aim was to do away with breakfast, and others to limit the number of meals taken in a day, have been active, and their adherents have benefited by the abstinence, but none of these has, in my belief, gone to the root of the matter.

An American is known when he travels abroad by his fondness for a meat diet. Meat at breakfast, lunch and dinner is, indeed, his regular habit. And in an active outdoor life, or before middle age, such a diet does, perhaps, no harm beyond an occasional so-called bilious attack; and, indeed, aids the system, perhaps, in the performance of hard manual labor and in repelling the attacks of a rigorous winter climate for one engaged in outdoor work. Its effect on the person engaged in sedentary indoor occupation is to clog the system, lessen its resistance to disease, and bring about a tendency toward its early decay. Though in early life the pernicious effects of such a diet are not always easily detected, long before middle life usually, except with persons of vigorous constitution, they are plainly seen in breakdowns of the nervous system and in the lack of resistance to pneumonia and kindred ills.

Readers who have followed me thus far will at once dub me "vegetarian," but I am not a vegetarian. I believe in the use of meat and all other kindly products of the earth, even including alcohol, but always in that moderation which is made necessary by our modern artificial conditions of existence.

Moderation in the use of meat as food, then, is the keynote of this article, and that means, for most of us having sedentary tasks, the use of flesh as food, at most, once in twenty-four hours, and for many of us only once or twice a week, and even then in the form of chicken or fish instead of beef or mutton. And I am for moderation in regard also to other forms of food, which may safely be partaken of in much smaller quantities than is now usual. Many first-rate modern physicians are, I am aware, directly opposed to my theory. They advocate in many cases, where they are appealed to by persons of the class for whom I am writing, not only the taking of additional food into a system already clogged and unable to make any good use of that already taken, but the taking of additional meals as well, and the stimulating of the appetite by concentrated foods in one form or another. When this fails to produce improvement, they add cathartics to the treatment, and even in some cases drugs to strengthen the heart action in order to induce that organ to work harder to clear the system of a load of deleterious waste food already greater than it can dispose of. Indeed, so great are these evils of overfeeding, and especially the over-indulgence in a meat diet, and the use of cathartics in our modern city life, that I have heard an educated and illustrious foreigner who occasionally visits our country refer to it as "the land of carrion and cathartics."

"About three hours after a meal," said a prominent business man to me some time ago, "I have such a feeling of 'goneness' and exhaustion that I am obliged to go out and either take some whisky or another meal before I am fit to go on with my work!" I was able to assure him that I had been through precisely the same experience; and after some trouble, and against the advice of his physician, I induced him to try my system. The result is that he is better than he has been for ten years, and the unpleasant "goneness" due to the overeating which brings on most of the dyspeptic troubles for which Americans as a nation are noted has departed into the limbo of things forgotten.

"But I should not feel that I had eaten at all," said one of my friends, who, while eating his oysters and steak, had watched me consume with great appetite and relish my simple lunch of soup and rice pudding. But when we compared notes and found that, while I had not lost an hour of a business day since I began my simple diet, he had had two serious attacks of influenza in one winter and never felt up to his work, he admitted that there might be something in my theory, after all.

There is, of course, in following out such a plan of diet, some difficulty at first in finding simple and nourishing dishes, particularly in the ordinary hotel or restaurant bill of fare, which seems to be planned only with the meat courses in view. But many appetizing dishes can be made, especially in home circles, of cereals (not steam cooked, which are bad for the stomach), spaghetti, and the fruits

and salads, which are far too much neglected in our national bill of fare.

The man or woman who tries this plan of simpler living will be condoled with by friends, and commented on, with many a shake of the head, particularly if he or she is a partial invalid. In this case the loved ones at home will do their utmost to dissuade the invalid from what they call the "starving" process. But the continuance of the experiment for even a few weeks, while it will bring a loss in weight, particularly if the subject be fleshy—of the flabby flesh variety, will also bring about a better color, a feeling of life and renewed energy, an increase in strength, a capacity for work, and, above all, in most cases the total disappearance of those troubles of the bowels which are among the most pronounced difficulties.

I should not feel that I had fully described the remedy which I have recommended for the ills of middle life, and which has proved so efficient in my own case and many others which have come to my attention, if I failed to direct those desirous of trying this plan of simpler living to the value of water as an aid to health. In the earlier period of my dyspeptic and nervous troubles, in addition to the remedies of which I have spoken, perhaps without sufficient respect, physicians have suggested to me the use of lithia and other medicinal waters, both aërated and otherwise. My own later experience seems to show that there are no virtues in these—except, perhaps, in cases of organic disease—which are not in pure water as supplied in the city water-pipes. It may, of course, be taken filtered if one is particular.

Water, not iced, but taken at the ordinary temperature, I found to be a most useful food solvent, and taken somewhat freely it will do much to relieve us of many of the ills for which we ordinarily call in a physician, especially if care be taken not to drink it at meal time or within an hour after taking food. While it would be difficult to give the amount that should be taken, as this varies much in individual cases, it may, I think, be safely asserted that it would be difficult to take too much water between meals—provided, of course, one is not a sufferer from any organic disease.

Adherence to the plan of living thus briefly outlined will go far toward bringing immunity from many of the ills that modern city life is heir to—influenza, pneumonia, nervous troubles, and many similar ills; and the story which Ouida relates in one of her recent novels, and which is typical of so many cases of sudden death in modern urban life, will not be the history of one who practices it:

"She had overeaten herself continually. She was naturally very strong, but the incessant eating which prevails and which kills nine-tenths of the gentle-people had been too much for her. When she got cold the over-taxed liver struck work, the lungs were already feeble, and after she had felt a chill she was declared by the physicians to be beyond their aid."

CANADA'S ATTITUDE TOWARD US

THE OPINIONS OF THREE HUNDRED REPRESENTATIVE CANADIANS — NO SENTIMENT IN FAVOR OF A POLITICAL UNION — SHARP CRITICISMS OF OUR LAWS, OUR MORALS, OUR INSTITUTIONS — ENTHUSIASM FOR THE FUTURE OF CANADA

BY

W. S. HARWOOD

In order to determine the precise attitude of Canada toward the United States, I addressed the following question, just before the recent national election in Canada, to three hundred leading men of the Dominion:

"If Canada could be merged into the United States with no loss of self-respect, and with no friction with England; becoming a section of the United States, as the eastern, southern, or Pacific Coast States are sections—not annexed, nor absorbed, nor swallowed up, but completely merged, so that all residents of the continent

above the Mexican line should meet upon a plane of absolute equality as citizens of one country, and go forward to the building up of the continent—under these conditions, would you be in favor of this complete uniting of the two nations?"

The answers received to this letter, and to inquiries I made in a first-hand investigation, show that the Dominion is intensely hostile to any movement looking toward a merging with us.

It was stipulated in the letter accompanying the question that the name of the person answering the question would not be published if he were unwilling. The writers were members of the Dominion (national) parliament—senators or members of the House of Commons—prime ministers, lieutenant governors of the provinces, editors, barristers, manufacturers, capitalists, farmers, business men—in short, the leaders of Canadian thought. Only one, a man of national prominence, requested that his name be not published. The answers form the first authoritative expression of the position of Canada upon a subject which has been discussed for more than a century. And these opinions have been echoed by every Canadian with whom I have talked upon the subject in a recent tour covering more than six thousand miles and embracing every prominent city in Canada and many smaller towns. Only one writer favored a union of the two countries. His letter was unsigned, and the only clue to his identity was the post-mark on the envelope.

It would be impossible to print all the answers, but those that follow give a fair summary.

The Hon. John Charlton, Member of the House of Commons for the north riding of Norfolk, Lynedoch, Ontario, says:

"Annexation will not be considered. In 1866 the reciprocity treaty was abrogated. An attempt was made by Canada in 1873 to secure another treaty, but it was in vain. The United States has been hostile in her tariff treatment of Canada for nearly forty years, and Canada has had very little knowledge of the trade relations existing between the two countries, and has been quite indifferent about them. Canada has sought a market in Great Britain for her farm products. Our relations with that country are nine times greater than with the United States. It is impossible to talk about merging the two countries until we can adjust our trade relations and try others."

Hon. W. Owens, Senator of the Dominion Parliament, Montreal:

"Neither political party in Canada is in favor of annexation, nor is there any sentiment for annexation existing with any creed or nationality of our people. If any sentiment of that kind did exist with a minority, it was effectually extinguished by the hostile tariff your people raised against us, which had the effect of forcing us to seek other markets. Hence we are to-day competitors in the British and European markets. Canadians have all along been in favor of freer trade relations, viz., freer trade in the products of either country or in articles manufactured from the products of either country. While Canadians have always been in favor of reciprocity, which we believe would benefit both, we are not in favor of political annexation."

Hon. James McMullen, Senator of the Dominion Parliament, Mount Forest, Ontario:

"The United States is a large exporter of many goods that we also export, and meets us as a competitor in the British markets. Merging with the United States would utterly ruin our growing manufacturing institutions. In many kinds of manufacturing we are making rapid progress under a very low tariff as compared with yours. Solely out of gratitude to England for the liberties we enjoy under the Union Jack, we have in the last seven years rebated to her from duties imposed upon products taken from England, $18,193,459. This is a rebate on goods taken from England or from any portion of the empire. We grant imperial manufacturers thirty-three and a third per cent. discount, or one third the duty imposed upon outside nations.

"This I think will show to you very substantial evidence of our devotion to the empire and our desire to continue it. Our laws are in many respects very much better than yours. The reckless use of fire-arms in the United States is exceedingly objectionable and a disgrace to any civilized nation. Mob rule appears to be gaining ground in many cities. There is no restraint, apparently, in labor organizations. Business men's lives and property are at serious risk, owing to the imperfect condition of your legislation in treating such organizations in the case of

strikes. Your strike problem is one that Canada has no desire to get mixed up in, I admit that a part of your political system is very good, and possibly from both a better system than either might be created. But, all in all, we much prefer our own to yours."

The note in Senator McMullen's letter bearing on the inefficiency of our laws is echoed in many of the letters. Perhaps we may be led to pause long enough for a little sober reflection at the words coming from legislators and leaders in a neighboring nation. Witness the following letters:

Hon. William Ross, Member of the House of Commons, Halifax, Nova Scotia:

"There are many things in the American form of government that I should be sorry to see applied to the Dominion, such as the vetoing power exercised by your President and the selection of judges by election, which are governed by anything but a sound principle. With us, judges are appointed by the government after long training at the bar. Your dealing with Negroes is most abhorrent to our ideas. A colored man committing any crime in Canada would be tried before a judge of the Supreme Court, and, if necessary, by a jury. For small offences he would be tried in the police court. I should be sorry if the day should ever come when Canada should form a part of the United States."

Hon. Uriah Wilson, Member of the House of Commons, Napanee, Ontario:

"I am utterly opposed to this merger because:

"1. Canada's boundaries are as extensive as those of the United States, and her territory larger.

"2. We have as vast and varied resources in our country as the people of the United States have, and I believe that the next few years will see an advance in the development of the resources of our country beyond the dreams or expectations of ordinary mortals.

"3. Our political institutions are on a better foundation than those of the United States, and more surely guarantee the rights and liberties of the subject, and are freer from corruption, and the possibilities for corruption, than those in the United States. And our system of government is worked out so as to give full effect to the principles of responsible government. I believe, further, that our judiciary is, on the whole, better than theirs.

"4. No matter what terms may be agreed upon for the absorption of Canada by the United States, the Americans could not help showing their national vice of believing that they are 'the' people, and the Canadians would resent this strenuously.

"5. Our educational system is as good as that of the United States, if not better.

"6. Our national character is as healthy as that in the United States, if not healthier, and we know we are building up a sturdy race.

"7. We have bigger institutions, financial, industrial, governmental, educational, and of other kinds, than the citizens of the United States are generally aware of, and these are making for self-reliance.

"8. I do not consider that there would be a sufficient increase in certain businesses, as a result of the merger, to offset the losses to our manufacturers.

"9. I am Canadian born, and the Union Jack appeals to my sentiment more strongly than the Stars and Stripes could ever do; and, no matter what inducements might be offered, nothing could make me feel my citizenship under a new flag so much as I feel it under the Union Jack. Canada and all British dominions have flourished, and their institutions have become strengthened and broadened under the British flag, and now that we are upon the wave of expansion we feel content to live under it still, with all the memories of its glorious traditions."

The Hon. William F. Maclean, editor of the *Toronto World*, Toronto, Ontario, Member of the House of Commons:

"I believe our system is better than yours, and I believe you have social problems that threaten to disrupt your country, one of which is the color question. I have stated on several occasions that it is in the interest of the whole continent that there should be at least two free and independent countries on the continent, working out two experiments of government, rather than one crass republic dominating the whole. It is a good thing for this continent that there is a portion of it in direct touch with England, in that way having advantage of the principles of government that obtain in England. Your government is immeasurably bad, and frankly I must tell you that I see no mitigation of the situation except through another civil war.

"England, and Canada after her, is show-

ing all the world how public ownership and social legislation can improve the condition of humanity. Can you tell me of a single thing that is being done in your country in that direction? Your constitution is a hindrance to progress. Men who are dead and buried for one hundred and twenty years are ruling your land, regardless of the conditions of to-day. In England, public opinion can express itself in six weeks on any question, through an absolutely free parliament. Everything is circumscribed in the United States, and there is nothing in sight but a dictator to clear up the situation. True, our constitution here is a written one, but even it can be amended, and it is more flexible than yours. No merger for me or for Canadians, but, on the contrary, complete integrity for Canada on the continent of North America. When your people admit this and seek to make reasonable trade relations with us, a better condition of affairs will prevail. I have come across the writings and speeches of a great many people like yourself, who try to make your proposition something else than it really is. Call it what you like, but it means Canada's identity disappearing, and the power for good she now is upon the continent disappearing into the worse condition of affairs and of government that prevails in the States."

Hon. W. R. Brock, Member of the House of Commons, Toronto, Ontario:

"The United States has great problems to deal with with which Canada is not afflicted —your great Negro question, as well as your divorce laws and your general laxity in morals, both business and social. We should like to see these reformed before risking a merger."

Hon. Philippe Demers, Member of Parliament for St. John and Iberville, Montreal (Translation.):

"Our laws are more respected, our citizenship obligations are less numerous, public fortune is more equally divided, trusts are less powerful, and struggles between capital and labor are less violent. Allow me as a French-Canadian to add that here we are in a minority which is sure to be respected because it is strong. With you we should be a negligible quantity."

Hon. James T. Schell, Member of the House of Commons for Glengarry, Alexandria, Ontario:

"Compare Canada to-day with the United States in 1820 and everything is in favor of Canada. Compare her to-day on the per centage, or on the per capita basis, or on any other basis except bulk basis, and everything is in favor of Canada.

"We do not want your Negro problem, your South of Europe immigration, nor your laws, nor your disregard of law and order, as shown in your South and Southwest. Canada is now growing fast and drawing her immigration from Britain, Sweden, Norway, Finland, Germany, and the United States. Ninety-two per cent. of our immigrants are from the north of Europe and the United States. Your immigrants are eighty-four per cent. from the Latin races. We have three-fifths of the wheat area of North America; rich in minerals, timber and fisheries; with free lands, free schools, a free people, with the best administered laws in the world. Before 2,000 A. D. the northern states will seek annexation to Canada. No; leave Canada alone; we are going forward under better conditions as we are."

The merging of the United States into Canada is the key-note of many of the letters. At first sight it seems only a bit of good-natured fun, or possibly of satire, but, more closely studied, there appears to be a serious turn to the hint. The Hon. Bennett Rosamond, Member of the House of Commons, Almonte, Ontario, says:

"The merging of Canada into the United States without loss of self-respect is a delicate way of putting an annexation proposal. I admit that something might be done toward a union of the two countries, but it would have to be very gradual. We might begin by taking into the Dominion some of the contiguous States—one or two at a time, say. It would take time, you know, gradually to train your people into a proper respect for law and order, and as this work would be gradually done we could go on until the larger portion, at all events, was absorbed. I do not see any other way of meeting your views. There is very much to be done in your country before any possible union in any other way could be tolerated in Canada. Think of the reckless disregard of the rights of freemen, the lynchings, the frauds and rascalities generally, so prevalent in all parts of the United States. My judgment of the present Canadian feeling is that oil and water will mix more readily than will Canada with the United States."

Hon. F. P. Thompson, Senator of the Dominion Parliament, Frederickton, New Brunswick:

"The question, as put by you, would undoubtedly work out to the lion-and-lamb solution of the bright Yankee—the lamb inside the lion as the ultimate result. With so many practical, and soluble, problems engaging the public mind, it would seem a hilarious idiocy to waste a thought on your fanciful dream. The inevitable destiny of Canada and the United States is undoubtedly to maintain their present autonomy, with the line of cleavage becoming more and more clearly defined."

Hon. Robert Bickerdike, Member of the House of Commons, Montreal:

"I do not see that it would be possible to merge us into the United States without considerable loss of self-respect. In fact, I believe that the only way that the two countries can become one would be for the United States to become annexed to Canada, or, what would be better still, perhaps, for the United States to return again to become a part of Great Britain under the old Union Jack."

Hon. E. A. Lancaster, Member of the House of Commons, St. Catharines, Ontario:

"I am certainly not in favor of any uniting of the two countries under any government other than that of Great Britain. If the United States would merge itself into Canada, as Canada is at present governed, you would have the merging which you suggest, except that you would have the British Crown at the head to whom we should all owe allegiance. I have no doubt this would be much more advantageous to all concerned, and a much better form of government than that of the present United States."

Hon. Albert E. Kemp, Member of the House of Commons, Toronto, Ontario:

"Supposing that you were to inquire of citizens of the United States residing, for instance, in the State of New York, whether, upon the conditions you name, they would be willing to unite with the nations of the British Empire. If you will draw upon your imagination as to what your reply would be, and then apply the principles involved in this reply to people of the same race and blood but of a different nationality, you would have a better idea of what the real situation is.

"Canadians are very much the same as citizens of other intelligent nations—such as those of the United States, for instance. The citizens of the United States believe in their own institutions, and they have a perfect right to, because they are a great nation—they are loyal to the country of their allegiance—they are proud of their country and of its history. The citizens of this country owe allegiance to a different flag, and for the same reasons they are loyal to that flag. If Canada ever becomes consolidated in any shape or form with the United States, it will be because all Anglo-Saxon people on the earth have decided to live in peace and harmony for all time to come under one flag."

Hon. Walter Scott, Member of the House of Commons, Regina, Northwest Territory:

"The 'if' in your question is too big. Practically no Canadian to-day will patiently listen to an expression favoring the union of Canada and the United States on any terms. My belief is that, before these countries approach closer relations, a much closer relation than exists now will be brought about between Canada, Great Britain, and the other parts of the British Empire; and that, at a later period, the United States and the British Empire, comprising together the English-speaking world, without loss of separate autonomy, will unite in commercial and international affairs."

Some writers, however, do not express this allegiance to Great Britain. The following letter, written by a French-Canadian, the Hon. Armand Lavergne, of Montmagny, Quebec, Member of the House of Commons, has in it much that is vital on this point:

"I must first apologize for the broken English which I am going to use in this answer. But of course you will understand that it is always hard to express your ideas or feelings in a language which is not your own.

"The annexation of Canada to the United States is very little talked of in French Canada. We have, most of us, the idea that it must come, that it is fatal, and that we cannot help it. Not that we are in favor of it; no class more than the French-Canadians are in favor of the independence of our country. But it seems improbable that, if the United States wanted Canada, it could not take it, as it has already parts of the Dominion. The protection of Great Britain does not count, as she has always acted the coward before our American neighbors. And therefore

when she favors imperial federation, and argues it as a matter of gratitude on our part for the protection she gives us, we can but laugh, well knowing that no such thing exists in reality.

"So I may well say that, if we had to choose between American annexation and British federation, we should all be in favor of the former; which is a more practical and a more reasonable solution. As between two evils, one should choose the smallest, as we say in French. But we are in favor of becoming an independent country.

"In 1776 all the French-Canadians were annexationists, except very few. But when the Congress let them know that they would not have the liberty of their religion, tongue, and laws, their minds changed altogether, and more so when Washington prevented Lafayette's expedition in this country.

"Now we trust in Providence, and hope against all hope that we will escape that destiny of becoming Americans. Not that we have any hatred for our neighbors. On the contrary, we have had many relations of friendship, especially when we quarreled with England. But I believe, and my people also, that to remain a distinct people, to keep our French language and our religion, to maintain our laws and old habits, we should not be drowned in seventy millions of a different people. Now that we agree better with our English countrymen and are becoming more Canadians than anything else, we have a greater hope of coming to our independence.

"There could be no merging without a loss on one side: loss of dignity, liberty, etc.; and it surely would be on our side, as we are the smaller. It is better to remain good neighbors than to be a divided family. And I do not think the United States would be any better for our possession, as their union is already very large and not quite completed.

"I am a Canadian nationalist, and the idea of causing any trouble to England does not disturb me. She owes us nothing and we owe her nothing: let us go our way, together as long as it goes well, but apart whenever we feel like it. My ambition is for my country alone, a nation by herself, respected by others as she would respect them herself.

"I have great admiration for the United States, but my belief is that we are altogether different and could not agree, united, but would be very good friends as allies."

Hon. J. H. Legris, Senator of the Dominion Parliament, Louisville, Quebec:

"I think the destiny of Canada is to become an independent country, living, working and progressing side by side with her neighbor, the United States."

Hon. Ralph Smith, Member of the House of Commons, Nanaimo, British Columbia:

"The independence of Canada as a nation is becoming more and more distinct, and it is noticeable that, as she develops in independence, her efforts have to be constantly applied against restrictions of the United States, such as alien labor laws and extreme commercial tariffs. These things, coming from a nation replete with abundant natural resources and every kind of natural advantage, bespeak the narrowness of her statesmen and the disposition to live exclusive.

"Canada has become a nation, and is now considering ways and means for closer trade relations with the mother country to unite permanently the bonds of the British Empire. My influence will always be exerted to this end, as I am certain the British institutions are best calculated to develop character."

The following letter, in which independence is considered, comes from one of the most prominent men in Canada, a tower of political strength, who requests that his name be not used:

"Within the last few days the Hon. Elihu Root, late Secretary of War, has said that Canada promises to be as prosperous and great as the United States. I believe in his prediction, and therefore would offer the most unqualified opposition to any suggestion of annexation or merger or absorption. I shall read what you say on this subject with great interest, as it comes very close to myself as a Canadian and to my interest in the future of the country."

Here and there throughout the letters is an earnest word for still closer union with Great Britain.

Hon. Charles Marcil, Member of the House of Commons, Ottawa, Ontario:

"Canada is destined to become even a greater country than the United States, and must carve out her own destinies quite independent of the United States, under the generous protection of the flag of Great Britain, which has afforded our people the

most perfect system of constitutional government—of the people and by the people—which can be found anywhere on earth."

Hon. William McDonald, Senator of the Dominion Parliament, Glace Bay, Cape Breton, Nova Scotia:

"The Canadian people desire—and the desire is growing steadily, gaining strength as the young Canadian grows—to become the foremost part of the great British Empire."

Hon. E. Clarke, Member of the House of Commons, Toronto:

"As far as I am aware, there is no desire in any part of the Dominion to be 'absorbed' or to be 'merged' in the United States. The people of Canada prefer their own institutions, and desire to work out their destiny under them, and as an integral part of the world-empire of Britain."

Some of the letters savor of a glorification of their own nation rather than of any antipathy to the union.

Hon. C. B. Heyd, Member of the House of Commons, Brantford, Ontario:

"No condition can be arranged that would induce the Canadians to sacrifice their right to govern the north half of this continent. The United States is big enough already, and with her rapidly increasing population of various nationalities has all she can do to assimilate and make good citizens of them, without being burdened with fresh obligations. Canadians think that they have a good country and a system of government superior to your own, and we propose to manage our own affairs in our own way.

"We would rather be boss in our own shanty than play second fiddle even in the great orchestra of the United States. We admire the wonderful progress and development of your country, and recognize the material benefits that might result in the merger. *But*, spelt with a big B, we want to manage our own affairs, in our own way. It is worth something to be Boss. Canada has a great future. We are just beginning to realize the greatness of our resources. With the help of some of your superabundant capital and splendid emigrants and our own efforts, the 'Maple Leaf,' not the 'Stars and Stripes,' is going to be the emblem of the Canadian people."

Hon. D. McMillan, Senator of the Dominion Parliament, Alexandria, Ontario:

"I have not heard in all my life a wish or desire, in private or in public, on the part of any Canadian, to have Canada become a part of the United States, in any way or form. Canadians are content and happy under their self-governing and free constitutions.

"The proportion of Canadians of all the races and creeds comprising the population of Canada that have ever given a serious thought of annexing or, as you say, merging their country with the United States—if such thought ever existed—is infinitesimal; this I say openly, and it can be said publicly, as my conviction, without fear of successful contradiction."

Hon. M. K. Richardson, Member of the House of Commons, Flesherton, Ontario:

"As a citizen of this young and growing nation I could not entertain, with any degree of equanimity, the thought of such a union with the United States as your letter suggests—one which would imply the extinction of our individual national life. Give it any other name you choose, it would simply mean absorption. I would prefer, immeasurably prefer, being left to work out our own destiny as a nation, a part of the British Empire—yet a young nation confronted, it may be, with many difficult problems, geographical, commercial, racial, social, and others, yet none insuperably difficult, but enough to develop our genius for self-government.

"Your question proposes a union which you say shall not be that of being annexed, absorbed, or swallowed up, but completely merged into the United States.

"Ask a citizen of Finland why he objects to his country's being merged into the great Empire of Russia, thus making him a citizen of a great empire. The desire for a continued individual national life is instinctive: it overtops all considerations of expediency, utility, or material advantage. It is a great inspiration to feel we are living in the heyday of youth in the morning of a nation's life. We have the added inspiration of the rivalry, the competition of the large free life of your country. We have a country with unbounded natural resources, a future of immense possibilities, plenty of room for individual development and distinction. No country in the world offers greater opportunities to young men of ability and requisite industry to make their mark in the history of human progress.

Our separate national life will be a blessing to the United States if in friendly rivalry we go on striving to develop and perfect a higher civilization than the world has yet known, and working toward the highest ideals of social life and solving, satisfactorily, the great problem of bringing the greatest good to the greatest number, and in peace and amity leading in the van of the world's progress to the great summit of human hopes."

Hon. T. A. Bernier, Senator of the Dominion Parliament, Manitoba:

"Canada as well as the United States has its resources and its pride. It is progressing wonderfully, and has in store a brilliant future. It should be able to paddle its own canoe. According to my views, it would be to the advantage of neither the United States nor Canada to be united closer than they are at present. Better work out our respective destinies separately, in a spirit of sincere friendliness on both sides of the line.

"Moreover, your proposition seems to me to be seriously inconsistent. We could not be merged into the United States without losing our national entity. Our people are not prepared for that, and I hope they will never be."

Hon. Joseph Matheson, Member of the House of Commons, Nova Scotia:

"I do not think Canada could be merged into the United States with no loss of self-respect. In becoming a section of the United States, the larger would be made a section of the smaller. We have tried to get a neighborly reciprocity with the United States, but they would not reciprocate.

"We will endeavor to paddle our own canoe. We have the greatest country in the world; greater in extent of area; greater in natural wealth; greater in fertility; greater in the brain, bone and sinew of our people. We are prospering as no other nation is. We have the ambition to push the development of our country. We have the best administered laws on earth. We are a contented, law-abiding people. Our greatest want is more people to settle up our rich country. We have room for as many of your people as wish to come, but they must be law-abiding."

The Hon. L. J. Forget, of the Montreal Stock Exchange, a member of the House of Commons, maintained that the Russo-Japan War has demonstrated to England the importance and advantages of Canada as a means of access to her eastern provinces, so that England would never consent to part with Canada.

The following letters, coming from men of international prominence, speak for the mass of Canadians. Sir Mackenzie Bowell, formerly Prime Minister, put his views in few words:

"There is no sentiment in the Dominion favoring the absorption of Canada by the United States upon any terms or conditions. The general desire is for a closer union with the mother country, nationally and commercially."

These are the words of Sir Charles Tupper:

"I may say, shortly, that under no circumstances would I favor a union with the United States—and this is not because of any hostile feeling toward them, but because of the greater advantage of living under British institutions and the British form of government. I do not think the mass of our population entertain any other opinion."

The Hon. Israel Tarte, a member of the House of Commons for St. Mary, Montreal, a veteran in the ranks of the public men of Canada, until recently a member of the Laurier cabinet, the proprietor of *La Patrie*, the powerful French daily, a brilliant orator, and a man of widespread national popularity, says:

"I firmly believe the United States are big enough without us and that we are big enough without them. Canada is a very happy country. We have immense resources. We are only beginning to understand and know our country. We feel capable of developing our national wealth. We are free, we enjoy the blessing of self-government under the British flag, which protects us without entangling Canada in Continental troubles and conflicts. I fully recognize the splendid position of the United States. I, for one, would like to take leaves from your book—in matters of tariff, for instance. To sum up, I beg to say that, at this moment, there is not in Canada a shadow of a feeling toward political union with the United States. We wish you God-speed, and we want to paddle our canoe ourselves."

A BACK DOOR MADE ATTRACTIVE

A familiar sight on Beacon Street in Boston

Photographed by A. Radclyffe Dugmore

BEAUTIFYING THE UGLY THINGS

THE ADVANCE IN THE BEAUTIFICATION OF CITIES—IMPROVING THE COMMON UTILITIES — SHOPS, LAUNDRIES, STABLES AND THE BACK DOORS OF DWELLINGS MADE PLEASING TO THE EYE — FREQUENT EXAMPLES IN AND NEAR BOSTON THAT SHOW A NEW INSPIRATION

BY

MARY BRONSON HARTT

WHEN apostles of civic improvement paint a vision of that ideal city which is to be—with its parks, its common, its lovely vistas, its business districts uniform of skyline and innocent of advertising atrocities, and its streets of exemplary homes—they commonly leave something out of the picture. What about the ugly things—the factories, the warehouses, the public laundries, the mills? When we gather together the good things of the city, must we quarantine these ugly ones in a place apart?

We might, indeed, establish a manufacturing gehenna, where mills and "works" might set up a crude picturesqueness of their own. The plan has more than once been seriously advocated. But not all ugliness is even crudely picturesque, nor can all unbeautiful utilities be segregated. What about the honest ugly things which we want handy? How about the corner drug-store, the livery stable, the little grocery round the corner? How about "the cheap wee shop" so indispensable, so uncomely? All these we must

have. Moreover, we cannot banish our engine-houses, police stations, and car-barns. They must be scattered throughout the fairest of our cities. Shall we then accept them as blots upon the civic beauty we fight for, as things necessary, yet inherently ugly?

No. Reform is outrunning the reformers, and is already doing more and better than they had dared to hope. The movement for civic beauty has grown too big for its instigators. It no longer works putteringly from without, but upheavingly from within. It has got down to the people. The industrialism which produced American bad taste has produced American wealth; American wealth has given Americans education and has sent them to the Old World; and now in good season it is giving them insight and a feeling for good things, as well as the means to secure them.

The uplift was bound to show in our building. Formerly, our good buildings were associated with books, pictures, and the church. The last decade or two has taught us that architecture has something to do with office-buildings and the better sort of shops. And now we are being shown that the beauty of good design may touch and transfigure the meanest things which belong to our complex city life.

For a month past I have been searching through Boston and its clustering suburbs for signs of the change. They are not so frequent as to be startling, yet frequent enough to be impressive in the aggregate. They show that objects of sordid utility can be made objects of beauty.

Photographed by A. Radclyffe Dugmore

A RIDING-SCHOOL THAT IS A BEAUTIFUL BUILDING

Perhaps the most brilliant example is a public laundry just completed in Cambridgeport, near Harvard Bridge. The laundry is built in the style of the English Renaissance—did any one ever hear before of a laundry built in any style whatsoever?—of water-struck brick and limestone; it boasts a little copper-topped tower, mullioned windows, decorative cartouches, and carved grotesques along the stone cornice. It is finished with as much attention to detail as if it were devoted to something more dignified than the cleansing of linen.

Photographed by A. Radclyffe Dugmore

AN AUTOMOBILE STABLE MADE A SIGHTLY PART OF A HOUSE

About the success of the general effect there may be some difference of opinion; but as to the praiseworthiness of the enterprise there can be but one voice. It should have far-reaching consequences; for every car crossing Harvard Bridge runs by the handsome building, and every business man who sees it, and hears the astonished comment of passengers, must be set to thinking about the advertising value of architecture. The laundry bears no sign beyond the familiar monogram of the firm carved in stone. It needs no sign. The unique building speaks louder than printed words, however big.

Just across the way from it stands a storage warehouse which deserves attention. It is scarcely beautiful, and yet its battlemented towers and ornamental cornice raise it above the level of storage-warehouse architecture. It is something more than a huge rectangle of brick. Its semimilitary style makes it a not altogether objectionable neighbor for a fine arsenal next door. Here is food for

Photographed by John Odum

A BEAUTIFUL STONE TOWER SURROUNDING AN UGLY WATER-WORKS STANDPIPE AT WOLLASTON, MASSACHUSETTS

Photographed by A. Radclyffe Dugmore

A STABLE IN BOSTON THAT IS A FINE BIT OF ARCHITECTURE

Photographed by A. Radclyffe Dugmore

A STORAGE WAREHOUSE THAT IS NOT AN UNLOVELY CUBE OF BRICK

Photographed by A. Radclyffe Dugmore

A LAUNDRY UNIQUE IN ITS ARCHITECTURAL EMBELLISHMENT

Photographed by A. Radclyffe Dugmore
A POLICE STATION AND A FIRE-ENGINE HOUSE SATISFACTORILY COMBINED

thought. Can we not make ugly things inconspicuous by harmonizing them with their surroundings?

Cross Harvard Bridge, and you come presently to two livery stables, both well built and well-kept. One is a mere bulk of red brick with round arches cut in the blank front wall; the other is a fine piece of commercial architecture. Pompeian brick, wrought-iron bracket-lamps, and above all a design, make this stable an ornament, not a disfigurement, to Massachusetts Avenue.

Photographed by A. Radclyffe Dugmore
A NEAT AND PLEASING CORNER GROCERY

Whether the beauty pays, I do not know. But I am confident that nine suburbanites know where to find "K. & C.'s" to one who notes the situation of the commonplace stable over the way.

The automobile may eliminate the ugliness and unpopularity of private stables in residence neighborhoods. On one of the finest streets of Old Cambridge there has recently been built an automobile stable standing almost flush with the sidewalk. No one

Photographed by A. Radclyffe Dugmore
AN ARTISTIC LAUNDRY DOORWAY

complains, because that stable is an integral part of a charming half-timbered dwelling; the automobile simply goes in by a magnified door of its own.

In general, ugly things invade our streets in groups. Consider the wretched "business centres" of otherwise charming suburban towns. Consider the clusters of heterogeneous buildings, the unlovely shop-fronts on reformed dwellings, the general air of huddled, disorderly sordidness. Is there anything to be done about it? Here and there a town has solved the problem. In Belmont, the

butcher, the baker, the candle-stick maker and the corner druggist set forth their wares in the small windows of an attractive, half-timbered block which would not disgrace the streets of modern Chester. It is an honest block, too. Its back is as ornate as its front. Quincy has its quaint, half-timbered Adams Block, though that is somewhat spoiled by too ample show-windows which do not agree with the architecture. Winchester has its shops in a pretty row built in the so-called style of Queen Anne.

Photographed by A. Radclyffe Dugmore

THE BACK OF A BUILDING MAY BE MADE AS BEAUTIFUL AS THE FRONT

The Hotel Somerset in Boston

Nothing hinders similar arrangement in local shopping centres in cities. If a pictu-

resque row pays in a small community, it should pay better in a large one. And if half-timbered or Queen Anne construction is not in harmony with city streets, our architects will not be slow to discover a style which is.

Of course, such blocks as these imply either united action on the part of shop-keepers or the investment of a large amount of capital by one man. You cannot get rid of all "cheap and nasty" local shops in that way. The owner of a little shop in Cambridge, made over from a frame dwelling, has made it effective by putting on a pretty half-timbered front. From some positions the sham is obvious, but, even so, the street is the richer for it.

The little town of Waverley furnishes an example of a still more modest, yet attractive, shop. The owner of a tiny grocery of the sort which usually is housed in a story-and-a-half shack has put up a picturesque cabin of weathered shingles, with a rich green roof, a rustic porch, and an old-time, swinging sign. That grocery is on the line of summer traffic, and it baits its windows for excursionists much more effectively because of its quaint prettiness.

A Boston restaurant uses a street-sign painted, one would say, at least by a "competent" artist—an old English serving-man bringing in the roast, the figure being done in color on gold and protected by glass. It is a gay enough note amid the dinginess of School Street. Does it hint that we may one day have our shop-signs executed by Maxfield Parrish?

Thus far we have been dealing with the ugly things that come about through private initiative, and of individual efforts to reform them. No small proportion of the ugly things in our cities are chargeable to the taste of the city departments. There is no reason, for instance, why a police station should be a heavy, forbidding mass of red brick; yet such they have usually been. No doubt the effect on the criminal is depressing, but we must all look at the police station; and why should the innocent suffer with the guilty?

The town of Brookline has answered that question by putting up a police station which is, in its less pretentious way, as good as the Boston Public Library. A light granite is used for the basement, which, with its con-

Photographed by A. Radclyffe Dugmore

THE PUMPING-STATION AT CHESTNUT HILL RESERVOIR, NEAR BOSTON, IS NOT MERELY UTILITARIAN, BUT IS ALSO A DELIGHT TO THE EYE

spicuous horizontal jointings, gives rich light and shade. Above this the building is of creamy brick, crowned by a rich cornice in copper of a greenish finish and a green slate roof. It is beautiful enough for any purpose, and yet it does not architecturally contradict its present use. And one wonders whether the $75,000 which was spent in building it was much more than the cost of one of those lumbering structures in the "municipal" style of architecture.

That an engine-house, any more than a police station, need not be an injury to its neighborhood—æsthetically, that is—Boston has abundantly proved. The city's fire headquarters is modeled after the Palazzo Vecchio in Florence, its characteristic tower rising above the dingy confusion of the South End. What is good architecture for a palace is not necessarily good architecture for a fire-station, and it may be useless to build fire palaces among the huddled rookeries of Dover Street. But the Boston Palazzo Vecchio demonstrates that there is nothing in the practical demands of an engine-house to preclude its being provided with a good exterior.

If it be argued that such elaborate buildings as this waste the public moneys, then Boston points to an example of municipal art without extravagance. On Boylston Street near Massachusetts Avenue is a combination fire- and police station, a simple Romanesque building in pressed brick with brownstone trimmings, not magnificent, yet eminently satisfactory to the eye. The housing of the two departments in one building was both a stroke of art and a stroke of economy. It saved land and it saved brick. Moreover, it saddled the neighborhood with but one official building instead of two.

Reservoir pumping-stations used to be of coarse red brick, long and low, with disproportionately tall chimneys; they slandered the beauty of our rivers, our lakelets, our reservoir pools. But two pumping-stations of another kind stand on the shores of Chestnut Hill reservoir. They have high chimneys; no one has as yet devised a scheme to conceal the water-works smoke-stack. But the buildings, barring this feature, which is fortunately not obtrusive, are admirable. The older one, the "high-service" station, does not, perhaps, clearly express its purpose—its Romanesque tower and gray and brown stone construction suggest one of Richardson's libraries or town-halls. But the "low-service" station wins our keenest admiration. Built of light granite, in the purest of Renaissance style, it is more than beautiful: it is a delight. And beyond the pumping-station is another beautiful ugly thing—a gatehouse, silhouetted against the water of the reservoir. No blind brick hut this, such as usually bears the name of gatehouse, but a little graystone building, wide-eaved, with decorative window grills in green-finished iron—a building exquisite in proportion, in finish, in design.

Speaking of ugly things appertaining to a reservoir, we must not forget the standpipe—that fat, red tank on trestles which erects its ungainly head upon a hundred lovely hills. The standpipe is a necessity; but that it need not be ugly is shown by the accompanying view of Wollaston tower. When a charming orchard-covered hill in Quincy, Mass., was crowned by an obnoxious standpipe the authorities inclosed it within this fine gray tower. What had been an eyesore became an entirely new beauty.

Among other semi-public disfigurements nothing could be more unnecessarily ugly than the car-stations and waiting-rooms of trolley lines. A one-story shed with a frontage of two or three hundred feet, flat-roofed save for a cheap pediment perched somewhere near the centre, the whole featureless structure painted dirty yellow or cheap Indian red—that is a typical suburban car-station. But at Lexington Park the railway has put up a station which marks a distinct advance. The whole building is of golden-brown shingles, and the inevitable flat shed is flanked by peaked-roofed, octagonal wings, housing the offices. It is certainly the best of car-barns.

One more example—perhaps the most significant of all. Out in the Back Bay, at the entrance to Bay State Road, there stands a row of houses which turn their faces toward Commonwealth Avenue and their backs to Beacon Street. Three of them—so much conscience have their owners—are provided with costly and elaborate back doors, impressive graystone portals of classic design and detail. Now we are familiar enough with respectable back doors, irreproachable back doors, but I think that the back door which makes pretensions to beauty is something entirely new. Think what it would

mean to Boston had Beacon Street people chosen to make beautiful the backs of their houses, instead of turning toward the Charles blank walls of ignoble, even stupid ugliness! The same comment might be made of dwellings in other cities.

Those three beautiful back doors symbolize the movement to reform the ugly. They follow the unwritten law that one has no right to inflict unsightliness upon one's neighbor. They are a standing protest against the essentially low-bred notion that beauty is only for show. They point the moral that ugliness has nowhere an excuse for being.

Do we not all remember when the delivery wagons even of prosperous firms were things of ingenious ugliness? There came one day into a certain city a brand-new, shiny black wagon bearing a sign in Old English lettering in gold. It was scarcely a week before other tradesmen took the hint. Black enamel and tasteful gold lettering supplanted the old-time gaudy paint as fast as new wagons could be ordered or old ones reformed. So it will be with a score of other unbeautiful utilities—when once the way is shown, the commercial world will make haste to supersede them.

Moreover, the American people are quick to learn better ways. Let them once see that industry need not be associated with ugliness, and they will demand that the industries they patronize be housed in sightly quarters. The American people do not always know what is ugly; they will put up with monstrous things in architecture; but—I have it on the authority of an architect of national reputation—give them a really good thing, and they may be trusted to like it. A few generations of good building will open their eyes. They will demand what is good. And what the people want, they will get.

So, then, the city of the future is not to be a thing of patches. Like the Greek cities which antedated the machine age, and those exposition cities of our own day which have risen above the disfiguring influence of the machine, it will be good through and through. Its factories will be sightly, and so will its gas-tanks, its voting-booths, its grain-elevators. The devising of comely forms for such uncomely things will tax the ingenuity of our architects. But success will mean the greater triumph.

THE FAR EAST AFTER THE WAR

THE AMBITIONS AND POLICIES OF THE TWO CONTESTANTS —RUSSIA FOR EXCLUSION AND MILITARISM—JAPAN FOR THE OPEN DOOR AND THE RECONSTRUCTION OF CHINA

BY

BARON KENTARO KANEKO, LL.D.

WHEN, and perhaps how, the war between Russia and Japan will end it is impossible to say. Russia asserts that she will fight a year, two years, or many years, but always until she ends the war as she intends. Japan must fight, and is willing to fight, to the last penny and the last man, for to her the struggle is more important by far than it is to Russia. For Japan, not only her national hopes and her national ideals are at stake, but also her national existence.

Japan is fighting a life-and-death struggle; her opponent is full of stubborn resolution and fired by vast and greedy ambitions. The struggle, therefore, may be as long as it is fierce.

No uncertainty, however, as to the outcome can obscure our perception of the consequences that will follow either Russian or Japanese success. Such consequences are written big in the history of the two powers, and no less big in their present attitude toward modern progress. One, though Oriental, stands for modern western civilization, and its success will mean the extension of modern ideas naturally and peaceably through vast Asiatic domains—the occidentalizing of the East.

The other, though European, stands for an absolutism that is Oriental, and its success will mean the perpetuation of ignorance and the reign of force.

THE THREATENED PARTITION OF CHINA

Should this peril of European absolutism fix itself upon Asia, a little time will see the complete transformation of the map, and vast regions now lying beneath the legend "Chinese Empire" will be inscribed with the names of foreign governments. To-day there are three wedges started toward the heart of China and waiting only a stroke to split her territories asunder. The stroke will fall when Russia wins—if that time ever come. The victory of Russia will fasten Russia's grasp permanently upon Manchuria; permit Germany, now occupying Kiaochow, to seize all the province of Shantung lying round about this concession; and open the way for France to extend the frontiers of Tonkin farther into the Chinese domain. If Russia triumphs, China will be dismembered.

This dismemberment—the seizing by outside peoples of territories to which they have no right but the force that makes them stronger than the ancient holders—involves not merely violation of the ideals of honor and justice, but also violence to interests that are materially vital to the world—its commerce and its peace.

Manchuria, for instance—the northern province which Russia has already ravished from its Chinese owners—is a rich territory. It produces abundant crops, and has large deposits of minerals. Its resources are inestimably valuable, and already it carries on a great commerce. The Japanese Government estimates that this province contains 20,000,000 people, and its annual trade is $100,000,000—$5 for every person in the province—while China has a foreign trade of only 87 cents per capita. China gives promise of a trade as prosperous as Manchuria, if wisely developed. Commercial possibilities in such a territory are boundless—and this is the reason why Russia coveted the Manchurian land that was her neighbor's and, having the power, took it. In the wealth of Manchuria the world at present has some share; if Russia defeats Japan, she will shut out Japan and all the world, and exploit Manchuria as she does every territory from which riches can be wrung.

Foreign trade will but deceive itself if it think there is hope for it, should Russia perpetuate her hold on Manchuria. The open door—pledges or no pledges—will be ruthlessly shut upon the foreign merchant. Russia will seize, as she has seized throughout her empire, the coal, the silver, and the gold mines, and work them as government monopolies—unless Russian policy has changed. Discouraging restrictions will be placed upon trade. A set of prohibitive tariff duties will be devised. She will establish, as government or protected monopolies, industries of her own to drain the wealth of the province into the pockets of favored persons and into her own coffers. She has already established flouring mills at Harbin; these will be enlarged, and the American miller, under a prohibitive tariff and Russian subsidies, will lose his profitable Manchurian market, while a Russian monopoly reaps riches. Russian cotton mills will operate under the tariff to drive out American cotton goods—and this means that American cotton makers will lose a trade that buys of it yearly 99 per cent. of the manufactured cotton of the two great cotton-spinning States, North and South Carolina. American petroleum will be shut out. With Russian success the open door in Manchuria will become a closed door, and the bolt will be shot forever against foreign trade and against western ideals.

ENTER FRANCE AND GERMANY

While Russia is thus taking to herself the sole control, the immense resources, and the great promise of Manchuria, Germany and France will be profiting in the same manner, if not the same degree. German promoters will open the coal mines of the German concession, occupy all the Shantung province, repress the trade of other nations, and make it indispensable that all goods sold within her influence bear the trade-label, "Made in Germany." She will thus exploit this eastern district commercially, but leave the dissemination of western ideals to a chance which she will already have greatly limited by her policy of exclusion. The danger from the French in Indo-China is less, but it is not negligible. Individual desire of gain and the national thirst for glory will be sufficient motives to enlarge the northern frontiers of Tonkin when once the upraised hand of Japan shall have been struck down.

From the northeast, therefore, the east, and the southeast, the entering wedges are prepared to rive apart the Hoary Empire. Nor can England, even though she insist upon her sphere of influence in the Yangtse Valley, prevent this mercenary parceling out of a great territory, this establishment of a multiplicity of rivalries, this exploitation rather than regeneration of an ancient land. The American policy of the open door—the one safe policy, because the only one that means both freedom and justice to all concerned—will be defeated. American capital (because America is not a nation that makes trade by intimidation and by violence) must content itself with the present concession of the Canton and Han Kow Railway. Even if, under the conditions here described, American capital should be willing to build the greatly needed railway southward from the Yangtse Valley to the ocean, it would nevertheless have to be content with carrying the goods of other nations, for American goods would find no entrance into these exploited zones.

WHAT RUSSIAN VICTORY WOULD MEAN

Russian victory, therefore, means dismemberment, exploitation, conditions that will check the spread of western civilization, the defeat of the only just and safe policy, that of the American open door, and the loss to America of her free and rightful share in the rich Asiatic commerce. It means still more than this, however; for Russian control in Manchuria will introduce military government and establish the irresponsible autocracy of the Russian, with its constant threat of aggression. The world knows how strained the relations of Russia and Great Britain have long been. The success of Russia, with the consequent extension of her military frontier and increase in military and naval advantages, will bring much nearer a struggle between her and the English in the Orient—a struggle that would probably involve the world. Right, justice, commerce, and peace will prevail or be overthrown in the East according as Russia loses or wins.

These consequences of Russian success may be confidently foretold, and just as confidently may be foretold the consequences of Japanese success. They will (in a word) be diametrically the opposite of those which would follow Japanese defeat.

WHAT JAPANESE VICTORY WOULD MEAN

Japan will restore Manchuria to China. The Japanese people are not seeking territorial expansion; they do not desire any territory not their own, nor any influence over outside territory except what is indispensable to the national existence. They will fulfil to China the pledge which Russia made, and their influence, coupled with that of England and given the moral support of America, will prevent the dismemberment of the Chinese Empire.

Japan likewise will confirm the policy of the open door. The future of Japan lies in prosperous commerce, but she does not believe that prosperous commerce goes with restricted trade. She will further the policy of fair competition both in Manchuria and elsewhere, believing that her own wealth will increase with the prospering of the peoples that surround her.

Nor will Japan confine herself to securing material prosperity, for she has earnestly at heart the ideals of western civilization, to which she owes so much in her own national life. China, once saved from dismemberment, will awake—if gradually, yet surely—to the new spirit of the East; and Japan, having made this awakening possible to the ancient empire, will devote herself to bringing it about. So far as her ability extends, she will work to the extension of occidental thought in the Empire of China. The close kinship she bears this nation, and her indebtedness to it for many elements in her national life and thought, will make her influence perhaps more powerful than any other could hope to be toward accomplishing these ends. From Japanese success, therefore, may be expected the ultimate reconstruction of China.

THE REORGANIZATION OF CHINA

Do not suppose, however, that Japan, because she looks forward to the awakening of China, does not realize the perplexities, the all-but insurmountable obstacles, that have so often stopped others in their confident attempts at change. That the reconstruction of the Chinese Empire will be a long and hard task we do not doubt; but we hope that the statesmen of China, by careful studies of the Asiatic policy of European and American governments, will be led to advise their sovereign to further the policy of reconstruc-

tion and to pursue it with courage and persistence, and that in the end they will succeed where, for whatever reason, other nations have so often failed.

THE PHYSICAL TRANSFORMATION

Recognizing the difficulties that stand in the way of reformation, China must begin not with the moral regeneration, but with the physical transformation of the land; the first step must be the geographical reconstruction of China. Natural barriers now prevent trade and intercourse; they must be cut through and broken down; modern engineering skill must perform its gigantic tasks in the Empire of Gray Ages, and every district must be given quick and easy communication with every other. Railways must connect the outlying provinces with the capital at Pekin, and through Pekin with the world at large. Like the veins of a great leaf, they must radiate from the Yangtse Valley, reaching rivers and uniting towns. Inland China will be brought to a realization of power in the central government, and to a knowledge of the world.

This accomplished, China must be led to the establishment of a compulsory system of education resembling that of the United States. She cannot afford to discard her own classic thought or literature; to do so would be to throw away all on which she has to build; but neither can she afford to preserve her traditional ideals unmingled with the ideals of the West; and that she may learn and understand the thought of the West, the English tongue and the English literature must be taught in her compulsory schools—the literature because it embodies modern thought, and the language because in the Orient no other is so useful or so much spoken.

THE RECONSTRUCTION OF THE GOVERNMENT

This gradual reconstruction must be extended to the government. At the central capital, Pekin, there should be constituted a council of state, in which should sit the cabinet ministers and the viceroys of the eighteen provinces. The council should pass upon all important questions of national concern, subject only to the veto of the Emperor. There would then exist a body competent to determine public policy, and means of quick communication between the central government and the provinces; the viceroys, therefore, could be held strictly accountable for the speedy and efficient enforcement of national mandates within their jurisdiction, and central government would become effective.

A STANDING ARMY

To enable the viceroy to enforce the national decrees there must be provided a standing force of Chinese soldiers, and from this will result the reorganization of the military power. At first, the soldiers at the viceregal capitals must be volunteers, but there will be begun a system of conscription which will enroll every male subject above the age of twenty-one—a system of military service like that enforced upon the continent of Europe. This will create a further realization of central power to which not only obedience, but respect and reverence, are due.

In reorganizing the commerce of the empire, China must first of all devise a uniform monetary system, suggested lately by the Government of the United States. The present system is inconvenient, unsatisfactory, unreliable, and unsafe, and even to reform the currency would greatly increase both foreign and domestic trade.

Such are the principal betterments through which will work the regeneration of China. Following these, or accompanying them, will of course come others, of minor importance in comparison with the larger ones, but themselves essential to the efficient administration of government and the prosperous conduct of business. Only in these reforms lies the hope of preserving China, and through that, of making possible in this vast territory and among this innumerable people the spread of western civilization.

That these consequences depend upon the success of Japan in the present struggle goes almost without suggestion. Japan, and only Japan, stands in the Far East for the progressiveness of the West—for freedom, for liberalism, for peace, for higher civilization.

THE WORKINGS OF A MODEL BANK

THE ELABORATE SYSTEM OF THE FIRST NATIONAL BANK OF CHICAGO — 20,000 OUT-OF-TOWN CHECKS AND DRAFTS HANDLED EVERY DAY FOR 10,000 DEPOSITORS — A DAY IN ITS BUSY DEPARTMENTS — SOME NEW BUSINESS DEVICES

BY

WILL PAYNE

THE model bank of the United States is the First National Bank of Chicago—the largest outside of New York. A few of the New York banks control more than the $125,000,000 which comprise its assets, but the work of these banks is different. Look in upon the office of New York's biggest bank, the National City Bank, on any ordinary day. You will probably see from a dozen to a score of patrons at the counter, transacting their business in an air of secluded leisure. But about half-past two, on any work-day, the stairway of the First National Bank of Chicago looks like the entrance of a popular theatre a quarter of an hour before the curtain rises. At a given moment you may count 200 customers in the office.

The bank occupies more than two acres of floor space. It is a little city, the counters are like streets, and the illuminated numerals at the wickets like house numbers. It has 550 employes and more than 10,000 depositors, and this single Chicago banking office in its ordinary daily operations touches directly more people than any other banking office in the world. Its tradition has been to be everybody's bank; so the organization is really less remarkable for the imposing bulk of the business that it handles than for the extraordinary multiplicity of items of which the bulk is composed. One hundred thousand entries are made on its books, and about 20,000 checks and drafts on other cities are sent out for collection every day.

This business made the perfecting of an office system a necessity. President Forgan says: "This bank must be the leader in method."

To the layman an economy that looks to minutes and to pennies seems incongruous, and even humiliating, in an institution that trundles bank-notes around on trucks, that could weigh its gold on hay-scales, and that foots up its assets in nine figures, not including the cents. Surely the forty-six cents in the balance-sheet following a hundred million dollars is the merest convention, and might as well be sixty-four cents. But the fact is that the last cent in the bank's daily accounts is as much a part of the sum as any other numeral in it.

A simple illustration will show the care that is taken of cents. Stamped postal-cards are not used, and not one of the thousands of routine letters that are written every day is stamped or sealed until the whole routine mail of the day is assembled in the afternoon. Then all the cards and letters to one correspondent are put in a single envelope, and—except for letters from the officers and the like—the bank comes as near as possible to getting its entire mail carried at two cents an ounce, or a cent for every postal card, instead of often paying two cents for a quarter of an ounce, as it would have to do if every communication were sealed and stamped separately. This little matter of getting full value out of a two-cent stamp makes a saving of from $25 to $30 a day.

From the main floor the lofty gallery looks empty. In fact, it is a hive. The day's work begins up here with the coming of the morning mail. The bank brings the mail over in its own wagon—about breakfast time. It comprises several thousand letters, and contains, on an average day, five to six million dollars. There are two long rows of desks, breast high, behind which, at the call of the manager's bell, ninety young men take their places as behind breastworks and await the assault. As the bags are opened it storms mail. Letters by the armful are flung on the desks to the left. The men, every one with a slim steel knife, fling themselves on the letters and inclosures and spread them flat in piles. Messengers patrol the

desks, catching up the piles of opened letters and carrying them to the right. On the right every desk has two men. They check the inclosures to see that they agree with the statements in the letters, and distribute them in a box with three compartments, one for checks to go through the clearing-house, one for checks on the bank itself, the other for out-of-town items.

Messengers go about emptying these boxes as they fill. The clearing-house checks are carried to another set of clerks, who stand before upright cases with numbered compartments corresponding to the numbers of the clearing-house banks, into which they distribute the checks. The out-of-town items are carried over to the "bills of exchange" department to be assorted and sent out. The checks on the bank itself are sent down stairs to the city book-keepers. The letters themselves are taken to the front of the gallery to the "country" book-keepers, who give the correspondents their credits directly from the letters. More letters keep coming in. The trips to the post-office continue until eleven o'clock. So the whole machine is continuously in motion. The cases for clearing-house checks are emptied from time to time, and the checks are listed on adding-machines. Checks and lists must be in the clearing-house when the bell rings.

Meantime, it is past ten o'clock, and the second great maw of the bank, the main office down stairs, is taking in its daily glut of checks and money. Here, as up in the gallery, the apparatus begins to work as soon as the bank is open. The checks that the tellers take in pass on to the book-keepers, and are distributed for the clearing-house or for the out mail. The clearing-house discharges its flood of checks on the bank at noon, and these must be taken care of. There is a daily assimilation of an incredibly large number of strips of paper.

Among the many desks back of the receiving tellers' cages is a small table where a man sits "paying" checks on the bank. "Paying" the check means passing upon and approving the signature. The paying tellers, of course, know the signatures of the bank's depositors, and when they hand out the money the act of "paying" is complete. But the receiving tellers have no responsibility for the genuineness of signatures on the checks they take in. They receive for deposit checks on the bank itself as on any other bank; and at the clearing-house any sort of check, good or bad, is taken at the moment without examination. So the checks on the First that come in through the receiving tellers and the clearing-house are taken, first of all, to the man at the desk, who sits there all day, a bundle of checks in his hand, and in front of him a pile of those he has "paid"—apparently dealing himself an endless game of solitaire that he never can finish because the messengers are continually running off with the checks and bringing him fresh packs. The mere currency—the gold and bank-notes—is a small affair in comparison with the signed paper. So signatures are highly important, and the signature cabinet is guarded as carefully as the currency. Only one man carries the keys, and he must be present whenever it is opened.

The minute subdivision and specialization of the work operate rather disconcertingly upon a novice who comes to work in the bank with an imagination mightily impressed by the importance of this world of money in which he seeks a place. He finds, in the first place, that entrance is not difficult. The bank takes in men for the bottom of the ladder only—for the messenger department. From this all higher positions are filled by promotions. So, under the necessity of keeping the force full, the door is usually open to a bright-looking youngster of good antecedents who can set down legibly and add up accurately a column of figures within a reasonable time. But if the young man is astonished at the facility with which he became a part of the great bank, this astonishment wears off in the course of his first day, for he at once discovers that the destinies of the institution are not exactly resting upon his shoulders. He is sent up to the messenger department, where he may assist in cutting open the mail. But the job that is distinctively his is wetting postage-stamps and sticking them on envelopes. This is the beginning of the banking business in the First, and the novice does it for hours. He must do it well, too, not missing any envelope or getting any stamp so wet that it will fall off; for if half a dozen letters are returned from the post-office because they arrived there unstamped, he gets a wigging and a black mark, which retards his promotion.

He must also keep up with the procession

and not delay the mail. Soon other young men will come in to take their places on the bottom rung; and then, if he has stuck his stamps with proper neatness and despatch, the first stage of his novitiate is over and he passes up to the more responsible duty of putting the letters in envelopes and sealing them. By and by, after various intermediate stages, he is intrusted with the sorting of checks for the clearing-house, and, if he is capable, is sent down in the afternoon to help one of the book-keepers.

He is still in the messenger department, and there he may remain six months or sixty years, according to his ability and the opportunities for promotion. Even in the work which gives the department its name his ascent is very gradual. The morning's mail brings in a cartload of sight and time drafts drawn upon concerns all over the city, which the messengers must take out and present for acceptance or payment. The bank divides the city into forty districts, or routes, just as the post-office lays it off in postman's routes. One route may comprise only a couple of office buildings near the Board of Trade. Another may take in two or three wards on the Northwest Side. There is a messenger for each regular route, and he starts out with his wallet about the time the bank opens. After a week or so of general experience, the novice may be sent out on a special errand; then, for a time, he goes over a route with an older messenger; and finally he is intrusted with a wallet for one of the outlying districts. The wallet for a down-town run, especially about the Board of Trade, contains drafts to the amount of many thousands of dollars; but even here the messenger is required to exercise his own judgment within narrow limits. He has his instructions from the bank—as, that uncertified checks may be accepted from so-and-so and so-and-so; that drafts with bills of lading attached may be left with such and such houses; that so-and-so's check is not to be taken for any amount under any circumstances.

Hence, though the young messengers collect millions of dollars in the course of a year, their work is mostly the merest routine. Undoubtedly they come in contact with many people who are not above taking advantage of youth and innocence; but it is not often that any liberties are attempted with them, because they come in the name of the bank, which in the business world is equivalent to traveling with the king's ring. Sometimes a man takes offence because his check is refused, and revenges himself upon the bank by paying in silver—whereupon the bank simply sends a cab for the coin.

It is just here that the defect in the system appears—a defect not peculiar to the First National, but fairly inherent in every concern that has grown so big that specialization is necessary. I mean, the bank does not teach its young men to be bankers. It teaches them merely certain specialties of bank routine, one after another. A man might remain in the office a long time, doing acceptably the work allotted to him and advancing through several stages, and still have no adequate idea of the bank as a whole. The management has long recognized this defect, and for some time has addressed itself to remedying it. David R. Forgan, now a vice-president, suggested an association of bank clerks, which is making an organized effort, of national scope, to teach clerks in large banks something about the banking business. The Chicago chapter was organized in the First, and Fred I. Kent, now manager of the foreign exchange department, was its first president. The association already shows good results, and probably offers the best method to be found of overcoming the effect of the inevitable subdivision of work in a big office. Moreover, the bank has created a sort of flying squadron, consisting of a dozen to fifteen of the higher clerks, who are sent all over the bank as need arises. The men are quick to appreciate the educational importance of this general work, and the positions are highly prized.

For the rank and file the salaries in the bank are not high, and after the first few steps promotions are necessarily slow for the average man. In short, these are conditions that usually tend to induce inertia, and yet the clerks are kept alert. There is a complete pension system, devised by President Forgan, and supported by the bank. There is a monthly magazine, by and for the clerks. There is a common dining-room, where the bank furnishes luncheon to all employees. There is a general disposition to celebrate the power and glory of the institution; and there is undoubtedly a general feeling for good workmanship.

For example, take a big cage in a corner of the bank where "rags" are sorted—the "rags" being bank-notes. A number of clerks go over the currency and take out all soiled and worn bills, which are sent to Washington daily for redemption. The other day, passing this cage, I heard exclamations of disgust because a country bank had sent in some packages of currency in which some of the notes were upside down—bad workmanship with which the First's young men had no patience.

The bank has reached such a size, in the judgment of President Forgan, that specialization must be extended to the officers themselves. The official force is even now in the process of a reorganization that is unique in banking. The time is still remembered by some officers of the bank when every officer knew every depositor and his standing. As that time passed, with the rapid growth of the institution an arbitrary alphabetical division arose. Adams, a wholesale grocer, fell to that officer who had charge of individual accounts from A to G, say; while Smith, also a wholesale grocer, was allotted to the officer who had the end of the alphabet. Under the new organization, accounts will be classified and allotted by lines of trade. Twenty-six leading lines of business are recognized in the arrangement, and these twenty-six divisions are put into seven groups, each group in charge of one senior and one junior officer. Thus Adams and Smith will both fall to Assistant Cashier Holmes Hoge, whose group includes wholesale grocers. By this arrangement, every officer will become a specialist in the kinds of business which fall to his group, and he will be able to judge of requirements and fix credits more intelligently than before. The idea is that under this plan the officers will gain more than an ordinary banking knowledge of the different branches of trade. Already some of the junior officers have made careful examinations of certain business establishments, watching the business on its own grounds. As one of them said: "Trade terms that, formerly, were merely so many words are now full of meaning." The new system will run through the entire business of the bank, with the exception that the department of country banks will remain, as heretofore, in charge of Assistant Cashier Blum, whose expertness is well established.

The object of this reorganization is twofold—to attract new accounts and to safeguard credits; in short, to raise the bank to an even higher usefulness by increasing its financial power and advancing its ability to use the power well. The life of a bank, of course, lies in its ability to get business and to avoid losses. Experience shows that either of these things alone is easily accomplished. Many a banker of very moderate ability, as the record of bank failures proves, has been able to get business without being able to avoid losses. A bank may always secure a certain number of accounts by paying a sufficient premium for them, by giving credit recklessly, or in other ways. And to avoid losses is even simpler. One has only to invest capital in government bonds and sit still. But it is the ability to do both things at once that makes a real bank—one that can be both prudent and courageous, both liberal and wise. It is worth mentioning here that the First National became prominent in the bad times of '73, prior to which it was surpassed in size by two rivals. It not only kept open its doors, but stood by its patrons. The bank's enormous prestige in the country had its beginning then, when dozens of bewildered country banks whose correspondents in the cities were suspending payment appealed to the First to protect their checks and save them until funds could be forwarded.

Three of the present officers—Vice-President Boulton, Cashier Street and Assistant Cashier Hoge—were with the bank then, when its quarters were somewhat smaller than the space allotted to the desks of the officers alone in the new building, and when one man ran a department or two single-handed. President Forgan came in somewhat later.

The efficiency of the large staff of managers is suggested by the fact that, within a year, two managers of the foreign exchange department have been called to New York to take charge of the similar departments in big banks there. There is also a board of directors that might well stand at the head of a financial "Who's Who" in Chicago. But the man who runs the bank is Mr. James B. Forgan. If you wish to find out without asking anybody, all you have to do is to step into the president's office and look at the largely built, firm-eyed man with white tufts of beard on his ruddy cheeks, who sits methodically busy at the table.

A PROMOTER AT WORK

FIRST-HAND STORIES OF EXPERIENCES IN BRINGING OPPORTUNITIES AND INVESTORS TOGETHER — LEGITIMATE SCHEMES AND FRAUDS — THE PROFITS OF PROMOTING

BY

A PROMOTER

THOUGH certain kinds of promoters are in disrepute, the legitimate and reputable promoter does not seek to dupe the public, but is an indispensable link between opportunities for making wealth and investors seeking them. He is a discoverer, an explorer, an originator. A simple illustration in promotion, as distinguished from manipulation of the stock market, may help to make this clear.

When I was a lawyer in a Pennsylvania town, one of my clients became involved in a dispute over the ownership of a few acres of coal land. In driving through the farming community to look over the property, I discovered that many other small land-holders, as well as my client, had patches of coal land. I quietly investigated the possibilities of developing this land, and then retaining one of their neighbors, a man prominent in county politics, to vouch for my business integrity, I began to secure from these farmers options giving me the privilege of buying within six months as much land as I wanted. I told them that the price I was offering was twice as much as their property was worth as farming land; I pointed out that they lacked working capital to develop the coal, that they were lacking in technical knowledge of coal-mining, and that they could not agree among themselves to work the land conjointly; so that, unless outsiders took hold, the land would never be worth more than its farming value.

After a three-months' campaign, I secured options on 3,000 acres, for which I was to pay $40 an acre if, at the end of six months, I concluded to buy the land. These options and my expenses cost me $5,000. My next step was to secure capital. First, I persuaded a Philadelphia banker to take an interest in my plan. After his experts had examined the land and reported it to be as I represented it, we formed a company. Several friends of the banker joined him in taking stock. We agreed that the property should be capitalized at $600,000. The backers of the company took this stock at fifty cents on the dollar, paying $300,000 into the treasury. The company paid the fifty farmers a total of $150,000, and then set aside $100,000 as working capital. I received for my services $80,000 in cash. The men who had supplied the capital preferred to pay me in cash rather than in stock of the company, because they believed in the enterprise and wished to hold the securities. I agreed, because I wanted cash at that time.

I had invested $5,000 and had done three months' work, for which my profits were $75,000. My risk was not in proportion to the profits reaped, and I had produced no coal. Why should I have been given $75,000? I had earned it. I had created a means of producing wealth that had not existed before. My idea of combining the pieces of land increased their value tenfold. The farmers received twice as much for their property as it would have been worth if I had not intervened. My project offered the investors the chance of a return of ten per cent. on $600,000 worth of stock. My profit was really six per cent. of the ultimate value of the investment.

Take a more impressive instance. When Mr. H. O. Havemeyer grasped the idea of a sugar trust, American sugar refiners were losing money on every barrel of sugar they produced. One of them said to me shortly before the combination was formed, "We think ourselves lucky if, when we sell a barrel of sugar, we get enough for it to pay the cost of the staves and the cooperage, and most of the time this cut-throat competition doesn't allow us to get even the price of the staves."

In the three years before the consolidation, twelve large refineries went into bankruptcy, and many thousands of men were thrown out of work. Mr. Havemeyer labored for months

with the twenty-seven partners of the nine refineries he wished to consolidate. At last he was successful. Within two and a half years the stockholders had received $25,000,000 in profits; and in fifteen years $88,000,000 had been paid in dividends. To-day there are 11,000 stockholders. After deducting the duty on raw sugar, the net cost of the product of the refineries is today a little more than two and a half cents a pound, though it was more than three and a half cents a pound before the combination.

If investors are not always eager to go into projects of the kind outlined in these two examples, it is because all promoters do not follow sound business methods. An inside history of a promotion project with the earliest stages of which I was associated will show what these methods are. The owner of a large tract of timber land in New England, who was land poor, consented to sell his tract for $6,500,000 and give me the option of buying it at that price. He agreed to take $1,000,000 of his payment in cash and the rest in stocks and bonds of the company projected to get out the timber. The capitalization was fixed at $25,000,000, the estimated earning value of the paper-mills that were to be built. To get control of the company, the promoter merely had to raise $1,000,000 in cash. The project was turned over to a promoter who had started several successful enterprises. At this point I was willing to slip into the background and receive payment in stock for originating the idea of forming the company.

The company was formed. The new promoter found a banking syndicate willing to attempt to sell $5,000,000 worth of bonds of the company to the public, and agreed that the first call for cash should not be made until the bonds were sold. Meantime, the company had borrowed from various bankers nearly $500,000, with the trust deeds of the land itself as security for the loan, some of which was spent for a New Jersey charter costing $42,000, and the rest in large fees to corporation lawyers and in other fees. As the bonds did not sell readily, the promoter added to the list of buyers the names of dummy investors—friends of his who were unable to pay for the securities for which they were subscribing. Enough cash came in, however, from genuine investors to enable the promoter of the company and the other organizers of the company to pay the original owner of the property his million dollars. His holdings were then taken over. He was to take the rest of his payment in securities of the company.

But the enterprise had been started at an unfortunate time. The public would not buy the securities of the company in sufficient volume. The project collapsed, and the promoter's reputation with it. Without risking a dollar, this promoter had been playing for profits of more than $8,000,000 in stock of the company, though, of course, he would have had to divide this immense profit with various people who had helped him.

Another case. In London, several years ago, I ran across a keen-eyed, dapper, gray-haired little man who was trying to finance a projected railroad through a rich mining, grazing and farming belt on the Pacific Coast which lay between two trans-continental lines and was demanding a railroad outlet to the coast. He wrote several letters to the men who controlled the trans-continental lines. When they replied, he showed their letters to the people he wished to convince—but in such a mysterious way that they could do little more than read the signatures. This sounds odd, but he had such a persuasive way that investors were fairly hypnotized into believing that the letters were all they wished them to be. He had maps, reports and blue-prints of his survey of the projected route. He secured the co-operation of an English nobleman, who had been discredited by his connection as a dummy director with a number of speculative companies which had failed. He brought this nobleman to San Francisco to pose as a representative of important English capitalists interested in the plan for the railroad. The promoter then returned to the East, and organized a land company in which his name did not appear. Its agents then began to secure options on the farming lands along the projected railroad and to mark out town-sites. Long telegrams, ostensibly news dispatches dated from far western points, were published in a certain Wall Street financial journal telling of the preparations for the new railroad. These were copied in western papers which were mailed broadcast. The promoter then began to sell his options through his land company. The value of these options had been so increased by the discussions about the new railroad that a real estate boom took place in

the whole region along the projected line. The land company sold here and bought there, gradually selling its options and its land and clearing a large profit. But the promoter failed to build the railroad, and dropped out of the project as a discredited man.

Yet the promoter is the creative influence behind much of modern industry. Seven great industrial establishments in the United States control 1,528 organizations and are capitalized for more than two and a half billion dollars. Nearly three hundred smaller trusts control 3,426 establishments capitalized at more than four billion dollars. Six great railroad combinations control nearly 700 companies with securities to the amount of nearly ten billion dollars. Some of these trusts came about by growth rather than by combination or promotion—the Standard Oil Company, for example.

But Mr. J. P. Morgan was a promoter when he conceived the great Steel Corporation. He heard Mr. C. M. Schwab outline the conditions of the steel industry at a dinner in the University Club in New York, and from this hint he matured the plan of a steel trust within three months, thus achieving greatness as a promoter. This much accomplished, the promoter gave way to the underwriting syndicate. The second step away from the province of the promoter was when Mr. Morgan, to float the securities of the trust, called upon the services of Mr. James R. Keene, as the most skilful manipulator the stock-market has ever known. Here are the three operations—the promotion, the financing, and the marketing. Yet it often happens that the promotion is confused with and blamed for the defects in the other features.

When Mr. Charles R. Flint organized the United States Rubber Company he showed his genius as a promoter. He went to South America and stayed there several years, studying the methods of production of rubber, the source of supply, and the transportation facilities. When he had a thorough knowledge of crude rubber from the tree to the cargo-boat, he set about combining the factories in the United States which handled rubber. He organized a great company, capitalizing it at $40,000,000. He believed the price of rubber would advance, and, as a promoter, he capitalized his knowledge.

Promoters are culpable when they capitalize companies at a greater value than they are worth. One once showed how mills actually worth $5,000,000 might be combined and capitalized for $30,000,000. Legitimate promotion needs no such methods. While the population has increased fivefold in a century, the productive power of the nation has increased fortyfold. Wealth has increased in proportion, and, with it, the opportunities to invest wealth and turn it into productive power. Investors wish to know what they are going to put their money into, but they cannot investigate enterprises in detail for themselves. Promoters guide them.

In order to provide this guidance, a promoter must not only have a project, but he must also have a trained ability to grasp the salient features of an enterprise. I have promoted a number of electrical street-railway lines, and later combined a number of them. In order to work out my projects, I had to have a knowledge of the exact relations the operating expenses of the railway should bear to the total income, the operating cost per mile, the problems of competition, the methods of economical operation, the probable increase of traffic, and so on. I had to be able to analyze reports of the corporations and their book-keeping, and from all my data arrive at a general proposition for promotion. Beyond such work as this, a professional promoter must call experts to his assistance.

The pitfall of a promoter is the earning value of shares of the property he wishes to dispose of to investors. Economical advantages gained by consolidation may increase the value of industrial establishments to twice or three times their original value as tangible assets, but unforeseen conditions may eliminate this advantage. To guard against loss through a falling off of business, a promoted company usually issues preferred stock to cover the actual value of its property, the common stock representing "good will" and the possible increased earning capacity. Therefore the preferred stock is classed as an investment; the common stock is speculative. Recent financial history has shown that reckless promoters are sooner or later discredited. Of course, the hordes of so-called promoters who haunt the hotel lobbies and tell wonderful tales of mining stocks that "offer the chance of a lifetime" are simply to be classed with other frauds. It is men like these who have brought the term "promoter" into undeserved disrepute.

THE MOST WONDERFUL BRIDGE

WITHIN sight of Victoria Falls is the most wonderful bridge in the world, spanning the Zambesi River at a point where the river disappears into a deep cañon and zigzags its way through the cliffs for a mile. The peculiarity in the construction of the bridge is that, owing to the great height above the water, the depth of the stream, and the precipitous banks, no staging or scaffolding could be used. Accordingly, a cantilever structure is being built simultaneously from each end until the sides of the arch, 500 feet long, meet in the centre. The method adopted by Mr. Beresford Fox, the assistant engineer-in-charge, was to fire a rocket across the river at the spot selected—which is just below the "Boiling Pot," as the entrance to the twenty-mile cañon is called—and to the rocket was attached a thin string. Next, a stouter string was sent across, and, finally, a telephone wire. A telephone apparatus was required, because the distance by going round was about ten miles, although the actual distance straight across is only about 200 yards. Next a marked steel wire was passed across, and a strain put on it; the strain was measured by means of a spring balance in order to compute the sag of the wire.

The total length of the bridge will be 650 feet. There will be three spans, two very short "approach spans" of unequal length, and the great central or main span of 500 feet. The southern span will be 87½ feet long, and the northern one 62½ feet. A rough measurement calculated from rail level to low-water level in August showed a height of 420 feet. The high-water level will be about 40 feet less, or 380 feet from the bridge. The bridge will be the highest in the world. The nearest to it is the Viaduct du Viaur, in France —just finished—which is 375 feet above the bottom of the valley it crosses.

Every precaution is being taken to minimize the loss of life which bridge-building usually entails. A huge net is hung below the whole length of the bridge to catch, as the contractors put it, "boys and tools, should they inadvertently drop during construction."

When the site was proposed, many people opposed the building of a railroad bridge below the falls, in the midst of singularly picturesque and romantic scenery. But the builders have eliminated the usual ugly features of such structures. The bridge is a lattice-work of graceful girders. Very little masonry is visible. There are no concrete piers, no tall towers, nothing above the simple iron railing above the tracks.

The British South Africa Company, which owns the land on both sides of the river, is arranging to reserve a large area of the forest extending for six miles on each side of the Zambesi as a public park. Capitalists have begun to exploit the falls as a tourist centre, and a mammoth hotel is being built.

The Victoria Bridge, as the remarkable structure will be called, will be a link in the "Cape to Cairo" Railroad. Contrary to popular belief, this transcontinental route, Cecil Rhodes's greatest ambition, will not be a continuous trunk line. The great national highways of commerce and traffic—the chain of equatorial lakes from Tanganyika to Lake Albert, running for the most part north and south—will be used to supplement the railroad. Then the Nile from Lake Albert to Khartoum will probably take the place of the railway, as it has done for years between Assuan and Wadi Halfa. According to the latest scheme, 4,000 miles of the "Cape to Cairo" trip will be made by railway, and nearly 2,000 by water.

HOW THE JAPANESE SOLDIERS ARE KEPT FIT

THE student of military affairs who seeks an explanation of Japan's victories over the Russians will probably find it in the genius of the Japanese for organization. Their goal has been the efficiency of the individual soldier; and they have made him efficient by lightening his equipment, and by making his health and comfort their chief care. Their idea is to enable a soldier to march and fight all in the same day, if necessary. Water-bottle, canteen and mess-tin are all made of aluminum; and their army-boots are about one-fourth lighter than the

ordinary article, but not less durable. They are flexible at the instep, and are made with a view to ease in walking. Their stretchers, being mostly of bamboo, combine strength with a minimum of weight. At the ends of the stretcher are light metal frames, supporting a cover at a comfortable distance above the patient; and the whole, which weighs only twelve pounds, folds up automatically into a compact shape adapted to rapid transportation. In looking out for the health and fitness of the soldier, the Japanese have overlooked no detail, from the tin-box of creosote pills, as a prophylactic against dysentery, to the mosquito-net for the head in summer, or the sheepskin waistcoat for winter. This mosquito-net, it should be remarked, is not a freakish luxury; in view of its efficiency as a protection against malaria, it is a hygienic necessity. An article of apparel worthy of note is the greatcoat. Whether it be of summer or winter weight the free edges in front slope outward, forming a cover for the knees. In fair weather this surplus of cloth is buttoned back for convenience in marching. The winter overcoat, which has a hood and a fur-lined collar, is intended to keep a man warm in the coldest weather. Indeed, for extreme cold there are toe-caps and special mitts, which hang from the neck by cords to prevent their being lost when removed for firing or other purposes. All articles of clothing are of the best material; and as few buttons as possible are used, flat hooks and eyes being substituted. The khaki suit has no buttons whatever. As to food, the famous rice-cake and all other provisions are carried in their lightest and most condensed form. Vegetables—sliced potatoes, carrots, beans, gourds, etc.—are dried to diminish their weight and insure preservation. Tea, salt, etc., are in solid cakes or cubes; various meats and fish are in hermetically sealed cans; and even the fodder for the horses is specially prepared by drying. The copper Chinese camp-kettle, which has double sides, enables a Japanese soldier to boil water even in a gale. Charcoal is burned on the inside, the water being heated between the two layers of copper.

THE VALUE OF COMMERCIAL HIGH SCHOOLS

THE German Commercial High Schools have attained an efficiency that gives them a world-wide significance. These schools are now in successful operation at Leipsic, Frankfort, Aix-la-Chapelle and Cologne, and a fifth is to be established next year in Berlin. Various forms of organization are now being tried. When the school at Leipsic (the first in Germany) was established, in 1890, it was decided not to make it an organic part of the University of Leipsic, but to establish it on a correlative basis, with professors of the university lecturing in the Commercial High School and students of the Commercial High School attending lectures at the University. The plan has been found highly satisfactory. At Cologne the school is an independent institution, while at Aix-la-Chapelle it is a department of the technical high school. Here are allied the important elements that have contributed to Germany's industrial progress. Admission to the Commercial High Schools may be gained only through graduation from some nine-year secondary school like the classical gymnasium or graduation from a similar school with a shorter course coupled with practical business education. The graduates have not only taken high place in the mercantile industry of the Empire, but are equipped for posts like secretary of a Chamber of Commerce, administrative officer, president of a commercial organization, and a consular officer.

But there is even a deeper value to these commercial schools. In Germany, where education invests a man with peculiar social prestige, they have given unquestioned academic rank to the young men of the mercantile class, placing them on an equal plane with the graduates of the great universities. Before the establishment of the Commercial High Schools, the lack of social recognition was a serious handicap to the merchant in his business and private life. These schools, too, have brought about a dissemination of expert knowledge of what might be termed international business ethics which the marvelous expansion of modern commercial activity has made necessary to successful competition.

But long before the Leipsic school received students, Japan had established a Commercial High School in Tokio. It was founded by Viscount Mori as a private school in 1875, and was taken under the control of the State in 1884. There is another school at Kobe, and one is soon to be established at Nagasaki. The business men of Japan were at first unfriendly to the school because they preferred to take young men without training and mold them as they desired. But they have changed their attitude, and today the graduates of the commercial schools represent the leading industrial and financial institutions of the Empire all over the world. It is significant of Japan's steady commercial progress that it requires all students of the commercial schools to know one foreign language. English, French, German, Rus-

sian, Korean, and Italian are taught. There are also courses in chemical and mechanical technology.

BRINGING NEW METHODS TO FARMERS

LAST spring's experiment in Iowa with the "corn-gospel train" is being repeated on a much larger scale this winter. The gospel of seed-corn selection is carried to the corn-growers of Nebraska, Iowa, Missouri, Illinois, and Kansas. These five States, in 1904, produced 40 per cent. of all the corn grown in the United States. They are the leading States of the great Corn Belt. Should this winter's experiment result as satisfactorily as last spring's, these States will, in 1905, produce a full half of the nation's corn crop.

On December 14th, the corn-gospel train began its tour of Nebraska, under charge of representatives of the Nebraska Agricultural College and officials of the Chicago, Burlington & Quincy Railroad. The first day the train made 350 miles, and the gospel of improved seed-corn was preached to 1,500 corn-growers. The second day the message was carried to 3,000 corn-growers. Before seed-planting time in the spring similar trains will have traversed Kansas, Missouri, Illinois and Iowa.

The procedure is the same as that of Prof. P. G. Holden with the original corn-gospel train. Lectures twenty minutes long are delivered on selecting, testing, and planting seed-corn, specimen seeds are exhibited, and questions are answered. Professor Holden was invited to accompany the train throughout the various States, but was obliged to decline the invitation, for he was occupied with his work in Iowa. He will conduct a seed-corn train this spring as he did last year, leaving the work in other States to Professors Hume and Hopkins, of Illinois; Lyon, of Nebraska; and their associates, who are conducting the new trip.

How successful the corn-gospel train experiment was in Iowa is shown by the year's crop report. In 1904, the aggregate corn yield of Iowa was about 324,000,000 bushels. In 1903 it had been but 230,500,000 bushels, and the average for the past fourteen years had been but 259,008,653 bushels. The increase in one year amounted to more than 93,000,000 bushels. The value of all crops broke all records in the State, amounting to more than $291,000,000. At the same time, the value of crops produced and live stock sold in Kansas was but $208,290,000. Virtually the same conditions of climate and weather prevailed in Kansas as in Iowa, yet the Kansas corn crop was, in round figures, but 132,000,000 bushels—considerably below the average, though, of course, the falling off was due in part to the floods.

The success of the seed-corn theory was proved by Professor Holden in a series of experiments conducted at the Iowa Agricultural College. Last spring he visited thirty-one adjacent farms, taking samples of the seed-corn from the planters. These thirty-one samples he planted in one field, so that the conditions of soil, weather and treatment would be equal. The yield in the fall ranged from thirty-five to seventy-five bushels an acre, and the proportion of seed that germinated varied from 98 per cent. to less than 50 per cent. Had care been exercised in selecting and planting the seed-corn, the yield would have been uniform, seventy-five bushels to the acre. The difference between good seed and bad cost the careless farmers $15 an acre on one year's crop.

Indeed, so thoroughly has this missionary work proved its value, that the United States Department of Agriculture is beginning to take part in it. When the corn-gospel train covers its itinerary in the semi-arid parts of western Nebraska, an agent of the Department will make a general distribution of packages of the bacilli which bring the needed nitrogen to the roots of plants; and also of Russian wheat and Kersten oats. Experiments have shown the Department that these varieties of grain are well adapted to the dry soil of parts of Nebraska which have not been productive. If the Nebraskans are as much stimulated as the Iowa farmers were by the first corn-gospel train, it is believed that western Nebraska can be made as productive as the macaroni wheat districts in Russia.

FOSTERING GOOD WORK-HORSES

AN interesting experiment in improving the condition of work-horses has been made in Boston, and the plan is easily adaptable to other localities. In 1902, Mr. Henry C. Merwin proposed to others interested in the subject an annual Work Horse Parade, which should be a public affair; and, with their aid, organized an association to provide judges and to give prizes to the drivers and owners of the best-cared-for horses.

In the first parade, held May 30, 1903, 450 entries made a column more than three miles long. No entry fees were charged, yet the association spent nearly $2,000 in prizes and ribbons. Before the parade started, the entries were drawn up in streets assigned to the various classes, to be examined by the judges. The decisions were reported to the secretary at the reviewing stand, so that, when the parade passed, the winners could receive the prizes. A rosette was fastened on the

bridle of a winner's horse, and the driver received an envelope containing a cash prize. It was noticed that the drivers were much more eager for the ribbon than for the money.

A diploma was sent to the owner of every winner. To drivers who exhibited horses that had been in their care more than a year, and that showed good condition and spirits, a certificate was given. These certificates are much prized, as they enable holders of them to get good situations. They also guarantee to owners the character of a driver whom they may hire.

In the second parade, held a year later, an Old Horse class was added, for horses that had been worked for at least ten years by drivers who were also owners. The marshal of this class was Mr. H. O. Houghton, mounted on "Dixie," who was forty-two years old and full of spirit.

There has been great public enthusiasm to witness these open-air horse-shows in Boston. The effect of them has been lasting, according to the testimony of veterinary surgeons, owners of horses, drivers, and horse-shoers. Horses are better groomed, harnesses are kept cleaner, and the teamsters take a more genuine interest in their work. Adapted to the local conditions of other communities, the plan might easily be made to improve the care of horses all over the country.

EASING THE LIFE PROBLEMS OF RAILROAD MEN

THE railroads in the United States in increasing numbers are making provisions to offset in some measure the hard conditions that surround the lives of their employees. Mr. Max Riebenack, the assistant comptroller of the Pennsylvania Railroad, has made a survey of the betterment institutions supported by the railroads of the country, and the showing is noteworthy.

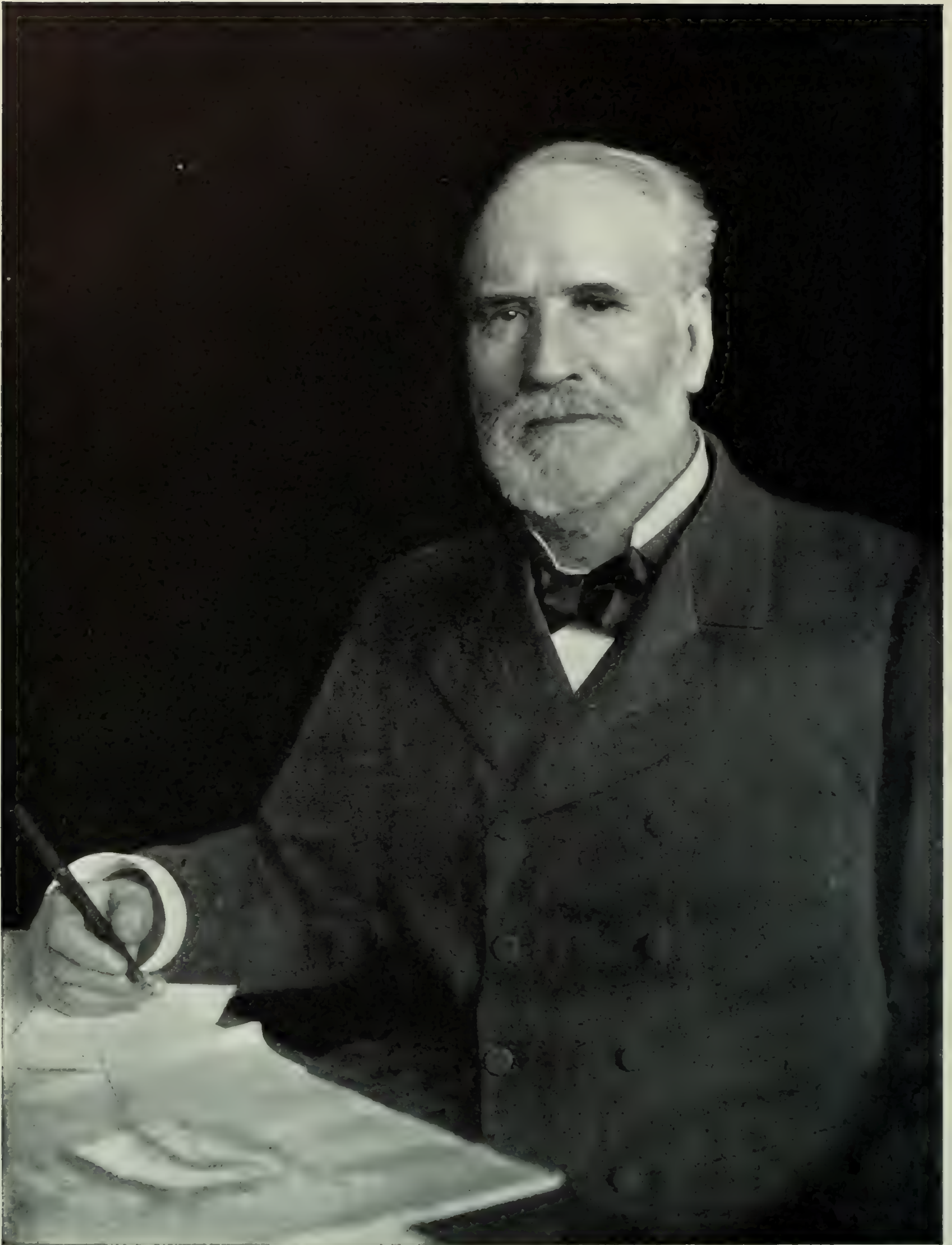
Twenty-four railroads conduct insurance bureaus. Nine of these, employing nearly one-fourth of the railroad employees in the country, carry on relief associations which disburse $2,230,000 a year. Sixteen railroads, employing nearly 40 per cent. of our railroad workmen, have pension funds to provide for employees of long service who have reached the age of 65 or 70. The system was started only four years ago, and yet twelve of the railroads have now a total of 2,300 pensioners on their lists. In many cases the funds are maintained by the interest on a sum originally set aside to cover the expense. Two railroads, the Pennsylvania and the Baltimore & Ohio, maintain savings departments. The system of the Baltimore & Ohio permits the immediate relatives of employees, as well as the men themselves, to deposit; and it also offers to members of the Relief Association the opportunity of borrowing money with which to buy homes. Practically half the railroad men in the country are possible beneficiaries of relief associations, pensions systems, or savings departments.

Apart from the railroads which have arrangements with public hospitals for the treatment of incapacitated employees at a low cost, thirty-five have regular hospital services, and hospital cars are becoming more and more common. More than fifty railroads help to support libraries and reading-rooms, though these are often maintained by the Railroad Y. M. C. A. The largest library supported by a railroad company alone is the Mechanics Library of the Pennsylvania Railroad at Altoona, Pa., where the company's machine shops are. The railroad Y. M. C. A., which has proved a practical boon to railroad men, though mainly self-supporting, has been given financial assistance by the railroads along whose lines the branches have been established. These lines make up three-quarters of the entire mileage of the country.

Employees of the Illinois Central Railroad may subscribe for the stock of the company and pay for it in instalments of $5 or multiples of $5, receiving interest while payments are being made. And on the Great Northern Railroad $710,000 worth of investment certificates have already been issued in pursuance of an interesting profit-sharing plan. A certain number of shares of the company's stock were turned over to an Employees' Investment Association. Against these the association issues to employees the investment certificates of $10 or multiples of $10, and guarantees the same dividend on these that it pays on its stock.

Such private benefactions exist as the Andrew Carnegie Relief Fund, supported by an endowment of $4,000,000 to provide for sick or injured employees of the Carnegie Company or for the widows or orphans of employees who have been killed. Injured employees of the Delaware, Lackawanna & Western Railroad have access to the Moses Taylor Hospital in Scranton, Pa., established for them. And under the will of her husband, the late J. Edgar Thomson, formerly President of the Pennsylvania Railroad, Mrs. Lavinia F. Thomson established the St. John's Orphanage in Philadelphia for the daughters of men killed in the service of the Pennsylvania Railroad.

Nothing could show better than this summary the fact that railroads are social institutions as well as business enterprises.



Photographed by Frances Benjamin Johnston

MR. JAMES WILSON

SECRETARY OF AGRICULTURE, UNDER WHOSE ADMINISTRATION THE DEPARTMENT OF AGRICULTURE HAS BECOME ONE OF THE GREATEST SCIENTIFIC ESTABLISHMENTS IN THE WORLD

(See page 5951)

THE
WORLD'S WORK

MARCH, 1905

VOLUME IX

NUMBER 5

The March of Events

MR. ROOSEVELT begins his full term of office with the good wishes of all the people and with the hearty applause of most of them. He has been President for as stirring a three years as we have ever had in a time of peace; and the people so liked the quality of his action that they gave him an extraordinary vote of approval, and he has put himself on a basis that gives him extraordinary freedom.

There is little partisan strife. On most subjects that will demand early action there is little partisan difference. Even sectionalism is quiescent and as nearly dead as it ever was. The Southern Democrats have fewer harsh things to say of Mr. Roosevelt than they said, for instance, of Mr. Cleveland, who was a President of their own party. Mr. Roosevelt is a Republican of the type of Lincoln rather than of the type of Sumner and Stevens. He is the President of the whole country. He favors a "square deal," not punitive or repressive plans of mere partisan scope. It is known, for instance, that he would not cut down the Southern representation in Congress. It so happens, too, that on several non-partisan economic measures the Southern Democrats find themselves not wholly hostile to him.

It is a time of prosperity, too, and of good promise; and this era of good feeling and of good fortune brings the better opportunity for public attention to the great economic problems that confront us. The old party and factional wrangles which were only a cover for a scramble for places or for privileges—all, illegitimate uses of office—were cheap and mean. They were the cheaper and the meaner because, while they were going on, the important economic problems of the country pressed almost in vain for solution. If we may now have a Presidential term during which serious attention will be given to these, it ought to make a memorable epoch in our history. Mr. Roosevelt himself and the public mood shown by his flattering election give such a promise; and all men who think of the Government as an instrument of the public welfare welcome such a happy conjunction of circumstances.

A CHANCE FOR CONSTRUCTIVE POLITICS

THE economic problem that demands the serious thought of all patriotic men is, how to keep the great forces of corporate activity from doing violence to individual freedom—to keep them from taking away from men the equality of opportunity for which all our institutions exist. Great railroad systems and other enormous industrial organizations we must have. They are the necessary tools of the modern working world. They are as inevitable as they are necessary, and they are as desirable as they are inevitable. We would not go backward if we could in the development of industry. The problem is to

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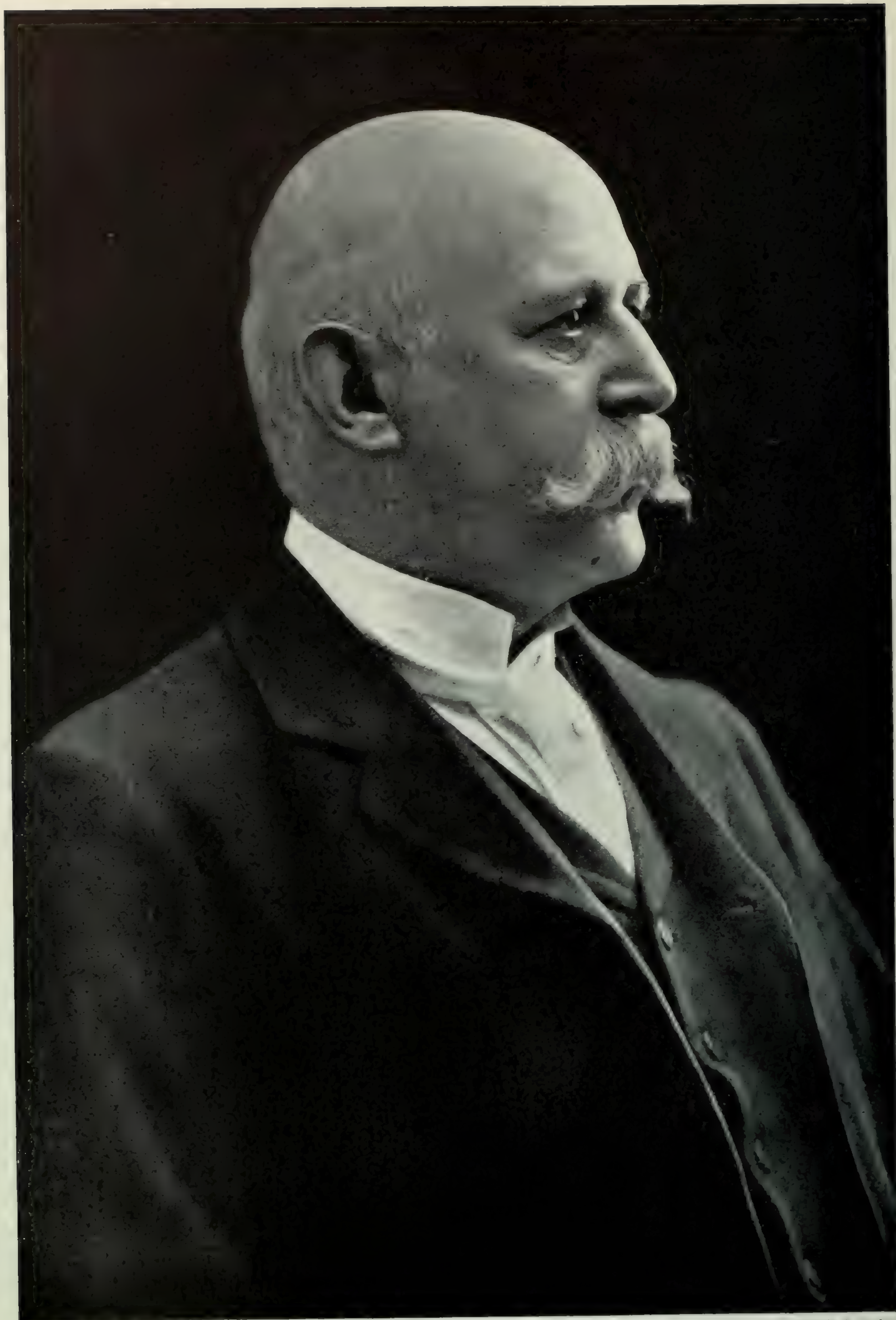
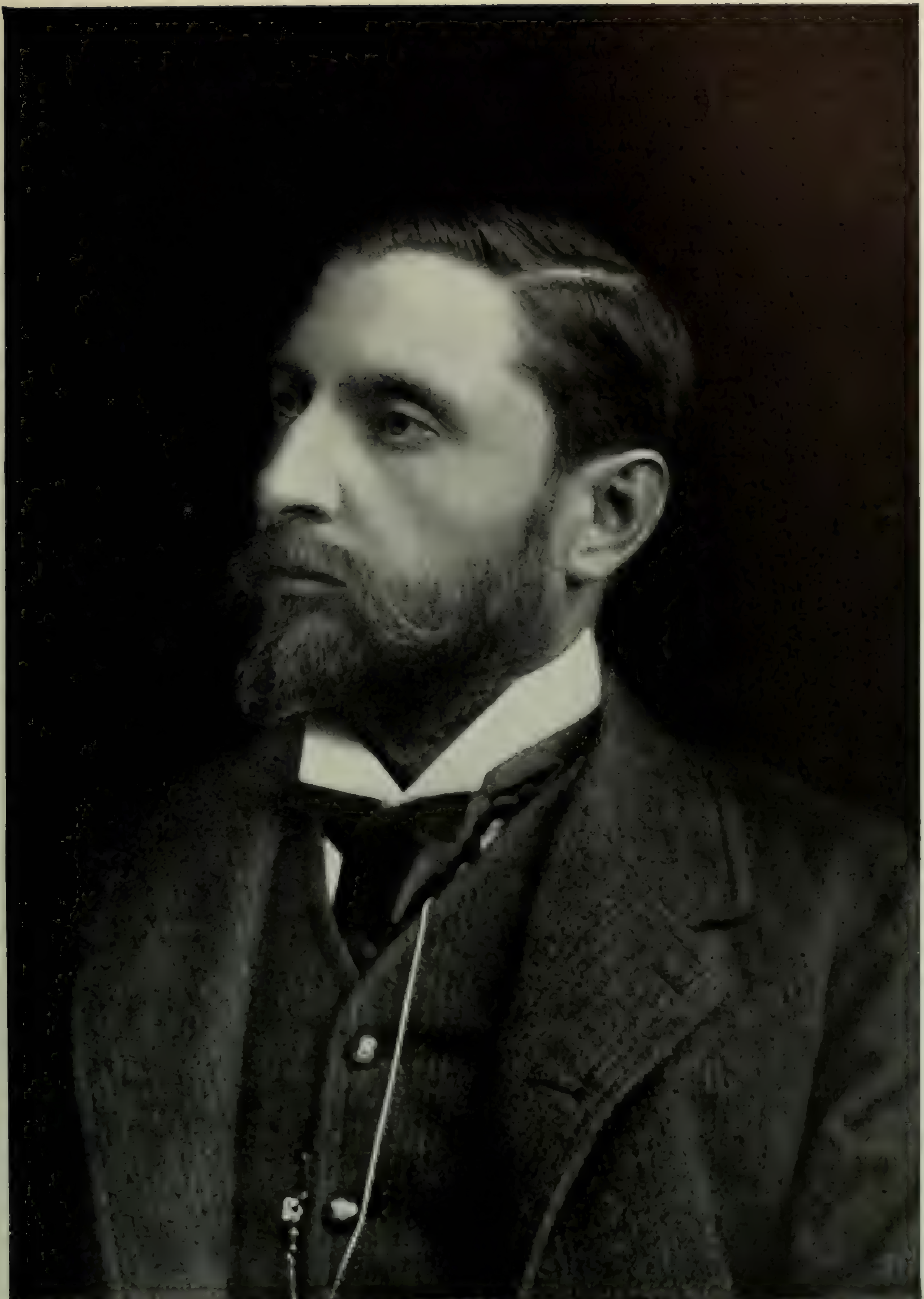


Photographed by Davis & Sanford

MR. CHARLES M. JACOBS

THE ENGINEER WHO BUILT THE FIRST TUNNEL UNDER THE HUDSON RIVER, AND WHO IS NOW DIRECTING THE CONSTRUCTION OF THE PENNSYLVANIA RAILROAD TUNNEL FROM NEW JERSEY TO NEW YORK CITY



MR. H. RIDER HAGGARD

THE WELL-KNOWN NOVELIST APPOINTED COMMISSIONER BY THE BRITISH GOVERNMENT TO STUDY THE SALVATION ARMY LAND SETTLEMENTS IN THE UNITED STATES WITH A VIEW TO THE INTRODUCTION OF SIMILAR COLONIES INTO SOUTH AFRICA

(See "*The March of Events*")

keep our new tools of industrial progress from crushing us, to keep our industrial servants from becoming our masters.

The huge problem, of course, takes many forms. Now it is the problem of railroad rates. That is a small section of it. Presently it will be the larger problem of some sort of regulation of all important corporations by the National Government. Always, too, it is the problem of the tariff—whether the time be not at hand when "the hogs shall at least take their hind feet out of the trough." It is the problem also of irrigation, of education, of agricultural progress, of shipping, of ship-building, of internal improvements of our waterways, of the industrial development of our colonial wards. All these subjects, little and big alike, call for attention from American statesmen, not from Republicans as Republicans nor from Democrats as Democrats.

No thoughtful man expects that we shall solve these problems easily or quickly. The relatively small subject of railroad rates may require another decade or two of thought and experiment before we hit upon the right method. But the fortunate fact is that, as Mr. Roosevelt's full term begins, we have these economic subjects in mind. They are no longer obscured. They are no longer regarded as incidental duties to be taken up between fruitless partisan debates of worn-out subjects. The great service that the President has done is to use all the influence of his office and of his personality to emphasize these duties. The study of these things is now the main matter. The scramble for offices and the debating of dead doctrines are incidental evils. The man who wishes to make a name for himself now, as a leader of public thought in official life or in private life, must make a contribution to the public thought on economic subjects. The time calls for new men, for exact and intelligent methods, for definite information and for clear plans.

These are good reasons for congratulation at the beginning of the new Administration; for the promise is of a period of constructive economic thought and action.

THE CASE OF THE RAILROADS

THE acute agitation of the question of railroad rates has given men much to talk about at Washington these two months; and the Capitol has been frequented by railroad presidents as never before.

The case of the railroads (for they have a case) was clearly explained to the House Committee on Commerce by Mr. Samuel Spencer, President of the Southern Railway, who spoke not only for his own road but for other important roads as well. He said that, whereas rebates were once the rule in railroad practice, they are now the exception, and that the railroads would welcome the abolition of rebates. Rebates are now unlawful; and to abolish them it is not so much new legislation that is needed as the enforcement of the law.

But the main matter is whether the Government, by any machinery, shall fix rates when complaint is made. The making of freight rates is as intricate and delicate a business as modern commerce has developed. Proper rates depend on distance, on the expense of loading and unloading, on the quantity of a commodity, on the direction in which it is hauled, on the time of year in which it is hauled, on the amount of other commodities the railroad has to carry, and perhaps on half a hundred other conditions all of which only the men who have the active management of a given road at a given time under given conditions can possibly know.

Mr. Spencer declared that this question is "the most difficult and intricate of all." The present adjustment, he explained, has been gradually worked out between localities and between railroads.

"To disturb this adjustment would not only be a task so enormous that no statement could convey a comprehension of it, but it would be impossible of satisfactory completion in the hands of a body with authority only to take into consideration the one phase of adjusting rates with reference to their equalization so far as the carrier was concerned, and leaving out the question of competition between localities.

"In this problem the price of commodities of every sort would have to be taken into consideration.

"Competition between mining centres, agricultural centres and manufacturing centres would have to be considered. Stability in the prices of commodities could not exist; and if it could, commerce would become absolute stagnation."

The practical difficulties, as thus set forth by Mr. Spencer are great enough to cause the most resolute reformer to hesitate. Nor does he overstate them. Moreover, the average of freight-rates has been greatly and almost steadily reduced during the last twenty-five years. The following figures are taken from Poor's Railroad Manual:

Photographed by Frances Be[illegible]

POSTMASTER-GENERAL ROBERT J. WYNNE

TO BE CONSUL-GENERAL AT LONDON

AVERAGE CHARGE PER TON PER MILE

Year	Cents	Year	Cents
1870	1.990	1895	.839
1882	1.240	1896	.806
1887	1.030	1897	.798
1888	1.001	1898	.753
1889	.992	1899	.724
1890	.941	1900	.729
1891	.895	1901	.750
1892	.898	1902	.757
1893	.879	1903	.763
1894	.860		

These are some of the practical reasons why the railroads object to the Government's undertaking to fix rates, in addition to the general reason that the Government should not interfere with private business.

THE CASE AGAINST THE RAILROADS

STRONG as the case of the railroads is, there is a strong case also against them. Take, for example, the foregoing table which shows an almost steady decrease in the average of freight rates—this decrease of an average has the fault of other averages of large and small things. While it shows that the long hauls of staple products in great and steady quantities are made at lower rates, it shows nothing about the rates over any particular road for any particular commodity. While, therefore, in these large averages freight rates are low, there are yet flagrant cases of very high rates. It is to reach and to correct these on complaint that new legislation is called for.

But the main matter that has aroused the President and the country is not high rates—this is incidental; for the main matter is discrimination in rates. There is discrimination between towns and between commodities as well as between shippers. Senator La Follette, of Wisconsin, very truly declared that the railroads determine "what villages shall become cities, what cities become great markets, and they dictate business supremacy in every industry." Specific instances of such discriminations are plentiful. They have filled the daily press for months. Great corporations have grown rich because of such discriminations, ever since the development of the great railroad systems. They have broken laws and evaded laws. The abuse of private-car rights and of the ownership of private side-tracks are two flagrant methods of evasion that have had much recent discussion. The truth that will not down is this —*that an unfair advantage in transportation has been the foundation-stone of many great corporations which have by this means suppressed their competitors.*

The railroads would be as glad as the public to make an end of discriminations and rebates; and it is only fair to say that they have been driven to make them by the great shippers themselves.

But the strongest case of the public against the railroads is not these specific sins against honest competition. It is a still larger fact. The natural tendency of railroad management, without governmental regulation of rates, has been toward continuous consolidation. A small group of men control the great transportation lines; and the group becomes smaller every decade. Railroad property is tending toward one colossal "combine." It is this fact that stirs the public fear more and more seriously.

The difficulties and dangers of governmental regulation are as great as Mr. Spencer says they are. But the dangers of colossal consolidation seem greater. If it be hazardous to intrust the regulation of transportation rates to a few Government officials, what about the hazard of permitting a single small group of railroad men to control the transportation of the whole country, and to determine which industries and persons and corporations shall prosper and which shall not?

THE GRAPPLE OF THE OPPOSING FORCES

THE form that the governmental machinery for the correction of rates is most likely to take is a Commission, with a special court or the present United States courts with special judges, to hear cases that are appealed from the Commission. The underlying idea is not that the Commission shall fix rates outright, but that it shall correct rates, if it sees fit, that are the subject of complaint; but a rate thus fixed by the Commission shall be subject to revision by the court. The gist of such an arrangement would be that we should have a special court for cases touching railroad rates; and at last the court would determine the rate.

This principle is likely to be incorporated into a law before the agitation ceases. On the side of some such legislation is the President, a strong faction of the Republicans in the House, and a few in the Senate, the Democratic members of Congress and a strong

public opinion. On the side that opposes governmental action are the railroads themselves, the railroad influence in Congress, which is especially strong in the Senate, and the influence of many large corporations.

The strength of the agitation for the governmental correction of rates is the feeling that the railroads will rule the Government if the Government does not restrain them. Those who favor governmental regulation will give less consideration to specific propositions than to the general proposition that the Government is the only agency strong enough to restrain the railroads and the large shippers and the large industries from crushing the smaller shippers and the smaller industries.

The earnestness of the struggle may be measured on one side by such a fact as the continued success of Mr. La Follette in Wisconsin, who now goes into the Senate, and by the unusual spectacle of the Democratic support of the Republican President. Mr. La Follette's succession of campaigns was won principally on his contention that the railroads should not be a privileged kind of property. On the other side the railway journals are full of articles of the temper shown in this extract from an article in the *Railroad Gazette*, by Mr. H. T. Newcomb, of Washington:

"The power 'to revise rates and regulations' is the power generally to make rates. Applied to American interstate and foreign railroad services it is greater power than has ever been exercised by any president or prince, by any Congress or Parliament, by any body of five men or of five thousand men. It is power to bind or to loose industry, to enrich or to impoverish both labor and capital, to build up or to tear down communities and commerce. Given to the Interstate Commerce Commission, it will not have been transferred from the railroads, for, neither singly nor collectively, can they or do they now exercise it; it will have been taken from the public, travelers, shippers, and railroads, among whom it is now diffused, and concentrated in the hands of a Government which by that act of concentration will be made the most powerful and the most centralized of any government on earth from the earliest dawn of history to the present day."

—as if there were no railroads owned and operated by governments! Other writers for the railroads have made pleas as eloquent as this for the widows and orphans who own the stock of railroad companies!

Meantime the President and the strong public sentiment that supports him are concerned less about the direct industrial effect of the present railway practice on particular industries than about the general demoralization of business life that is caused by it. The "square deal" is violated. Equality of opportunity is abridged wherever this kind of "graft" prevails.

THE MORALS OF TRANSPORTATION

NEW legislation alone is not going to stop the giving of rebates; for they are already unlawful and the present law prescribes exceedingly severe penalties. But, if the Government vigorously takes hold of the whole problem of the regulation of rates, with proper machinery to make regulation effective, the law will be more likely to be respected and enforced. The present machinery for enforcing it is not good. For years the Interstate Commerce Commission has not been a body of vigorous men. They have been an easy-going company, with limited powers, of whom the law-breakers have not been afraid. There is need of new blood, of a new temper in approaching the subject, of a quickened understanding of the importance of the task. The Commission has become too much the slave of routine.

The public conscience is only beginning to be aroused to the incidental evils of rebates. Wherever they are demanded and granted, there is the beginning of "graft." A big shipper demands a "rake-off." If he receives it, the next man who deals with the railroad also wants a rake-off—those who sell supplies and those who make contracts of many sorts. Thus the great business of transportation becomes more or less defiled by the granting of favors. Fair play is defeated by "pulls." A more or less general demoralization follows. This demoralization is absent or present, or is little or great, according to circumstances. Some railroad companies suffer little. Others "bleed" and are "bled" most shamefully.

A standard of conduct must be set for this great department of industry. The morals of commerce as well as common fairness in everyday transactions demand the most scrupulous dealings in transportation. Of all kinds of business it ought to be farthest removed from any suspicion of graft and rake-offs; for it is the public service. The effort to solve the problem presented by discriminations is an effort to build up the whole railway service to a uniformly high moral plane. This is the reason why the subject is beginning to take hold on the conscience of the people.

THE RUSSIAN REVOLUTION

THE key to an understanding of the momentous events that are taking place in Russia is the working of economic forces. Against the military despotism, the Terrorists and the milder Revolutionists alike had tried their strength and their methods without success. But now another force has come. During the last decade or two, Russia has become an industrial country. In the natural development of society in all countries militarism has at some time had to yield to industrialism for inherent and inevitable reasons. The time for this change seems to have come in Russia. The exact form that events will take from day to day, from week to week, or from year to year, nobody, especially in the United States, is well-enough informed to prophesy.

But opinion throughout Europe and America is practically unanimous that one of the great changes in the history of a people and of an empire is taking place. The military despotism of the Czars has outlived its time. The universal corruption of its administration has so weakened it from within, that the Japanese have won an easier victory than anybody in the world thought they could, and the war revealed the hollowness of it all; and at home the humiliation of defeat came at a time when the growing revolt was strongest. What has happened, therefore, seems, as we look back at it, a very natural course of events.

The Governor-General of Finland, Bobrikof, was shot last summer by a sane, patriotic, and self-sacrificing Finn; the repressive Minister of the Interior, von Plehve, was assassinated soon afterwards. A Liberal, Prince Mirsky, succeeded him. As soon as he relaxed somewhat the repression of his predecessor, all Russia spoke by one voice or another in favor of a greater degree of liberty. The minor nobility represented by the presidents of the Zemstvos made a formal petition for the first step toward constitutional government. They were permitted to meet and to express their wish; but the promise that they should be respectfully heard was ill kept. The Czar rejected their appeal. It seemed as if the vacillating monarch had a mind to yield to his generous impulses and that he was restrained by those about him. For the real rulers of Russia are the Grand Dukes and the women of the royal family. The reforms at a later time, timidly promised by the Czar, meant nothing; and the discontent grew louder. The Grand Duke Sergius, the Governor of Moscow, a particularly detested member of the ducal autocracy, gave up his post after an effort was made to assassinate his chief police officer.

Then followed the strikes of workmen in iron mills, cotton mills and other industrial establishments; and the revolution (for such it will be called in history, however long the closing chapter of it may be deferred) was led by the wage-workers. They had been filled with the revolutionary spirit. The leader of the strikers was a priest, Father Gopon, who led an army of men, women, and children, bearing an affectionate and loyal petition to the Czar to receive a committee of them and to hear their story and to grant the election of a free assembly. On Sunday, January 22nd, when they approached the Winter Palace, the Cossack soldiers of the Imperial guard slaughtered them in the streets. It was as cruel a massacre as any in history. Perhaps 2,000 men, women, and children were killed with bullets and by the sword—for the world will never know the exact number—and perhaps 5,000 were wounded. In a day or two "order" was restored in St. Petersburg by sheer military force.

But a great change had come over the people. They had made a test of their faith that the Czar is the "Little Father," and his answer was murder. Then they cried, "There is no Czar." All over the Empire the people rose. There were lesser massacres in Moscow and in other cities. In Finland, in Poland, in the Caucasus, there has been trouble. In practically every industrial centre workmen have struck; and quiet was restored only by military power and by murder.

While the Czar, a little while before the massacre in St. Petersburg, was engaged in the ceremony of blessing the waters of the Neva, when the salute was fired, grape-shot struck the palace above the rooms where most of the royal family were gathered. Here was a narrow escape—and a loaded cartridge could hardly have been used for a blank one by mistake.

Tardily and too late, after the massacre, the Czar received a committee of workmen, but he made no substantial promise. Rumors of many kinds followed these events—that the Czar had prepared a sort of *Magna Charta* and

that a constitutional government would be granted; that he had been dissuaded from carrying out this purpose; that, as soon as order is completely restored, he will grant reforms; and many other rumors. But the repression, especially in St. Petersburg where General Trepoff has been in military command, has been so severe that the outside world knows what takes place in Russia only by events so tragic that news of them cannot be smothered.

Any recital of what has occurred will seem tame by the time it reaches the reader; for events in the meantime may overshadow all that preceded them; or nothing more may happen for a time. The autocracy may gain a further lease of life. But its enemies now are not mere Terrorists or Idealists of this party or of that; for the temper of a great mass of the people has changed. The superstition that a kindly sovereign ruled behind the autocracy, is dispelled. He, too, is ruled by the autocracy, or is a part of it. The first chapter of a revolution has been enacted; and there will be other chapters. So, at least, the best-informed opinion of the world expects, early or later, but surely and at no far-off time.

THE STRONGEST STATESMAN IN RUSSIA

MUCH, of course, will depend on the personalities of the men who have real power in Russia; for they may shape events. Perhaps the strongest of all of the Czar's statesmen is M. Witte. The world outside Russia thinks him the one enlightened progressive in the reactionary Government at St. Petersburg. He and M. Bloch were jointly responsible for the Czar's peace rescript when the Conference was called at The Hague. From the very first he protested against the war. He opposed the repressive measures taken against the Jews and the Finns. The provincial investigating committees are his creation, and he is the author of various factory acts, and a workmen's compensation law. Could one of the most famous political industrialists of the world be anything but a Liberal?

Another view prevails in Russia. No Minister is more unpopular with more different kinds of people than M. Witte. He is not a favorite with the Czar because he is blunt and honest and nothing of a courtier. He is hated by the Grand Dukes because he is low and foreign born, ill bred, and the fearless opponent of the schemes that led to the war. He is hated by the Revolutionists for his reactionary methods. He is hated by the suffering people of Russia as one of the chief causes of their misery. He has declared against free local government, and has limited the fiscal independence of the Zemstvos. He has settled labor troubles with secret circulars, and has never hesitated to make use of administrative arrest and exile.

Both sets of facts are true without inconsistency. He is a convinced Absolutist and Socialist; and he is in favor of constitutional reform only as far as it is unavoidably necessary for economic development. But he has said more than once that what Russia needs is economic development, and not constitutional reform. He dislikes war and civil commotion merely because they hamper industry. To foster industry with Russian tyranny and paternalism, and to collect taxes is the aim of government with him; and to achieve his ends he is Liberal, Conservative, or Opportunist.

Because of his success he is proclaimed the Maker of Modern Russia. After many years of disastrous finance he restored the equilibrium of the budgets; he established the gold standard; and he made expansion in Manchuria and Persia possible by finding the money for their railways. His policy secured the Government monopoly of railways, and of the sale of intoxicants. He made the State steel works and mines profitable. It was his initiative and enterprise that secured foreign capital for the great manufacturing industries that have started up all over Russia.

It is said that his predecessor in the Ministry of Finance could wring blood from a stone, but M. Witte within ten years doubled the enormous revenues of the State. The taxes he imposed robbed the people of their living so cruelly that the consumption of bread has fallen off nearly seventy pounds per capita yearly; and within seven years the numbers of those rejected from military service for physical disqualifications have increased more than 14 per cent.

No modern ruler has had so able an instrument for concentrating all power in the hands of the crown. M. Witte has clear and definite aims. Depending upon nothing but his own good brains, he is daring and indomitable. He has the adroitness of Richelieu, the ruthlessness of Oliver Cromwell. Neither love

nor hate sways him from his course, and he never strikes uselessly or capriciously. The Court swarms with a multitude of Grand Ducal counsellors, but no man knows better than he that the Czar cannot do without M. Sergius Witte.

RUSSIA AND THE UNITED STATES

IT is perhaps natural that Russian public men and the Russian press should resent and even misrepresent English and American sympathy for the Japanese and for the revolutionists. The British consul-general at Warsaw was maltreated by officials and placards were displayed in many Russian towns accusing the English of complicity in the disturbances of the peace. The Grand Duke Vladimir expressed surprise and regret to the correspondent of the Associated Press at St. Petersburg at the American sympathy with the Russian people in their outburst against the ruling class. But these events and expressions are mere incidents in a long series of Russian misrepresentations of the English and American attitude. Since the beginning of the war both English-speaking countries have been used by the Russian press to explain defeats and disappointments. Cartoons have been circulated in St. Petersburg itself which represent Uncle Sam and John Bull as active allies of the Japanese. Just as there are millions of persons in Russia who believe that the Russian army in Manchuria has won an unbroken series of victories and is about to drive the Japanese into the sea, so there are thousands who believe that the United States and England are actively aiding Japan. The censorship of news that is sent out of Russia has been greatly relaxed, but not the censorship of news that is published in Russia. A consistent policy of suppression and of misrepresentation has been followed in distributing information to the people.

The Governments of the United States and England have, of course, maintained a dignified neutrality; but the press and the people of both countries have freely expressed sympathy with the Japanese and with the revolutionists; and the pressure of this public opinion has been felt. We have reached a stage in the organization of the world where a strong public sentiment in any civilized country must have effect in every other civilized country Irritating as this must be to the Russian Government, it is a part of the price that autocracy must pay for outliving its proper time.

But the sympathy of a people is one thing, and the attitude of their Government is another thing. The Government of the United States has not only remained neutral during the war and kept the most courteous and proper relations with the Russian Government, but it has stood ready with its good offices at any time to hasten the coming of peace. There is even a sincere sympathy in America for the Czar and for his progressive ministers as well as for the Russian people. The hated thing is the autocracy of oppression and "graft"—graft from the lowest places to the highest. It was this that precipitated the war, and the revolutionary outbreaks. Hostility to a system is not hostility to a people or even to a ruler who are its victims; and the ancient friendship of the United States and Russia will not be broken unless the desperation of the bureaucracy or of a losing military organization should commit an overt act of unfriendliness; and fortunately this is too improbable to be feared.

AN OLD DIPLOMATIC STORY RETOLD

IT is now difficult to recall the attitude toward China of practically all the Great Powers five years ago. There was no doubt anywhere in the world that the Empire would be exploited by the European Governments. Each would, when occasion came, extend its "sphere of influence" and even add to the territory definitely ruled by it. The only restraining force was every Government's fear of the other Governments. That China would be divided was considered certain. The only question was how and when it could be safely done.

This mood was conclusively shown at the end of the war between Japan and China. Germany and France and Russia, England looking on without protest, forbade Japan from keeping the part of Manchuria that she had won in battle. Manchuria was thus saved for subsequent Russian occupation, and several of the other Powers also made slight additions to their Chinese territory. Continued partition, as fast as it could be made without disturbing the peace of the world, was the thoroughly understood, if tacit, programme. And Japan was not to be permitted to disturb this plan. For this reason Russia declined to make an alliance with Japan

because it would stand in the way of her own aggressive ambitions.

This was the mood—it might be said that it was the definite silent conclusion—of all Europe when the Boxer insurrection took place. Then it became necessary to use military force at Pekin; and every important Power sent its soldiers not only to rescue its besieged legation but to make sure also that, in whatever division of territory should follow, as indemnity or as spoil, it should not be left out. There was a practically universal expectation that the breaking up of China had come.

It was then that the saving influence of the United States came into play. Secretary Hay proposed that the integrity of the Empire should be preserved. No Power could refuse to agree to so just a proposition if the others agreed to it. It was accepted, therefore, because no Power—not even Russia—was willing to risk a general war by openly declaring a purpose to seize new territory; and a refusal to sign the agreement would have been equivalent to such a declaration.

Even then there was grave doubt whether such an agreement would be permanently effective. It was looked upon rather as a means of amicably withdrawing troops than as a permanent compact. And Russia proceeded at once to violate it by keeping her military control in Manchuria. Promise after promise to retire was broken, and at last the Japanese war was precipitated.

Then again Secretary Hay took the leadership in the world's diplomacy by exacting an agreement to limit the area of hostilities, still keeping safe the integrity of China, except Manchuria, where the war was in progress. Again, too, there was a lingering doubt throughout the world of Russia's sincerity. But again Russia could not decline to agree to restrict the area of hostilities and to keep China intact, without openly admitting a purpose to despoil the Empire.

It is necessary to recall these events thoroughly to understand the great service to the peace of the world and to the future of Asia that was done by our far-reaching, well-planned, gentle but shrewd diplomatic action. No force was at Secretary Hay's command but the force of a clear statement of a right and high purpose. The jealousy of the Great Powers was such that a declaration of a right purpose by all became a check upon every one. It was a consummate use of diplomacy. But would it be permanently successful? As the war went on, might not "military necessity" force either Japan or Russia to violate the agreement? Is China yet safe from partition, and is a European struggle for parts of it yet averted?

A NEW CHAPTER OF DIPLOMATIC TRIUMPHS

NOW comes the next interesting chapter in this beneficent story which might be called "The Saving of Asia from Spoliation and the Maintaining of Peace between the Powers of Europe." Another danger arose. Russia accused Japan of profiting by Chinese help and gave notice that she would not be further bound to respect the neutrality of China nor her territorial integrity. In the meantime she developed a plan to seize Chinese territory to the west of the gulf of Liaotung. If this were successful, she might, when the war ends, be in possession of Chinese territory which might then be claimed as her permanent possession.

Moreover, since the whole subject of the future of the Far East must be considered by the Powers, the old topic of the partition of China had again come up for discussion by European diplomatists. There was reason to fear that a plan might be made to take advantage of the end of the war to increase the present European territorial possessions in the Far East. If Japan's territorial possessions be enlarged as the result of her victory, or if Russia lay claim to Chinese territory, when a treaty of peace comes, are the European Powers to abstain?

Again taking the opportune moment, Secretary Hay addressed a note to the Governments that have territory in China, asking their intentions; and again Great Britain, Germany, France, and Italy have committed themselves to preserve the territorial integrity of the Empire. This assurance, given again now when peace may be near, means that the influence of all Europe and of the United States will be brought to bear on Russia and Japan to save China. Japan is not likely again to give up Port Arthur or Korea. But Russia is likely to be prevented, by this concerted European and American influence, from acquiring new Chinese territory on the Pacific.

Thus it may turn out that Mr. Hay's watchfulness and his courteous persistence in hold-

ing the Powers to an agreement that was not perhaps at first regarded as permanent, will be the restraining force that shall make peace, when it comes, a lasting peace. There is no more inspiring chapter in the whole history of diplomacy than this. There was never a gentler or shrewder use made of friendly relations and of moral force to carry out a high purpose.

There is another chapter in this interesting series of efforts to save China from Russia. When the Russian Government insisted that China had violated the neutrality agreement and thus absolved Russia from longer observing it, Secretary Hay made this answer to the Russian Ambassador—that, since the interests of so many Powers are involved, "this general solicitude of all the interested States would make it expedient and proper that the matters concerning which the Russian Government raises an international issue should be considered in a conference of the Powers." If there should ever be a meeting of the Powers to discuss the integrity of Chinese territory (and why should there not be when the subject becomes even more acute?), there would be a good chance that an international agreement would be made so binding that even Russia would be restrained. There is, therefore, yet good reason for hope that Mr. Hay's gentle proposition made at the time of the Boxer uprising may play an important part in the history of the world.

RUSSIAN ACTIVITY TOWARD BRITISH INDIA

WHATEVER be the fate of Russia in the Far East, the push of the great Empire toward the English possessions in India is still feared. Lord Curzon's vigorous policy, of which the expedition to Tibet was one illustration, is to strengthen Afghanistan as a buffer state; and Mr. Balfour recently expressed, in a speech at Glasgow, the British Government's intention to defend Afghanistan. The Ameer's army already receives a subsidy from the British Government in India, and his oldest son paid a ceremonious visit to Lord Curzon at Calcutta in December.

The Russians also are active on the Afghan border and are strengthening their railroad connections there. On the British side, the defense of Kabul and Kandahar is indispensable, and British railways have been built looking to these defences. The Russians now have the advantage in nearness to an Afghan base, but the British propose to extend their railways all the way to Kabul and Kandahar. The Ameer has strongly fortified Kabul, which now has a well-drilled and well-armed garrison of 75,000 men, and there are nearly twice as many irregular troops. Meantime Russian trade in Afghanistan has been increasing at the expense of English trade, and Russian secret influence at the Ameer's court is constantly suspected. Russia is seeking also to fix a financial grip on Persia.

These movements in parts of the world to which American attention is seldom directed (we are yet provincials in world-politics) may mean much in the future. If Russia be shut out from a port on the Pacific, she will push the more strongly fo an outlet on the Persian Gulf or on the Indian Ocean. And this desire is not forgotten by the British Government of India. Not long ago Lord Lansdowne, the British Foreign Secretary, proclaimed what has been called a Monroe doctrine of British predominance over the Persian Gulf. This region may therefore one day become as familiar to us as Manchuria has become.

MINISTERIAL CHANGES IN FRANCE

THE forced resignation of the French Ministry was the personal defeat of the Premier, M. Combes. The people as a whole are piously Catholic, but to put an end to the persistent Royalist intriguing of the priesthood, they are practically agreed upon the complete separation of Church and State. But M. Combes took up the task in a fanatical anti-religious spirit. He persecuted the church, and developed a system of spies, and of secret reports on the lives of army officers, the judiciary and the members of the civil service. When it leaked out that the President's wife had been denounced in one of these reports as "very clerical," his downfall was assured.

The new Ministry of M. Rouvier has a majority of more than three hundred in a Chamber of five hundred. It represents the conservatism and the good sense of France, and is pledged to the fulfilment of the old programme. Besides the absolute divorce of Church and State, the reforms include the enactment of an income tax, the reduction of the term of army conscription to two years, and a workman's old-age-pension law. There is, therefore, no change of policy. In fact, although there have been forty-one

ministries since 1871, France can show an increasing stability of political institutions.

The new Premier is the most skillful financier of France. He was the most important figure in the Combes Ministry, and has been in political life since the days of the Commune. He was Premier in 1887, when General Boulanger, as Minister of War, was at the height of his popularity and was riding a black horse on the boulevards daily and was threatening a *coup d'état*. His summary removal of that conspiring demagogue is an instance of his supreme courage. His moderation now in approaching the religious question shows his practical wisdom.

The foreign affairs of the Government remain in the able and tactful hands of M. Delcassé; and as France draws closer in friendship to England and Italy, the peace of the world receives a new guarantee.

Nothing is more significant of the new forces at work in France than the rise to power of such a man as M. Doumer, just elected President of the Chamber of Deputies. In his two months' assault upon the Combes Government he united every branch of the Opposition. And yet he is new to the work of Parliament, and his leadership was won purely on account of his remarkable success as a colonial administrator. His five years' work as Governor-General of Indo-China can be compared to the services rendered Egypt by Lord Cromer. He merged the governments of the different provinces into one efficient central power. Old debts were wiped out, bridges were built, harbors improved, roads constructed, and canals deepened and extended, great works of irrigation begun, the railroad mileage doubled, and the length of telegraph wires trebled. These improvements have had a remarkable effect on trade. Imports and exports have been more than doubled, and now reach nearly $100,000,000 a year.

M. Doumer was successful in inducing the immigration of his own countrymen, though Frenchmen are rarely willing to emigrate. There is no better example than he of the able group of young men who are conspicuous in the public life of the country.

A POSSIBLE CHANCE FOR THE DEMOCRATS

A REVISION of the tariff will at least be discussed during this Administration, and probably made. This seems a safe prediction because the President favors revision; and it is understood that he left the subject out of his annual message in December in order to write a special message about it later. An influential part of the Republican party also favors revision—in Massachusetts, Iowa, and Minnesota, for examples; and it is the nature of the subject that it will not be cried down. But the Congress that expires on March 4th is a "stand-pat" Congress. The majority of the Republican members oppose revision, following the lead of the Speaker, Mr. Cannon. But the incoming Congress will contain more members who agree with the President—members who came in on "the Roosevelt wave."

Apart from the merit of revision, there is another reason why it is likely to be undertaken. If the Republican party does not keep its platform promise and take the subject up in Congress, it will invite defeat at the next Congressional election. The one chance that the Democrats may have two years or four years hence to recover from the utter demoralization of their party may be the chance given to them by the Republican refusal to satisfy the popular demand for tariff revision and for an honest effort to minimize the power of big shippers, of railroads, and of great corporations to abridge individual freedom.

THE MID-WESTERN POLITICAL MOOD

IN the States of the Mississippi valley are the centres of population, of farm values, of agricultural production, by the grace of mere geographical position. But by the grace of activity and of a diversity of experiences in life and work, the centre of thought that is determining our national policies is there too.

The three public subjects that have lately been most on men's minds are the Federal regulation of railroad rates, the revision of the tariff, and the Federal licensing of corporations. Every one of these gets its strongest support from public opinion in these mid-continental States. Tariff-revision has the support of the Democratic party in almost every part of the Union, although less earnestly and solidly than in Mr. Cleveland's time; and it finds favor among many Republicans in the Atlantic States, Massachusetts, for example. But the strength of the Republican demand for it comes from Wisconsin,

Minnesota, and Iowa. The Federal regulation of railroad rates naturally finds its chief objection among the well organized financial forces of the Atlantic States and its support chiefly among the multitude of small shippers in the Middle West. So, too, for the same reasons Commissioner Garfield's proposition, that interstate corporations shall be licensed by the Federal Government, meets with less approval in the Eastern homes of the great corporations than in the West.

But there is a deeper meaning in this division of feeling and opinion than these obvious reasons for it suggest. The conviction of men in the valley States is far stronger than the conviction of men in the Atlantic States that somehow the concentration of wealth and power endangers free government. Mr. La Follette's success in Wisconsin means this. In another way, Mr. Bryan's whole career proves the same thing. It was an accident of the times and not clear reasoning that caused him to hit upon the free coinage of silver as his remedy for evils that he felt and wrongly analyzed.

It is in the Mid-West that the mass of men live who keep the spirit of individual freedom most alive. Society is less elaborately organized than it is in the Eastern States. Authority is more quickly resented. Tradition is less powerful. Men rejoice more in what they call "freedom" for the lack of a more precise word. There are fewer men directly dependent for their livelihoods or their advancement on other men than in the Atlantic States. This difference shows itself in political feeling and action; and the Mid-Western mood about the economic problems that are now uppermost in political life is likely at last to be the dominant mood.

CONSULAR HELP TOWARD FOREIGN TRADE

WE have not yet quite learned how to secure foreign trade, well as we have succeeded in certain special branches of it. It is a good proposal, therefore, that has been made by Mr. Loomis, the Assistant Secretary of State, and approved to Congress by the President, that six commercial attachés be added to our consular service. They shall not have the routine duties that our consuls have, but they shall make it their sole business to get information and to suggest plans for the building up of our foreign trade. Five of them shall cover the trade divisions of the foreign market, and the sixth shall either do special service in the Department of State or go on particular missions. They are not to have a fixed residence, but are to be transferable from place to place as circumstances dictate.

The opinion of the plan expressed by the men in our diplomatic or consular service is, on the whole, favorable; and it has been favorably received in the commercial world —at least as a plan worth trying. The Yankee is not a good foreign merchant; and if the Government succeed in explaining why he is not, this explanation may be a long step toward improvement.

THE SCANDAL OF SANTO DOMINGO

THE long drawn out trouble in Santo Domingo has come to us at last, as come it must. The so-called republic is in debt—hopelessly, so long as its succession of adventurers try to conduct its affairs. The debt of the country is $32,000,000. European Governments, not unnaturally, have informed our Government that, if we do not untangle this fiscal skein, we ought not to object to their doing so. Since we do not wish to have European squadrons in the West Indies on such errands, and especially since President Morales, of Santo Domingo, has asked our administrative aid, the unpleasant task presents itself as a duty to our Government. The President, therefore, entered into an agreement with Santo Domingo (subject to ratification by the Senate of the United States) whereby the United States shall collect the revenues at Dominican ports and apply the money, in a given ratio, to the uses of the domestic government and to the payment of the foreign debts. This arrangement is to be carried out by native officers under American direction.

This does not contemplate our assumption of these debts or our guarantee of their payment but only our direction of the finances toward such payments. But the very collection of these revenues will depend on the orderly conduct of the Dominican Government; and we shall, therefore, be committed to preserve order there.

And after that—what? Possibly nothing. But the plan carries with it possibilities that we do not actively seek. Santo Domingo is one of the gross scandals of the world in other ways than a financial way. One responsibility

assumed there may lead to another. It is for this reason that public opinion in the United States seemed to demand a thorough discussion of the plan, when it was supposed that it was to be put into effect before the Senate should ratify it or have time to discuss it.

If all goes well, we shall put the finances of the country in good shape and leave it to its own misadventures till another similar trouble arise. If all does not go well, we shall find the black republic "on our hands"; for it is almost certain that we shall at some time have to bring permanent order there.

PROGRESS IN WESTERN SOUTH AMERICA

CHILE and Peru are often taken as typical examples of the backward republics of South America. Both have a stationary or shrinking population. In both there is extreme poverty among the great masses of the people. Education is neglected; natural resources are undeveloped; there are few manufactories. Travelers report that brigandage abounds outside the cities, and justice is an abstract idea that the common people do not understand. Yet with the opening of a new year came the report of substantial progress.

Improved means of transport has always been the most imperative need of both countries. Chile at last seems on the point of securing the entire railway system that has long been planned. The Government has just granted a concession to a British corporation for a railroad to connect Valparaiso with Buenos Ayres. On its completion the journey to Europe from the Pacific Coast will be reduced to twenty days. Work is so far advanced on the great Northern and Southern railroads that in five years more the most remote mines and pasture lands will be accessible. Commerce is reviving, and the steady increase in foreign trade amounts to more than one-third in ten years. For the first time in the history of Chile the budget shows a surplus of $5,000,000. The Government is awake to the fact that immigration of the proper kind would prove the final salvation of the country. By its invitation a colony of 1,000 thrifty Boers has recently arrived. The head of every family receives a grant of rich valley land, and a full set of farm implements and seeds.

Peru is a much poorer country. Its capital lags far behind other South American cities. Its commerce amounts to only about one-fourth of Chile's, but its recent advance is much more striking. The day of its revolutions now seems past. For the fifth time in succession a Peruvian President has been constitutionally elected. Peru, as well as Chile, is to have the railroads for lack of which its mines have been idle. An American firm has contracted to build a railroad connecting the most valuable lands of Peru with the head-waters of the Amazon. Three electric roads have been completed within the year. One hundred and eighty new public schools have opened their doors. There is a new manual training school at Lima. New buildings costing $500,000 have been added to San Marcos University. New hospitals for the insane costing an equal amount are building. Evening schools for laboring men are now held in all the cities of the Republic.

Commercially Peru is entering on a new era of good times. High prices for sugar, cotton and copper are contributing immensely to the prosperity of the industrial classes. Foreign commerce has doubled in the last decade, and the public revenues have trebled, Both Chile and Peru seem gradually to be evolving a stable civilization.

OUR EVERY-DAY WASTE OF LIFE

THE astonishing information has been given out by the chief surgeon of General Oku's army that from May 1st, last year, when it landed in Korea and began active service, till December 19th, only forty men died of diseases. There were 25,000 cases of sickness, but of these only about 500 were cases of typhoid fever and dysentery, which are usually the great scourges of armies. Within the same period more than 21,000 men were wounded, 16 per cent of whom died.

While this rate of recoveries from wounds is very high, the recoveries from disease so far exceed all records as to mark a revolution in military sanitation and medical treatment—chiefly in sanitation. This army has marched and camped and fought most of this time in a country from which it drove the enemy and which was, therefore, a stripped country. It received its supplies from home. It was exposed to all sorts of weather, except mid-winter cold. It made quick marches. It fought fierce battles. It endured all the

usual hardships of active military service and all the insanitary dangers of camp life. Yet practically its whole loss of men was the loss of those killed in battle and one in eight of those wounded.

This is the same as to say that the Japanese army is the first aggregation of men in the world that has taken the lessons of sanitary science and of careful living seriously. In our civilization, not to speak at all of our army, we do not take these things seriously. In every community there are many persons, laymen as well as physicians, who know that wrong eating and bad water and imperfect sanitation bring diseases, most of which are diseases of intestinal origin; and yet we go on in the same old fashion of waiting till we are ill before we call in the physician, the plumber, or the sanitary engineer. We eat and eat and eat, and swallow physic and more physic, and enrich quacks and die and preach funeral sermons and say the will of God be done, over many a man and woman who died for the lack of common sense and common precaution. We have had crusades for teaching in our schools the evil effects of alcohol, but little is ever said to the children of the ignorant about the processes of digestion or the necessity of chewing food or the kind and quantity of food to eat. The simplest rules of right living are yet left to be imperfectly explained by physicians after diseases and disorders have developed; and physicians, as a rule, content themselves with curing the sick and do too little to save the well from illness. Popular instruction in health is yet left to the quacks and they become rich by instructing us wrong. The Japanese soldier with his simple diet of rice and dried fish and with his habit of obedience to his sanitary officer points a moral and adorns a tale for us who spend about a third of our food-money for beef and enough for pills to pay the national debt. Our descendants, when an age of sanitary enlightenment comes, will read about our every-day needless waste of life with the same horror with which we read Defoe's account of the plague in London.

THE PROBLEM OF THE COTTON GROWERS

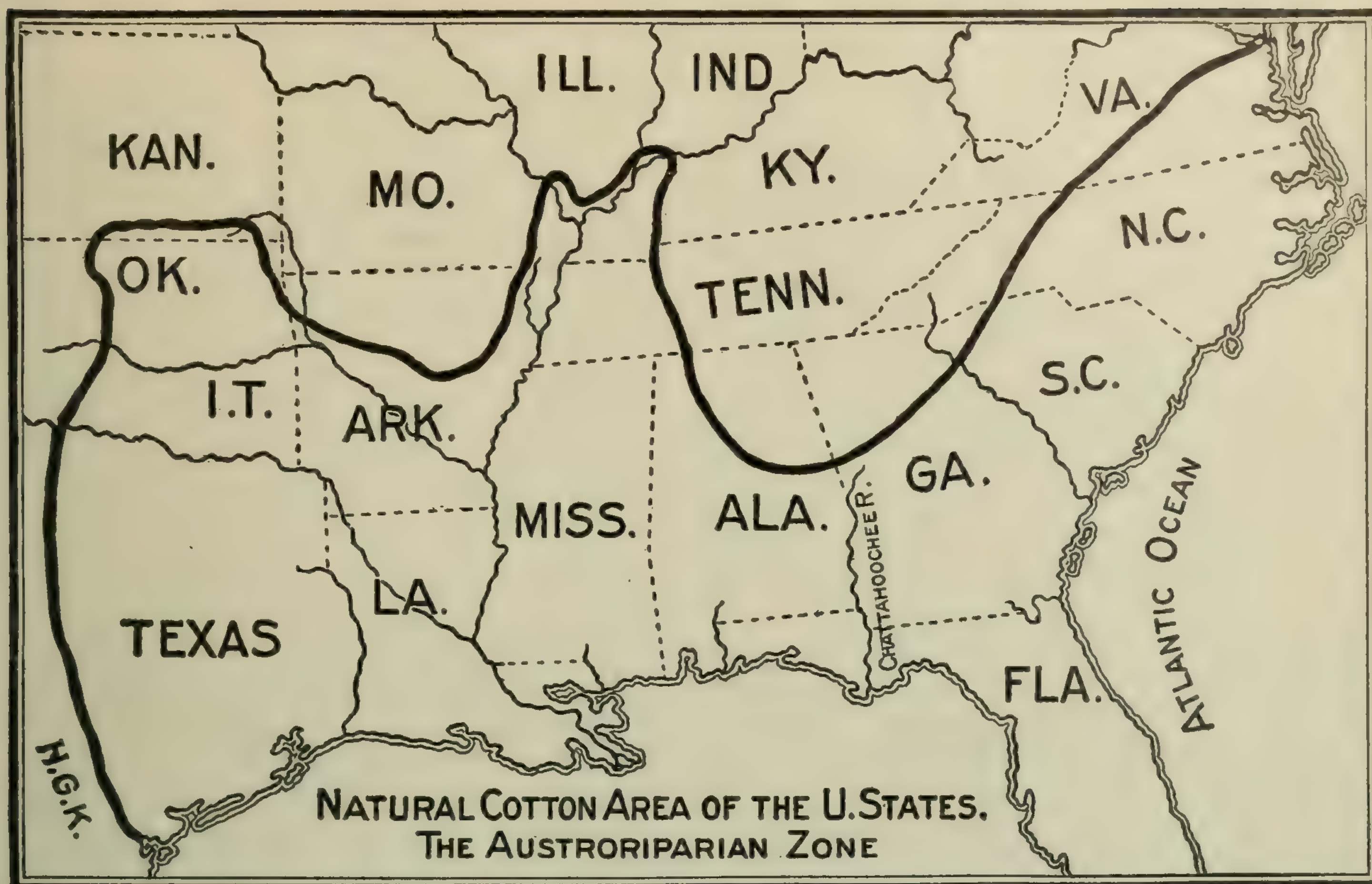
THE Cotton Planters' Convention at New Orleans resolved to restrict this year's crop and they organized a sort of cotton-farmers' trust. Warehouses are to be established at convenient places at which the trust will receive cotton, advance money on it, and hold it till the price is satisfactory—say, ten cents a pound.

The trust-builders have made merry at the spectacle of the planters' imitation of their own detested methods. But this is a harmless criticism beside the economic short-sightedness of the plan. In the first place, the crop cannot be restricted by resolution. It will be little or big as men read the signs of the times. A restricting resolution may, in fact, cause an increased area to be planted. A man will say, "Well, since everybody else is going to plant little, the price will be high, and I will plant more." If enough planters act on that principle, the next crop will be the largest ever grown. And why should they not? A small proportion of the planters are personally bound by this resolution. Again, if the warehouses are successful as storage-places till the price rises, storage-warehouse companies will spring up; and the farmer will discover that they are only cotton merchants under another name.

But the strongest objection to the plan is that it is a plan artificially to restrict production. That is not the solution of the cotton-grower's problem. The right solution is the extension of the market for cotton goods. In twenty years the world's consumption has nearly doubled and the limit is not yet reached. Far from it. If the market should grow during the next twenty years as fast as it has grown during the last twenty, at least twenty-two million bales will be required every year. The large crop of last year was only about twelve million bales. The probable limit of Southern production under present conditions is from fifteen million to seventeen million bales.

But see what room there is for the expansion of the market. It is estimated by Mr. Henry G. Kittredge, of Boston, that the per capita use of cotton in the United States is twenty-five pounds; in Great Britain it is only eight pounds; and in continental Europe much less. In Asia (to say nothing of Africa) the use of cotton is yet inconsiderable in comparison even with its use in Europe. The problem, then, is a problem of widening the market, not of restricting the production. Perhaps the farmer cannot directly do this; but he ought to use such power of organization as he can command to find consumers.

The day is coming when our foreign trade



THE TERRITORY IN WHICH COTTON CAN BE GROWN WITH PROFIT LIES SOUTH OF THE BLACK LINE

shall be better organized; and then we shall discover that the whole available cotton area in our Southern States is too small to grow the crop that will be demanded. Then the price will be fixed by a sound economic principle and not by artificial efforts at restriction. It is hoped that the grower will himself receive the increased price to which he is by this principle entitled. He will not permanently raise the price in any other way.

Mr. Kittredge designates the austroriparian zone of the biological survey as the natural cotton area of the United States; and of this area he calculates that the land available for the profitable culture of cotton is about thirty-five million acres. At the average rate of production this area would yield from fifteen million to seventeen million bales. But by improved production (by the use of better seed, for instance), when the price warrants it, the yield will probably be greater than seventeen million bales. In a word, in a decade or two the South will not be able to supply the demand.

JAPAN'S UNBROKEN SUCCESSES

THE Russo-Japanese war has now lasted more than a year. From the start Japan's naval campaign was successful. Admiral Stack commanded seven Russian battleships, six cruisers, and a fleet of destroyers and torpedo boats at Port Arthur when the war broke out; and there was another fleet at Vladivostok. Admiral Togo sank, drove ashore, chased into neutral ports to be disarmed, or captured, every vessel in the Port Arthur fleet save the few the Russians themselves sank; and in one day's fighting in the blowing up of the Petropavlovsk Admiral Makaroff, the most capable of the Russian sea fighters, was killed. Meanwhile Admiral Kamimura had crippled the Vladivostok squadron. Russia's Baltic fleet, after its criminal blunder in firing on the British fishing fleet on the Dogger Bank, has not yet gone farther than Madagascar. Japan's fleet, though suffering some losses, is hardly less strong than when the war opened and now holds securely all the sea approaches to the seat of war.

On land, General Kuroki, in command of the first Japanese army to land in Korea, pushed the Russians back across the Yalu in a battle in which 3,000 Russians were killed, to 1,000 of the Japanese. General Oku, landing on the Liaotung peninsula, stormed Nanshan Hill in one of the fiercest bits of fighting in the war, and moved on to join

Kuroki, defeating on the way General Stakelberg who had been sent down from Liaoyang to relieve Port Arthur before which General Nogi was preparing to draw up his army of besiegers. General Nodzu joined Kuroki and Oku, and the three armies, under the supreme command of Field Marshal Oyama, fought a five days' engagement before Liaoyang with General Kuropatkin, who barely saved his army from destruction by a masterly retreat. Kuropatkin tried again, but at the battle of the Sha River he was again defeated and forced back. Meanwhile Nogi had drawn his lines closer about Port Arthur, and on January 1st, General Stössel, the Russian commander, surrendered. Within the year Russia lost 72,700 men in the Manchurian campaign, and Japan 54,000. Nogi lost 50,000 more men in the desperate attacks on Port Arthur, where the Russian losses were of course relatively light. Japan's losses would have been greater if it had not been for the efficiency of the medical department, which has amazed the world.

Japan, then, has swept the Russian fleets from the sea and driven the Russian army practically back to Mukden. The year has been one of unbroken Japanese successes, and misfortune still pursues General Kuropatkin. Immediately after the revolutionary outbreak in St. Petersburg, he was again ordered to take the offensive. The operation was entrusted to the second army under General Gripenberg, which immediately seized a strategic position parallel with the extreme Japanese left, and with great dash rolled up all the Japanese positions on the Sing-min-tung road. The Russian cavalry got within fifteen miles of the walls of Liaoyang. The bloody and disastrous battle of Hun River followed. The outer trenches of the town of Sandepas were heroically stormed, but after three days of desperate fighting the Russians were driven back across the Hun River to their original positions. They had gained nothing. The Battle of Hun River will rank as one of the important engagements of the war. Fully one-half of the entire Russian army was in action. There was more artillery on both sides than in any previous battle in history. The Russian casualties numbered 10,000; the Japanese 7,000. The Japanese here won still further honors, and another great Russian military reputation was destroyed, for General Gripenberg was recalled in disgrace.

MR. MORLEY ON AMERICA

MR. Morley is one of the most welcome English visitors that ever came here. A great English Liberal, one of the great Liberals of the world in fact, an uncompromising idealist, the writer of books that have advanced human liberty, the administrator of Ireland who brought Ireland a greater degree of peace and happiness than she had ever before known, and for nearly ten consecutive years a member of Parliament who has battled for every noble cause—it is interesting to read what such a man said about us when he went home.

He recently spoke to his constituents at Brechin about his American experiences. The marvelous growth of the United States industrially and territorially, the vast and complex interests of the two countries and the similarity of their policies as they pursue the same paths of naval rivalry impressed him. More impressive still in days when England is astir with army reorganization, and is giving herself to a new scheme of Imperial rowdyism, was the chief lesson of the busy industrial life that he had here seen. Courage and discipline, he said, were learned in more ways than one, and the discipline of railways, factories and mines was often every bit as good as soldiering for the morals of men.

Nothing seemed to him more typical of American progress than the universal success of our school system. Here again England might learn a lesson from us. Our education was secular; we had no State Church; and yet in no country in the world was religion more genuine and earnest. Municipal corruption, he thought, was offset by public and private honesty of unexpected and unusual kinds. There were no higher standards of honor and integrity than he had seen appealed to by both political parties in our Presidential campaign. As for the problems presented by our special form of democratic government, he declared that the confidence we have in our own shrewdness, common sense and right feeling was usually justified by the issue.

Mr. Morley's speech has been hotly discussed by the English papers. One of his thrusts at the House of Lords was neatly parried by the London *Times*. "We are doing our best with our outworn and decadent institutions," it said. "The House of Lords is getting a good many American mothers."

By courtesy of Dun's Review

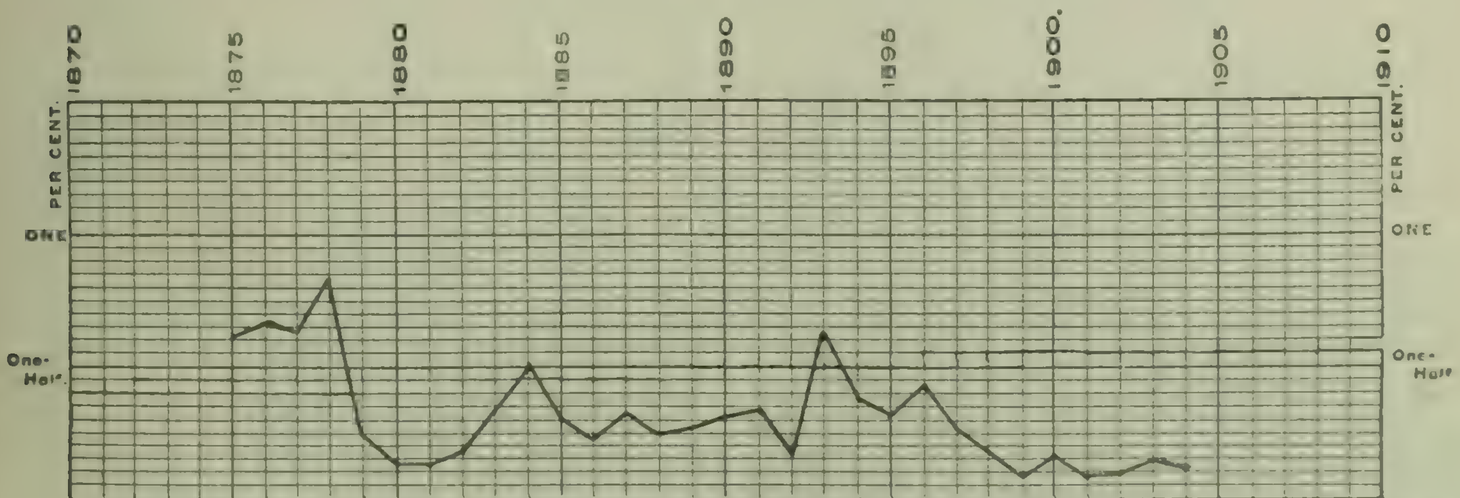
THE STORY OF THE GROWTH OF THE COUNTRY'S BUSINESS

A record in millions of dollars of the business payments made through banks in the fourteen leading cities in which 90 per cent. of all the payments through banks are made

BUSINESS EFFICIENCY INCREASING

THE measures of our business conditions made by *Dun's Review*, from which the accompanying diagrams are re-published, indicate both a steady increase in our commercial activity and an improvement in stability. It is difficult to find an index that convincingly registers the grades of prosperity, but bank clearings—the payments made through banks—show them better than any other measure. Sooner or later every purchase and sale is represented by a bank payment somewhere. The line on the diagram given above, which shows that bank clearings in fourteen certain selected cities averaging $180,000,000 a day at the beginning of 1895 had reached $400,000,000 a day, the highest point in our history, last December, tells the story of our commercial progress. It is a stimulating record of activity. Close study of it shows the normal falling-off in business every summer; the uncertainty produced by the Spanish War in 1898 and the elections in 1896 and 1900; the boom in the early part of 1901, the slight depression of last summer, and the business awakening of last fall. Its general tendency is upward.

The second diagram is a noteworthy setting-forth of the large fact that our business is governed more and more with sanity and method. There has been no falling-off in the number of business failures or in the amount of the liabilities. The amount of liabilities was lower in 1899 than in any year since. Last year was not as good a year in this particular as 1902. But the cheering point is that the liabilities of the failed have not kept pace with the growth of business. The following diagram shows that the proportion of defaulted payments to sound business transactions is gradually decreasing:



THE DECLINE IN THE PROPORTION OF FAILURES TO THE TOTAL VOLUME OF BUSINESS

Made by comparing the liabilities of commercial failures with the amount of the payments made through banks

A NOTEWORTHY PRIZE-STORY CONTEST

COLLIER'S WEEKLY offered a generous prize of $5,000 for the best short story by any American writer and lesser prizes for the second and third best; and the awards have been made by three disinterested judges who did not know who the contestants were. Although many of our best-known writers of fiction entered the contest, the winner of the first prize is a young man of whom the public had not before heard—Mr. Rowland Thomas, of Peabody, Mass. It is interesting to note that the story is a virile tale of untamable savage life, the story of a robust Negro who became a soldier in the Philippines, who deserted and reverted to a sort of savage state and was at last killed by head-hunters in whose country he sought refuge. In other words, if the judgment of these judges be good, one kind of acceptable fiction of our time and country is the straightforward tale of physical energy dealing with elemental conditions, simply told, without the artificialities or the delicacies of conscious literary art. This estimate puts a large conception and sheer strength of narrative above the mere refinements of style; virility and action above verbal adornment. The general principle underlying such a judgment is sound—the sounder because (in this case at least) it preferred simple robustness of narrative also to the use of fiction as a vehicle for argument. The test of a good story, after all, is its volume and substance, as well as the art with which it is told.

That the offer of this prize should have brought 12,000 short stories is not wonderful, perhaps; but it is impressive. For it means that there are literally thousands of persons in these States who openly or secretly practise the story-telling art. And, since there are so many makers of fiction, we ought to give the publishers of novels credit for a good deal of self-restraint. Many as they publish, they undoubtedly decline many more; and we are bound to believe, in spite of all that is said about the stupidity of publishers, that in the long run they publish the best novels and spare us the worst.

It was a pretty piece of enterprise shown by the publishers of *Collier's* to give these large prizes; for it drew forth a number of new writers of promise, enabled them to procure many good short stories (and good short stories are as scarce as long ones), the writers of all that are accepted receive very generous payment, and their readers will have a great variety of fiction. Although no author can write a better story for $5,000 than he can write for $1,000 or $100, the larger the prize the more writers offer their work.

A WELL-DIRECTED HELP IN RIGHT LIVING

IT has been estimated that public and private benefactions in the United States reach a daily total of nearly $1,000,000. This vast sum is expended in a thousand different ways; but none of our rich men has given more wisely for the betterment of his fellows than Mr. Henry Phipps in establishing a fund for the erection of model tenement houses in New York City. To say that more than two-thirds of the three and a half millions of New York's inhabitants live in tenements shows the extent of the problem; and good management can solve it, for the perfect tenement house has been built, and it has been proved that it is commercially profitable.

The plan adopted by Mr. Phipps shows characteristic foresight. He has given $1,000,000 in trust to be invested in model tenements. From the profits of the rentals 4 per cent. is to be set aside every year to create a fund for the erection of similar houses. At compound interest the investment will grow rapidly and by the end of the century it will amount to more than $40,000,000. In other words, Mr. Phipps's tenement houses will multiply rapidly as New York grows, and gradually supply a larger and larger number of cheap homes in the city. A money-making philanthropy of this sort is not a charity, and the most independent poor man can accept its benefits without obligation.

Nor is Mr. Phipps trying a doubtful experiment. There have been many successes in the same field. The City and Suburban Homes Company, of New York, already houses about 6,000 people in its model tenements, and it has been in existence only about eight years. Its actuating spirit is philanthropic, but it is upon a strictly business basis. It pays regular dividends, and has accumulated a large reserve fund.

Every one of these model tenements is fireproof. Every flat is steam heated, and has gas, and hot and cold water; it has its own private hall and toilet, and is furnished with porcelain tubs, with dresser, shelves,

closets and drawers. There are no air shafts, dark halls or stairways. Every room in every apartment has a window opening either on the street or on a large airy court. Storage closets and playrooms for the children are in the basement. The rents charged are about those prevailing in the neighborhood for ordinary tenements, and range from $1 to $1.25 weekly for each room. These buildings are intended to be just as neat and clean and private as expensive apartments. The tenants take good care of the property, and show the greatest pride in preventing offenses against cleanliness and order.

To replace the slums and consumption-breeding tenements with cheerful and healthful homes such as these furthers our civilization. It sets a new example to wealthy philanthropists, and points to a paying sort of investment.

"WILD CAT" AND "TAME CAT" DIRECTORS

[THE WORLD'S WORK publishes every month an article in which some timely and vital subject of the financial world is taken up]

A RECENT event points a moral for directors and managers of corporations. The directors of the German Bank of Buffalo, N. Y., with 8,000 depositors, sold the control of their institution to men who lived outside of Buffalo. The bank had been conservatively managed, was in good standing, and was paying its depositors 4 per cent. interest, chiefly on savings, though it was not a savings bank, but a commercial institution lending its money in the manner of national banks. Depositors and stockholders had every reason to feel secure about their investment and their funds on deposit. With the sale of the control of the bank came a sudden change. The men who had bought it were engaged in promoting certain electrical enterprises in which they were interested. Forthwith they elected a clerk president of the bank, and then proceeded to use the bank's funds in loans to help their electrical business. The bank could not stand the drain, and failed.

The interesting question arose whether the promoters who acquired the bank were alone responsible for the losses to the depositors and other stockholders, which attended the failure. Were not the former directors under an obligation not merely to manage the bank wisely while they kept control, but also to protect their depositors when disposing of it? Should they have sold the bank to men not well known in the community, for whose business integrity, as subsequent events gave proof, they could scarcely vouch? The feeling of the community was plain enough. A bill has been introduced in the New York State Legislature providing that directors about to dispose of the control of a bank shall give due notice to the depositors. Its intent is to emphasize the opinion of the public that directors of banks, and even of other corporations, owe a duty to the depositors and stockholders whom they represent far beyond the demands of the ordinary, cold transactions of business.

In the rapid growth of corporations in the United States—for corporations have practically displaced partnerships in enterprises of any magnitude—the widely diffused wealth of the country has been put in trust. Practically all the important corporations are listed in "Moody's Manual," which contains the names of about 60,000 directors. These men are the trustees of the wealth of millions of investors. They are under obligations to these investors; they are under obligations to the public which creates the powers of the corporations. At the same time they are in a position where opportunities of personal profit at the expense of the stockholders they represent may frequently occur. Directors have been known to buy for corporations, whose interests they were pledged to serve, properties that they had privately bought themselves in order to turn them over to

the corporations at a profit. Others have been known to buy or to sell stock of their own corporations with a foreknowledge not possessed by the public that the stock would rise or depreciate in value as a result of some approaching directors' meeting of their own. There is no question of the attitude of the public and even of the financial world toward men who succumb to such temptations. Nothing could be swifter than the public condemnation of an officer of the National City Bank, who recently made improperly secured loans to a brokerage firm engaged in doubtful business. Business reputations were irretrievably lost in the downfall of the United States Shipbuilding Company and in the fiasco of the Amalgamated Copper Company. The public would not be again willing blindly to put their investments in the hands of trustees who did not show a high sense of the obligation of their trust. One guarantee of our business stability is just this expectation that, however daringly commercial enterprises are carried on, directors shall at all events play fair with their stockholders.

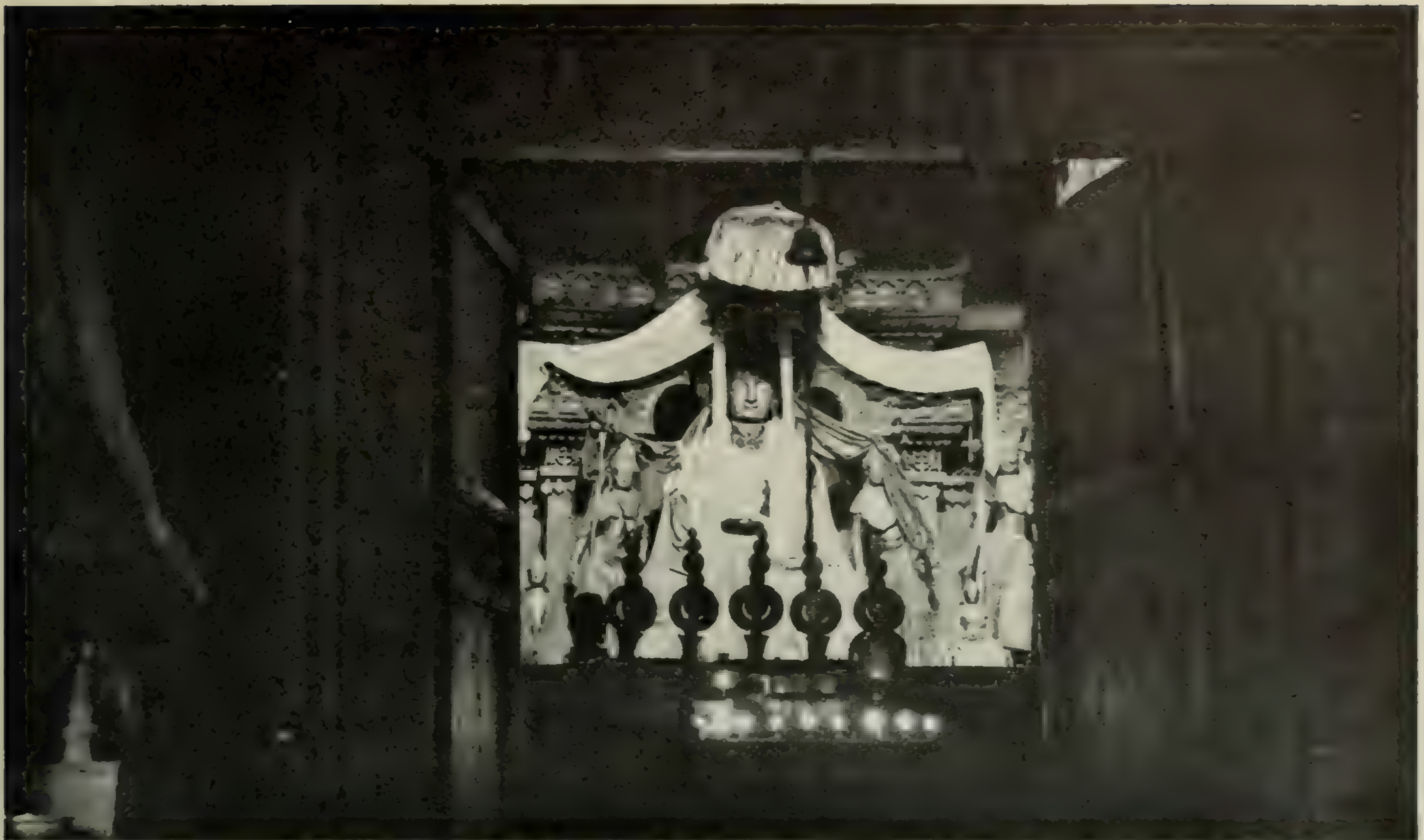
The law is meant to protect the interests of stockholders. When the directors of the American Grass Twine Company recently declared and paid an unwarranted dividend, other stockholders sued them and compelled them to repay $650,000 to the company. Shortly before, the directors of the American Malting Company were obliged to make a similar repayment. But in most instances the stockholders of corporations are widely scattered and are ignorant of the actual state of the enterprise in which their savings are embarked. In the nature of things they must place faith in the directors who are managing their properties. Is their faith justified?

Mr. W. R. Lawson, an Englishman, writing about English directors in a recent book points out that "wild cat" directors are not nearly so common in England as in the United States, though even here their proportion is lessening. He declares that the peculiarly English director is the "tame cat" —the director who is a mere respectable figurehead, who attends meetings perfunctorily but has no guiding hand in the affairs of his company, because he knows nothing about them. The "tame cat" is not nearly so great an evil in the United States. American directors are few who are merely incapable figureheads. But it is a common practice for men of business ability to accept so many directorships as to be quite incapable of attending to the duties of all. Some time ago a list of directors of a new trust company was published. Search showed that many of the directors were also directors in from fifteen to twenty other corporations. Mr. J. P. Morgan, it is true, is a director of twenty corporations, and he gives attention to every one, if not always himself, then through trustworthy lieutenants; but there are few men who can thus spread out their interests, and in practice few men try to. Officers of twelve national banks in New York City were asked how many of the twenty-five directors of each bank appeared at every directors' meeting. Some declared that at least eighteen were in the habit of appearing, but the average was twelve. A business man on his return from Europe was told on the pier of dissensions that had cropped up in one of the great corporations. He took little interest in the news until his secretary told him that he was a director in the corporation. He had forgotten it; for he was a director in nineteen other corporations, including three railroads, two trust companies, one life insurance company and eight banks. Few, then, as the "wild cat" directors may be who involve their companies in unfortunate enterprises, there are far too many who attend to their duties perfunctorily and with only a slack regard to their obligations.

There is, as a rule, neither incompetence nor a looseness of business morals in the management of corporations, but there is a neglect. In many corporations the work of making plans and carrying them out is left by those directors who simply come to pocket the fees and then go away again, or those who do not come to meetings at all, to trusted officers or to a handful of directors who do direct, in earnest. Such a corporation is not badly managed. But, there is always the danger that it may be. To delegate a responsibility, even to a trusted associate, is not the same as bearing the responsibility one's self. The public demands that directors shall themselves direct. Its sense of propriety is keener on this point than it is on any other principle of business life. A directorship is, and ought to be, a trusteeship. The recent decisions of the courts in the cases mentioned bear out this principle.

THE GREAT BUDDHA IN THE HOLY OF HOLIES AT LHASA

The turquoise in the idol's crown is the largest in the world



INTO TIBET WITH YOUNGHUSBAND

WHAT THE ENGLISH FOUND IN THE FORBIDDEN CITY BEYOND THE HIMALAYAS—THE GREAT TEMPLE OF BUDDHISM AND ITS MAMMOTH IDOL—THE WONDERS OF THE CITY OF THE DALAI LAMA

BY

PERCEVAL LANDON

CORRESPONDENT OF THE LONDON "TIMES"

As the correspondent of the London *Times*, Mr. Landon accompanied Colonel Younghusband's Mission sent by the British Government in India to Lhasa. This article is a condensed narrative of his experiences, the full story of which is contained in his forthcoming volume, which is the first authoritative description of this wonderful country. The expedition lifted the veil from Tibet. It has again been dropped. It may not be raised again in our generation.

IN Tibet there is only one route from one place to another, and this seriously limits the possibilities of traveling without attracting observation. Thanks to the extraordinary system of Chinese postal relays, it is impossible for a traveler to prevent the news of his arrival. Upon horrible penalties, the Tibetans must report any stranger. Thus, every passer-by along the high road is subjected to a scrutiny which has easily prevented the success of all attempts by strangers to visit the Forbidden City.

The American Government on three occasions sent a request to the Chinese that Mr. W. W. Rockhill be permitted to go to Lhasa. China sent the demands to the Dalai Lama, the head of the Tibetan hierarchy, who refused to grant them. The main responsibility, therefore, for the exclusion of foreigners from Tibet lies with the hierarchy. The Chinese said that they were willing to allow strangers to travel freely in Tibet, but they could not coerce the Lhasa Government. The Lhasa Government declared that they would be glad to see foreigners, but, unfortunately, the orders of the Chinese were imperative. Lat-

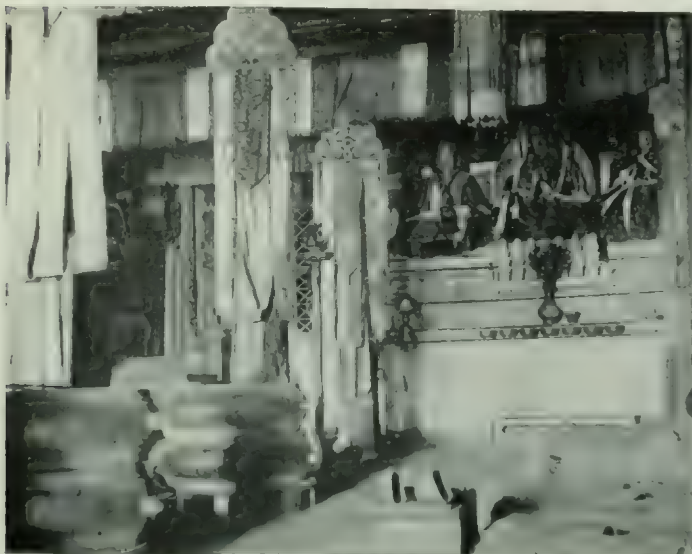
THE POTALA, THE HOME OF THE GRAND LAMA
One of the wonders of the world

ONE OF THE STRANGELY FORMED BUDDHIST TEMPLES

terly, the Tibetans, at a great meeting, made a national vow that no stranger should henceforth be permitted to enter the country.

WHY THE EXPEDITION WAS SENT

Had the Tibetans confined themselves to this assertion of their inviolability, the English relations with the country would have remained as satisfactory as could have been wished. It was the presence in Lhasa of a single man that began the trouble, and eventually made the expedition necessary.



THE ORACLE HOUSE AT LHASA

A ROAD IN THE HIMALAYAS

THE TOWN OF GYANTSE

Here the mission made a long halt. It did not advance until the military escort, after a fierce battle with the Tibetans, captured the stronghold

This man went to Lhasa twenty-five years ago —a young Lama from the Siberian Steppes, on the east side of Lake Baikal. He was by birth a Mongolian, but by nationality a Russian subject. He ultimately became professor of metaphysics in the Debung Monastery, in Lhasa. In 1898, he went to Russia to collect contributions for his monastery. When he returned to Tibet, this Ghomang Lobzanz, or Dorjieff, as he is known in Russia, became the Russian agent in Lhasa. He lost no time in trying to persuade the Lhasa hierarchy that it was to their interest to secure the Czar's informal protection. Impetuously, without consulting his National Council, the Dalai Lama accepted the suggestion.

Dorjieff, after one visit to Russia, returned to Lhasa about December, 1901, and laid before the Dalai Lama a proposal from the Russian Government that a Russian prince should take up his residence in Lhasa to promote friendly relations between the two countries. He also brought a treaty. Under the existing relations between Tibet and China no such treaty could have been valid, even if it could have been made. But it was there as an assurance to encourage the Tibetans, should any difficulty arise with her southern neighbors. In return, the Russians asked for facilities which the poor people of Lhasa may be pardoned for having misunderstood. Russian rifles came into the country in camel-loads. The arsenal at Lhasa was burnished up. Dorjieff said that the Russians would have a detachment of Cossacks in Lhasa by the spring of 1903. He seems to have taken pains that this boast should reach Lord Curzon, the Viceroy of India. The fat was in the fire.

THE AMBAN, THE CHINESE REPRESENTATIVE IN LHASA, COMING TO CONFER WITH COL. YOUNGHUSBAND

The excuses for interference were ready. The Tibetans had encroached upon our territory in Sikkim. They had established customs posts at the town of Giau-gong, fifteen miles inside the frontier, and had forbidden British subjects to pass their outposts there. They had thrown down boundary pillars. They had insulted treaty rights by building a wall across the only road of the market town of Yatung, which was thrown open to trade with India by the conventions of 1890–93. They had returned, unopened, letters sent by the Viceroy to the Grand Lama in Lhasa. These insults might never have given rise to the dispatch of an expedition if the Tibetans had not dallied with Russia. As it was, there was nothing else to do but to intervene speedily.

MEETING THE TIBETANS

The utmost that Lord Curzon could persuade the British Government to do was to sanction the dispatch of Colonel Younghusband, with a small escort, to await the Tibetan representatives in the little post of Khamba-jong, some fifteen miles north of the true Sikkim frontier. Emissaries came down from Lhasa, but, after a formal visit to Colonel Younghusband, they would have nothing further to do with the Mission.

THE EXPEDITION HALTING FOR THE NIGHT

Colonel Younghusband, at a meeting with the Tibetans, made a speech which had been carefully written out to be handed over to the Dalai Lama. At the conclusion, he handed

THE MARCH TO LHASA

The omnipresent prayer-flags and cairns beside the road to exorcise evil spirits

the envelope to the chief Tibetan officer, who shrank from it in horror, and declined even to report the speech in Lhasa. The Tibetans even protested when one of the members of the Mission chipped little pieces from the mountains. They said that we should not like them to come and chip little pieces off the houses in Calcutta.

JUST BEFORE THE FIGHT AT THE WALL
The Gurkha scouts deployed on the hillside; the Sikhs beginning to disarm the Tibetans at the farther end of the wall

It soon became evident that nothing could be done in Khamba-jong. It was then arranged with the Indian Government that Colonel Younghusband should go to the town of Gyantse, and there make a second attempt to carry through the negotiations. The behavior of the Tibetans now became more threatening. Representatives of the Three Monasteries forbade the people along the road to supply us with the necessaries of life. Colonel Younghusband summed the position up tersely—"We have not one ounce of prestige on this frontier." Colonel Younghusband, from political motives, determined to winter in the village of Tuna, where three months of weary waiting ensued.

CROSSING THE HIMALAYAS

The Natula route was decided on as the road by which to bring the supplies over from

Sikkim into the Chumbi Valley in Tibet after the alternative road over the Yak-la Pass had been tried. The Yak-la is the shortest road, and, to my best belief, only one party ever crossed it, and it was my fortune to be one of them. The eastern descent is a mere perpendicular scramble four miles deep, down which one could go only by jumping from one boulder to another. Many of these were coated with ice, and some crashed down upon the slightest pressure. I do not think I have ever been so cold in my life. There was a wind like a knife-edge, against which thick clothing was as gauze. The sun blazed down, but this vivid cold searched through everything. The pass itself was nothing but elemental rock, and the Indian file of men dropped down again as quickly as it could into the still cold of the sheltered side of the pass. It was under these conditions that more than 40,000 pounds' weight of stores was daily delivered at Chumbi.

A FEW MINUTES LATER
The British force still firing at the retreating Tibetans

Before the coming of this Mission no white man had ever before seen the Chumbi Valley. We found the people strange. Neither here nor elsewhere in Tibet do the men grow mustaches or beards. The utmost that one ever sees is a thin fringe or a scanty mark on the

A TIBETAN BRIDGE JUST BEYOND THE BORDER

lips, or on the pointed chin of a high official's face. The men and women are strangely alike. It cannot be granted that Tibetan ladies are beautiful, though it is, of course, difficult to say what the effect would be if some of them were thoroughly washed. As it is, they exist, from the cradle to the stone slab on which their dead bodies are hacked to pieces, without a bath or any attention to cleanliness.

THE FIGHT AT THE WALL

When at last we made a start for Gyantse, far along the road we came in sight of the Tibetans' defenses. A great space of 3,000 yards of level plain stretched between the end of a poor little wall and the nearest swamp bordering a lake. Just when the wall became clearly visible in the distance, the leading Tibetans rode forward sounding the old parrot cry, "Go back to Yatung." As Colonel Younghusband reminded them, this sort of obstacle had served the Tibetans in good stead for fifteen years. Hitherto it had always succeeded; how, then, were they to realize that the British Government was in earnest? After twenty minutes of exciting discussion the meeting was broken up.

A SACRED ELEPHANT IN THE LUKANG GARDENS IN LHASA

Acting upon Colonel Younghusband's in-

ENCAMPED UNDER THE SHADOW OF THE HIMALAYAS

structions, Brigadier-General MacDonald, in command of the military escort, ordered that not a shot be fired until the enemy had begun to fire. Out toward the lake, a thin, extended line was pushed forward, far outflanking the wall, and entirely commanding the line of the Tibetans. Meanwhile, the 23d Pioneers and the 8th Gurkhas were slowly climbing the hills on the left. There was a hush of suspense among the civil and military staffs out on the plain, who were watching with strained eyes the slow progress of the khaki dots two miles away. The Commissioner and the General rode in together to the wall, to watch the hundreds of groups of Tibetans massed behind them. When the Sikhs advanced toward the wall and began to disarm

the Tibetans, there was difficulty. The chief Tibetan shouted hysterically to his men to resist. As a Sikh advanced to the head of his pony, he drew his pistol and fired, smashing the Sikh's jaw. There was an awful pause, that lasted for perhaps five seconds; then another report broke the stillness. But it was almost unnoticed in the sudden yell with which the Tibetans hurled themselves with drawn swords against the thin line of Pioneers leaning up against the wall.

From three sides at once a withering volley of magazine fire crashed into the crowded masses of Tibetans. Under the appalling punishment they struggled, failed, and ran. It was an awful sight. Men dropped at every yard. At last the slowly moving wretches—and the slowness of their escape was horrible to us—reached the corner of a little spur ahead, where at any rate we knew them safe from the awful lightning storm which they had themselves challenged.

The Mission moved on, following the road between the two lakes, Bam Tso and Kala Tso, where we saw an extraordinary optical illusion. The Kala Tso lake stretched out a great shield of silver gray, and the river, some thirty feet below us, appeared to run up hill into it. Here, for a space of nearly two miles, the hillside road—which clings still to the mountains to avoid the now vanished lake—is marked by a wilderness of great pebbles which have dropped from the walls of houses of a lost civilization. Thousands must have lived there. The scanty, duffle-clad figures who paused with protruding tongues at the entering-in of their hamlets, and the black-aureoled women whose heads appeared inquisitively over the sordid sod parapets of the roofs above, are but a hundredth part of

THE LUKANG GARDEN

A spot in Lhasa which reminded the Englishmen of home

THE WOODS AND MEADOWS SURROUNDING LHASA

the population of a scattered but important trade centre of the past.

At Gyantse, negotiations of any kind were obviously not intended by the Tibetans, but the Mission was obliged to wait here for orders from England before starting for Lhasa. Everything was beautiful in the town. Gardeners were called in, and the yards in front

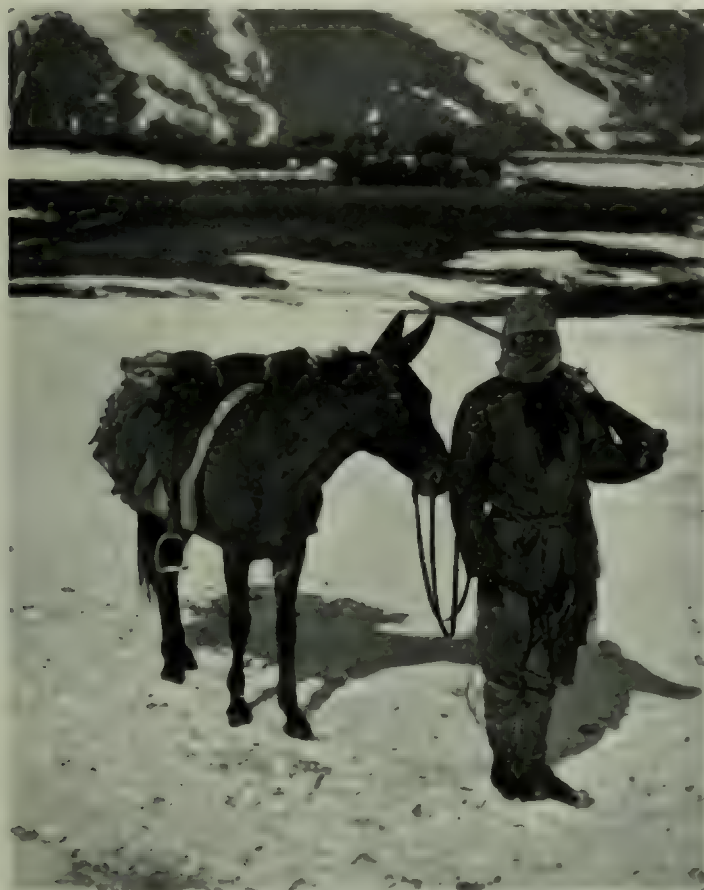
A CLOSE VIEW OF THE POTALA

Its size can be estimated from the yak-hair curtain hanging from the roof in the middle of the building; it is seventy feet long

A TIBETAN MONK WITH HIS PRAYER WHEEL

A TIBETAN WOMAN WEAVING

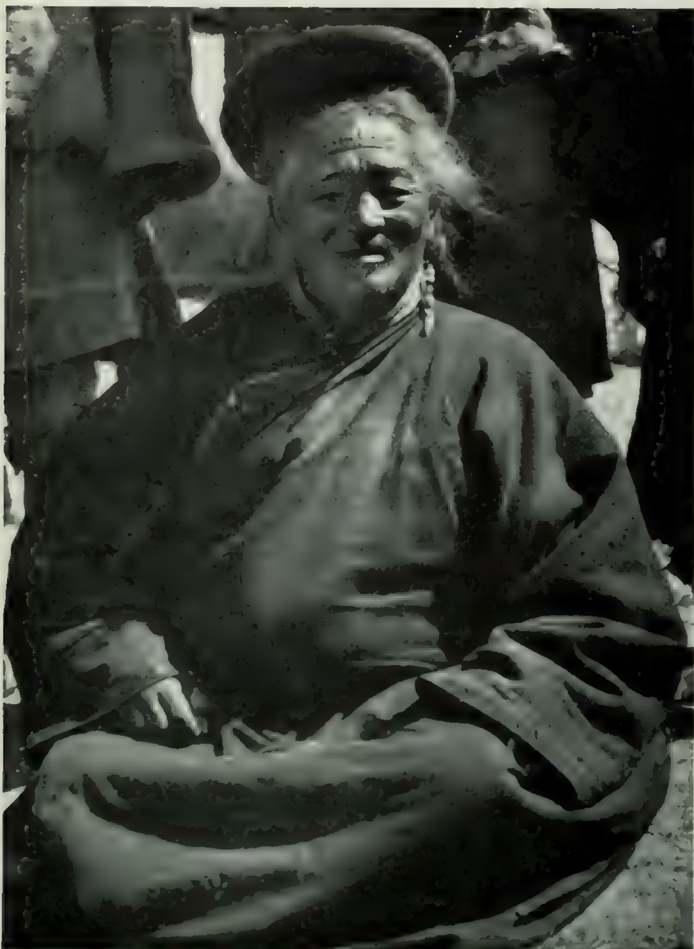
of the Commissioner's house were dug up, and the seeds which the Mission had brought from home were hopefully planted. Beans, peas, cabbage, scarlet runners, onions and mustard-and-cress were sowed with almost religious care—for which only the mustard-and-cress produced any returns. This gardener, a worthy Tibetan lady, was hired with her two husbands, and if her treatment of her spouses was characteristic of Tibetan domesticity, there is, perhaps, more to be said for the strange Tibetan marriage custom than a somewhat bigoted monogamous Englishman could be expected at first sight to admit.


A MEMBER OF THE EXPEDITION
Outfitted to cross the high passes of the Himalayas

A HORN HUT
In hovels like this live the Ragyabas, or breakers-up of the dead

A STREET GROUP IN A TIBETAN VILLAGE
Showing how the women dress their hair

The habit prevalent throughout the country for a woman to marry all her husband's brothers as well as himself, naturally fills the nunneries, and the population of the country, whether due to this fact alone or not, is steadily decreasing. The plan, however, seems to work well enough so far as the family is concerned. These many-husbanded ladies seem to be able to keep a comfortable enough home with their changing housemates. The women, too, have developed a distinctly stronger character than the men.



THE HIGH PRIEST AT GYANTSE
"Who looks like a saddened Falstaff"

A LONG-HAIRED MONK AT HIS MONASTERY

AN IMMURED MONK

One day Captain O'Connor, the only member of the Mission who could speak Tibetan fluently, and I rode out down the valley to a monastery of the Nyng-na sect. We asked permission to see one of the immured monks.

A STREET SCENE IN THE BETTER PART OF LHASA
The roofs of the houses are made of golden plates

We climbed about forty feet, and the abbot led us to a small courtyard which had blank walls all around it, except that almost on a level with the ground there was an opening closed with a flat stone from behind. In front of this window was a ledge eighteen

THE GORGEOUS DECORATIONS IN A LHASA TEMPLE

ORNAMENTS OF A TIBETAN ALTAR

EXAMPLES OF TIBETAN-CHINESE WORKMANSHIP

inches wide. The abbot was attended by an acolyte, who, by his master's orders, tapped sharply on the stone slab. We stood in the little 15 x 20-foot courtyard and watched that wicket with cold apprehension. I think, on the whole, it was the most uncanny thing I saw in all Tibet. What on earth was going to appear when that stone slab, which even then was beginning weakly to quiver, was fumbling, slowly quivered back again into darkness, and after a few moments and one ineffectual effort, the stone slab moved noiselessly again across the opening.

Once a day water and an unleavened cake of flour are placed for these men upon that slab, the signal is given and the prisoner takes them in; his diversion is over for the day. These men, the abbot said, live here in this

IMAGES OF SOME OF THE GREAT BUDDHIST TEACHERS WORSHIPED BY THE TIBETANS

slid aside? The wildest conjecture could not suggest.

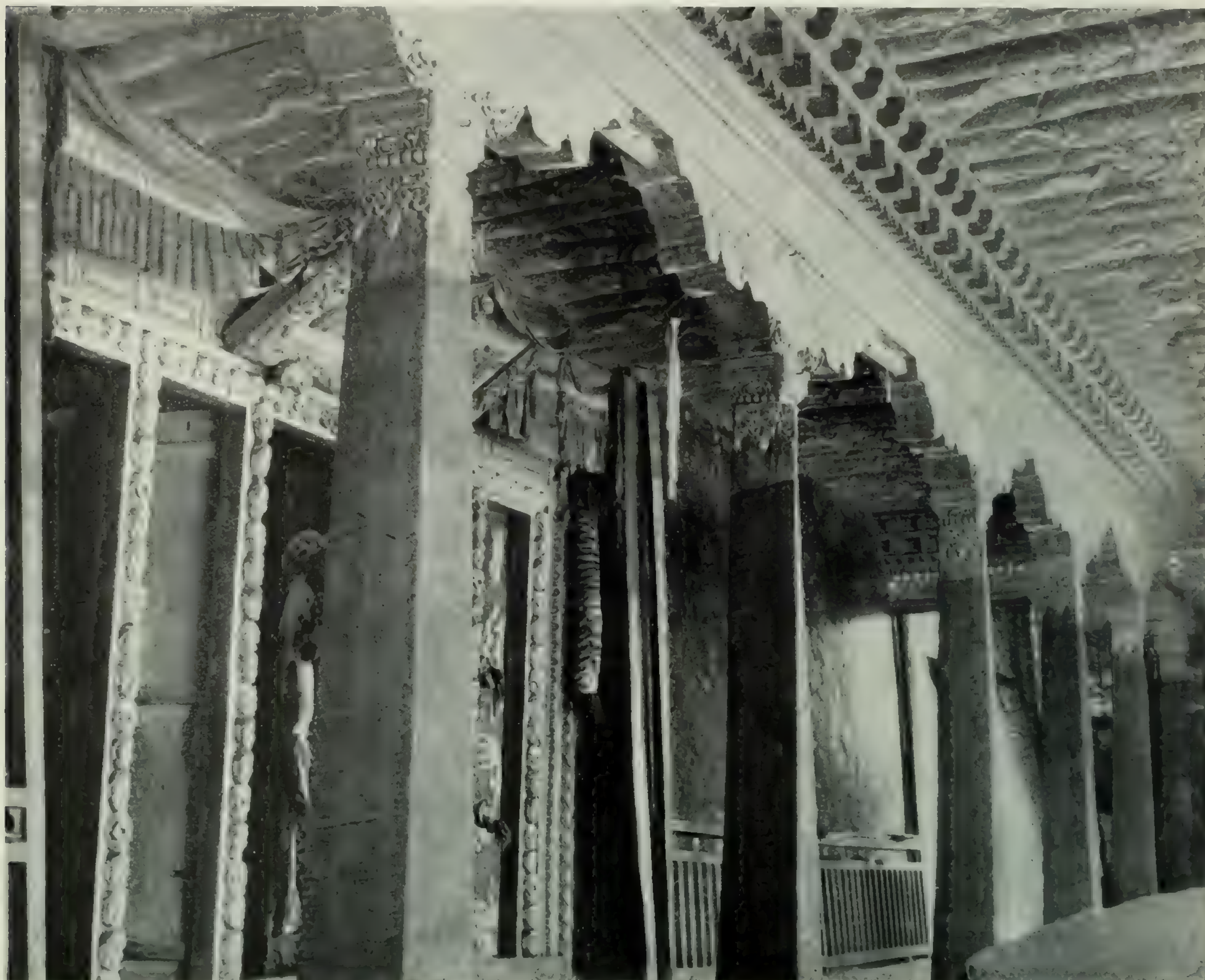
After a half-minute's pause the stone moved; then, very slowly and uncertainly, it was pushed back; a black chasm was revealed. There was again a pause of several seconds, during which imagination ran wild. I do not think that anything could have been so intensely pathetic as what we actually saw. A hand, muffled in a tightly wound piece of cloth, for all the world like the stump of an arm, was pushed up and very quickly felt along the slab. The hand, after its fruitless

mountain of their own free will. "What happens when they are ill?" O'Connor asked. The answer was concise—"They never are."

THE START FOR LHASA

The telegraph wire was with us almost from the beginning. Without the slightest question, it would have been cut in twenty places a day, if the Tibetans had had the least idea of the enormous value it was to us. "But we English," explained Captain Truninger, of the Mission, "are in a strange land, a land of which no foreigner has ever known any-

thing, our maps are of no value, and every day we go forward we are like children lost in a great wood; therefore, we lay this wire behind in order that when we have done our business with your Dalai Lama, we may find the road by which we came, and as quickly as possible go hence to England." Nothing could more effectually have secured the wire from damage; for the single ambition of the Tibetans was to be rid of us as quickly as possible. The result of this forbearance was that we often received the news in the first edition of the evening papers before we sat down to dinner the same evening. After a rapid interchange of communications over this wire with the authorities at Simla and London, the definite advance to Lhasa began.



THE ELABORATE DETAIL OF TIBETAN ARCHITECTURE

THE FIRST SIGHT OF LHASA

You may see from afar the spot at which the first glance of the vast home of the Grand Lama at Lhasa may be obtained. Beside a barley field is a great heap of stones. There is not much else to mark the place. Then it came as we rode on. In the far, far distance, across and beyond flat fields of barley, and, here and there, the darker line of low-wooded plantations, a gray pyramid painfully disengaged itself from behind the outer point of the gray concealing spur—Lhasa.

Here, at last, the never-reached goal of so many weary wanderers, the home of all the occult mysticism that still remains on earth! The light waves of mirage dissolving impalpably just shook the far outlines of the golden roofs and dimly seen white terraces.

From end to end, the plain around the capital is almost without exception a water-sodden morass on which it is almost impossible to travel for a hundred yards without encountering a quagmire. The road by which one approaches the capital is a causeway built

four or five feet up from the surface of the marsh, and pierced a dozen times by culverts through which brown, peaty water flows apace. In length the Plain of Milk, in the middle of which Lhasa lies, is about fifteen miles. In width it varies from two to five miles. And in upon it from all sides strike the spurs of vast mountains, which even then, in July, were snow-capped in the morning hours.

We halted for the night. For two hours and a half the camp was thronged with important dignitaries. There were the usual arguments, the usual prayers. But Colonel Younghusband did not hesitate; the treaty was to be signed in Lhasa itself, not signed one mile short of it.

LHASA

Lhasa would remain Lhasa were it but a cluster of hovels on the sand, but the sheer magnificence of the unexpected sight which met our eyes was to us almost a thing incredible. Lhasa is a city of gigantic palaces and golden roofs, surrounded by wild stretches of woodland, acres of close-cropped grazing land and marshy grass, ringed and delimited by high trees or lazy streamlets of brown, transparent water, over which the branches almost meet.

Between the palace on our left and the town a mile away in front of us there is this arcadian luxuriance, interposing a mile-wide belt of green. In this, Lhasa has a feature which no other town on earth can rival. Between and over the glades and woodlands the city itself peeps, an adobe stretch of narrow streets and flat-topped houses, crowned here and there with a blaze of golden roofs or gilded cupolas. But there is no time to look at this; a man can have no eye for anything but the huge, upstanding mass of the Potala palace to his left. It drags the eye of the mind like a lodestone, for, indeed, sheer bulk and magnificent audacity could do no more in architecture than they have in the palace-temple of the Grand Lama. Simplicity has wrought a marvel in stone, nine hundred feet in length and towering seventy feet higher than the golden cross of St. Paul's Cathedral. By European standards, it is impossible to judge this building. Perhaps in the austerity of its huge curtains of blank, unveiled, unornamented wall, and in the flat, unabashed slants of its tremendous southeastern face, there is a suggestion of the massive grandeur of Egyptian work, but the contrast of color and surroundings, to which no small part of the magnificence of the sight is due, Egypt cannot boast. The vivid white stretches of the buttressing curtains of stone, each a wilderness of close-ranked windows, and the home of the hundreds of the crimson-clad dwarfs who sun themselves at the distant stairheads, strike a clean and harmonious note in the sea of green which washes up to their base. Once a year the walls of the Potala are washed with white, and no one can gainsay the effect. Moreover, a brown yak-hair curtain, seventy feet in height and twenty-five across, hangs like a tress of hair down the very centre of the central sanctuary, hiding the central recess.

The central building of the palace, the private home of the incarnate divinity himself, stands out four-square upon and between the wide, supporting bulks of masonry, a deep-red crimson, and, most perfect touch of all, over it, against the sky, are glittering golden roofs. There is nothing inside the Potala particularly sacred, particularly rich, or particularly beautiful; though, unconsciously, this symbolizes all the more the vast power and pride of the priestly caste of Tibet.

Just where the dun town encroaches upon the greenery, you may see clearly the famous Turquoise-Roofed Bridge. To the right is the house of the Amban, the Chinese representative in Lhasa, almost completely hidden in its trees, and on the other side rise the steep, unbeautiful walls of the last house in Lhasa to the northeast; to the west of it flashes the corner of Ramo-che, the most sacred of all the temples in Tibet. But when you have marked these historic points, the eye will helplessly revert again to the Potala; it is a new glory added to the known architecture of the world.

To judge from our itinerary, the town of Lhasa itself would compare but badly with the capital of even a fifth-rate petty chief in India. The buildings lack distinction, though on a closer examination it must be confessed that the walls of the better houses were often soundly built and of strong material. Granite is used in large, splintered blocks for nearly every one of the bigger houses of the town.

It is a town of low, uninteresting houses, herded together in an aimless confusion, but beyond question the most ragged and disreputable quarter of all is that occupied by the

famous tribe of Ragyabas, or beggar scavengers. These men are also the breakers up of the dead. It is difficult to imagine a more repulsive occupation, a more brutalized type of humanity, and, above all, a more abominable and foul sort of hovel than that which is characteristic of these men. Filthy in appearance, half-naked, half-clothed in obscene rags, these nasty folk live in houses which a respectable pig would refuse to occupy. A photograph is appended of a characteristic hut; it is about four feet in height, compounded of filth and the horns of cattle. These men exact high fees for disposing ceremonially of dead bodies. The limbs and trunk of the deceased person are hacked apart and exposed on low, flat stones, until they are consumed by the dogs, pigs and vultures with which Lhasa swarms. The flesh of the pigs is highly esteemed in Lhasa, and, indeed, it is as good as most pork to the taste, but after you have seen the Ragyaba quarter and heard the story of their dead, you will be little inclined to taste it again.

These men compose the only community peculiar to Lhasa. For the rest, lay and cleric alike, the inhabitants are entirely similar to those of the rest of Tibet. There is indeed but one difference even in the dress. In one province through which we passed the women use a turquoise-studded halo as a head-dress; in Lhasa, a fillet ornamented in the same way is bound close down over their hair, fluffed out on either side, and falls down over the shoulders. It is one of the most becoming ways of doing the hair that I have ever seen, and for a certain type the entire dress of a woman of Lhasa would be a becoming costume for a fancy-dress ball at home.

PILGRIMS ON THE SACRED WAY

The Ling-kor, or Sacred Way, incloses the city and the Potala palace with a loop of road, sometimes twenty feet wide, sometimes hardly three. It is now a wide expanse from which the noonday sun is fiercely beaten back; now a cool, firm path under the shade of poplars; now an up-and-down bridle-track worn smooth and slippery by millions of naked footfalls along the limestone cliffs; now a part of the filthy, swine-infested street which skirts the dirty Ragyaba quarter, three inches deep in black, iridescent mud.

From dawn to dusk along this road moves a procession, men and women, monks and laymen. They shuffle along slowly, not unwilling now and then to exchange a word with a companion overtaken—they all go round the same way and therefore meet no one—but, as a rule, with a look of abstraction from all earthly things, they swing their prayer-wheels ceaselessly, and mutter beneath their breath the sacred formula which shuts for them the doors of their six hells.

LIFE IN LHASA

The mission took up its residence in a house assigned to it by the Tibetan authorities. The only thing left in the house was a cheap pendulum clock made by the Ansonia Clock Company, in Connecticut. These very rare recurrences of western civilization did not affect the intensely oriental seclusion of Lhasa. One remarkable exception must be mentioned. Umbrellas, with the touching guarantee, "waterproof," pasted inside the peak, are fairly common there, whither they must have come from India, where their use is widespread.

While we were making investigations of the various temples and monasteries, negotiations were faring but ill; but there can be no doubt of our popularity with the laity. The market outside the town, which was formed in spite of the publicly expressed disapproval of the Council, was, from the first, crowded by hundreds of eager sellers, and it could have been but small satisfaction to the monks looking out from the walls of the Potala to see the densely crowded acre of chaffering pedlers. By eight o'clock in the morning a roaring trade was going on in curry powder, turnips, walnuts, sugar in yellow and white balls, cigarettes, apples (small russets with a tart flavor), sealing wax, acid-green peaches, native candles, lengths of cloth done up in soundly sewn wrappings, and other things, including tea. Tea in Tibet is imported in bricks glued with something that looks suspiciously like sawdust. A corner is knocked off a five-pound brick and is infused with boiling water in a tea-pot. The tea is then poured into a bamboo churn and a large lump of salt is churned up in it. Then a pound of butter is slid down into the bamboo and a minute's furious churning produces the liquid as it is drunk in Tibet. It is a thickish, chocolate-colored brew, sometimes strengthened with a little flour. As soup, it has certain very sound qualities as a meal in itself.

Cheap and tawdry are the only adjectives which can be applied to the interior decoration of the Potala. Part of it is fine in design, most of it commonplace, all of it dirty. The sacred heart and centre, however, not of Lhasa alone, but of Central Asia, is the Jo-Kang temple. What Tibet is to the rest of the world, what Lhasa is to Tibet, that the Jo-Kang is to Lhasa, and it is not entirely clear that any European or native spy has ever before ventured inside. The exterior is devoid of either beauty or dignity. The interior is unquestionably the most important and interesting thing in central Asia. It is the treasure-house, not of the country alone, but of the faith, and it is curious that while the magnificent Potala is a casket containing nothing either ancient or especially venerated, the priceless gems of the Jo-Kang are housed in a building which literally has no outside walls at all. The sanctity of the temple obviously increased as we ventured into the inner court. Once inside, the eye required some time to distinguish anything more than the dim outlines in the middle of the chamber. After a little, one could just distinguish the solemn images squatting round the walls, betrayed by points and rims of light reflected here and there from the projections and edges of golden draperies or features. The air was exhausted and charged with rancid vapors. Everything one touched dripped with grease. The fumes of burning butter have in the course of many generations filmed over the surface and clogged the carving of doors and walls alike. The floor underfoot was slippery as glass.

The first sight of what is beyond question the most famous idol in the world is uncannily impressive. Before him are rows and rows of great butter-lamps of solid gold. Lighted by the tender radiance of these twenty or thirty beads of light, the great glowing mass of the Buddha softly looms out, ghost-like and shadowless. The crown is perhaps the most interesting of the many jewels. It is a deep coronet of gold, set round and round with turquoise, and heightened by five conventional leaves, each inclosing a golden image of Buddha and incrusted with precious stones. In the centre, below the middle leaf, is a flawless turquoise, six inches long and three inches wide, the largest in the world.

PRIESTLY CONTROL OF TIBET

Except in so far as Buddha's face of quietism personified still gazes down from wall and altar upon the rites of Lamaism, the Tibetan religion is a system of devil-worship, pure and simple. Always at the summit of a pass, at the entrance of a village, at a cleft in the rock-side, at the crossing of a stream, by bridge or ford, one is accustomed to find the flicker of a rain-washed string of flags, a glittering prayer-pole, or a gaily dressed brush of ten-foot willow sprigs; evil spirits must be exorcised at every turn in the road. And not a pole is set up, not a string of flags pulled taut, not a water-wheel or wind-wheel set in motion without the customary fee to the priest. Cairns are set up at small intervals along the road. They may be passed only to the left, and their position at the edge of the cliff often renders this a hazardous proceeding in one direction. After living in the country for a few months, the least thoughtful man in the force usually followed the superstition as he walked along. We soon realized that the control of the Lamas over the souls of their flock was used solely to secure also an unlimited tyranny over their possessions. The riches of Tibet are, almost without exception, enjoyed by the priestly class. An interesting use of the doctrine of reincarnation has been a political lever. The present Dalai-Lama made a sudden and convenient discovery that Tsang Karpo, the great reformer of Lamaism, was reincarnated in the Czar of Russia. The guardian of the country, the Chinese Emperor, is also a reincarnation. Paldenlhamo, one of the figures in the Tibetan pantheon, is a dark-blue lady with three eyes, who sits upon a chestnut mule, drinking blood from a skull, and tramping under foot the torn and mutilated bodies of men and women. For this atrocity the Tibetans found a representative in Queen Victoria.

But enough. After our visit to the Jo-Kang I set off before dawn next morning on my long ride back to India, carrying despatches both to the Viceroy and to the Home Government. Since the expedition returned, China has refused to ratify the treaty Colonel Younghusband negotiated at Lhasa; so affairs are much as they were before, except that the veil has been lifted from the mysteries of Tibet.

THE PERIODICALS READ IN A COUNTRY COMMUNITY

BY

AN INVESTIGATOR

I HAVE been carrying on an investigation in a community which comprises a small village in an eastern State and a considerable part of the surrounding country, which is devoted to agriculture and grazing, to ascertain what periodical literature circulates among the people. Altogether, there are 349 families, largely of American stock. The district can boast four churches with three resident ministers, and five schools with seven teachers. The educational standing of the community is above the average.

There is a library containing more than three thousand volumes of well-selected books. This is supported by a small endowment and by private subscriptions. Its circulation is confined almost exclusively to fiction and to magazines. Its more serious books—of which it has an excellent stock, though there are hardly any of recent date—are very rarely called for. During the year there were taken out of the library 1001 volumes by ninety-six patrons. Of the 1001 volumes, more than 900 were fiction—an average of over nine to each patron. Barring two or three homes, the purchase of books of any kind is practically nil, so that this circulation represents within a very small margin the total amount of book reading in the district. This report places the district far ahead of many of its size, but it should be observed that not more than a fourth of the families are reached by the library.

The investigation was limited to periodical literature, because the circulation of books, while more difficult to obtain, is less regular; and periodical literature, in our country districts, is a surer guide to what the people are reading.

Seventy-nine different periodicals—including daily, semi-weekly and weekly newspapers, and excluding purely professional publications—are taken by these 349 homes. These periodicals may be divided into eight separate classes: (*a*) Newspapers, including daily, semi-weekly, tri-weekly and weekly. (*b*) Religious papers. (*c*) Temperance. (*d*) Agriculture. (*e*) Magazines. (*f*) Magazines devoted mainly to the interests of woman and the home. (*g*) Humorous. (*h*) Advertising mixed with fiction.

The newspapers come first, as follows:

Morning papers,	69	Semi-weekly papers,	82
Evening "	84	Weekly "	80
Tri-weekly "	8		

The "weeklies" are of the usual country sort—budgets of local gossip with a "Talmage sermon," a few political and general news clippings and a chapter or two of a "patent" yellow novel thrown in. Outside of these "weeklies" are a few which I may class with newspapers. They are:

Harper's Weekly
The Nation
The Independent (N. Y.)
The Week's Progress

Only seven copies of these four publications are taken. There is one other weekly newspaper, a cross between the Police News and a regular newspaper, resulting in a product that contains too many good qualities for it to be condemned and too many bad qualities for it to be commended. It has a circulation cf forty-three copies, making a total of 365 copies of newspapers.

However poor from a literary and scholarly point of view, religious newspapers are very thoroughly read, and must have considerable influence with the people. The religious papers that find their way into the community are these, given in the order of the size of their circulations:

World-Wide Missions
The Christian Herald
The Epworth Herald
Sabbath Reading
The Christian Endeavor World
The New York Witness
The Christian Advocate
The Christian Register
The Examiner
The Ram's Horn

The ten have a total circulation of 127 copies.

"Temperance" is represented by only two periodicals with a total circulation—mostly

of gratuitous distribution—of not more than seven copies.

Agriculture is represented by two weekly publications and one monthly:

The New York Farmer
The American Agriculturist
Farm News

These have a circulation of sixty-five copies, nearly equally divided among them.

We now come to publications which seem to have a greater interest and significance. The publications already mentioned savor of life's necessities. The daily paper is taken for its chronicle of events; the "weekly" for the gossip of the neighborhood. The religious paper is taken largely as a matter of denominational loyalty and sectarian interest in religion. But when we come to the periodicals that may, with more or less fitness, be classed as literary, we place a different motive on their purchase. One feels that these are a better index to the intellectual life and likings of the people. They are, in a measure, luxuries, in that they represent desires and thoughts beyond the every-day need.

For clearness I shall divide this class of periodicals into three groups. First, I shall put together what I shall call the "Dollar Magazines" in the order of the largeness of their sales:

Munsey's	The Cosmopolitan
Recreation	Everybody's
McClure's	Physical Culture
Leslie's	The Era

These have a circulation of fifty-two copies. Closely allied with these is the *Four-Track News*, with a sale of seventeen copies.

In the next group are magazines that cost more than a dollar. They are named in the order already adopted:

Harper's	Scribner's
The World's Work	The Bookman
The Review of Reviews	Country Life in America
The Century	St. Nicholas

These have a circulation of thirteen copies.

The next group includes the periodicals devoted to the interests of woman and the home:

The Delineator	The Designer
The Ladies' Home Journal	The Modern Priscilla
McCall's Magazine	Harper's Bazaar
The American Woman	The Woman's Home Companion
The Ladies' World	Vogue
Good Housekeeping	The New Idea
The Woman's Farm Journal	

These thirteen have a circulation of 119 copies. Of these 119, three of the magazines can claim almost half; and these three are preëminently devoted to fashions.

The *Saturday Evening Post*, *The Youth's Companion* and *The American Boy* seem to fall naturally into a class by themselves. Twenty-five copies tell the story of their combined circulation. There is only one home regularly receiving a humorous paper.

We now come to a group of monthly periodicals with which it is less agreeable to deal. They vary in price from fifty to fifteen cents a year, and not infrequently they are sent gratis. They are advertising sheets with a pretty fair amount of literary hash thrown in. The reading matter in them is not always easy to condemn. Of the advertising matter, the spread of which is the undoubted purpose of their publication, nothing good can be said. It is simply disreputable. It is the worst scum of the advertising world. At best, the influence of these periodicals is pernicious, both morally and mentally. Almost without exception they go into homes where the better magazines are never found, where there is nothing to counteract their influence. Ten periodicals of this kind have a circulation in the community of fifty-six copies, and, unlike the other magazines, almost every subscription represents a family.

This exhausts the list of publications regularly received. It is impossible to measure the number of copies of the popular magazines which find their way into the community by occasional purchases outside. The whole number of periodicals is eighty, with a combined circulation of 847 copies, an average of not quite two and a half to a family.

To sum up the situation, hardly more than one-fourth of the homes regularly receive the best as well as the most popular periodicals. It is no part of this paper to discuss the cause or causes or to suggest any remedy. The conclusion derived from this situation is that the constant increase of magazine circulation and the establishing of new magazines is not doing a great deal to reach the great mass of the people in our country communities. A great opportunity for good service awaits the man who can devise ways and means of reaching the vast multitude which clearly is yet untouched by this rising flood of good periodical literature.

PRESERVING THE WORLD'S PEACE

THE NATIONS TO HOLD A SECOND CONFERENCE AT THE PRESIDENT'S CALL —THE CASES TRIED BY THE PERMANENT TRIBUNAL AT THE HAGUE AND THE PART THE UNITED STATES HAS PLAYED IN THEM—ARBITRATION PROGRESSING

BY

CHARLES RAY DEAN

"THE nations have a great need for peace." This sentiment of Baron de Staal expressed in his opening address as president of the first Peace Conference at The Hague has become doubly true now; and as evidence of the fact, President Roosevelt has made overtures to the governments of all the civilized nations for a second Peace Conference. This action was taken at the instance of delegates from the parliaments of all the principal nations, and probably the most representative body that ever assembled—the Interparliamentary Union. So far as is known, sixteen governments have signified their acceptance. It is hoped, therefore, that a conference of the nations will soon be held which will mark a decided step toward establishing and maintaining general peace. It is probable that the scope and jurisdiction of the Permanent Tribunal of Arbitration at the Hague will be considered, and widened, so that it may become still more effective and may more fully accomplish the high object for which it was created, though it has done excellent service since its inception.

This Tribunal is undoubtedly the most august tribunal on earth; for before it the nations of the world voluntarily come to judgment. Its judges are among the most enlightened and distinguished of living jurists and statesmen, chosen by the heads of their respective governments because of their reputations for profound learning, probity and high moral character. And the court itself was created at the Peace Conference of 1899 by representatives of twenty-six of the leading governments representing more than 90 per cent. of the population, and practically all of the wealth, influence and civilization of the world.

It was formed July 29, 1899. The countries represented were the United States, Germany, Austria-Hungary, Belgium, China, Denmark, Spain, Mexico, France, Great Britain, Greece, Italy, Japan, Luxembourg, Montenegro, the Netherlands, Persia, Portugal, Rumania, Russia, Servia, Siam, Sweden and Norway, Switzerland, Turkey and Bulgaria.

An international court of arbitration has been the dream of broad-minded and peace-loving men for more than a century. As early as 1838 there was a popular agitation in the United States in favor of calling a congress to consider the establishment of one. In 1872, Mr. Sumner introduced in the Senate a resolution proposing one—to be clothed with such authority as to make it a complete substitute for war. In 1889 the idea took definite form. In that year the United States Government called a conference of representatives from the States of North and South America to discuss arbitration. Nothing practical resulted except that the proceedings furnished valuable information. At The Hague Conference, called by the Czar in 1899, arbitration was the eighth and last topic in the programme of discussion, and was couched in these very general terms:

"8. Acceptance, in principle, of the use of good offices, mediation, and voluntary arbitration, in cases where they are available, with the purpose of preventing armed conflicts between nations; understanding in relation to their mode of application and establishment of a uniform practice in employing them."

The comprehensive instructions issued by Secretary Hay to our delegates enjoined them to propose a plan (which was furnished them with instructions) for an international tribunal and to use their influence to procure its adoption.

The general plan of the tribunal follows a

common-law model, indicating Anglo-Saxon influences. The court resembles somewhat the Supreme Court of the State of New York, the members of which never sit all together, but singly, or in groups, as the occasion may demand. All the governments which originally signed The Hague Convention, and all those who shall adhere to it, are entitled to appoint four members of the permanent court. The American members of the permanent court are Chief Justice Fuller, Hon. John W. Griggs, Hon. George Gray and Hon. Oscar S. Straus. Twenty-two governments have appointed representatives, though in some cases less than four. China, Turkey, Montenegro and Persia are without representation. The court, therefore, has, at the present time, a permanent bench of seventy-two judges, from whom are chosen one or more arbitrators who sit as a court in each particular case.

The arbitrators are appointed for six years, and may be reappointed. There are no salaries, but a liberal honorarium is paid to the arbitrators serving by the parties in a case. An administrative council, composed of the several diplomatic representatives at The Hague, has general charge of the central office (known as the International Bureau). This council has the power and the machinery for setting the court in action. The council is presided over by the Netherlands Minister of Foreign Affairs. Baron R. Melvil de Lynden is the present incumbent.

The only officers of the court are the Secretary-General of the Tribunal, corresponding somewhat to our clerk of the court, and an assistant. The President, when the court enters, makes in French the simple announcement (all present standing), "Gentlemen, the court is open," and the business proceeds. The members of the court appear in ordinary conventional dress. French is the language usually employed in the proceedings of the court, unless a different one is stipulated by the parties to a case.

No case can be brought before the court at the instance of one government of its own motion against another. Both parties must agree to submit the case. Arbitrators are chosen according to a preliminary agreement between the parties, generally called a protocol. This protocol defines, among other things, the subject of the controversy and the extent of the powers of the arbitrators. Where there are three or more arbitrators, they choose one of their number to act as president, or umpire. A sovereign or the head of a State may act as sole arbitrator. Each side submits its case, or brief, with copies of all documents relied upon to prove its contentions. After a reasonable time counter-cases are filed by each side. Oral argument then follows.

The jurisdiction of the Tribunal, as fixed by The Hague Convention, is confined to legal questions and especially to those involving treaties. But in the convention is a recommendation to the powers having international differences involving neither honor nor vital interests, and arising from a difference of opinion on points of fact, that they institute an International Commission of Inquiry to facilitate a solution of these differences.

The Tribunal is simple. Its present domicile is not one of the listed "show places" at The Hague. Its location, even its existence, is hardly known to the average citizen. The hotel, as it is called, of the permanent court is on a comparatively retired residence street, No. 71 Prinsegracht. It is merely a spacious dwelling-house, with no outward sign of its inward greatness. The double drawing-rooms on the main floor are used for the court room, and are not as large as our own United States Supreme Court room. The furnishings, except the chairs, are plain. The chairs are handsome, and of uniform construction, and the backs are elaborately embroidered in colors with the coats of arms of the countries represented in the council. The walls are thickly covered with the portraits of the delegates of the Peace Conference and of the heads of the signatory States. The most prominent among these is that of the Czar, the father of the Tribunal. Opposite the Czar hangs the full-length portrait of Wilhelmina, the charming Queen of the Netherlands, who has always shown a deep interest in the Tribunal, and has extended hospitality toward it.

Some day the Tribunal will move into a Temple of Peace, for which Mr. Andrew Carnegie has donated $1,500,000. This money has been in the hands of the Netherlands Government for almost two years. A commission has been appointed to select a site and to arrange for international com-

petition among architects for the building. A site has recently been secured, but no plans for a building have been submitted. The commission, however, has been securing from the several governments suggestions as to the general arrangement and probable requirements of a suitable building. This extreme deliberation is characteristic of the people of the Netherlands, who move slowly but certainly. It should not, however, be attributed to indifference to the generosity of Mr. Carnegie, but may have been caused in some measure by difficulties in adjusting differences of opinion between the national and the local authorities as to its location.

The United States Government has, on every proper occasion, suggested and urged resort to the Tribunal. But the docket of the court has not been overrun with cases. Only two controversies have actually been tried. Both of them were of American origin and were taken to The Hague through the efforts of the United States.

The first involved a difference between the United States and Mexico—the case of the "Pious Fund of the Californias." The government of Mexico had refused to continue paying interest on the Pious Fund—a fund created a century or more ago for the support of the missions of the Roman Catholic Church in Upper and Lower California. The Mexican Government had sold and converted into a trust fund property originally donated to the church for missionary purposes. It had for many years paid interest to the church, but finally stopped paying. The case was argued at The Hague. The award was in favor of the United States. Every material claim made was allowed.

The second case was the Venezuelan Preferential Treatment Case. Great Britain, Germany and Italy, known as the "Allies," had tried to enforce, by warlike measures, the collection of certain claims of their subjects against Venezuela. By bombarding her forts, sinking her ships and blockading her ports, these nations had compelled Venezuela to agree to set aside a certain fund to pay all the claims held by foreigners against her, when the amounts had been fixed by commissions chosen for that purpose. The citizens of eight other nations, however, had claims against Venezuela. These nations had not resorted to force to secure a settlement, though their claims were as just as those of the allies. There arose, therefore, a question whether, as claimed by them, the three allies were entitled to have their claims paid first out of the fund provided by Venezuela, by reason of the fact that they had, by their vigorous and forcible action, brought Venezuela to terms.

Great Britain, Germany and Italy, on one side, were pitted against the United States, France, Spain, Mexico, Venezuela, Belgium, the Netherlands and Sweden and Norway on the other. It was the first case submitted to the Tribunal by the assent of a majority of the European Powers. Twenty-two men, all eminent in their several countries and many of them with international reputations as jurists, statesmen and diplomats, appeared as counsel. The counsel for the United States were Hon. Wayne MacVeagh, formerly Attorney-General of the United States, Hon. William L. Penfield, Solicitor of the Department of State, and Hon. Herbert W. Bowen, United States Minister to Venezuela. The court, consisting of three arbitrators selected by the Czar of Russia by the agreement of the parties, was made up of two representatives from Russia and one from Austria-Hungary, Count Muravieff, M. de Martens and M. Lammasch—all profoundly versed in international law and jurisprudence. Arguments were made in four languages—English (which was the official language of the court in the case), French, German and Spanish. Translations into English were furnished by the parties.

A third case is now pending before the Tribunal, the protocol for which was signed August 28, 1902, by Great Britain, Germany and France on the one part, and Japan on the other. Under the Japanese law, houses and buildings, which in Japan are often light and portable, are regarded as property distinct from the land on which they are built, and are subject to local and municipal taxation as personal property. The question submitted to the court was whether, under certain treaties between the governments above named and Japan, only the land granted by the Japanese Government to foreigners on leases was exempt from taxation or the land and buildings constructed, or to be constructed, on the land. The United States has secured an understanding that our citizens resident in Japan shall receive any advantages that may accrue from the award.

One of the effects which the delegates to The Hague Conference hoped might flow from the establishment of the Tribunal was the building up of a body of international law growing out of the decisions handed down by the Tribunal. So far, the judgments, or sentences, as they are called, have not materially added to the principles of international law. This is due in part to the nature of the cases themselves.

THE EXTERIOR OF THE HOUSE OCCUPIED BY THE PERMANENT COURT OF ARBITRATION
At No. 71 Prinsegracht, The Hague

The Pious Fund decision places the findings of tribunals of arbitration on the same plane with judgments of tribunals created by States. This has a tendency to strengthen the general principle of arbitration.

In the Venezuelan Preferential Treatment case the Tribunal decided that the three allied Powers which resorted to war against Venezuela were entitled to a preference over the creditor nations that refrained from force.

The Tribunal has not yet met the hopes of its many friends. Some of the governments have shown a disposition to avoid referring their differences to it. But, during the four years of its existence a remarkable forward movement has taken place in the thought of the peoples of the world, so that the advantages of international arbitration are now more generally evident. Each year great national and international peace conferences stimulate and increase a public sentiment in favor of arbitration as a means of preserving peace. A new and brighter day is dawning for this Tribunal. The Hague Convention of 1899, which created the Tribunal, has been a dayspring from which has emanated an astonishing number of treaties providing for the reference of certain international differences to the Tribunal.

Beginning in October, 1903, Great Britain and France signed a treaty binding themselves for a period of five years to refer

AN ANTE-ROOM

Showing portraits of the members of the Peace Conference and the Ministers of Foreign Affairs of the nations represented

"differences . . . of a legal nature, or relating to the interpretation of treaties," to The Hague Tribunal, "provided they do not affect the vital interests, the independence or the honor" of the two States, and "do not concern the interests of third parties." There has followed this a series of practically identical agreements between Great Britain and Italy, Great Britain and Spain, France and Italy, France and The Netherlands, Spain and Portugal, The Netherlands and Portugal, Denmark and the Netherlands. And our own government, following the same lead, is negotiating similar treaties with all of the twenty-six governments which are signatories to The Hague Convention. It is also understood that Great Britain and France are similarly engaged.

With this striking showing, it seems certain that this Tribunal bids fair to realize the noble object of its creation—the advancement of the cause of peace, and "the establishment of the principles of justice and right upon which repose the security of states and the welfare of peoples."

THE ROOM IN WHICH THE ADMINISTRATIVE COUNCIL MEETS

Every Power represented in the Court owns a chair, on which is painted its coat-of-arms. In this room sat the tribunals which decided the Pious Fund case and the Venezuelan Claims case

A MODEL STATION AND GRADE-CROSSING WITH GATES, FOOT-BRIDGE, AND TWO PLATFORMS CONNECTED BY A TUNNEL

WHY ENGLISH RAILROADS ARE SAFE

ONLY ONE-TENTH AS MANY PEOPLE INJURED OR KILLED AS IN THE UNITED STATES, ALTHOUGH TWICE AS MANY PASSENGERS ARE CARRIED—LESSONS FOR US IN THE SAFEGUARDS EMPLOYED—GOVERNMENT SUPERVISION AND THE PRESSURE OF PUBLIC OPINION

BY

JAMES DAVENPORT WHELPLEY

AMERICAN trains travel nine hundred million miles and English trains four hundred million miles during a single year. With a train mileage less than half that of the American roads, the English roads in 1903 hauled twice as many passengers, conducted their business on one-tenth the trackage, and in doing so killed but one-tenth as many people and injured less than one-tenth as many. If the fatalities occurring in England be classified, and those due solely to train movement be compared with the fatalities incurred on American roads from similar causes, the results will show tremendously to the advantage of English operation.

Indeed, the English railroads are operated at minimum risk to life and limb of passengers, employees and others who cross or frequent the tracks. This result is attained by the following provisions:

The use of the block system on all double-track roads.

The use of the electric "staff," or ticket system, on single-track roads.

Protecting, by automatic, interlocking gates and signals, the few crossings still maintained at grade.

Excluding the public from the right of way of the railroad by substantial barriers and by legally imposing heavy fines for trespass, but at the same time providing ample facilities for overhead or underground crossings for pedestrians and vehicles.

The free use of automatic devices for track, trains and operation, thus reducing the "human factor" to the lowest possible point.

Maintaining a department of the government with authority to investigate all accidents and to suggest measures for preventing repetition of them.

The enforcement of national laws compelling the operation of all railroads with the maximum of safety, even to the point of prescribing systems or devices to be used.

The practical utilization of outraged public sentiment in compelling immediate reform in cases of gross mismanagement.

With these provisions, certain features,

A VILLAGE GRADE-CROSSING IN ENGLAND

The gates are opened and closed by levers in the signal-house

THE SAME CROSSING—THE GATES CLOSED

Completely shutting off the traffic on the highway

now common to American railroads, disappear. That important American functionary, the "train despatcher," is unknown in England. Every train has a chief guard, but no "conductor," as in the United States. The engineman, or "driver," is almost entirely responsible for the movement of his train, but it is nearly impossible for him to misunderstand his instructions. If, through any unusual combination of circumstances, he runs contrary to the plan of operation, automatic devices constantly remind him of his error. If even these should fail, and disaster follow, his train alone is involved; for at many points on the road automatic warnings are given that he is running "wild," and other traffic is thus safely disposed of.

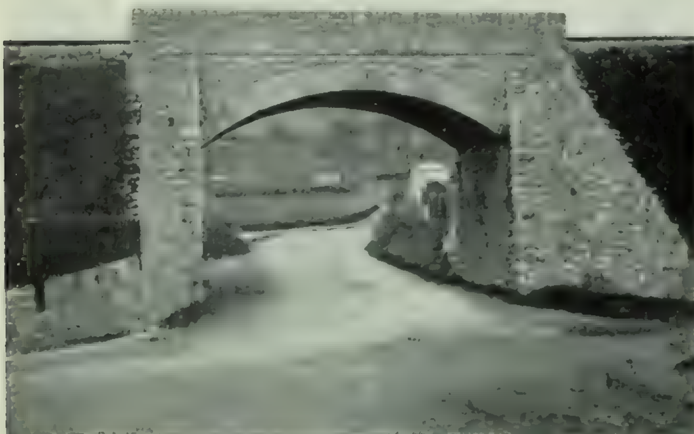
AN ENGLISH COUNTRY-ROAD CROSSING

The gates are opened and closed by levers in the gateman's hut shown on the right

THE SAME CROSSING, CLOSED

The gateman's lever cannot be moved until the signals up and down the track are properly set

The block system is well understood in the



A TYPICAL ENGLISH CROSSING

Under a railway

A SIMILAR CROSSING

Above a railway

United States, and is successfully used by a number of important American railroads where tracks are numerous and traffic is heavy. In principle, the block system is the same the world over. It means the subdivision of a road into stretches called "blocks"—longer or shorter according to the amount of traffic and the character of the route—and the prohibition of more than one train's being admitted to a block at the same time. The English law requires that this shall be the only method employed where there is more than one track.

In England, the block system has been brought to almost perfect automatic operation. Signals are always at danger unless released by the signal operator. They are so arranged by interlocking apparatus that notice is given simultaneously at both ends of a block that a train has entered or left it. Should any part of the interlocking apparatus break, the signals come back automatically to the danger point, thus arresting all traffic until the damage is repaired. A careless operator in most cases could not open a block for one train before a preceding train had left it, for the requisite lever must be released from the signal box of another operator at the beginning of the next block—toward which the first train is moving—before it can be shifted.

The electric "staff" system is an outgrowth of the older ticket system formerly used on all single-track English railroads and still in force to a limited extent. Ticket, or "staff," stations are established at irregular intervals along the line. The distance between them—from one to seven miles—is regulated by the amount of traffic handled and the number of curves or other elements of danger on the route. Before passing a ticket station, the engineman must procure from the station operator a ticket, which gives him the sole right to the use of the track as far as the next station. On arrival at the next station he surrenders his ticket, and, if the line ahead is clear, receives another conferring a similar privilege over the next stretch. If the line is occupied by a preceding train or one coming toward him, he runs his train upon a siding until the block ahead is clear. Constant communication by telegraph or telephone is maintained between the stations, and a second ticket cannot be given out by an operator until word has been received that the first ticket has been surrendered, to indicate that the first train has arrived at the station ahead, leaving the block behind it clear. There is one stretch of single-track line near London, forty miles long, over which there is a heavy and constantly increasing traffic, where there has not been a single collision in thirty-two years.

The electric "staff" system is merely a modern development of the ticket system. At each station is an electrical apparatus into which are inserted a number of "staffs" or keys. When one is removed at one station, it is impossible for the operator in another station at the other end of the block to take out the "staff" which must be given to an engineman before his train can proceed into the block upon which the other train is approaching. These "staffs" or keys take the place of the older tickets. The signals of the block work automatically with the withdrawal or insertion of a "staff." Every movement of a "staff" is recorded by bell signals in the stations in both directions from the one in which it is moved.

At first thought, this might appear a slow and cumbersome method of operation, but the average speed of the English trains is quite equal to that of American trains, if not greater. Posts with arms are placed alongside the track. The "staffs" or keys are fitted with large rings, and an engineman can deliver the key in his possession and pick up a new one without stopping, if the line is clear and the key has been placed on the arm of a post in anticipation of his arrival. Should he find no key to replace the one he leaves, he would at once bring his train to a full stop. Theoretically, the speed at which these "staffs" can be exchanged is fixed at twelve miles an hour, but engine-drivers have been known to make the shift from their cabs when traveling at the rate of fifty miles an hour. The process is similar to that employed on American railroads in leaving and picking up mail-sacks with a train in motion.

The right of way of an English railroad is a sacred bit of ground. It is thoroughly guarded by hedges, walls or fences, and is almost inaccessible for the public. Heavy fines and penalties are imposed for venturing upon it without legal right. Nearly all wagon roads are provided with overhead or underground crossings, substantially constructed of steel or stone. At stations and at many other

points foot-bridges are provided for pedestrians and bicyclists. Private gates opening upon the right of way are substantial and are always kept locked.

A great variety of automatic devices is employed to make train operation safe. The principal features are the interlocking system of switches and signals, the interlocking gates and signals for grade-crossings, and the coupling or shunting stick used in making up trains in the yards. A single simple feature of the interlocking system of signals and switches will illustrate. If a siding is opened into the main line, the train signal for the main line must be set at danger before the siding switch is thrown over. The levers are so arranged in the signal box that the operator cannot move the siding switch until he has set the main-line danger signal. The main-line signal cannot then be moved so as to show that the line is clear until the siding switch has been replaced and the main-line track rendered continuous.

It is in the protection of grade-crossings with gates—and the law requires that there shall be gates—that this interlocking system proves of great value. There are two forms of gate used, one worked by levers from a signal box and another opened and shut by hand. Where a wagon road crosses the track, the gates are always kept open for vehicles, except when a train is approaching or passing; hence road traffic is not interrupted more than is necessary. The gates opened and shut from a signal box by means of levers can be moved only when the track signals are properly adjusted. The signals on the posts up and down the track at proper distances from the road-crossing are always set for danger except when arrangements have been made for a train to pass in safety. The signals cannot be changed to denote a clear line until the gates have been closed across the wagon road.

On the other hand, the gates cannot be opened for the wagon road until the distance signals on either side have been placed at danger. A single pair of swinging gates fences off the wagon road when the track is free, and the track when the wagon road is cleared.

Much could be written of the many automatic safety devices used successfully, but the details would be technical, and are probably familiar to all practical American railroad men who keep informed of the progress made daily in the invention of improved mechanical appliances. The knowledge of most American railroad men, however, must be largely theoretical, for there are few stretches of railroad track in the United States where modern life-saving devices are used to full advantage.

The keynote of all English railway operation is to limit the "human factor" to the minimum, to place the least possible dependence upon the intelligence and judgment of employees—and of passengers as well. It takes less human intelligence to handle a train over an English railroad than it does over the average American railroad, though English railway employees are no less intelligent or less faithful to their duty than are Americans. In this respect, English railway management possesses an advantage over American railway management arising from peculiar conditions incident to a people of different temperament and a different social organization.

The employees of English railways do not receive so high wages as are paid in the United States for the same class of work. On the other hand, they can live cheaper, they do not work so hard, their promotion is slow but sure up to a certain point, and they are taken care of when ill and pensioned when retired. The intelligent and faithful English railway employee has a life position if he cares to retain it. He is not so nervous, ambitious or restless as his American fellow railroad man. If he be crippled in discharge of his duty, he is given some light work, as gatekeeper or messenger, so that he can still maintain himself and his family.

As a rule, he is content to perform thoroughly and well the duties of each position in which he is placed, biding his time for an advance in authority and in income. The result of this system and of this temperament is to build up a great army of thoroughly trained and experienced men as satisfied with their lot as human nature will allow. There are thousands of English railway men who have served tens and scores of years in the humbler positions on the railway. English managers are thus able to secure a reliability the lack of which is so bitterly complained of by American railroad managers.

Under an Act of Parliament which became a law in 1900, the Board of Trade, which in the English Government corresponds to the

Department of Commerce and Labor in the United States Government, was given the power to make proper regulations for "removing the dangers and risks incidental to railway service." This authority has a wide application, for rules and regulations now enforced by fines and penalties cover almost every branch of railroad work, require the use of the block and "staff" systems as described, and even go into detail in some cases in specifying how trains shall be run and work carried on. Before any rule is made, hearings are given to parties interested, and, as far as possible, the Board of Trade and the railway managers reach an agreement on what is necessary or desirable. Railway officials are now working in harmony with the government authorities, and apparently no friction arises from what would be called in the United States "government interference in private enterprise."

To assist the Board of Trade in determining what regulations shall be made, there is a government organization known as the "Accidents Branch of the Board of Trade." Four of the Royal Engineers are detailed as inspectors, with two practical railroad men as assistants. An office is maintained with a chief clerk in charge and the necessary office force. The law requires that all railway accidents shall be reported to the government by the railways themselves. When an accident is serious—and it takes a very slight accident from an American point of view to be considered serious in England—or unusual features are presented, a board of inquiry is held. The scene of the accident is visited by the inspectors, witnesses are examined, and a most thorough examination is made into the whole affair by representatives of the British Government.

The inspectors make their report to the Board of Trade with recommendations, if any seem to be called for; and it is a matter of record that the recommendations are generally followed by the government officials. Hence, new rules and regulations, general and specific, are constantly being issued by the authorities to reduce liability to accident. A recent order required that, when a label was put on a car of freight to show its destination, the car should be labeled on both sides, thus reducing the liability to injury of employees possibly compelled to climb through the train to find out where a certain car was to be taken. Another rule in the same order gave notice that after twelve months from date no car should be moved along the track by means of a pole or rope attached to an engine or car on an adjacent track, a custom now quite common in the United States.

Public opinion in England is a tangible, practical, working force which can be utilized to secure almost any desired change in affairs touching the comfort, safety or welfare of the people. There is no good nature shown in the treatment of corporations or individuals trenching upon what are held to be the rights of British citizens. Once aroused, public indignation is no flash in the pan: it is deep-seated, lasting and effective. No political party in power dares brave it, no corporation wilfully or carelessly incurs it, no individual can successfully withstand it. Through letters to the press, public meetings, and petitions to the government the story is told. The popular boycott also makes itself felt.

A railway accident which in the United States would not be considered worth passing notice sets this great force in motion. If it be proved that the whole affair was "unavoidable," this fact is grudgingly admitted, but the demand is made that some plan be devised whereby a similar occurrence will be avoided in the future. If a corporation or an individual is to blame, the guilty party is hunted to the earth, and in the end pays damages in money and in loss of prestige and is put under increased surveillance calculated to prevent a repetition of the accident. It is this power which supports the government in its efforts to make the English railroads safe. This is the influence which renders English railway managers amenable to outside advice, even direction, in the operation of their business.

To say that 10,000 people were killed and 75,000 were injured through the operation of railroads in the United States during the past year, and that in England 1,159 were killed and 6,785 were injured, does not rightly tell the story, for there are many details of this slaughter to be taken into consideration in order to arrive at an intelligent comparative view. It is significant that in the operation of English railways but two passengers and three employees were killed and 369 passengers and 52 employees were injured in collisions where either one or two passenger trains were involved. In justice to the English system of railway management, it is

necessary to understand that more than one-half of the deaths on English roads occurred through the fault or carelessness of the persons killed, and that 163 of them were suicides. The total number of deaths in England resulting from every form of train movement was twenty-five passengers and nine employees; and 769 passengers and 146 employees were injured. In 1903 there were 6,167 collisions and 4,476 derailments on the American railroads. In the same year in England there were 111 collisions and 80 derailments. Of the 6,167 collisions in the United States, 1,036 were between trains running in opposite directions on the same track.

It is true that American and English railroads are operated under different conditions. The American track mileage is 200,000, the English 22,152. The American railroads carried more than 655 million passengers, the English roads fully 1,200 million. The traffic revenue of the American roads was $1,720,-814,900, and of the English roads $500,061,-164. The net traffic receipts of the American roads were $560,000,000, and of the English roads $200,000,000. The American roads employ 1,189,315 persons, and the English roads 575,834. The working expenses of the American roads are 67 per cent. of the gross receipts, and the working expenses of the English roads 62 per cent. The cost of operating a mile of American road is $5,810, of English road $13,636. The American roads clear $2,800 a mile on operation and the English roads $9,000. The American roads have six employees for every mile of track, and the English roads have twenty-eight.

The cost to the English roads from injuries to passengers and freight is one and two-thirds cents per train mile. What accidents cost the American roads it is impossible to say. What with the enormous amount expended annually to maintain hundreds of claim departments and to satisfy personal claims, the millions expended to pay for freight, live-stock and other property destroyed, and the millions required to replace or repair damaged roadbed and rolling stock, the gross amount must represent a sum which would go far toward providing for absolute safety on many stretches of track now fruitful of disaster.

The comparative figures tell the story of the difference between American and English railway operation. The density of traffic handled by the English roads is as six to one compared with American roads. In some respects this would allow the American roads a larger number of accidents without exceeding the English percentage. On the other hand, the traffic on English roads is twice as great as on the American roads, and where great numbers of people are moved from stations from which hundreds, even thousands of trains leave every twenty-four hours, the likelihood of personal injury to men, women and children is greatly increased. To witness the departure of a million people from London on a bank holiday, in addition to an equal number who constitute the regular traffic, is a never-to-be-forgotten sight. All regular train schedules are abandoned. Train follows train as fast as they can be moved from the yard. The crowd is careless, and in high spirits; hundreds of people are intoxicated; the pushing and crowding, the fierce scramble for seats, the foolhardy actions of the passengers—these and other features of a holiday occasion make them dreaded ordeals for English railway employees. Even under these circumstances, but two passengers and three employees were killed on English railroads in twelve months in train collisions; and the "excursion train horror," so common to American railways, is entirely missing in England.

Even the small number of accidents now charged to English railway operation is annually decreasing, not only in the percentage of the passengers carried, but even by actual count. There are many features of American railroad travel far superior to those which can be enjoyed in England, but throughout the world the masses of the people who travel are not those who pay for luxurious accommodations. Those who do can always get comfort and usually greater safety. It is those who travel in day coaches in the United States and third class in England who benefit from the use of systems and devices which reduce the chances of accident to a minimum.

The Chief Railway Inspector of the British Government recently made a trip to the United States to discover, if possible, some system or device in use in America which could be adopted to the advantage of the traveling British public. He returned fully satisfied that the British roads afforded the greatest degree of safety for passengers, employees and the general public, and for the reasons given at the beginning of this article.

UPLIFTING 17,000 EMPLOYEES

THE HUMAN STORY OF WORKERS WHO WERE LED BY THE COLORADO FUEL AND IRON COMPANY FROM CONDITIONS OF DRUNKENNESS AND DIRT TO WELL-ORDERED LIVING—A LOCAL BETTERMENT EFFORT REACHING 70,000 MEN, WOMEN AND CHILDREN IN FOUR COMMONWEALTHS

BY

LAWRENCE LEWIS

ONE fine evening a few years ago, an Italian dragged his wife by the hair from their hovel in Starkville, Col., a coal camp of the Colorado Fuel and Iron Company, and, in the presence of fellow coal-miners and a large group of the neighbors' children, calmly cut her throat with a razor. A few days later, two intoxicated Mexican "coke-pullers" in the same camp, surrounded by the same young boys and girls and babies just able to toddle, fought with knives until one, stabbed to the heart, fell in his tracks. The other, after staggering a few hundred feet, died in his blood amidst the coal-dust and dirt, bottles, tin cans and filth of the "street." Naturally these spectacles were not lost upon the children, who "played at" cutting throats and fighting with knives, and prattled of the time when they could follow the example of their elders.

In an investigation made about the same time to determine the cause of so much sickness among the coke-workers at El Moro, the chief surgeon of the medical department of the company entered a bunk-house built on ground not owned by the company and maintained by a padrone. This house was constructed of adobes, or sun-dried mud bricks. The low, thatched roof let in the occasional rains that fall in Colorado; but air and light, that might have entered through the two small windows, were limited as much as possible by rags stuffed in to replace broken panes. The interior of the bunk-house, forty feet long and fifteen feet wide, was divided into two rooms. In this noisome place, in addition to millions of vermin of all sorts, lived thirty-eight Italian workmen, each drawing from $60 to $80 a month. That is to say, in the "beds," crowded so closely together that it was necessary to climb over some to reach those farthest from the door, they slept in two "shifts"—those who worked by day crawling into the places just vacated by those who worked at night. In a "lean-to" ten feet square meals were prepared by the padrone and eaten by the thirty-eight men.

On June 30th of another year, in preparation for the celebration of the Fourth of July, there were shipped into a mountain camp known as Coalbasin, to reinforce a quite adequate stock already on hand, four barrels of whisky, eight kegs of beer, and a proportionate amount of wine. The result of the celebration by the "coal diggers" was the suspension of work in the mine for five days—the temporary shut-down of a bank of coke-ovens at Redstone where some of the product of the Coalbasin mine is burned to coke, with a loss to the company of thousands of dollars due to delay in shipments of fuel and to the non-productiveness of capital invested in mines, a railway, and coke-ovens, and a loss of thousands of dollars to the men in wages.

These three stories—and scores of others of the same kind could be told—illustrate the environment the workmen made for their children, the dwellings they provided for themselves, the manner in which they handled the liquor problem, and the way they amused themselves, when left to their own devices, before the managers of the company "interfered" by beginning a systematic effort for their social betterment.

When Mr. John C. Osgood and Mr. Julian A. Kebler, then respectively chairman of the board of directors and general manager of the company, had carefully considered these matters, they at once took steps to provide a more wholesome atmosphere for the children, and, from this as a foundation, began to work for the general social uplift of the employees. First, they began replacing unsanitary bunk-houses and hovels with clean boarding-houses

and model dwellings, and improving general hygienic conditions in the camps. They grappled with the liquor problem, and provided decent amusement for the men and their families. This work, which still goes on, despite a change in the control of the company from their hands to those of Mr. John D. Rockefeller and Mr. George J. Gould, and despite a long, costly and bitterly contested strike, is the work of Messrs. Osgood and Kebler, the two men—one living and one dead since last November—to whom is due, also, credit for whatever Colorado is now as a great producer of coal and as a manufactory of iron and steel products.

HELPING 70,000 PEOPLE

The company, "the C. F. & I.," as it is called in the West, was formed in 1892 by the consolidation of half a dozen corporations which Mr. Osgood and Mr. Kebler had either built up or gained control of since they began operations in Colorado in 1885. This new corporation was rapidly enlarged, until by June, 1903, when the control passed to Messrs. Rockefeller and Gould, its authorized capital stock was $40,000,000, and in size of payrolls and number of employees it was second only to the Santa Fé Railway Company among corporations operating west of Chicago, and was easily first, in these respects and in value of product, among all manufacturing companies west of the Mississippi.

Mr. Osgood and Mr. Kebler had put 17,000 men to work, and had built for them thirty towns in Colorado, Wyoming, New Mexico and Utah. They had supplemented existing lines of communication with 178 miles of railway and 1,835 miles of telegraph. Like the founders of the Carnegie Steel Company, they controlled the sources of all the raw material necessary to carry on their business—iron-ore, manganese, limestone and coal—thus fully protecting the company against competitors. Besides iron lands in Colorado, Wyoming, New Mexico and Utah, they had gained control of 600 square miles of the finest coal—anthracite as well as coking and non-coking bituminous—one tract alone of 250,000 acres, all easily accessible from the steel plant. They had opened thirty-nine large coal mines and lighted the fires in 3,500 coke-ovens. They had rebuilt the rolling-mills at Laramie, Wyo., to be among the largest in the West, and had so enlarged the unimportant steel plant at Pueblo, worth two million dollars, that now the Minnequa works, as it is called, is one of the largest consolidated iron and steel works in the world, worth, even at cost price, more than twenty millions. Even during 1902, when the number of pay checks issued monthly averaged only 15,087, the monthly payrolls of the company averaged $731,700. During 1902 the company mined nearly five million tons of coal, which, if loaded into standard-gauge coal-cars of the average size and capacity and these made up into a solid train, without locomotives, would extend 911 miles—two miles less than the distance by the way of the Pennsylvania Railroad between Chicago and New York City. During the same year it produced nearly 869,000 tons of coke and mined more than 514,000 tons of iron.

It rolled more than 106,000 tons of steel rails, which would make a single track (two rails) nine miles longer than the distance via the Michigan Central between Chicago and Boston. It produced, in addition, more than enough angle-irons, spikes, bolts and nuts to lay this track. It produced also vast quantities of iron pipe, miscellaneous iron and steel, pig-iron, spiegel and castings. At present the Minnequa works, in addition to these kinds of material, turns out all sorts of wire and wire products such as nails, spikes and staples, and the completion of a tinplate mill is not far off.

Counting those not fully opened, the company has sixty-five properties scattered over parts of Colorado, Wyoming, New Mexico and Utah. It employs 17,000 men representing between twenty and thirty nationalities, which in order of numbers are: Americans, Italians, "Austrians"—a word commonly used in Colorado to include all Slavs of central Europe, but especially those of Austria-Hungary—"Mexicans," Irish, English, Negroes, Japanese, Welsh, Scotch, Germans, Swedes, Poles, Greeks, French, Swiss, Belgians, Finns, Hollanders, Russians, Norwegians, Indians, Spaniards and Danes, with a sprinkling of other nationalities. These employees with their families number seventy or eighty thousand, a population which, if concentrated, would make a city as large as Dayton, O., or Nashville, Tenn.

UNSOCIABLE FOREIGNERS WITH RACE HATREDS

The difficulties of social betterment work among such a population are overwhelming.

To find suitable kindergarten and social settlement workers who can speak French and German or even Italian and Spanish is not hard, but a proper person who can speak the numerous and varied Slav dialects is rare; and one who can converse in all the languages spoken even in a single camp is not to be found. The language difficulty, moreover, affects the employees' relations with one another. Mexicans will associate with Mexicans, and English-speaking people with English-speaking, but usually any attempt at admixture of races comes to grief. Even the northern Italians do not get along with the southern Italians, nor the different varieties of "Austrians" with one another; and the Germans and Slavs, "Austrians" and Italians are as suspicious of one another as in Europe. The Russians and Japanese are as hostile individually in Colorado as in Manchuria. Even on the hospital lawn, convalescent Russian and Japanese patients have hurled crutches and canes at one another; and on the school grounds children have fought with fists and stones. The management had to make the wards in the hospital small, so that subjects of the Mikado and of the Czar could not glare at one another from beds on opposite sides of the same room, and to arrange the camps so that each race or nationality could live by itself.

Differences in customs, too, require careful study. For example, a gang of fifty Japanese miners, after working two days in one of the larger mines, sent a polite message to the superintendent that it would be impossible for them to continue to work unless provision were made for them to take baths every day when they came from the mine. This made the company's surgeon—who had striven, sometimes vainly, with Mexicans, Slavs and Italians to induce them not to slaughter goats in their sitting-rooms, and at least to throw offal outside the houses, where the company's scavenger could get at it on his daily rounds—almost delirious with joy. The superintendent had a large tank constructed of boiler-plate. Every day this was filled with fresh water, which was heated by a fire built beneath and by hot stones thrown into the water. At the change of shifts, all the Japanese, who made no further complaints, went into this tank and thoroughly bathed before going to their houses. The Italians and other "Christian" workmen, who luxuriate in the accumulated sweat and coal-dust of years, and whose children are regularly "sewn up" for the winter, spoke with contempt of the "little heathen monkeys" who "must be very dirty since they love to bathe so much."

STARTING LIBRARIES AND FOSTERING SCHOOLS

With the social betterment work already done by Mr. Osgood and Mr. and Mrs. Kebler as a start, in the spring of 1901 the men at the head of the company decided to organize the work on a systematic basis. Accordingly, in July, 1901, they created a Sociological Department. In addition to his duties as chief surgeon, Dr. Richard Warren Corwin was made superintendent. An assistant was employed to travel from camp to camp as his representative, to keep constantly in touch with the people, to hear suggestions, and to attend to details. An illustrated weekly magazine, *Camp and Plant*, was established to furnish a medium through which the sociological and medical departments could reach the people, thus supplying a newspaper to many camps that had none, and an illustrated magazine at a nominal price to all employees who cared to subscribe. This helped to bring the people in the several camps closer together and to stimulate healthful rivalry.

Purely paternal methods were discarded. Thus Dr. Corwin did not say "We will establish a reading-room in Sopris out of hand." He gave in the camp an illustrated popular lecture on travels in Italy. Incidentally, he referred to reading-rooms in other camps. Considerable interest was shown. Thereupon he announced that if the local school board, or the miners, would furnish an attendant, the company would furnish the books. The offer was enthusiastically accepted. The reading-room was a success. Indeed, nothing has been forced upon any community, but, as far as possible, any reasonable demand has been met at least half way.

The company pays a share of the school taxes which runs as high as 95 per cent. of the total in a district. School boards have been assisted to secure the best teachers, and have been given legal advice, and large discounts on school furniture and supplies, which were secured by buying through the company's purchasing agent carload lots which were broken up and distributed to the school districts. In many cases direct financial assistance has been indispensable. The company

has advanced thousands of dollars from its treasury for public-school buildings, for text-books, which are uniform throughout the camps, for teachers' salaries, for furnishings of schools, and for incidental expenses. In return it has, in some cases, received no security, and in other cases has been given bonds or warrants which, except in two instances, have, so far, not been paid. It has never taxed its employees for the school privileges they have enjoyed.

Supplementing the instruction on anatomy, physiology and hygiene given by the teachers in the public schools, the resident surgeon of the medical department of the company in every camp delivers every year a course of lectures, illustrated by maps and charts and, in some cases, by stereopticon views. These "talks" are enlivened by anecdotes, and bring home the necessity of proper sanitation and care for physical well-being.

One of the earliest efforts made in coöperation with the public schools was in establishing night schools taught by day-school teachers in the public school or kindergarten rooms or in the company's reading-room. These have met their greatest success among the non-English-speaking people — notably the Italians and especially the Japanese. Nearly every teacher has had the satisfaction of seeing those pupils, who at the start could neither read nor write, able to pen a fairly legible letter and to read simple English understandingly. The ages of the students range from ten to fifty years. In many cases these schools are self-sustaining. One dollar a month or less from every pupil covers the cost of tuition, lights and fuel. Moreover, many of the English-speaking employees have been quietly and earnestly taking up courses offered by correspondence schools. From statistics furnished just before the strike by agents of these schools it was estimated that approximately a thousand employees were at that time enrolled. Mining and engineering courses were most popular.

Though the reading-rooms have not accomplished all that is desired, they have made a creditable showing. Periodicals are supplied in abundance; short-story magazines, illustrated weeklies and the "funny papers" naturally are more in demand than monthlies and scientific magazines. Yet even where foreign periodicals are supplied together with English periodicals, it is difficult to induce foreigners to use the same reading-room with English-speaking people. Again, miners would have to be far more studious than the average workingman to make use night after night of even the most attractive reading-room.

A comparison showing the patronage of the camp reading-rooms and of the reading-rooms of city libraries, in proportion to the population, would result in a showing decidedly in favor of the miners. In accordance with the principle of all the work, each reading-room is partly self-sustaining; the patrons, in most cases, raise a fund at least large enough to cover the subscriptions to the periodicals. Every one of the reading-rooms is supplied with a reference library presented by the company, which has proved valuable not only to the patrons of the reading-rooms, but also to the teachers and pupils in the schools. In some instances a card and game room has been opened in connection with the reading-room, notably at Redstone.

In the fall of 1901 the Sociological Department arranged with the Colorado Federation of Women's Clubs to use the Federation's libraries, each composed of fifty books of fiction, history, biography and travel, packed in boxes for shipment. So immediately popular were these libraries that the department replaced them with libraries of its own, more strongly packed and better adapted to the tastes of all of the readers in the camps. Traveling libraries are sent from camp to camp. Fiction forms by far the greatest part of the books, and history, biography and travel are about equally divided. Scientific books are not popular. The boxes are frequently changed. They are set up either in the mine office, the local surgeon's office, the public school or the kindergarten room. A "Circulating Art Collection" is maintained in the public schools; and the public-school children are encouraged to raise money for the interior decoration of their school-houses.

ENCOURAGING PLEASANT HOMES

Kindergartens have been established in thirteen camps. Children under three years old are brought, and the expedient has often been resorted to of having pillows for these to sleep upon. The kindergarten has thus, in some cases, served as a "day nursery." One little fellow who came tugging his tiny baby sister, was asked how old she was. "Oh," he

A CONCERT OF A "C. F. AND I." BAND AT MINNEQUA HOSPITAL ON A SUNDAY AFTERNOON

replied, "she's five years old when she comes to school, but she's two and a half at home." On the other hand, girls of fourteen and sixteen years attend in order to learn English. In all camps except Redstone, the company defrays not only the operating expenses, but also the teachers' salaries.

Throughout the strike the older children of the strikers regularly attended the public schools and the younger the kindergartens. When they lived outside the lines guarded by peace officers, mothers frequently conducted the children to the lines and placed them in the hands of guards, who saw them safely to the schools. The strike was at its height during Christmas time in 1903, and the heads of many of the families had not been at work for weeks. Especial pains, therefore, were taken to make the little ones feel they had not been forgotten. Appropriate services were held as usual in the several camps, and the Christmas trees were laden by the company as in former years with fruits, nuts and candies, toys, books, and articles of utility for the children. Mothers' and fathers' faces lighted up as they received the simple gifts on which their little ones' fingers had been busy, under the direction of their teachers, for days before Christmas.

Interest in the kindergarten work has been fostered by mothers' meetings and by clubs for women for basket-making and for the study of child life. Boys' and girls' clubs have also been organized, one or two of which have grown from purely social to literary organizations.

Instruction in cooking has an important bearing upon the liquor problem. To use Dr. Corwin's words: "To a hungry man a home's attractiveness begins at the table. But if he come home to a supper of tasteless, indigestible food, served without any attempt at making it inviting or the table attractive, is there any wonder that he seeks the saloon for stimulants?" Accordingly, an important adjunct to the regular kindergarten work of the company has comprised instruction in cooking and sewing and hints on general housekeeping, for both girls and women, given by special teachers for each subject. In many camps these classes are held in the "Teachers'

SUMMER KINDERGARTEN WORK FOR THE CHILDREN OF THE STEEL WORKERS OF THE COLORADO FUEL AND IRON COMPANY, AT PUEBLO, COLO.

A HOUSE BUILT BY THE COMPANY

THE KIND OF HOUSE THAT WAS FORMERLY TYPICAL

Houses," which serve as object-lessons and standards of taste for the miners' wives.

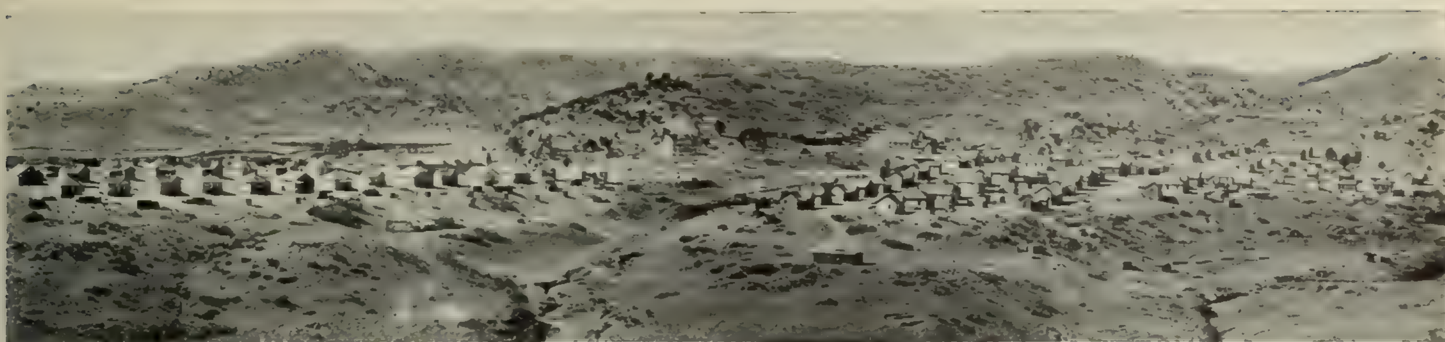
Efforts for the better housing of the men and the improvement of the general sanitary condition of the camps were prompt and businesslike. Four or five years ago the company began the work of reconstructing the camp of El Moro, where the padrone's bunk-house, described in the beginning of this article, stood. The camp was cleaned up and employees were no longer permitted to build upon company ground any sort of a dwelling they desired. The general improve-

A STREET IN REDSTONE
Which is becoming a model camp

THE FIRST CABIN AT COALBASIN
Before the betterment work was undertaken

THE PUBLIC SCHOOL AT REDSTONE

THE REDSTONE CLUB-HOUSE



THE TOWN OF PRIMERO, SHOWING THE OLD AND NEW HOUSES

ment in the health of the camp was so gratifying that the company extended this work to other camps.

Early in 1901, Mr. Osgood and Mr. Kebler decided that, in the construction of new camps, the company should build all the houses. Plans were drawn for two, three, four, five and six-room houses with projecting eaves, porches and ornamentation. These were to be painted in different colors to avoid the dull-red uniformity of the stereotyped "company town." Upon the wide, regularly laid out streets each house was placed on its own lot, and in many cases the lots were inclosed by neat picket fences. Houses of different styles and sizes alternated. Arrangements were made in each for a regular water system, supplied from a reservoir. At Redstone the erection of houses was delegated to an auxiliary corporation, the Redstone Improvement Company. During 1901 and 1902 this corporation put up eighty-four houses in the camp. One house in Redstone has been set aside as a special object-lesson. It is charmingly fitted throughout with inexpensive yet artistic furniture, in order to show that good taste is not inconsistent with plainness and economy. This is kept open to public inspection.

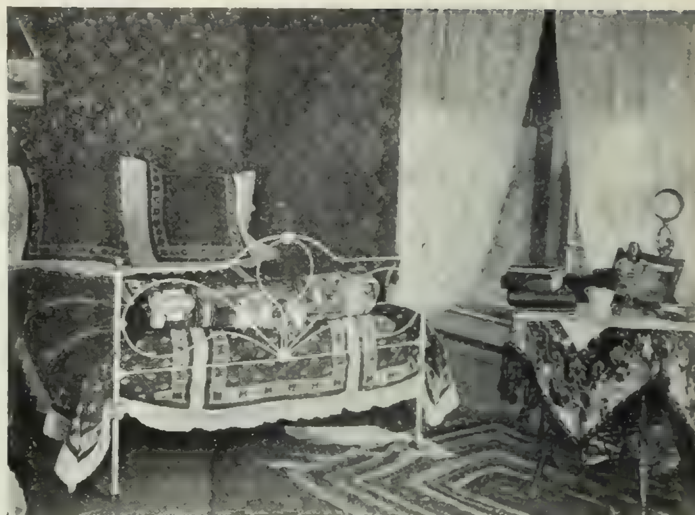
Wells, cisterns and vaults are frequently cleaned, and the dumping of refuse into streams is prevented as far as possible. In many camps men are regularly employed to keep yards and streets clean and to burn all refuse. Teachers and sociological workers, as well as surgeons, constantly impress upon children and adults the necessity of keeping bodies and houses, food and clothing clean, and the advisability of having screens on doors and windows in repair, in order to prevent the entrance of insects bearing disease-germs. Illustrated articles in *Camp and Plant* on hygiene, anatomy, physiology and on "what to do in emergencies," monthly bulletins on these subjects circulated gratuitously, and placards posted about camps, as well as illustrated lectures and personal explanations by camp surgeons—all have helped to teach the workmen that dissipation and dirt are the greatest allies of disease and death. A physician at the steel works dispensary says: "A few years ago people were indifferent when they were asked to sterilize

THE MINNEQUA HOSPITAL AT PUEBLO, COLO.

Conducted by the company for its employees

A CHRISTMAS TREE FOR THE CHILDREN AT EL NINO

The presents given by the company amount to thousands of dollars annually



A MINER'S BEDROOM

In a house in a new camp. A sharp contrast to the old bunk-houses

water; now, when we are called to visit a sick person, excuses are made for neglect in using well water that has not been properly purified."

SOCIABILITY INSTEAD OF SPREES

Regulating the sale of liquors was difficult. "Celebrations" took place on every holiday, and, on a smaller scale, on almost every pay-day. The general demoralization caused by the sprees of most of the men, and alas! even some of the women and children, was often of graver importance than the financial loss.

While the doctor was driving past a school one day, two of the little girls asked for a ride.

"Where are you going?" he asked.

"Home."

"You have a nice home, haven't you?"

"Yes, when papa's not drunk," answered the older, who was not more than eight.

"Does he get drunk often?"

"Pretty near every Saturday and Sunday. One day he made me drink a big glass of beer and then some whisky. I didn't know nothing for the rest of that day and for two days more."

"You won't drink any more beer or whisky, will you?"

"Well," answered the little girl, "I likes beer first rate, and drinks it when I gets a chance, but they gets no more whisky down me if I can run."

A baby girl, hardly old enough to walk, toddled into the school, and when asked why she was late, answered: "I hat to do to de saloon to fetch a bucket o' beer for ma."

In a mining-camp on the desert or far up in the hills the saloon was too often not merely "the workman's club," but his only place of

THE LOUNGING-ROOM OF THE REDSTONE CLUB

Showing the doors to the card-room at the left and to the reading-room at the right

THE CARD AND GAME ROOM

One of the recreation rooms of the Redstone Club, which has superseded the saloon

A CLASS IN COOKING

At the Pueblo Normal and Industrial School, which the company maintains for public-school teachers

IN THE COMPANY'S HOSPITAL

Teaching a little patient to read. In this hospital the serious cases are cared for

amusement. The temptation was great for the miners. The problem was to regulate the sale of liquor and provide amusement.

Prohibition failed. Most of the men, with the possible exception of the Japanese, regard drinking as an incident of daily life, and deny the authority of any one to deprive them of it. Where prohibition was tried, intoxicants were shipped into the camp, in spite of the utmost vigilance of the management, and sold secretly at private houses, at "blind pigs," or in the rear of stores or bunk-houses; or they were distributed in "wet bread wagons." Drinking became more closely associated with lower forms of vice, and cases of drunkenness became more frequent than in camps where saloons were allowed to run.

Now the company is trying four experiments: The regulated saloon; the restricted club; the soft-drinks club; and the open reform saloon.

In some camps, the company has given to

THE INTERIOR OF THE DISPENSARY AT THE MINNEQUA WORKS

Here workmen with slight injuries or ailments are treated, and "first aid" is given in serious cases

SOME "RAW MATERIAL" FOR THE KINDERGARTENS

a responsible person the monopoly of all the liquor trade. No other saloons are permitted, and the manager of the saloon is held to

THE EXTERIOR OF THE MINNEQUA DISPENSARY

The ambulance is used to carry patients to the hospital, which is a mile away

account for the decency and sobriety of his place. Experience has shown this form of regulated saloon to be not so good as the restricted club.

THE THEATRE AT THE REDSTONE CLUB-HOUSE

MAKING A MATTRESS

In the Industrial Home at Pueblo

After the riotous celebration at Coalbasin on the Fourth of July, referred to at the beginning of this article, Mr. Osgood bet several

A PRIMARY PUPIL WEAVING A BASKET

thousand dollars he could convert Coalbasin from a "prohibition" to a "temperance" camp. He built a club-house, which is used by 140 members. The monthly dues are fifty cents. The club-house is a one-story frame building of four rooms. Immediately back of the front veranda is a bar-room. To the right is the billiard and pool room. To the left is first the card and game room, and next the reading-room, furnished with magazines and periodicals. Although the club has a monopoly on the sale of liquor in the camp, no treating is allowed. The club is now fully self-supporting. Not since the club was well started has the mine been closed down a single day on account of "celebrations." Another larger successful club-house was built at Coalbasin, which has, among other things, a theatre. Two evenings every month the club is given over to the wives and daughters and visiting friends of members.

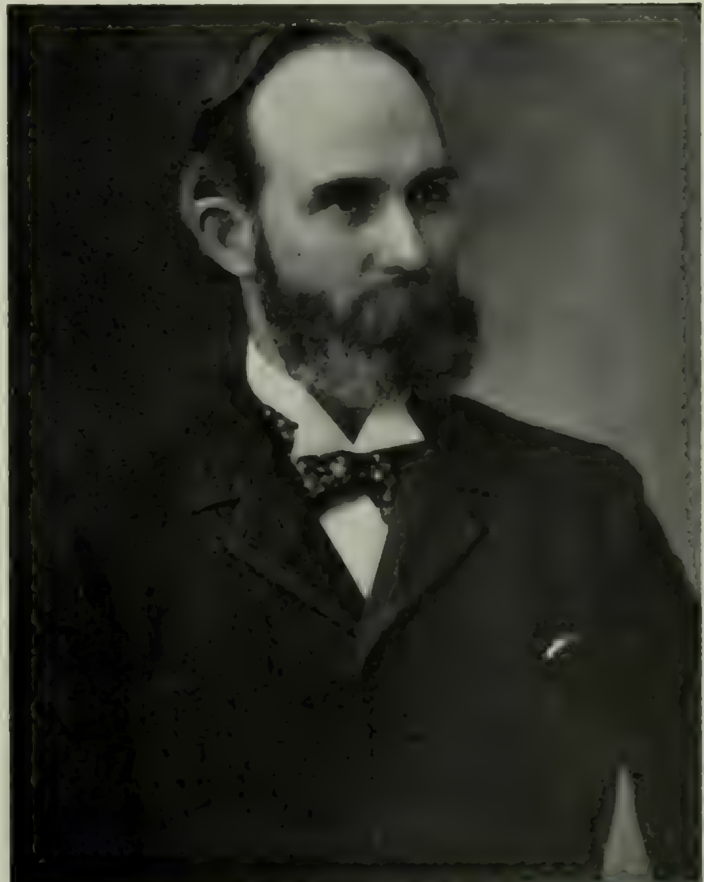
The "soft-drinks club" is to be given a trial shortly at Segundo, one of the camps. A six-room house has been remodeled and fitted up as a men's club-house. The company has furnished the equipment, consisting of billiard and pool tables, chairs and tables, and apparatus for serving coffee and light lunches. The running expenses are to be provided for entirely by the members. No liquors of any kind are to be allowed on the premises.

During the coming year an experiment is to be made also with the "open reform saloon." This year there are several saloons where the miners may obtain pure liquors and where no rules beyond good behavior are to be enforced, but where soft drinks, milk, tea, coffee, chocolate and sandwiches are always to be found conspicuously "on tap." Card and billiard rooms will be made more attractive with games and music than the bar-room. It will be the duty of the barkeeper to amuse and entertain, and to dispense soft drinks and food in preference to selling alcoholic liquors.

At Starkville and Sunrise, in each of the new school buildings erected by the company, the kindergarten room is fitted up with a stage and scenery, and is so constructed that lectures, dramatic entertainments, meetings and dances can be held in it. During the past year three of the public-school boards have furnished their school yards with play apparatus for the children, consisting of horizontal bars, swinging rings, swings and teeters. These outdoor gymnasiums were popular from the first. Four excellent brass bands and two orchestras are flourishing, not to mention numerous vocal and other musical organizations.

In such varied ways has the department

THE LATE MR. J. A. KEBLER
Formerly President and General Manager of the Colorado Fuel and Iron Company, who started the company's betterment work



DR. R. W. CORWIN
The Superintendent of the Sociological Department and the Chief of the Medical Department of the company

helped the miners and their families to demonstrate to themselves that, even in an isolated camp, there are cheaper means of even greater and more varied amusement than are to be found near the bar.

A GENUINE EFFORT FOR GOOD

Such is the systematic work the company is doing for the social betterment of its men.

Failing health made it imperative for Mr. Kebler to resign the presidency of the company in August, 1903. The directors thereupon elected to the positions of chairman of the board of directors and president, Mr. Frank J. Hearne, now of Denver, formerly of Pittsburg, who was formerly president of the National Tube Company. After carefully looking into the work of the Sociological Department, Mr. Hearne became as enthusiastic as his predecessors in the betterment work. The third annual report of the department shows that all the essential features of the work have been enlarged during the past year, in spite of labor difficulties and the depression in the iron market.

In doing this work, the company is not "throwing a sop" to the men or to the unions. It operates everywhere on the "open shop" system, and no man is either employed or discharged solely because he is or is not a member of a labor union. It is not trying to make up for low wages by the expenditure each year of more than forty thousand dollars on its betterment work, in addition to expenditures for its Medical Department, for the erection of dwellings and large amounts "loaned," without any prospect of repayment, to school districts, for erecting schools and paying teachers. The management pays everywhere at least the market price for labor, in some cases more. It is not seeking advertisement, for it has a stable market for more than its great mines and mills can produce. The only object it has in allowing the results of its experiments to be published is to invite those frank criticisms and suggestions which are constantly being received and which are always welcomed. It has found its reward in the loyalty which—in spite of the recent signally unsuccessful strike of the United Mine Workers—is still felt by the great majority of the employees, and in the enthusiastic coöperation which the men give in all the company's efforts for their betterment. Conditions such as were illustrated by the incidents described at the beginning of this article no longer exist.

THE SEWING-CLASS IN THE KINDERGARTEN AT PRIMERO
The picture behind the children is on the drop-curtain of a small stage

THE MODERN METHOD OF SEEDING

A traction-engine drawing three five-gang plows and two seeders in the delta lands near Stockton, California

By courtesy of the Southern Pacific Company

THE GOVERNMENT AND THE NEW FARMER

THE MOST EFFICIENT DEPARTMENT OF AGRICULTURE IN THE WORLD, ADDING MILLIONS OF DOLLARS TO OUR NATIONAL WEALTH BY NEW METHODS OF TREATING SOILS AND SEEDS, AND SAVING MILLIONS BY THE DESTRUCTION OF PESTS—DOUBLING THE CROPS OF THE AMERICAN FARM

BY

CLARENCE H. POE

EDITOR OF "THE PROGRESSIVE FARMER"

IT is only after waiting ten thousand years that agriculture is becoming in our own time a really well-organized and scientific industry.

Its change from an industry requiring only physical strength to one requiring skill and trained intelligence means that it has now acquired a dignity which it has never had before. And in bringing farming in America to this higher station, perhaps no other force has been of so much importance as the United States Department of Agriculture, which is but the outgrowth of the energy and enterprise of the American soil-tiller, discontented with outworn practices and providing in this branch of the government a gigantic scheme of cooperation for better things.

In four notable ways the department has worked for a remaking of agriculture:

1. We are finding out the secrets of the soil; and, by adaptation of crops to soil, better tillage, wiser rotation, and more economical fertilization, the earth is yielding profits which the farmer of a century ago would not have thought possible.

2. In seed selection and in the breeding of plants and animals we are just at the dawn of a new era; and scientists believe that within fifty years the yield of our principal crops could be increased fifty per cent. by seed selection alone.

3. We have in our vast expanse of territory soils and climates adapted to the growth of almost every kind of plant; yet we still import, in round numbers, $350,000,000 worth of vegetable products, annually, against exports amounting to only $700,000,000. The department has done some notable work in introducing new crops especially adapted to certain sections—already the orange in-

A FIELD OF SUGAR-BEETS READY FOR HARVEST

If Professor Townsend's experiments in breeding better varieties succeed, the cost of cultivation will be reduced one-quarter

Photographed by Sherman

SPRAYING AN INFECTED TREE

Whole fruit crops saved by new mixtures proved by the Department of Agriculture

TOBACCO GROWN UNDER COVER

Several feet taller than the man

dustry in California, the rice industry in Louisiana and Texas, macaroni wheat in the far West, and Cuban tobacco in the South, are monuments to its enterprise.

4. Insect pests and diseases of plants and animals, which would have brought famine and desolation to farmers of another age, we conquer by the most wonderful of scientific remedies. Millions are saved to American

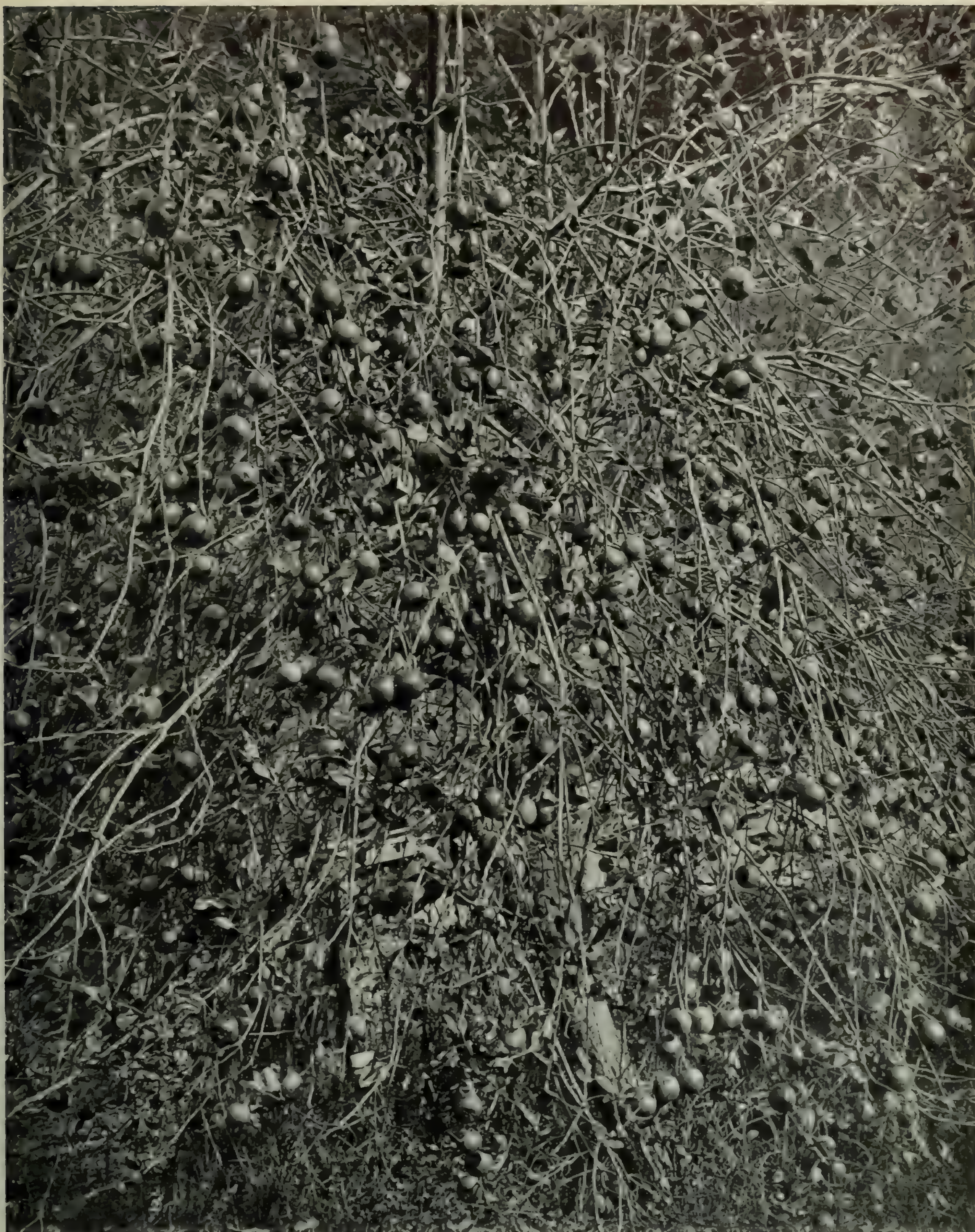
THE EFFECT OF SPRAYING

In a field infected with potato blight all the vines to the left of the hat were sprayed three times, and those to the right were not

By courtesy of the Southern Pacific Company

PICKING ORANGES IN CALIFORNIA

The Department brought from Brazil the parent trees of the great navel-orange groves



A WELL-LOADED LIMBER TWIG APPLE-TREE

Spraying insures good crops even in sections badly infested with pests and fungous diseases

agriculture each year through the work of the Bureau of Animal Industry and the Bureau of Entomology.

There is but one other notable element in our agricultural awakening—the improvement of farm machinery, by which, within fifty years, the time required for human labor to produce a bushel of corn has decreased

By courtesy of the Southern Pacific Company

HUMAN LABOR REPLACED BY GREAT MACHINES

Breaking heavy sod with gang-plows drawn by traction-engines

from four hours and thirty-four minutes to only forty-one minutes, and for a bushel of wheat from three hours and three minutes to ten minutes. The department has aided and quickened interest in this remarkable transformation.

The typical farmer of forty years ago was wasteful of the soil. Seemingly unlimited

Photographed by M. O. Eldridge

A PUBLIC ROAD IN TENNESSEE BEFORE IMPROVEMENT

The office of Public Road Inquiries of the Department of Agriculture is helping to improve highways

Photographed by M. O. Eldridge

MACADAMIZING THE SAME ROAD

The work was done under the direction of the road expert of the department

areas of virgin land before him, he rioted recklessly. If the old field, after a few years of barbarous treatment, failed in productiveness, he abandoned it to gullies, and cleared another. The enterprising farmer of to-day is careful to preserve his capital unimpaired. He knows how to plow so as to conserve moisture and prevent washing. He knows what each crop draws from the soil and how to rotate crops so as to prevent constant drains on any one element of fertility. Nitrogen, the most costly of these elements, he has learned to draw from the air through leguminous crops; and in peas, clover and alfalfa he has found the means. Through feeding his crops to stock and through the purchase of commercial fertilizers he provides, or makes available, the needed supplies of potash and phosphoric acid, studying carefully the needs of different soils and crops to avoid waste in the purchase of unnecessary ingredients.

Such is the progressive farmer of to-day. And such—or better—the department and allied forces hope to make the typical farmer of our time. The tremendous possibilities in such effort are well shown by Dr. J. B. Hunniacutt's statement that in the South—and the comparison applies in every section—the average farmer grows six bushels of wheat, ten bushels of corn or one hundred and eighty pounds of cotton to the acre, while southern soils have produced sixty bushels of wheat, one hundred and twenty-five bushels of corn and two thousand pounds of cotton—this comparison, which is not between the worst and the best, but between the average and the best, showing how wretchedly, as a rule, men yet till the earth.

A NEW ERA IN SOIL STUDY

Perhaps nothing else that the department has done is likely to lead to such increase in production as its present work of discovering what are the prevailing types of soil in different localities, and emphasizing the impor-

Photographed by M. O. Eldridge

THE COMPLETED ROAD

COMMON AND SELECTED WHEATS

That at the right is common wheat. The other two samples are macaroni wheat, recently introduced into the United States

tance of adapting crops to them. For, while men have long said, "A poor soil, a poor people; a rich soil, a rich people," it has not been so well understood, that, while the soil may be poor for potatoes, it may be rich for wheat, or poor for tobacco but rich for grass, or poor for apples but rich for sugar-beets. Or as Dr. Frank Cameron said in the *Popular Science Monthly* some time ago: "In a general way it has long been recognized that certain soils are unusually well adapted to the production of particular crops, as the celery soils of Kalamazoo and the wheat soils of the Red River Valley. But it is not generally recognized that each particular soil is best adapted to some particular crop; and perhaps the greatest economic sin of the farmers of this country has been the almost general refusal to appreciate this fundamental truth."

Photographed by W. E. Hinds, Bureau of Entomology

BOLL WEEVILS AT WORK ON UNRIPE COTTON

Natural size

CODLING-MOTHS IN APPLES

This insect caused an annual loss of $10,000,000 until spraying became general

Photographed by W. E. Hinds, Bureau of Entomology

ONE LARVA OF THE COTTON BOLL WEEVIL SPOILING THE TWO HALVES OF A COTTON BOLL

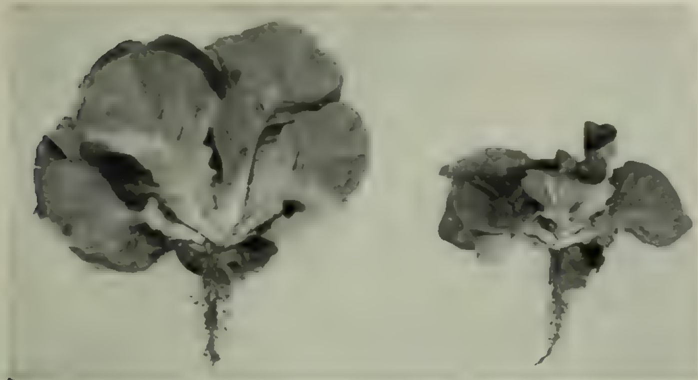
A new scheme of practical soil investigation was sorely needed; and this want the Bureau of Soils in the Department of Agriculture set itself several years ago to supply. To selected sections of the country were sent parties of trained young men who took samples of soils and examined them, not only for chemical composition, but also for their texture and water-holding capacity. These parties also investigated methods of tillage, the adaptability of crops grown, and general farming conditions. Different varieties of soil were named, and colored maps made for general

A TYPICAL DAIRY COW
Spare and with a deep body and well-sprung ribs

A TYPE OF BEEF CATTLE
The best cattle for beef are large-framed and parallelogrammic

distribution, showing at a glance the characteristic types of soil in each vicinity. Very wonderful results have followed.

"The great mass of information accumulated



HOW LETTUCE CAN BE IMPROVED
The large head grown under glass; the smaller grown in the open

about the various soils in different parts of the country," says Prof. Milton Whitney, "will soon enable the Bureau accurately to state what types are best adapted to the growth of different kinds of cotton, tobacco, wheat and other staple crops."

MODERN COTTON PLANTING
This outfit does the work that required four men and two horses

INOCULATING BEANS
The large pods are from inoculated plants, the small ones from plants not inoculated

One practical example is the growing of high-grade tobacco wrappers in Connecticut. Knowing the prevailing types of soil in dif-

PREPARING A FEEDING RATION
Good results are attained by keeping cattle on a scientific diet

By courtesy of the Southern Pacific Company

THE DESERT BEFORE IRRIGATION

Near Palm Canyon, California

ferent sections of the world, the soil survey party discovered that in Connecticut was a grade very similar to that required by the Sumatra tobacco, of which we have been importing $6,000,000 worth annually. The climatic difficulties were obviated by growing the tobacco under cheese-cloth—and the result is a new industry which promises

By courtesy of the Southern Pacific Company

PART OF THE SAME DESERT UNDER IRRIGATION

eventually to become fixed and profitable. Though just now in bad plight, because of the failure of some growers to observe the rules of the department, and because the Sumatra tobacco in its new environment has varied from the true type, yet these obstacles are likely to be overcome. That proper handling is essential, growers will learn by experience, and the Bureau of Plant Industry is breeding up a variety which promises to prove uniform in size and quality.

In introducing the cultivation of Cuban filler tobacco, the Bureau has done, perhaps, an even more notable work. Of late we have been importing more than $10,000,000 worth of this tobacco annually, but very promising experiments are being made with it on soils discovered in Texas, South Carolina and Alabama. In fruit-growing, similar examples of practical results are reported.

RECLAIMING ALKALI LANDS

By underdraining and flooding, the worst of alkali soils are made fit for crop-growing. There are in the West nine million acres susceptible of irrigation, but hitherto barren because of excess of alkali; reclaimed by this new method, it is estimated that this area would be worth $600,000,000. The effect would be the same as if the Bureau should actually create a territory larger than Massachusetts, Rhode Island and Connecticut—and probably richer in soil—and add it to the national domain! Near Great Salt Lake land values are likely to increase $3,000,000 as the result of the new discovery. Land formerly valued at $15 an acre now sells at from $75 to $150. The cost of the flooding and underdraining was only from ten to thirty dollars an acre.

With such a record as this, with its soil, survey maps, its development of new industries and its saving of such vast territory to agriculture, Mr. Whitney and his assistants are now working on a really scientific system of soil management, dealing with fertilization, tillage, rotation and climate—a pioneer task, for nothing like this has yet been attempted on a large scale.

INOCULATING THE SOIL

Nitrogen is the most costly of the three great indispensable fertilizing elements—potash and phosphoric acid are the other two—and Dr. B. T. Galloway, Chief of the Bureau of Plant Industry, estimates that $100,000,000 worth of nitrogen is annually shipped abroad in our export crops. We might replace this by nitrate of soda, but this is costly and the supply is limited. We now take our nitrogen from the air—having learned from the Bureau of Plant Industry how to extract it and set it to growing crops.

HOW PLANTS GATHER NITROGEN

For a long time it has been known that, unlike other crops, legumes—plants of the pea and bean family—seem to leave the soil in a better condition as a result of their growth. Not until twenty or twenty-five years ago, however, was it definitely ascertained that the legumes store up nitrogen from the atmosphere, and not until ten or twelve years ago was it known that this is done by minute bacteria which develop on the roots of the plants—and on no other kind of vegetation except the legumes. Because these facts were not known, of the $100,000,000 annually paid for commercial fertilizers, a very large proportion has been for nitrogenous ingredients.

Now, however, the farmer knows that nitrogen may be obtained almost without expense. The leguminous crops—alfalfa in the West, cow-peas in the South and clover in the North—are abundantly worth growing for forage and grazing, entirely apart from their soil-improving qualities; the nitrogen-gathering is simply a clear gain. Crimson clover is a very profitable crop to grow for hay alone; yet a good crop also stores up nitrogen in the soil at the rate of $30 worth an acre.

MAKING EVERY SOIL FERTILE

Later it was discovered that many soils were entirely barren of these tubercle-forming organisms, and that even as these little wonder-workers cannot fulfil their mission without the legumes, so the legumes cannot thrive without the bacteria. The first practical remedy discovered was inoculation of fields. Taking from five hundred to one thousand pounds of earth from a bacteria-infested field and scattering it on another prepared it for leguminous crops. But this was slow and costly. Then Dr. George T. Moore, of the Bureau of Plant Industry, discovered a new method of cultivating the organisms and invented a method of inoculating the seed. Now the farmer merely applies to the

department for a package of the bacteria needed for the crop he wishes to grow. The organisms are placed on a piece of sterilized cotton, and these, with two small packages of nutrient salts, are sent to the applicant. The dry germs are then revived by immersion in water, in which the seed are placed and allowed to stand two days for thorough inoculation.

Now, therefore, any farmer may grow these nitrogen-gathering crops. Only yesterday a farmer in my office told me that he would get twice as much alfalfa from land inoculated with government bacteria as from similar land in which the bacteria were naturally present but not in sufficient numbers.

NO MORE WORN-OUT LANDS

In this discovery the department has brought us closer than ever before to the reclaiming of so-called worn-out land—millions of acres of "old fields" in the South, and millions more in the abandoned areas of New England. Most of these soils contain large quantities of potash and phosphoric acid but are lacking especially in nitrogen, and most of all in humus. Thus an associate of the writer, who made a chemical analysis of forty-seven so-called exhausted soils, found that they contained in the eight inches of surface soil seventeen thousand pounds of potash, five thousand pounds of phosphoric acid and a smaller quantity of nitrogen. Dr. Moore's discovery opens up the way for growing cow-peas, clover and alfalfa on such fields; and the success of these crops is at once followed by the success of other crops. In some recent experiments by the department the average increase in yield in cotton, potatoes, oats, rye and wheat crops after inoculated legumes was fifty per cent. The abandoned fields of the United States make up an area larger than the six New England States, and for these the inoculated legumes make a veritable elixir of life.

BREEDING PLANTS AND ANIMALS

The sugar content of the beet has been doubled in the last hundred years. The tomato which my father as a small boy knew as a dwarfish, knotty vegetable, called the love-apple and little used for food, he has lived to see increased probably three hundred per cent. in average size, made smooth in form and delicious in taste. Many of our best grapes were wild a hundred years ago. In THE WORLD'S WORK for August, Mr. Cunniff pointed out that in the Government Building at St. Louis were "ears of corn of the kind which grew here before Columbus came —small ears of a single row of grain, hardly larger than wheat heads." Now the farmer is setting himself to the task of breeding a corn with a larger element of protein for producing a finer quality of bacon in the hogs to which it is fed, and another variety with a smaller percentage of protein for the use of the glucose manufacturers. Hardier wheats for the Northwest have been developed by rigid seed selection. By the same means a variety of cotton and one of cow-peas which resist wilt are being developed. The length of cotton fibre is being increased, and the production of corn is growing rapidly as a result of better methods of seed selection. The same principles are working effectively in animal breeding. Beef and dairy types of cattle are clearly distinct, and breeding is in the direction of further developing the peculiar characteristics of each. Milk-testing shows unmistakably which cows are profitable and which are not, and the unprofitable ones are speedily eliminated. Sheep for wool and sheep for mutton are bred and improved; we are also growing certain types of hogs for lean meat and others for fat.

DOUBLING FARM PROFITS

It is a serious thing to say of our corn crop, worth, the last census year, $828,000,000, our wheat crop worth $370,000,000, and our cotton crop now worth over $500,000,000, that by proper seed selection alone the average yield per acre could be increased fifty per cent. in fifty years; yet that is the deliberate opinion I heard among the scientists of the Department of Agriculture. This, of course, would more than double the profits of farming, for the world's needs will grow enormously in this period, and the supply will never seriously exceed the demand.

The Bureau of Plant Industry has now begun experiments which promise to mark another epoch in sugar-beet cultivation. At present, each seed-ball of the beet contains from one to five germs, thus making it necessary to thin—very laboriously—every field planted to beets. Professor Townsend, however, expects to breed a variety having but a single germ in each seed - hull, thus doing

away with the necessity of thinning, and reducing the cost of cultivation twenty-five or thirty per cent. He hopes to have his one-germ variety fixed within twenty years.

INCREASING THE YIELD OF CORN

In more than one western State regularly organized Corn Breeders' Associations have been formed and are doing valuable work. Mr. C. P. Hartley, who has charge of corn breeding in the department, believes that we may even double the yield per acre by long-continued selection of seed. With tests extending over only five years the Illinois Experiment Station has demonstrated that $20,000,000 could be added to the annual value of the corn production of that one State by general adoption of the simple methods it recommends. In the department, tests each year show an increase in productiveness over the preceding year, and the number of barren stalks on the test farms has been reduced from ten per cent., the average for ordinary corn, to less than four per cent.

In husking, each individual ear has had to pass some one's scrutiny; the largest ears have been set apart for seed; and it is estimated that the yield per acre is now twenty per cent. larger than it would have been but for this practice. Still, by this method no account can be taken of the number of ears grown by the parent stalk. The large ear may look better, but if another stalk produce two ears each sixty per cent. the size of the single large ear, there is twenty per cent. difference in favor of the two-eared stalk. Field selection, therefore, by which the producing power of an entire stalk may be judged, has now displaced the old method.

IMPROVING WHEAT AND COTTON

With wheat no less important results have been accomplished. "I believe it easily possible," says Mr. M. A. Carleton, Cerealist of the Bureau, "by careful selection to increase the yield of grain more than fifty per cent. in less than fifty years."

In no other branch of farming, perhaps, is so little attention given to seed selection as in cotton-growing. It is still a common practice throughout the South to select the seed almost at random from the gin, the product of small and almost barren stalks mingled with the seed of better varieties. Dr. H. J. Webber has demonstrated that the quality and productivity of the plant could be greatly improved by simply having a hand go through the fields at the second picking and gather the cotton from stalks having the most and best-formed bolls, and ginning the seed from this cotton separately for next year's planting. A farmer within a few miles of me, who adopted this method in 1903, had plants last year from the selected seed which attracted the attention of all his neighbors.

The bacterial disease known as wilt, which affects cotton, has also attacked tobacco, cowpeas and watermelons in different sections of the country, and with each of these crops the department is succeeding in breeding a wilt-resistant variety by continued selection of seed from plants that prove hardiest in the infested field.

In a six-year series of experiments the Minnesota Station recently increased the height of the flax plant twenty per cent. — beginning with a variety twenty-six inches high and breeding to the height of thirty-two inches.

"Those who have earnestly and intelligently undertaken the improvement of any plant for a period of ten or twenty years, and have observed the past improvement in animal breeding," says Professor W. M. Hays, recently appointed Assistant Secretary of Agriculture, "are unanimous in their belief that ten per cent. additional can be secured in twenty years by a further improvement through plant and animal breeding alone. This would result in ten years in a total increase equal to the value of all the crops grown in one year, representing at least $3,000,000,000 additional wealth to the world. All this could be secured at a cost of less than one per cent. of its value, or $30,000,000, and the chances are that most of the increased values secured would not cost one-tenth of one per cent. of their worth."

KEEPING CATTLE HEALTHY

All the gold coin and bullion in the United States Treasury and in circulation, together with the $377,000,000 in gold certificates, would lack nearly $300,000,000 of paying for the neat cattle kept on our farms and ranges. The capital stock of all our national banks would have to be increased thirty-three and one-third per cent. to equal the value of our horses. The net traffic earnings of our

railways this year would not pay for our mules, hogs and sheep. And to all branches of stock-raising the Bureau of Animal Industry has been of inestimable benefit. Every year we send to foreign countries a quarter of a billion dollars' worth of animals and animal products, and but for the Department of Agriculture's extermination of animal diseases and its inspection of these exports and its guaranteeing of their healthfulness, this trade would be very much smaller than it is. Last year the Bureau inspected sixty-five million live animals for interstate and foreign commerce and nine million pounds of pork for export.

Nearly twenty years ago the department eradicated contagious pleuro-pneumonia, a fearful cattle plague which was steadily sweeping over the Middle West and really threatening the ruin of our great cattle industry, and since then other diseases. It has just finished the colossal three-months' task of "dipping" all the four million sheep in New Mexico.

SOLVING THE GREATEST VETERINARY PUZZLE

Long ago it was seen that most northern and western cattle shipped into the South succumbed to the Texas or tick fever, and that most southern cattle carried North, though perfectly healthy, carried the contagion to most northern cattle with which they came in contact. Even the roads traversed by the southern cattle often seemed to possess the mysterious power of spreading the infection. With Texas stockmen it was long an autumn custom to send large herds north to fatten, and so deadly was their trail that a shotgun quarantine was established by the Kansas farmers. And all the while the southern farmers protested that animals themselves healthy could not carry the disease, and that the quarantine was due merely to commercial jealousy.

Finally, on mapping the territory into which northern cattle could not be safely shipped and from which southern cattle seemed to carry the pestilence, it was seen that the boundary lines coincided with the lines marking the habitat of the cattle tick — the winters to the north being too severe for it to survive. And careful medical tests at last established the fact that it is the tick which transmits the disease; that southern cattle, bitten young, suffer no ill effects, and become immune, while the ticks which they then carry without injury pass to northern cattle not immune and cause Texas fever and death.

Since 1891, therefore, the National Government has enforced the southern cattle quarantine. From south of a line stretching approximately through Norfolk, Asheville, Little Rock, El Paso and San Francisco, cattle cannot be shipped north through the tick season, from February to November, of any year, except for immediate slaughter and under other restrictions. Dr. Tait Butler, the State Veterinarian of North Carolina, estimates that because of these restrictions and because southern cattle can not go to northern pastures or into northern feed-lots, but must be sold immediately or returned home, the average price of all southern cattle is from one-half cent to one cent less a pound, live weight, than it would otherwise be. This loss of one-sixth in value means practically that the profits of southern cattle-raising are cut in two, thus more than neutralizing the South's advantages in milder winters and greater variety of feed crops. Easily may we read the blighting effects in the official statistics of cattle values. Prices of milch cows, of course, are little affected, and they are valued about as high in the South as in the North; but the average value of "other cattle" is $10.74 in North Carolina, $9.09 in Georgia, $7.65 in Arkansas and $10.13 in Texas—typical quarantine States—against $18.90 in Kansas, $19.40 in Missouri and $16.64 in Kentucky—States just beyond the quarantine border.

But the tick can be exterminated. There is a method of inoculating imported animals with blood from native, tick-bitten steers—on a principle similar to that of human vaccination —by which the heads of the finest northern and western herds may be made immune and shipped south with almost absolute safety.

COMBATING PLANT DISEASES

In his last annual report Secretary Wilson seriously estimates the annual damage done our staple crops by insect pests at $500,000,000. The cotton-boll weevil alone, if it should spread over the entire South, would cause an annual loss of between $100,000,000 and $200,000,000. Until spraying became general, ten million dollars was the annual loss our apple-growers sustained from the

codling-moth. And but for the aid of our agricultural scientists, the now famous orange industry of California would doubtless be but a memory.

A few years ago the fluted scale threatened to stop the profitable production of all citrus fruits in California. The orange-growers were almost in despair. Many were cutting down their trees and burning them, when an agent of the Bureau of Entomology brought over from Australia the natural ladybird enemy of the scale, which multiplied rapidly, and soon had practically exterminated the pest. Small colonies of the ladybird, however, are still kept by the agricultural authorities in California, and whenever the fluted scale threatens any section it is again called into service until the danger passes.

FIGHTING THE COTTON-BOLL WEEVIL

The department is also carrying on a campaign against the cotton-boll weevil. It is now attempting to colonize the Guatemalan kelep, its insect enemy, in Texas. But an Indiana farmer saved $10,000 last year by adopting the Bureau's recommendation for rotation of crops as a remedy for corn-root worm. So it has been in the fight against the boll weevil. A paying crop of cotton may be grown in spite of the pest. This is accomplished by planting earlier-maturing varieties from the northern part of the Cotton Belt, hastening the growth by better methods of fertilization and tillage, and by destroying the weevils in the fall. The Bureau urges that all stalks be cut down live in October, while the weevils are on them, and burned. Under ordinary conditions, the insects continue to breed until January. The October burning, therefore, destroys a great many weevils outright; it cuts off the breeding season more than one third; and it lengthens the period of hibernation which is beset with such difficulties as to make the mortality high.

In their 1904 investigations, however, the scientists in charge of the boll-weevil experiments have made what may prove an important discovery. "The issue is nothing less," says Mr. O. F. Cook in a recent scientific publication, "than that the cotton-plant in some of its varieties has finally developed a practical means of resisting and destroying the weevil larva." Ordinarily, the young bud punctured by the weevil falls to the ground as soon as the hatching begins; but it has now been found that many such injured buds undergo a process of gelatinization. A pasty exudation is formed, and by this the larva in the bud is either starved or smothered. In some instances it is reported that as high as forty-one per cent. are destroyed. Just as a wilt-resistant variety of cotton has been developed by selecting seed from plants proving least susceptible to wilt, so it is possible that a breed of cotton largely weevil-resistant may be developed by constant selection of plants in which the gelatinization tendency is most pronounced. The department is now actively at work upon this problem and the work of checking other pests.

INTRODUCING NEW PLANTS

The Bureau of Plant Industry searches the world for new crops and new varieties of crops likely to do well in America, and also introduces new crops from one section of the country to another. How large the field is for such effort may be readily seen. Our receipts from exports of vegetable products, amounting to $715,000,000 in 1903, is more than cut in half by our imports of $374,000,000 —including $75,000,000 for sugar, $30,000,000 for raw silk, $17,000,000 for tobacco, $8,000,000 for Egyptian cotton, and smaller amounts for other products which might largely be grown in the United States.

Four years ago Mr. Carleton, of the Bureau, brought back from Russia a type of macaroni wheat peculiarly adapted to the semi-arid regions west of the Dakotas and Texas, and in 1901 an experimental crop of 75,000 bushels was grown. So successful did it prove, and such large harvests were raised on lands hitherto fit for nothing but grazing, that in 1902 the crop passed the million-bushel mark, and people began to use the wheat not only for macaroni but for bread. In 1903 the crop jumped to 6,000,000 bushels, and the 1904 crop was estimated at 15,000,000, and there are prospects, Mr. Carleton tells me, of an even greater increase in production this year. Land values, of course, have advanced as a result. This type of wheat, with some inexpensive changes in mills, makes quite as good flour as our ordinary varieties. It has so far proved almost absolutely rust-resistant, while in large areas of North and South Dakota and Minnesota last season rust caused a loss of from twenty-five to fifty per cent. of crops from old varieties.

At this very hour there stand in the grounds of the Bureau of Plant Industry the two parent trees of the great navel orange industry of the West. These trees were brought from Brazil, and it is singular to find them still standing, with the fame of California oranges extending around the world, and the number of trees in that State more than double the total number in all other States combined. The Smyrna fig industry threatened failure until success came through the importation of an Arabian insect needed for fertilizing the blossoms. We have been importing nearly a half-million dollars' worth of dates yearly, but promising experiments in growing the fruit are being made in southern California and in southeastern Arizona.

"The production of several kinds of tea in the United States is now an assured fact," says Secretary Wilson; "the profits average from $30 to $40 per acre, and experts pronounce our domestic product equal in flavor and aroma to the best imported teas."

Formerly nearly all American rice was grown in the Carolinas and Georgia, but now ninety per cent. of our product comes from Louisiana and Texas. Several years ago the department brought over from the Orient a special variety, the Kiushu, peculiarly adapted to this section, and about the same time greatly improved methods of cultivation and harvesting were adopted. The result is that the American rice production has grown from one hundred and fifteen million pounds in 1898 to five hundred million pounds, estimated, for 1904, while imports have declined from one hundred and fifty-four million pounds to less than half this quantity.

HOW THE FARMERS ARE REACHED

Through its publications, of course, the department speaks to the people, and the demand for its printed matter is, after all, the real test of its efficiency. Fifteen years ago seventy-five publications a year were sent out, representing an issue of one million five hundred thousand copies; last year, four hundred new publications were printed, and the public demand was such as to require the reprinting of six hundred publications previously issued; in all, twelve million copies were distributed. The Superintendent of Documents sells three times as many copies of Agricultural Department documents as of all other government publications combined, while Chief Hill informs me that the most striking feature of the present demand—and a fresh illustration of the growing interest in agricultural science—is found in the continually increasing number of applications from schools and colleges, exclusive of agricultural colleges. The inquiries indicate that the publications are used in the class-room.

"But things seen are mightier than things heard." "Demonstration Farms," operated under the direction of the department and in charge of the most progressive available farmers of different sections, are to be established throughout the country, these farms to be object-lessons in the most approved methods of fertilization, tillage, crop rotation, and general farm management. Here the teachings of the department will be so exemplified that he who runs may read.

THE FUTURE OF FARMING

All this means the coming of the new farmer. Within the lifetime of many who read this article he may double or treble the average yield of an acre of land and quadruple the profits of farming. It means, too, the continued commercial supremacy of America. Nowhere else is land so plentiful and fertile and farmers so intelligent and enterprising. And the farmer is still the basis of our prosperity. Three million more people are engaged in farming than in manufacturing and mechanical pursuits, and the fixed capital of American agriculture is four times that of American manufactures. The area of our corn fields in a year would cover England, Ireland, Scotland, Wales, Holland, Belgium and Denmark and leave room for a half-dozen little States on the edges; our 1904 wheat fields, if combined into one great plot, would be larger than the six New England Commonwealths; and our cotton patch is bigger than seven of the smaller States.

But while the new agriculture is to find its highest development in America, it is a world movement and cannot be confined to any one country. At last the same influences which have revolutionized transportation and manufacturing and commerce within two generations of men have reached out to the farms, and the cultivation of the soil, as was said at the outset, "is now becoming a really scientific and well-organized industry."

CHARLES M. JACOBS

THE STORY OF THE ENGINEER WHO IS BUILDING THE GREAT PENNSYLVANIA RAILROAD TUNNEL UNDER THE HUDSON RIVER—A RECORD OF VIGOROUS DEEDS

BY

ZACH McGHEE

ONE of the most noteworthy enterprises ever attempted in tunnel construction is now going on beneath the Hudson River, to give the Pennsylvania Railroad entrance from New Jersey into New York City. Under the bed of the river, where the water is sixty-five feet deep and the mud and silt from twelve to twenty feet more, a force of workmen, in an electrically lighted compressed-air chamber, are driving twin tubes forward at the rate, sometimes, of two feet an hour. And every detail is under the watchful eye of Mr. Charles M. Jacobs, the engineer in charge of the work.

Mr. Jacobs is an Englishman, fifty-four years old. How did it happen that he was chosen to direct this tremendous task?

He first made his mark as a builder of tunnels when he constructed the East River Gas Tunnel. It was here that his practical sense and generalship met their severest test. The construction of the tunnel was placed under contract; Mr. Jacobs was the engineer. Careful surveys of the bed of the river had been made, from which it was inferred that it was solid rock. But when the shaft was sunk and the heading driven beneath the water on the New York side, the men found themselves digging into soft earth. This soon changed into mud, and finally the river above threatened to pour in. Some refuse poured through an opening, bringing with it a small army of living crabs. The workmen were naturally frightened away. It was found upon a closer examination that this bedrock contained fissures filled with a softer material, mud, and refuse. The contractors, becoming faint-hearted, wanted to abandon this heading and sink the shaft fifty feet deeper, so as to give the men more cover over their heads. Mr. Jacobs refused to agree, saying there was no certainty that fifty feet deeper any better conditions would be found. The contractors persisted. So did Mr. Jacobs.

The contractors suspended work, and brought the matter before the board of directors of the company, who had to decide whether they would allow the engineer to resign or let the contractors go. They chose to let the contractors go. Calling up Mr. Jacobs, they asked him if he really believed the tunnel could be put through where it had been begun.

"Give me a plant and the workmen," he replied, "and I'll put it through myself."

They determined to try it. They authorized him to obtain whatever plant he required, agreed to meet the pay-rolls as they fell due, and told him to go ahead in his own way, after his own ideas. He wanted to cut right through rock, mud, water, live crabs, or what not, thick or thin; and this is what he forthwith did. It was a bold undertaking, and one which required not only personal courage, persistence and great ingenuity, but tact and a wonderful influence over men. For the work was dangerous. All sorts of outside pressure was brought upon the workmen to prevent their working in the tunnel, as well as upon the directors of the company to abandon the project. The former contractors brought action against the company for damages for their loss of profit; and expert after expert, engineers and constructors, were brought into court to prove that the tunnel could not possibly be built. During the many adjournments of the court Mr. Jacobs was quietly doing what he had set out to do. When the testimony had been taken of the experts who declared that the tunnel could not be built through the fissures, and a pretty strong case had been made out for the contractors, Mr. Jacobs was called on. He had nothing to say. But a thunderbolt fell upon the contractors and their "experts" when it was announced that the work had already been done. There it was. The court could go and see it. He had completed the tunnel through the

"impossible" section. Even expert testimony could not break down this kind of evidence. The court dismissed the contractors' case, and compelled them to pay the costs.

On this undertaking Mr. Jacobs's ability to handle men was also tested. Without it, even a much more plausible undertaking would have been a failure. In order to sustain the soft material of the river bottom, pressed down by the heavy weight of the river, a shield was constructed, and compressed air was introduced into the heading at the exceptionally high pressure of forty-eight pounds to the square inch, the highest ever used in tunnel work. Men had to work in this highly compressed atmosphere. The discomfort, and the danger from "the bends," or caisson disease, was so great that it might be considered difficult to get men even to go into it. But every precaution was used, and the most rigid examination was made of a man before he was admitted to the air-chamber, for there was danger only for those not in fit physical condition. Yet, in spite of all precautions, four men succumbed to the effects of the high pressure and died of "the bends." There were protests. Naturally, the danger became exaggerated. Certain newspapers in New York violently attacked the methods used. But the chief difficulty was to keep men out of the tunnel. They were liberally paid, and they worked only about three hours a day, but the real influence which impelled them to brave all danger was the personality of Mr. Jacobs. In addition to his usual kindness to his men and his thoughtful consideration of their welfare, every one recognized his courage and determination. They caught his enthusiasm also, and office men, foremen, overseers, workmen, all felt themselves an organized and specially commissioned army to battle against every obstruction, every discouragement, every danger, to drive that tunnel through. One of the men, explaining the enthusiasm to me, said: "Why, it was Mr. Jacobs. If he were to tell one of his men to go and jump into the fire, he would do it."

Other serious difficulties were met in the construction of this tunnel, not the least of which was a suspension of several weeks on account of the stringent financial condition of 1893, attended, as it was, by a disorganization of labor. But all difficulties were overcome. The tunnel was completed, and for ten years it has been bringing the gas of the East River Gas Company from Long Island City into New York. It was made large enough to run trolley cars through, in case it is ever decided to use it for that purpose.

The success of the East River tunnel revived interest in the old Hudson River tunnel, which, begun thirty years ago, had been attempted three times by three different companies, with three different engineers and three different contractors, and had three times been abandoned. It was considered a wild dream when first projected. Every time it was abandoned, sometimes with calamity, people merely said "I told you so." It came to be a joke. But at last a fourth company took hold of it, and Mr. Jacobs was engaged as constructing engineer. The tunnel went through. Mr. Jacobs first passed through it on the eleventh of last March.

"That's all there is to it," says Mr. Jacobs. When asked to tell about it and his connection with it, he remarks with characteristic directness, "There is nothing to tell—except that Henry Hudson was the first white man who crossed over the river, and Jacobs was the first who crossed under it."

But it must not be supposed that he did not encounter the same difficulties which had baffled the other engineers. Here was a task indeed. The others had not reached even the most difficult part of it, where rock had to be blasted underneath the middle of the river with twelve feet or more of soft mud and silt above, pressed upon by sixty-five feet of water. Nine thousand blasts were made under such conditions. The walls of the tunnel were not built through rock, which would have been easier, but along a reef of rock, 700 feet long, with soft mud above it through which the tunnel had to go. This work was well done, and now the greater Pennsylvania tunnel is rapidly advancing under the direction of the same man.

Mr. Jacobs is not an office engineer. He does not sit at his desk studying maps, charts, blue-prints and typewritten reports, and writing letters of instruction. He deals with the real things and is out among his men. He holds frequent "councils of war" with his assistants and foremen, and is ever ready to hear a suggestion from any subordinate. "I do not want a man in my employ," he says, "whose opinion isn't worth something." But when he makes his decision, it is expected

to go—and it does go; and, oddly enough, every man somehow feels it is the proper thing to do. Familiar at all times with every detail of the work and the man doing it, always clearsighted, resourceful, enthusiastic, he inspires his men, who, from the assistant engineers who share his inmost councils to the men who handle the spades and drive the mules, recognize in him a chief worthy to follow, who expects every man to do his duty. This helps to explain the remarkable success which Mr. Jacobs has had.

Once only has he had trouble with his men. Because he once discharged a foreman whom he deemed incompetent, and appointed another who was not a union man, the force under this man struck.

"All right," said Mr. Jacobs, "no one can dictate or take command of the work as long as I am chief. Meantime, let the rest of us get to work and finish the tunnel."

The walking delegates called out all the union men; but all others, including draughtsmen, stenographers, clerks and assistant engineers, volunteered to go in and do the work of the tunnel laborers, manage the shield and the hydraulic machinery, load up the cars and carry out the excavations. This they did and with enthusiasm for several days until other laborers were procured.

An interesting example of his ready resources under extreme difficulty was the way he met a peculiar and a very serious accident which occurred last spring in the construction of the "South Tunnel," the second of the "Hudson River" trolley-road tunnels now being constructed. At the beginning of the work on this tunnel where the old company had left off, a specially designed and most powerful hydraulic shield was installed. This shield is a cylindrical cup fitted into the head of the tunnel and shoved along by hydraulic power. The cast-iron cylindrical wall of the tunnel has to be built around the inside wall of this cup as it is shoved along. Openings with sliding doors are in the shield to enable the men to get out in front and dig or blast, hauling the material through these openings and on out through the shaft. These doors were opened when the shield was first installed, but the very first day the ground was found so soft that they were ordered closed. The shield was to be forced through the mud, pushing all material out of its way. This was succeeding very well until in the middle of the night, when the foreman came to the conclusion he could move faster, and, contrary to orders, opened the doors.

Immediately, before he could close them, the Hudson River silt shot through in columns looking like huge frightful snakes coming in to engulf the men. Every one, panic stricken, rushed toward the mouth of the tunnel. One poor fellow tripped and fell, and was quickly enveloped in the coils of the murderous mud snakes, which rushed after the terror-stricken men, being stopped only by the concrete walls and steel doors of the air-lock. The tunnel for about one hundred feet was packed solidly with mud. Disaster seemed to have overtaken the whole enterprise. The heading was lost, and the men were completely routed. Mr. Jacobs, hearing of the awful calamity, rushed to the scene.

"The doorways to the shield must be stopped from above," he said, and sent for a sailmaker.

Hearing that the sails of the American yacht *Reliance*, which in the international races had just saved the America's Cup, had been stripped from their mast, he purchased the main sail of this yacht, and with it saved the day for the Hudson River tunnel. Taking this sail and sewing to it another, making one great sheet, he sank it in the river over the heading of the tunnel, and then filled in on top with clay dumped from scows until the bed of the river was patched. The sails closed around the head of the shield, cutting off the flow of mud through the doorways, so that the mud on the inside could be removed and the doorways closed. The tunnel-head then began again to move forward. To this day a part of the *Reliance* sail is still borne on the head of the shield, where it can be seen from the inside of the tunnel. This time it is breaking the world's record sailing under the water, for never before has such speed been made in the driving of a tunnel.

And so the ingenious engineer meets every emergency. Whenever an accident occurs, whenever an unforeseen difficulty arises and calamity threatens, he always turns up with some simple common-sense scheme, which any man might have thought of—but didn't.

An instance of his common-sense resourcefulness is in his invention of a contrivance for the strengthening of the Pennsylvania Railroad tunnels he is now constructing. These tunnels are made of iron rings, brought into

the bore in sections and bolted into place, making an iron lining for the bore the shield makes as it advances. Because of the depth to which the silt in that part of the Hudson goes, and in order that the tunnels may be strong enough to support the heavy Pullman trains to be operated through them, these tubes are not tunnels in the ordinary sense, but "subterranean tunnel bridges." Steel screw piles are screwed down at intervals of fifteen feet from the inside of the tunnels to the solid bedrock below, on the top of which girders are to be laid, making a bridge. The tunnel proper is a casing to protect the bridge. This contrivance, invented by Mr. Jacobs, has been patented by the United States Government, by the British Government and by the French Government; and the ingenious conception is considered by eminent engineers the world over as an important advance in tunnel engineering.

Mr. Jacobs is a man of medium height, rather stout, muscular and robust, with gray mustache and hair. His large head, almost bald, is set well upon a shapely bust. His shoulders are square, his chest full. He has a clear blue eye, a face somewhat round, a high forehead, features even and generally composed, with a fixed expression of seriousness and earnestness, of alertness coupled with precision. As he sits in his office, or as he moves about where his men are at work, he readily seems one born to command.

He calls himself an Anglo-American. He was born in England in 1850. From his earliest youth he was serious minded and active in intellectual pursuits, but he preferred studying things rather than books, and spent his childhood watching what was going on around him, especially the construction of ships in the dry-docks near his home. From this he became early imbued with the ambition to make things and to make them go. Like most boys, he was fond of locomotives and steamboats, but with him the interest in these did not wane as he grew older; it increased. From watching the boats, he became interested in the way in which they moved; and from seeing the wheels go round, he began to inquire what made them go round, and why. So strong was his interest in these things that when he had finished school—after the fashion of his country and time, he had a private tutor from Cambridge University—at the age of sixteen, his parents consented to his entering as a pupil in engineering and shipbuilding with a well-known firm at Hull. Here he had a thorough mechanical training, passing through the workshops and draughting offices.

The keenness of his perceptions, the comprehensiveness and constructiveness of his intellect, his accuracy and the methodical way in which he did things, together with his earnestness and a good fund of practical sense, soon impressed his value upon the managers of the firm, and he was early assigned to important and responsible work. By the time he had finished his period as pupil—in five years—he had risen to the position of assistant to the manager, and soon afterward was selected to represent the firm in important engineering works in India. Later, he went to China on a similar mission. He was a mere lad then, and for some years after he returned to England, for in England a man is a lad until he nears the age of forty. But he was a lad who had displayed such marked ability that he was further intrusted with important undertakings, before he was yet twenty-five, in England, on the Continent, and in Australia. In 1875, he opened an office in South Wales, and after nine years, during which time his reputation as an engineer was widening, while he continued to grow in knowledge and experience, he moved his office to London.

By 1889 his reputation had spread to America. The late Mr. Austin Corbin, at that time president of the Philadelphia & Reading Railroad, invited him to come to this country to advise with him concerning various schemes in which he was interested. It was about that time that the problem of rapid transit in New York began to be a tunnel problem, and this enthusiastic and far-seeing Englishman had been over here but a short time before he had a plan to run tunnels underneath the Hudson River and underground through Manhattan. He had been connected with contractors in the construction of the tunnels underneath London and wanted to see something like them on a larger scale here. Some of the tunnels he proposed fifteen years ago are about to be constructed now under his charge, notably, a double tunnel from Cortlandt Street under the Hudson to Jersey City.

INDUSTRIAL LIFE IN FRANCE

A PICTURE OF THE WORKING CLASSES — THEIR CONDITION LOWER THAN IN THE UNITED STATES — MORE GOVERNMENT SUPERVISION OF INDUSTRIAL AFFAIRS THAN WITH US

BY

JOHN CALLAN O'LAUGHLIN

(The fourth of a series of first-hand investigations of European industry)

THE narrow, crooked street of Armentières, a textile manufacturing city of northern France, was crowded by a turbulent mob of strikers who angrily shook their fists at the rambling building with greasy windows looming above them. One of the men excitedly shrieked revolutionary doctrines, and vituperated Capital; and the eddies of humanity that swirled about him roared emphatic approval of his sentiments when he stopped for breath. Suddenly, from the outskirts of the crowd, a shower of stones was directed against the building. The noise of windows breaking and of missiles crashing against the wall maddened the crowd, which surged toward the closed doors. Some one started vigorously singing the revolutionary song of French Labor, and to its strident strains the work of destruction began. But down the street came the sound of the rhythmic tramp of troops under instructions to establish and preserve order. They marched through a jeering double line of men, women and children, all intense partisans of Labor; and the news of their approach sped from lip to lip until it reached the infuriated strikers. The latter quickly ceased their assault upon the building and turned toward the agents of the government. The order to disperse, given by the officer commanding the troops, was greeted with howls of derision. An attempt to force the crowd quietly to scatter was followed by resistance. There was a pistol shot, another and another, and then a volley of stones. When the strikers finally fled they left dead and dying soldiers in the streets, victims of a condition which made authority afraid to act with promptitude and decision.

The scene at Armentières has been repeated in other centres of the textile district, in the lace district, in the silk district, and even in Paris. French capitalists gloomily predict ruin for enterprise, and eventually revolution, unless Labor abandons its present aggressive policy. Many manufacturers have said to me: "We should like to extend our business, but we dare not. We do not know what extravagance Labor may require Parliament to authorize. We prefer to invest our spare capital in foreign securities." And Labor says in return: "Treat us decently and equitably, and you need have no fear that your business will not be profitable. Give us wages upon which we can live and bring up our families, not crowded in one room or two, not deprived almost of the barest necessities, not suffering from want of adequate clothing. Arrange a pension for our old age. Fix our hours so that our wives may be at home when we are home, and give us shorter hours so that we may have time for recreation or to dispose of as we may see fit. Look at the silk-workers of southeastern France: sixteen thousand out of twenty thousand in one district are compelled to sleep two in a bed, oftentimes with the room packed full of beds. Consider the life of the lacemakers. The hours of man and wife—and both must work in order to gain sufficient for existence—are such that they cannot always be at home together. Make our workshops sanitary. In how many shops are there sufficient air and space? Let Capital share its profits with the men whose energy and brains produce the dividends."

A LOW STANDARD OF LIVING

Necessarily, there is a great similarity between the grievances of Labor in France and those in every other country. Ask a French workman if he is satisfied with his pay, and the chances are 999 out of a 1,000 that he will say "No." He will probably not tell you what he receives; secretiveness about compensation is essentially a French trait. But

he will point out that his wife and his children have to work in order that receipts may balance expenses, and he will add that his feeling toward Capital is not improved when, on account of child-bearing, the women have to stay at home and the family income is reduced 40 per cent. In Armentières, the wages of the textile hands vary from $2.04 to $3.60 per week. M. Jaures, the Socialist leader, characterizes the workers of this section as "the poorest of industrialists." "There are few corporations whose employees receive such low wages, or work so long, or whose misery is so great." A young matron, the wife of an employee of a textile factory, said to me:

"My husband earns $5 a week. His wages are high. You know"—this with some pride—"he is employed in the best factory in Armentières. We have three children, seven, five and three years of age. Before they came I earned $4 a week. Now I have to stay at home and care for them and for the house. Sometimes I earn a few cents. The average is, perhaps, forty cents a week."

I asked the woman to give me a statement of her weekly expenses. Here are my notes:

WEEKLY EXPENSES OF A FAMILY

Items	Cents
Rent	82
Bread, 11 loaves (one furnished by public charity)	76
Meat, one pound of beef for boiling, one pound of beefsteak, one pound of mutton, one pound of lard	90
Coal	57
Butter	45
Groceries	65
Coffee.	
Sugar.	
Coal oil.	
Pepper.	
Salt.	
Potatoes, 14 pounds weekly	35
Clothing for children	40
Husband's personal expenses	40
Tobacco	9
Total	$5.39

"So, you see," the woman continued, "my husband and I make barely enough to live. We do not get meat every day, nor any wine, which costs four cents a pint. Often my husband goes without his sundries. How do we clothe ourselves? I often ask myself that question. Fortunately, we saved a little before the babies came, or I do not know what we should do. Frequently the factory shuts down, and then, indeed, it is hard. Still, we are better off than some of our neighbors. I have a friend who earns $3 a week. His wife also works, and her pay is $1.80. They have a child. Think of their struggles. Terrible!"

Similar conditions may be found in other sections of the textile district. Statisticians prove that during the past fifty years wages throughout France have doubled. But workmen ask: "What if they have? There has been no alleviation of our condition; our fathers were miserable and we are miserable." Weavers are paid on the average seven cents an hour, and dyers receive a little more than four cents. In the United States a weaver receives thirteen and a half cents an hour and a dyer nearly twelve cents. The same ratio exists when one compares the wages paid in all French and American industries. For fifteen skilled trades the weekly pay in the United States is about $18; in France it is only about $7.50. The average annual income of families engaged in the cotton manufacturing industry in France is a little more than $411; in the United States, $763. In the woolen trade, the annual wages in France average $483; in the United States, $719. The normal family employed in a French textile district spends $341 for living; in America, $554.50. Yet French people, by an economy marvelous to Americans, manage to save a large sum of money. The savings banks, patronized almost exclusively by working men, have a floating capital of $600,000,000. Every year, $200,000,000 is drawn out, and a little more than that is deposited.

GOVERNMENT EFFORTS FOR BETTERMENT

A gradual reduction of the hours of labor has been effected by law. Before 1900 the hours were fixed at twelve, but they were really anything the factory owner chose to prescribe. "Even today," said one capitalist, "if we 'see' the inspector, we need not shut down on time; but if we do not take care of him we fall into trouble," though this does not necessarily mean that all the inspectors are venal. By a law passed in 1900 it was decreed that the working hours should not exceed eleven until March 31, 1902, when they should be reduced to ten and one-half, and after March 31, 1904, they should not exceed ten. This law has been a fruitful source of contention between employers and workmen.

The employers, anticipating diminished production, sought to lower wages. Some dismissed apprentices and women, whose presence, under another law, would reduce the number of working hours. Others sought to obtain greater production by demanding greater punctuality, forbidding smoking and dawdling, save in the legalized midday rest. The output diminished. Operators of coal mines have announced that a loss of 6,500,000 tons a year will certainly result. But in all industries the poor wages may be traced to the employers' desire to make up for lessened production due to the shortened hours.

Up to the age of twelve, children are a terrible drain upon parents of the French laboring class. Parents, however, regard the rearing of children as an investment, for after the age of twelve they may legally be employed to swell the family earnings. In a total of 2,888,687 industrial employees, 670,413 are women more than eighteen years of age, and 233,989 are girls and 236,425 are boys under eighteen. Thus very nearly 40 per cent. of the hands in France are women and children. Marriages usually follow the term of military service. The girl has been steadily at her machine, at her loom, or in the mines, while her lover has been serving his three years in the army. After marriage she and he work—side by side, perhaps—in the same factory. When the first baby comes, she does not always cease work; the family purse could not stand the loss. A neighbor cares for the child during the day, charging $1 a week. A second baby, and the care of two costs about $1.80 per week. In some places there are institutions where babies can be deposited and cared for at a lower charge. In Paris and other large cities there are municipal asylums for babies, which are looked after for a mere pittance. The mother, laboring in the factory by day, must devote herself at night to the children, sometimes feeding them herself.

But the government has sought to lighten the burden of the women and the child-workers. Labor in certain specified industries is forbidden them. Special sanitary regulations are enforced in all establishments where machines are used. Factory labor is permitted only to children above the age of thirteen. Night work is prohibited. Further to safeguard them, factories employing women and children must enforce regulations for their protection.

Hugo and Zola painted vivid pictures of the noisome homes of the French working classes. These conditions have been somewhat ameliorated, but they have not disappeared. In Paris there are buildings which are open to heat and cold, and where families are packed almost to suffocation. "People swarm there in the humid obscurity of a maze of ruins," the mayor of one Paris ward reported. In order to provide healthful surroundings economists estimate that in Paris alone an expenditure of $500,000,000 is necessary. The government is now making an investigation with a view to bettering conditions. In Clermont, a provincial town, a government commission found that, of 2,550 houses there, 200 were fit to live in; 1,000 were passable; 800 were mediocre; 400 were bad; and 150 were very bad. These houses are occupied by several families. The annual rents of 9,500 apartments, which were not objectionable on sanitary grounds, were $60 a year, or more, apiece; 4,000 apartments at lower rents afforded insufficient air and space.

THE GRIEVANCES OF MANUFACTURERS

A manufacturer told me that the actual expenses of manufacturing establishments were 15, 20, and even 25 per cent. greater than they were fifteen years ago. On the other hand, the laws restricting working hours constitute a grievance to employers no less than to the employed—as, for example, when an employer has an accumulation of work on hand. Certain industries on stated conditions may suspend these restrictions, but the conditions are so onerous that the concessions are practically valueless. Night-work is possible, but the men employed in the daytime cannot be employed at night, so that an establishment sometimes suffers from lack of skilled labor between 8 P. M. and 6 A. M.

French capitalists, moreover, deeply resent the strict enforcement of existing laws and the application of legislative pressure to squeeze further wage concessions. Such pressure is exerted by the annual publication of documents which give the wages paid by government contractors. If a private enterprise fail to pay the wages cited in the latest report a strike or a scarcity of labor usually follows. Whenever industrial conditions improve, the men ask for an increase of pay; they are not disposed to accept a reduction when the change is for the worse.

The Socialists are agitating for laws compelling employers to provide old-age pensions or retreats for employees, without deductions from their wages, and for the support of employees in enforced idleness. The loss through enforced idleness suffered by the working people is officially estimated at seven days in every 100. To lessen this hardship, benefit funds have been established, 146 by workmen and two by employers. The Socialists hope, too, to establish an income tax. Socialism, however, has not yet appreciably penetrated the agricultural districts, where half the population of the country still live, and the representatives of these districts where small proprietors are numerous will hesitate before voting to tax incomes.

WHAT EMPLOYERS DO FOR THE WORKERS

To alleviate the hardships of Labor, however, many manufacturing establishments provide pensions for their superannuated employees, half of the fund being derived from deductions of not more than 5 per cent. out of wages. Employers must also pay pensions to employees disabled by accidents, and to their families in cases of fatality; the fault is legally presumed to be the employer's, which may account for the comparative infrequency of such accidents in France. The payments are legally guaranteed by a government bureau. The government also sanctions and supervises relief societies, which, however, seem defective. Private societies for securing old-age pensions also exist. In the manufacturing districts employers have also built working-men's homes to be rented at nominal prices. Stores are maintained by the operators in the mines. Trading with them is optional, and most of them are administered by joint committees of employers and employed. Their profits are applied for the benefit of the workmen. Many establishments have provided hospitals, physicians, schools and amusements.

At the great Creusot Steel Works there are sanitary houses, every one with a small garden, which rent from thirty-eight cents to $1.60 a month. Land is sold at reduced prices to workmen, and aid is given toward the building of houses. The aggregate annual cost of these philanthropies is $457,755, of which $145,532 is devoted to pensions and $73,204 to care of the sick; $167,455 is set down to loss in nominal rents and to allowances made to reservists called out for duty, to fathers of more than five young children, and to the cost of extra "creature comforts"; and the balance is applied to the religious, intellectual and general human improvement of the employees.

These works employ 15,000 persons, of whom 5,000 have been in the shops for more than twenty years, 3,750 for more than twenty-five years, and about 2,000 for more than thirty years. Yet the workmen here, in speaking of these benefits, carefully explain that they are in certain points obligatory by law. Four years ago there was a strike in the Creusot Works. After this strike the management put in force a system by which the men, through representatives, should submit grievances of every kind at frequent stated intervals during the year. Of 153 complaints submitted in one year, 97 were redressed to the satisfaction of the complainants.

ORGANIZATIONS OF LABOR AND OF CAPITAL

Before 1884, there were but 500 unions of all kinds, numbering 60,000 members. Now there are 82 unions of employers with 157,405 members, 134 unions of workingmen with 684,767 members, and 11 unions of capitalists and men with 2,404 members. There are no combinations of capital as we know them in America. Napoleon's code prohibits, under severe penalties, the artificial raising and lowering of prices of merchandise and products. Unions and trusts do not complicate the labor problem as they do in the United States.

THE OUTLOOK

At present, conciliation and arbitration are the two palliatives available in the strife of Labor and Capital. The law of 1892 providing for these has been applied on the average in one strike out of every four during the last ten years, and it has failed in one-third of those cases. M. Guyot says there is arbitration "only when the strikers are tired of idleness." At the headquarters of the important organization of the great iron, steel and coal establishments of the republic in Paris I was told, "We are struggling against exactions which are unjust and which, if added to, as Labor proposes, will seriously handicap it in upbuilding the wealth and prosperity of the nation and every individual in it."

NEW METHODS OF OFFICE WORK

BUSINESS OPERATIONS FORMERLY CARRIED ON BY HIGHLY PAID EXPERTS AND BY ARMIES OF OFFICE MEN NOW DONE MORE QUICKLY AND EFFECTIVELY BY INGENIOUS MACHINES

BY

LEROY SCOTT

A REVOLUTION in the method of doing office work is now going on—a change from hand to machine. Perhaps this revolution can be illustrated, as well as by anything else, by the handling of circular letters. The circular letter, however much it may be snubbed by the majority of its recipients, has come to have the high respect of the business man, and to have a distinct place in the conduct of his affairs. Only a few years back the sending out of such letters was comparatively expensive and ineffective. To typewrite each letter was slow and costly; if printed, days might be lost in case the printer was crowded with work, and even after reaching the addressee the chances were that the letter would go into the waste basket, unread. The printing or typewriting done, the letter had to be folded by hand, and the envelope addressed by hand and sealed by hand. All these operations, where great numbers of letters were sent out, meant many persons, much time and much money.

But now circular letters may be handled quite differently. The mimeograph is so well known that neither it nor its work needs description here. An office boy, using one of the better varieties, can, in half an hour, turn off a thousand copies of the letter it took the stenographer ten minutes to write. For price lists, reports, orders, letters of instruction, and similar matter that goes to persons already interested in the letter's contents, the work of the mimeograph is most satisfactory. All duplicating machines try to profit by the fact that the average man will read almost any statements made in a personal letter, whereas he probably would give little or no attention to the same statements made in a printed circular or in an easily detected imitation of a personal letter. Mimeographs have striven to produce a perfect imitation of typewriting, but have fallen short of it.

One device that aims to fill the existing want is especially designed for use where the list of addresses is practically fixed. It is very much like the ordinary job printing press in appearance, and it uses type that can readily be set up in the office. The addresses are stamped on metal plates which are joined into endless chains. With a chain in its place on the machine, one impression prints the letter and the address—and, if desired, the signature in a different colored ink. The address shifts with each impression.

The most conspicuous features of another machine are two hollow cylinders, each about ten inches long and eight in diameter, revolving on the same axis. Both cylinders are cut lengthwise with grooves, separated from each other by the distance between ordinary typewritten lines. One cylinder does the printing; the other holds the supply of type, each letter and figure having its separate groove. The type are of metal, and, though they can be slipped back and forth in the grooves, their flat top and broad base keep them from falling out. Setting up a letter is accomplished by slipping the type from the type cylinder on to the printing cylinder. The rest is simplicity itself. An office boy turns a crank, and printed letters shoot from beneath the printing cylinder as rapidly as the boy can feed them; or a motor can replace the boy at the crank and the speed be increased. The letter, after the address has been typewritten in, looks exactly as though it had been fingered out by a stenographer.

But before it is sent off the letter must be handled many times. Folding is still almost exclusively done by hand. Boys and girls, after becoming expert, can fold from four to six hundred letters an hour. But a machine exists for this work. It is a little larger than a typewriter, and in construction is similar to the folding machines used in

large printing establishments. The letters are stacked on the top of the folder and are fed automatically. The machine may be operated by hand or by a motor. In the latter case, all you need to do is now and then to replenish the stock on top and take away the folded sheets. It "does the rest" at the rate of five thousand letters an hour.

Next the envelope must be addressed—though in business practice it would probably be addressed and waiting. As a rule, large concerns keep a list of the addresses of their customers, and possible customers—a list that is maintained in careful order. The central idea of almost all the rapid-addressing contrivances is the card catalogue system of keeping the addresses. Each card has the address stenciled in it, and the address is printed directly from the card upon the envelope.

The cards or plates are kept in cabinets in trays holding from two to four hundred. The contents of a tray are placed in the magazine of the addressing machine, which is operated either by foot power or by an electric motor. The cards are moved automatically one by one beneath the platen of the machine, their addresses are stamped upon envelopes (fed by hand or automatically), and they are then carried to a tray where they are deposited in the same relative positions they just occupied. The addressing is done at the rate of from two to seven thousand an hour. Of course, this method of addressing is impracticable where the list of addresses is small, or infrequently used, or subject to large and frequent changes. The method is also not adapted to addressing the envelopes of personal letters, however large the number being sent out.

After the letters have been put in the envelopes, then comes the sealing. A boy's left hand feeds the envelopes (or they may be fed automatically) into a little contrivance of brass and steel and rubber, his right hand turns a crank—and the envelopes come sealed through a pair of rollers at the rate of from three to ten thousand an hour, about ten times as fast as when the boy and his tongue did the work.

There will probably soon be on the market a practical machine for putting on stamps. A number of devices for doing this work have been exhibited, but they have not yet been brought to perfection.

Another field that is being worked by the makers of office devices is the keeping of employees' time. The clock mechanism, with its many number keys, standing at the entrance of stores and factories, will be recalled by the most casual observers. When an employee enters the store or factory, he punches his assigned key and in leaving punches it again, thereby printing in a chart the exact time of his arrival and departure. As the first punch causes a steel finger to drop upon a sensitized moving chart, and the second punch causes it to lift, the position and length of the scratch record the time of arriving and departing and the time spent at work.

Though these machines record the time a man spends in the factory, they make no pretense of recording what he turns out while there. The close margin of profit on which business is now done has made it highly desirable that an accurate account be kept of the "labor cost" of each article manufactured.

The time-stamp has developed, and now a machine can be had that calculates automatically and prints upon a card the time spent on each piece of work. When an employee begins a job, his card is inserted in the machine and a lever operated. This prints upon the card the time of beginning and also two handless dials, one for hours, the other for minutes. While the employee is at work the two dial-stamps in the machine are turning, the hour dial at the rate of one revolution in twelve hours, the minute dial at the rate of one revolution in one hour. When the job is completed the card is inserted in the machine in exactly the same position it first occupied. If three hours have been consumed by the job, the hour dial-stamp will have turned a quarter way round—that is, if the dial-stamp were now pushed down upon the first impression the 12 would be stamped upon the 3; if five hours had elapsed, the 12 would fall upon the 5. But a second impression of the dial is not made. Within the dial-stamp, which is a hollow cylinder, is an arrow that always points at 12 on the dial-stamp, or rather at 0 by which 12 is expressed. Instead of the dial-stamp being pressed upon the card, the arrow alone is depressed; so instead of 12 being stamped over 3, an arrow is printed pointing at 3, indicating the amount of elapsed time. The minute dial-stamp operates in like manner,

and the same movement of a lever stamps both arrows. Instead of being divided into minutes, the minute dial-stamp may be divided into tenths, in which case the elapsed time is recorded in hours and tenths, a method more convenient for ordinary calculation. The machine will stamp the time of beginning, or the elapsed time, upon the cards of the men in a department just as rapidly as the cards can be inserted and a lever drawn.

MACHINES DOING DIFFICULT SUMS

Of the many devices that perform brain work, perhaps the one most widely used is the adding-machine. All save the simplest computing machines not only add, but subtract, multiply and divide; and there are machines, devised for insurance companies and other concerns constantly working with immense figures, that do long problems in multiplication and division with a speed that makes one think of magic. Take some such problem as this: 65,678,425 x 26,782,359 equals? The ordinary man, working it the ordinary way, would put down more than a hundred figures and spend about five minutes before he could give the answer—and then he may have made a mistake. With a machine you move a few pegs, turn a little crank a few times, and within ten seconds there it is before you—1,759,023,156,-904,575. And the machine makes no mistake.

The adding machines which are best adapted for use in the ordinary office have the same fundamental mechanism. There is a keyboard, similar to that of a typewriter, the keys marked with figures instead of letters. If the capacity of the machine is 99,999,999 or $999,999.99, then there are eight rows of keys, nine keys in each row and numbered from 1 to 9. The first row at the right is units, the second tens, the third hundreds, and so on. Each row of keys operates a numeral wheel, which bears figures from 0 to 9. The simplest problem—say the sum of 7, 9 and 98 is required—will illustrate the method of operation. First the key numbered 7 in the unit row is depressed; instantly the unit numeral wheel revolves to 7. When key 9 in the unit row is touched, the unit numeral wheel turns to 6 and in revolving turns the tens wheel from 0 to 1, so that 16 is registered. To add 98 to this, key 9 in the tens column and key 8 in the units column are now struck, successively or simultaneously; the unit wheel revolves to 4, the tens wheel revolves to 1 and in making its revolution moves the hundreds wheel from 0 to 1. Each time a wheel completes a revolution it moves the next higher wheel forward a unit.

The machines will add, and perform other calculations, as rapidly as human fingers can touch the keys. Some machines merely record the result on the numeral wheels. Others also print in a column the figures to be added, and, when these are all set down, print the total. The printing mechanism of course necessitates extra power for its operation, supplied either by one hand of the operator or by an electric motor.

Every business man in the country whose affairs involve considerable calculation accords the adding machine recognition similar to that paid the typewriter. But the combination of the typewriter and the adding machine is still practically unrecognized. Only recently the salesman for such a dual machine received emphatic notice from one of the largest and most progressive of New York City banks to keep off its premises. This salesman persisted—and to-day the bank is an enthusiastic user of a number of his machines. The special field of typewriting-adding machines is work requiring writing to be used in connection with figures—such as lists of checks, pay-rolls, and the loose leaf system of keeping books. The figure keys of the typewriter are connected with the keys of the adding machine, and the same touch writes down the figures and operates the adding mechanism.

MACHINES THAT COMPILE STATISTICS

The adding machine in its most intelligent form becomes quite commonplace when compared to a system of accounting that, though not new, is just beginning to find its way into the accounting departments of concerns doing great volumes of business. This is a system first used in the compilation of statistics in the Census Department of the United States, and since adopted by the census departments of many foreign nations. The fundamental idea is the recording upon cards of certain selected facts and then tabulating these facts by machinery. The card used is of light weight manila, and is divided by vertical ruling into "fields," in each of which are vertical columns of figures ranging from 0 to 9. It has been found that the basic facts in almost any business are either

naturally stated in figures, or are capable of being expressed numerically. Each field in the card is designed for the registration of one class of facts, and facts in one class are recorded by punching out figures in their assigned field.

Punching the cards would seem at first thought to be a very slow process. It is quite otherwise, for an operator using the machine devised for the purpose can punch the items with great rapidity. The New York Central, which uses this system, has found that an experienced operator can in a day transfer to the card the details of 1500 waybills, whereas in the old way a clerk could handle in the same time hardly more than a third that number. Facts common to a great number of cards, such as the month and day, are recorded by a gang punch which punches a dozen or more cards at once.

The next step is grouping the cards. For example, if all the cards punched with the date December 21 are collected, those cards will contain a complete record of the freight business of that day. If all the cards, for a day or a month, punched 00 in the commodity field are collected, those cards will contain a complete record of the road's business for that day or month in 00, which figures signify "merchandise." The number of groups into which it is possible to sort the cards is very great. The sorting is done by drawing off the cards with a knitting needle, or, where large quantities are handled, it may be done automatically by a machine devised for this especial work.

Next the facts in a group are tabulated. The tabulating machine consists of a case inclosing adding machines operated electrically from a pin-box. The pin-box contains a spring-backed pin for every possible hole in the card, and each pin controls by electrical connection its own part of the adding mechanism. The pin-box works against a plate, in which there is a hole corresponding to every pin. When a card is put in position against this plate and the pin-box pressed upon it, pins that meet the card are pushed back into the pin-box, but each pin that finds a hole passes through and thus completes its electrical circuit and operates its part of the adding mechanism. Each pin corresponds to a key of an ordinary adding machine; if it passes through a hole 7, it moves an adding wheel forward seven units.

Cards may be fed to the tabulating machine by hand at the rate of forty-five to sixty a minute, or they may be fed automatically. If a card is introduced that does not belong to the group being tabulated, the machine refuses to add the figures and announces the mistake. As many separate adding machines may be incorporated in the tabulating machine as are required; each tabulating machine of the New York Central contains four adding machines—for weight, freight charges, advance charges and prepaid charges. The amounts in these four classifications are added simultaneously at one impression of the pin-box.

This system is adaptable to many uses. Besides auditing freight accounts, it will compute shop costs, analyze and take account of sales, make distribution of expenditures, and make almost any analysis of a great volume of facts, recording the desired statistics. It is not only accurate and speedy, but where the amount of business justifies its installation it is much cheaper than the old system. For example, an electrical company that uses a single tabulating machine to audit its monthly bills to customers, employs three girls and a boy to operate the system, replacing six high-priced experts.

AUTOMATIC TELEPHONING

The disadvantages inevitable in telephoning have been partially overcome by an instrument of foreign make—though the general serviceability of the device has not been demonstrated by usage in this country. It may be described as an ordinary telephone with a phonographic attachment. While Mr. Jones is in his office the attachment is not in use, but on going out he connects it with the telephone. When some one calls for Mr. Jones over the telephone, the phonographic attachment responds something after this fashion: "Mr. Jones is not in. This is a phonographic receiver speaking. Kindly give me your message and I will repeat it to him on his return." On coming in Mr. Jones sees from a signal that a message is waiting him. He takes the receiver, and the phonograph delivers the messages (perhaps there are many) that have been confided to it.

THE PEOPLE'S UPRISING IN RUSSIA

A MOVEMENT OF THE INDUSTRIAL CLASSES IN THE CITIES WHICH INVOLVES THE FARMS AND VILLAGES IN EVERY CORNER OF THE EMPIRE—HOW MILITARISM HAS RUINED THE PEASANTRY—THE INWARDNESS OF THE REFORMS DEMANDED

BY

VLADIMIR G. SIMKHOVITCH

"WORKMEN should assist the Government in its tranquilizing task on behalf of the betterment of their condition. This can be accomplished in one way only—namely, by holding themselves aloof from fomenters of disturbance, who are alien to the workmen's true interest and to the country's welfare." Thus did the governmental proclamation address the workingmen after the St. Petersburg massacre. For the country's welfare His Majesty's Government has undertaken and has carried out the odious task of overcrowding the jails with all those suspected of being alien to the workmen's true interests. Hundreds of labor-leaders, professors, men of letters, men and women of high social position, were arrested. The Government unquestionably did its best. And yet why is it that one somehow doubts the effectiveness of all these measures?

It would almost seem as if the Russian Government were charging itself with inefficiency. Why were not all the enemies of the country's welfare arrested long ago? The Russian Government was more fortunately situated than any other European Government. It could not say, "The law stands in the way." No legal formalities had to be observed. The Government did not need warrants; it was not embarrassed by *habeas corpus*. Mere suspicion was enough to throw men and women into jail. They could in fact be exiled or put in jail without any suspicion. Why then did His Majesty's Government fail in the performance of its sacred duties?

The Russian Government could justly object to such insinuations. They did their best. Did not even Prince E. N. Trubetskoy, a Liberal leader, charge the Government with overlooking the foreign enemy, because it was so busy at home? "The bureaucracy," wrote Prince Trubetskoy, "has been searching for an enemy, but it did not notice the foreign enemy, because its attention had been diverted into another channel; it was constantly haunted by the ghost of an internal enemy. It saw its enemy in every man not created in its own likeness; it found treason in every man who placed the dictates of his own conscience above the commands of the bureaucracy. It silenced every one who would have raised a warning voice in time."

The Czar's Government was not guilty of negligence. It fought for its existence as well as it knew how, but the place of every man shot to death, flogged to death, exiled or entombed was taken by a hundred men, ready to meet the same fate.

THE TYRANNY OF THE PRESENT CZAR'S RULE

The reign of Alexander II., admirable in many respects, was noted for the severity with which political offenders were treated. The last few years of that reign are usually called by the Russian Revolutionists a reign of governmental official terror. But what effect did it produce? We may look at the statistics of political offences for an answer:

POLITICAL PROSECUTIONS UNDER ALEXANDER II.

Years	Number of political cases	Number of persons involved
1871	[illegible]	88
1872	1	1
1874	1	13
1875	2	7
1876	5	12
1877	11	303
1878	8	30
1879	22	166
1880	21	130
1881	11	34

Compare these figures with the data for the reign of Emperor Nicholas II., taken from the secret report sent by Muravieff, the Russian Secretary of Justice, to the Council of the Empire on January 28, 1904:

POLITICAL PROSECUTIONS UNDER NICHOLAS II.

Year	Political cases disposed of by the Department of Justice	Persons involved	Political cases disposed of administratively with His Majesty's approval	Persons involved	Total number of persons involved
1894	158	919	56	559	1,478
1895	259	944	90	623	1,567
1896	309	1,668	67	561	2,229
1897	289	1,427	122	1,474	2,901
1898	257	1,144	149	1,004	2,144
1899	338	1,884	166	1,325	3,209
1900	384	1,580	144	1,363	2,943
1901	520	1,784	250	1,338	3,024
1902	1,053	3,744	347	1,678	5,462
1903	1,988	5,590	1,522	6,405	11,995

These figures of course do not include those killed or maimed by bullets and knouts in Zlatoust, in Elizavetpol, in Tikhoretskaya, in Kharkoff, in fact throughout Russia. Yet Russian autocracy could not stop the tide; in fact the Russian Government itself was unconsciously spreading and fostering revolutionary ideas, ignorant that it was preparing its own downfall.

THE REVOLT OF THE FACTORY, NOT OF THE FARM

The geographical and political situation of Russia compelled its Government to keep up a military establishment fit to compete with such civilized, industrially developed, and rich countries as Germany and England. It was obvious that poor agricultural Russia could not possibly meet the requirements. Capitalism was therefore introduced and encouraged. But Russian industry enjoyed none of those legal safeguards and guarantees, which alone could have made Russia a country of unlimited opportunities. The Russian industrial classes have been bled mercilessly by the bureaucracy. Progress and development have been constantly interfered with, and great industrial undertakings, doing legitimate business, have had to pay police protection and are at the mercy of petty officials. A well-known Russian captain of industry recently informed the writer that he once disagreed with Trepoff, when he was chief of police in Moscow. The disagreement cost him $86,000. If, therefore, the Russian capitalist class is distinctly unfriendly toward autocracy, the working classes in large and small industrial centres are distinctly revolutionary. It is in the factory that the Russian peasant becomes aware of his human dignity, here that he gets his education from agitators, here that he learns that there are countries where the governments exist for the people, and not the people for the government, where human beings have rights. He is told that if isolated workingmen are powerless, there is strength in union. It is in the industrial centres where the workingman becomes conscious of his power, and here, whether he becomes a unionist, a class-conscious Socialist, or is attached to no organization, he invariably imbibes some of the revolutionary spirit of his surroundings.

To arrest or exile to Siberia all the revolutionary workingmen has been utterly impracticable. Hundreds of thousands of men cannot conveniently be exiled. The Government therefore invented a procedure particularly unfortunate for autocracy. To free the city of agitators, the Government deported them in large numbers to their home-villages, where of course they disseminated revolutionary ideas among their own kind—the peasant population.

THE GRADUAL RUIN OF THE PEASANTS

The Russian peasantry has suffered from the bureaucratic régime even more than any other class. To preserve the dynasty it was necessary systematically to keep the peasantry, upon which the autocracy rests, from educational opportunities. The peasant class has been taxed to the limit by the State and plundered by the whole bureaucratic hierarchy down to the village policemen, and what has been the result? Famine has become chronic, and the population is degenerating. The mortality reaches forty deaths per thousand every year, while in Western Europe it is cut down to sixteen, even to thirteen, per thousand. On November 16, 1901 the Czar appointed a special commission with V. N. Kokovceff as chairman to investigate the destitution of Russia. The commission has already published a number of volumes, and the strongest indictment ever made against the autocratic régime is to be found in its official data. So for instance we read that the percentage of young men of the age of twenty-one that were physically unfit for enlistment in the army was in the period of 1874–1883—13 per cent. In 1883–1893 it was 17 per cent., and in 1894–1904 it was nearly 20 per cent.

The percentage of farms in the fifty provinces of European Russia that had no horses amounted in 1882 to 26.9 per cent.; in

1888–1891 to 27.8 per cent.; and in 1893–1896 to 32.2 per cent.

The percentage of farms that had three or more horses amounted in 1888–1891 to 21.7 per cent., and in 1893–1896 to only 17.5 per cent.

We see the same amazing economic decline, if we take the statistics of domestic animals in Russia: on each 1,000 farms there were in 1870, 9,329 head; in 1880, 8,345 head; in 1890, 7,294 head; and in 1900, only 6,474 head.

How can we explain this rapid ruin of the Russian peasantry? Menshikoff of the *Novoye Vremya*, writes: "A day or two ago I was shown a black, hard piece of mud; it was a piece of bread from the Krestetski district. This bread was made of bark mixed with bran, the like of which is perhaps given to pigs in Western Europe. I looked at this bread and thought: this bread is from the Devil. Would the Father give this black stone to His children, who pray for bread? This bread is from the Devil, from the source of darkness and of fear, from disbelief in the everlasting law of life, from disbelief in freedom." This was exactly the point of view of the local committees, that were asked what could relieve the growing distress of the peasantry. The answer was: freedom. And for this answer leading members of the Zemstvos, such as Martynoff and Bunakoff, were banished.

THE DISAFFECTION WIDESPREAD

Poverty verging on starvation does not exhaust the effect of the autocratic bureaucracy upon the people. By the outrages perpetrated every day throughout Russia, whole sections of the country are revolutionized; whole social groups, which otherwise would have been most loyal. Every American knows how the Government systematically revolutionized Finland. The Finnish population, like that of the Baltic provinces, is naturally extremely conservative, and it was really a difficult task to drive it to terroristic action. But the Government succeeded in accomplishing this task. Eugen Schauman, the youthful assassin of Bobrikof —Finland's general governor—remained at heart a conservative loyal subject, while becoming a terrorist. His letter to the Czar, in which he set forth the motives for his deed, concluded, "Knowing your good heart and good intention, I implore solely that you seek information regarding the whole Empire, including Finland, Poland and the Baltic provinces.—Signed with the deepest veneration, Your Majesty's humblest and truest subject, Eugen Schauman."

THE ATTITUDE TOWARD ASSASSINATION

In the very same way the Poles, the Lithuanians, the Germans, the Jews, the Armenians in Caucasus, but above all the Russian working people were driven into the arms of the revolution. The net result of this attitude of the Government was terrorism, that is, political assassinations. Within a short time, some of the highest dignitaries of State, who were particularly reactionary, were killed, as for example Secretary of Education Bogolepoff, Secretary of Interior Sipyagin, his successor von Plehve, Governor Bogdanovitch, and Governor Andreyeff. Among the wounded were Governor General Prince Galitsin, Governor Prince Obolenski, and Governor Von Wahl. Very significant also was the fact, that in a great many cases political murders took place in open daylight on crowded streets, with hundreds witnessing the crime. The public not only did not interfere but helped the murderer to escape. Thus escaped the assassins of Governors Bogdanovitch and Andreyeff, of the Chiefs of Police Metlenko and Boguslavski, of Colonel Bykoff, the would-be assassin of Prince Obolenski, and others. There can be no question that in each case the sympathies of the people were not with the victim, but with the men committing the crime. One of the most striking illustrations of this attitude of the people toward political murder we find at a banquet of 485 engineers in one of St. Petersburg's most fashionable halls on December 5th. It was a representative body of men; fifteen of those present held the rank of general. Presidents, directors, controlling stockholders of the largest industrial undertakings of the Empire were represented in scores. These men not only urged in the strongest possible terms the necessity of a constitution as an indispensable condition of industrial progress; not only did they favor an active struggle to a finish with the autocratic régime, but the speeches of the evening characterized Sozonoff—von Plehve's assassin—as a hero of the great Russian struggle with the tyranny of autocracy, and

those present honored his name by rising from their seats.

This illustrates to what extremes the plain, respectable Russian subject who belongs to no revolutionary organization is being driven. The bond of sympathy between all the forces of society opposed to autocracy is profound. Strange as it may seem, a Russian captain of industry, a provincial marshal of nobility, or a Zemstvo president has more in common with the terrorist than with a representative of the autocratic régime.

THE POPULAR DEMANDS CONSERVATIVE

This statement needs explanation, for it may appear that the Russian liberal men of affairs are being charged with anarchistic sympathies or tendencies. This is not the case. In fact, for more than twenty years no Anarchists have been active in Russia. It is indeed impossible to charge with anarchism even "The People's Will Party," the party of terror, which was so active between 1879 and 1882. After each political murder the party offered to the Government a complete suspension of its terroristic activity, if guarantees of life and liberty, freedom of speech, of press and of conscience be granted to the people and if a constituent assembly be convoked by the Government. An interesting document was once issued by this party which well expresses their point of view. The document was a manifesto of the dreaded "Executive Committee" of the People's Will Party on the occasion of the murder of President Garfield. It reads as follows:

THE TERRORIST MANIFESTO

"In expressing our deep sympathy with the American people bereaved by the death of the President, James Abram Garfield, the 'Executive Committee' regards it as its duty to protest in the name of all Russian Revolutionists against deeds of violence, such as the murderous attempt of Guiteau. In a land where the freedom of the individual makes a struggle for ideals possible, where the free will of the people determines not only the law of the land, but the personality of the ruler—in such a land political murder as a means of political struggle is the very essence of despotism; it is despotism of the very same type the extermination of which we regard as our task in Russia. The despotism of an individual or the despotism of a political organization are equally deplorable, and violence only then can find justification, when directed against violence.

"THE EXECUTIVE COMMITTEE.

"Sept. 10, 1881."

The so-called "terrorists" of to-day, the Party of Socialist-Revolutionists, are much milder than their predecessors. They are strictly opposed to anarchism. They desire nothing but a "bill of rights" and the convocation of a constituent assembly. They approve of political murder only in exceptional cases as punishment for extreme violence on the part of those in power. The "terroristic" part of their programme practically reduces itself to what they may call "self-protection," and what others may be equally justified in regarding as vengeance. But for all practical purposes, whether they choose to call themselves Socialists or not, their immediate aims and aspirations are identical with the aims and aspirations of the Russian Liberals, irrespective of class and occupation. In fact, for the time being, there is practically no difference to speak of between the demands of the landed aristocracy as represented in the Zemstvos, the Liberal manufacturers, and the professional classes and the demands of the numerous revolutionary parties. One is justified in saying that the men and women of the land, that have had the privilege of even the most elementary education, so far as they are not identified with the bureaucratic machine, not profiting in the graft, nor sharing in the loot, are all united against autocracy. They all demand a democratic constitution. Delegates of the various Russian oppositional and revolutionary parties have recently had a special convention. Not only are the resolutions adopted by this convention important in principle, but the conference also coordinates the actions of the Russian revolutionary forces with those of Finland, Poland, Lithuania and Georgia.

A DECLARATION TO THE CZAR

The following socialistic and revolutionary organizations took active part in the conference: The Russian Constitutionalists, The National Polish League, The Polish Socialist Party, The Russian Socialist-Revolutionist Party, The Georgian Socialist-Revolutionist Party, The Armenian Revolutionary Federation and the Finland Opposition. These organizations unanimously decided to make the following declaration:

"None of the parties represented at the conference, while accepting the principle of co-operation, thinks for one moment of departing in any single particular from its programme or from its method of carrying on the struggle which corresponds to the needs, the strength, and the situation of the elements, social classes, or nationalities whose interests they represent. But at the same time, these parties state that they all recognize the following principles and claims:

"(1) The abolition of the Autocracy; the suppression of all the measures aimed against the constitutional rights of Finland.

"(2) The substitution for the autocratic régime of free democratic rule on the basis of universal suffrage.

"(3) The right of each nationality to manage its own affairs, the liberty of national development guaranteed by the laws to all nationalities, the suppression of all violence on the part of the Russian Government in regard to other nationalities."

Of course such resolutions do not in any way settle the relations of a Free Russia to the minor nationalities in the Empire, but the declaration is important because it shows that all of Revolutionary Russia is concentrating its efforts on a struggle for a constitution to replace the autocracy of the Czars.

ALL OF RUSSIA INVOLVED

Great must have been the surprise of His Majesty's Government to find out that Revolutionary Russia is practically the whole of Russia. The Congress of the Zemstvo Presidents, their resolutions and their demands for a bill of rights and a constitution, made the difference between the Zemstvos and the revolutionary organizations as regards autocracy, a purely academic question. This bond of solidarity was openly admitted and emphasized by the Zemstvo Presidents in a special protocol, in which they pointed out that they regard it as their duty to demand the liberation of all those persons who are suffering penalties inflicted upon them by administrative order, in other words, political offenders.

His Majesty and his advisers knew perfectly well what these resolutions signified. They also knew that they were but a symptom, an indication that the revolutionary spirit had won a strong hold on what has been considered the pillar of the throne—the Russian nobility. But the Government decided to maintain the *status quo*. Local provincial Zemstvos, city councils, and university faculties sent numerous petitions demanding the immediate convocation of a constituent assembly. Finally the longed-for reply from His Majesty was published. The manifesto, as the reader knows, announced the undeviating maintenance of autocracy, promising certain reforms, most of which, unfortunately, are meaningless under an autocratic régime.

This manifesto, and the ordinance accompanying it prohibiting the Zemstvos, city councils and other corporations from passing anti-governmental resolutions, the Emperor's characterization of the petition of the Tchernigoff-Zemstvo as "arrogant and tactless"—and this when Port Arthur was surrendering to Nogi—produced a universal feeling of bitterness and wrath in all classes of society. A famous Petersburg professor at a mass meeting called the Imperial Manifesto "arrogant and tactless." The situation had to be cleared up in one way or another. The St. Petersburg massacre cleared up the situation.

POLITICAL ISSUES PARAMOUNT

The general strike in St. Petersburg and throughout industrial Russia was a political strike. The economic demands of the strikers were of a secondary nature, while the political character of the petition is underscored. The hundred thousand workingmen of St. Petersburg petitioned their sovereign thus: "Refuse not thy aid, but order a convocation of representatives of all classes including workmen. Let all be free and equal in the elections, and to this end permit the election of a constituent assembly by a general and secret ballot. That is our chief demand, in which all else centres. It is the sole balm for our wounds, which will otherwise speedily bring us death."

It brought them death.

The arms of Russian Autocracy have achieved a glorious victory; the enemy were everywhere routed and pursued in their flight. His Majesty's army suffered no casualties.

All is quiet in St. Petersburg, but the massacre will neither be forgotten nor forgiven.

THE MOST IMPORTANT HISTORICAL BOOK OF THE WINTER

"A HISTORY of the United States from the Compromise of 1850," by James Ford Rhodes, is by far the most important historical work now appearing in the United States. What intelligent readers want and always will want in historical literature is a clear narrative about the events of the period chosen, with judgments of men and of the relative importance of events, all made by one man of trained intelligence in such work, rather than the judgment of one man about one event and of another man about another event. Composite histories and series of volumes by different men, each with a different scale of measurement, are useful for professional students and for special uses. But Mr. Rhodes's method, which is the method of all great historians, is the only way of making historical literature vital and interesting.

Mr. Rhodes has now given about twenty years to this work, without other occupation. His first volume was published in 1892; and the fifth now brings the narrative from 1864 to 1866, the most densely crowded years of the epoch. The period chosen by Mr. Rhodes is, in fact, the most interesting of all the heretofore unwritten periods of our history, the period of the Civil War, including the approach to it and its immediate results. It is, in fact, the most interesting of all epochs in our history except the epoch of the formation of the Government.

The fifth volume of this history takes up the narrative of the war with Sherman's march to the sea, and brings it down through Johnson's "swinging the circle." The great figures that appear are Lincoln, Sherman, Grant, and Lee, and the most dramatic events are Sherman's march, the fall of Richmond, the surrender of Lee, the assassination of Lincoln, and the beginnings of reconstruction.

A considerable part of this volume is given to a chapter describing the conditions of society in the Northern States during the war, and another chapter to society in the Southern States. These are among the most important and interesting contributions to our historical literature. They are hardly entitled to be called brilliant, but they are full of good sense, of sound judgments, and of well-proportioned groupings of facts. They are likely to be read as long as any historical writing of our time.

As Mr. Rhodes's work approaches completion, his position among contemporary historians becomes clearer. He is our chief living historical writer of authority who on the one side has not made his work weak by trying to make it popular and on the other side has not made it dull by trying to make it academical. He writes about things that happened and men that lived (some of whom are yet alive) in a straight-forward way, with no theory to expound and without the didactic habit of mind. His style is not brilliant, but it is a good working style, with the fundamental merits of clearness and dignity; and his judgments are the judgments of a man of great common sense.

It has now been forty years since the end of the Civil War and two generations have come to the reading age who must learn the story of it from books. Innumerable as the books are that have been published about it, not until now have we had a comprehensive history of it that has been satisfactory. All preceding books have at best been materials for such a history. Mr. Rhodes's work is the best narrative of this stirring time.

One more volume, it is expected, will complete his narrative. Interesting as the period of reconstruction is, the later years of the war—the years covered by this volume now just issued—are the most thrilling in all our history. This volume, therefore, must be considered Mr. Rhodes's best contribution to our literature.

Twenty years or more ago, when he closed a successful commercial career to give his time wholly to historical work, he chose his subject with rare good judgment; and, as he approaches the completion of his task, he has won the gratitude of more readers of our history than lived when he began to write.

THE U. S. GUNBOAT *WILMINGTON* SALUTING THE VENEZUELAN FLAG AT CIUDAD BOLIVAR, VENEZUELA

During the blockade by European creditor Powers

THE CRITICAL STATE OF VENEZUELA

THE GOVERNMENT REFRACTORY ABOUT PAYING FOREIGN CREDITORS THE AMOUNTS AWARDED BY THE HAGUE TRIBUNAL — PRESIDENT CASTRO SHOWING HIS HOSTILITY TO THE UNITED STATES — MUST WE INTERVENE?

BY

G. M. L. BROWN

AFTER suffering a blockade, three years ago, Venezuela, humbled by the loss of her little navy, empowered our minister at Caracas to offer terms of settlement to her creditors and refer other matters to The Hague Tribunal. But to any one acquainted with Venezuelan affairs, it did not require great foresight to see the inevitable consequences of the settlement, namely, that Venezuela would fail to fulfil her obligations, and that the Allies would then look to the United States to deal with the delinquent.

To understand the present situation, it is necessary to recall the dissatisfaction of Venezuela with the awards of the different Mixed Commissions which met, according to agreement, in Caracas in June, 1903. The amounts awarded to creditors were much less than the claims, ranging from about seventy-two per cent. in the case of Belgium to less than three per cent. in the case of the United States; but the total exceeded $7,000,000, which to a penurious government seems a very large sum. Some of the claims, no doubt, were exasperating, particularly that of the German railway (The Great Valencia Railway), which was constructed in an extravagant manner, while the American claims were simply preposterous, as the Venezuelans will not soon forget.

This dissatisfaction was intensified by the award of The Hague Tribunal in February of last year, granting preference to the blockading Powers in the collection of their debts. Venezuela felt that she had been unnecessarily humbled, she forgot her wretched plight at the time the protocols were signed, she was annoyed to think that the awards were final, and, being in an unreasonable mood, she laid the blame of the whole misfortune upon the United States, and in particular upon Mr. Herbert W. Bowen, the American Minister at Caracas.

Mr. Bowen acted as Venezuelan Plenipotentiary throughout the period succeeding the blockade; and in the following year, at the earnest solicitation of Venezuela, acted as her representative at The Hague. For his performance of these services, not to mention the great energy and ability he displayed, he was honored for a short time as the "Savior of the Nation"; and then the enthusiasm died

away. Finally a reaction set in, since which the government has subjected him to a series of affronts amounting almost to a persecution. He was accused, moreover, by the press of having charged too much for his services, though the amount he received did not cover his actual expenses.

On his return to Washington last September, so discourteous had the government become that his departure from Caracas received no official recognition, and, on his arrival again at La Guayra on his return, he was treated as a common passenger and forced to remain on board the steamer until the customary permits were received allowing the passengers to land. That this insult was aimed as much at the American Government as at Mr. Bowen is undoubtedly true, since the Secretary of the Legation, during Mr. Bowen's absence, received just as signal an affront; but no matter what the relations between the United States and Venezuela are, or may be, Venezuela has discredited herself among all civilized nations by such unwonted discourtesy.

THE INAUGURATION OF PRESIDENT CASTRO IN 1902
The President's carriage passing into the capitol at Caracas

Wherever I refer to the Venezuelan Government in this article I mean, of course, President Castro, the most absolute dictator that the republic has yet known. Courageous, ignorant, shrewd in small matters, but lacking the rudiments of statesmanship, this man has already done more injury to his country than a quarter of a century can repair. Leaving aside the havoc he has wrought in all branches of commerce, the oppressive monopolies he has encouraged, the taxes, war taxes, surtaxes, and various other imposts with which he has burdened the nation—probably the most

stupendous system of "graft" that South America has ever seen—let us examine his foreign policy. Like the late Paul Kruger, he believes in discouraging foreigners from entering or remaining in the country. If they have no money, they are of no benefit; if they have money, they may make more. They now own innumerable concessions, some of which—not many—pay dividends, which are duly forwarded to the United States or Europe. This is so much loss to Venezuela. Furthermore, these foreign residents demand many privileges of which Venezuelans are deprived. This causes the Venezuelans to become dissatisfied; it breeds unrest; and it may end in revolution. Indeed, foreigners, he holds with some justice, having nothing to lose, since they can claim damages if their property is injured, frequently lend active aid to revolutionists, and make a vigorous complaint if the government retaliates with a counter-claim against them.

Castro advocated this anti-foreign policy when he began the revolution which brought him into power, and he has held to it with a consistency in contrast to his attitude toward monopoly, excessive taxation, and other abuses which he promised to sweep away. And he has thereby won a certain amount of popularity among the peon class, many of whom, especially in the remote provinces, look upon their President as a second Napoleon—a comparison he has himself sanctioned—who can circumvent the designs of his enemies by diplomacy or by force of arms, with equal success.

PRESIDENT CIPRIANO CASTRO, OF VENEZUELA

How confident he has become of his military genius can be seen by the recent measures he

THE UNITED STATES AND VENEZUELAN CLAIMS COMMISSION IN SESSION IN 1903

Mr. Bainbridge, the American Commissioner, is seated in front of the left half of the screen in the centre, and Mr. Harry Barge, formerly Governor of Caracas, the arbitrator, sits to the right

VENEZUELAN TROOPS IN READINESS FOR MARCHING

A picture that shows the character of the army

has taken to defend the country. He has increased the army, perhaps by half; he has purchased large quantities of arms and ammunition; and he is hastening the completion

VENEZUELAN TROOPS EMBARKING AT LA GUAYRA DURING A REVOLUTION

of a military academy upon the heights above Caracas. He has mounted at La Guayra four powerful Creuzot guns of the latest type, with a theoretical range of five and one-half miles. These guns were inspected by an officer of the United States Army, who pronounces them to be as fine as any of their size in the world, though badly placed and practically without protection. They are in charge, however, of an officer of Italian extraction who has mounted them with great skill, and in the trial tests, which took place not long ago, he proved that he can handle them with considerable precision.

But Castro proposes to protect La Guayra from the sea as well, and when offered the purchase of two small coast-guard ships last year, he asked whether they were of a suitable type to oppose a German man-of-war. The agent was an American. On learning that these vessels would hardly serve in a naval battle, the President decided that he did not want them.

The great weakness of the Venezuelan Army lies in its arms, which are Mausers of obsolete type, a type of rifle discarded by Germany fifteen years ago. Talking with General Castro a few months ago, a foreign military officer pointed out the defects of this rifle, and endeavored to explain that its short range and the necessity of using black powder would place his men at a great disadvantage. But the General could not see it in that light. The bullet might not carry so far, but it is larger and more deadly; and did he not win the great battle of Victoria with that rifle, defeating General Matos and his well-equipped revolutionary troops? Besides, he explained, if a foreign force should land in Venezuela and march inland, he would fight them on ground of his own choosing, and there he would not be afraid to meet one or all of the great Powers combined. Such a boast may sound incredible, but I have it on the word of the officer mentioned; indeed, this is but one of many incidents I could give showing his child-like faith in Venezuela and in its invincible leader.

Such is the character of the man who, unknowingly, no doubt, may place the United States in the paradoxical position of having to defend the rights of Europe in the New World. That he may yield to the pressure of combined diplomacy is still possible, and, from the American point of view, ardently to be hoped for. Yet he is now in a bellicose mood, which he is taking no pains to conceal. He has had a taste of his enemies' strength upon the sea, but he seems determined to force one or all of the interested Powers to show what they can do upon land, and he would just as lief that the Power should be the United States.

If other proof were wanting of this, his attack upon the Bermudez Asphalt Company would be sufficient. In the beginning he had, in my opinion, an excellent opportunity to recover heavy damages from the company. The principle that a foreign company lending aid to a revolution against the established Government, may be sued in the courts for the estimated amount of the damage that its action has cost the Government, is too reasonable to require defense. Our people, who have severely criticised the Spanish-American republics for their inability to preserve law and order, should surely be the last to oppose such a doctrine. It may be urged that the Bermudez Company had been harassed incessantly by the Castro Government and was without legal redress, and, furthermore, that if any conspirators are to be punished, all should be punished, and not this single company; but these arguments are mere evasions of the question. That the Bermudez Company did lend valuable aid to General Matos, the Government maintains it has ample proof, and I have yet to meet an intelligent person in Venezuela, native or foreigner, who doubts it. That the company had grossly neglected to comply with the terms of its concession is also the opinion of everyone I have met who has had an opportunity to investigate the matter, except the people interested. The policy of the Bermudez Company, in fact, has, apparently, been merely to hold the vast asphalt tract included in their concession from falling into other hands, that the Asphalt Trust may continue its control of the market, which it now supplies from its enormous deposits in the Island of Trinidad.

Having collected his evidence, and begun two proceedings in the Venezuelan courts, one to recover the amount of $10,000,000 for aid given to the revolutionists, the other to annul the company's concession, President Castro, last summer, deliberately seized the property, ejected the company's agents, and has since arrested one of the latter who re-

turned to seek evidence to present in the annulment suit. Such an arbitrary proceeding shows either a lamentable lack of judgment or is a direct challenge to the American Nation; for he has not only given the United States grounds to uphold the interests of the Bermudez Company, but has made it imperative that we should do so.

The expulsion of A. F. Jaurett, an American citizen who had resided in Caracas for seven years and had acquired considerable property, has also engaged the attention of our State Department. Mr. Jaurett was the correspondent of the New York *Herald* and the Associated Press, and by his dispatches, and possibly in other ways, had opposed the Castro Government. Instead of giving a reason for his expulsion, however, and sufficient time to arrange his business before leaving, President Castro gave him abrupt orders to leave within twenty-four hours. Mr. Jaurett, as a result, has brought a claim of $25,000 against Venezuela with a hope of our Government's enforcing payment.

In contrast to these acts, the attempt to circumvent the Powers holding preferential claims, illustrates the President's ingeniousness. The agreement was that Venezuela should set aside, for the payment of these claims, thirty per cent. of the customs receipts of La Guayra and Puerto Cabello, the two principal ports of the country. This has apparently been done, but the Government hastily added, besides, various export duties, two extra import duties, one of twenty-five per cent. of the amount of the regular duties, and another, called the war tax, of thirty per cent. of the regular duties, all of which has gone into the national exchequer. England, Germany, and Italy, by this subterfuge, are, therefore, receiving much less than thirty per cent. of the actual receipts.

For instance, an invoice shown me by a Caracas merchant for wicks, the value of which in France were $134, bore the following customs charges: Regular duty, $45; twenty-five per cent. of regular duty, $11.25; thirty per cent. of regular duties (war tax), $13.50. Total, $69.75. Of this amount only $45 was considered in the setting aside of the thirty per cent. for foreign claims; so that instead of $21, the creditors receive $13.50. By this means Venezuela will extend her payments more than nearly double the time that she should otherwise take; and the last of the unpreferred claims, including our own, may not be settled until 1915.

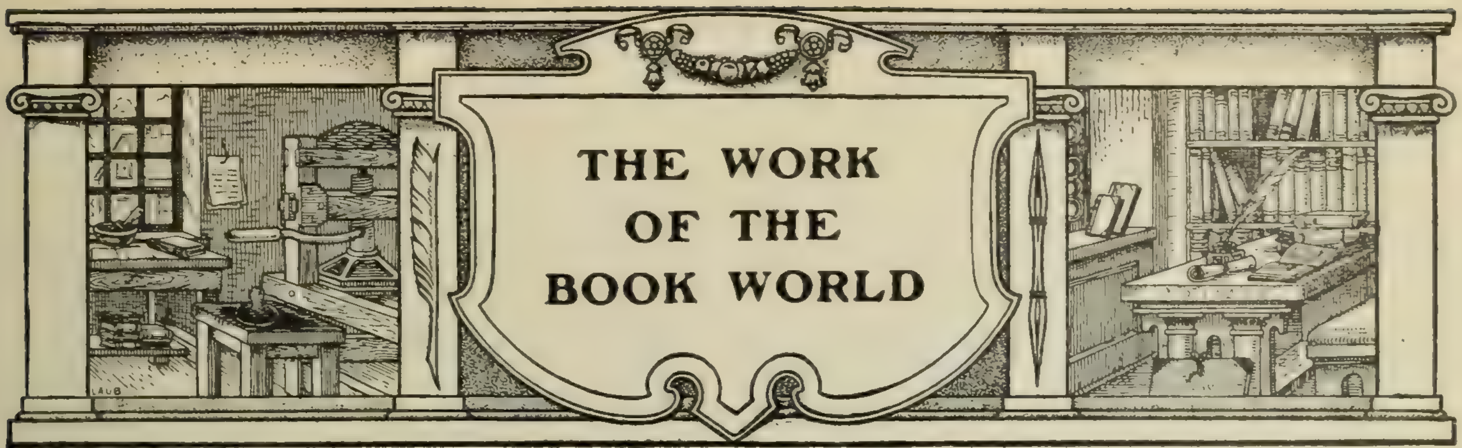
But not content with this, President Castro has opened three new ports, one of which, Tucacas, is so close to Puerto Cabello, that it is likely to reduce the receipts of the latter one-half, and will remove still farther the date of final settlement. It would be amusing to watch this dictator endeavoring to checkmate the combined forces of Europe and America if the game were not fraught with such uncertain consequences, not only to Venezuela, but to the United States. And so long as Castro remains in power, it is to be feared the danger will exist.

The country is exhausted from the unparalleled misfortunes of the last few years. The flower of the Matos and Hernandez factions are in prison, and those who have their liberty have a wholesome fear both of Castro and of his army. I was informed repeatedly during my stay in Caracas that a revolution was about to take place, but in every case the leaders decided that for the time being there was little chance of success.

For this reason, perhaps, there is a growing feeling in favor of an American intervention. Many Venezuelans now acknowledge the country's inability to cope with the situation, and see plainly the commercial and industrial ruin that it will soon have to face. Although on Mr. Bowen's arrival there was not even one official to greet him, there was an enthusiastic crowd upon the landing, and significant remarks were made. "I wish the United States would take the country over and run it for a few years as it did with Cuba," has been said to me, not once, but several times, by prominent Venezuelans.

I have no doubt they do, and would, for a time, loyally support us in our endeavor to establish a responsible government, yet the majority of the people, sooner or later, would resent such an action on our part, and the outcry from the other South American republics would pierce the very heavens. It would be a difficult, thankless task, and can hardly be regarded as remotely possible. Yet it is clearly apparent that something must be done, and the Powers of Europe seem quite willing that the United States should do it. It is a difficult problem that confronts us.

CARACAS.



A GROUP OF BIOGRAPHIES AND REMINISCENCES

No man who has an occupation and keeps his balance of mind can know even the names of all the new books that are published; nor does he care to know them. But there are some new books that are entitled to be regarded as events; and those that are described here are thought to belong to that class.

FOUR new books in biography are written with such an air of reality that some of the great enthusiasms of English-speaking men in the middle nineteenth century actually breathe again. They are direct, simple, human. The one whose appearance excites most interest is the "Letters of John Ruskin to Charles Eliot Norton." (Houghton, Mifflin, $4.)

Mr. Ruskin is less legendary than many others of the great figures of the Victorian Era. He died very recently, and he wrote with extraordinary frankness of a part of his own life. He was one of the most vehement of the professional prophets of the nineteenth century, he held an entire generation under his spell, and his causes are nearly all lost or won. His theories of art and political economy are rejected. His lessons on human kindliness and helpfulness, on the beauty and inspiration of nature, and on the nobility of hand labor have been learned. The gorgeous eloquence of his work preserves his fame, but his personality is becoming vague and distorted. The clouds of his rhetoric conceal the man, and the books written about him by his disciples are misleading.

But in these letters to Professor Norton there is little mere fine writing; and, in spite of some characteristic preaching and scolding and dogmatic assertion, they are natural and unstudied, and give a vivid picture of the moods of his very emotional life. Before they began, Mr. Ruskin had already started on his career as almost the first of the social reformers in a great reforming century. He was soon to lose his religious faith, but he preserved the religious spirit in his new omniscient agnosticism. Like Carlyle he was sure that he was right, and he had not the slightest respect for a differing opinion. He felt that he was a voice crying in the wilderness, and the teaching fury of the apostles never left him. This is the background of the letters.

These letters surprise you by being very different from what you expect. There is an occasional fine pen-picture, as of pine-clad Pilatus; there are some long and whimsical tirades against Venice and Rome; a quaint comparison of the moon to a worn silver salver. But in the main the letters are self-centred, and are made up of terse, rapid sentences, dealing strictly with the mood and the business of the day. He is awlays imaginative. At first he is playful and gay, but his lightheartedness soon passes away before trouble, ill-health and overwork. When his illusions were lost, he became morbid, and did a prodigious amount of whining. Only toward the end was he able to save himself in work.

During the thirty years covered by these letters his intense energy is providing a host of new theories for the helpful service of man. He bitterly resented the evil in the world, but he was so indifferent to our civil war that it was like "a squabble between red and black ants" to him. His interests are astonishingly varied, and he finds time for everything. He catalogues Turner's 19,000 drawings; goes to lecture with Morris and Burne-Jones at a workingman's school; and toils at the same time over Greek myths and goddesses, metaphysics and political economy.

He is so emotional that he lives wholly in sensations, and the glimpses into his daily life are intimate and often amusing. He badgers Rossetti for his laziness; he escorts a débutante to her dressmaker's, and the same day wrangles with Huxley over a frog, and laments "the frivolous pugnacity of the world." He writes an "in memoriam" of pig verses to his niece. He gaily visits a

girls' school, and takes the part of Venus in a recitation. At a friend's house he spends his mornings in the kitchen making experiments on glacier motion in a valley of napkins.

But for all the brighter touches there is a strong undercurrent of sadness in nearly every letter, and nobility of mind and gentleness are the two qualities that stand out. In a few words of his own, his life and genius are sketched more perfectly than in all the books that have been written about him. "I believe hard work, love of justice and beauty, good nature and great vanity have done all of me that was worth doing—I've picked up what education I've got in an irregular way. In my genius I am curiously imperfect and broken—and the greatest part of my life—as life (and not merely as an investigating or observant energy)—has been a series of delights which are gone forever, and of griefs which remain forever." This is seeing Ruskin more intimately than he has ever been seen before, and in a more human and lovable light.

BENSON'S ROSSETTI

An æsthetic cult has made of Rossetti a gloomy and mystical figure, affectedly and fantastically posed. As far as his art goes he has come to be like a crystal gazer seeing magically things of sombre beauty. The mystery and the magic entirely disappear in Mr. Benson's "Rossetti" (Macmillan, 75c.). The new portrait of the man is not altogether a pleasant one, but the truth is infinitely better than the decadent legend. He was always selfish, irresponsible, impetuous and intolerant. He was ungrateful to his friends, and, like thousands of others, he failed morally when misfortune came.

Mr. Benson sets many robust human virtues against this darker side. Rossetti believed in hard and painstaking work. He had manly independence and much common sense. Until his later days he was brave, affectionate, genial and kind. He had a perfect genius for uproarious fun. A generous spirit and a noble enthusiasm were in all his early work. The ideals of the pre-Raphaelites were a religion to him. Perfection of technique, individuality and veracity were his aim.

His influence over others was wide and tyrannical. The independent Morris was his slave for a time. He gave Burne-Jones the inspiration of his life. He deeply affected Swinburne's poetry and Madox Brown's painting. The hard intellectual force of the man, his practical ability and business shrewdness are striking features in this new portrait of him and explain the sway Rossetti had over his friends.

And another new side of his life appears. The man whose work in painting was exotic, languid and melancholy to sickliness, and who was fastidious and dignified in the choice of words, had started to find the most direct and unconventional form of expression possible. In his conversation he remained simple, breezy, pungent, with a grotesque fondness for slang. He knew nothing of the æsthetical jargon. Beautiful words and women were "stunning." His "King's Tragedy" was a "ripper" of a poem. "Bloke," "cove," "collar" and "crib" were favorite words. He disliked pomp and ceremony of any kind.

MEMORIALS OF SIR EDWARD BURNE-JONES

Rossetti is also one of the chief characters in the "Memorials of Edward Burne-Jones" (Macmillan, $6). Here again it is hard to recognize the solemn, beauty-haunted dreamer in this practical joker and loud laugher. He is the most amusing person in these two volumes. He is the one who bawls nonsense verses at the servant in Red Lion Square; who quarrels boisterously in the street with Quaritch, the bookseller, for raising the price of Omar Khayyam to two pence; who threatens to keep an elephant in his front door as an advertisement. His fun is most extravagant in the Limericks he is constantly composing. Scott's wig, Whistler's love for a fight, Jones's industry, the sharp bargaining of a purchaser, are his themes. His wife, his Beata Beatrix, the delicate spirit of his pre-Raphaelite visions, is further immortalized in such verses as:

> "There is a poor creature named Lizzie,
> Whose aspect is meagre and frizzy."

Lady Burne-Jones has much to say of other great men. Ruskin, Holman Hunt, Swinburne, Leighton, Millais, Carlyle, Du Maurier, Gladstone, Kipling, Tennyson, and Watts were close friends of her husband, and there is a wealth of anecdote about them all. But interest naturally centres upon Burne-Jones and William Morris, their work and their lifelong friendship. Few men have dreamed dreams and lived them as simply and practically, and Lady Burne-Jones tells the story with such delicate humor that the life and heart in her book are a delight. Burne-Jones, too, had become the centre of an affected cult, and he was so immersed in mediæval mystery and Celtic madness that he seemed a kind of rapturous and unapproachable Merlin. It needed this kindly sanity to make him thoroughly human.

MR. CONWAY'S REMINISCENCES

In the "Reminiscences of Moncure D. Conway," (Houghton, Mifflin, $6 net), the pre-

Raphaelites again appear in a great company of notables, for the autobiography of this one man is the biography of a hundred. Almost every American and Englishman who did great things—from Daniel Webster to Andrew Carnegie—was known intimately to Mr. Conway, and is represented by many stories in his book.

A protest against war and a history of Unitarianism, a life of a rationalist written by a clerical, these two volumes are yet as stirring as the best historical novel. Mr. Conway was interested in every Utopian scheme and humanizing project set on foot. He was an exile for conscience's sake. His outlook was broadened by travel, art, music, the drama, and by association with the brightest minds of the middle and end of the nineteenth century. He has few startling revelations to make, yet he was in such close companionship with great men and, like a travelling Boswell, he took notes so industriously and well, that his autobiography has a greater value than most history. It brings home the men and the ideals of the fifties and sixties as nothing else can but the stories of old men that are handed down in families.

Mr. Conway is a cosmopolitan with a genius for friendship with men of every nation. All the prominent people he met seem to have accepted him at once as an intimate, and their name was legion. The letters he received from them form a large and remarkable collection of autographs, and the index of their names fills nearly twenty pages. But beyond all others stands out the name of Emerson. He was Mr. Conway's first great friend, and his influence pervades the book.

MR. HUNTER'S BOOK ON POVERTY

In his volume called "Poverty" (Macmillan, $1.50), Mr. Robert Hunter, a competent and earnest student of the subject, estimates, and declares his estimate to be a conservative one, that ten million persons in the United States are in poverty—that is, they have not the necessaries of life. Of this number he figures that six million are fighting to rise out of their condition, and four million have given up the fight and have become hopeless, irreclaimable paupers.

In stating the causes that have placed 12 per cent. of our population in such dire circumstances, Mr. Hunter gives full credit to shiftlessness and natural tendencies toward vice and depravity; but he finds the primal cause to be the industrial conditions of the country. The six millions who are striving to rise out of poverty belong to the class of unskilled laborers, who, not being organized in unions, must accept whatever terms are offered. Their wages have been forced to so low a level—largely through the competition of an artificially stimulated immigration—that however hard the bread-winners work they can scarcely secure, even in times of employment, the bare necessaries of life. If sickness, accident or non-employment befall them, they are plunged into direst want.

Mr. Hunter gives careful attention to the parts played in preserving and extending poverty by the sickness of the worker, by immigration, by children born in poverty and doomed to grow up with stunted bodies and minds. He suggests a number of remedies, but his conclusions are anything but optimistic. He sees no hope of an early abatement of poverty, for the reason that the industrial conditions which have forced these millions into poverty still exist. The wage-depressing over-supply of unskilled labor, increased by unrestricted immigration; the dangerous working conditions that disable by accident or by undermining the health; the employment of young children; insanitary living conditions—these and other poverty-propagating evils continue, and promise to continue for an indefinite period. To correct, or partially to alleviate them by legislation is well-nigh impossible, for the great industrial companies and individual capitalists have attained such political power that they can either block the passage of remedial laws or, in case the laws are passed, interfere with their enforcement.

Mr. Hunter concludes further that a large percentage of the respectable workers are constantly giving up the hopeless fight against poverty, and are sinking into pauperism. Once fallen into this abyss, "they so hate the life of their former struggles and disappointments and sorrows that almost no one, however well-intentioned or kindly, can induce them to take it up again."

This book will make a deep impression upon people that are willing to look unpleasant facts squarely in the face—though there will doubtless be many who, while agreeing with his statement of conditions, will fail to agree with his unhopeful conclusions.

MR. E. H. HARRIMAN'S INNOVATION

MR. E. H. HARRIMAN has taken a new step in American industry. When he sprang into public notice as the man who controlled the Union Pacific Railroad, and when he added railroad after railroad to this nucleus of a continental system, he was regarded purely as a Wall Street manipulator. Now he is demonstrating that, from his office at 120 Broadway, New York, he can direct the affairs of the whole 18,000 miles of the Harriman system, though it lies in the Western half of the continent.

In the recent era of railroad consolidations it has been the custom of railroad magnates to permit railroads formerly separated, but now combined into a system, to operate more or less independently. The temptation was great for Mr. Harriman to allow this lack of uniformity in the railroads under his control, for his system covered greater territory than others controlled in New York, and his task was larger than that of men who had wider familiarity with practical railroad affairs. But this could not daunt him. He saw in his mind's eye the great Union Pacific and Southern Pacific and other broad systems with their subsidiary lines flung broadcast over the great expanses of territory between the Mississippi River and the Pacific Ocean. One railroad had one kind of cars, locomotives, and similar equipment; and another railroad had another kind. One kind of traffic arrangement was made at the Western end of one 2,000 mile road, and another at the Eastern end of another 2,000 mile road, though both were under one man's control; agents of one road were competing against the agents of another road in the same system. If Mr. Harriman wished to know by personal touch the business details affecting his whole property, he must call in agents from a half-dozen railroad centres thousand of miles away from his New York office. Undismayed by the welter of disorganized elements, he set out to systematize the whole vast enterprise.

He knew the efficiency of Mr. J. C. Stubbs, who had been Traffic Manager of the Union Pacific Railroad at its Chicago office. Mr. Harriman made him Director of Traffic of his entire system, though such a position was an innovation in railroading. He made Mr. Stubbs responsible for systematizing the work of the various traffic managers from Portland to New Orleans, and for putting in force Mr. Harriman's policy of uniformity throughout the whole machine. He was to specialize in the traffic side of the institutions—to be Mr. Harriman's traffic brain.

Mr. Julius Kruttschnitt had been Vice-President of the Union Pacific Railroad. Mr. Harriman made him Director of Maintenance and Operation of the system. The various officers in charge of maintaining equipment and operating trains were put under his direction, so that he became responsible for those phases of the system's activity. Mr. Collis P. Huntington used to ride over the Southern Pacific Railroad system on the rear platform of a train, personally scrutinizing the physical condition of the road; he knew as much about it as his Superintendent. Mr. Harriman keeps himself as keenly aware of the conditions on his system—through Mr. Kruttschnitt.

He appointed Mr. W. V. S. Thorne, Director of Purchases, and gave directions that equipment—cars, locomotives, rails, tools, every bit of material the system uses—should be uniform on all the roads: the system should be "standardized." Mr. Thorne set to work with a corps of engineers and, in co-operation with the Director of Maintenance, prepared plans for all the various articles which the system would need. Now, everything required, from spikes to locomotives, is bought in large lots with a businesslike regard to markets and at lower prices than it could be bought at when the various railroads now in the system made their purchases separately. New plans do not have to be drawn every time a locomotive is ordered. Moreover, as the Director of Maintenance works in harmony with the Director of Purchases, such economy as this can be practiced: The Oregon Short Line may need one hundred freight cars at Spokane. Ordinarily, the purchasing agent of

the railroad would buy these freight cars; now he notifies the Director of Purchases of the Harriman system. The Director of Purchases notifies the Director of Maintenance, who reports that the Southern Pacific has one hundred freight cars not in use at Galveston, Texas; these are sent to Seattle at once and no new cars are bought. In a thousand ways like this the benefits of a well-organized system appear in an institution so large that it seemed too vast for any business system to cover, before Mr. Harriman showed that it was not.

But, perhaps, the most humanly interesting phase of the matter is this: Mr. Harriman may sit in his Broadway office any morning, with Mr. Stubbs, Mr. Kruttschnitt and Mr. Thorne, and, through the reports of each man, understand in a flash everything that is going on upon the vast railroad system pictured on the huge wall map at the end of the room. The secret of a one-man management of a great consolidated railroad system has been solved by a man, who, six years ago, was not considered a railroad man at all.

A RULE FOR JUDGING MEN

THE late Mr. William H. Baldwin, Jr., President of the Long Island Railroad, was one of the most considerate and best-liked of New York's large employers. Yet he had an inflexible rule in employing and discharging men. The manager of one of the many philanthropic enterprises in which he was interested became less and less efficient after many years of exceptional ability. A meeting of the board of directors was called and the manager was under discussion. The directors one by one charged mistakes and shortcomings against him, until it came to the turn of Mr. Baldwin.

"I have no direct charge against him, as the rest of you have," he said. "My reason for thinking with you that we ought to let him go is simply that he enjoys looking back over his past."

Several of the directors looked puzzled. "Just what do you mean?" asked the chairman.

"He is a very able man and has done some very excellent work," Mr. Baldwin went on to explain. "The trouble with him is that he has become very proud of what he has done; he is constantly licking his chops in appreciation of himself. That is enough to show me that he has reached the end of his usefulness in this particular field."

"But aren't you passing sentence without evidence? Isn't this a snap judgment?" asked one of the kindly directors, who knew many subjects better than he knew men.

"Anything but a snap judgment," responded Mr. Baldwin, "for I am judging by a rule that experience has taught me is correct. It is a rule that I have used for years in my business, and that has not once led me astray. It is this—whenever I discover one of my men looking back with pride over his accomplishments, instead of keeping his eyes forward—well, that's quite enough for me. I don't wait for any positive offense. No matter how capable he may have been, I put a cross against his name, and he goes out at the first opportunity. When a man gets to looking back on his record his usefulness is past."

HOW WHISTLER POSED FOR JOHN W. ALEXANDER

THERE is little in the quiet manner of Mr. John W. Alexander, the painter, to suggest the stern determination that took him through the early struggle which led him to his present eminent position. The story of his early days is a story of hard work, privation, and cheerful pluck, lighted by his friendship with Whistler, which began in a curious way on a canal in Venice.

Mr. Alexander had no teacher but his own taste and judgment. At sixteen he concluded that he would become a painter and that he would go to New York. He left Pittsburg with $50. He carried some sketches with him, but none of the editors to whom he showed them could use them. He applied for a position in the art department of a monthly magazine. There were no vacancies, but he heard that a messenger boy was needed in the department, at $3 a week. He took the job, and for eight months he ran errands and lived on $3 a week and what was left out of the $50. At the end of eight months he was promoted and he then received $12 a week, and later $15 a week, on which he lived. On $18 a week he saved $300, to go to Europe. He was twenty years old when he reached Munich. Munich soon proved to be beyond his means, and he joined a colony of American artists who lived together in a ruined monastery in Bavaria.

He went to Venice from Bavaria, and it was there that he met Whistler. Here is his own account of it. "One day I was painting on one of the canals, surrounded by the usual little crowd of idlers who watch an artist over his shoulder when he paints outdoors. Suddenly I became conscious that somebody unusual was behind me. I don't know why, but I couldn't help turning my head, and instantly I jumped to my feet as if the stool had suddenly become red hot. It was Whistler, posing characteristically and flourishing his mustaches. I spoke to him;

and then he sat down on the stool, and, instead of criticizing the picture, he spoke only in the kindliest manner, suggesting where the composition might be improved, and where a bit of color needed a higher tone. He knew that I knew the picture was crude, and that I was just as harsh a critic of my work as he could be. He did not try to be censorious at all, only helpful. I was much surprised at his manner, for I had heard of his being always brutally frank. The acquaintance soon became a friendship, which I afterward had the pleasure of enjoying in London, where I had a curious experience with him.

"I was commissioned by a magazine to make a wash-drawing of Mr. Whistler to be engraved. Whistler agreed to a sitting, and I appeared at his studio with several canvases, for I made a practice of carrying enough to discard one and take another if I did not like the first. Lady Colin Campbell was there, beside several other people, and they embarrassed me a good deal. She always called Whistler 'Jimmy.'

"He posed for me standing. I sketched in the shadows first and had begun to draw in some of the outlines, when Whistler began to get fidgety. At last he could not stand it any longer, so he walked around behind me, and after looking over my shoulder for a moment, he said:

"'Hm! yes, yes, but don't you think this line ought to be so?'

"He reached for the palette and brush, and at once he forgot everything—my work, the sitting and all; he saw only a picture in front of him, and his idea of how it should be done. Away went my shadows, out went one line, another was changed, and in a moment the whole picture was Whistler's, not mine.

"Lady Colin Campbell saw my embarrassment, and she stepped into the breach with a protest.

"'Jimmy,' she said, 'leave it alone. Mr. Alexander was beginning to make a real likeness of you, and now it doesn't look any more like you than it does like me.'

"That woke him up, and he handed me back the brush with a shrug.

"'Very well, very well! how do you want me to stand?'

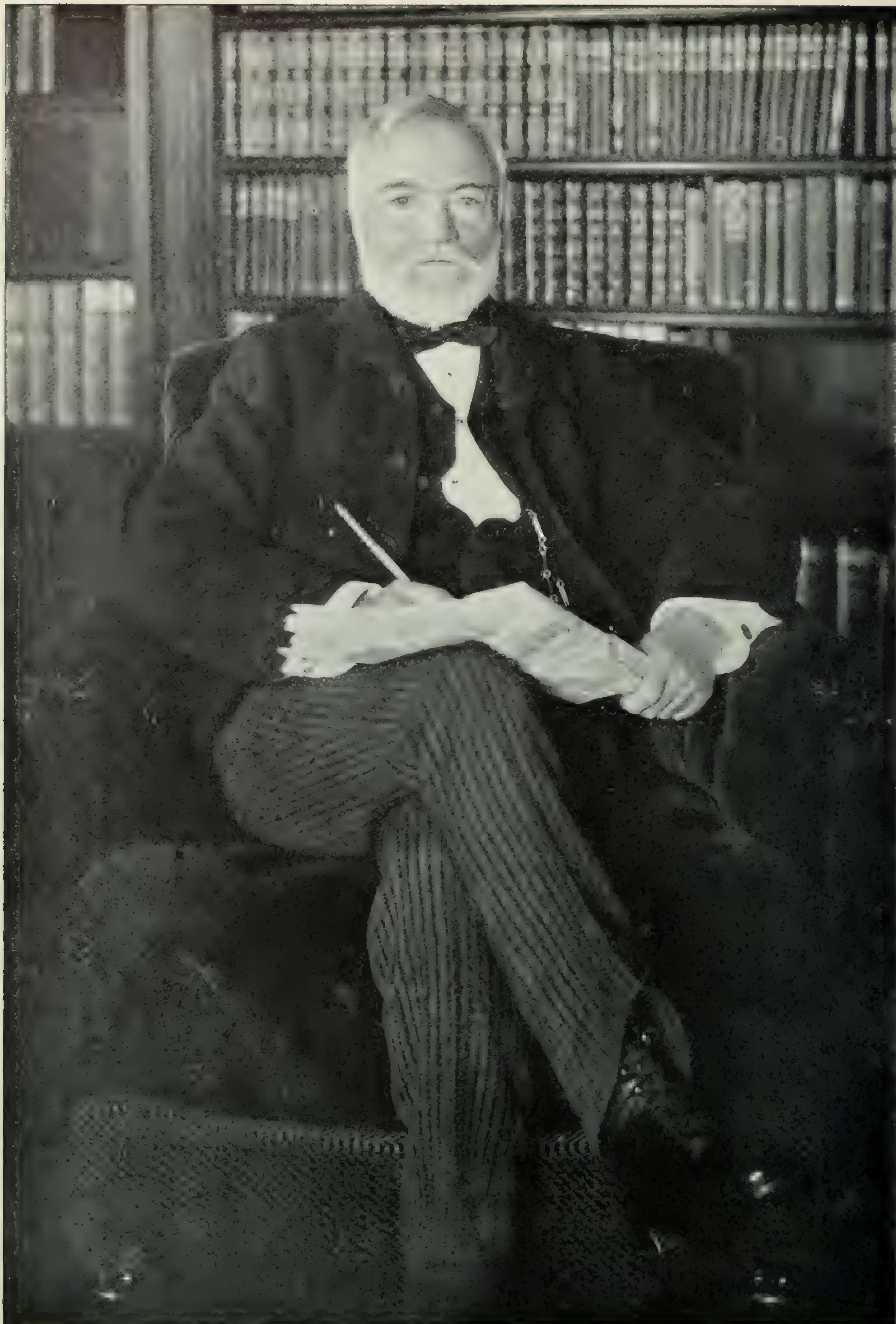
"'A little more to the left please, just a trifle more, there, that's right.'

"I was furious by this time; and, when I had him posed, I caught the canvas and fairly flung it across the room with a crash, and reached for a fresh one. Whistler didn't even quiver an eyelash. He stood in pose like a marble statue until I had finished the picture; he looked at it without a word, and then he did one of the most graceful things I have ever seen. He simply took the brush and made his artist's signature in the corner, a dainty little butterfly."

HOW PRESIDENT DIAZ PREVENTED A MONOPOLY

BY a clever business stroke, President Diaz, of Mexico, a dictator, prevented a railroad monopoly and inaugurated a movement for public ownership. Mexico's two largest systems are the Nacional and the Mexican Central. Both link the capital to the American border on the north. Low rates for long hauls between competing points used to prevail. But the short hauls had to pay for the long hauls. One day the Nacional acquired the Interoceanico, and thus secured a Gulf outlet at Vera Cruz. The Mexican Central, having a Gulf outlet, the two lines at a bound faced each other as full competitors from coast to frontier. Mexican silver was depreciating in value, but railroad dividends had to be paid in gold. Operation was costly. It was reasonable to assume that the two systems would not be long in reaching an agreement. Then they would raise their tariffs to the maximum allowed them. A "merger" seemed inevitable. Necessities like corn and fuel and machinery would have to pay very high freight rates. The American trust was within sight. Both roads planned to ask the Government to be allowed to fix a tariff that should fluctuate with the rise or fall of silver. Soon all industry would be taxed the maximum rate, and with rates already high and Mexican silver low, the roads would put a burden on the people. The leading papers vigorously denounced the project as a menace to the public welfare.

Then President Diaz stepped in. He sent his finance minister, M. Limantour, to New York to borrow $12,500,000 and with a part of this sum he bought enough shares of the Nacional Railroad to give him a controlling interest. The Mexican Congress ratified the purchase, and the Mexican Government became the controlling stockholder of the most powerful railway system in the country. The President thus made a good investment for the country; a monopoly was prevented; and the people are not compelled to pay excessive railroad rates.



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MR. ANDREW CARNEGIE

WHOSE GIFT OF 1,352 FREE PUBLIC LIBRARY BUILDINGS, IN EVERY COUNTRY WHERE ENGLISH IS SPOKEN, IS THE GREATEST PRIVATE BENEFACTION IN THE WORLD

(*See page 6092*)

THE WORLD'S WORK

APRIL, 1905

VOLUME IX

NUMBER 6

The March of Events

THE one great subject that is shaping itself clearly in the public mind, under Mr. Roosevelt's Presidency, is the Square Deal. It is taking many shapes, and it may be expressed in many ways. In one form, it is the demand for the regulation of railroad rates. In another form, it is the restraint of the Beef Trust from violating the law. In another form, it is the growing impatience with the Senate for its obstructive tactics and for its misrepresentation of the States—its frequent substitution of private interests for public interests.

All around the political horizon the sky is clearing; and the public attention is becoming more and more firmly fixed on the necessity of the people's regaining their own—of the recovery of lost liberties, and of the regaining of such individual freedom and opportunity as have been lost in the great forward push of industry.

Corporation morals and Senatorial morals—these are the subjects that are going to suffer an increasing intensity of public attention; and nothing more wholesome has come in our public life in several generations of public complacency.

EASTERN PROPERTY AND WESTERN OPINION

A MONTH after Congress has adjourned the governmental restraint of corporations that violate "the square deal" remains the biggest subject on the popular horizon; and it is likely to remain so. Much economic nonsense will be talked and many economically foolish things done; but a great popular movement for the defense of individual freedom against the encroachments of corporation mismanagement has been launched and is under fair sail.

It is noteworthy that all the seventeen votes cast in the House against the Townsend-Esch bill to regulate freight rates were cast by members from the North-Atlantic Seaboard States. It is noteworthy, too, but not surprising, that the chief opposition to all forms and degrees of Federal regulation of corporations finds expression in the newspapers of the Eastern States. These States are the centres of the long-settled ownership of great properties. Property is more nearly "sacred" there than in the Middle West, where individual liberty is the more sacred thing. "Danger to property," therefore, is a natural cry to raise in the East. But the West, even if, perhaps, it has not lately read Lowell's essay on Democracy, agrees with him that Property has always managed to take care of itself and that it is Individual Liberty that most needs constant guarding.

The bill to regulate railroad rates that passed the House doubtless was crude and it was hastily passed; the oil refinery to be conducted by the State of Kansas is doubtless doomed to failure as a business enterprise; and there are other rough and inexact

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CONGRESSMAN CHARLES E. TOWNSEND OF MICHIGAN

WHO, WITH CONGRESSMAN ESCH DREW UP THE
PENDING BILL FOR REGULATING RAILROAD RATES

(See "*The March of Events*")

Photographed by G. V. Buck

CONGRESSMAN JOHN JACOB ESCH OF WISCONSIN

THE AUTHOR OF THE TOWNSEND-ESCH BILL FOR
THE FEDERAL REGULATION OF RAILROAD RATES

(*See "The March of Events"*)

expressions of the meaning of the people. But Eastern opinion will make a great mistake if it imagine that the people of the United States are not in earnest about this subject. The demand for "the square deal" at the hands of corporations is a strong current, not a ripple. The wise man is he who is at work trying to find a way to do the hard task fairly, and the man who contents himself with easy criticism of those who make the crude first efforts at it is foolish. Most foolish of all is the man who imagines that this rising wind is a mere passing breeze.

THE MORALS OF CORPORATE MANAGEMENT

THE gist of the matter is the morals of corporation management. The public cares little whether a freight rate be one cent a ton mile or two cents or any reasonable sum. But it does care greatly if the rate to one shipper be one cent and the rate to another shipper be two cents; or if one shipper receive a rebate that gives him an advantage over another. The public is not going to become excited because the price of any commodity be somewhat higher than it once was, if the increased price come by the working of natural economic forces; but, if it come by the use of a monopoly, the subject at once gets big with moral meaning.

Raising the level of commercial honesty—that is the main hope and justification of the struggle that is shaping itself. When in the early days of the Standard Oil Company, for example, it profited so much by freight rebates that by this means it got the better of its competitors, rebates were not generally regarded as dishonest in commercial circles. They were part of a regular routine in railroad conduct. They are, unfortunately, so regarded yet in many commercial and transportation circles. What is giving rebates, it is asked, except one way of doing a wholesale business at a lower rate than retail business is done? Or what, but a quiet way of getting ahead of your competitors? And, if you choose to do business for less than they will charge, why not? We have, perhaps, not yet reached that plane of commercial honesty where rebates seem immoral to a large part of the commercial world. The present struggle is to force this rise in morals on shippers and on railroads. That's the whole meaning of it.

Or, to take another example. It came out in the recent controversy about the management of the Equitable Life Assurance Society that one of its directors had sold large quantities of bonds to the company. It is his business to sell bonds. He sells bonds to other insurance companies. His own company, moreover, got a good bargain at his hands. There was nothing dishonest in the transaction.

But there was something indelicate, and therefore something improper. The public, from incidents like this, has become aware that the great trust funds in the hands of life insurance companies are in the keeping of men who trade, who are interested in great private and corporate transactions. They are in the neighborhood of Wall Street and of Wall Street industries, and they form a part of the large volumes of corporate transactions.

Honestly managed? Yes, so the public yet believes; and doubtless they would be honestly managed for all time by these same directors. But the method of management does not square with the method of management, for instance, of savings-bank deposits, and there is a rising demand for more knowledge of their management. Else suspicion may take root.

All this is part of the general movement toward a more delicate and scrupulous regard of property by corporation management; and it is the moral aspect of it that the people see and care for.

AN EXAMPLE OF CORPORATE FRANKNESS

THE whole question of corporate honesty was clearly set forth in the latest report of the National Biscuit Company. Having explained that corporations are inevitable and desirable, and that our whole commercial character depends on the management of them, the writer of the report declares that:

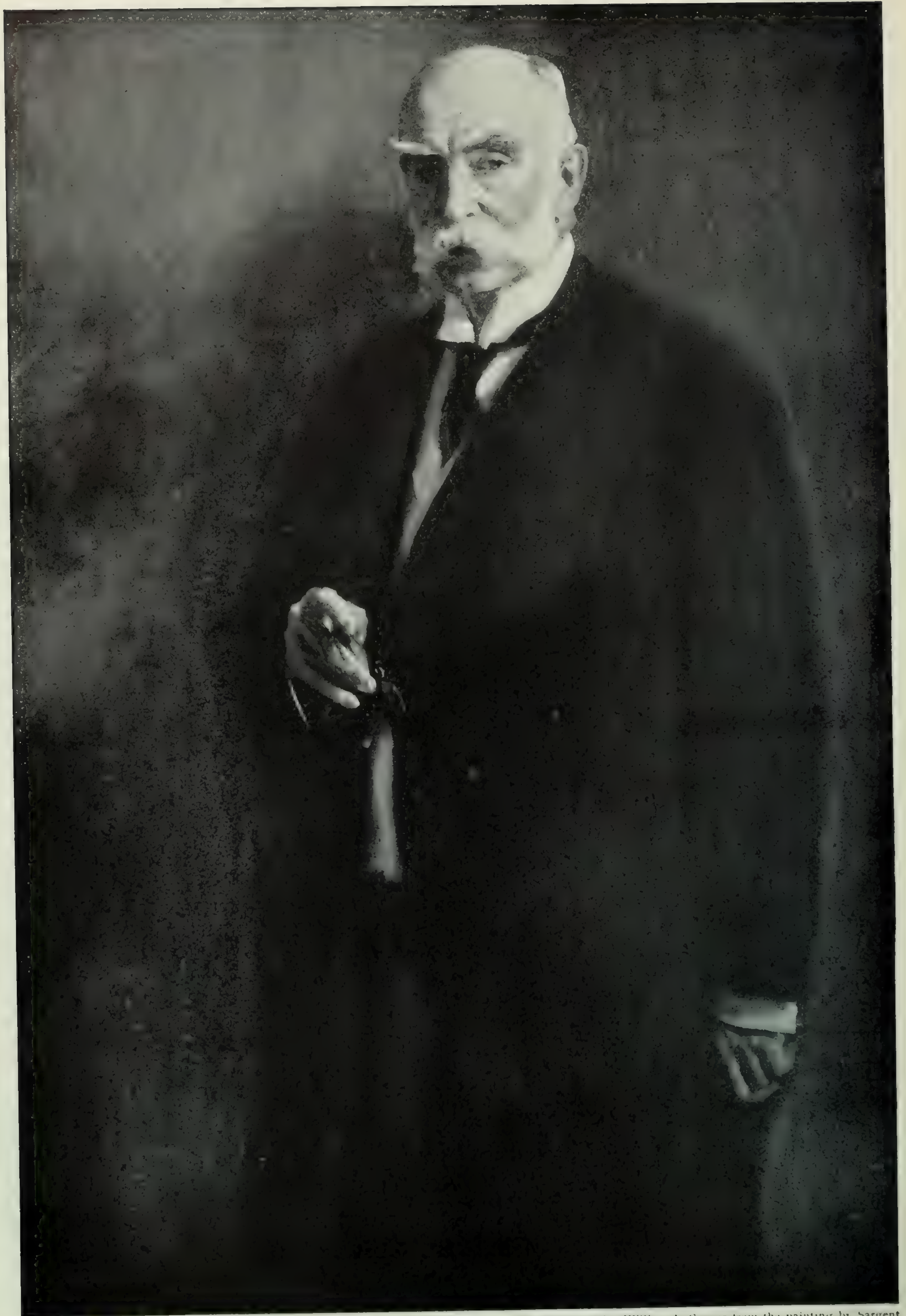
> Every officer of a corporation should endeavor so to manage its affairs that it shall commend itself to the people of the country so that the attitude of the people toward corporations shall be not hostile, but friendly.
>
> To accomplish this, the vital point, it seems to us is that the corporation must not be separated from the individuals who manage its affairs, and that these individuals must carry into the management of the corporations the same rules of conduct that they apply to their private lives.

Photographed by W. M. Vander Weyde

MR. WILLIAM TRAVERS JEROME

THE DISTRICT ATTORNEY OF NEW YORK COUNTY, WHOSE CONSPICUOUS SUCCESS THROUGH VIGOROUS METHODS HAS MADE HIM A NATIONAL FIGURE

(*See page 6075*)



Photographed by William A. Cooper from the painting by Sargent

THE LATE MR. JAMES C. CARTER

FOR MANY YEARS BEFORE HIS DEATH, ON FEBRUARY 14TH, THE ACKNOWLEDGED LEADER OF THE AMERICAN BAR

(*See " The March of Events"*)

They must not have one standard of morality as officers of a corporation and another as private individuals. They must not only obey the law, but must actively support the law. Such are the ideals which the officers of this corporation have set up for the conduct of its affairs.

This corporation gives publicity to its condition; the number of its stockholders has increased from 1,300 in 1898 to 7,373, and more than 2,000 of them are its employees. There are many other such companies. In fact, the majority of successful corporations are doubtless of this character. But the lower moral level of the rest must be raised. That is the meaning of the present agitation.

A MOVEMENT AGAINST DISCRIMINATION

SINCE the Government began to prosecute offenses against the anti-Trust law, and the Interstate Commerce Law, a good deal of real progress has been made. Among the events that have impressed the popular mind are the great Northern Securities case, and the case against the Beef Trust, in which the Supreme Court unanimously declared that such transactions as it makes—buying in one State and selling in another—fall within the scope of "interstate commerce," a decision that reaches far. It is true that no individuals have yet been punished as a result of either of these suits. But, whatever the reason for that, these decisions have nevertheless marked real progress in the Federal control of corporate action.

Other events and incidents which move in the same direction arc the passage of the Townsend-Esch bill to regulate railroad rates by the House; the inquiry that has been ordered at the hands of the Bureau of Corporations into the Standard Oil Company; the action of several States against this company; the order by the House of Representatives of an inquiry into the United States Steel Corporation; and an unusual number of State and municipal actions looking toward the better guarding of franchises; and the decision of the Supreme Court sustaining the anti-Trust law of Texas, thus making sure greater control by States of oppressive monopolies.

Everywhere the popular movement, not against property, but in favor of individual liberty, shows itself. The danger may be of going too rapidly. But, if the great corporations are wise, they will co-operate with every demand that is fair. For this general movement has a far-reaching meaning.

MR. McCALL'S OPPOSITION

THERE is not likely to be a better statement of the case against such Federal regulation of railway rates as the bill that passed the House provides for than Mr. McCall, of Massachusetts, made. He contended that railroads are private property. They are property, says the public, which have got their very right to exist by franchises from the public and which in their service are under obligation to treat the public fairly: they are only semi-private property. Mr. McCall assumed that the public demand is (or will be) for such low rates as to make railroad property unprofitable—in effect, to confiscate it. Our demand, says the public, is for fair treatment, not for bankrupting rates—not for ruinously low rates, but against discriminations.

Here is the parting of the ways. The public has long trusted the railroads to do fairly by it, and they have not done so. They have been the chief agency in the development of the country and in building up our prosperity, but they have made discriminations that offend and oppress. Now the public says that the railroads must trust the Government to do fairly by them in regulating rates.

Now it is an interesting personal fact that it was Mr. McCall who made the most effective speech against so necessary and inevitable a tendency in legislation (for this bill may be very faulty, but the direction in which it looks is the way whereby the people will put liberty before monopoly). There is no more patriotic or intellectual man in Congress than he. He represents that Congressional district in Massachusetts where men dwell who set a higher value on merely intellectual processes, perhaps, than the men of any other community in the country. They believe in theories and by theories they live. But they lack, and Mr. McCall lacks, that kind of perception which enables a man to know when a fine old theory is dead. By the theory of the Fathers it is doubtless true that the National Government has no business to regulate freight rates. There were no freight rates, no interstate commerce of any consequence, no railroads, no traffic agreements, no great corporations in the days of the

Fathers; and our liberties were not endangered by them.

There is another type of mind than the type represented by Mr. McCall. It is not revolutionary. It is not socialistic. It is not hostile to property. But it prefers to consider facts as they are rather than theories as they were. Men of this type of mind do not refuse to believe that a thing exists because it was not known to the Fathers.

The Townsend-Esch bill is not in any sense revolutionary, except on the supposition that the new Interstate Commerce Commission, to be created by it, as well as the United States Circuit Court Judges who will form the Court of Transportation, will be men bent on destroying railroad property—a violent supposition, surely. The spirit of the bill is shown by the following provision:

That whenever the commission makes a finding that any rate, regulation or practice is unjustly or unreasonably discriminatory, it shall be its duty to declare what shall be a just and reasonable rate, practice or regulation, and the order of the commission of its own force shall be in effect thirty days after notice has been given to the carrier or carriers. Appeal to the Court of Transportation may be taken at any time within sixty days for the purpose of having its lawfulness and justness determined.

THE SENATE'S BLOW TO ARBITRATION

THE President and the Senate came to an irreconcilable difference about the arbitration treaties with the principal Powers; and the treaties are now dead.

Our State Department prepared these treaties with Great Britain, Germany, France, Portugal, Italy, Switzerland, Denmark, and Mexico, (and subsequently one with Japan), to submit differences of certain kinds, whenever they arise, to the Hague Tribunal. These general treaties were meant to commit our Government and all these Powers to the movement for arbitration and thus greatly to strengthen it. They were regarded as a long step forward in civilization. They were drawn with much care, after many conferences with the representatives of these Powers and with the approval of the Senate Committee on Foreign Relations, and they make an important chapter in the long record of Mr. Hay's remarkable activity. The ratification of the treaties by the Senate was looked forward to as perhaps the most noteworthy act of the last session.

But the Senate, before ratifying them, amended them; and because of the amendment, the President has refused to present them for ratification by the other Governments.

The treaties, in their original form, provided that in every case of dispute the two Governments before appealing to the Hague Tribunal shall "conclude a special agreement" defining the matter in dispute, the scope of the arbitrator's powers, etc. Such a special "agreement," it was taken for granted, could be made by the Executive, as each case should arise. In other words, under these general treaties of arbitration, the President could make "special agreements" with other Powers and thus at once submit disputes to arbitration. This would have been a good piece of working machinery.

But the Senate substituted the word "treaty" for the word "agreement" and the whole method of procedure would thereby be changed. The President could not bring any case to arbitration; but, before arbitration could be used, a special "treaty" for every case must be made by the consent of the Senate.

This change, the President contended in a dignified letter to Senator Cullom, the chairman of the Senate Committee on Foreign Relations, made these treaties meaningless. It made them say only that we agree to arbitrate whenever we shall agree to arbitrate. He declined to submit them to the other Governments because he regarded them as a step backward.

The Senate's contention is that it could not lawfully have done otherwise—that every act of arbitration requires a "treaty" and that the Senate and the President and not the President alone must, under the constitution, decide in the case of every separate dispute whether it shall be submitted to arbitration.

Arguments can be made and have been made on either side—finely spun constitutional arguments. But the preponderance of competent opinion is on the side of the President. It would fill all these pages to rehearse the debate. About the practical aspects of the controversy, this much is to be said:

The Senate is the graveyard of treaties. It has for many years become increasingly difficult, and it is now practically impossible,

to frame any treaty that will pass the Senate. Most of Mr. Hay's diplomatic triumphs have been won by mere notes to the Powers—communications that were not treaties at all. The great prestige and influence of the United States among the nations has been won by the Executive Department alone, and it is an influence that is to-day greater than any other government has. Continuing this thought, if the President, with his Secretary of State, the other members of his Cabinet and his other legal advisers, is not competent to decide what questions, within a clearly defined range, shall be submitted to arbitration, then he is not competent to be President. The Senate says, in effect, that the men under whose guidance we have won an unprecedented influence abroad are incompetent to deal with minor international disputes. That's the long and the short of it—the insolence and the insult of it. For it is at once an insult to the people who elected the President and a notice to foreign nations that our treaty-making power is ineffective. The action of the Senate hits our influence abroad a severe blow, and practically balks arbitration so far as we are concerned.

THE BURDEN OF THE SENATE

THE truth is, and the people are beginning to understand it, that the Senate has become chiefly an obstructive body. It has so emphasized its function to check the President—always crying "Check, check, check"—that it would produce the impression that Presidents are the most reckless of men. The truth is that during the last forty years the Presidents have had to check the Senate very much oftener than the Senate has had to check the Presidents. And every President within that period who was a man of any considerable personal force has been obliged to resent the Senate's encroachments on the Executive. It is the continuous body of the Government, as distinguished from the House and from the Executive, and it has come to regard itself as the Government almost without change of personnel.

Mr. Lincoln had to coddle it. Andrew Johnson came within one vote of losing his office by it, and all men now know that the Senate was wrong. Grant and Hayes each had to veto a destructive financial measure and they had no end of trouble of other sorts. Garfield was assassinated at the time of an angry quarrel with him by the Senate about patronage. Cleveland encountered its hostility in hardly less degree.

There is no constitutional warrant for the Senate's use of patronage. Yet it has taken it from the President. There is no constitutional warrant for its amending treaties. Yet it has done so repeatedly before. It so amended the Hay-Bond treaty, for example, that nothing was left of it. It has encroached on the House, too. The most energetic speech ever delivered by Mr. Cannon was in open criticism of the Senate, at the close of the session before he became Speaker.

The people are protesting against the oligarchical tendencies of the Senate by electing Senators at primary elections by popular vote. State after State is coming thus to instruct its Legislature whom to elect. This popular movement is nothing but a protest against the spirit of obstruction and encroachment.

OUR TROUBLESOME DUTY IN SANTO DOMINGO

THE condition of Santo Domingo is one of the flagrant disgraces of the world. This fact alone would not call for action by our Government. But Santo Domingo lies at the gateway to the Caribbean Sea and to the Panama Canal; and we could allow no European Power under any provocation to get a lodgment there. This is the Monroe doctrine, without fog. Somehow, at some time, it was sure to come to pass that we should have to prevent some Power from acquiring a territorial interest there; for the long mismanagement of Dominican affairs was certain at some time to bring acute trouble.

A necessity for action by us is now come. The government of the so-called republic is hopelessly in debt. European Governments, whose citizens are its creditors, could have made a move by force to collect these debts. If any of them had done so, by the decision of the Hague Tribunal in the Venezuela case, their claims would have taken precedence of ours, and ours would have remained unpaid. The European Powers preferred first to consult our Government; and President Morales also requested us to administer the finances of his Government till these debts shall all be paid. It is not such a task as we should go about the world to seek. But when it is brought to us, there is no honorable chance to escape it, unless we

are willing that some European Government should interfere there; and we are not willing.

The treaty that the President sent to the Senate will enable us to collect the customs revenue and to apply a part of it, agreed upon, to the payment of these debts. During this process it will fall to us to see that peace prevails there. We cannot escape this obligation. But it is the sheer malice of captious criticism to say that we are simply playing the part of a cat's-paw to pull the chestnuts out of this fire for European creditors and that we shall invite speculators and adventurers to contract debts with usurious rates of interest with every little Government in America with the expectation that we will collect them. The game is not quite so certain as to warrant that risk; and such criticism comes from those minds that, not content with existing troubles, must gloat on troubles that may come hereafter—enjoying the pleasure that the old saints took in contemplating the future punishment of the wicked of their own kith and kin.

The miserable, misgoverned black blot of indolence has about a million inhabitants, and it has a public debt of about $32,000,000, a very small part of which was ever received or used by the government. If the treaty is ratified, we shall stand pledged to set the finances right, and that is all. We are pledged to preserve the territorial integrity of the island. We shall simply take one step toward keeping the independent part of the West Indies out of European entanglement; and we shall make it known again that the Monroe doctrine is alive.

THE PRESIDENT'S INAUGURATION

WITH all the pomp that can go with so simple a ceremony and with the hearty applause of crowds of representative citizens from every part of the Union and of the colonies, Mr. Roosevelt became President for his elected term, with as hearty good will of all the people as any President has had since Washington. He represents the dominant mood and temperament of the people as well as any man has represented it when he became President.

THE KANSAN OIL BLAZE

THE people of Kansas have become so much displeased with the Standard Oil Company that the State has decided itself to put up a refinery. After a short experiment it will be likely to fail, for the simple economic reason that it cannot long compete with so successful a manufacturer and seller as the Standard Oil Company, and even indignation at the grossest wrongs yields at last to cheaper production and better service. The Standard Oil Company by its elaborate organization, by its profitable manufacture of many by-products, and by its ability to buy or to sell when it pleases, and by its independence of the Kansas oil fields, can make and sell oil more cheaply than any competitor, especially a competitor that must learn the business. At some turn of trade, it will pay more for crude oil in Kansas than the State can afford to pay, and sell refined oil more cheaply; and then the end of the experiment will come.

But, even if this interesting experiment fail, in a business sense, it will not, therefore, be useless. In the conduct of its refinery the State will find out many things that it has had difficulty in finding out. It may learn, for instance, whether the railroads give rebates or advantages in any form to the Standard Oil Company; and the people will surely (as an incident) learn the value and advantage of a great and skilfully conducted manufacturing and distributing organization. Although these are not the lessons that the people of Kansas set out to learn, they will be useful lessons in the long and tedious work that awaits the people of every part of the Union—how to regulate the monopolies so that they may be kept from violating the square deal. The square deal has been violated by railroads, by trusts, and by private persons in trade because the people remained indifferent. A keen personal interest shown by the people of Kansas in the behavior of any trust or of any railroad—this is a proper starting point for the change in business morals that we believe is coming. If the people wake up, their representatives also at State capitals and at Washington will wake up. After many experiments and, perhaps, bungling failures, a way will be found to prevent the railroads from enriching some at the expense of others and to prevent the trusts from restricting individual liberty —all this, too, without confiscating property or depriving modern life of its most useful servant, which is successful organization. The whole problem is to make corporations

at least as honest as individuals are. They have become less honest because the people have not held them to the same degree of responsibility. The Kansas experiment in refining petroleum, in itself wise or unwise, is interesting and valuable as an evidence of a popular awakening from supineness.

And it is an interesting way to carry on an agitation—an art at which Kansas has had much practice. In fact, the meaning of this whole movement is not that we are going headlong into some form or other of State Socialism, but only that this is the Kansan way of making a protest and of waking up the people. It is a new chapter in the story of popular agitation.

The main contention, as presented on behalf of each side, is that the Standard Oil Company will not buy the crude oil from the Kansan wells at a profitable price, and that the railroads give it unfair advantages; and, on the other side, that there is now such an overproduction of crude oil in that part of the world that it is not worth its former price. The kernel of the trouble is that there is only one purchaser of crude oil. The National Bureau of Corporations of the Department of Commerce and Labor is making an investigation of the same subject; and this investigation was encouraged, if not prompted, by the waking-up of the Kansans.

For many reasons, therefore, this is an interesting incident in the far-flung battle-line of the people against the monopolies. The monopolies smile at some of the methods of the awkward people. But he will laugh best who shall laugh last.

THE FALL OF RUSSIA AMONG THE POWERS

EVENTS approach a crisis for Russia both at St. Petersburg and at Mukden; and a crisis may be reached at either end of the great empire before this paragraph is read in print.

The assassination of Grand Duke Sergius, the most feared and hated of the grand dukes and the most reactionary, the extraordinary uprising of the university faculties and students, and the continued strikes and disorders by all classes of the population except the abject peasants, show that the rebellion of the people has gone beyond the possibility of police control; and every part of Russia, except the purely agricultural communities, is affected, from Poland to the Asiatic provinces in the south. No accurate or comprehensive information about the extent or the determination or the leadership of the uprising reaches the outside world. Nor is it made known with any authority, what the Czar and his advisers will do. One day or week it is reported that a popular assembly will be called; the next, this is denied. Of all the theories about the Czar, that theory seems most credible which represents him as a vacillating man whose liberal impulses, if he have them, are suppressed by the royal household; and doubtless he is kept in ignorance of the true meaning of many events. It is certain that the autocracy will at least die hard.

The great battle in Manchuria that freezing weather could not longer postpone, made it plain to the Russians, as it was before plain to the rest of the world, that the end of the war must be a Russian disaster. The war has completely pricked the military bubble of Russia. Even a year ago all the world regarded her as one of the foremost war-powers. But her navy was mismanaged and annihilated, and her army has proved incapable. Her leaders are victims of an autocracy of graft. They either lacked heroic qualities or they had no chance, under a corrupt and meddlesome régime, to show their character. The world no longer holds Russian military power in respect.

Not less completely have events shown the moral weakness of the autocracy. The autocrat's bluff has been "called" at home as the military bluff was called in Asia by the Japanese. A succession of assassinations and peaceful efforts to bring the autocracy to reason have occurred during the same period. The stupidity of the responses to each is the real revelation. The Czar, or those who stand for him and with him, might have shown firmness—an heroic and not a trembling determination to maintain the autocracy; or they might have shown good sense and patriotism by yielding gracefully, and have won the people's affections. They have shown neither quality. By one course they might possibly have reëstablished the people's fear of them. By the other they might have won the admiration of mankind. As it is, they have won not even its pity but only its contempt.

The upholders of orderly government everywhere deplore assassination. But the killing of the Grand Duke Sergius, like the killing

of Bobrikoff and Plehve, excited no such horror anywhere in the world as the assassination, for instance, of Alexander II. in 1881. The change in the world's feeling, from fear to contempt of czars, has been very rapid. Just as the sympathy of the working classes in every country is with the striking and revolutionary workingmen of Russia, so the sympathy of the educated classes goes out to the students and teachers of the Russian universities, whose open demand for free opinion, free speech, free worship, and a popular assembly reinforces the revolutionists of every class and party. The stupid bureaucracy has estranged the nobles, the industrial class, and the educated class; and they have thus apparently made a Russian people that is capable of successful revolution.

In such a state of ferment the news of yesterday serves chiefly to prick curiosity about what will happen to-morrow. Any day may bring forth almost anything. Whether it rush or move slowly, a Russian revolution seems to be in progress. But, whether it come or not, the bubbles of absolute autocracy and of invincible military power have both burst; and it is now difficult to recall the place that Russia held even a year ago in the fear, if not in the respect of, mankind.

THE WAR'S FREEDOM FROM COMPLICATION

IN the early days of the war the fear was universal that the conflict could not be confined to Russia and Japan. The opinion was general that England and France would be speedily involved. Prophets of evil saw the beginning of the long-threatened world struggle. Even Admiralties and War Offices, as an incautious general admitted, were "prepared for eventualities." But after a year of one of the most ferocious wars in history the fear of the contagion of slaughter has passed entirely away.

International discussion has waxed hot a number of times. The meaning of contraband, the violation of neutral territory, the right of sowing contact mines on the open sea, have each been debated to the point of causing grave uneasiness, yet never but once did a dispute become critical.

The inexcusable firing by Admiral Rojestvensky upon the Hull fishermen brought the only crisis that threatened the world's peace. When the indignant English people forced their government to demand the punishment of the offending admiral, Russia at once offered apologies and indemnity, but, guarding her pride, bluntly refused the British demand. Matters went so far that Lord Lansdowne used these startling words to the Russian Ambassador: "We may find ourselves at war before the week is over." The British fleet was mobilized; secret orders were issued to the Mediterranean Squadron. But suddenly the news was given out that the dispute would be referred to arbitration. It is said that nearly every civilized nation of the world had used its influence to maintain peace, and that the result was due to international horror of war.

The decision rendered by the North Sea Commission was a compromise verdict, making the truth as palatable as possible to Muscovite pride. While Russia's fleet was delaying at Cherbourg, *Punch* remarked that the only evidence that there was a single torpedo-boat in the North Sea was the assertion of the Russian Commander that he saw two. The majority of the Commission were of the same opinion. They agreed that Rojestvensky was mistaken about his facts, and that therefore his action was not justified. They administered a mild rebuke by expressing a "regret that the admiral did not inform the neighboring maritime Powers of what had occurred"; but lest this might be misinterpreted as a serious censure, they hastened to add that they did not intend "to cast any disrespect upon the military valor or upon the sentiments of humanity of Admiral Rojestvensky."

Commenting upon this decision, the Paris *Temps* said: "The finding is the nice balancing of a tight-rope walker. But what matter, if in form it is honorable to both opponents? It has resulted in the maintenance of peace." And that is not the only thing gained. Henceforth at sea the neutral need not beware of being in the way of a belligerent. The belligerent will take more care not to injure the neutral.

THE FUTURE OF SCANDINAVIA

WHEN King Oscar of Sweden and Norway temporarily resigned the duties of government to Crown Prince Gustaf, in February, there probably passed from active life the man who has been called the ablest ruler and the most companionable king that ever lived. Greatly beloved by his subjects,

he took the keenest pleasure in laying aside the ceremony of the court, and going among them incognito. His hearty Liberalism, his kindliness, his tact and his common sense enabled him to hold together in peace his two fretting kingdoms during his entire reign of thirty-three years. As a referee in important international disputes he has served often and well. No other monarch has done so much for the cause of arbitration.

With the retirement of King Oscar, it is announced that plans are being considered for a triple alliance between Sweden, Norway, and Denmark. The project of a Scandinavian union appeals to all three countries, for it recalls the days of Queen Margaret, "the Semiramis of the North," when a united Scandinavia was the unquestioned mistress of the Baltic, and one of the mightiest of European Powers.

This plan, however, reveals more than a dream of racial patriotism. It is said to have been suggested by that astute ruler, the Emperor William, who evidently believes that it would be possible to establish an offensive and defensive alliance between reunited Scandinavia and the German Empire. Such a pact would offer great advantages to all the contracting parties. Norway and Sweden are crushed by heavy taxes to support a large army to resist Russian encroachment on the north. Every year some new Russian intrigue against them is discovered, and they have the fate that befell Finland always before their eyes. Their national independence would be guaranteed by the proposed union and alliance, and the size of their armies could be gradually reduced. Denmark's position would be assured by the new pledge of good faith and friendship from Germany.

Yet the German Empire would gain most from such a league. William II. aims to control the balance of power in Europe. He persistently courts a Russian alliance, and he is Russia's best friend to-day. But he wishes to be feared as well as loved in St. Petersburg. He knows that neither the most disastrous war, nor the most destructive and widespread revolution, can rob the Russian Empire permanently of its strength. He knows that for some time to come Russia is likely to be a turbulent and unscrupulous neighbor.

But with the command of the Skager-Rack and the Cattegat, the outlets from the Baltic, Emperor William could shut up at any moment within her Baltic ports three-fourths of Russia's naval forces. Except in torpedo-boat destroyers he would almost double the strength of his navy; he would very nearly double his merchant marine; and he would add 350,000 well-trained men to his land forces. The ambitions of the Prince Regent Gustaf will favor the German project, and it is only too likely that the passing of the peaceful King Oscar will mark the determined entrance of Scandinavia into the armed camp of Europe.

THE FARMER'S TURN AT LAST

IF restriction of production be wrong, the farmers have sinned and prospered. The *American Agriculturist* recently reminded them that they have not increased their staple crops (except cotton) since 1896, which was a year of low prices; but they received for their products in 1904 nearly twice as much as they received for the same volume of products in 1896; and for the same quantity of corn, wheat, hay, and rye they received quite twice as much as they received eight years before. Corn is nearly twice as dear to the consumer, wheat and hay cost a third more, and potatoes half as much more. The population has, of course, increased meantime, and stationary crops, therefore, mean restricted production.

What proportion of this increased cost of food has gone to the farmer and what to such middlemen as the Beef Trust and the speculator, it would be hard to say. But the farmer has got a good share of it; and he is more prosperous than he ever was before.

The story of meat is somewhat different from the story of bread and grain. The price in the retail market has gone higher, as everybody knows; but the farmers have not received an increased price, as they have for grain. Consequently, during the last three years, cows, cattle, and sheep have decreased in number and in farm-value. It pays the farmer better to sell his grain in bags and his hay in bales than to sell them as pigs and beeves.

Sweeping statistics, such as the tables of total farm products and values, do not always show what they seem to show; but there is no doubt of the accuracy of these general conclusions. The man who grows our

bread is better off than he ever was before, and the man who buys it has to pay more for it than he has had to pay for a long period; and the man who raises meat still gets little for it, although the man who buys it pays more and more.

While the grain farmer has not increased his acreage as the population has increased, his restricted product and the higher price it brings are hardly the results of a conscious plan. In these vast transactions many forces are at work, such as the foreign demand and the intermediary (the Beef Trust, for example, and perhaps the grain gambler). There are other large influences, too, such as the relative rate of wages in other occupations, which draw men from the farms to the shops and to the town. There can, therefore, be no exact statement of the working of so complex a thing as the food-market.

Nobody begrudges the farmer his prosperity, for he has waited a good many thousand years for it to come. And larger profits yet will be his, not by reason of restricted production, but by scientific farming and the continually increasing application of machinery to the tilling of the soil. We are, in fact, just beginning to learn the right method of success.

LAGGARDS IN COTTON

TURNING now from the grain-growers to the cotton-farmers, there is something pathetic, if not imbecile, shown by such facts as these:

We grow three-fourths of the cotton grown in the world. In other words, we have a practical monopoly.

Every people on the globe uses cotton goods and every people, except our own, use less than they need, and less than they will use when trade opens the right doors.

Yet our foreign commerce is so ill managed that the cotton-growers meet in convention and talk about restricting the acreage—this, too, in the face of the fact that cotton culture is less well done than the culture of any other of our great staple crops. Much of our cotton is handled by the least competent class of farmers that we have—the Southern Negroes; and the crop is grown, handled and marketed with a less scientific use of land and less good commercial organization than any other great product.

Even our cotton manufacturers and their salesmen in foreign markets are yet in their swaddling clothes. Consider a fact like this: In 1893 the Japanese sent to China less than $30,000 worth of cotton yarns; in 1903, they sent more than $14,000,000 worth. Since Japan buys most of her raw cotton from us, why do we not manufacture this $14,000,000 worth and sell it directly to China? If Japanese labor is cheap, so is Southern labor, and the difference in wages in favor of the Japanese cannot offset the excess of freight on raw cotton over spun cotton half way round the world. The truth probably is that the Japanese know precisely what the Chinese want and we have not taken the trouble to find out.

Worse yet. In 1904 we exported only $22,500,000 worth of cotton manufactures of all sorts; and we imported $49,500,000 worth! We grow three-fourths of the cotton in the world; yet we import twice as much manufactures of cotton as we export. The total exportation from all countries of cotton manufactures is $653,000,000, of which we export a beggarly $22,500,000.

Both the cotton-farmer and the cotton-manufacturer in the United States seem to be further behind their opportunities than any other members of our industrial family. If we have unemployed genius for organization, here surely is a field for its exercise.

POPULAR IGNORANCE OF THE CIVIL WAR

JUST before Congress adjourned, a resolution was passed and signed by the President, authorizing the return of the Confederate flags captured during the Civil War that are now in the possession of the National Government. It provoked no debate and caused no excitement. Yet, when Mr. Cleveland recommended this very action, there was a storm of protest; and when, long before Mr. Cleveland's presidency, Charles Sumner made a speech in the Senate proposing the obliteration of reminders of strife, he came near to losing his influence in National affairs.

This change of feeling is, of course, natural and very proper. Very nearly all the men who had to do with the Civil War are dead or are past their period of activity; and the main disputes that the war was fought about have been so completely settled that they can never rise again. In fact, it is a reproach to the present generation that, considered merely as historical knowledge, it knows so little about the great conflict and knows that

little so inaccurately. Myths and legends have grown up, particularly in the South, but also in the North, that are accepted as historical truths. Even the organizations that grew out of the struggle count for less and less. Except on one day in the year, the public hardly knows even of the existence of the dwindling Grand Army of the Republic. In the South, where popular diversions are fewer and emotionalism plays a larger part in life than in the North, the Confederate Veterans have somewhat more enthusiastic gatherings. But Time, which ends all things but pension rolls, is fast thinning the ranks of both these companies of men; and they will pass from the public mind as the flags have passed. The most vital organization that is, in a way, a product of the war, is made up of the women, most of whom were not born in 1865 and many of whom know nothing about the war except from tradition. It is the Daughters of the Confederacy. This gives promise of outliving the organizations of veterans, because women hold more tenaciously to a sentiment or to a tradition, when it has a social value, than men hold even to the most stirring memories.

But if you ask the first dozen persons you meet who commanded the armies, say, at the battle of Bull Run, and what the result of that battle was, or why and when Lincoln issued the proclamation of emancipation, or who had most to do in framing the Reconstruction Acts, or who could vote in the Southern States in 1868, or what was the prevailing estimate of Jefferson Davis in the South at that time, or what was General Lee's opinion about the political problems presented then, or General Grant's wishes—you will discover that Lord Cornwallis and General Washington are as well known as most of the great actors of the war of 1861-'65.

THE FOOD-COST OF AN "AVERAGE FAMILY"

ALTHOUGH the price of nearly all kinds of food has risen within a few years, it is practically impossible to ascertain the exact increased cost of living. The Bureau of Labor Statistics at Washington has been trying to do this. For the purpose of its study of the diet of working people, it inquired into the habits of 13,000 persons who live in cities in thirty-three States. From this study was constructed an "average" family, consisting of 5.31 persons. The family income is $827.19 a year, of which $326.90 is spent for food. This is an average of a little less than $6.30 a week, or 90 cents a day for the whole family—about seventeen cents a day per person. The yearly bill of fare runs thus:

FOOD OF THE AVERAGE WORKING FAMILY PER YEAR

Articles	*Cos*
Fresh beef, 349 pounds	$50.05
Salt beef, 52 pounds	5.26
Fresh pork, 114 pounds	14.02
Salt pork, 110 pounds	13.89
Other meat	9.78
Poultry, 67 pounds	9.49
Fish, 80 pounds	8.01
Butter, 117 pounds	28.76
Milk, 354 quarts	21.32
Eggs, 85 dozen	16.79
Flour and meal, 680 pounds	16.76
Bread, 253 loaves	12.44
Sugar, 268 pounds	15.76
Potatoes, 15 bushels	12.93
Other vegetables	18.85
Coffee, 47 pounds	10.74
Tea	5.30
Lard, 84 pounds	9.35
Cheese, 16 pounds	2.62
Rice, 26 pounds	2.05
Molasses, 4 gallons	1.69
Fruit	16.52
Vinegar, pickles, etc.	4.12
Other foods	20.40

This is, of course, a list covering the food of workingmen's families in industrial localities, and the facts about the diet of farmers' families or the families of salaried workers in the cities might be different. But doubtless it is an index of the food consumed by most families with an income of a little more than $800 per year throughout the country.

There is sustenance in the food; but, surely, it is badly chosen. For instance, when more is spent for pickles than for rice one of our own most wholesome grains suffers shameful neglect. The whole diet is too nearly made up of meat and bread and butter and coffee; and there is too much pork and too little fish. There is a larger proportion of meat than is consumed by any other people and a far larger amount of sugar.

Such a table can show at best a mere general tendency—nothing more. There are doubtless wide divergences in the actual tables from which these averages were made. But so far as it goes it indicates that the butchers and the millers, the dairymen and the Sugar Trust come near to supplying all that the "average family" eats.

HOW MAY WE INSURE OUR INSURANCE?

[THE WORLD'S WORK publishes every month an article in which some timely and vital subject of the financial world is taken up]

THERE has been a bitter contest within the management of the great Equitable Life Assurance Society, and the public has taken, as it had a right to take, a very keen interest in it.

There has been no revelation, nor even a suspicion of mismanagement, or of danger to the safety of the company. Even if a part of its active managers had gone to a rival company (and such a plan was reported), the company would have remained solid. It is one of the strongest fiduciary and financial institutions in the world; and nothing has happened to impair the safety of its policies. In addition to other reasons, the very magnitude of the business insures its safety. It would be difficult to endanger so gigantic a thing. Its investment committee might make enough mistakes to wreck any ordinary enterprise; and yet so numerous and of so many kinds are its investments, that the earnings of its good investments would leave a large margin of profit over enormous losses. The danger of bad loans and investments is lessened, too, by their magnitude. It has its pick of borrowers and of bargains. The strongest railroad companies, the soundest governments, the owners of the best real estate offer their securities to it. Nor is this the only present safety; for the size of these transactions has naturally brought to the board of directors some of the very strongest leaders in our financial life.

But the organization of the Equitable is wrong. This great society, with much more than $400,000,000 of assets, has been controlled by a stock company of $100,000 capital; and the estate of its founder, the late Mr. Henry B. Hyde, owns a controlling interest. This controlling interest has been inherited by his son, Mr. James H. Hyde, who now comes alone into the active control of enough shares to enable him to elect any board of directors that he will. Here lies the fault of the organization—that any one man, by the ownership of fifty-one shares of a $100,000 corporation, or by any other method or chance, may control the $400,000,000 of property that belongs really to the policy-holders. It was a personal difference about the use of this power that provoked the serious controversy within the organization; and a difference also about the fitness of Mr. Hyde, in the opinion of the opposing faction, to remain vice-president of the company. Concerning the latter personal question the outside public has not sufficient data to form a judgment. But about the general organization the right conclusion is easy and inevitable.

Theoretically, every such company should have directors who are elected by the real owners of the property, and the real owners are the policy-holders. This plan, it was announced, will be carried out. In other words, the company is to be "mutualized."

Yet even this is a theoretical rather than a practical remedy for the wrong principle of organization. For in other mutual companies the policy-holders do not really elect directors. The managers of the companies secure proxies and elect whom they please, so long at least as the policy-holders regard the companies as safe and well managed. The advantage of the mutual plan appears only in times of mismanagement or of suspicion. Then the policy-holders may organize themselves and use the power which they do not exercise at other times. But even then the officers of a mutual company, through its agents, would be practically certain to have a majority of the policy-holders' proxies.

While, then, the "mutualization" of the Equitable will be in keeping with sound theory and good practice, its perpetual safety will not be secured. The practical officers of the company, after "mutualization," would be able to control the proxies of policy-holders. Their control would not be theoretically so certain as the ownership of fifty-one shares of the corporation, but it would be as practically complete. Simple mutualization, then, does not get at the root of the wrong principle.

What is the wrong principle?—the wrong principle of most of the great insurance companies?

There are questions about their management that the public continually asks without receiving satisfactory answers; and every incident like this controversy about the management of the Equitable keeps these questions alive. For instance, when a company of $100,000 owns the Equitable, and dividends on this stock are limited to 7 per cent., why is this $100,000 of stock, no matter who should own it, worth $5,000,000 or $10,000,000, or some other fabulous sum? It can draw in dividends only $7,000 a year.

Again, why is the notion a persistent one that a director's seat in one of these large companies is worth much money? Theoretically, all the money of an insurance company, except its running expenses, should go to its policy-holders. Its active officers must be capable men and they must receive large salaries. But how any other personal gain can be got honestly from such a company by directors or by officers, than legitimate dividends and salaries, is not plain.

The public has the notion, whether right or wrong, that in the making of loans and investments with insurance companies' money officers and directors do get indirect, if not direct, profits. Even these great companies (not to speak of lesser ones) will never enjoy quite the degree of public confidence that they ought to have until it is made plain that they are managed and safeguarded as savings banks are. The public feels now that the great insurance companies are safe chiefly because of their colossal size; but it feels also that their management is too closely identified with great speculative enterprises and that the money of policy-holders is used in financial games where incidental personal profits are got. In other words, the morality of insurance company investments does not seem to have reached the level of the morality of savings bank investments.

One of the directors of the Equitable, who is a member of its finance committee, is also a member of a banking firm that sold many millions of bonds to the Equitable. Yet there is a law on the New York statute books which reads as follows:

"No director or officer of an insurance corporation doing business in this State shall receive any money or valuable thing for negotiating, procuring or recommending any loan from any such corporation, or for selling or aiding in the sale of any stocks or securities to or by such corporation.

"Any person violating the provisions of this section shall forfeit his position as such director or officer, and be disqualified from thereafter holding any such office in any insurance corporation."

The law may not prohibit such transactions as the one mentioned, since no payment as a commission of money "or valuable thing" to the director for any part he may have taken in the sale of the bonds has been alleged. But the intent of the law is clear, and public opinion is behind it.

A man who holds a governmental position cannot buy things for the Government from a company in which he owns shares, and escape scandal. The standard set for public servants forbids such transactions. A merchant who imports goods is not eligible to the post of Secretary of the Treasury, as the case of Mr. A. T. Stewart showed, who was nominated by Lincoln. Not quite the same standard of delicacy seems, therefore, to prevail in high financial insurance circles that the public insists on in official circles.

The main point is here. The distinguished and able members of the boards of all the large life insurance companies directly represent railroads, trust companies, great industrial companies, and the like, which are at times large borrowers of money. And some of them invest these loans in speculative enterprises. The men who, as representatives of the insurance companies, vote some of these loans, profit by them as members of trust companies, and the like. In other words, the savings of the people (for insurance is only a form of saving) have thus become a large part of the capital that is used in the colossal games of Wall Street finance. A small group of men by this machinery controls more than a thousand millions of dollars that go to make up the assets of only three of the largest life insurance companies which have their headquarters in New York.

The popular dissatisfaction with this grouping of power and privilege (for there is a popular dissatisfaction) is a very important part of the growing spirit of revolt against all such concentration of financial power.

A way may be found to make the management of these great companies square with

both delicacy and safety. The President recommended to Congress the Federal supervision of life insurance companies, and during the last days of Congress, Senator Dryden, of New Jersey, himself president of a great life insurance company, introduced a bill to provoke discussion during the Congressional vacation, which he hopes will accomplish this aim. He would have the National Government grant licenses to them and thus supervise them. He thinks that such a plan would give increased security to 20,000,000 policy-holders (every family, on an average, has a policy); it would decrease the cost of insurance by relieving the companies of $9,000,000 State taxes a year and much clerical work caused by State laws; and it would make it possible to stamp out fraudulent companies.

The main objections to such a measure are decisions by the Supreme Court that insurance policies are not "interstate commerce." But since the main decision to this effect was rendered, other decisions have been handed down which seem to modify the former decision. For instance, the Court held that a lottery was interstate commerce. The expectation is a reasonable one, therefore, that if the Court were to review the subject now, it would hold that life insurance is a form of interstate commerce. For it must be remembered that life insurance as it is now conducted is a very new thing.

This controversy about the control of the Equitable comes very pat, for it comes when the people are in a mood to consider the very fundamental problems that are presented by the control of a thousand millions of dollars of policy-holders by a few financial leaders. It is interesting to publish here the list of directors of the Equitable which is made up as follows:

J. W. Alexander	James H. Hyde	E. H. Harriman
Louis Fitzgerald	A. J. Cassatt	Levi P. Morton
Chauncey M. Depew	Jacob H. Schiff	August Belmont
Wm. A. Wheelock	James J. Hill	D. O. Mills
H. C. Deming	T. Jefferson Coolidge	Robt. T. Lincoln
Cornelius N. Bliss	Alfred G. Vanderbilt	Geo. J. Gould
Geo. H. Squire	John Jacob Astor	John Sloane
Thomas D. Jordan	Sir Wm. C. Van Horne	Geo. T. Wilson
Chas. S. Smith	Gage E. Tarbell	Thomas T. Eckert
V. P. Snyder	Marvin Hughitt	Wm. H. McIntyre
Alvin W. Krech	C. B. Alexander	H. M. Alexander
Wm. Alexander	T. DeWitt Cuyler	Henry C. Frick
John J. McCook	M. Hartley Dodge	Samuel M. Inman
James B. Forgan	J. F. de Navarro	H. C. Haarstick
C. Ledyard Blair	Bradish Johnson	David H. Moffat
Brayton Ives	Joseph T. Low	H. R. Winthrop
M. E. Ingalls	John A. Stewart	

This list is given for two reasons. It covers a body of strong men who are conspicuously successful; and it is interesting to observe some of the other great financial institutions in which also these men are controlling spirits. The subjoined list hints at the vast intricacy of the financial network of the country.

It would be impracticable to show the interests of all the directors, for a list of the positions they occupy in financial and commercial corporations would fill many pages of this magazine. The list given, compiled from the "Directory of Directors in the City of New York," shows the ramifications throughout the country of the interests of some of the directors of the Equitable, most of whom live in New York. It should be added that some of the directors live in other cities, as Mr. Cassatt in Philadelphia, Mr. Ingalls in Cincinnati, Mr. Moffat in Denver, Sir William Van Horne in Montreal, Mr. Haarstick in St. Louis, and so on, and that these directors hold positions in institutions with headquarters in those cities, so that the whole country is included in the network of financial control. The following list is sufficiently comprehensive to illustrate the interweaving:

SOME DIRECTORS OF THE EQUITABLE AND THEIR FINANCIAL CONNECTIONS

ALEXANDER, JAMES W., President and Director.

Commercial Trust Co., of Philadelphia, D.
Delaware & Hudson Co., Bd. of Managers.
Equitable Trust Company, of New York, T.
Essex County Trust Co., East Orange, N. J., D.
Fidelity Trust Co., Newark, D.
Franklin National Bank, Philadelphia, D.
International Banking Corporation, D.
Mercantile Trust Co., D.
National Bank of Commerce, New York, D.
Union County Trust Co., Elizabeth, N. J., D.
Union Exchange Bank, D.
Union National Bank, Newark, D.

ASTOR, JOHN JACOB, Director.

Astor National Bank, D.
Delaware & Hudson Co., Bd. Managers.
Illinois Central Railroad Co., D.
Mercantile Trust Co., D.
Morton Trust Co., D.
Mount Morris Bank, D.
Mutual Bank, D.
National Park Bank, D.
New York Life Insurance & Trust Co., T.
Niagara Development Co., D.
Niagara Falls Power Co., D.
Niagara Junction Railway, D.
Plaza Bank, D.
Title Guarantee & Trust Co., T.
Western Union Telegraph Co. D.

BELMONT, AUGUST, Director.

Alliance Assurance Company of London, T.
American-Asiatic Steamship Co., D.
American China Development Co., D.
Audit Company of New York, Acting President and D.
Bank for Savings in the City of New York, T.
Century Realty Co., D.
First National Bank of Hempstead, P., D.
Golden Reward Consolidated Gold Mining & Milling Co., D.

BELMONT, AUGUST, Director (Continued).

Helvetia Swiss Fire Insurance Co., T.
Interborough Rapid Transit Co., P., D.
Kingston Consolidated Railway Co., D.
Long Island Railroad Co., D.
Louisville & Nashville Railroad Co., D.
Manhattan Trust Co., D.
Mutual Bank, D.
National Bank of North America, D.
National Park Bank, D.
North American Transportation & Trading Co., D.
North American Trust Co., T.
Plaza Bank, D.
Rapid Transit Subway Construction Co., P., D.
State Safe Deposit Co., D.
Subway Realty Co., P., D.
Windsor Trust Co., D.

BLAIR, C. LEDYARD, Director.

Belvidere National Bank, D.
Commercial Trust Co., of New Jersey, D.
Green Bay & Western Railroad Co., D.
Kewaunee, Green Bay & Western Railroad Co., D.
Lackawanna Steel Co., D.
National Bank of Commerce, D.
New York, Ontario & Western Railway Co., D.
Northwestern Elevated Railroad of Chicago, D.
Ontario, Carbondale & Scranton Railway Co., D.
St. Louis & Hannibal Railway, D.
Securities Co., D.
Silver Peak Mining Co., Tr., D.
Sussex Railroad, D.
Sussex Realty Co., P., D.
Toledo & Ohio Central Railway Co., D.
United States Mortgage & Trust Co., D.
Warren Railroad, D.

COOLIDGE, T. JEFFERSON, Director.

Adams Trust Co., Boston, D.
American Telephone & Telegraph Co., D.
Bay State Trust Co., P., D.
Boston Elevated Railway Co., D.
Commercial Cable Co., D.
Edison Electric Illuminating Company of Boston, D.
General Electric Co., D.
Georgia Railway and Electric Co., D.
Lawrence Manufacturing Co., Boston, D.
Manchester Mills, Boston, D.
National Bank of Commerce, Boston, V-P., D.
Old Colony Trust Co., Chairman Board Directors.
Pacific Coast Co., D.
Seaboard Air Line Railway, D.
Underground Electric Railways Company of London, Ltd., D.
Western Telephone & Telegraph Company, D.
The Mackay Companies, T.

DEPEW, CHAUNCEY M., Director.

American Safe Deposit Co., T.
American Surety Co., T.
Bagdad-Chase Gold Mining Co., D.
Bagdad Mining & Milling Co., D.
Beech Creek Railroad Co., D.
Benjamin E. Chase Gold Mining Co., D.
Brooklyn Warehouse & Storage Co., D.
Buffalo Erie Basin Railroad Co., D.
Buffalo, Thousand Islands & Portland Railroad Co., D.
Canada Southern Bridge Co., D.
Canada Southern Railway Co., D.
Carthage & Adirondack Railway, D.
Carthage, Watertown & Sackets Harbor Railroad, D.
Central Dock & Terminal Railway Co.
Chesapeake & Ohio Railway, D.
Chicago & Northwestern Railway Co., D
Chicago Junction Railways & Union Stock Yards Co., D.
Chicago, St. Paul, Minneapolis & Omaha Railway Co., D.
Clearfield Bituminous Coal Corporation, D.
Clearwater & Raquette Railroad Co., D.
Big Four Railway Co., D.
Columbus, Hope & Greensburg Railroad, D.
Delaware & Hudson Co., Bd. Managers.
Dunkirk, Allegheny Valley & Pittsburgh Railroad Co., D.
Equitable Trust Co., New York, T.
Fifth Avenue Trust Co., T.
Fonda, Johnstown & Gloversville Railroad, D.
Fulton Chain Railway Co., D.
Fulton Navigation Co., D.
Gouverneur & Oswegatchie Railroad Co., D.
Jersey City & Bayonne Railroad Co., D.
Kensico Cemetery, D.

DEPEW, CHAUNCEY, M., Director (Continued).

Lake Erie, Alliance & Wheeling Railroad, D.
Lake Shore & Michigan Southern Railroad, Chm. Board Directors.
Mahoning Coal Railroad Co., D
Mercantile Trust Co., T
Merchants' Despatch Transportation Co., D.
Michigan Central Railroad, Chm. Bd. Directors
Michigan, Midland & Canada Railway Co., D.
National Bank of Commerce, D.
National Surety Co., D.
New Jersey Junction Railroad Co., D.
New Jersey Shore Line Railroad Co., D.
New York & Harlem River Railroad, D.
New York & Putnam Railroad, D.
New York Central & Hudson River Railroad, Chm. Bd. Directors.
New York Central, Niagara River Railroad, D.
New York, Chicago & St. Louis Railroad Co., Chm. Board Directors.
New York, Ontario & Western Railway, D.
Niagara Falls Branch Railroad D
Niagara Grand Island Bridge Co., D.
Niagara River Bridge Co., D.
Norfolk & Southern Railroad Co., D
Oswego & Rome Railroad Co., D.
Pine Creek Railway, D.
Raquette Lake Railway Co., D.
Rome, Watertown & Ogdensburgh Railroad Co., D.
Rutland Railroad Co., D.
St. Lawrence & Adirondack Railway Co., D
Spuyten Duyvil & Port Morris Railroad Co., D.
Standard Trust Co., D.
Syracuse, Geneva & Corning Railway, D.
Terminal Railway of Buffalo, D.
Tivoli Hollow Railroad, D.
Toledo, Canada Southern & Detroit Railway Co., D
Toluca Electric Light & Power Co., D.
Union Trust Company, of New York, T.
United States Light & Heating Co. D.
Utica & Black River Railroad, D.
Walkill Valley Railroad, D
West Shore Railroad, D.
Western Transit Co., D.
Western Union Telegraph Co., D.

ECKERT, THOS. T., Director.

American Telegraph & Cable Co., D.
American Union Telegraph Co., D.
Delaware & Atlantic Telegraph & Telephone Co., D.
Empire & Bay State Telegraph Co., D.
Gold & Stock Telegraph Co., D.
International Ocean Telegraph Co., D.
Manhattan Railway Co., D.
Marine & Inland Telegraph Co., D.
New Jersey & New England Telegraph Co., D.
St. Louis, Iron Mountain & Southern Railroad, D
Southern & Atlantic Telegraph Co., D.
Texas & Pacific Railway Co., D.
Union Pacific Railroad, D.
Washington & New Orleans Telegraph Co., D.
Western Union Telegraph Co., Chm. Bd. Directors.

FORGAN, JAMES B., Director.

Audit Company of New York, member Western Board of Control.
Chicago & Alton Railway, D.
Fidelity & Deposit Company of Maryland, D.
First National Bank, of Chicago, P., D.
Guarantee Company of North America, Chicago, D.
Metropolitan West Side Elevated Railway Co., Chicago, D.
National Safe Deposit Co., P., D.

GOULD, GEO. J., Director.

American District Telegraph Co., D.
American Telegraph & Cable Co., D.
American Union Telegraph Co., D.
Ann Arbor Railroad Co., D.
Arkansas Midland Railroad, P., D.
Atlantic & Pacific Telegraph Co., D.
Bowling Green Trust Co., D.
Chicago & Alton Railroad Co., D.
Chicago, Burlington & Quincy Railroad Co., D.
Chicago Elevator Co., D.
Colorado Fuel & Iron Co., D
Colorado Midland Railway Co., D.
Conried Metropolitan Opera Co., D.

GOULD GEO. J., Director (Continued).

Davis Coal & Coke Co., D.
Denver & Rio Grande Railroad Co., Chm. Bd. Directors.
Federal Mining & Smelting Co., D.
Galveston, Houston & Henderson Railroad, D.
Globe Express Co., D.
Gold & Stock Telegraph Co., D.
International & Great Northern Railroad, P., D.
International Ocean Telegraph Co., D.
Kansas & Arkansas Valley Railway, P., D.
Kansas City, Mexico & Orient Railway Co., D.
Kansas City Northwestern Railroad, P., D.
Kansas City Southern Railway, V-P., D.
Little Rock Junction Railway, P., D.
Manhattan Railway Co., P., D.
Mercantile Trust Co., D.
Missouri Pacific Railway Co., P., D.
National Bank of Commerce, D.
National Surety Co., D
New York Mutual Telegraph Co., D
New York Telephone Co., D.
Oregon Short Line Railroad D.
Pacific Mail Steamship Co., D
Rio Grande Southern Railroad, V-P., D.
Rio Grande Western Railway Co., Chm. Bd. Directors.
St. Louis, Iron Mountain & Southern Railway, P., D.
Sedalia, Warsaw & Southwestern Railway, P. D.
Southern & Atlantic Telegraph Co., D.
Southern Pacific Co., D.
Texas & Pacific Railway Co., P., D.
Union Pacific Railroad Co., D.
Utah Fuel Co., D.
Wabash Railroad Co., Chm. Bd. Directors.
Washington & New Orleans Telegraph Co., D.
Wetherford, Mineralwells & Northwestern Railway, P., D.
West Virginia Central & Pittsburgh Railroad, D.
Western Maryland Railroad Co., D.
Western Union Telegraph Co., V-P., D
Wheeling & Lake Erie Railroad, D.

HARRIMAN, E. H., Director.

Baltimore & Ohio Railroad Co., D.
Brooklyn Heights Railroad Co., D
Brooklyn Rapid Transit Co., D.
Carson & Colorado Railway Co., P., D.
Central Pacific Railway Co., P., D
Chicago & Alton Railway Co., D.
Chicago & Alton Railroad Co., D.
Chicago, Burlington & Quincy Railway Co., D.
Chicago, Burlington & Quincy Railroad Co., D.
Colorado Fuel & Iron Co., D.
Coney Island & Gravesend Railway Co., D.
Cromwell Steamship Co., D.
Delaware & Hudson Co., Bd. Managers.
Denver & Rio Grande Railroad Co., D.
Direct Navigation Co., P., D.
Equitable Trust Co., New York, T.
Erie Railroad Co., D.
Galveston, Harrisburg & San Antonio Railway Co., P., D.
Galveston, Houston & Northern Railway Co., P., D.
Guaranty Trust Company of New York, D.
Houston & Texas Central Railroad Co., D.
Illinois Central Railroad Co., D.
International Banking Corporation, D.
Kansas City Southern Railway, D.
Leavenworth, Kansas & Western Railroad, D.
Louisiana Western Railroad Co., P., D.
Mercantile Trust Co., D.
Morgan's Louisiana & Texas Railroad (& Steamship Co.), P., D.
Nassau Electric Railroad Co., D.
National City Bank of New York, D.
Northern Pacific Railway Co., D.
Northern Securities Co., D.
Orange County Road Construction Co., P, D.
Oregon & California Railroad Co., P., D.
Oregon Railroad & Navigation Co., Chm. Bd Directors
Oregon Short Line Railroad, P., D.
Pacific Coast Co., D.
Pacific Mail Steamship Co., P., D.
Portland & Asiatic Steamship Co., Chm. Bd. Directors
Railroad Securities Co., P., D.
Rio Grande Western Railway Co., D.
Southern Pacific Railway, P., D.
Southern Pacific Co., P., D.

HARRIMAN E. H., Director (Continued).

Southern Pacific Railway, P., D.
Texas & New Orleans Railway Co., P., D.
Union Pacific Railroad Co., P., Chm. Bd. Directors
Wells, Fargo & Co., D.
Western Union Telegraph Co. D.

HILL, JAS. J., Director.

Chase National Bank, D.
Chicago, Burlington & Quincy Railroad Co., D.
Chicago, Burlington & Quincy Railway Co., D.
Erie Railroad, D.
First National Bank of the City of New York, D.
Great Northern Railway, P., D.
Manhattan Trust Co., D.
Mercantile Trust Co., D.
New York Security & Trust Co., T.
Northern Securities Co., P., D.
St. Paul, Minneapolis & Manitoba Railway Co., D.

HUGHITT, MARVIN, Director.

Chicago & Northwestern Railway Co., P., D.
Chicago, St. Paul, Minneapolis & Omaha Railway Co., P., D.
Fremont, Elkhorn & Missouri Valley Railroad, P., D.
Northern Trust Co., D.
St. Paul, Eastern Grand Trunk Railway, P., D.
Sioux City & Pacific Railroad Co., P., D.
Union Pacific Railroad Co., D.

HYDE, JAS. H., Director and First Vice-President.

American Surety Co., T.
Brooklyn City & Newtown Railroad, D.
Colorado Fuel & Iron Co., D.
Commercial Trust Company of Philadelphia, D.
Coney Island & Brooklyn Railroad Co., 2d V.-P., D.
Conried Metropolitan Opera Co., V.-P., D.
Continental Insurance Co., D.
Crocker-Woolworth National Bank, T.
DeKalb Avenue & North Beach Railroad Co., D.
Delaware & Hudson Co., Bd. Managers
Equitable Trust Co., New York, V.-P. T.
Federation of French Alliances in United States, D.
Fidelity Trust Co., Newark, D
Fifth Avenue Trust Co., T.
First National Bank, Chicago D.
First National Bank, Denver D.
Franklin National Bank, Philadelphia, D.
Greenwich Savings Bank, T.
International Mercantile Marine Co., D.
Interurban Street Railway Co, D.
Lawyers' Mortgage Co., D.
Lawyers' Title Insurance Co., of New York, D.
Long Island Railroad Co., D.
Manhattan Railway Co., D.
Mellon National Bank, Pittsburg, D.
Mercantile Electric Co., D
Mercantile Safe Deposit Co. V.-P., T.
Mercantile Trust Co., V.-P., D.
Metropolitan Securities Co., D
Missouri Pacific Railway Co., D.
Missouri Safe Deposit Co., St. Louis, D.
National Bank of Commerce, V.-P., D.
Oregon Railroad & Navigation Co., D.
Oregon Short Line Railroad, D.
Security Safe Deposit Company (Boston), V.-P., D.
Southern Pacific Co., D.
Texas & Pacific Railway Co. D.
Underground Electric Railways Co. of London, Ltd., D.
Union Exchange Bank, D.
Union National Bank, Newark, D.
Union Pacific Railroad Co., D.
Union Savings Bank, Pittsburgh, T.
Wabash Railroad Co., D.
Western Maryland Railroad Co., D.
Western Union Telegraph Co., D.
Westinghouse Electric & Manufacturing Co., D.

IVES, BRAYTON, Director.

Atlantic Deposit Co., P., D
Hecker-Jones-Jewell Milling Co., P., D.
Kanona, Plattsburgh Railway, P, D.
Metcalf Land Co, P., D.
Metropolitan Trust Co., P, D.
National Bank of Commerce, D.
New York Stock Exchange Building Co., T.
Northern Pacific Railway Co., D
Standard Milling Co., P., D
United States Guarantee Co., D.
Westinghouse Electric & Manufacturing Co., Chm. Bd. Directors

McINTYRE, WM. H., Director and Fourth Vice-President.

American Surety Co., T.
Brooklyn City & Newtown Railroad Co., D.
Casualty Company of America, D.
Central Realty Bond & Trust Co., D.
Chicago, Burlington & Quincy Railway, D.
Coney Island & Brooklyn Railroad, D.
Conried Metropolitan Opera Co., Secy., Tr., D.
Continental Insurance Co., D.
Equitable Trust Co., New York., D
Fidelity Trust Co., Newark, D.
Fifth Avenue Trust Co., T.
Lawyers' Mortgage Co., D.
Lawyers' Title Insurance Company of New York, D.
Mercantile Electric Co., V.-P. D.
Mercantile Safe Deposit Co., V.-P., T.
Mercantile Trust Co., D.
Missouri Safe Deposit Co., St. Louis, D.
National Bank of Commerce, D.
Security Safe Deposit Co. (Boston), D.
Union Exchange Bank, D.
Union National Bank, Newark, D.
Western Maryland Railroad Co., D.

MILLS, DARIUS O., Director.

Atlantic Coast Steamship Co , D.
Bank of New York, D.
Bellingham Bay & British Columbia Railroad, D.
Cataract Construction Co., D.
City & Suburban Homes Co.,D.
Erie Elevator Co , P., D.
Erie Railroad Co., D.
Farmers' Loan & Trust Co., D.
International Paper Co., D.
Inyo Development Co., D.
Lackawanna Steel Co., D.
Lake Shore & Michigan Southern Railway Co., D
Long Dock Mills & Elevator Co., D.
Madison Square Garden Co., D.
Mercantile Trust Co., San Francisco, D.
Mergenthaler Linotype Co., D.
Metropolitan Museum of Art, D.
Metropolitan Opera & Real Estate Co., D.
Metropolitan Trust Co., T.
Morton Trust Co., D.
National Bank, D. O. Mills & Co. (Sacramento), D.
New York Central & Hudson River Railroad Co., D.
Niagara Development Co., P., D.
Niagara Falls Power Co., P., D.
Niagara Junction Railway, P., D.
North American Commercial Co., V.-P., D.
North Atlantic Steamship Co., D.
Portland Traction Co., D.
Provident Loan Society of New York, T.
Southern Pacific Co., D.
United States Trust Co., T.
Virginia & Truckee Railroad Co., P , D.

MORTON, LEVI P., Director.

Atlantic Mutual Insurance Co., T.
Fifth Avenue Trust Co., P., T.
Guaranty Trust Company of New York, D.
Home Insurance Co., D.
Industrial Trust Co., Providence, D.
Morton Trust Co., P., D.
National Bank of Commerce, D.
Newport Trust Co., D.
Washington Life Insurance Company, New York, D

SCHIFF, JACOB H., Director.

Baltimore & Ohio Railroad, D.
Baron De Hirsch Fund, V.-P., T.
Bond & Mortgage Guarantee Co., D
Chicago, Burlington & Quincy Railroad Co., D.
Columbia Bank, D.
Fidelity Bank, D.
Industrial Trust Co., Providence, D.
Morton Trust Co. D.
National Bank of Commerce, D.
National City Bank of New York, D.
Newport Trust Co., D.
Northern Securities Co., D.
Southern Pacific Co., D
Union Pacific Railroad Co. D
Western Union Telegraph Co., D.
Woodbine Land & Improvement Co., D.

SLOANE, JOHN, Director.

American Surety Co., T.
Bigelow Carpet Co., D.
East River Gas Company of Long Island City, D.
Fifth Avenue Safe Deposit Co., T.
Ft. Wayne Gas Co., D
Hudson Trust Co. D.
Indianapolis Gas Co., D.
Manhattan Co., D.
Morton Trust Co., D
New Amsterdam Gas Co , D

SLOANE, JOHN, Director (Continued).

Ohio & Indiana Consolidated Natural & Illuminating Gas Co., D.
Provident Loan Society of New York, T.
Second National Bank, D
W. & J. Sloane, P., D.

SMITH, CHAS. S., Director.

Associated Land Co., P., D.
City & Suburban Homes Co., V.-P., D.
Fifth Avenue Bank of New York, D.
Fourth National Bank, D.
German Alliance Insurance Co., D.
German-American Insurance Co., D.
Greenwich Savings Bank, T.
Mercantile Real Estate Co., P., T.
Merchants' National Bank, D.
Metropolitan Museum of Art, T.
United States Trust Co., T.
Woodlawn Cemetery, T., D

SNYDER, VALENTINE P., Director.

American Surety Co., T.
Audit Company of New York, D.
Casualty Company of America, D.
Coney Island & Brooklyn Railroad Co., D
Equitable Trust Co., New York, T.
Essex County Trust Co. East Orange, N. J., D.
Fifth Avenue Trust Co., T.
Mercantile Electric Company, D.
Mercantile Safe Deposit Co. T.
Mercantile Trust Co., D
Merchants' Safe Deposit Co. D.
National Bank of Commerce in New York, P , D.
National Exhibition Co , D.
New York & Queens County Railway, D.
O'Rourke Engineering Construction Co., D
Union County Trust Company of Elizabeth, N J., D
Union Exchange Bank, D.
Union National Bank, Newark, D
Varick Bank of New York, D

SQUIRE, GEO. H., Director.

Equitable Trust Company of New York, T.
Lawyers' Mortgage Co., D.
Lawyers' Title Insurance Company of New York, D

TARBELL, GAGE E., Director & Second Vice-President.

Equitable Trust Company of New York, T
Hibernia Bank & Trust Co. (New Orleans), D.
Mercantile Electric Company of New York, D
Mercantile Safe Deposit Co., T.
Mercantile Trust Co D
Missouri Safe Deposit Co., St Louis, D.
Security Safe Deposit Co (Boston), D

VANDERBILT, ALFRED G., Director

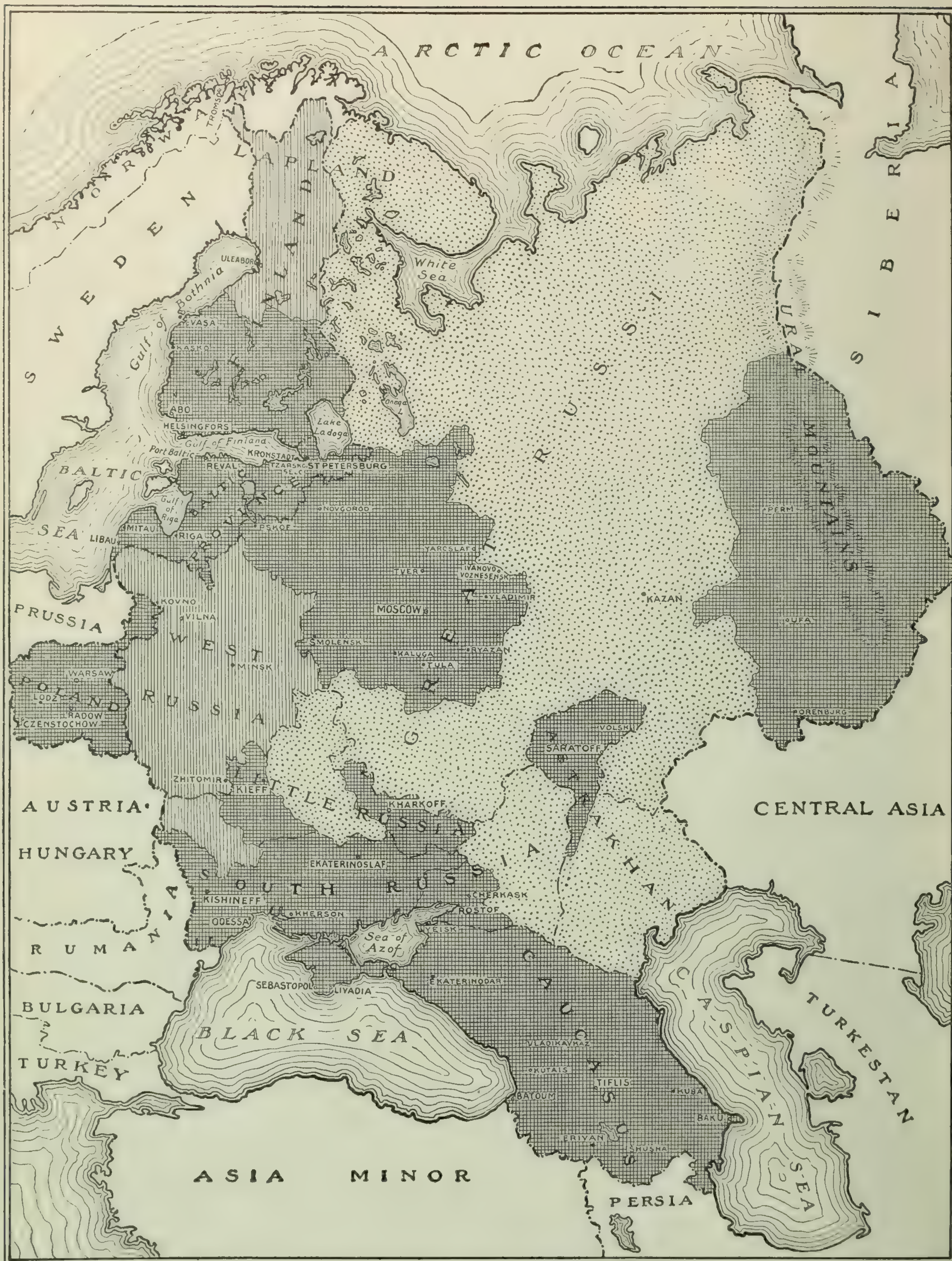
American Horse Exchange, Ltd., D
Conried Metropolitan Opera Co., D.
Fulton Chain Railway Co., D.
Fulton Navigation Co., D
International Banking Corporation, D
Mercantile Trust Co., D
Raquette Lake Railway Co. D
Raquette Lake Transportation Co., D.

WHEELOCK, WM. A., Director

American Surety Co , T.
Central National Bank, D.
Council of New York University, P., D.
Gold & Stock Telegraph Co., D.
Ophthalmic & Aural Institute D.
Union Theological Seminary D.

WINTHROP, H. R., Director and Assistant Secretary

Adams Trust Co (Boston) D.
Commercial Trust Co. Philadelphia, D.
Coney Island & Brooklyn Railroad Co., D
Conried Metropolitan Opera Co., D.
Essex County Trust Co., East Orange, N. J., D
Fidelity Trust Co., Newark, D
Franklin National Bank, Philadelphia, D
Lawyers' Mortgage Co., D.
Mercantile Electric Co , D.
Mercantile Safe Deposit Co. T
Missouri Safe Deposit Co., D
Security Safe Deposit Co (Boston), D
Union County Trust Co Elizabeth, D
Union National Bank, Newark, D.



A MAP SHOWING THE DISCONTENT IN RUSSIA

The dotted section shows the territory where the people are not greatly aroused; the lightly shaded section where the peasants have become disaffected; the heavily shaded section shows the centres of manufacturing, mining and—revolution

RUSSIAN IMPERIAL TROOPS PASSING THROUGH THE ENTRANCE ARCH INTO THE PALACE SQUARE

THE TURMOIL IN RUSSIA

AN AWAKENING OF THE PEOPLE THROUGH THE GROWTH OF INDUSTRY—HOW THE GRIEVANCES OF WORKMEN BECAME POLITICAL ISSUES—THE ACTIVITIES OF REVOLUTIONISTS—HOW THE VARIOUS SECTIONS AND CLASSES ARE AFFECTED

BY

ABRAHAM CAHAN

THE last quarter of a century has been a period of considerable industrial development in Russia, and the progress of the revolutionary movement has followed that development. A map of the empire showing the cities and provinces in which the factory is rapidly supplanting the small workshop, also shows the centres of political unrest. The revolutionary awakening of the nation is an accompaniment to its economic advance. These two phases of the country's growth bear to one another a relation which throws light not merely on the present outbreaks, but also on the part played in the movement by the several classes, as well as by the various peoples of which Russia is made up.

Father Gapon, the St. Petersburg priest who led the strikers on January 22d, had been active on behalf of the Government as a go-between for the authorities and the working class. After the slaughter in front of the Winter Palace the Czar issued a proclamation to the strikers, urging them to abstain from politics. Theirs was a purely economic grievance, the proclamation argued; it was solely a matter of wages and working hours; why, then, let one's self be misled into politics and political demands? The Czar referred the workingmen to what he had already done for their class, and held out pledges of further amelioration of their condition—a novel tone for a Czar to take with his subjects—always provided they refrained from politics. This anxiety of the Government to keep economic and political questions apart explains the entire drama.

A man named Zubatoff, until recently the head of the political secret service, first realized the full import of the new economic forces

as a revolutionizing agency. A crusade was begun by the Government at his instance to counteract the march of "New Nihilism" by "state trade-unionism." In other words, the throne attempted to allay the dangers of the new labor agitation, by supplanting the revolutionary agitator in the affections of the factory workmen. But this policy has failed. Even Father Gapon, who had acted as a "Zubatoff man," ultimately turned from "pure economics" to revolutionary politics under pressure of events.

Formerly nihilism was almost entirely in the hands of college students. Of the five Terrorists executed in the spring of 1881 for connection with the plot which had culminated in the violent death of Alexander II., only one was a workingman; the other four were members of the educated classes. But the proportion of workingmen to enlightened men and women was even much less than 1 to 4. The revolutionary organization consisted of small "circles" of young political dreamers in the provinces, with an executive committee in the capital. It was an organization of officers without an army. The older members of the intellectual class sympathized with the revolutionists and secretly supported them with funds; but otherwise they were carefully inactive, mutely expectant, timidly noncommittal. A handful of champions stirred the country by their courage, and their enterprise and resource; but the masses were stolidly irresponsive. The peasantry and the workingmen neither cared nor, indeed, knew what the party of the Will of the People was doing for them. So the Liberals kept silent except, perhaps, in an occasional sentence or two "between the lines" of their newspapers and magazines. The Zemstvos were doing good work in looking after the roads, struggling with the Government for more and better schools, and building up statistical bureaus. Now and then a bold member or a whole assembly would venture a speech or even a memorial to the throne hinting at the need of reform, and—be exiled. That was all.

READING A GOVERNMENT PROCLAMATION ORDERING STRIKERS TO DISPERSE

This was also the case in Poland. The Polish Socialists were as active and brave as their comrades of Great Russia or the South; but their agitation attracted as little attention among the masses as that of the Will of the People party. The heart of the average Pole

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A DEPUTATION OF PEASANTS MEETING THE GRAND DUKE NICHOLAS

TROOPS ENTERING THE PALACE SQUARE THROUGH THE ARCH

THE PALACE SQUARE, ST. PETERSBURG

Where workingmen were shot down in the recent massacre. To the right is the wall of the garden of the Imperial Palace. In the distance is the spire of the Admiralty Chapel

throbbed with hatred for everything Russian—and this was true not only of the minor nobility, from whose number the brave rebels of the sixties were chiefly recruited, but also of the peasantry which had once temporarily been won over by the Russian throne through certain agrarian concessions which the Czar had made to their class. But the old-time rebels were cowed by former defeats, broken-spirited and practically resigned to their country's political fate. If they still dreamed of a liberated Poland, these dreams were enveloped in the haze of an indefinite future. The new revolutionary spirit which was an offspring of Russian nihilism was powerless to rekindle their old fighting blood.

So in the Caucasus. The socialism which the educated young Georgian brought back from his Russian university found no echo among his people. If the hope of regaining

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PRINCE SVIATOPOLK MIRSKY

The Liberal Minister of the Interior whose attempt to moderate the severity of the autocracy resulted in his resignation

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THE PEASANT NOVELIST, MAXIM GORKY

Reading a manuscript to the distinguished critic, V. Stasov

GRAND DUKE VLADIMIR ALEXANDROVITCH

GRAND DUKE MICHAEL

their independence was not yet completely crushed out, if their martial spirit was still smouldering, that spirit had little to do with the political and economic creed which underlay the Russian struggle for liberty.

As to Finland, her constitution had not yet been trampled under foot, and if there was any political friction there, it was between the Swedish aristocracy and the Finnish commoners rather than between the "little republic by the Baltic" and her "stepmother country."

After the killing of Alexander II. the leaders of the Will of the People party all fell into the hands of the police, and the revolutionary movement practically came to an

GRAND DUKE CONSTANTIN CONSTANTINOVITCH

GRAND DUKE ALEXIS ALEXANDROVITCH

THE GRAND DUKES, WHOSE INFLUENCE WITH THE CZAR MAINTAINS THE ABSOLUTE

GRAND DUKE CYRIL

GRAND DUKE BORIS

end. There were two bold assassinations during the following two years, and later an attempt was made on the life of Alexander III., but the backbone of the party was broken. The Liberals lost what little courage they had begun to develop. The repressive policy of Pobiedonostzeff, Procurator of the Holy Synod, reigned uncontested. The country was hurled back to the miserable conditions that had existed in the days of Nicholas I.

HOW THE WORKMEN AWOKE

Meanwhile factories grew in size and in number, attracting larger and larger multitudes of peasants from the rural districts, and gradually divorcing them from the soil. With

GRAND DUKE ALEXANDER MICHAELOVITCH

GRAND DUKE MICHAEL MICHAELOVITCH

CHARACTER OF THE AUTOCRACY FOR THEIR OWN POWER AND PRIVATE ENRICHMENT

GRAND DUKE PAUL
Recalled from exile after the beginning of the recent disturbances

GRAND DUCHESS MARIA PAVLOVNA
The wife of Vladimir

the development of industrialism, strikes became common. They broke out in St. Petersburg and vicinity; in Moscow and in other provinces of central Russia; in Yekatevinoslav, Kharkoff, and Odessa; in Tiflis, Batoum, and Baku; in the Ural Mountains; in Poland; and in Lithuania. The Government dealt with them in its usual way. For more than nine persons to assemble was a political crime; for people to be discontented with their fate was sedition. So the strikes were quelled by force. People whose only offense was a plea for higher wages were shot down, thrown into prison, or transported to Siberia, as political offenders. Thus the Government itself "confused economics with

GRAND DUKE MICHAEL NICHOLAIVITCH

GRAND DUKE NICHOLAS NICHOLAIVITCH

THE CZAR AND CZARINA RETURNING FROM THE HUNT

politics," and the working people followed its example. Being prevented from discussing their "purely economic" affairs in the open, they gradually came to do so in secret. As the printing offices controlled by the censor would not print their leaflets, an offer from the revolutionists to print them on their "free presses" underground was welcome. As the holding of mass meetings with the sanction of the Government was out of the question, they held such gatherings in the woods, or in "conspiracy houses." Instead of confining themselves to the immediate demands of the strikers, the speakers would turn the discussion into revolutionary channels, branding the Czar and his officials as the enemies of the toiling masses. These speeches and revolutionary proclamations, addressed to working people in connection with their daily needs, met with ready assent. The "purely economic" interests of the wage-workers and their bitter experience with the Czar's Cossacks set them thinking in the same direction.

Formerly, the university was the great

LIEUTENANT-GENERAL PRINCE OBOLENSKY

Whose repressive measures led to an attempt to assassinate him

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A SIBERIAN CONVICT

In the usual costume worn by exiles

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THE CZARINA'S GARDEN ON EMPRESS'S ISLAND
In the Imperial Park, Peterhof, Russia

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THE AVENUE OF FOUNTAINS
In the garden of the Imperial Palace of Peterhof

school of political discontent. Now, the factory was beginning to play a similar part, but on a far larger scale and with more formidable effect. The new revolutionary agitation was rooted in the daily experiences of the common people of the cities and had for its basis their struggle for bread and butter.

It was the Government itself, then, which drove the workingmen "underground," where they fell under the influence of socialists, and where their abortive attempts at "pure and simple trade-unionism" were turned to good account by agitators for constitutional reform. The number of strikes grew, and with them grew the number of secret printing presses and the quantity of revolutionary literature that was read and read again by

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THE LAKE AND THE ISLAND IN THE IMPERIAL GROUNDS
At Tsarskoe Selo, near St. Petersburg

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THE CZAR'S RESIDENCE WHEN HE IS IN POLAND
The Lazienki Palace in Warsaw

the masses. The prisons were so crowded that political cases were disposed of with unusual celerity in order to make room for new inmates; Siberia was full of "politicals"; and the bulk of these prisoners and political exiles was made up, not of college boys and school boys as formerly, but of workingmen. The movement spread and began to assert itself in new forms. Previously, when, on one or two occasions, revolutionists attempted a demonstration, their call had attracted a handful of university students. Now thousands of workingmen would march in procession with revolutionary flags, and shouts like "Down with the Czar!" mingled with shouts for an eight-hour workday. The paraders were invariably met with Cossack whips and sabres, but as Cossack whips and sabres could not remove the new economic conditions, revolutionary demonstrations kept growing in frequency and in size. The Liberals took courage. One had scarcely believed the ignorant, stolid Russian masses capable of revolutionary sentiment, much less of manifesting it so boldly. The appearance of thousands of factory employees all clamoring for liberty in the face of the police, showed that the movement for representative government was no longer an illusion. The revolution had become a reality.

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A CHARACTERISTIC RUSSIAN PEASANT FAMILY AND THEIR HOME

The Zemstvos found inspiration in this labor movement in the cities. They were

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THE WALL OF THE KREMLIN, MOSCOW
Within which the Grand Duke Sergius was assassinated

emboldened by it. The press grew more assertive of its rights. A new tone came into the resolutions of professional congresses. Thousands of educated people in whom discontent had been smothered suddenly became imbued with a sense of their civic dignity. College students, physicians, lawyers, men of letters, marched beside workingmen in their revolutionary demonstrations. Representatives of all classes were rallied around the revolutionary working class in a demand for popular representation and a constitution.

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THE MARKET PLACE, VIBORG, FINLAND

THE ZUBATOFF STRATAGEM

The Government took alarm. "Zubatovism" was called into play. Zubatoff, who had once been a member of a Nihilist "circle" in Moscow, which he subsequently betrayed for the price of his own liberty and the salary of a spy, and was familiar with the literature of the socialists at home and abroad, called the attention of his superiors to the growing labor movement as a political force. He recommended, as an antidote, the system which now bears his name—a system of labor societies organized under the auspices of the Government. His plan was accepted and spies were sent to the factories to act as labor agitators. To keep working people from reading articles on political economy in the underground papers well-known college professors were invited to deliver lectures on that subject to common people under the vigilant eye of police agents. Theoretical socialism was given free scope in the magazines, so

THE SON OF A STRIKER
Helping to earn the family living during hard times

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THE IMPERIAL WINTER PALACE, ST. PETERSBURG
Seen from the Nevsky Prospect

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THE GREAT STAIRCASE AT ODESSA

that for several years Russia was the only country in Europe in which the teachings of Karl Marx were the leading topic of discussion in the best monthlies. "Let them talk all the socialist theory they want," Zubatoff used to say; "it keeps them from practical work."

In several instances where strikes broke out, the police were directed to abstain from interference. But the workingmen, thus encouraged, went much farther than the Government expected. They would not content themselves with the demands which Zubatoff's men formulated for them. They heard of the free trade-unions of western countries, and when revolutionary Social Democrats offered them literature describing the labor movements in foreign countries, it was accepted and read thirstily. The Russian wageworker thus gradually realized that

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THE TEMPLE OF OUR SAVIOUR
Part of the Kremlin, Moscow

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THE FAMOUS KREMLIN
The residence of the Czar in Moscow

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CARRYING THE INFANT CROWN PRINCE OF RUSSIA ABOARD A RUSSIAN WARSHIP

Before the departure of the Baltic Fleet

AN OFFICER OF POLICE ON GUARD OUTSIDE ST. PETERSBURG

A typical servant of the bureaucracy

free speech, the right to assemble and to organize, and a voice in the government privileges enjoyed by his brothers in Germany, Belgium, France, England and the United States, were essential to his interests and that his economic advancement was inseparable from the political enfranchisement of the whole nation. The labor demonstrations held under the guidance of "Zubatoff men" whetted cravings for processions free from the paternal control of spies, for marching with red flags and with shouts for liberty.

The authorities took alarm. Strikes were again interfered with. Workingmen demanding higher wages were again arrested and sent to Siberia. Zubatoff tried a middle course, one by which "the wolf might be fed and the sheep might be safe at once," as the Russian proverb goes; the Government patted the workingman on the back, coaxing him to stay away from "ill-intentioned" agitators, while it continued to shoot down strikers and to crowd the prison with members of secret labor organizations. It revived the wildest methods of repression. College students were treated with Asiatic severity. Then a series of college riots took place in which workingmen joined, as the college students would join in their labor demonstrations. Then university students were forced into the army, paraders were flogged, hundreds of innocent people were transported, the senseless "white terror" of twenty years ago was in full swing once more, and as a consequence the "red terror" of the revolutionists was renewed by the Socialists.

If the agrarian riots of two and three years ago were spontaneous, the new spirit in them was an echo of the spirit of revolt in the industrial centres. Peasants, who had been factory workmen, returning to their plows for the summer, and retired soldiers, told the villagers of the fight that was going on in the cities, and as the rank and file in that fight was made up of workingmen, of former peasants like themselves, these stories produced an impression.

Similarly, the Liberals did not found their excellent organ, *Emancipation*, which wields a powerful influence, until the participation of labor in the struggle for liberty had aroused them to activity. In speaking of Russian Liberals, capitalists are not, as a rule, included in the term. But the number of educated manufacturers, of college-bred business men,

is growing rapidly; and these, at least, know that a constitutional government is a necessary condition of free industrial expansion. Thus in immediate political demands, capital and labor are united in the very fight to which their mutual antagonism has offered such a powerful stimulus.

Peculiar conditions, however, surround the activity of Polish capital. Although the industrial rivalry between the two nations has brought about a policy of restriction and persecution toward Poland, yet in the struggle for liberty the interests of the Polish business man and of his Russian competitor are united. The Polish industries are much older and farther advanced than those of Russia proper. The Government tries to retard their development and to protect the Russian manufacturer by a high freight tariff on goods shipped from Poland to any other part of the empire and by other measures. Thus it is much cheaper to carry Polish merchandise to Russia on wagons than by rail, and, as a result, a revival of the old teamster business is reported from many places in Poland. Or, in shipping goods from Warsaw to St. Petersburg, for example, the Polish merchants reach the Russian capital by way of some frontier town lying many miles in an opposite direction, rather than by the Warsaw and St. Petersburg Railroad; for the rates for goods coming from foreign countries are considerably lower than those for the products of Polish agriculture or manufacture. But this has been powerless to check the growth of Polish industries, and one of the consequences of that growth has been a labor movement which has had the same political effect as the movements in St. Petersburg, Moscow, Kharkoff or Tiflis.

There is a similar change in the Caucasus, except, perhaps, that instead of striving for the re-establishment of his country's independence, the Caucasian workingman is inclined to prefer to have his native land an integral part of a liberated empire. In Finland, the abolition of the Diet took place at a time when the "police terror" of the Government was at its height, owing to the rapid growth of the revolutionary labor movement. Russian absolutism has run amuck. The peaceful little duchy became one of the victims of its frenzy. But the pistol shots of Russian Terrorists were soon echoed by similar demonstrations of Finnish patriots.

Lithuania and White Russia have made little headway in industry, but the six provinces of which these two regions are constituted lie within the pale of Jewish settle-

RUSSIAN TROOPS KISSING A SACRED PICTURE

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ment, and their economic backwardness is more than overcome by the intellectual superiority of the Jews, who form the bulk of the population in the larger cities of these provinces. Though an overwhelming majority of the Gentile workingmen are illiterate and ignorant, every male mechanic of Jewish blood can read Hebrew and many enjoy a considerable measure of mental training. This, added to the other qualities of the Jews, and to the conditions under which they live in Russia, has tended to make them the "vanguard of the revolutionary army of Russia."

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THE MAIL FOR EXILED CONVICTS ON THE ISLAND OF SAGHALIEN, EASTERN SIBERIA

The building is a Government post. Eskimo dogs and sledges are in common use here during the winter

The war with Japan has greatly accelerated the development of revolutionary sentiment. It has dealt an irretrievable blow to the prestige of Russian absolutism at home and abroad, and, like the Crimean war, it has opened the eyes of the Russian people to evils to which many of them were previously blind. If the fall of Sebastopol in 1855 illustrated Russian inferiority as a result of serfdom and led to the abolition of the system, the fall of Port Arthur and the unpreparedness and shiftlessness which have characterized the Russian Government throughout the present war have done much toward convincing the Russian people that it cannot cope with a civilized nation as long as it remains under the yoke of a mediæval régime. To conclude in the words of a group of literary men contained in the letter to the officers of the army for which Maxim Gorky was put into the fortress of SS. Peter and Paul:

"Only the people itself can attend to its own maladies and cure its deep wounds. For that a new elementary law is necessary for the Russian Empire; Russia requires a Constitution.

"The representatives of the Zemstvos, the municipalities, the bourgeois, Russian traders, the youth of the schools and the working class, have not only understood, but have formulated that necessity. The feeling has become so intense that no obstacle has been able to arrest it. This sentiment spreads, and will continue to spread, notwithstanding all repression, and will not cease even if there should be more blood shed."

GRAPPLING WITH TOGO AND NOGI

THE STORY OF THE LONG TRAGEDY OF THE PORT ARTHUR FLEET AS TOLD BY A RUSSIAN LIEUTENANT WHO SURVIVED

BY

O.

[Published in THE WORLD'S WORK and in *Blackwood's Magazine*]

THIS is the sub-Lieutenant's story. He was sitting in one of the best bed-rooms in the Beach Hotel. He had pulled his chair as close to the stove as possible, and it seemed that every pore of his emaciated frame was striving to absorb the gracious warmth, of which he had been deprived so long. His face was pale and drawn, and his eyes so sunken that the sockets seemed like two round saucers. The anxious look was gone, but his nervous system was still unstrung. At the slightest noise in the courtyard he would start, and his features display that peculiar expression of watchful anxiety which comes to all men sooner or later if they be seriously engaged in the uncertain pastime of war.

It seemed impossible that this frail shadow of a man, this unkempt ghost, could be the same happy-go-lucky boon companion that we had known twelve months ago in Genoa. But this is not our story.

My friend, you wish me to tell you all about it. Why, it is the history of two generations and more since we parted. It is not that we have been beaten, that is hard enough for any brave man to bear; but we have been beaten by those whom we despise. But I will tell it you all from the beginning. After we parted in Italy, I went back to the naval depot at Sevastopol, and I was there until the end of the year. We had rumors of war. We laughed at them then. War with Japan! Why, the thing was too absurd even to contemplate. With our powerful Pacific Squadron, being reinforced as it was by a battleship and cruiser, it was impossible to believe that these little yellow devils would ever dare to think seriously of war. I received my orders on Christmas Day. I was appointed to the *Retvisan*, and had instructions to proceed to Port Arthur at once. I shall never forget that journey. At Kinchau I heard the petrifying news. The Japanese had attacked before a declaration of war, and had torpedoed the two flagships of our squadron. Here I found myself about to join a vessel which, they said, was a sunken wreck. I joined it on the following day, and found it upon the mud, a more or less useless hulk.

The force at Port Arthur might well be likened to a man who had received a terrific blow that had taken the breath out of him. The juniors were accusing the seniors of incompetency, and the seniors were bringing charges of neglect of duty and debauchery against the juniors. The men were all shaken.

Then came word of Makaroff. What hopes we built on Makaroff! But the cup of our humiliation was to be filled to the brim. If Makaroff had only been spared, if our Navy in the Far East could only have produced another man such as he, I shouldn't be here, a fugitive, with only a story of disgrace and disaster to tell. Makaroff was a man; and when in a Russian you find a man, you find the best that nature fashions. With the advent of Makaroff I ceased my tedious labor of superintending the hammering of rivets. I found myself appointed as second in command of the destroyer *Plotva*. My Commander was Ivan Kertch. We had orders to go on patrol duty to Talien Bay.

My heart was full of joy and hope when we ran out under the stern of the *Askold*. Outside the guard-ship we picked up the three other boats which formed our division, and steamed away down the coast for Dalny.

It was on the morrow that the real thing opened for me. Before sunrise we were joined by two more destroyers. We had orders to patrol thirty miles south, and to return to Port Arthur by sundown. After midnight the wind had sprung up a little, and day broke to a dull leaden sky and choppy

sea. The land was just disappearing under our stern when the Commander signalled from the left—we were line abreast—that he could make out smoke to the southwest, and that we were to go ahead and reconnoitre. Away we slid through the water, raising a great wave that came squelching over our whale-back. We, too, made out the smoke; and as soon as we shortened the interval, it developed into four little black balloons with a speck below, which indicated boats of our own class. We knew that they must be Japanese. We stood on until we were within three thousand yards of them. Then we put about, and in making the sweep lost a little way. The Japanese were cramming in the coal. As we raced back to our own flotilla their 12-pounder projectiles splashed and ricochetted all round us. But we easily drew away, and rejoined our own division.

The flotilla was now in the hands of Commander Brieleff. He made the signal to attack in echelon, our centre to endeavor to break through the enemy's centre and thus divide him in two, so that the fire of three of our boats might be concentrated on two of his. We stood on at half-speed until only two thousand yards separated us. The Japanese had opened out a little. It was a fine spectacle, our six boats in line, a cable's distance apart, bearing down on the four lean Japs, who, to prevent us from overlapping, had opened out to about a cable and a half. Kertch was on the bridge; I was down with the 6-pounder forward. The men were joking and congratulating each other. Brieleff made a special signal to the *Steregucht*, the boat next him in the line. The flags read, "Conform to my movements." Before the signal to the rest of his flotilla was made, the Japanese opened fire with their 12-pounders. Against them we carried only 6-pounders. Then came the flotilla signal, "Echelon from the centre, full steam ahead, engage." When our turn came, we felt the *Plotva*, like a racehorse to the spur, bound forward underneath us. All the rest is a tangle of disjointed memories. We were on the extreme left of the line abreast. I remember glancing to starboard, and noticing the five parallel wakes of our flotilla, which seethed up above the breeze ripple. Then the smack of the 6-pounder and the whirr of the Maxims brought me to my duties. "That's a hit," shouted the No. 1 of my crew, and at the same moment a shell exploded on our rail. A splinter hit the hopper of the gun, glanced, and then the ear, moustache, and cheek of the No. 1 were gone. He stood a moment, drenching the lever in his hand with blood, then sank to the deck, while another seized the slimy handle and shoulder grip. The new No. 1 swung the gun round, and I could see that we had changed our course and now had a Japanese destroyer abeam on the port side. My eye caught the blood-red radiations on its smoke-fouled bunting. Its funnels were belching flame, while it was so close that the incessant flash from its quick-firers hurt the eye. Projectiles swished above us; but at the moment I did not realize that we were the target. My gun had stopped firing. "Ammunition!" I shouted, and then realized for the first time that I alone of all my gun-crew was standing. My fellows were a heap of hideously mutilated flesh. As I sprang to the gun, I recognized amidst the streaks of crimson remainder a handless fore-arm. On it was the cherished tattooed *geisha* of my servant Alexis. Men from the tube came to aid me, and then the vessel heeled as if she had collided. Again the vessel heeled, and I felt my hand seized.

"Excellency, Excellency, the Commander is killed. Come quickly to the bridge. We are alone—the other boats have fled."

How I got to the bridge I cannot say; I remember that the hand-rail was twisted like a corkscrew. As I clung to a funnel-stay, I was actually looking down the smoking throat of a Japanese 12-pounder not six fathoms distant. Black, hissing, and battered, the boat was closing on us like some hideous sea monster. A dozen of her ruffian crew with short swords in their hands were gathered forward to spring upon us. The men were now jumping. But my steersman had put over his helm. There was a grinding jar, and we slithered past them, carrying away their rails and forward hamper, and grinding to pulp, against our plates, such of their boarders as had jumped short. As we shook clear, our 6-pounder belched into her vitals, and a great geyser of steam shrieked out amidships from between her smoke-stacks. I remember seeing my men pitchfork the four little devils who had boarded us over the side with their bayonets, and then I pitched headlong on to the debris of gun-crew and Maxim on the deck below. A rifle bullet had just missed my spine and perforated my right

lung. The engineer brought the *Plotva* out. How we escaped I don't know, for the yellow devils seemed all round us. But our speed saved us, though they got the poor old *Stereguchi*.

What happened? Why, the two boats which belonged to "C" Division—not to ours—never carried out Brieleff's orders. So we came in as a single echelon on a short front. Their left boat got Brieleff and the whole lot of us broadside on, and broke us up. This, in conjunction with their superiority in gun calibre, beat us. We've got 12-pounders now, when it is too late.

I was six weeks in hospital. That was a fearful period, because we lost our fleet then. That is, we lost Makaroff in the *Petropavlovsk*; and when Makaroff went, we felt that we couldn't hope to do much until we were reinforced from Europe. In the last week of April I came out of hospital, and was almost immediately given the command of a destroyer. The boat I got was the ill-fated *Reshitelni*. We worked devilish hard. In May Togo was at his old blockading games again; but his last effort in this direction was a dismal failure.

During the first week in May I was selected by the Admiral to take the *Reshitelni* on a night reconnaissance to the Elliot Group, where Togo had now based himself. We were not quite certain what part of the group he was using as his base, and if the scheme were found practicable, it was the intention of the Admiral to launch an attack against him with the three divisions of destroyers that were still sea-going. I was piloted out of the harbor by the mine-tug in the afternoon, and I lay up under Golden Hill until about eight o'clock. It was not until past midnight that I arrived off the southern entrance to the group. Here I found at least ten merchantmen anchored: I could not go close enough to make out their escort, but we from our low position could count their masts and funnels against the lighter sky. If I had not been alone and under special instructions to discover the anchorage of the warships, I should have attacked these transports as they lay. But as I could discover the tops of only one man-of-war, I determined to search round the island in the hope of discovering Togo's real anchorage; then, having accomplished that, to return to have a smack at these boats. Half an hour's cautious steaming brought me round to the northern entrance. We saw nothing, so we lay to under the rocks while three Chinese spies and one able seaman went ashore in the boat. While we were lying to waiting for them to return, we made out what seemed to be a flotilla of torpedo craft leaving the entrance; they were showing stern lights, and we counted five of these. From this we calculated that it was a flotilla being piloted out by a picket-boat, since we distinctly heard one of the boats returning. In an hour the landing party brought magnificent information. According to their account, we were lying within two thousand yards of Togo's squadron.

Having taken such bearings as were possible in the darkness, we started off again with the intention of paying our transport friends a visit. I therefore determined to dash clean through the anchorage, torpedoing such boats as I could. My course would then be from west to east. By returning on a parallel line, I might still be able to do further damage, and slip out the same way that I had come.

I felt certain that I had eluded the patrolling flotilla by coming from the northwest, and I therefore determined to break out the same way. We crept up to our original vantage-point unperceived. Then followed a glorious five minutes; we went through them full steam ahead, steering directly for the vessel whose fighting-tops we could make out above the skylight. We discharged two torpedoes, one against a big merchantman that looked like a converted cruiser, the other against the vessel with the tops: it was either a coast-defence ship or a gunboat. We know the latter torpedo took effect, because we saw the phosphorescent wave caused by the explosion and heard the report. We were through them and gone before they quite realized what had happened. But we heard bo'suns' pipes, shouts, and yells. I put the boat about, with the intention of making another attack as soon as the tubes were recharged. Just as we came about, a quick-firer opened on us from about fifteen fathoms' distance. We had evidently run into the patrol-boats. I gave the order that nothing was to be fired, and went full steam ahead for the entrance, feeling that this would stop the firing. It was neck or nothing now, and any moment we might have been on the rocks. We were, however, pretty used to the dark-

ness by this, although we had not now the sky-line to guide us. It was a choice between the rocks or fouling one of the merchantmen. We were abreast of one of them before we realized her position; it was evidently a transport, and they made out the glare from our funnels. They opened a musketry fire. It was wild and uncertain, not very effective. The bullets mostly went high, but a certain number came pretty near us, and I, as usual, was unfortunate. Hardly out of bed a fortnight, I got another shot through the chest. But I was able to keep the bridge until we reached our original point of entry. Then, with my tunic stiff with blood, I handed over the command to my sub-Lieutenant, and he brought us back to Port Arthur safely by daybreak. We discharged one torpedo in our break-away, but whether it took effect it is impossible to say; however, we are certain that we torpedoed a coast-defense ship or a gunboat that night, and if you look up the records about that date, you will probably find that a Japanese ship was lost, and possibly a transport as well. Doubtless mines will be given as the cause of the disaster.

I was in hospital two months with this wound, and a real bad time I had. I was not well enough to sit up and receive visits from my friends until after the fleet returned from its attempt to leave Port Arthur in June.

I was passed fit for duty on July 14th, and on the following day I rejoined my old command, the *Reshitelni*. I fell in with an adventure the very first night I took a boat out. We were then using half the remaining vessels of our torpedo flotilla in piloting boats that were bringing us food and warlike stores into the port. Our agents used to bring their cargoes to a certain place where we were able to collect it and take it to Port Arthur. You remember we were much troubled during the early months of the war by various American and English newspaper-boats, which, claiming the rights of neutrals, were used in the interests of Japan. The most noxious of these was one equipped with wireless telegraphy. We never sighted her except in close proximity with some portion of the Japanese fleet. The Admiral therefore issued instructions that if any of us met her we were to sink her and bring the officers and crew in as prisoners to be dealt with by a court-martial. Well, when I was steering my course for the certain place, there suddenly loomed up out of the darkness in front of us a small steamer showing lights. At first we naturally thought it was one of the blockaders masquerading as a legitimate trader. But there was something about her seen in the misty darkness which called to mind the press-boat, and then we made out, or at least at the moment we thought we made out, her wireless apparatus hanging from her mainmast.

We obeyed orders. It was not until we picked up the Captain, passengers, and crew that we realized we had been in error. The vessel proved to be the *Hipsang*. We should not have torpedoed her if she had immediately answered our summons to stop; but as we made her out to be a press-boat, and as she did not slow down at once, we naturally could not give her the benefit of the doubt, and so we sank her. Such mistakes and accidents must occur in war.

I was relieved of my command on account of this trouble, and for about three weeks became a soldier—that is to say, I took over one of the forts that was manned by the reserve sailors from the fleet. I was placed on one of the Liautishan defenses, so there was little for me to do but to watch the constant mine-clearing operations in the entrance. You cannot expect me to say much that is good for the Japanese; but I must admit that they carried their attempts to lay mine-fields in our fairway with the utmost bravery and persistence during my period at Liautishan. They must have lost at least half a dozen torpedo-boats in night attempts upon the fairway. To give an honest opinion, they were far too persistent, for they would possibly have brought about better results if they had been content to lay their mines farther out to sea. We had by this a complete system for dragging the harbor channel, so that anything they anchored close in was certain to be exploded on the following morning. But the Japanese don't fear death, and 50 per cent. of them prefer killing themselves to suffering the ignominy of capture.

The month's pastime of watching from the summit of a mountain was occasionally broken by a little long-range practice against the more bold of the blockading squadron; but at this time, although we occasionally made out battleships and cruisers on the horizon, they never came in to engage us.

You ask what was the effect of shell-fire in Port Arthur. Well, it was very disagreeable, though I don't think it was very harmful at this period: it caused a certain number of casualties, especially amongst the Chinese, but the parallels had not yet been pushed up near enough to have the disastrous effect on the buildings and works that they have since had.

At the beginning of August I was relieved of my shore duties, and was appointed acting flag-lieutenant to Admiral Prince Ukhtomsky, second in command of the Pacific Squadron. I joined him on the *Peresviet*. Big business was on hand; messages had come through that it was imperative that the Pacific Squadron should leave Port Arthur, and either fight a fleet action with the Japanese fleet, or make its way to Vladivostock. There was to be no middle course, no turning back. It was to be either a decisive engagement at sea, or, if we should succeed in eluding the yellow man, a dash for the shores of Japan, and then Vladivostock.

A grim determination had permeated all ranks to do something to wipe off the stigma of disgrace which was hanging over us. The veiled taunts which reached us from the highest authorities at home were sufficient to have made a hero of the veriest craven. The fleet was coaled to its utmost capacity, and every arrangement made in order that the passage from the inner to the outer harbor might be taken as expeditiously as possible. Orders were issued to every captain, containing strict injunctions as to the course to be pursued in the event of success, partial success, partial failure, or absolute failure; and after receiving assurances from both home and Stössel that the moment was propitious, with a final blessing from the garrison, we made the passage of the entrance on the night of August 9th, and put to sea on the 10th.

Luck was against us from the outset. The *Bayan* damaged herself in making the passage, and we had to start one vessel short. Now, I want you to understand that when we left Port Arthur that morning, when we saw the great mass of rocks disappearing over our quarter, we, none of us, not one, from captain to coal-trimmer, ever expected to see that harbor again, unless we returned with a victory to our credit.

We had barely made thirty miles before Togo's fleet appeared on our port bow. We, that is, the *Peresviet*, were the fourth ship in the battleship squadron. We were making from about twelve to fourteen knots. How anxiously we scanned the Japanese ships! We counted the vessels—there were four line-of-battle ships and four first-class cruisers; and we were six battleships and four cruisers. The Japanese were accompanied by at least eight divisions of torpedo craft; it was to be a final arbitrament between battle fleet and battle fleet. The advantage in ships and weight of metal was ours, but they also had advantages which overbalanced our numerical superiority. In the first place, we had to economize coal; our ships had deteriorated considerably for lack of proper dockyard attention. Also, the Japanese had had far more practice in gunnery than we; but we hoped that their weapons had somewhat deteriorated by use, while, alas! this could not be said of ours, at least not to the same degree. The Japanese Admiral made the best use of his superior speed. About mid-day he crossed our bows, and then, changing from line abreast, he manœuvred as though he would refuse a battle. Previous to this there had been a slight exchange of shots, but this was nothing, it was only just a little range-finding. It was not until after two o'clock that the real battle opened. Before this the Japanese Admiral had manœuvred constantly, until he considered it time to admit of an engagement.

He was now almost abreast of us, 7,000 to 8,000 yards on our starboard beam. Both fleets were line ahead, and in this formation the battle opened.

We were six battleships; the Japanese four, and two cruisers, in the position indicated. We were now the fourth vessel in the line. The flagship hoisted the signal "Engage," and immediately the firing began. This phase of the battle lasted for about an hour. It was severe, but not so severe as that which was to come, for our Admiral had now altered his course so as to reduce the distance between the fleets. The vessel which we had selected for our own particular target was one of the *Fuji* type; and although the sea was rising and made gunnery at the present range extremely difficult, yet we made at least three hits with our heavy guns, and at one time our target seemed to be on fire. We received no damage except to the mainmast, which was carried away by a ricochet from a

shell that had exploded short of us on impact with the water; nor did the ships ahead of us seem to have received any very serious damage, though the *Retvisan* and the *Pobieda* were both hit.

There was a short respite—of perhaps half an hour—while the two fleets were converging, and then the action reopened with desperate violence. The distance had been reduced to about six thousand yards. How the general action went it is almost impossible for those who took part in it as executive officers to say; all one knows is what happened to one's own vessel and to one's target. We still continued to engage the vessel of the *Fuji* type, while she or such other of the Japanese vessels that had singled us out seemed to find their range in quick succession. Two 12-inch shells hit us amidships, one glanced upwards and burst in the air, the other carried our foremast away and wrecked a portion of the upper bridge. The tumult was appalling, for we had now arrived at quick-firer range, and a continuous stream of 12-pounder projectiles were passing above us, exploding on our plates, or damaging our superstructure. Ever and again at intervals some great projectile would hit us, doing woeful damage; but for the main part the heavy projectiles missed, and we on the bridge were so intent in watching for signals from the flag-ship and in conforming to the fleet movements that one had little time to estimate either the damage to ourselves or the damage which we effected.

What we did notice, at least, and what appealed to us all, was the fact that one of the Japanese battleships hauled out of the firing-line just at the same moment as their fleet was reinforced by two more first-class cruisers. It seemed to us at the moment that we were getting the best of it, and when the Japanese ship broke out of the line a cheer arose from the deck of the *Tsarevitch* which passed all down our line. The sea was getting up, and the sun was sinking in front of us; for the first time for many months our hope of victory grew strong.

Our three leading ships seemed to be concentrating their fire on the *Mikasa*, which led the enemy's line. That their shells were having great effect we could see, for the Japanese flag-ship was constantly hidden from our view by the dense smoke which the explosions on her decks had caused. Then, just at this moment, when it seemed at last fortune had veered in our favor, the destiny which rules the law of chances turned against us. All we knew at the time was that our flagship had abruptly changed her course, She swung to port without warning and without signal, before it was realized that she was hit, and that her course had been changed, not from necessity but from the fact that she could not steer; the second vessel had followed her round so closely that a collision was narrowly avoided. As there was no signal yet from the flagship, we all conformed to this strange manœuvre; but the intervals having been somewhat lost in the heat of the engagement, the squadron became a mob of vessels without formation. But even this need not have been final if the flagship could only have made her signal. Then came a paralyzing intimation that the Admiral-in-Chief had transferred the command. We knew what that meant—that he was either killed or wounded; and my own Admiral immediately ordered the fleet signal for the squadron to conform to his movements.

And here the bitterness of our cup was filled to the absolute brim. We had lost both our masts, and we had not wherewith to hoist this signal, which was necessary to resuscitate order out of chaos. Nor had the Japanese been slow to realize their opportunity, and they were throwing projectiles into us with a rapidity of fire that was absolutely appalling in its results. My Admiral did all that he could do in the circumstances. He steamed ahead, flying the signal from a smoke-stack; but it was too late. The cohesion was irrevocably lost, and the various captains, apparently interpreting the worst clause in their final instructions, saved themselves by flight. It passeth the understanding of men that the Japanese did not sink a single one of us; and this fact indorses my belief that it was sheer bad luck and not good gunnery and seamanship that beat us.

Thus closes the history of the Russian Pacific Fleet, as far as I can give it to you. What its ultimate end will be, you and I can guess. But this I can promise you, my friend —that, even it takes Russia ten years to build another and adequate fleet, and if it is manned by the same material as this last, it will sweep everything in these waters before it. We have learned our lesson.

THE WAR'S DISCLOSURE OF THE ORIENT

A NEW LIFE FOR ASIA AND A NEW WESTERN INTEREST IN IT—THE DIFFERENCE BETWEEN ORIENTAL AND WESTERN IDEAS AND ACTIVITIES—CAN THE GAP OF RACIAL MISUNDERSTANDING BE BRIDGED?

BY

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NO event in contemporary history has proved so revolutionary as the present war between Russia and Japan. That the struggle will exert an undreamt of influence upon the domestic affairs and foreign relations of the two belligerents themselves is apparent enough, so strikingly is it emphasized by the dramatic events now happening in Russia.

The war has already become the pivot round which European politics revolve. The recent understanding between England and France, between France and Italy, between Italy and England, the loosening bond of the Triple Alliance, the practical isolation of Germany and the consequent courtship of the Kaiser with the Czar, in short, the new grouping of European powers—all these late political movements of Europe have their origin, directly or indirectly, in the present war.

JAPAN'S SUCCESS A STIMULANT TO ASIA

Most of all, the destiny of Asia at large hangs upon the issue of the war. It was predicted before the war that the triumph of Japan over Russia would mark the beginning of a new era in world affairs, and that the Oriental nations would feel that it had dawned. But nothing is more certain to me than that Japan cannot mold China to her will, unless by military occupation; that the Hindus and Siamese are too lazy to wake up soon; that the Arabs and Turks, the Afghans and Egyptians, will not so easily understand and attain the true spirit of Japan that is giving her success. That spirit is none but the modern spirit, which the Westerners have been preaching to those Asiatics for the last four generations. Japan's triumph can, therefore, scarcely have a miraculous effect upon those who have hitherto turned deaf ears to the Western persuasion.

But whatever may be the outcome of the war, it cannot fail to exert a mighty influence upon Asia. Although the effects upon the Asiatic nations of Japan's triumph will not be spectacular, it is reasonable to suppose that its influence will be salutary and uplifting. The example of sturdy independence, invincible nationality, and the strength of intellectual and moral fibre capable of coping against a great Western Power, of the one whom Asiatic nations counted among their members—such an example suddenly thrust before their eyes will naturally vivify their already benumbed nerves, and give possibly a new life to their decaying constitution. Thus may the great efforts made by the West for the last few centuries to civilize Asia have in time their fruition through the agency of Japan. If such be the outcome, the Westerners can certainly not complain of Japan's accomplishing what they wished to have achieved.

Nor does the potent influence of the war stop here. The West to-day watches with admiration not untinged with fear the remarkable phenomena exhibited by Japan. At first the Occident was taken by surprise, but it has already recovered from the shock Togo's torpedoes sent vibrating throughout the world. It has already waked to the fact that the singular phenomena of Japan cannot be explained simply by the imitative propensities of the Japanese, however extraordinary these may be. "Battleships, machine-guns, locomotives—these the Japanese have bought or copied from us, but whence come the intelligence, energy, and system in handling them," —thus asks the West. The logical consequence will be that the inquisitive West will search for light on the causes of the virility of the intellectual and moral fibre of the Japanese, on the constitution of their ancient civilization, and on the nature of Eastern

civilization itself, which has contributed greatly to the upbuilding of Japan. Thus will the West be brought closer to the East.

This change of attitude of the Western mind from that of invincible contempt of everything Oriental to that of willingness to understand the East, is, I believe, among the most potent revolutionary influences of the present war. For it is bound to bear fruits far-reaching in their consequences on general civilization itself. Indeed, so superior are the intellectual faculties of the moderners, so overmastering their energy, so stubborn their nature, so deep-seated their conviction of their lordship over earth, that, until the attitude of their mind is mended, the cause of civilization can hardly have a fair chance of improvement. If the Russo-Japanese War has done something to this effect, it might be worth all the blood already shed, and the enormous sacrifices already made.

THE EQUALITY OF YELLOW MEN AND WHITE

Among many problems that arise out of the contact of the East with the West, the one that confronts us at the outset is the race question; for the East is mostly represented by the yellow or brown race, while the West is represented by the so-called white race. Among all barriers that separate man from his fellow-beings, none are so strong, so tenacious, as those of race and religion. The Russians call the Japanese "yellow pagans." Laconic as are the terms, they express exactly the two ideas, which, the Russians believe, differentiate them from their present foe. On the other hand, the Chinese style the Westerners "the white devils." Against this wall of separation two mighty forces in the West have been battering, to break it down. Christianity, with its doctrine of the Fatherhood of God and the Brotherhood of Man, has been for the last nineteen centuries loudly proclaiming the folly, if not the crime, of racial hatred. Lately democracy, with its pet dogma of the inherent equal rights of men, has added its force to the storming of the fortress. These attempts have, however, hitherto proved futile. The fortress of race prejudice remains as invulnerable as ever. It is so strong, because it is seemingly backed up by some unknown physiological or biological laws. Science has not yet succeeded in explaining to us what is that which constitutes the so-called "color." It may be simply an accidental or physical difference in the color of the skin. But, popularly speaking, the "color" represents all the differences—physiological, moral, and mental—existing between races that cause a peculiar aversion of one to another. This aversion may or may not be the same as that which exists between the homely and the beautiful among human beings of the same race, owing to envy on the one side and pride on the other. But there is no use in denying the indisputable fact that there is an inequality among races—a superior and inferior race—as there is an inequality, physical and mental, among human beings of the same race. History has conclusively proved that the white race is immeasurably superior to the black and red races. In Africa, in America, in Australia, the former has invariably driven out the latter from advantageous positions or brought them to subjection.

Whether this acknowledged superiority of the whites will also prove true as against the yellow race remains, however, an open question. To the partial solution of the problem, the present war seems to afford the desired clue. For the war, bringing into play all the best, the most effective, of human faculties, has clearly demonstrated that the Japanese are not inferior to the Russians. And the Japanese form a branch of the yellow race, the Russians one of the white. It is a too far-fetched proposition to explain away, as the London *Spectator* once tried to do, the success of the Japanese by a few drops of white blood in their veins, owing to the mixture of races in prehistoric time. It is also unbecoming for the Anglo-Saxons to claim a difference of blood from the Slavs.

NO "YELLOW PERIL"

Nor is history devoid of such proofs. The yellow man had already climbed a few steps of the ladder of civilization when the white man was a tattooed cannibal. To quote from Mr. Townsend, "The brown man has founded and held together the largest and most permanent of human societies. He has built splendid and original cities. . . . He invented letters, arithmetic, and chess. He has carried many arts . . . to a high degree of perfection. He has solved the problem of reconciling the mass of mankind to their hard destiny, so that in Asia it is rarely the millions who rebel, and rarely that

famine, flood, and pestilence produce political discontent. He has produced great conquerors, great law-givers, and great poets. Above all, he has meditated so strenuously and so well on the eternal problem of the whence and whither that every creed as yet accepted by man, except fetichism, is Asiatic, and has been preached first by a brown man."

In spite of these past achievements of the yellow race, it is often said that the civilization of the yellow man has been invariably arrested, that his power of accumulating thought was soon exhausted, while that of the white man has been continually progressing. This is certainly true. But cannot this be explained by the fact that the modern white man has been constantly engaged, since his ancestors emerged from the woods of Germany or the swamps of Jutland, in the keenest struggle for existence, so that he had no time to arrest his progress, whereas the bountiful nature of the valleys of the Yangtze-Kiang and the Ganges, and of the Nippon Islands provided plenty of food to the dwellers therein, and their peculiar social organization protected its members from the merciless vicissitudes resulting from too sharp a competition of life, depriving them thus of the very incentive of progress?

IS ASIA ONE?

By emphasizing the equality of the white and yellow races, I do not mean to convey the idea that they are equal in capacities, or of the same nature. It is often asserted as a truism that human nature is everywhere the same. Is this true? If by human nature is meant our animal nature, with its appetite, passion, love of life and fear of death, then human nature is certainly the same everywhere, for no one can escape from the promptings of his animal nature—the physical foundation we are built upon. But if by human nature we mean the thoughts it weaves, the feelings it stirs, the ideals it aims to attain, then we will discover that the truism must be put under a closer scientific scrutiny; for our thoughts, feelings, and ideas are in a large measure the products of the accumulated experiences of myriads of our ancestral lives, of the education we undergo, and of the social surroundings we are placed in. Viewed in this light, we will find the contrast between the Eastern and Western types of mankind remarkable.

Right here it may, however, be fairly doubted whether there are such clean-cut differences between the Oriental and Occidental as to justify our broad generalization on the Eastern and Western types of mankind. Not to speak of the great differences existing between the Chinese and Hindus, even in India itself "we have to deal," to quote Lord Curzon, "with races that are as different from each other as the Eskimo from the Spaniard, or the Irishman from the Turk; with creeds that range between the extreme points of the basest animalism on the one hand and the most exalted metaphysics on the other; with the standards of life that cover the whole space between barbarism and civilization." It is sometimes said that "Asia is one." I cannot yet persuade myself to accept that conclusion, that there is such a thing as "an Asiatic consciousness." But that the geographical contiguity of the Asiatic nations, their common blood, their communal social organization, and, most of all, their common religious beliefs and philosophical teachings, imparting to them the same ideals of life, have helped to mold such a common type of mankind as to justify its distinction from the Western, which in turn has evolved out of its respective geographical surroundings, political experiences and religious life—this I can see no reason to dispute.

HOW EAST DIFFERS FROM WEST

Let us, then, note the differences between the Eastern and the Western man. It is an every-day assertion among the Occidentals that everything Oriental is topsy-turvy; that they read backward, write backward, speak backward, and that this is "only the *a b c* of their contrariety"; that they "place a horse in the stable with his head where his tail ought to be"; that they use white as the symbol of mourning, carry babies on their backs; that their signboards hang perpendicular instead of crossway; that their men —that is the Chinese—wear skirts and their women trousers!

Besides these most obvious differences, there are significant differences in the temperament, habit, and manners of the two types of mankind—the Eastern and Western. The temperament of the Westerner is nervous, whereas that of the Easterner is phlegmatic. The habit of the former is active; that of the latter slow. The Easterners are thrifty,

economical; the Westerners wasteful, even extravagant. The manners of the Westerners, especially of the Anglo-Saxons, are blunt and coarse; their expressions direct and terse. The Easterners are polite in their manners, genial in their intercourse, and roundabout in their speech. These different characteristics could be brought home to us by a hundred amusing illustrations, were space at my disposal. I can only refer the reader to that inimitable, ever humorous author, Rev. Arthur Smith, who is all-sufficient to illumine us on these points.

Let us, then, pass to more serious differences that seem to exist in the aptitudes or tendencies of the Eastern and Western mind.

A DIFFERENCE IN MENTAL ATTITUDE

First, the Western mind is secular and empiric, whereas the Eastern is spiritual and religious.

Unable to explain the secret of separateness which, he divines, unmistakably exists between the East and West, the author of "Asia and Europe" concludes by saying that "it must ultimately have some relation to the grand fact that every creed accepted by the great races of mankind . . . has had its origin in Asia. The white man invented the steam engine, but no religion which has endured. . . . The truth is, the European is essentially secular, that is, intent on securing objects he can see; and the Asiatic essentially religious, that is, intent on obedience to powers which he cannot see but can imagine."

Sweeping as may seem this generalization of Mr. Townsend, there is, I believe, some truth in it. "Europe, having accepted with hearty confidence the views of Peter and Paul about the meaning of what their divine Master said, regards all other systems of religious thought with contemptuous distaste, and sums them up in its heart as 'heathen rubbish.'" But even to Christianity itself Europe has not paid due respect, or, in other words, has not been very loyal to its teachings. For Europe can hardly be said to have sat down for any length of time to lead the spiritual life enjoined by the religion it professes. Although for a few centuries during the Middle Ages Europe tried to regulate its conduct according to Christianity under the overmastering shadow of Catholicism, it soon broke loose from the religious chain, and by the glorious Renaissance and the Reformation it again plunged itself into the most eager pursuit of secular life.

In fact, all the glories and achievements of the West lie in its discovery and subjugation to man's service of nature's laws and forces, in the invention of mechanical arts, in the attainment of all that contributes to material comfort, and in the cultivation of secular literature and art. In saying this, I do not blind myself to centuries of theological disputes in Europe, to mountains of sacred literature, and to a host of theologians and saints Europe and America have produced. Nor do I try to belittle the mighty influence of Christianity upon the West. Indeed, the most ennobling, the most humane phase of modern civilization, is the gift of Christianity. Were the Western civilization stripped of the high ethical ideas taught by the Founder of Christianity, how barren, how vulgar, how merciless would the commercial Christendom be! And yet, with due respect to the Western civilization, which calls itself Christian, the assertion of the author of "Letters from a Chinese Official" is, I believe, not very far from truth that "it is certain that religion has less influence on your society; that you profess Christianity, but your civilization has never been Christian."

The experience of Asia has been different. The Asiatic peoples with a few exceptions have been religious through and through, or, in other words, have been most loyal to their Masters. The history of India is the history of one long effort to solve the problem how to conform the conduct of life to the teachings of its religion. The Moslems stick to the tenets and creeds of their religion with the tenacity and persistency that can be affirmed of but a few Christians, so that the Mohammedans are stumbling blocks to the Christian missionaries. Even the Chinese, the most practical of all Asiatics, have so faithfully and loyally followed the teachings of their Master, Confucius, that Chinese civilization can with perfect justice be declared to be crystallized Confucianism.

How potent the sway of religion has been upon the Japanese, whose minds appear to the superficial observer to have been seldom overshadowed by religion, hence more secular than religious, is strongly demonstrated by the gifted pen of Lafcadio Hearn. In his last work before his death, he sums up the social evolution of Japan by pronouncing that

"the history of Japan is really the history of her religion."

Such has been the religiosity of Asia.

THE WEST WARLIKE; THE EAST PEACE-LOVING

Secondly, the West is militant, while the East is peaceful.

Since the modern barbarians trampled mighty Rome under foot and laid the foundations of their nationalities, their history is almost one uninterrupted record of fighting. War has thus become their favorite profession, and they have carried the art to such perfection that no nation, unless it adopts their methods and their weapons of warfare, can cope with them successfully on the field. To the West nothing is more indicative of the strength and superior civilization of a nation than its military prestige. The fact that Japan, in spite of her peaceful and remarkable progress of thirty years in modern civilization, was never recognized by the Western nations as their equal, but that half a year of war with China and another with Russia made Japan jump from an insignificant to a great nation—this is too sad a commentary on the militarism of the West. Nor is this the sole commentary; for in the West religion has consecrated the heroes of war, literature has immortalized them on its pages, art has adorned the forum and the market places with their statues, and the people have idolized them in their hearts.

Such a militant spirit is not that of the Asiatic. He is, as a rule, peaceful, self-sacrificing, restful. True, the Huns under Attila, the Mongols under Ghenghis Khan and Tamerlane, not only overran Asia but made inroads to Europe. But these were the nomadic tribes of Asia, and, forming only an insignificant portion of the Asiatic population, their voice did not exercise an appreciable influence on the general tone of the Asiatic chorus. It is true that India and China each had many internal wars and revolutions. But they owed their origin mostly to the caprice, cupidity and whim of monarchs and ambitious upstarts. That the Chinese are at heart a peace-loving people, that their danger lies in the lack of military spirit, is too well shown by the sad plight they find themselves in to-day. For four thousand years they have proved their loyalty to the spirit of peace. They have invented many arts of peace, but have seldom condescended to use their genius for the invention of weapons for killing men. They have invented gunpowder, but have used it for burning fireworks or firecrackers. It is to the credit of the moderners that they have also invented gunpowder and used it for killing men instead of killing time! The Chinese have, in fact, made almost no improvement on the weapons of warfare they invented ages ago. It affords much mirth to the moderners to watch the Chinese still clinging to bows and arrows, swords and halberds, to the military tactics and the strategy formulated three thousand years ago. If necessity is the mother of invention, this fact is a strong argument that the Chinese felt no necessity for war.

It is also true that the Japan of feudal days has a record of wars and struggles as bloody as the history of feudal Europe can boast of, that the songs of those dread warriors still form the lullabies for Japanese infants, and that the emulation of those heroes is still the goal of many ambitious Japanese youths. Japan, however, is perhaps the most warlike among the Asiatic peoples. And yet it may be fairly contended that her people on the whole love peace better than war, far more so than the moderners do, by the historic fact that during her life of five-and-twenty centuries she had only three foreign wars, excepting the China-Japan war and the present struggle; whereas, the United States, the youngest and most peaceful of all modern nations, has waged during her short life four wars with the outside world, and "a most grievous and dolorous one within her own people."

THE MOST DEEP-SEATED DIFFERENCE

Thirdly, the West is individualistic, while the East is communal or patriarchal.

The unit of the Western society is the individual; that of the East the family. This, I believe, is the most important, most fundamental of all distinctions existing between two civilizations. Here we shall find the key to the solution of the whole problem. That individualism is the most distinctive feature of modern civilization needs no emphasis. Individualism is born of liberty, and liberty is the keynote of Occidental civilization. But for the other view, namely, the weakness and danger of individualism, and the strength and beauty of communal life, the Western public

is seldom appealed to. Among a few such appeals, the tirade on the evils of individualism by the author of that excellent satire on Western civilization, "Letters from a Chinese Official," strikes me as one of the most eloquent ever penned. After describing how weak is the bond in Western society between a child and his parents, how he is left to himself to "venture, struggle, compete, and win," how "the 'cash-nexus' is the only relation you recognize among men," the author declares: "Now, to us of the East all this is the mark of a barbarous society. We measure the degree of civilization not by accumulation of the means of living, but by the character and value of the life lived. Where there are no humane and stable relations, no reverence for the past, no respect even for the present, but only a cupidinous ravishment of the future; there, we think, there is no true society."

More fundamental and still deeper than all the differences already discussed in the temperament, habit, and manners, as well as in the aptitudes of mind, of the Eastern and Western man, are those existing in the great principles that rule and guide the two societies of the East and West. The principles that rule the Western society, I need hardly say, are liberty, equality, and fraternity, the greatest development of individual capacities, equal opportunity to all, and good will to neighbors; the principles that guide the Eastern society are filial piety, reverence for the past, submission to authority, respect for age and seniority, and faithfulness to friends. According to these principles each man in the respective societies acts, and the breakers of the principles are the outcasts of society.

When we place these principles in opposite columns, we discover not only no resemblance between them, but that they are diametrically opposed to one another, except in the faithfulness to friends. When men are governed and actuated by these different principles, is it reasonable to expect that their conduct, thoughts and ideals should move in the same channel, in the same line?

CAN THE WORLD BE UNITED?

The above, then, are some of the points we have always to bear in mind in our attempt to understand the East and the West. The strength and weakness of the respective societies seem to lie in the very victuals from which they derive their blood, their vitality. A fervent worshipper of liberty as I am—and I would certainly not exchange it for all the treasures of the world—we must at the same time admit that individualism carried to extremes is anarchy, disruption of society. And on the other hand, though in communalism might be found an elixir of social life, the extinction of personal liberty, with all the blessings it brings, might be worse than life itself. For that bondage to custom, tradition, and the past, that social tyranny which crushed every individual initiative, circumscribing his capacities, killing his genius, and driving all men on the same beaten track, were the curses that infected the East, brought its stagnation, and presage its ultimate ruin. These, of course, must be broken down. But can we not discover some good in the Eastern society that has endured so long, while the Western is threatened with unrest, confusion, and anarchy? Cannot the West learn to its own benefit something from the East? Can we not hope to see evolving out of the intermingling of the two civilizations a better, more stable and ideal society?

Certainly he is a very narrow-minded man, who can see nothing good in any but his own civilization. In the vast and far-reaching dispensation of God, there may be many mysteries through which the feeble human eye cannot pierce. Among such may be the erstwhile separate development of the Eastern and Western civilizations and their ultimate union. Men are now just beginning to see in the present contact of the two civilizations what wonders may be in store, of which neither prophets nor poets have foretold or sung.

THE MEETING OF EAST AND WEST

Since the dawn of history all the nations of the world meet now for the first time face to face. The various efforts to unite the world have hitherto proved failures. The memorable efforts of Alexander to amalgamate Europe with Asia reached only to the valley of the Indus. And his influence, though great in certain respects, was short-lived. The empire of Rome, majestic as it seemed, extended only to the outskirt of Asia, to the promontory of its namesake—Asia Minor. The religious fanaticism of the

Crusaders led them to Asia to bring it to the Christian fold, but their energy languished before the wall of Jerusalem. The predatory incursions of the Mongols during the thirteenth century tended in a sense to unite Europe with Asia, but their efforts stopped at Esculia, in the vicinity of Rome, and only left in their footsteps ashes of sacked towns and heaps of bones of the slaughtered.

But now for the first time meet Europe, America, Asia, practically the whole world. From the standpoint of universal history, then, what a tremendous significance lies here in recent Asiatic development! It is truly one of the turning points of history, as significant as the Fall of Rome, as the Discovery of America, as the French Revolution. Will this, then, be a historic step toward the realization of Tennyson's prophetic vision of the world's destiny?

'In the Parliament of Man, the Federation of the World!''

PROGRESS ON THE PANAMA CANAL

WHAT IS BEING DONE WITH THE MACHINERY LEFT BY THE FRENCH CONTRACTORS—THE HUGE ENGINEERING TASKS ON WHICH AMERICANS ARE WORKING—WHAT THE CANAL WILL BE AND HOW IT WILL PRODUCE TWO AMERICAN CITIES ON THE ISTHMUS

BY

LINDON BATES, JR.

WHEN the treaty with the Republic of Panama had been ratified by our Senate, when a Canal Commission had been appointed, and when the French plans and surveys had been acquired, the way seemed clear for carrying through the canal project. The Commission received almost supreme authority over the Zone. The French machinery and the work already accomplished were placed under their charge, and they were directed to construct the canal in the best manner and in the quickest possible time. But, when the Commission arrived on the spot, they found the political situation ticklish and the engineering problem involved.

THE ENGINEERING ASSETS ON HAND

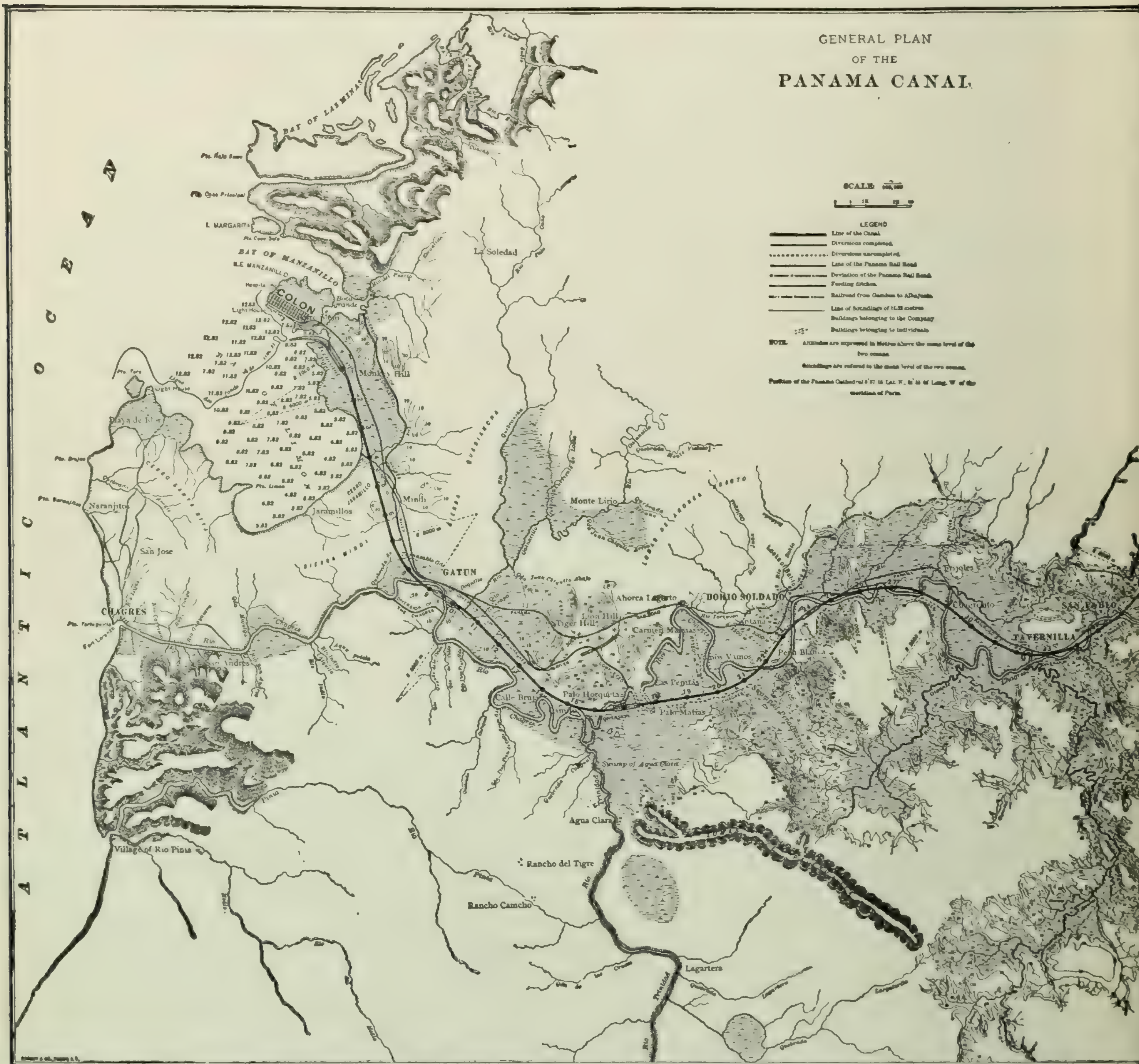
Of the things acquired from the French company, first in importance comes the Panama Railroad, a single-track, five-foot gauge road, parallel, in general, to the line of the canal and running from Colon to Panama. With 46 miles of main line and 146 miles of sidings and of spur lines to the excavations it is 192 miles long. The Panama Railroad Company, which owns the railroad, also owns the line of steamers from New York to Colon. Six members of the Isthmian Canal Commission have now been made directors of the company and the United States Government owns all the stock except a little over 1½ per cent. which has been retained by private individuals who have directed the policy of the railroad for many years, and still maintain a majority of the board of directors. This state of affairs is now the subject of Congressional inquiry.

The line holds a legal monopoly of the steam right of way, and no other means of communication, not even a wagon road, now exists across the Isthmus. Four dollars (gold), the fare prevailing until lately for first-class passage over the forty-six miles from Colon to Panama was an improvement on the twenty-five dollars fare which formerly prevailed, but it was much above the average rate in Mexico and South America. Both freight and passenger rates, however, have recently been reduced one-half.

The excavation accomplished by the French is another detail. As neither the old sea-level project, however, nor the 65-foot level proposed, nor the 85-foot plan of our former Commission, whose estimate was the basis for the purchase, is likely to be adopted, the amount of useful excavation is still doubtful. The former Commission estimated it at 39,586,000 cubic yards, but it may be less. The excavation at Culebra and at Emperador,

and part of the sea level cut as far as Bohio and on the Pacific end, will be of assistance.

The great mass of machinery left strewn across the Isthmus is another asset. To an observer paddling on the Chagres River or wandering through the tangle of vines and the ship lifts that the gifted, but venal, Eiffel proposed to install in place of locks, and miles of pipe and rails. Through the sixteen-year-old jungle on either side of the cuttings there are hundreds of dump-cars, intergrown with tropical vegetation. In un-

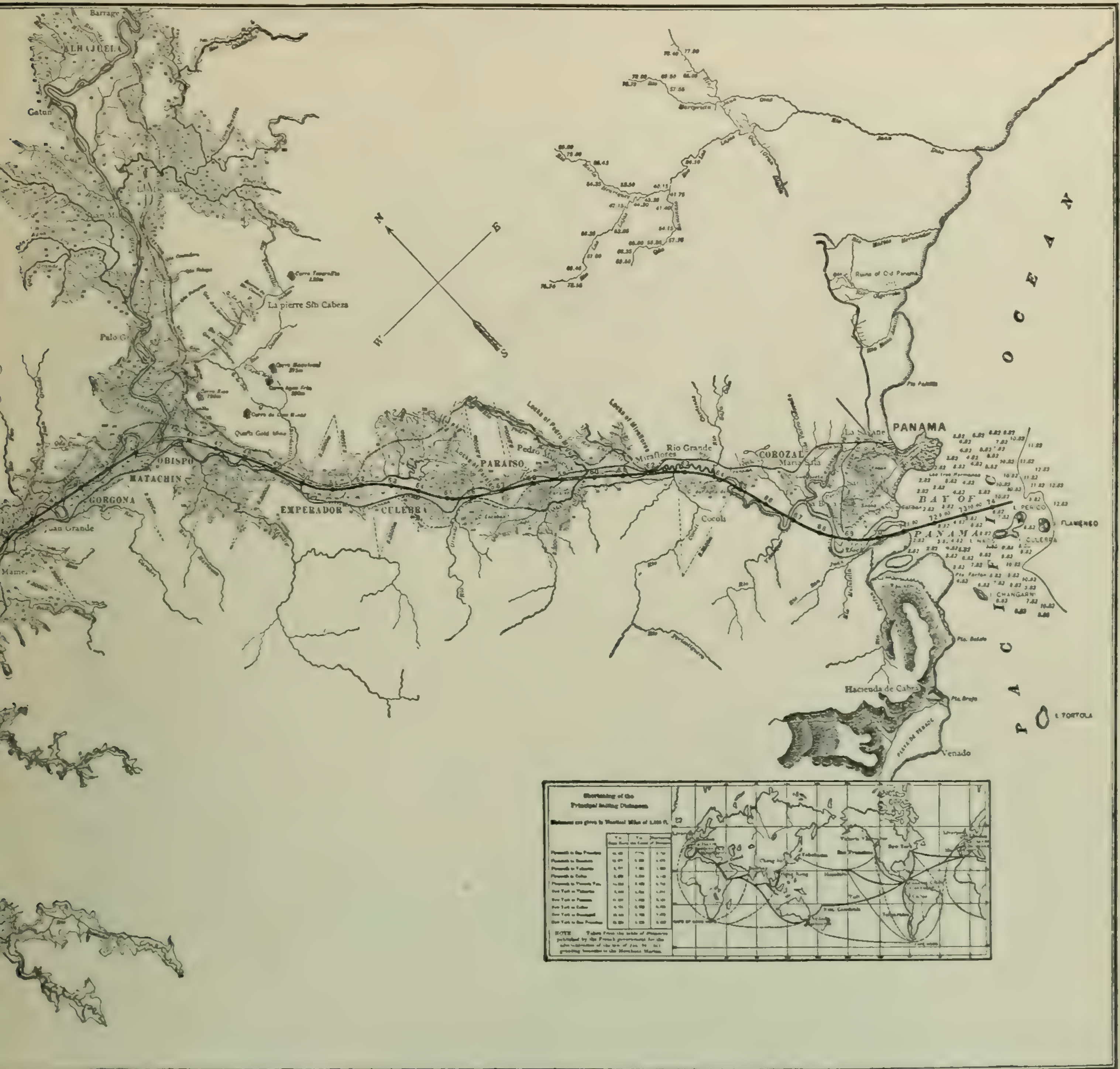


THE GENERAL PLAN OF THE PANAMA CANAL, SHOWING THE LOCKS THAT

thickets on the Culebra Divide, there seems to be enough machinery to construct two or three canals and, in addition, stock a city of junk dealers. All along the Atlantic section of the canal the banks are heaped with structural material, parts of great caissons intended for the Bohio Dam, sections of foreseen places one comes upon rows of sheds housing reserve rails, pipes, cranes, engines, and cars. In one spot the Chagres has eroded the bank and exposed a buried locomotive. Dredges, with unworn cogs revealing that they have scarcely been used, lie in many places along the river and the partly dug

canal. At the summit of the Emperador, 280 feet above tidewater, are the sections of a dredge ready to be put together. Along the whole line, melancholy spectacles stand forth, monuments of frantic energy, mismanagement, and corruption.

excavators are now at work. But the dredges and other floating machinery, a very costly part of the "material" are in bad condition and out of date. Salt or brackish water has so injured the hulls of even the few dredges and cranes whose machinery might be used



WILL BE NECESSARY IF IT IS BUILT WITH A SUMMIT LEVEL OF 68 FEET

The utility of this machinery must rest with the contractors or the government engineers, who may employ what is fit. It is said upon good engineering authority that 70 per cent. of the material can be used. Many of the small Belgian locomotives are being put into service. Several of the French

that new hulls are imperative if they are ever to be employed.

THE LABOR PROBLEM

The labor problem is serious. The French got their workmen principally from Jamaica, and when the company went into bank-

ruptcy left thousands of them stranded on the Isthmus. Colon is almost a Jamaican town, and a language called "English" is the ruling tongue. The inhabitants, too poor to leave, live along in hope of making a lucky strike in the Panama lottery, which will enable them to go back to what they pathetically call "home." It is sixteen years since there has been any activity on the canal, and during this time the imported blacks have got out of the habit of working. At Culebra, where some are now employed, they at first utterly refused to return to work after a rain, and American foremen are now struggling to root out this custom. At half-past ten one fine morning we saw all the "boys" sitting in front of their cabins placidly puffing at their pipes. They had stopped for the rest of the day because of a half-hour's shower. In a country where, during the wet season, an umbrella is a regular part of a man's raiment, this habit is maddening. Where the labor for the new canal is to come from is thus an important question. The Philippines, Porto Rico, Central America, China and our Southern States have all been suggested as sources of raw recruits, and none of them is satisfactory. The authorities will undoubtedly minimize the number of unskilled laborers, and substitute machinery, as far as possible.

THE ENGINEERING DIFFICULTIES

When the new Commission arrived, then, they found much débris, a railroad still dominated by the officers holding over since the failure of the French Company, the laziest Negroes that ever mishandled shovels, and a new Republic hailing them as heralds of golden harvests. Being technical experts, they began at once to examine the data of the French plans. They found these incomplete, with many vital details missing. The possibility of successfully piercing the ring of mountains that surrounds the valley of the upper Chagres, and so diverting the dangerous river beyond the canal zone, was undetermined. The engineers could not even make the final choice between a sea level and a lock canal, and it has been only recently that enough exact information has been gathered to allow this first question to be considered.

One step toward the completion of the canal was made, however, when new borings and surveys definitely proved that the Culebra Divide could be pierced. It is true that this divide checked the French Company and that the sliding clays were difficult to handle. But it is not true that masonry slopes above water will be necessary to keep the hill from sliding down upon the boats in the canal. The excavation of the Culebra Cut is far less of a problem than many of the others involving the location of dams and spillways and the disposition of vast volumes of excavated matter. Digging the Culebra Cut is merely a matter of going ahead scientifically with the best modern machinery.

Since the Culebra Gap is the lowest available spot for the canal to cross the central ridge, there can be no other place for the cut. The Commission have, therefore, begun work on a small scale there by the recent purchase of fourteen modern steam shovels, of which the daily capacity is 25,000 cubic yards for twenty-four hours. With this machinery, in addition to that now available, the Culebra Cut can forthwith be advanced.

The real difficulty lies in two great engineering problems. One is that of regulating or excluding the Chagres River; the other is the Main Dam. The Chagres River is a fair-sized stream, subject, in certain seasons, to torrential floods. A dam at Bohio, located where the Chagres River breaks through the Atlantic coast ridge, would establish the summit level of the canal and carry it across the backbone of the Isthmus at Culebra. Consider the relations of these to the long-cherished sea-level project. The Chagres, until the Commission could find some way of diverting the waters from the canal, must be held in its own valley by a twenty-mile dam along the hill slope and above the canal. With this exposed embankment standing as the sole protection to the canal, the danger from torrents is apparent. If the river can be diverted from its present valley, the gravest objections to a low-level plan will be removed and from three to six locks eliminated.

The Commission have made careful studies to determine if such a diversion would be practicable. All across the Isthmus, American engineers in khaki, many with the huge straw hats worn by the natives, are making borings and running surveys to secure the fullest data for the Commission's decisions. And even so mighty a feat as the diversion of the Upper Chagres from the Atlantic to the Pacific may be undertaken. The French

engineers considered that it could be accomplished only by a ten-mile tunnel piercing the backbone of the Main Divide. If this project be adopted, a dam will be necessary, and a lowering of the canal level to approximate sea-level will result.

The main dam is the other great problem. If it is located at Bohio so that the summit level will stand ninety feet above the sea, less excavation will have to be made in the central section. But the cost of making a dam to hold a ninety-foot level, together with the necessary locks, reservoirs and spillways, may more than counterbalance this economy. Here the best selection cannot be made until more complete data are in hand. Latest information indicates that solid foundations are twenty or more feet deeper than the last Commission reported.

These two problems, therefore, had to be solved before even the final plan of the canal could be determined. Enough data have recently been secured to settle the height of the summit level. A way has been found by which the constant menace of the Chagres flowing above and parallel to a low-level canal can be obviated, but the amount of material to be excavated upon the sea-level cut, with its one indispensable tide lock near the Pacific end, is almost twice that required for a two-lock canal at a thirty-foot level.

THE METHOD USED BY THE FRENCH COMPANY TO CUT THE PANAMA CANAL
Locomotive cranes loading dump-cars

There has long been a strong feeling that, since the canal is to be constructed for posterity, it would be wisest to dig a sea-level canal even at added expense. The Congress of Engineers in Paris, before whom, under the presidency of Ferdinand de Lesseps, the question of the Isthmian Canal was first debated, had decided almost unanimously in favor of a sea-level canal. After four years

of work new plans were adopted, this time for a lock canal, which was to earn sufficient money to refill the coffers of the company. Two years later, in 1889, came the failure of the company, and the original project was abandoned. Our first Commission pronounced it possible, but advised against it.

HOW THE CANAL WILL BE DUG

Within limits, we now know just about what may be done. The bottom width of the cut will be 200 feet and the depth 40 feet. The Suez Canal, averaging 115 feet wide at the bottom and permitting a draft of only 27 feet 10 inches, has proved too small. Several of the great new battleships of the British Navy can now go through it only with hazard, and none of the larger freighters fully loaded, such as have proved most economical for the transatlantic trade, could go through. Even the larger German liners trading to the Orient often lose their steerageway and sheer against the sides. The Panama Canal will be able to admit even larger vessels. There must be one lock—a tide lock—near Miraflores, and possibly one at Bohio, to reduce excavation.

A PART OF THE CANAL AS THE FRENCH COMPANY LEFT IT

The Chagres will be regulated by dams and diversions. The great Bohio Dam, as planned by the last Commission, from foundation to top would be 200 to 250 feet, with 150 feet of it below the ground level. Such a dam would be nearly as high as the Flatiron Building in New York and fourteen times as long. The canal's Atlantic terminus will be near Mindi at the head of Limon Bay. The old entrance, planned by engineers who never had to calculate upon such vessels as the *Baltic*, the battleship *Virginia*, or the even more gigantic Cunarders now building, is S-shaped, the entering curves each only five-eighths of a mile radius. A large modern freight or passenger steamer must slow down to such a speed as to lose steerageway, if obliged to round a curve of a radius less than a mile. The change in the location of the Atlantic entrance will put that gateway to the canal two miles from the city of Colon.

THE CANAL'S EFFECT ON TRADE ROUTES

These facts will be significant in the political relations of the United States and Panama. Among the people of Panama there is already vague talk of an impending change at

the Atlantic entrance of the canal; of a new harbor, two miles back from Colon, protected by breakwaters to be built across Limon Bay, leaving the city only its present open roadstead; of new depots on a gigantic scale planned for La Boca on American ground. There are rumors of a great naval station on the islands in Panama Bay, with dry docks for the largest vessels, which will give the United States the fortress in the South Pacific that Blaine sought vainly to establish at Chimboté.

Our arrival in Panama probably means the founding of new cities at the canal entrances rivalling the two main cities of Panama. At these ports will be the coal depots, and thus the mooring places for transit steamers. The great wharves for the storage of freight will be all on the Zone, and these cities will be owned and governed solely by the United States.

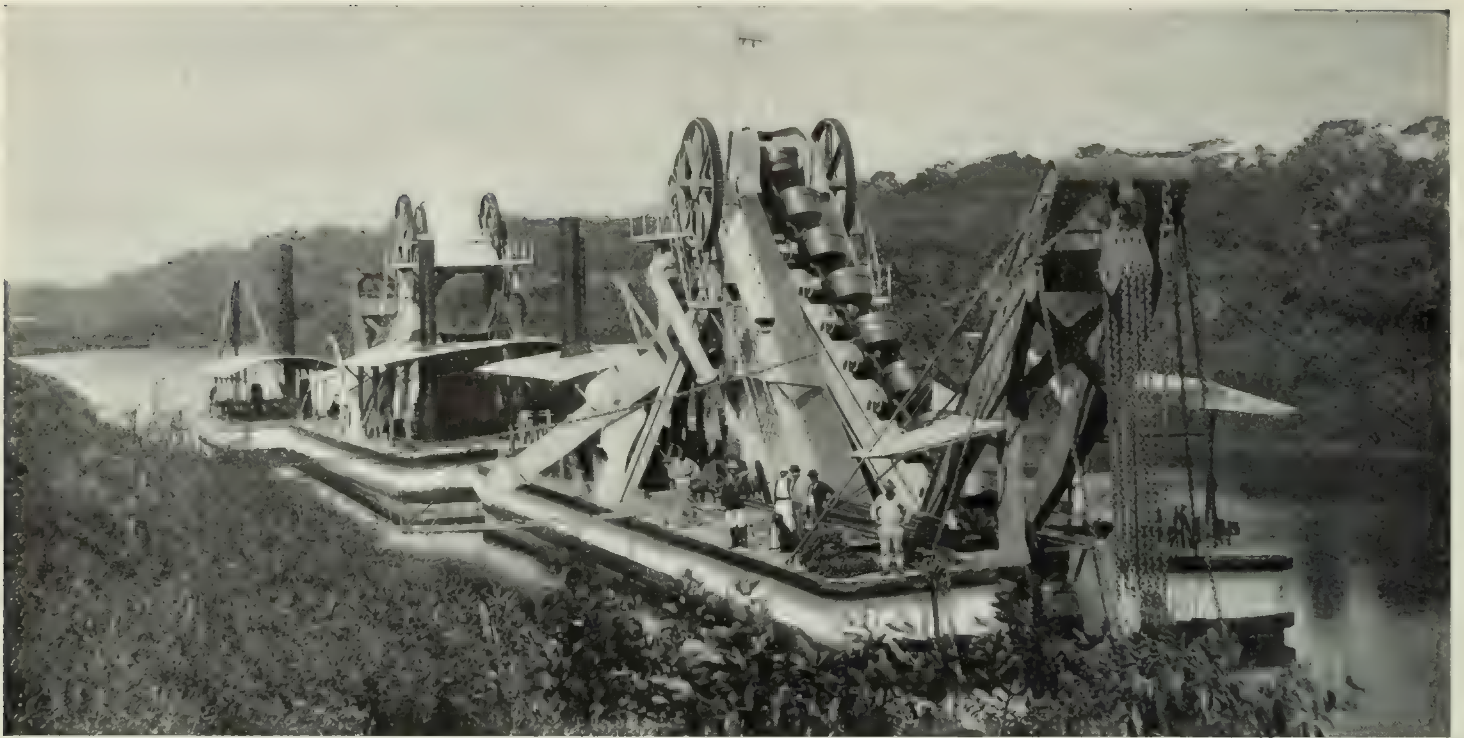
The cities of Panama and Colon have been children of the Panama Railway. It is only because they stand at the two gateways of the land passage across the Isthmus that they exist as they are to-day. But there will be no reason why the ships passing through the new canal should utilize the unprotected roadstead of Colon or pass around the point to anchor in the shallows of Panama.

In old Spanish times, Porto Bello was the Atlantic port of entry to the Isthmus. In its treasure house was stored the gold of Peru awaiting the fleet of galleons which brought it yearly to Castile. The markets were alive with the bustle of commerce and its citizens rich from their share in the spoils of South America. To-day it consists of half a dozen native huts amid a heap of ruins. Porto

AN EXCAVATOR AT WORK IN THE CULEBRA CUT

Bello had no reason for existence, and ceased to be when the trade across the Isthmus left it and sought another channel. With the building of the canal, the two present cities of the Republic will lie also outside the line of commerce. Will modern Panama suffer the fate of ancient Porto Bello, or will it become a quiet suburb of Greater Panama?

Secretary Taft's executive order has not changed this prospect. He gave the Panama officials fair play on the tariff, by proclaiming that all importations to the Isthmus must be made through the Panama or Colon custom



THE FRENCH CONTRACTORS DREDGING THE CHAGRES RIVER NEAR GORGONA, TO THE PROPER DEPTH FOR THE CANAL

house, and removed a number of minor difficulties. But there is nothing in the provisions of the latest agreement that will hold trade within the old lines. All commerce will be free to seek its natural avenue.

By what machinery of organization the whole canal problem will be ultimately dealt with, is still undetermined. When the present Commission was formed, a member remarked pessimistically that they would be through investigating, and removed, by 1906. As a matter of fact, the original Commission of seven members has served the purpose well. It has investigated and laid foundations in a conscientious and business-like manner. The ceremonies and formal drives of inspection parties, interspersed with elaborate lunching and counter-lunching of officials, such as invariably in Europe accompany and clog the progress of an important commission, have been absent. But while this Commission has served excellently for spying out the land, the organization for the actual digging of the canal will undoubtedly be more compact.

DEEPENING THE RIO GRANDE RIVER NEAR PANAMA

Showing the flat country through which a section of the canal goes

THE SCOLLAY SQUARE SUBWAY STATION, BOSTON

THE REMAKING OF BOSTON

AN EXPOSITION EFFECT SECURED BY THE GROUPING OF DIGNIFIED BUILDINGS IN A PARK—TUNNELS, AND ELEVATED RAILROADS ADDING TO THE CITY'S CONVENIENCE—HOW A VIGOROUS COMMUNITY MAKES PROGRESS WITHOUT LOSING HISTORIC TRADITION

BY

ROLLIN LYNDE HARTT

ILLUSTRATED WITH PHOTOGRAPHS BY A. RADCLYFFE DUGMORE

ONCE, when I was crossing the barren wastes of Wyoming in a railway coach, the man beside me remarked, "Well, I suppose this is all right enough for a beginning, but I'd a whole lot rather see Wyoming when it's finished." I may say the same of Boston. The present Boston is "all right enough for a beginning," but what of the future Boston, the Boston set forth in legislative appropriation, in last wills and testaments, in architects' plans, in engineers' designs, and in plainly marked tendencies whose results can be foreseen? Though the city will never be "finished," we may nevertheless get some fairly clear notions of what it will look like when the many projects now in hand are carried into execution. And of these none is more picturesquely sensational than the scheme for cleansing and beautifying the Charles River Basin.

Boston, the city of lost opportunities, sat down with its back to the view. Its task is, therefore, to construct a new view in front of it. The "court" end of the town should have looked out upon the harbor; very well, the court end of the town will in future look out upon the beautiful Back Bay Fens, which were originally an ugly marsh, and upon a

A MODEL OF THE NEW HARVARD MEDICAL SCHOOL
Which is to occupy a site in the new Back Bay Fens Park

superb water park—not unlike the famous Alster Basin of Hamburg—which is to be created by damming the Charles River. Rather an ambitious programme? Yes; but the Bostonians are perfect Hollanders at playing fast and loose with physical geography. Having chopped eighty feet off Beacon Hill, extended their shore line to suit their fancy, and built a city of palaces where a bay once was, they will park a swamp and dam a tidal river without hesitation.

Now this projected onslaught upon the Charles River means digging up 340,000 cubic yards of earth, carting thither 400,000 additional cubic yards to serve as filling, massing together 41,000 cubic yards of concrete, building 2,800 cubic yards of stone masonry, and driving a forest of piles which, if laid end to end, would reach ninety-two miles. But the Charles deserves its fate. It ought to assist constantly in the drainage of Boston, but, instead, at low tide, its acres on acres of noisome mud-flats insult the eye and distress the Board of Health. Besides, it has worn out its Craigie Bridge. The projected dam, with a broad causeway a-top, will replace the bridge with a structure of monumental beauty, keep the river permanently at high water, turn it from alternate salt and fresh to fresh all the time, insure its purity, and drain Bos-

A SKY-SCRAPER INTRUDING ON HISTORIC BEACON STREET
The maximum height of such buildings is regulated

THE OLD STATE HOUSE IN BOSTON, WHICH IS PRESERVED AS AN ANCIENT LANDMARK

The lower end has been remodeled to form an entrance to the new tunnel to East Boston

ton hygienically. But Boston does nothing by halves. A charming triangular park (all of made land) will fill in the angle between the dam and the present Boston shore, and thither will flock the tenement folk of the teeming North End. An elm-shaded boulevard, like that already being developed on the Cambridge side, will adorn the Back Bay margin of the river, and invite the Beacon Street worthies to tidy their back yards. Yachts and pleasure craft will multiply. In winter you may clamp on your skates and go skimming between Boston and Cambridge to Newton and even to Watertown. Thus the Charles, which Henry James contemptuously called "too big for a river, too small for a lake," is to be made the splendid centre of a park system without parallel in America. And the bill? Three million dollars for the dam and the park alongside it; $2,500,000 for the West Boston Bridge, now nearly completed, its noblest architectural adjunct; and more for further developments. But what of that? Having already spent nearly $4,000,000 on park improvements bordering on the Charles, Greater Boston means to see the thing through handsomely.

HOW THE CHARLES RIVER BASIN WILL LOOK

The open-air gymnasium and the park beyond, at the left of the picture, are more

With the Fens, the case is altogether different. They are taking care of themselves. They are becoming not a second, but a third Copley Square. Chance—or "psychic forces"—grouped the Museum of Fine Arts, the Public Library, the New Old South, and Trinity Church with distinguished effect; chance lately repeated the process, about the corner of Massachusetts and Huntington Avenues, by grouping the new Symphony Hall, the new Horticultural Hall, the New Conservatory of Music, and the new Emerson College of Oratory in an impressive ensemble; and now chance is making the Fens an even nobler example of combined architectural achievement. Simmons College—a sort of Pratt Institute, lately established

—has erected a graceful Colonial structure close to the Isabella Stuart Gardner Museum ("the house that Mrs. Jack built"), and at no great distance the five stately buildings of the Harvard Medical School are slowly lifting their façades of white marble. Completed at a cost of more than $2,000,000, those five buildings will give the Medical School a magnificent equipment, while their location within a stone's throw of the new

WHEN THE PROJECTED DAM IS COMPLETED

than ten years old. In time the other parks will fringe the banks of the river for miles

Children's Hospital, the new Thomas Morgan Rotch Infants' Hospital, and the new Samaritan Hospital will afford affiliations not to be found elsewhere in the country. Nor are these the only admirable things that are fast crowding into the Fens. A model studio building is under way, the Church of the Disciples is rapidly nearing completion, other churches will probably follow, and by 1909, if not sooner, the Museum of Fine Arts will leave Copley Square for the Fens. That it will be worthily housed, no one need doubt.

And what does all this mean? Simply that the Exposition idea, the grouping of monumental structures in a delightful park—for such the Fens are really to be, with the Fenway kept inviolate by authority—is adopted by a city and made permanent. Distance, the first requisite of a commanding site; gracious lines, especially in the courses of public highways; the exemption of a fine civic centre from commercial invasion, and that subtle thing, part physical, part fanciful, called "atmosphere"—these the Fens must henceforward provide and enjoy. Happily the very frame of the picture begins to grow splendid. On the Back Bay side a solid row of handsome buildings—the Somerset Hotel, the domicile of the Historical Society, the Medical Library, and many apartment houses and private residences, with creamy façades combined harmoniously—is quiveringly reflected in Stony Brook as you look across charming spaces of blended marsh and

meadow. Everywhere abound pretty flowering shrubs, with here and there a row of Lombardy poplars suggesting a landscape you have somewhere seen — by Hobbema, was it not? Moreover, the completed Fens will adjoin the completed Charles River Basin and the older elm-bowered Commonwealth Avenue, a park in itself, that leads to the Public Garden and the Common, which is oldest of all. The Common last summer looked like a farm—ploughed, sown, harvested, and all beneath the magnificent trees that the therapeutic farming was meant to save. Will the future Boston still have those trees? Perhaps; perhaps not.

Boston graded its Common, thereby burying some of its trees too deep, and leaving other trees without depth enough; it multiplied concrete walks, thus depriving their rootlets of water; it loaded their branches with telephone wires; it kept the grass close-cropped so that falling rain dried quickly; it encircled feeble limbs with iron bands: and in consequence the ancient trees fell dangerously, and perhaps fatally, ill. Then came experts, who diagnosed the case. The newspapers blazed with indignation. The city forester, after a spirited campaign of self-exculpation, at last went in for remedial measures, and Boston will never again show itself remiss in its care of its oaks and elms. That much, at least, is clear gain.

But beauty-loving Boston is also busy elsewhere. The new monuments to Channing and Hooker and Bartlett and Warren are soon to be followed by St. Gaudens's bronze statue of Phillips Brooks, to stand on the grounds of Trinity Church, probably facing Huntington Avenue, and by H. H. Kitson's bronze statue of Governor Banks, which is to be placed outside the State House on Beacon Hill. Daniel C. French's exquisite bronze doors for the Public Library are already in place, St. Gaudens will before long have produced two notable allegorical groups to surmount the now tenantless granite plinths

A BRIDGE OVER ONE OF THE STREAMS IN THE BACK BAY FENS, BOSTON
Showing how a park has been made of a marsh

SIMMONS COLLEGE, A NEW TECHNICAL INSTITUTE FOR WOMEN
One of a group of buildings that is making the Back Bay Fens a place of architectural distinction

in front of the building, and the Hall of Flags in the State House awaits a series of new statues of the heroes of the Commonwealth. Mural decoration in the Public Library is not yet a completed chapter. Sargent will continue his masterly decoration of what is familiarly known as Sargent Hall, but the blank panels on the walls of the great reading room are still undecorated.

Yet what shall self-adornment profit a city unless that city meanwhile wage continuous warfare against ugliness? Boston is fighting

for a law to banish advertisers' bill-boards from the parkways, and the existing laws against sky-scraping are enforced, literally, with a vengeance. Witness the decapitated Westminster Chambers. Buildings in Copley Square may rise to a legal height of ninety-feet—this to preserve the harmony of the general effect—and the wayward Westminster Chambers indulged in an additional six feet. Boston rose in its wrath, forgot æsthetic considerations in a delirium of "puritanitis," and forced the owners of the Westminster to hew off the offending top story, to the outrage of proportion, but to the vindication of the majesty of the law. Rather a single instance of disfigurement than the sacrifice of a principle making for beauty!

Down town you may build to an altitude of 125 feet. There you must stop. Boston doesn't need sky-scrapers; bring the whole mercantile district up to the legal level and you'll still have room and to spare. Besides, you will have handsome streets with an even sky-line and never a bare side-wall to be blazoned in flaming capitals with advertisements. On the other hand, the restrictions upon height tend toward low-stud offices. If this goes on indefinitely the time will come when only short men can do business! But it is not for this that I quarrel with Boston's swiftly changed commercial quarter. I confine my censure to a grumble about its modernness. With each succeeding year Boston becomes more like Chicago or New York.

Photographed by the Detroit Photographic Co.

ANOTHER BRIDGE IN THE BACK BAY FENS

Look at the newly-erected Old South Block, which half surrounds the ancient meeting-house in Washington Street. How utterly out of keeping with Boston's architectural traditions! Besides, the rebuilding of Boston involves the demolition of many a quaint and curious landmark. Lately the old Boston Museum has come down, and likewise the John Hancock Tavern, where the Tea Party heroes dressed up as Indians. The Old Corner Book Store, built in 1712, is marked for destruction. Park Street Church, less ancient

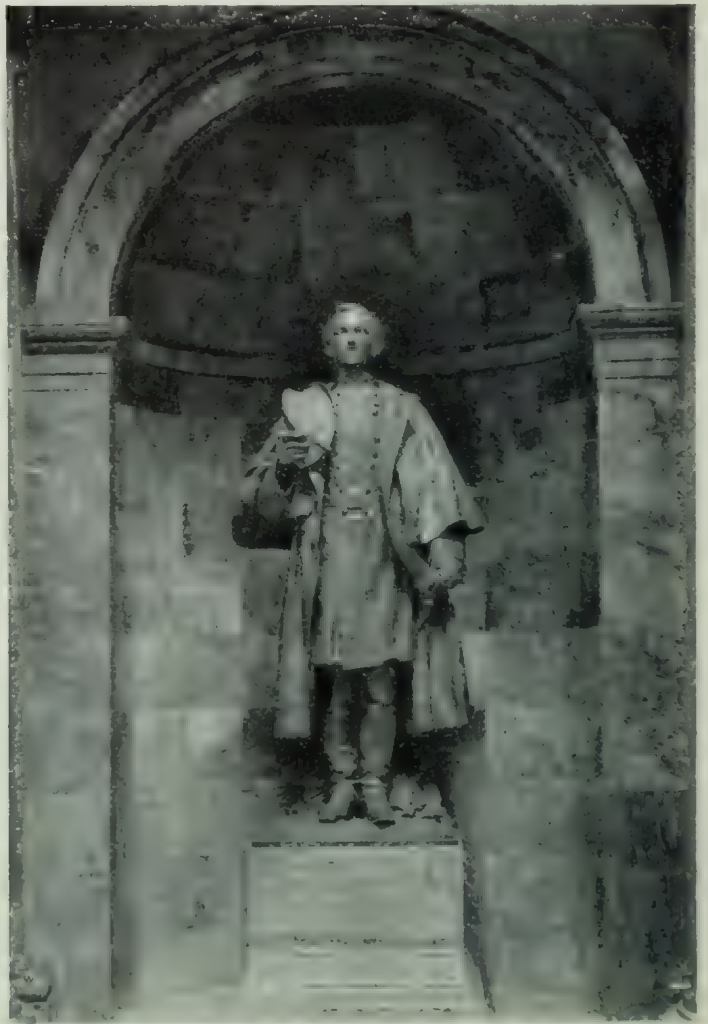
THE BUILDINGS OF THE HISTORICAL SOCIETY AND THE MEDICAL LIBRARY

Overlooking Stony Brook, Back Bay Fens

THE BRONZE STATUE OF WILLIAM ELLERY CHANNING
At one end of the Public Garden

THE NEW STATUE OF GENERAL HOOKER
In front of the Massachusetts State House

THE OLD SOUTH CHURCH
Crowded by a typical new office building



THE STATUE OF WILLIAM FRANCIS BARTLETT
One of the many memorials being set up to beautify the city

MRS. J. L GARDNER'S MUSEUM

One ot the group of handsome buildings being erected in the Back Bay Fens

THE DECAPITATED WESTMINSTER CHAMBERS

Made hideous by the removal of the top story because it exceeded the legal height by six feet

THE JOHNSON MEMORIAL PILLARS AT THE ENTRANCE TO THE FENS

THE TERRITORY WHICH WAS EXCAVATED TO FORM THE GREAT WACHUSETT RESERVOIR

Ten years' digging has produced an artificial lake 35½ miles in circumference, 129 feet deep, with a water-level 395 feet above high tide in Boston Harbor. Two thousand people had to give up 225 homes to make way for the reservoir

but not less interesting architecturally, will soon be obliterated. Thus, when the Institute of Technology has left Boylston Street, St. Paul's Church abandoned its pillared temple opposite the Common, and the Museum of Fine Arts gone to the Fens from Copley Square, and when the present City Hall and the venerable Custom House have been replaced by new, we shall have a changed Boston indeed, and the fun of living there will be measurably diminished.

There are things, however, that proudly

THE WACHUSETT DAM, WHICH RETAINS THE WATERS OF THE NEW RESERVOIR

The dam is 1,250 feet long, 129 feet high, and 175 feet thick at the base, and bears the pressure of 63,000,000,000 gallons of water

defy change. Suggest the demolition of King's Chapel or of the Bulfinch front of the State House and all Boston will fly at your throat. As a tunnel station the Old State House is sure of permanency, though the Irish periodically have the British lion and the unicorn removed from its State Street front. Faneuil Hall survives as a place to hold mass-meetings, the Old South as a museum and lecture hall, and Paul Revere's house has lately been bought by a public-spirited citizen, who intends it to become a headquarters for the patriotic societies. Christ Church, from whose steeple Paul Revere's lanterns were hung—"one if by land and two if by sea"—to start him on his ride to warn the colonists of the British advance upon Concord and Lexington, is maintained by the Episcopalians. No one has yet threatened to invade the Old Granary Burying Ground or the pre-Revolutionary graveyard on Copp's Hill. Altogether, then, in spite of its changed appearance, the future Boston is sure of a splendid legacy of historic shrines. Moreover, the new "sight-seeing auto" makes them more accessible to tourists than the "Seeing-Boston car" did.

Boston will some day recognize the economic value of its relics of antiquity. Relics bring tourists, tourists money. Hence the amazing stupidity of permitting a single tourist Mecca to fall into decay. Yet this happens, even in the city that has so elaborately memorialized itself with bronze tablets. I can take you to a most romantic arched passageway out of Garden Court Street, lead you under a building, bring you out in front of an old colonial mansion, and, passing its fine portals, show you the window that Governor Hutchins jumped out of when mobbed by the Stamp Act rioters. That dignified pre-Revolutionary mansion is now a rear tenement, and an uncouth voice calls down from an upper window, "Oi'm Gov'nor Hutchins' grand-daughter!" My point is this: were all such historic treasures kept sacred, the visiting Westerner would greatly prolong his Boston sojourn, to the very appreciable augmentation of hotel bills, cab fares, and various incidental tributes to the city's prosperity.

Just at present, however, Boston is less concerned about the time that is past than with the space that is present. A Bostonian is a man who wants to go from one place to another "faster than it's possible." The new East Boston Tunnel (which is nearly a mile and a half long and which cost $3,000,000) trundles him ninety feet below the harbor through a tube of cement that will grow harder and stronger with the centuries. It is the only all-cement tunnel in the world.

New tunnels and new "L's" work striking changes in commercial topography. The South Terminal, by making Summer Street an important thoroughfare, has created a thriving retail district, and the North Station might have had a similar effect were not the region around it infested with horse markets. These are to go. After a little, the speeding of horses in front of them will be done away with, and where you can't speed horses you can't sell them. Here, then, we have the first step toward a new shopping centre. The Salem Street ghetto is moving in various directions. By and by, Boston will have at least half a dozen ghettos, and Salem Street will become part of Boston's very big Little Italy.

On the whole, the standards of human existence within the city itself are apparently destined to drop—not seriously, perhaps, but appreciably. "The thing" is to have an estate in Milton or Dedham or Beverley and to make Boston your winter resort. People seriously live in Boston not because they wish to, but because they have to.

For one thing, the Isabella Stuart Gardner Museum is to be made a public institution after Mrs. Gardner's death. A board of trustees will administer it, the admission fee will be merely nominal, and the number of open days will be greatly increased. For another thing, the city must some day benefit by Benjamin Franklin's will. His legacy of a thousand pounds sterling, put out at interest in 1790, now amounts to $403,000, and that splendid total will be spent in establishing a Workingmen's Institute just as soon as politicans stop wrangling about it. Still again, the Salvation Army is planning a $200,000 People's Palace, which, with its happy combination of hotel, library, restaurant, assembly hall, labor exchange, relief department, etc., will minister to "all sorts and conditions of men." Meanwhile public baths and public playgrounds seem certain to increase. The point has been reached where Boston's rulers visit social settlements to question the residents and find out what local improvements are the shortest cuts to

aldermanic popularity. New theatres, however, we shall not expect for many a day; there are rather too many at present. Nevertheless, there is crying need for an opera house and, at the other end of the dramatic scale, for a roof-garden. Summer in Boston is not a merry season. The warmer the welcome, therefore, that awaits the proposed $250,000 "Luna Park," with its 150-foot tower and its 50,000 electric lights, at Nantasket Beach. Besides,, the Revere Beach Boulevard, which is soon to be extended all the way to the Point of Pines, adds new possibilities in the way of summer outings.

I think, too, that Boston is bound to witness a rather notable commercial expansion. It is now spending $8,000,000 on a broad waterway, thirty-five feet deep, which will traverse the harbor from wharf to open sea and be finished, if fortune favors, by the end of 1907. The New England port can of course never rival New York; a day's sailing nearer Liverpool counts squarely against Boston, since freight goes cheaper by water than by rail, and the further it goes by water the better; and yet New York hasn't sufficient room for its swollen maritime commerce and Boston gets an ever-growing amount of the overflow.

Eight million dollars to deepen Boston Harbor, $3,000,000 to dam the Charles River —these are petty sums beside the $30,000,000 that Greater Boston is spending on its vast Wachusett Reservoir at Clinton. Next summer the completion of ten years' digging and building will give the Metropolitan District by all odds the largest artificial reservoir on earth, with a total shore line of 35½ miles, a maximum depth of 129 feet, a dam 1,250 feet long and 175 feet thick at its base, a water level 395 feet above high tide in Boston Harbor, and a storage capacity of over 63 billion gallons. By right of eminent domain the Commonwealth ousted 2,000 people from their ancestral homes; devasted as many acres of forest; demolished or removed some 225 dwelling houses, to say nothing of barns and sheds; pulled down a hotel, six school-houses, four churches, and half a dozen mills and factories; abolished twenty miles of highway; made the railroad rip up its tracks; and even ruthlessly carted away a cemetery. Having indemnified the evicted country folk, as far as money could reasonably do so, it then proceeded to shovel up 7,000,000 cubic yards of earth from 4,200 acres of land, and to lay stone upon stone till 275,000 yards of masonry were ready to sustain the artificial lake whose waters bury the ancient town of West Boylston eighty feet deep. In mere dollars and cents the rebuilding of the railway cost most heavily, for the new route has involved an outlay of $100,000 a mile, since a tunnel had to be bored and a long steel viaduct constructed.

All this is to provide pure water for the 1,300,000 people who live in Boston and in the twenty-eight towns and cities within a radius of ten miles of the State House. As soon as the Wachusett Reservoir is done, the water board will pounce upon the Assabet and the upper watershed of the Ware; after that it will tap the Swift, the Deerfield, the Westfield, and the Squannacook; and eventually it will provide Greater Boston with a chain of reservoirs reaching almost to the western boundary of the State and fed by streams of an area of 1,412 square miles. The system thus completed will be the largest, and incidentally the cheapest, in the world.

Such, then, are the more obvious tendencies that mark the rebuilding of Boston—engineering projects turning land into water and water into land, and creating new highways through the air, beneath the soil, even under the harbor; æsthetic movements adorning the city with new parks, new statues, new paintings, new successes in architecture; the historical sense clinging tenaciously—would that it clung even more tenaciously—to its chief historic heirlooms; social changes counterchecked by institutional efforts in behalf of popular culture and sane recreation and the peaceful enjoyment of life; and all this without brag or self-consciousness. But the larger meaning of the thing quite escapes the Bostonians. For the larger meaning is this: after contributing with lavish self-forgetfulness to the making of the West, after sending its sons in magnificent numbers to the Mississippi Valley and beyond, and after shouldering the burden of a huge foreign population, Boston has refused to become the "abandoned farm" of Oliver Herford's well-known epigram, but has preserved its virility and entered upon a thoroughly Western career of progress and expansion. It is the New England Chicago, and will so remain.

THE CONFESSIONS OF A COMMERCIAL SENATOR

I

I ENTER POLITICS AND POLITICS THEREAFTER BECOMES MY BUSINESS

(A STUDY FROM LIFE)

POLITICS had never interested me up to my fortieth year. I went to the polls when a president or a governor was to be elected, and occasionally to the primaries. But I went with about the same feeling with which I paid my taxes. The city seemed to be ruled by a sort of underworld that touched me only as a property owner, and occasionally aroused my disgust through the disclosures of corruption in the city council.

It was really self-interest that led me first into politics. The city was growing rapidly and real estate values were going up. I owned a large block of land near the centre of the city, which was covered with small buildings that I did not care to replace with larger ones. I found its tax valuation going up to such an extent that it was becoming unprofitable to hold the land unimproved. I made some inquiries about the local assessor, and, before the next assessment, went to the County Auditor. He suggested that he had a fight on his hands for re-election, and intimated that a campaign contribution might help my case. I contributed a hundred dollars, and on his election secured the appointment of a man as assessor upon whom I could rely. Through him I was able to keep my assessments down to a reasonable figure, and in this way made my entrance into local politics.

The city had been growing with great rapidity. It was ragged and spread over a large area. One day the president of the bank of which I was a director said that he thought that a street railway would be a profitable venture, and suggested that I go in with him and secure a franchise. I smiled at this idea, for I knew nothing of street railway matters, and had no money to invest in such a project.

"Oh," he said, "you can leave that to me, if we can only secure the franchise. You are well known among the politicians, and have a number of friends in the council. At the same time, you are the owner of a large tract of land on the outskirts of the city which might be reached in our routes."

This suggestion appealed to me. We had a franchise for twenty-five years prepared by our attorneys. I took the matter up with Murphy, one of the party leaders, a number of aldermen, and the Mayor. Murphy said that it would propably cost from $5,000 to $10,000 to see the matter through the council. I refused to consider such a proposition. But my associates were not so delicate. Some arrangement was ultimately made. We interested the daily papers in the project, and finally the franchise was granted to a dummy from whom we purchased it for $15,000. Most of this, I fancy, stopped in the pocket of Murphy, the party boss, who had managed the matter for us.

Estimates were secured of the cost of construction, and with these in our pockets, we went to New York to finance the proposition. It did not occur to me that money could be borrowed upon a mere privilege in the streets, which was terminable at the end of twenty-five years. But we boldly proposed to issue a half million dollars of bonds and to use the proceeds for construction purposes. The bankers seemed to be interested chiefly in the size of the city, its rate of growth and the distribution of the people. I ultimately learned that a franchise in the streets was the best sort of security, and that one could secure a loan upon it even in excess of the cost of construction, for in a growing town, earnings are bound to increase, whether times be good or bad, from 10 to 15 per cent. a year. We finally secured a loan for a half

million on consideration of giving the bank 20 per cent. of the stock, or $200,000, for underwriting the bonds. We issued a million of stock, and found ourselves the possessors of a street railroad and $800,000 of stock certificates that had cost us practically nothing.

From the first, the road paid interest and operating expenses. Within a few years we had increased our capitalization to $5,000,000 and secured such extensions and franchises from the council as were necessary to complete the system. In large part, we did this without using corrupt methods. We organized the citizens or real estate speculators of a neighborhood, who fought our battles for us. We used to send delegations to the City Hall, clamorous for an extension, so that it appeared to the people that the company was conferring a favor upon the city by building new lines. In five years our earnings doubled, and I had made $2,000,000 in a business which I knew nothing of a few years before, and in which I had not invested a dollar and had put very little personal time or energy.

By this time, I knew the value of such properties and was in touch with banking institutions in other cities. I looked up the matter of artificial gas and found it to be even more profitable than railways. I found a gas contractor willing to erect such a plant and take his pay in bonds. I succeeded in getting a franchise, through the aid of the newspapers, one of which I now had an interest in, with the assistance of the local boss Murphy. Every one was interested in the development of the town, and the citizens were proud of my enterprise.

Our earnings in the gas business increased by leaps and bounds. In time, we introduced economies and disposed of the by-product so advantageously that we were able to place gas in the mains at but little cost; the earnings from the sale of gas was "velvet."

I had chosen as manager of the street railway a leader in the Democratic party who was thoroughly familiar with ward politics. He knew all "the boys." He cemented his friendship by giving employment on the line to their friends and relatives. He was constantly about the City Hall, and was known as a good fellow, so that he could secure almost anything he wanted from the councilmen of either party. In time, he practically dictated aldermanic nominations in the lower wards. He permitted one alderman to handle our scrap-iron. Another shod our horses. Another had all of our insurance. There was always a lawyer or two to whom we gave some sort of business.

In much the same way, I became identified with the Republican organization. My large contributions to the campaign funds gave me a standing in the party councils. I was soon made treasurer of the Executive Committee. In time, I came to dominate the organization. The first favor which I asked of the organization was the naming of the county auditor. I appreciated that by one stroke of his pen, the Auditor could increase our taxes hundreds of thousands of dollars, by merely estimating our franchises as taxable property.

Almost unconsciously, I ultimately became the leader of the Republican party in the city and county. I did not achieve this position as an ambition, but drifted into it from the necessity of the situation.

A FIGHT FOR THE CITY

But the time was approaching for the expiration of our franchises, renewal of which had become a political issue. A municipal election was approaching, and the mayor and council who were to be elected would have the franchise to dispose of.

We had picked out for our candidate for mayor a young man named Williams, who had been a very satisfactory alderman and who was well known to me. He was a man of commonplace abilities with a general reputation of being a good fellow. On the evening before the convention we had a conference in my office and fixed up the slate. Enough men were taken into our confidence to make sure of the arrangement, and in the morning the idea was quietly circulated from group to group until it became the sense of the convention. Whatever opposition arose was unorganized and badly led. Williams was nominated without opposition, and the Executive Committee, which had control of the Republican organization, was made up to our satisfaction. All was now easy sailing. The city was safely Republican by several thousand votes, and I had the party in control.

I had always found it wise, however, to keep in touch with the Democratic organization. Though the Democrats had not elected

a mayor for many years, there were many wards from which they returned aldermen. I had a friend, Terence McGann, who was at the head of the Democratic organization. I had started him in politics. He was a lusty Irishman of about thirty years of age, and when I first met him he was working in a brewery. He was a natural politician—one of the radiant kind. I had lent him sufficient money to open a saloon. Soon his influence extended from his ward to the surrounding districts. His very instinct for doing a kindly thing made him liked, and he had been able to place many men in our employment from all over the city. This added to his power with "the boys." In addition to this, he always had money at election time. I had induced him to try to secure control of the organization, and he was easily successful. By this time I thoroughly appreciated the necessary intimacy between my business and politics. They were identical. They depended upon each other. And in devoting myself to politics, I was in reality devoting myself to business.

Terence came to see me before the convention. I asked him whom we were going to run for mayor. "You know we have been talking about Jackson," he said. "Well, we can nominate him, and he will be defeated just as he was before, unless Jim Ballantyne makes us some trouble."

I asked Terence who Ballantyne was.

"Well, he is a young fellow who came to the city some years ago and has been making himself busy in politics lately. He recently made a corking speech at the Jackson Day banquet and got the boys all stirred up. He is the fellow who defended the Moulders' Union in the United States Court, in an injunction suit brought to prevent their picketing the strike. The laboring men are all for him and say he can beat your man in a walk."

I sent for our attorney, Stickney, and told him what Terence had said. He saw the situation at a glance.

"We must get Ballantyne out of the way for the present," he said. "What would you think of making him a special attorney for the company, and giving him some trial work?"

"Offer him five thousand a year," I suggested—"even seventy-five hundred if necessary. Get a contract with him for three years if you can."

But Ballantyne was not to be had so easily. He said he had a couple of cases against the road that he would have to try before he could decide.

The Democratic Convention met at nine in the morning. About noon, Terence met me in room 360 in the Arlington Hotel.

"What happened, Terence?" I asked.

"Oh! They have cleaned up the organization, broken the slate, and carried everything their own way," he said. "That labor leader, Cowen, put Ballantyne in nomination, and he got three-fourths of the vote, and then the convention made it unanimous."

The campaign began in good earnest. Both of the leading papers were owned by influential men, and within the next few days I arranged to have a half-dozen leading advertisers go to the editor of the Democratic organ and suggest that the Democratic party had nominated a man for mayor whom it would be dangerous to see elected. This had its visible effect, for though the *Herald*, the Democratic paper, did not openly endorse the Republican candidate, it did not support Ballantyne, and gave its columns to the full discussion of our meetings and printed any news we sent them.

Ballantyne plunged right into the campaign. He made the street railway issue prominent. The residence districts he ignored almost entirely, holding his meetings in the mill and factory districts. I went to hear him at the opening meeting. He said that the question before the people was a simple one. It was, "Shall the corporations control the city or the city control the corporations." He coined phrases like: "It is better for the city to help than hurt," meaning that the criminal classes should be given a chance to work in some honest way rather than in the workhouse; "An ounce of recreation is worth a pound of punishment"; "The saloon is the poor-man's club. Make the parks the poor-man's club." "It is better to make people happy than to make them fearful."

I could see by the faces of the men that he was awakening their interest. So far as I could learn, he had no money to spend. His workers were always the voluntary ones. Unconsciously I became interested in what he was saying, and crowded to the front. He evidently recognized me, for after he had continued in this way for some time, he concluded by saying:

"As you know, I am not a politician. I

have never had as much experience in politics as many of you who are here. But during the past few years I have seen enough of this city to know that it has not mattered much which of the two parties was in power, for in either event the gentleman who stands before me, Mr. ——, was the real ruler of the city. To-day he is Chairman of the Republican Executive Committee. He made out the slate of the Republican Convention, and you and I read in the paper the morning before the convention just who was to be nominated, and we read it without surprise. And who has been the leader of the Democratic party?" he said.

"Terence McGann," some one shouted.

"Yes, Terence McGann," he replied. "I have no desire to say anything mean of Terence, but I will leave it to the gentleman who has recently entered this room, Mr. ——, if Terence McGann did not confer with him just prior to the Democratic Convention to make up a slate, and if he and Terence did not have a meeting in the Arlington Hotel immediately after the convention to map out plans to beat the Democratic ticket.

"I make this charge, Mr. ——, and ask you to come forward and deny it if you care to."

I started to the speaker's stand, I scarcely knew why. I looked into the faces of the first crowd I had ever addressed. As calmly as I could, I said:

"I came out as a citizen to hear both sides of this case. It is true I am the President of the Electric Railway; but am I for that reason an enemy of the people? Think what you would do if you had to walk miles to your work. Think what the street railway has done for the upbuilding of the city. Do we not pay taxes the same as do other people? Do we not give good accommodations? Is it not legitimate industry? Times are good," I said. "The country is prosperous. Men have work and wages are high."

Then turning to Ballantyne, I said, "I do not feel called upon to answer your questions. You are a lawyer and out here stirring up class feeling in a country which, thank God, is free from classes. You are arousing a spirit of discontent, of Socialism, of anarchy, and it will be a sad day for the good name of this city and for its industries if a Socialist leader like you is elected mayor."

This seemed to have a visible effect upon the audience. But I did not like the enthusiasm of that crowd.

The next day I called a large number of business men into my office. We started in to raise a large campaign fund. I suggested that we organize a citizen's reform committee. I called in one of the leading clergymen and had a talk with him. I also got some of our stockholders to call on the members of the City Reform Club. I knew many of its contributing members, and some of them were connected with me in the same banks. These I induced to appear before its executive committee and urge the necessity of ridding the city of the dangerous demagogic influences that had arisen in the Democratic party. They also spoke of the necessity of protecting the city from an open Sabbath and the control of the saloon element. Soon all of these influences were thoroughly aroused. They organized local ward committees in the churches. The Reform Association began to issue bulletins on the mayoralty situation. The Sunday before election, all the churches preached a crusade against Ballantyne. There did not seem to be a chance for our defeat. The betting was two to one in favor of Williams.

In the evening of Election Day we all met at the Metropolitan Club. The early returns were from the Democratic wards about the mills. They showed Democratic gains. But after a goodly sprinkling of Republican wards indicated a good vote, we began to feel confident of the result. Soon one of the German wards came in, a conservative, well-to-do ward, usually Republican. It showed heavy Democratic gains. By ten o'clock Ballantyne was in the lead. By midnight the extras were out announcing his election by several thousand majority. For the first time in our experience we had failed to control the situation. The people had been carried away by an appeal to class feeling.

Nothing remained to do but to carry the fight into the council and for this we were well prepared, for we could easily control a majority of the aldermen, and even if Ballantyne could not be brought over to us, we felt pretty confident of our ability to secure enough votes to override his veto.

THE FRANCHISE BATTLE

The day after election we examined the council as elected. It numbered twenty-seven

members. There were Murphy, O'Brien, Callaghan, O'Donnell and Smith from the lower Democratic wards. These men had been selected by McGann, and could probably be relied upon. I sent Terence to see these fellows, and give jobs to their friends. On the Republican side there were Thompson, McKay, Green, Jenkins and Lloyd that I thought we could bank on. We then arranged for a caucus of the Republican members, and chose Thompson for president. His brother was a painter and had a contract with us for the painting of our cars. Through Thompson we made up the committees on railways and lighting and streets. The other committees were parcelled out among the fellows who had to be reconciled. This put us in a strategic position. The ordinances went to the committees before consideration by the council, and a two-thirds vote was required by the rules to force a report from the committees. We now felt secure from any adverse legislation. But further than the five Democrats and five Republicans we could not get. Eight more were needed.

Up to that time I had never paid any money for votes or legislation. But our directors were not all so squeamish. My objections were overruled by the board, and $50,000 was voted as "legal expenses."

On the Democratic side of the council a number of members were friends of Ballantyne. They were workingmen who had gone in on his platform. The Republicans were of a somewhat better sort—clerks, insurance men, small store-keepers and a couple of lawyers. One was a blacksmith, and Buckley, our superintendent, gave him some work to do. Another was in the insurance business. He was given our employers' liability and fire insurance. Another was a personal friend of Buckley, and Buckley endorsed his note for $200 to take care of a mortgage on his house. Buckley thought he had fifteen men "fixed," although he did not tell me how.

On the organization of the council, the slate went through without opposition. The president and the clerk endorsed by the caucus were elected, and the committees were announced as we had arranged. But to our consternation, just before adjournment, Lawrence, a young Republican lawyer just elected to the council, moved that a special committee of five named in the resolution be created to consider the street railway problem, and that all railway legislation should be referred to it. We were not prepared for this. The President left the chair to oppose it, but the council carried it by a majority of one.

I saw that Lawrence would have to be handled gingerly. I sent one of the city contractors to him with some business, and got a number of prominent men to see him. I had these men talk about the danger from Ballantyne building up a machine. They brought in the franchise question incidentally, as if they were citizens interested in Lawrence's conduct and gratified that a man of his type should have been willing to enter the council. They said it was a splendid thing that the young men were going into politics in this way; they would be the salvation of the American cities. I also got some of the business men and one of our small banks to turn their business over to him. But even with Lawrence it looked as though we were shy some votes if a hard fight were made.

There was another Republican, Fulton, a well-to-do merchant. He had risen by sheer enterprise, and now that his children were entering society, he had become ambitious for them. His name had been proposed at the Country Club and some protest had gone up against his admission. I saw the committee with whom I was intimate and gave a little dinner party to Fulton, and invited the committee and their wives. Fulton was manifestly much flattered. The wives of some of our directors called upon his wife, and one of his daughters was invited to several social affairs.

But even with Fulton we were short. One councilman, named Robbins, was an insurance man. I wrote to our banking correspondents in New York explaining that Robbins was in danger of injuring his insurance company's business by his attitude on the street railway question. Within a few days one of the officers stopped off to see me. After that we never had any difficulty about Robbins's vote.

In a few weeks the ordinance was ready. It provided for a fifty years' grant with a straight five-cent fare and no transfers. We finally decided on Fulton to introduce it. It was referred to the regular committee on streets and railways.

We then had an open meeting of the committee called for the following week, at which we expected the Mayor and the opposition

company to show their hand. An immense crowd appeared. But, by arrangement, a quorum of the committee did not. An adjournment was made; but a quorum was not secured. This was kept up for two weeks, and the number of persons attending constantly diminished. Finally a meeting was held. The Citizens' Company appeared by their counsel and offered a counter proposition. They were prepared to accept a twenty-five year franchise, they said, to take over all our equipment, to pay its value as determined by arbitrators, and to give six tickets for a quarter and universal transfers. We got this company out of the way by purchasing control of it for $1,000,000. Then I offered Robinson, a lawyer, whom we had used on several occasions, a retainer of $500 and told him that he would be paid $5,000 when the franchise passed the council, and $15,000 more when it was signed by the Mayor or otherwise became a law. I just advised him to see Thompson.

In a couple of weeks the ordinance was reported for second reading. It was substantially as we had drawn it. But after some debate, finally Lawrence rose. He offered amendment after amendment, based on the proposition of the Citizens' Company. Thompson left the chair against these amendments. They were lost by two votes.

The next week the ordinance came on for its third reading. We kept constant watch of our men. Some of them were very uneasy, for there had been some ward agitation. When the ordinance came up, Lawrence led the fight.

"This ordinance is an outrage," he said. "You are binding the city for fifty years. Before it expires you will all be dead. It is worth tens of millions of dollars and you are jamming it through with only a few weeks' consideration. Let's postpone action, lay the matter on the table and give the public a chance to be heard." The roll call was demanded as soon as he sat down. We had eighteen votes. The ordinance was carried.

The following morning Mayor Ballantyne issued a call for a public meeting to be held in Music Hall. He called upon the people to see their councilmen and lead them to reconsider their vote. The week was one of uncertainty. There were rumors of defection. We took five weak-kneed councilmen out of the city to keep them free from influence. Ballantyne and Lawrence were holding nightly meetings throughout the city. The Music Hall meeting was jammed. Incendiary speeches were made by Ballantyne and the President of the Central Labor Union. Lawrence also spoke. There were charges of bribery, and the city was in a ferment.

The Mayor's veto message came in the following meeting night, and was received in silence. It was then moved that the Mayor's veto be not sustained. One after another the councilmen stood pat. The franchise was passed.

Mayor Ballantyne was renominated on the expiration of his term. But by this time we had organized sufficient opposition in his own party to defeat him for re-election.

I have always felt sorry for Ballantyne. He was a promising young man and had he accepted our assistance, he would have had a splendid career; but he injured his business by entering politics, as is so often the case. He had a chance for a great career; but, of course, when he came to practise law again he was a marked man. What business he previously had had left him, and those who had opportunities to throw it his way were prejudiced against him. He struggled along for a few years under a burden. His family was socially neglected and finally he left the city, and I never have heard what became of him.

As for the franchise itself, our stock immediately went up thirty points. We increased our capital and took in the old Citizens' Company, thus increasing our lines and earnings. We ultimately increased our capital stock to $12,000,000. But the contest had been a costly one. The people had become aroused on the question as never before. It became apparent that we could not trust ourselves with open and direct primaries. We had to control the party, and if possible both parties, and to do this we had to retain the convention system of nomination. Moreover, the growing hostility of the city made it apparent that we must protect ourselves in the State at large. It was necessary to extend our influence to the legislature. For there was constant danger that our taxes would be increased, the fares reduced, or striking legislation of some sort worked through the council that would imperil our interests.

MR. JEROME: A STUDY OF A MAN

THE DISTRICT ATTORNEY OF NEW YORK WHO IS PROSECUTING CRIMINALS IN ORIGINAL WAYS AND WITH NOTABLE EFFICIENCY—WHAT HE IS DOING AND HOW HE DOES IT

BY

LEROY SCOTT

WILLIAM TRAVERS JEROME, when a number of his friends were advising him against opposing the renomination of ex-Mayor Low, declaring that the consequences of that course would be his political elimination, replied: "It's the right thing, and I'm going to do it. D—— the consequences!"

Imagine a square-chinned, graying man, built like a half-back (he never was one, for he broke down in college from over-application to his studies), give him the mind and spirit implied by the quotation above, and you have the District Attorney of New York County in a sentence. If you sincerely desire to understand him, hold fast to the quotation. Those dozen words are very near a complete explanation of Mr. Jerome and how he has come to be the most striking figure in New York public life.

It took New York some time to understand Mr. Jerome. He was eccentric, and you could never tell what he was going to do next. That sophisticated city had grown so used to cunning business men, shifty politicians and reformers of lethargic diplomacy, that it failed to recognize that Mr. Jerome was merely the powerful recrudescence of certain old-time frank virtues, which, in politics at least, seem to have become obsolete. New York recognizes that fact pretty thoroughly now, and has finally located the quality that is the main source of Mr. Jerome's remarkable power. He is able; but possibly there are many men who are just as able. He is full of energy and tenacity; but those virtues are not limited to him. The quality that makes Jerome what Jerome is, is his reckless courage, even audacity, in fighting for what he considers right, come what may to himself.

When I asked Mr. Jerome point-blank what quality he regarded as responsible for his rise, he replied: "I do not know. Only an introspective man could answer that, and I have never examined myself. I have no rule in life, except to do the thing directly before me the best I know how, then take up the next job." After a moment's thought he added: "I have never planned a career, and I now have no plan for a career. I believe with the Caliph Ali that 'thy lot or portion in life is seeking after thee; cease therefore from seeking after it.' I just do my work, and let the future and my career take care of themselves."

When Mr. Jerome became District Attorney, January 1, 1902, after a spectacular campaign—spectacular in that he told the unalloyed truth—he took charge of the heaviest criminal law practice in the world. His office handles about thirteen thousand cases a year. To do this work there are, besides himself, thirty lawyers and an executive staff of a hundred men. The private office in which this immense amount of work has its focus is simplicity itself. It is big, light and airy. A flowered green carpet, a desk in the middle of the floor, a large safe, a bottle of filtered water in a corner, a couple of tables, a half dozen chairs, a rack for newspapers, and on the walls the photographs of half a dozen ex-District Attorneys—this is a complete inventory of the room's furniture. Here the "Chief" distributes the cases among his associates, advises them on difficult points, and here by mastering manner and threat of the Grand Jury he has extracted hundreds of important confessions from unwilling witnesses.

Mr. Jerome could have said very properly on becoming District Attorney: "We've got enough to do to look after the regular work of this office without bothering about anything else." But he didn't say that. He has performed his duty, and has performed it well; there are plenty of persons who will tell you he is the best District Attorney New York County has ever had. But he has done a great deal more than his duty, and it is

more with these things in his career that this article is chiefly concerned.

During the campaign a constant theme of Mr. Jerome's speeches was the evils that had been allowed to surround the tenement-dweller by the Van Wyck administration. One of the things in excess of his duty that Mr. Jerome did was to take up his residence on the crowded East Side, and to establish a branch office there for the benefit of poor complainants whose work would not allow them to come during the day to the office in the Criminal Courts building. Word was sent out that the office would be open every night, and no matter what the hour the injured person had but to ring the bell. At first few came; the East Side, accustomed to being blackmailed and bullied by those in power, was suspicious of this unrequired provision for justice. But after a few daring men with grievances had visited the office, had come out unbullied and unblackmailed, and had had their cases successfully prosecuted, such confidence in the office was established that the men living in the house never knew at what hour of the night they were to be roused by some seeker for his rights.

His fight against the gamblers, which he has waged since he was a judge in Special Sessions, was an enterprise that Mr. Jerome need not have entered upon, for the suppression of gambling falls more properly within the province of the Police Department. But that it wasn't his job made no difference to Mr. Jerome. It wasn't being done, and it needed being done. That was enough for him; so he went at it. He thought that by strictly enforcing the law he could wipe out, or greatly diminish, gambling in New York. But a couple of years' of experience taught him that the law was useless. He raided scores of places, arrested hundreds of players and keepers, but could get few convictions. The difficulty was that the players could not be made to testify against the keepers, for by so doing they would be testifying against themselves, and a witness cannot be forced to incriminate himself. The mere raiding did not appreciably lessen the evil. A raid meant to a proprietor only the loss of two or three thousand dollars' worth of gambling devices. That was nothing. He could start up again and his profits for a single night would make up the loss, or perhaps reimburse him twenty times over.

Mr. Jerome does not know how to give up. Having discovered the aw was useless, he promptly set about getting a law that was of some good. The measure he had introduced into the State Legislature made it impossible for a witness to refuse to testify on the old plea, by providing that in a gambling case a witness's testimony could not be turned against himself. Mr. Jerome waged his fight for the bill alone, using decent methods. Arrayed against him were the gamblers and their friends, with plenty of money and with no Puritan ideas about how it should be spent. At this time a scion of the Vanderbilt family, wanted as a witness against Richard Canfield, the biggest of the gamblers, in whose place he was said to have lost in two sittings a sum running into the hundreds of thousands, was keeping out of the State to avoid being brought into court; so Mr. Jerome also had the powerful Vanderbilt influence against him. The fight over the bill was a bitter one. Two things contributed to its final triumph. If he had failed in the real object of his previous campaign against gambling, Mr. Jerome, by the newspaper accounts of his fight against the evil, had at least thoroughly roused the public. Feeling in the country was so strong that rural members of the Legislature dared not vote against the bill. The second element grew out of the personal animosity existing between Senator John Raines, Republican leader of the Senate, and Senator Brackett, formerly the attorney of Mr. Canfield. While the bill was before the Senate, Senator Brackett launched into a bitter personal attack on Senator Raines. The first result of this attack was that Senator Raines flayed Senator Brackett alive; the second result was that the roused Republican leader, who had favored the measure but who had been too busy to give it much attention, became the bill's fierce champion, and got all his following behind him. Thus, by a curious chance, an outburst of temper, caused by partisan rivalry, gave New York its present anti-gambling bill.

By the beginning of 1905 Mr. Jerome had had the law affirmed and was preparing to resume his campaign against the gamblers after a year of non-aggression. Just before he was ready to open fire, the head of the Police Department, a most excellent man but not a very excellent Chief of Police, had an unfortunate complacent mood, during which

he announced that gambling houses in New York existed only in history. While this announcement was still fresh, Mr. Jerome's guns began to go off. He subpœnaed a few of the most important gamblers, and in a heart-to-heart talk made clear to them that with the help of the new law he was certain to beat them. Did they want to fight, or did they want to surrender? If they would surrender, he would take no action against them. They decided to give up without a fight, to close their houses, and turn over their gambling paraphernalia. After this, it was not necessary to issue subpœnas. Mr. Jerome let it be known that he wanted to see the gamblers, and for the next two weeks they were constantly dropping in to offer their surrender—not a very gratifying subject for the meditations of the Chief of Police, who had been unable to find a gambling house in New York.

It was a sudden victory. Said a friend to Mr. Jerome: "Well, it seems the gambling walls are coming down, like the walls of Jericho, at the blast of a trumpet."

"Yes," replied Mr. Jerome. "But it took three years to get the blast ready."

As fast as the gamblers surrendered, Mr. Jerome sent out vans, and after brief absences these vans backed up at the Criminal Courts building, loaded with gambling furniture. There is now stored in Mr. Jerome's office about $40,000 worth of gambling material. Two large rooms are filled to the ceiling; and there is an overflow into other rooms, so that work is done with the green cloth at the workers' elbows. There are dismantled faro lay-outs, roulette wheels, red-and-black tables, Klondike games and poker tables, stacked on top of each other like corded wood—and all of these are of the finest material and workmanship, for they are from the "swellest" up-town gambling resorts. Millions have passed over their green cloth. And there are bushels and bushels of chips, in pillow slips and potato bags. Sentence has been passed upon all this gambling material. Whatever of it will burn is to be broken into firewood and turned over to charitable societies to be distributed among the poor; and each five-hundred-dollar roulette wheel, over which breathless millionaires have leaned, will keep some poverty-stricken family warm for a night.

"At present," to quote Mr. Jerome, "there is not a big gambler doing business in New York." Mr. Jerome has not wiped out the gambling evil; to do that would require a police force of his own. There are still innumerable small gaming places. But, by wiping out the big establishments, Mr. Jerome showed that the small ones could be suppressed by an efficient police force—and thereby did much to rouse a public sentiment that has recently culminated in a citizens' movement for a better police department.

Mr. Jerome's activity against corrupt labor leaders gained widespread fame by his prosecution and conviction of Sam Parks and other walking delegates. An incident that occurred at the beginning of this campaign shows both his audacity and his power. The Central Federated Union, representing more than a quarter of a million of union members in and around New York City, challenged certain of his public remarks about corrupt labor leaders, and asked him if he would come before their meeting and repeat his statements. "Sure, I'll go anywhere," he said. Accordingly, he appeared one Sunday afternoon in their hall. It was a distinctly hostile crowd that he faced—nine men in ten against him. He did not try to assuage their anger. It is a habit with him to say worse things to a man's face than he says behind his back, and he did not depart from his habit on this occasion. There were fierce tilts. Mr. Jerome, smoking one cigarette after another, kept his temper and met all comers. In the end, he won the crowd, and when he left the hall there was an ovation.

One of the strongest of Mr. Jerome's many efforts has been to secure an amendment to the present liquor tax law. The present law, by prohibiting the opening of saloons on Sunday except such as have a sufficient number of guest rooms to put them into the class of hotels, has transformed some fifteen hundred saloons into the far worse "Raines law hotels," breeders of vice and crime. But even three-quarters of the regular saloons do not observe the law. They may lock the front door, but the side door is always open. Police "graft" on a large scale is a direct result of this unenforced and unenforceable law. Mr. Jerome holds that the infamous "Raines law hotels" would be wiped out, and the evils of illegal opening would be greatly reduced, by amending the law so that Sunday opening from 1 to 11 P. M. should be legal. During the campaign of 1901, Mr. Jerome

announced in his speeches that he was going to do all in his power to secure the passage of such an amendment; and every year since he has brought a bill before the Legislature. The first year he went to Albany practically alone, but since then the sentiment for some form of Sunday opening has grown so rapidly that it is now an unorganized movement unofficially headed by a great proportion of the most prominent divines, professional men and business men of the city. Mr. Jerome's determination seems to increase with failure. The amendment to the excise law is bound to come some day.

It is not wise to fool with Mr. Jerome. While his bill was before the Legislature last year he was waited upon by a deputation from the Liquor Dealers' Association who asked what they could do to help press the bill at Albany. "Just one thing—keep out of the way," returned Mr. Jerome. "I don't want your help." And then he went on to inform them that if they interfered with their dubious assistance he would make trouble for them. Shortly afterward he was in Albany, and on his return to New York he sent for the president of the Association. That gentleman, considering himself a friend of Mr. Jerome, came in with a smile. There were no diplomatic preliminaries. Mr. Jerome never wastes words. He turned fiercely upon his visitor. "Look here! Didn't I say I'd make trouble for you if you tried any dirty business behind my back?" The astounded president began to disclaim any wrongdoing. "You sit right down and tell me what you did with that $25,000 corruption fund," ordered Mr. Jerome. When the president came to, he stated that he could say nothing, for his was an oath-bound organization, sworn to reveal none of its transactions. "Not even to the District Attorney?" "Not even to you." Mr. Jerome touched a button, and a bell rang in another room. "What's that for?" asked the startled president. "For an officer to take you to the Grand Jury." "What! You wouldn't treat a friend so?" "I would when a friend gets into such dirty business as you've been up to in Albany." The officer was sent back, and the president proceeded to confess. So many thousands went to pay legislators' bills, so many thousands went to slake legislative thirst, and so on till all had been accounted for but a few thousand dollars. Then the president halted. "Go on. The rest you divided among yourselves," said Mr. Jerome, giving him the cue. But the president would go no further. Mr. Jerome touched the button, the officer reappeared, and the president went before the Grand Jury. The case is now in the hands of the Governor and the Legislature. Whatever its outcome, the District Attorney has at least given the powerful Liquor Dealers' Association a very black eye.

Mr. Jerome has a sense of duty that is stronger than himself. Perhaps no act of his career brought upon him so much harsh criticism as his declaration against the renomination of Mayor Low, before the opening of the municipal campaign of 1903; and perhaps no act shows in such high relief his sense of duty and his recklessness of self-interest. During the spring and summer, friends of Mayor Low had frequently declared to him in private conversation that Mr. Low stood no chance of re-election, but that he was the logical candidate of the reform party, and it was due him that he have the tribute of renomination. Mr. Jerome grew indignant at this sort of speech. Again and again he said in effect. "We can't let two years of good work be lost simply out of a notion of loyalty to Mayor Low. We are working for the good of a city, not for the good of a man." He begged them to declare their opinions publicly, and to look for a candidate who did stand some chance of being elected. They one and all excused themselves.

Mr. Jerome took the matter very much to heart. Gradually it came to him as his duty to speak out the truth, since no one else would. Friends who learned of his growing purpose pointed out that for him, elected on the Fusion ticket with Mayor Low, to take this action would bring the whole Fusion party about his ears. It would probably mean his political ruin. Mr. Jerome saw these dangers as clearly as his friends. But the probable consequences to himself did not alter his conception of his duty. The terrible strain of this moral crisis made him half sick, but he came out with the things that many believed but none had dared say. He had previously announced that, under no condition, would he himself be a candidate for mayor, so no one could claim that in opposing Mr. Low he was trying to serve a selfish interest. As he had expected, for the next few days he was the most berated man in New York. But he had

done the right as he saw it, and his conscience, which has more influence with him than all the other considerations in the world, gave him its approval.

Mr. Jerome has set at naught all the tried rules for securing political advancement. He is independent to the limit of independence. Before the campaign of last fall, he was approached many times relative to being the Democratic candidate for governor. His uniform reply was that if the candidacy were offered him he might give it consideration, but he would not pull a single wire to get it. Judge Parker wanted him as the candidate, and ex-Senator David B. Hill, Democratic boss of the State, called on Mr. Jerome supposedly to offer the nomination provided he could bind Mr. Jerome to be a strict party man. Senator Hill approached the matter with his characteristic devious diplomacy, and finally reached the subject of Mr. Jerome's ambition. He impressed upon Mr. Jerome that if he accepted the nomination as a strict party man, great would be his political and financial profit. "Senator," Mr. Jerome returned, "I have no ambition to make money. My ambition in life is mainly confined to being a good man. When anyone tries to take me up on a high mountain and show me the treasures of the earth, there is just one answer I can give them, and that is——" and he ended with a graphic equivalent for "*Retro me, Sathanas*." This was hardly the speech of a "safe" party man, and Mr. Hill carried his offer elsewhere.

Mr. Jerome's political party is the public, and that party considers him quite "safe" enough. His method of retaining the support of his party is unique among politicians: as has been indicated, it is to do what he thinks is right, and do it as hard as he can. When the public gets tired of that programme, he's ready to step down and out. But there is little likelihood of its getting tired. "Jerome's the real goods," say those sham-piercing semi-cynics, the reporters who "cover" the Criminal Courts building; and that seems also to be the judgment of his party.

Anyone can get Mr. Jerome's ear who has real business with him. He is very courteous to the visitor, however unimportant that person may be, unless he sees the caller is trying to pull the wool over his eyes. Then the caller thinks the Criminal Courts building is falling on him. With the men in his office Mr. Jerome is on very cordial terms—they all like the "Chief"; and outside the office he has a wide circle of friends. His relation with reporters is thoroughly typical of him. He talks with them unreservedly, as a rule suppressing nothing. When he recites a fact he is not ready to have made public he merely says: "That don't go, boys." It is often a piece of news that would make a first-page story, but it "don't go." Only twice since he has been in office has it gone, and those two betrayals of his confidence have pained no one so deeply as they have the District Attorney.

It is a common impression that Mr. Jerome is a high explosive, likely to go off at every little jar—that he is a series of detonations. So it comes as a surprise to learn that Mr. Jerome, though certainly possessing explosive potentiality, is in fact a quiet, grave man—though combined with this gravity there is an almost boyish animation that sends him through his office, hands in pockets, whistling or humming a popular air. He works rapidly, and, as has been shown, places no limits as to what or how much work he shall do. He is not an orator, in the accepted sense of that word; but no man in New York can draw a larger crowd. He just talks facts—humanized facts.

"When my work's done, I try to get as much fun out of life as I can." He gets a great deal, and it helps keep him young—on edge. He reads much, especially history. Also he is fond of poetry—which seems a little incongruous in a man so practical, and so keen for facts, undeniable facts. He golfs, drives an automobile, and has a workshop in his home at Lakeville, Conn., where he amuses himself by making sun-dials, compasses, clocks, and other gimcracks as gifts for his friends.

Mr. Jerome is forty-three, and is older and younger than his years. The most remarkable fact about him is, he is still growing like a boy. When a man, already among the foremost of the country, is growing at such a rate one can but wonder where he will rank, and what will be his position, when he has attained his full development.

SELLING BONDS TO INVESTORS

A BUSINESS BY WHICH SECURITIES REPRESENTING $1,500,000,000 ARE SOLD EVERY YEAR—HOW INSURANCE COMPANIES, BANKS, AND PRIVATE CAPITALISTS ARE LED TO BUY THEM—THE PROFITS OF THE DEALERS

BY

HENRY C. NICHOLAS

WALL STREET banking houses sell directly to investors every year twenty times the amount of bonds sold to investors through the medium of the stock market. Here is a business in which more capital is engaged and greater profits are made than through speculation in stocks, for every year bonds representing $1,500,000,000 are marketed.

The largest single investors are the insurance companies. Their gross income is more than $550,000,000 a year. After the payment of operating expenses the remaining sum is an investment fund. About $200,000,000 of it is invested in bonds. The savings banks invest about $150,000,000, and the banks and trust companies another $150,000,000. Then a billion dollars' worth are sold to several million foreign and domestic investors.

Roughly speaking, there are two classes of bond dealers in Wall Street. The first class are the great underwriters—several of the largest national banks and a half-dozen private banking houses, like J. P. Morgan & Co., Speyer & Co., and Kuhn, Loeb & Co. Each of these private banking houses buys and sells in a year from $100,000,000 to $300,000,000 of bonds, making a profit of from $2,000,000 to $8,000,000. They are practically wholesale dealers in bonds. The retail dealers are more numerous. A number of these sell from $50,000,000 to $150,000,000 worth of bonds a year directly to investors through advertising and correspondence. Some of them deal exclusively in municipal bonds, others in steam railroad, electric railway or industrial issues. The capital thus secured is used in developing our natural resources.

A railroad, which we may call the Western Pacific, desires to raise $50,000,000 to build an extension to its system which will open up a new territory and give several thousand persons employment. It secures the money by selling bonds. Instead of attempting to dispose of an issue representing the $50,000,000 independently to investors, the railroad offers it to one of the wholesale bond dealers at a discount. The rate of interest and the character of the security may be such as to entitle the bonds to be worth par. The railroad, however, agrees to sell them at 96. In this way it succeeds in disposing of the entire block at once, instead of being forced to attempt to retail the bonds in small lots to investors. It also receives its money within sixty or ninety days, and it can, therefore, immediately contract for the construction of the new mileage. A war may break out, a panic may occur, the crops may fail, an industrial reaction may set in accompanied by numerous failures, but the railroad knows that on the appointed day it will receive $48,000,000, even though the banking house that has contracted for the purchase of the bonds may not have been able to dispose of a single one.

As soon as the private banking house signs the contract to purchase the bonds, it immediately forms an underwriting syndicate, to protect itself against the possibility of failure in disposing of the bonds. The banker invites four other bankers to join him. Each agrees to purchase bonds representing $10,000,000 at 98, if the syndicate does not succeed in disposing of them within the appointed time, or, if some are sold, one-fifth of those remaining. In other words, the banker, who has contracted for the bonds for $48,000,000, immediately forms an underwriting syndicate to whom they are sold for $49,000,000. Without advancing a single dollar he clears a profit of $1,000,000.

There is not a banking house in the country that would agree to purchase a single block of $50,000,000 of bonds unless it could shift a part of the risk upon an underwriting

syndicate. The bonds might be excellent investments, yet there is always the possibility of a panic, that would render it impossible to dispose of a single bond. The $48,000,000 paid to the railroad is a larger sum than any banking house could afford to have tied up in a single security during a panic. Through the underwriting syndicate the obligation of each banker is reduced to less than $10,000,000—an obligation not sufficiently large to cause uneasiness.

After forming his underwriting syndicate, the banker advertises and offers the bonds for sale. All the wholesale bond dealers enjoy close relations with the insurance companies and the savings banks and trust companies, who are the heaviest investors in bonds. They also have the confidence of the retail bond dealers, and possess many wealthy private customers. Owing to these connections the wholesale bond dealer seldom finds any difficulty in disposing of his bonds. Ordinarily, the entire block he holds is disposed of within a few days. Through this sale the banker receives $50,000,000, of which $48,000,000 is turned over to the railroad. The extra $2,000,000 is the profit made by the banker and the underwriting syndicate. Of this sum $1,000,000 is the profit of the banker. The other $1,000,000 is the profit of the underwriting syndicate, and is divided equally between the five members. As the banker is one of the members of the syndicate, he makes an additional profit of $200,000.

The profit made is, to all intents, the price of the banker's credit. The commission, therefore, varies considerably. If a corporation that desires to dispose of a block of bonds is weak in credit, the commission charged may be heavy, and the profit may amount to $4,000,000 instead of $2,000,000. On the other hand, if the corporation is strong and its securities well regarded among investors, the profit may be slight.

All underwriting syndicates are not successful, and fortunes are often lost as well as made. The underwriting syndicate formed in 1901 by J. P. Morgan & Co., to market the securities of the United States Steel Corporation, made a profit of nearly $40,000,000. On the other hand, many underwriting syndicates organized a few months later proved disastrously unsuccessful. The tremendous decline in the stock market which started in the fall of 1902 and continued practically throughout 1903, and which caused a depreciation in the value of securities of more than $1,000,000,000, was due principally to the failure of underwriting syndicates. Investors ceased buying. The result was that the members of these underwriting syndicates were forced to carry out their contracts and purchase the underwritten bonds themselves. To raise the enormous amount of capital required, it was necessary for the underwriters to throw thousands of shares of stock on the market for whatever prices they would bring. The tremendous decline in prices in the stock market which followed became known as the "rich man's panic." It is against just such contingencies as this that the wholesale bond dealers protect themselves by organizing underwriting syndicates. Had it not been for this practice of organizing these syndicates, there would unquestionably have been some tremendous financial failures in Wall Street in 1903.

Each of the large wholesale bond dealers are the fiscal agents of certain large corporations. The Pennsylvania Railroad, the Baltimore & Ohio, the Norfolk & Western, the Union Pacific, the Southern Pacific, the Illinois Central and other corporations sell their bonds to Kuhn, Loeb & Co. The United States Steel Corporation, the Southern Railway, the Erie, the New York Central, the Hocking Valley, the General Electric Company, the Lake Shore Railroad, the Atchison, the Northern Pacific and others sell theirs to J. P. Morgan & Co. Railroads like the Rock Island and the Mexican National and several foreign governments, like Cuba and Mexico, are usually represented by Speyer & Co. Foreign government bonds to a large amount have been sold by several Wall Street bond houses in the last few years. During 1904, foreign securities representing more than $150,000,000 were underwritten and sold by Kuhn, Loeb & Co. and Speyer & Co.

It is through the retail bond dealers that the great investing public of the country is reached. The other day a retired merchant died in Pittsburg whose wealth was estimated by bankers to exceed $50,000,000. Of the several million persons who read of his death in the newspapers the following morning, only a few had ever heard his name before. There are thousands of similar capitalists in the United States, each possessing a fortune greater than was owned by any single individual in the country fifty years ago, whose names are entirely unknown to the average

newspaper reader. There are several hundred thousand others who possess independent fortunes. It is with these individual investors that the retail bond merchant deals. All have a large list of wealthy customers to which they are continually adding. The customers of some are mostly in New York or Pennsylvania, of others in New England, of others in Canada, of others in the West or the South. Some have wealthy foreign customers.

The number of regular customers may range from 5,000 to as high as 25,000. There is one retail bond house in Wall Street, which has been in business for seventy-five years, that has a list which could not be purchased for several million dollars. It includes 22,000 names, and these customers purchase on an average nearly $5,000 of bonds a year apiece, or a total of more than $100,000,000 a year. This house would not hesitate to purchase a block of $5,000,000, or $10,000,000, or even $20,000,000 of municipal, county or railroad bonds, knowing that it would be able to dispose of the entire block in the course of a few months in small lots to its regular customers.

Practically every large retail bond house in Wall Street now employs salesmen, who travel over the country selling bonds very much as drummers sell tea or coffee. Some of the largest houses employ as many as forty salesmen, and altogether more than three hundred are employed in Wall Street. Each has his own territory and possesses his own customers. Many make salaries of from $10,000 to $15,000 a year, and some even more. All are to some extent experts on values. In addition to employing salesmen the retail bond houses advertise extensively.

The wealth of the United States is to-day estimated at $100,000,000,000, and is increasing at the rate of about $3,000,000,000 a year. As time goes on a larger and larger proportion of this annual addition to the wealth of the country will be invested in securities. Already the securities listed on the New York Stock Exchange have a total par value of $20,000,000,000, or one-fifth of the total wealth of the country, and many of the largest issues of bonds, held closely by investors, are not listed on any exchange. Twenty years ago, when the annual income of a lawyer or a doctor exceeded his annual expenses by several thousand dollars, he would usually deposit his savings in bank. He would allow them to accumulate for several years and then invest the entire sum in real estate. To-day, nine times out of ten, the lawyer or doctor invests his surplus income in standard municipal or railroad bonds.

The reputation of a bond house, and the following which it possesses among investors, is its principal stock in trade. The majority of the customers of a bond house purchase securities from it, not because of personal and expert knowledge of the security and safety of the bonds, but because of the reputation of the house. The average investor, whether he invests $5,000 or $500,000 a year, after a superficial examination, purchases securities almost entirely on the recommendation of his bond dealer. The enormous profits the bond dealers make is the price they charge for lending this credit to corporations and municipalities. Practically every one of the leading Wall Street bond houses may boast that no investor has necessarily ever lost a single dollar through the purchase of bonds on their recommendation. With such a record, is it any wonder that when such a bond house offers a block of bonds for sale, accompanied by a recommendation, that the entire issue is often oversubscribed within twenty-four hours of the opening of the books?

The large wholesale bond dealers do not lose interest in an issue as soon as they have sold the bonds. They recognize a moral obligation to the investors. Before consenting to underwrite a bond issue, the large bond dealers satisfy themselves thoroughly that the bonds are safe investments. They retain lawyers to investigate the legality of the issue. Experts on value then pass upon the security behind the bond issue. In this way the bonds are put to a closer scrutiny than any investor could possibly make. Not until a house has become satisfied that the bonds are safe is it willing to stake its reputation upon offering them for sale. After having distributed the bonds, if for any reason any heavy selling of them should start, the banking house that has offered them enters the open market and continues to purchase until the decline has been checked. It is largely because of this recognition of a moral obligation that the large underwriters have such a tremendous following among investors throughout the world.

A COMFORTABLE-LOOKING TAVERN

WHAT A HOTEL OUGHT TO BE

LESS MAGNIFICENCE AND GILT AND MORE COMFORT AND GOOD TASTE—WELL BUILT AND WELL KEPT HOTELS HERE AND ABROAD

BY

JOY WHEELER DOW

THERE is a rare and forgotten anecdote bearing on all that follows. In the olden times, when folks journeyed by foot along the great post-roads oftener than by other means of locomotion, an aged and weary couple sat down beside a not very cheerful milestone, and communed after this manner: The old lady expressed her fatigue by wishing herself in heaven. "Ah, but I wish I were at the tavern," sighed the philosopher beside her. "You rogue," she cried, "you always want to be in the best place."

It would not be fair to expect the modern tavern to compete with heaven, by any shelter or provender it has to offer. But the modern tavern ought to compete with as many of the home felicities the traveler has turned his back upon as may be. This is the need of the traveling public. I will not go so far as to say that there is not an entirely satisfactory tavern in the city of New York, as I recently heard declared by a woman of society, who, I fear, alluded more to clientèle than to management or architecture; but the managers of hotels, and the architects, have important things to learn.

If we compare modern taverns with their predecessors of the seventeenth and eighteenth centuries, we should say that the modern ones are perfect. Washington Irving, a great connoisseur, said in 1857 of the St. Nicholas Hotel, then new, which used to stand on Broadway in the neighborhood of Broome Street, and had a most fascinating painting of the patron saint of New Amsterdam in the act of descending a chimney, artfully let into a great panel on the stairway, that it "beat anything in the way of a hotel" he had ever

THE INVITING GATE TO THE GARDEN OF A FRENCH AUBERGE

seen. Charles Dickens was also wonderfully impressed with the Tremont House of Boston in the early forties. What pleased them, however, was the beginning of that hotel magnificence which surfeits us to-day. We long for less magnificence and gilt and for more comfort, homeiness and good taste.

History is ominously silent about taverns. It is from diaries and letters we gain our knowledge of the deplorable condition of the average tavern in the past. From the taverns in the south of France described by Washington Irving on his first voyage to Europe, to the St. Nicholas on Broadway was a magical transit equaled only by the Arabian Nights. But, you see, as the Earl of Beaconsfield once very tactfully expressed it, "Other things have happened since then." The world has grown immensely richer, and its riches have been largely lavished upon taverns, while the art of tavern-keeping itself remains in its infancy. Hence, we want better taverns, not grander, gaudier, taller nor more expensive taverns, but just *better* taverns.

FIVE O'CLOCK TEA AT AN ENGLISH INN

In the United States all hotels worth considering call themselves "first-class" hotels, although Americans rarely attach any significance to a designation which means nothing in their own country, whatever it may mean abroad. In England there are first and third class hotels, but practically no seconds, and in France, Switzerland and Italy one sometimes finds second-class hotels that, to all intents and purposes, are first class, and notably is this true of the Italian *albergo*, in a country, too, we are given to understand, where it is unsafe to travel other than first class.

There are certain points of excellence to be learned of the English inn, the French *auberge*, the Swiss *gasthaus*, and the Italian *albergo*, respectively, though not nearly so many as some travelers enjoy making out.

AN IDEAL TAVERN (ARCHITECTURALLY) IN WALES

We have a few good taverns in the United States, if we exclude architectural considerations, which is where all taverns need improvement most. The inn at Princeton, N. J. (see page 6085), and the inn at Sharon in Connecticut, are two instances of well-kept taverns. I will not try to defend their architecture or their interior appointments, such as furniture and decoration, all of which are in very poor taste. Hotel architecture in the United States, in both town and country, is execrable. On page 6090 are submitted examples of the architectural melancholia of the average country inn. They are pretty bad; perhaps worse than the average. Obviously, architectural ideality was not included in the desiderata by their builders; but, I dare say, outside of their im-

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THE "PRINCETON INN," PRINCETON, N. J.

A well-kept American tavern

THE "ALBERGO VITTORIO" IN ROME
Modeled after a palace

poverished and terribly depressing architecture, a guest might still be well lodged, especially if he were a blind guest.

We have, unfortunately, one iron-clad rule which is the cause of more dismay to travelers than poor architecture. It is in regard to the hours for meals at which everybody is expected to be hungry, for at other times the doors of the dining-room are as tightly closed as the doors of a bank vault after business hours. One hardly expects that the ménu can be served all day; but "surely," as Max O'Rell observed in "Jonathan and his Continent," "one may have a chop cooked to order." But no, unless it be a city hotel with a café attached, there is no way of obtaining a morsel to eat out of meal hours. And nearly as bad is the obligatory table d'hôte of the European hotel, served invariably at night. The guest must take this meal at his hotel, or pay double for his lodging, which is very poor hotel policy.

A TYPICAL ITALIAN HOTEL
With an atmosphere of mystery

In England they say that only the Covent Garden Johnnie has his dinner at midday, while in America those of us who cannot sleep well after a hearty meal, have recourse to an equally vain imputation that only those whose time is not their own must dine at night. The acrimony, however, only goes to show that to run a tavern well the tastes of all travelers should be studiously regarded.

As everyone knows, the American hotel, in sanitary apparatus, is far in advance of all others, and if this one excellence constituted the ideal tavern, there would be little work for an article like this to do. But otherwise, it is unsafe in America to try an unrecommended tavern, not because it may not be eminently respectable, but because it may

THE "GOLDEN CROSS"
A delightful English inn at Oxford

be very badly kept. Usually, the cardinal sin lies in the cooking, where foreign hotels seldom fail. It is possible to stop at the best tavern in an American village, and have a good bedroom, sanitary plumbing, and scrupulously clean linen, and yet be served with such wretched cooking as to make one doubt if cooking in America is anything more or less than the art of spoiling edibles. Upon the other hand, the Swiss are a race of good inn-keepers, and one hardly needs to have a hotel starred by Baedeker before one makes a selection, while in England the traveler meets with a curious condition of things to be prepared for.

Not all the taverns take lodgers, by any means. The law says they must, but the law is not enforced; so that at a snug, attractive little tavern like the Sun Inn at Windsor (see page 6087), like as not you would be turned

away, if applying for lodgings, with the awkward explanation, made as delicately as possible, that the place was merely a tap-room for tippling purposes. Another peculiarity of English inns is the legend, vague to Americans, i. e., "Posting in all its branches," which simply means that a livery stable is run in connection with the inn, and usually indicates, besides, that the tariff (English word for rates) is a high one, and that a certain sum for attendance is charged over and above the tips that are commonly given.

A WELL-MODELED SWISS INN
In the Canton of Uri

A TYPICAL HOTEL IN PARIS

England divides the traveling public into two general classes, and sensibly so—those whom wine makes bilious, and those whom it makes drunk. Not that the former class has more self-denial than the other, or necessarily advocates temperance; but it can save money by stopping at a hotel where, strange to say, the profits of a bar are eliminated, as at the "Temperance Hotel" of Great Britain, to which we have nothing exactly corresponding in America.

France is very much overestimated as a country of good taverns. Greater care is necessary here in selection; indeed Messrs. Cook will tell you that you must purchase a through ticket from Paris to Lucerne (it takes all day) because there is no decent stopping-place for travelers on the way. One almost requires a search warrant to find as attractive places as can be seen in the best hotel at Barbizon.

The Italian *albergo* may boast of a unique attraction no other kind of tavern has designedly summoned to its aid, namely, the atmosphere of mystery. Behind the severe and still feudal-like street elevation there is often a most entrancing court and garden, of which the passers-by obtain seductive glimpses through a formidable iron grille at the entrance to the inn. These *albergos* are still fashioned after the manner of palaces of the great families of Italy — the Medici, Strozzi and Visconti (see Albergo Vittorio at Rome, page 6086)—but possess no other especial merit except it be their single, or twin, bedsteads, which I believe to be the one clean national institution of Italy. Even

THE SUN INN
At Windsor, England

AN AMERICAN COLONIAL TAVERN
Still doing business

A LATER MODEL
An early nineteenth century tavern

in that dirtiest of cities—Naples—I doubt if a double bedstead could be found in the shops.

But if we except the Italian *albergo*, it is safe to say that no country has paid the slightest attention to hotel architecture, in a sense of what is beautiful or ideal. Such picturesque inns as the one in Wales near Dolgelly, shown on page 6084, or that other just outside the forest of Fontainebleau, have come into existence through the merest chance. In the United States, I must admit, there have been attempts at making quaint taverns architecturally, but these attempts have betrayed mainly architectural nonsense, while for outlandish caravansaries we have eclipsed every other civilized people. The two hotels already noted on page 6090 are typical of the rampant ugliness which defaces American landscapes and has reached its highest development, perhaps, in the summer resorts. The illustration on page 6090—the Ocean View Hotel at Block Island—denotes the regulation thing of thirty years ago. Bad as the architecture of the seventies was, it is to be preferred to many of our latest achievements. There is a certain amount of harmony and restfulness in the lines of the "Ocean View," besides the advantage of thirty years of personal association, which is as so much capital to any architectural design.

On this page are presented two average examples of the historical country taverns of America. The reader is at liberty to weave about them as many romances as he chooses; but were he to enter either, I fear the magic spell would be broken. An exception is the Wayside Inn, near Sudbury, Mass. (page 6089), a fine example of an eighteenth-century dwelling, afterward turned into a tavern, turned back again into a private residence, and once more into a tavern, in which guise it still survives, perhaps the most ideal, architecturally, of the remaining old taverns, or, indeed, of all.

It is now with regret I have to make the reader blue, and introduce the modern sky-scrapers and Waldorf-Astorias; but let it be for the moment only, for may we not turn for contrast and profit to the ideal city hotel façade we have suggested by the Luxembourg Palace in Paris (see page 6090). Of course, this is not a hotel and no American financier, as yet, would approve of those gardens before it. He approves of Central

AN ENGLISH INN OF THE SIXTEENTH CENTURY

A PICTURESQUE HOTEL AT STANZ, SWITZERLAND

THE HISTORIC OLD "WAYSIDE INN" AT SUDBURY, MASS.

An example of satisfying architecture and surroundings

THE "OCEAN VIEW"
A typical American summer hotel

THE "LUXEMBOURG"
A charming model for a city hotel

Park, although the land it covers would command an enormous rental. He is enlightened and charitable to that extent; but

A TYPE OF THE UGLY ARCHITECTURE OF THE SUBURBAN HOTELS IN THE UNITED STATES

as for sacrificing two city blocks for a hotel garden—well, that is something else about which we should not be too sanguine. It may all come in time, only that time is, unhappily, not yet.

The municipality of Paris is not a charitable institution either, yet it is engaged in a great charitable work. It curbs the overreaching cupidity of Parisian financiers with American instincts, not only in limiting the height of buildings projected, but by regulating and toning down sordid aspirations to at least a modicum of decency which *we* utterly ignore. The new Hotel Ritz on this page wanted to make a commercial display—in a way, it wanted to resemble the Waldorf-Astoria and the "poor taste of the rich" generally. But the municipal restrictions would not permit. The Place Vendôme is an historic institution with which no commercial expediency may trifle. Consequently my illustration is somewhat of a puzzle-picture, "Given—to find the Hotel Ritz." It is part of the historic façade to the north of the celebrated column, but where does the hotel begin and where does it end? The rights of the citizens of Paris collectively are thus held inviolate. It is not the province of an inn, a tavern, or a hotel to astonish, to dazzle, and to make life artificial, but to make it

"HOTEL RITZ," IN PARIS
Showing in its grateful simplicity of architecture the effect of municipal regulation

A HOTEL IN A SMALL NEW JERSEY TOWN
"Architects have important things to learn"—especially in the construction of taverns of consistent architecture

possible and profitable while one is away from home, and to compensate the traveler for whatever he misses in some more thoughtful way than by a free jug of ice water upon retiring—an attention peculiar to America.

Architecturally, the Albemarle Hotel, Broadway and Twenty-fourth Street, is probably the most successful hotel edifice in New York City, old-fashioned as it is and so low of stature, so diffident of mien, that I believe half the people habitually overlook it, and never notice. An old New Yorker who lives on Twenty-third Street told me the other day he had never heard of the Albemarle Hotel. Yet what a relief to look away from the mocking skyscrapers! I care not what the exigencies of financial gain may be—in a tavern, at least, we must have a place where one's nerves are not continually in revolt.

Instead of lofty ceilings with blinding arc lamps suspended from the middle, the ceilings of an ideal tavern should be low, the rooms lighted at night by incandescent lamps in the shape of candelabra, or otherwise subdued and shaded. The dining-room, especially, should be thus protected, with the lamps upon the tables or in sconces. Let us not think of those ghastly dining-rooms we have seen tinted in robin's-egg blue and ornamented with rococo passementerie, gilded. The dining-room of an ideal tavern is its key-note apartment, and has to be carefully planned. There should be window recesses for small tables and doors opening upon the garden. There should be washable window curtains as spotless as the napery, while anything that savors of that microbes' delight—the Turkish smoking-room—should be irrevocably banished.

A ball-room with a musicians' balcony goes without saying, also a library. No club-house is complete without its library; why a tavern? If bed-rooms with private sitting-rooms attached cannot be arranged without sacrificing the windows and the sunlight of the bed-rooms as we find in city hotels, then let us have bed-rooms only. An elevator in the country is inappropriate. Three low stories are quite sufficient for any country tavern, where a broad and inviting staircase, delightful to use, leads you gracefully up six inches to the tread, and amply compensates for any stuffy elevator.

From the above specifications it is natural to conclude that ideal taverns are difficult to find in reality anywhere. The old Cheshire Cheese in Fleet Street in London, whatever it may have been in Johnson's time, is ideal no longer except in associations; and unless you can manage their ales and wines, I cannot recommend it, for they do not serve tea at the Cheshire Cheese, which is odd in England. The Golden Cross Inn at Oxford (see page 6086) is full of tavern atmosphere, and gives plenty of play to one's imagination. It is quaint, crooked, poky, and rambling enough to suit anyone. This kind of tavern, however, is not easily discovered. The average English inn is a very plain, box-like affair (see "Five O'clock Tea at an English Inn," page 6084), or else it is ornamented in a kind of way by which we know that bad architecture is not confined to the United States. But if we can forgive the usually uncongenial architecture, there are many acceptable taverns in America.

There is no doubt whatever of the great scientific advance we have made in the construction of modern hotels. They are prodigious achievements, from both the scientific and the financial points of view—fully up to date. No packer of sardines could possibly put more sardines in a box without injuring the sardines than can the modern architect put guests in a hotel. And he does all he can to guarantee the topmost guest immunity from fire and climbing stairs, because the topmost guest wants to be in a part of the city where real estate is very high priced; and the municipality has another private citizen's interest at heart—that he shall obtain as great returns from his rent-trap as possible, losing sight entirely of the rights of the people collectively. Hence, the kind of art that is applied in an attempt to conceal the wickedness of the thing is not art at all, but a counterfeit and a fake.

Now Art is a very jealous god, who does not permit the serving of two masters; at any rate, no two such antithetical masters as itself and Commercialism. Ordinarily, I do not approve of religious revivals, or indeed, any abnormal condition of the public mind; but what we most need in a still essentially commercial and shopkeeper's age is a radical change of heart—a sort of feeling that the other fellow is entitled to something.

GIVING CARNEGIE LIBRARIES

THE REMARKABLE SYSTEM BY WHICH 1,352 FREE PUBLIC LIBRARIES, REPRESENTING A BENEFACTION OF MORE THAN $40,000,000, HAVE BEEN GIVEN THROUGHOUT THE WORLD, AND WHAT THEIR ACTIVITIES MEAN TO THE PEOPLE WHO USE THEM

BY

ISAAC F. MARCOSSON

IN one of the principal streets of Allegheny, Pa., stands the heroic bronze statue of a man in the simple garb of an American of fifty years ago. Almost within sight is a magnificent structure whose towers rise far above all the adjacent buildings. The statue is that of Colonel Anderson and was reared by Mr. Andrew Carnegie in grateful appreciation of his kindness in opening his library of four hundred books to the young men of the town, which enabled Mr. Carnegie, when a telegraph messenger boy, to obtain access to literature. That kindness made the boy declare that if he became rich he would devote his wealth to the building of libraries for people who could not afford to buy books. The splendid building was the first fulfilment in America of that promise of a fruitful generosity which now extends around the world.

In nearly every English-speaking country to-day there is a Carnegie free public library. Altogether there are 1,352. During every hour of every day some of these libraries are open and in use. In New Zealand they enlighten the Maori; in the crowded East Side of New York City they uplift a congested foreign population; in Ireland they influence a struggling race. Without regard to creed or color, they have everywhere taught the value of high intellectual ideals. They have placed (or will place, when the buildings planned are erected) free reading within the reach of 25,000,000 people, and they represent a total benefaction of more than $40,000,000. No individual has ever contributed so much to a single cause or touched so many people. It is the most remarkable public service in the history of philanthropy, and its conduct is as unusual as the personality behind it.

THE BUSINESS OF GIVING LIBRARIES

Almost any day you may read in the papers that Mr. Carnegie has presented some town with a sum of money to build a free public library. The conditions imposed are that the community furnish a site and provide for an annual fund by taxation to maintain the institution. This simple announcement means that the whole machinery of a wonderful organization has been set in motion. When Mr. Carnegie was in business he dominated the steel industry of the United States by the application of methods that made him a conspicuous leader of industry. When he started to apply his great fortune to a constructive activity that appealed to his sentiment and his enthusiasm, he remained the business man. The result is that the system of giving free libraries is as well organized as the most perfectly conducted commercial establishment in the world. Few people know of the working of this system, yet many millions have been benefited by it.

Most wealthy men who make public gifts in a large way have a general office where all that business is transacted, but it is different with Mr. Carnegie. When he is in New York (and that covers six months of every year) the center of activity is at his residence at Fifth Avenue and Ninety-first Street. Within the imposing mansion that overlooks Central Park you will find the records of nearly every Carnegie Library in the world, and what records are not there are at Mr. Carnegie's Scotch home, Skibo Castle, where he goes every summer. The work is continued at Skibo without interruption.

Go to the New York house any day and ask Mr. Carnegie's secretary the cost of the public library at Fort Worth, Texas, and he will tell you in two minutes; inquire the progress of the work on the library in Louisville, and you will know almost as quickly. Ask any fact about the building which bears Mr. Carnegie's name in Tasmania, and it would be forthcoming just as soon.

The moment you enter the office of Mr. Carnegie's secretary, you feel that you are in a business place. Although inside one of the most palatial residences in New York, it is as different from the home part of the building as if it were down in Wall Street. You hear the click of typewriters; in the center is a long desk littered with papers, and lining two of the walls are files of oak cabinets. Scrutinize the labels of these cabinets and you will see lines with which every school boy is familiar. Here is a section for "Carnegie Institution"; another bears the card "Organ Gifts"; a third shows "Carnegie Hero Fund"; but there are dozens of sections labeled "Libraries," for it is in these cabinets that the whole inside story of the greatest benefaction in the world is told. Carefully arranged alphabetically is every document bearing on every Carnegie Library, ranging from the simple, earnest appeal of an obscure clergyman striving for the welfare of his community in Scotland, to the ornate official request of a large municipality for a million dollar gift. Yet both of these applications have gone through the same channel and both have received the same consideration.

Any English-speaking community in the world may secure a Carnegie Library by making a formal request and fulfilling the business conditions imposed by Mr. Carnegie. Suppose in Nebraska a city of 10,000 people is without a public library building, and a public-spirited citizen, hearing of Mr. Carnegie's library gifts, writes to him asking for a sum of money to build a building. It is a part of the free library system that every letter bearing on a library matter shall be considered and answered. The moment the letter is opened by Mr. Carnegie's secretary, it becomes part of the system which has made it possible successfully to handle the work of more than a thousand libraries, often with the negotiations for several hundred going on at the same time. Immediately upon receipt of the request, Mr. Carnegie's secretary sends a blank form to the applicant, whether it be individual or society, provided they give evidence that the community or their officials are with the project, asking that certain questions be answered. These replies aid Mr. Carnegie in the consideration of the gift. There is a whole series of documents carefully prepared and adapted for every local condition, which is furnished to applicants. It shows how perfect is the method which Mr. Carnegie has adopted.

If the applicant be a college, a more elaborate form is sent, asking for specific information about endowment and for all the facts and figures to show the general and financial condition of the institution. The experience gained in regard to hundreds of institutions enables Mr. Carnegie to find a weak spot in many cases. The request for an elaborate hundred thousand dollar library when a twenty-five thousand dollar structure would be ample, receives little sympathy for the applicant and his case.

When these forms have been filled out and returned to Mr. Carnegie, they form a basis for systematic consideration. If the applicant be favorably considered and allowance be made for a building, Mr. Carnegie requires the council or local governing body of the community to devote a specific sum yearly (usually 10 per cent. of the cost of the building) for the maintenance of the library.

Mr. Carnegie does not provide plans, but he likes to have them submitted for approval. He does not interfere with the local authorities in choosing a site. Believing in home rule, as he does, a site which is satisfactory to the people and their representatives is satisfactory to him.

When all the requirements imposed by Mr. Carnegie have been met, and when the building plans have been sent on and approved, the Library Commissioners receive intimation that Mr. Carnegie's cashier at the Home Trust Company, Hoboken, N. J., will honor their calls to the full amount of the gift. All requisitions for library money must be made by the officers appointed by law to take charge of the library in the community, and must be certified by the architect in charge of the work.

A Carnegie Library building must be used exclusively for library purposes. It must be built on a site furnished by the community or by gift from some benevolent citizen. Although his name, by the common and spontaneous consent of a grateful people, adorns a thousand buildings all over the world, he has never made a request that this be done.

How does Mr. Carnegie know the amount of money to give to a community? The information that he receives on the blank forms largely determines this. It has been his custom to give about $2 for every inhab-

itant, according to the latest Federal census. A town of 10,000 people usually gets $20,000. It is astonishing how towns grow according to applicants for libraries. Mr. Carnegie's secretary says that if applicants for libraries are to be believed, the next census of the United States will show 150,000,000 people, at least. A claim of a 25 per cent. increase since the Federal census of 1900 is considered comparatively modest.

But Mr. Carnegie does not depend alone on the information he receives in this way. He is a careful reader of the newspapers; he keeps in touch with intellectual activities; he learns the needs of communities. Sometimes the original amount of the bequest has to be increased to cover the over-ambitious plans of those in charge, although the data at Mr. Carnegie's command enable him to estimate closely the needs (not the desires) of a community. Sometimes cities enlarge the scope of their work. Louisville, for example, originally received a gift of $250,000. The Library Commissioners there decided to establish branch libraries, and asked Mr. Carnegie for an additional $200,000, which he gave.

Branch libraries, which bring books close to the people, appeal more to Mr. Carnegie than large central buildings, in which something ornate and monumental is more likely to be the object than a storehouse for books and facilities for their being read.

The cost of Carnegie libraries sometimes exceeds their original estimate, and Mr. Carnegie is called on to make up the deficit, which he usually does, provided it is clear that the building was planned and contracted for in good faith, within the amount offered, and that the deficit is not excessive. But once a library reported a surplus. It was at Mount Vernon, New York. The chairman of the Library Building Committee wrote Mr. Carnegie that there was a surplus of $50, and asked for instructions as to its disposition, whereupon he received the following characteristic letter:

New York, January 16th, 1904.

My dear Mr. Gay.—Yours of the 11th received. You have broken the record this morning by your note. In all my experience, having provided funds for about thirteen hundred and fifty libraries, I have never had a Chairman of a Building Committee report a surplus, and I have very often had to meet a deficit.

Please hand over the surplus to the Library to purchase an encyclopædia or some standard work thought most useful. In short, make a disposition of it as you think best, feeling that I can trust the chairman of a committee who builds a library, with all its unexpected demands, for a stated sum, and shows a balance at the end.

With sincere congratulations,

Very truly yours,

Andrew Carnegie.

Will F. Gay, Esq.,
Carnegie Library Building Committee,
High School Building, Mt. Vernon, N. Y.

P. S.—You must have a model architect.—A. C.

THE SPIRIT OF THE GIVING

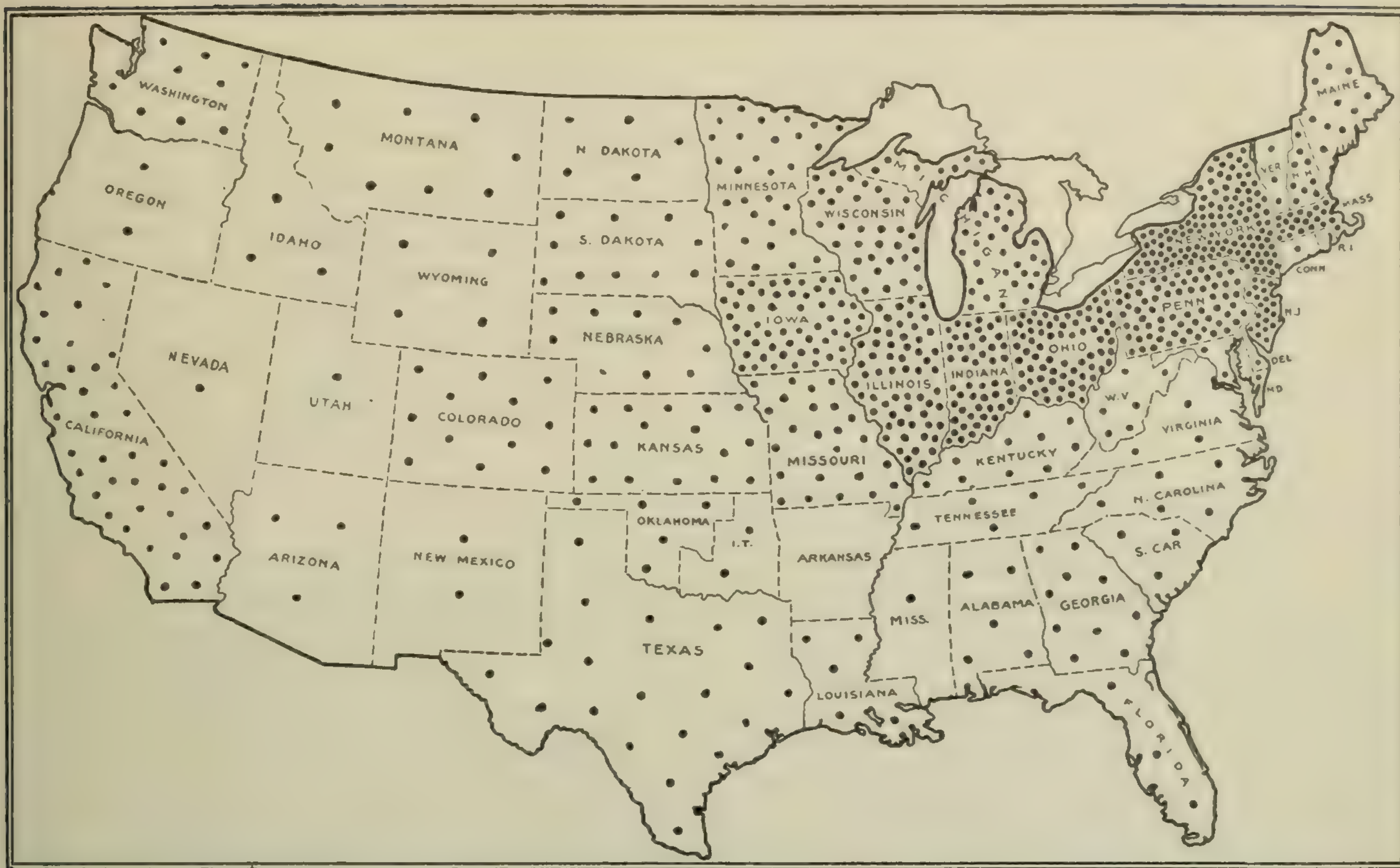
Mr. Carnegie's library-giving has never taken the form of charity. He has never bestowed money for this purpose except where the people have shown their desire to support a library.

Mr. Carnegie's rule in the distribution of millions of dollars has been "Equal sympathy for all; special favors for none." This rule has never been broken in the long story of his gifts. His is perhaps the only great organized public service with iron-clad rules which affect hamlet and metropolis alike.

Mr. Carnegie believes in home rule in all matters pertaining to the location and conduct of buildings. But sometimes complications arise, as in the case of a city through which a river flows. Then there is a controversy as to which side shall have the library. This happened at Waterloo, Iowa. The city met the usual requirement for taxation, but a discussion arose between two factions representing the people on both sides of the river. Neither side would give in. Finally a compromise was effected, by which it was agreed to build the library in the middle of the river. When Mr. Carnegie heard of this, he good-naturedly decided to end the controversy by giving money for a library on each side of the river.

The whole vast library business is done by correspondence. Mr. Carnegie discourages personal visits. Out of 1,352 libraries which he has given, scarcely fifty have been secured through personal contact. He does not like to be talked into giving, and insists that proper statements be submitted in writing; otherwise his time would not be his own. He carefully studies these statements at appointed times.

Within the folders which contain the records of the Carnegie Libraries, are hidden many



THE DISTRIBUTION OF CARNEGIE FREE PUBLIC LIBRARIES IN THE UNITED STATES

Every dot represents a Carnegie library within the state where it appears

stories of the cheerful self-sacrifice of communities in their desire to secure a building. The fishermen in a little town in the Orkney Islands wanted a library. The usual conditions were imposed. They had no money, but they sent in a subscription list which contained items like the following:

> Fifty pounds of dried fish.
> Twenty pair of knitted socks.
> Four weeks of service by laborers.
> Two days' carting.

They got a fund for books.

But no action was more characteristic than that of the herring fishermen and the other inhabitants of Shieldaig, Sutherland, Scotland. This is a small town on the storm-swept coast. The library secretary wrote to Mr. Carnegie, asking for money for books and magazines, and he received the usual reply that Mr. Carnegie never makes any kind of library gift without some action of the people of the community showing a desire to support it. In this case it was suggested that a subscription list be started. This was done, every inhabitant of the village contributing. Frequently the contribution was two pence. The people raised two pounds seventeen shillings and fourteen pence and Mr. Carnegie contributed an equal sum.

LIBRARIES IN THE UNITED STATES

It is in the United States, however, that there has been the greatest activity. Only two states—Rhode Island and Arkansas—are without Carnegie Library buildings. Rhode Island is amply provided with libraries, and Arkansas has no library legislation which will permit communities to tax the people. Illinois has sixty cities and towns with sixty libraries, yet New York, with only forty towns with libraries, has 120 such institutions. This is due to the establishment of many branch libraries in New York City with Mr. Carnegie's gift of $5,200,000. The Carnegie Libraries in Illinois are more evenly distributed than in any other State in the Union, because there is only one library in a town. A table of Carnegie Libraries of the United States shows a significant growth in the newer States and particularly in the West. For example, Iowa has fifty-four towns with Carnegie Libraries. California has thirty-six towns with forty-six libraries. Texas has twenty. There are two in Indian Territory, three in Arizona and two in New

Mexico. Kansas has sixteen and Nebraska has nine. Illinois leads the Central States, while Indiana is second with forty-nine towns with forty-nine libraries, again showing one library to a town and a wide distribution of the buildings. Massachusetts has only twenty-one Carnegie Libraries, because nearly every town had a library when Mr. Carnegie began his work of establishing them.

Pennsylvania has thirty-four towns with seventy library buildings. This State was the first in which a Carnegie Library building was erected, for it was at Allegheny that Mr. Carnegie reared the magnificent building commemorating the kindness of Colonel Anderson. This place and Pittsburg witnessed his great business achievements. At Braddock, Homestead, and Duquesne, where his great steel works employed thousands of people, Mr. Carnegie built libraries for the workmen. He supplemented the library buildings with gymnasiums and meeting places, but it was the library work that began this welfare work for the people who served.

The largest per cent. of the population in any community served by a Carnegie Library is the District of Columbia, where the Washton building supplies 78.4 per cent. of the people with books.

The total number of library buildings built and promised by Mr. Carnegie in the United States is 671. When all are built they will serve 18.9 per cent. of the whole population. They represent a total benefaction of $29,807,980. This includes the promise of $100,000 for a building in Porto Rico. There are no Carnegie Libraries in the Philippines.

Architecturally the Carnegie Libraries have had an æsthetic and uplifting influence throughout the whole country. Last summer I was driving through a little town in North Dakota. Ten years before it was a group of houses on a river bank and a stopping place for lumbermen on the way from Canada. That day I drove through well-made streets. The driver stopped the carriage before a low, square, classic-looking building surrounded by trees.

"That's our Carnegie Library," he said. "We are mighty proud of it."

"Why?" I asked, curious to find out what he would say.

"Well," he said, "that building has made everybody else here want a nice building." I had a similar experience in Kansas.

ON THE "EAST SIDE"

In the crowded foreign districts of New York City the Carnegie Free Libraries are making American citizens out of the young boys and girls. I spent an afternoon recently at the free library on Tompkins Square, in the very heart of the Hungarian section. It stands out among the dark, low tenements, giving an æsthetic distinction to the whole community. But it gives more than this. It is not only a place where books are given out and where men, women and children may come to read where it is bright and light and clean. It has entered into the very life and character of the whole district. Here come the mothers with their stories of suffering and distress to find comfort and sympathy and help from the librarians; here assemble the young men who work all day and study half the night, educating themselves and eager to rise out of the sordid conditions in which they live. The children come from dirty homes with clean hands. Standing in line to get books, and respecting the rights of the children who have come before them, is giving them a moral discipline. The little ones carry the methods of the school-room to the library, for they raise their hands and say "Teacher" before asking for a book.

Many incidents enliven the daily round of these East Side libraries. One day a child came in. "Teacher," she said holding up her hand, "I want to get Lamb's Feet."

"Lamb's Feet," said the librarian, "You must be mistaken. There is no such book."

But the child insisted that her school teacher had told her to get it. It turned out that she wanted Lamb's Tales.

Another child said she wanted a book on woman's sufferings. The librarian gave her a medical book.

"That ain't what I want," replied the child. "My mother said it was about votes." She wanted a book on woman suffrage.

The children are required to give references when they get a card. The meaning of the word "reference" is a stumbling block to many. One day a librarian overheard one boy explaining the meaning of the word to another, as follows:

"A reference is the fellow what sticks up for you."

Tragedies, too, lurk in these places. A short time ago a thumb-marked postal card

reached the Tompkins Square Library. Written in pencil in a child's hand was this inscription:

"My sister does not want any more books. She is dead."

What is happening at the Tompkins Square Library is happening at the East Broadway Library in the heart of the Ghetto, and at a half dozen other Carnegie Libraries in New York City. Everywhere they are entering intimately into the life of the people, broadening them and making them better men and women and children.

But it is not alone in the bustling cities and the thriving little towns that the Carnegie Libraries are working for the betterment of the people. Out on the highways and in the remote districts their influence is felt. Take the case of Washington County, Maryland. The county seat is Hagerstown, where Mr. Carnegie built a library. In Maryland the township is not the local governing body. The authority rests with the county government, and the funds for the maintenance of the library were therefore supplied by the county. This aroused some dissatisfaction among the farmers who were far removed from the town and who, while taxed, could not share the benefits of the library. The Commissioners decided to establish a traveling county library, the first in the United States, with stations throughout the district where books could be deposited. The farmers, instead of having to drive to Hagerstown, went to the nearest cross-roads post-office or general store, where they found the latest books. The books are sent out in cases and renewed at regular intervals. Thus no books are duplicated. There are now fifty-nine such stations. During the first year, nearly 3,000 books were distributed. The next year, 5,000 books were in circulation. The interest in these books has led to the establishment of reading-rooms for the farmer boys. Recently the library facilities have been further increased by the establishment of a system of library wagons to carry books to places not accessible by trolley, train or stage. These wagons are equipped with shelves. The drivers will make visits from house to house, thus bringing good literature to the very doors of the farmers. This example might be followed with advantage by many rural communities, especially in the South.

In Ireland, the plan of serving rural communities is in successful operation. At Rathskeale, a large district, there are six libraries supported by a tax on the whole community.

IN FOREIGN COUNTRIES

Outside the United States Mr. Carnegie's largest library benefactions have been in England, where he has given and promised $6,372,240. Two hundred and eighty-three English towns have a total of 325 libraries, or will have, when all provided for are erected, serving 20 per cent. of the population.

The smallest Carnegie Library in the world is on the historic Island of Iona just off the Scotch coast. It is less than fifteen feet long and scarcely as wide. It is on a sea-swept spot, and the walls are of granite and nearly two feet thick. It is used by fishermen.

The smallest town in England to adopt the free library act, which enables the towns to tax the people one penny for every pound's worth of property, is Rothwell in Northamptonshire. The building used for a library was partially built 300 years ago and never completed. It was intended to be a market place.

Canada has received free library gifts approximating $11,000,000. There are forty-nine places with fifty-seven library buildings in the Dominion.

Ireland has thirty-one towns with Carnegie Libraries. New Zealand has five, Tasmania and the West Indies have one each. The total amount of money given by Mr. Carnegie for libraries outside the United States is $10,603,540.

THE WORLD-WIDE SIGNIFICANCE

Thus a man is applying an immense fortune systematically to the constructive work of enlightening English-speaking people. Its significance is world wide; its benefit is not for one generation but for many. That Mr. Carnegie has set about the performance of this task in its largest way is best gathered from his own conception of the spirit and meaning of libraries:

"Free libraries," he says, "maintained by the people are cradles of democracy; and their spread can never fail to extend and strengthen the democratic idea, the equality of the citizen, the royalty of man. They are emphatically fruits of the true American ideal."

GAGE E. TARBELL, INSURANCE STRATEGIST

WHY HE, AS HEAD OF THE AGENCY FORCE, IS THE OFFICER ON WHOM THE DISSENSIONS IN THE EQUITABLE LIFE ASSURANCE SOCIETY TURN

BY

I. S. GRIM

THE recent disturbances in the affairs of the Equitable Life Assurance Society have made clear the importance to an insurance company of the man who directs and organizes its force of agents. Insurance men have realized it for a long time; but it was not until Mr. George W. Perkins, the second vice-president of the New York Life Insurance Company, was invited to become a partner in the banking house of J. P. Morgan & Company that outsiders began to realize the extent of the power accumulated by a competent manager of the canvassers for insurance. In the troubles in the Equitable Life Assurance Society, Mr. Gage E. Tarbell, the second vice-president of the company and the head of the agency department, has had, all through the negotiations, an authority and a degree of prestige very much greater than is to be accounted for by the duties ordinarily associated with his office.

The strength of every insurance company lies in the great body of policy-holders. If they believe that the affairs of the company are being wisely and honestly administered, they take but little interest in the personality of the presidents and other officers. The policy-holder "doesn't want to be bothered." He regards the insurance business as a rather complicated department of finance, and his interest in the running of the company is limited to a jealous desire to get his money's worth of insurance. But let the policy-holders scent dishonesty; let them become uneasy and querulous, and they then stampede. The man who can stir that very powerful army into action, or who can so reassure it that no disturbance raised by outside raiding will affect its serenity, is the big man of the insurance business, in these days of a general disposition toward a close public scrutiny of all large enterprises.

Even without the voting privilege which is enjoyed by the so-called "mutual" company's policy-holders, the sentiment and the disposition of the policy-holders are of the greatest importance to the company. The thousands and thousands of policy-holders who are scattered throughout the country have just one channel through which they can be reached by the officers of the company. That channel is through the agencies. If a policy-holder be disgruntled and suspicious, his complaint is made known to the local agency nearest him. The local agency sends it along to the general agency, and in the general agency the matter comes under the observation of the officer in charge.

In the mutual companies the strategic advantage of the manager of agencies is much more tangible. Every policy-holder, when he makes his application for insurance, is asked to sign a proxy giving the privilege of his vote to one or another of the directors. Sometimes the proxy is not presented for signature until the insurance is actually in force; but it is almost never withheld when the agent asks for it. The names of those who are to use the proxy are printed in the blank. In the mutual company, the man who has the best understanding of the machinery through which these proxies are collected has a mighty voice in the administration of the company, though it may be a voice seldom raised. It matters not whether he be called president or manager of agencies, he is the real head of the company, or at least, has it in his power to become the real head whenever he wants to. It is not necessary to go into more elaborate explanations to find a reason why, when it was proposed to change the form of government of the Equitable from one-man government by stock-holders to one-man government by policy-holders'

proxies, the allegiance of Mr. Tarbell was eagerly sought by both parties to the controversy. There is a certain dignity of proportion in a difference of opinion between giants of Wall Street in regard to the handling of $411,000,000. The presence of Mr. Tarbell in the midst of them, deferred to by the candidate of one side for high office, and then by the candidate of the other, was due to his unlimited capacity for making other men see things as he sees them. Persuasiveness, enthusiasm, and unremitting activity have put Mr. Tarbell where he is. It would not surprise those "on the inside" to learn that he already has in hand enough proxies of policy-holders, becoming effective when the company is mutualized, to make him the decisive factor in the conflict.

When Mr. Tarbell began writing insurance for the Equitable Society in Chicago, years ago, he had marvelous success. It is told of him that he invented the "letter of introduction" method of getting around the prohibition against the sharing of an agent's commission with the policy-holder.

"I cannot offer a rebate to you," he would say to the man from whom he was trying to get an application for a $100,000 policy. "But, if you will take this policy, I will pay you $100 apiece for ten letters of introduction to men of as large means and of as much importance in the community as yourself. It is a perfectly fair price for me to pay you, because the letters will make it possible for me to make very much more than I pay you for them."

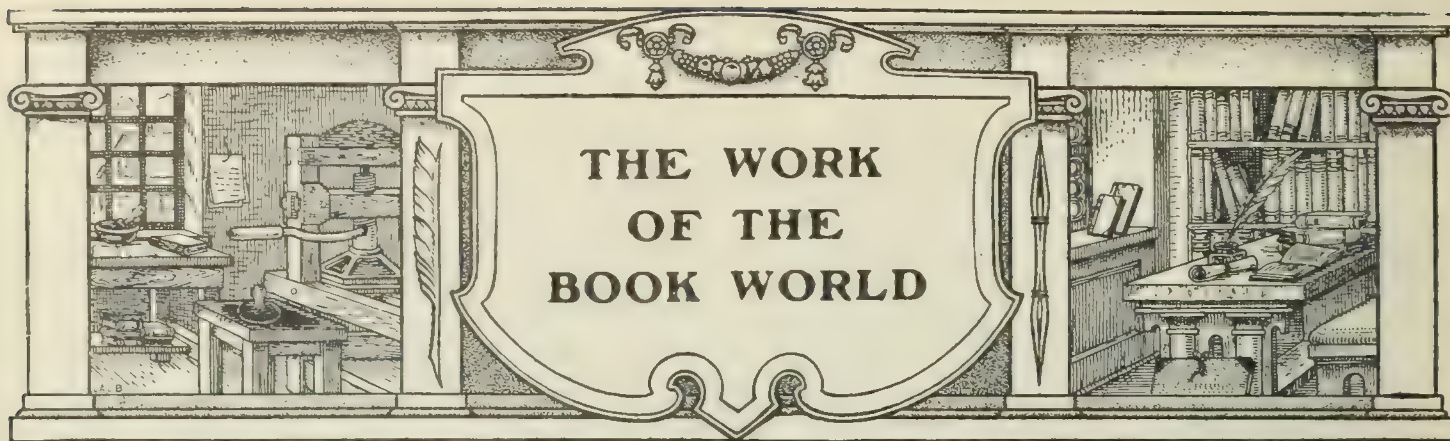
The delightful ingenuity of this plan, and the manifold advantages of it for both the agent and his client, appealed very strongly to the business men of Chicago. They liked Agent Tarbell's way, and the business he did was the marvel of his own office and the despair of his competitors. In those days, agents got a commission on "renewals"; that is, every time a policy-holder paid his annual premium. Mr. Tarbell told a friend within the last few weeks that his income from those renewal commissions brings him annually a sum of money far greater than his salary as second vice-president of the Equitable.

As a deviser of ways to make the men in agencies go out and fight for new policy-holders, Mr. Tarbell possesses a versatility which is worthy of his record as a solicitor. One of his most brilliant achievements has been the founding of the Summer School of Insurance. Mr. Tarbell not only is an enthusiast himself, but he insists on enthusiasm in those under him. It seemed to him that there was much enthusiasm going to waste in the colleges of the land that ought to be applied to the writing of insurance. He wrote to the colleges three years ago on behalf of his company, offering to pay the expenses in New York of a few students from each college, and guaranteeing seventy-five dollars a month to graduates of the school who showed aptitude. The sessions of the school are held in the Equitable building in New York for a month. A banquet, at which speeches are made to the class by men prominent in finance, marks the end of the sessions. In the school, demonstrations are given of the ways in which a cross merchant can be persuaded to lend an ear to the young agent—and the like.

Without being exactly excitable, Mr. Tarbell is very full of life. The same qualities which made him irresistible as a solicitor keep the men under him convinced that they must do as much business as he says he expects of them. At one of the summer school banquets a speaker told of going out to lunch with Mr. Tarbell and observing that Mr. Tarbell was abstractedly making marks on the bill-of-fare. Later, the guest surreptitiously looked at the card and discovered that the vagrant fingers had traced out the words:

"Get applications!"

Mr. Tarbell never argues. He merely states his own side of the matter under discussion so picturesquely and so rapidly, and with such an altogether convincing air that the man on the other side might as well not talk at all. Nevertheless, as was shown at the most acute stage of the Equitable dissensions, Mr. Tarbell can make up his mind with great rapidity, once he is confronted with a situation that requires prompt and decided action. He has made every man in the broadly ramifying system of agencies feel a direct personal responsibility to Gage E. Tarbell. And that is the reason why Mr. Tarbell is essential to the success of the various parties concerned in the difficulties of the company.



SINCE the Spanish war, our international consciousness has been an increasing part of our national life. More books are being published on the countries that concern us most than ever before, and we are taking a greater interest in them. Recently a number have appeared that deserve more than passing consideration.

A GERMAN VIEW OF US

Professor Hugo Münsterberg has set himself the task of explaining America and Germany to each other. In his "American Traits" he dwelt upon the points in which the United States could profit by a closer knowledge of Germany. In his new book, "The Americans," (McClure, $2.50), he has written for the edification of Germans "a study of the lasting forces and tendencies that make up the American man." Professor Münsterberg looks upon us with very friendly eyes. His book is highly philosophical and thoroughly German. Ignoring many of our shortcomings, he has constructed a typical American, and facts are selected and stretched to suit his agreeable theoretical plan. He is a keen social observer; he writes cleverly, and brilliantly; and through long residence and brisk industry he has produced a work which is a mine of information—even for Americans.

But "The Americans" will be read chiefly through curiosity to see ourselves as a German sees us. Its deepest interest lies in acute description and criticism. It sounds pleasant and seems strikingly just, when this political philosopher says that the foundation of our state is moral, and not logical as that of France; or when he elaborates his argument and proves that Americans are bound together by similarity of ideals, and not as all other nations are by a consciousness of past glories. Some observations on our national helpfulness, our idea of the moral value of work, and our contempt for mere money are gratefully true. Interesting pages are given to our mutual respect and confidence in each other, the good nature of beaten minorities, the love of the game in business. Our self-assertion, and lack of respect for age and learning are delicately pointed out in useful but painful paragraphs.

Other criticism rings less true; and there is no obvious ground for Professor Münsterberg's main assumption that through the growth of aristocratic tendencies America has come to be so like Germany, that Germany is now the only European nation with which it is possible for us to establish a real sympathy in the social, intellectual, and political realms. Nor will we admit the inferiority of our universities because they do not make it their aim as German universities do to turn out the productive scholar. The training of the productive scholar is not our most important educational ideal.

Professor Münsterberg reserves his severest criticism for the American woman. He admits that she is the loveliest flower of our civilization, but he still feels solemnly bound to attack her education, many of her characteristic qualities, and her position in society. He ends by declaring that the social superiority of man is threatened in America, and the nation is in the gravest peril of becoming feminized.

But the large volume has a more vital and important side. Its plan is so encyclopædic that it is difficult to name a national activity that is not fully described. There is an excellent picture of the tremendous forces at work in our economic progress. Able chapters are given to religion, the newspaper, public libraries, the Negro and the working-man.

Optimism is the key-note of this new philosophy of Americanism. When Professor Münsterberg sums up the whole matter, and says that the United States is a power for peace and ethical ideals, there is sincerity in his praise.

THE ADVANCE OF INDUSTRIAL GERMANY

Within twenty-five years Germany has been transformed from an agricultural state dependent on the weather to a great industrial empire. In "The Progress of the German

Working Classes in the Last Quarter of a Century" (Longmans, $0.75), Professor W. J. Ashley sets forth a remarkable series of facts, forming an eloquent defense of modern civilization.

Within a little more than twenty years wages have risen in Germany 25 per cent., and the cost of the necessaries of life has fallen 17 per cent. The hours of daily labor have been reduced from an average of twelve to an average of ten. The death-rate has fallen from 28 per 1,000 to 20.6; the number of suicides from 31 per 100,000 to 24.5. Emigration has dwindled from 149,000 in 1884 to 36,000 in 1903. The decrease in the consumption of spirits has been steady, and the proportionate number of paupers has decreased. Savings bank deposits have increased enormously. The people are getting more food, more meat, more light. The condition of peasant farmers and laborers has been equally improved by education, social reform and industrial progress.

The optimistic meaning of these facts is so incontrovertible that the German Socialists have been obliged to give up their chief theoretical tenet. In their passionate sermons they used to preach that there is a constant and inevitable tendency toward the progressive impoverishment of the masses. The theory has become glaringly untrue, and in consequence Social Democracy in Germany has passed through a fundamental change.

A SOMBRE VIEW OF RUSSIA

Dr. Ganz's "Land of Riddles" (Harper, $2), is a vivid account of present conditions in Russia, written by an able journalist. The author has studied Russian national life in the hotels, palaces, shops, and streets of the cities, and on the open steppes. No one has painted so sombre a picture of the land of a million jailers, of two million births a year, and of only two million workmen. No one in so small a space has described so graphically the iron rule of the bureaucracy—"a régime of hell founded by a devil," he calls it.

Yet the book is filled with sympathetic knowledge of the Russian people, and its best chapters are devoted to the conditions that are hastening the coming revolution. Dr. Ganz describes impressively the thousand problems that are insistently demanding solution—the intense ferment in intellectual Russia, which is rapidly penetrating all classes. He found public opinion everywhere well organized, and with clear cut ideas, though without a free press or freedom of meeting. Everyone he met expected defeat in Asia and the financial break-up of the whole government system. Arrests for political offenses had multiplied rapidly, but the young people of revolutionary Russia were united in a fanaticism of self-sacrifice, and in their passive resistance they were unconquerable.

Dr. Ganz attended the funeral of the great Liberal editor, Mikhailovski. Five thousand men and women from among the highest classes were there. They were surrounded by a listening police. Yet cries of "Svoboda!" (Liberty!) and revolutionary songs filled the air. A dozen fiery, freedom-breathing speeches inviting martyrdom were a foreboding of the Revolution, which all saw near at hand.

AN AWAKENING IN CHINA

"New Forces in Old China," by A. J. Brown (Revell $1.50), throws a clear light upon the interest of the United States in "the open door" in China. It is a traveller's report of Chinese progress since the Boxer rising. Foreign aggression, diplomatic relations, and a defense of missions fill many chapters, but the pith of the book deals with the wonderful new era of commercial development. A profitable foreign trade is awakening the whole empire, and many old conditions are rapidly disappearing.

As our Western civilization makes its way in China, imperative new wants are being created. The peasants are no longer content to burn bean oil. They now insist upon having kerosene. American lamps and clocks have an enormous sale. A few years ago wheat flour could not be forced upon the rice-eating native. As late as 1898 only $89,000 worth of it was imported from America. By 1903 the annual importation of this food staple amounted to more than $5,000,000. The construction of railways is being pushed with such energy that in a single recent year American engines to the value of $732,000 were shipped to China. Foreign trade has nearly trebled since 1888. Commercial facts of this sort are an index of progress, but China has made an astonishing advance in more important directions.

Ten years ago there was not a single Chinese newspaper. There are now more than one hundred. Text books to the value of $250,000 were sold in Shanghai in 1902. In 1898 the reforms ordered by the Emperor led to his dethronement and imprisonment. Substantially these same reforms have now been accepted by the reactionary Empress Dowager. Education is being reorganized, and applicants for office must pass examinations in Western science, geography, mathematics, history, philosophy and political science. Even Western notions of decency are being adopted. When Dr. Brown was in the far

interior of Shantung hundreds of parents were in consternation because the magistrate had placarded an edict proclaiming that boys and girls must wear clothes or be arrested. Our vices follow our virtues, and posters advertising American cigarettes are now a familiar sight on walls and bridges in China.

A MEASURE OF SOUTH AMERICA

South America is commercially more remote from us than Asia. Almost the whole continent is a trade dependency of England, Germany and Italy; and the easiest means of reaching a large part of it is by way of Europe. But a growing commerce and the drift of politics are giving us a new interest in our Southern neighbor, and Mr. Akers's "South America 1854-1904" (Dutton, $6), supplies a concise and businesslike history of the different republics since they won their independence.

As a general introduction, two chapters give an account of the centuries between discovery and emancipation, and of the forces which have moulded the destinies of the country. Mr. Akers then takes up each state separately, details its recent history, and shows just how far the old Spanish civilization triumphs over modern tendencies. There are numerous sketches of prominent men. Every chapter is crammed with information on all sides of national life, so that this history is a very valuable book of reference; but each page of it is readable, not because of its literary art, but because of the inherent interest of the story, and the dramatic rush of events.

For most of the South American states freedom still means anarchy, and the revolutions we jest about are often so bloody that the streets of the cities become like slaughter houses. In eight years of civil war Paraguay's inhabitants were reduced from 1,300,000 to 221,000. On his death bed, Bolivar, the unwearied Liberator, referring to the instability of the results of his work, said that he had ploughed in the sea. But progress is now being made. The states that were falling back to savagery are quickly coming under foreign industrial control. Others are slowly working their own way ahead. Argentina is the leader of this new Latin civilization. Mr. Akers makes plain the great fact that South America is becoming the chief purveyor of food to the world, and that it is being saved by immigration and by the development of industries.

"THE GOVERNANCE OF ENGLAND"

In "The Governance of England" (Putnam, $2.25 net), Mr. Sidney Low points out that the present method of discussion in the House of Commons is making Parliament a kind of preparatory school for the polls, and transforming the general election into a genuine referendum. This is only a single feature of the gradual change which is turning a limited monarchy into something like a ministerial republic. And the drift of this recent constitutional change is so widely felt that it affects every part of the Government.

Labor men and business men multiply in Parliament, but the private member is steadily losing his influence, and merging his identity in his party organization. The party now votes as a unit, and the increasing pressure of the legislative and administrative business of the Empire has forced it to delegate its powers to the Cabinet, centralizing authority in the hands of the Prime Minister. But this is so new a departure from established custom that the words "Prime Minister" did not appear in any official document until 1878; nor was the word "Cabinet" officially used until 1900.

The prestige of the Privy Council has shrunk until membership in it is bestowed as a title of honor for those who are "too bad for the heaven" of a peerage, and "too good for the hell" of a baronetcy. The House of Lords is stable only because of its impotence and its careful inaction.

For the throne, influence has been substituted for power. George IV. and William IV. were insulted whenever they appeared in the streets of London. Queen Victoria regained popular respect for royalty, but she was unequal to the complexity and the detail of public business. Nor did she long hold her own with her strong and self-assertive ministers. Grief for Prince Albert filled her thoughts, and as a result "modern constitutionalism was watered by the tears shed over the mausoleum at Frogmore." Socially and morally royalty has gained ground. Edward VII. has been an important force in promoting peace and good will in the foreign relations of Great Britain. But the King's principal function to-day is that of chief philanthropist to the nation. He takes a wide and active interest in hospitals, nursing, outdoor relief, and the housing problem.

The power that the Crown has lost, in passing to the Cabinet and the Prime Minister, to a great extent has escaped Parliament altogether. The omnipotent House of Commons, which formerly could do anything "except make a man a woman," is now so shorn of its authority that, with a majority of two to one in favor of the measure, without Government support it cannot pass the Deceased Wife's Sister Bill.

THE TELEPHONE'S NEW USES IN FARM LIFE

BY

H. R. MOSNAT

SIX or seven years ago a telephone company decided to establish an exchange at Belle Plaine, Iowa, a railway town of about 3,700 people, surrounded by a good agricultural country of the Iowa Corn Belt type. Connection with twenty telephones was guaranteed, but the company was very doubtful whether so many subscribers could be secured. Now the exchange has nearly 500 instruments, and the number is constantly increasing. Within the last two years more than 200 telephones were put in. And what is true of this little town is true of hundreds of other towns throughout the Central West. Some towns of the same size can show a much faster growth in the number of telephones.

But besides the five hundred "city" telephones in Belle Plaine, there are six toll lines extending to nearby towns within thirty miles, and there are twelve farmers' lines, all centering at the exchange. By switches at other points about one thousand farmers can be reached. The rural population of the county is about 60 per cent. of the total. Belle Plaine, with its surrounding territory, has about 10,000 inhabitants. Thus there is a telephone to every two families, and it is possible to "get" nearly anyone over the telephone. The rural lines and instruments are usually owned by the farmers themselves. In getting some of these rural lines started, business men of the town took stock in the constructing company, simply to have the lines built, because enough farmers would not become interested. But the lines had been in operation only a short time when the farmers bought up the stock.

On these lines a number of instruments, sometimes thirty or more, are connected with a single wire. Each subscriber has a different ring, or "call," and the wires are in use nearly all the time. Of course, any subscriber can pick up his receiver at any time and hear whatever conversation may be going on over the line. This, unfortunately, has led to eavesdropping and has even resulted in neighborhood quarrels.

The toll lines are direct wires from one village or town to another, and, like steam railways, are used for through business. These are the most profitable lines. The telephone business differs from almost any other, in that the larger the number of instruments installed, the greater the proportionate cost per instrument. In most enterprises, the larger the establishment (up to a certain point), the smaller the proportionate cost of the units of machinery. The unexpected growth of the Belle Plaine exchange has been a great surprise, and has prevented it, so far, from paying dividends, for all the profits have been necessary to increase the capacity of the system. The rapid increase in cost was caused partly by the duplications necessary in the switchboard, and partly by the fact that the number of operators required on the switchboard increased faster than the number of instruments in the exchange. The larger the number of telephones, the more use is made of each one; and subscribers are learning to use the telephone more and more.

Nearly every day some one invents or discovers a new use for it. One day the girl at "Central" received this message: "Hello! Say, Central, I have put the receiver of the 'phone in the baby's cradle, and if she wakes up and cries, call me up at number seventy-one."

It must have been an unusually absent-minded woman who sent in the message: "Oh, Central! Ring me up in fifteen minutes, so that I won't forget to take the bread out of the oven."

If some one finds it necessary to take a night train, the operator at the exchange

will receive some such message as this: "Central, ring me up a half an hour before the 2:17 train in the morning. See if it's late before you call me, please."

Go into the exchange during a "rush period"—say, at nine o'clock in the morning—and you will see the telephone girl stand up, push her chair into a corner, and "throw" the plugs with which connections are made as fast as her arms can fly, for an hour at a stretch. All she will have time to say to you will be, "Every woman in town is ordering things for dinner."

There are about thirty subscribers who are called regularly every morning by the telephone instead of by an alarm clock. The "Central" girl is supposed to know the time of all railway trains, and if a train happens to be late, how many minutes behind time. She is often asked the time of day, because some one has let the clock run down. When there is an alarm of fire, "Central" is supposed to know where it is. The exchange is just across the street from the fire-house, and fire alarms are often telephoned in—to the saving of valuable time.

Toward the end of a long, cold drive on a raw autumn day I was met at the gate by a farmer friend, with the words, "Come right in. The wife has some hot coffee ready for you. We knew you were coming. Miss Rankin seen you go by, and she just telephoned to us."

Sometimes the rural telephone has been used to stop travelers less willing to be stopped. There are sections where chicken stealing has become a lost art, because the rural telephones make it possible to block every avenue of escape as soon as the crime is discovered. Many industrious chicken thieves, and some bolder offenders, have been caught "red handed" through telephone messages which have prompted farmers to meet the malefactors with shotguns on the highway.

A farmer's wife, on a rural telephone which had been in operation only a few months, was asked how she liked the telephone. She naïvely answered, "Well, we liked it a lot at first, and do yet, only spring work is coming on so heavy now that we don't hardly have time to listen now."

Together with rural free delivery of mail and interurban railways, rural telephones are fast destroying the loneliness and isolation of farm life.

AS MR. H. H. ROGERS DOES THINGS

ONE of the traditions at the "Standard Oil Building" at 26 Broadway, New York, is that Mr. Henry H. Rogers, vice-president of the Standard Oil Company, arrives exactly at 10:30 in the morning and departs at 3:30 in the afternoon. One morning recently the veteran watchman who stands at the Broadway entrance to the building was seen to take out his watch when Mr. Rogers hurried in, look at it, and confidently set it forward ten minutes. For among the distinguishing characteristics of Mr. Rogers is a regard that almost amounts to a reverence for time, and those who know him are aware of it.

Another is his quiet ability to resolve on an action without discussion and to carry it out forthwith. A typical story is told of him by the older residents of Fairhaven, Massachusetts, where, in 1857-8, he began his commercial activities. He was then a struggling newsboy. By dint of energy and a knack of taking care of the pence, he found himself one morning worth $200 in cash. Before night it was quadrupled, and the Fairhaven newsboy had reached a turning point in his career.

As the story goes, one Bartholomew Taber, at that time a leading merchant in Fairhaven, was awaiting the arrival of the *Nancy James* with a cargo of sperm oil, before filling a contract for 500 barrels of oil with the New York firm of Charles Pratt and Company. Young Rogers had met the early morning train, as usual, with the Fairhaven consignment of Boston papers. Glancing over the headlines, he saw that the *Nancy James* had gone down with her entire cargo; only the captain and the crew were saved. Knowing of the oil contract, he hurried at once to Bartholomew Taber and imparted the news, at the same time offering to sell him the entire consignment of morning papers provided he be permitted to invest his $200 in Mr. Taber's oil deal.

It would be fully three hours before another delivery of papers could arrive, since a storm was delaying the other trains. The shrewd oil merchant quickly saw and grasped the opportunity to suppress the news of the loss of the *Nancy James* and to purchase enough oil at current prices to fill his contract. Reasonably sure that the loss of the whaling vessel would not be known for two or three hours, he set about quietly buying oil, not only filling the contract, but laying in a few score of barrels on his own account. Naturally there were inquiries among the townspeople for the morning papers, but by the time Fairhaven learned of their disposition, and, incidentally, of the fate of the *Nancy James*, the oil deal had been consummated.

As it happened, the Fairhaven merchant had been requested by Charles Pratt, the pioneer oil refiner, to find him a New England

boy to learn the oil business in New York. A few days later young Rogers was filling the place.

On another and more recent occasion Mr. Rogers showed the same swiftness of judgment. He was waited upon by the head of a leading New York charitable organization in need of funds in the middle of winter. Finding Mr. Rogers busy with a mass of correspondence, and overhearing a secretary remind him that he was to attend a board meeting in fifteen minutes, the hopes of the visitor fell. Several minutes went by before the correspondence was finished. Each tick of the clock reduced the time for the caller to explain his mission. Finally, when but three minutes remained, Mr. Rogers received his visitor and courteously asked the object of his call.

"I came to solicit a donation from you, Mr. Rogers," replied the other, "but, as you seem to be very busy this morning, perhaps we had better wait until some other time."

"I am always busy here," he was informed, "but, as it happens, I have just two minutes to spare. How much do you need?"

"We are trying to raise $5,000."

"My secretary will send you her personal check for the amount to-day," replied the financier, rising and accompanying his visitor to the door.

THE DISPOSAL OF THE WORLD'S FAIR

THE wrecking of expositions and the disposal of their remains has become a regularly established industry. In the past dozen years seven fairs of different sizes have been held in the United States—at Chicago, in 1893; at Atlanta, in 1895; at Nashville, in 1897; at Omaha, in 1898; at Buffalo, in 1901; at Charleston, in 1902; and at St. Louis, in 1904. A Chicago company, which has the contract for removing the buildings of the St. Louis Fair, did similar work for most of the other expositions, though in every case the work was let to the highest bidder.

On a bid of $450,000, the Chicago company bought, and is removing, buildings, the material and construction of which cost $14,000,000. These include all the physical property of the exposition company except the Intramural cars and street railway equipment, which were sold to the St. Louis Car Company for $150,000; the Palace of Liberal Arts, which is to be permanent, and a few minor structures.

Thus the company has come into possession of 100,000,000 square feet of good building lumber; 200,000 square feet of sash lumber; 10,000 doors; 1,500,000 square feet of glass skylights; 3,000,000 square feet of iron and felt roofing; 4,000,000 square feet of burlap for wall covering; 500,000 incandescent lights, and copper wire which cost $650,000. Among its assets are two hospitals complete in all modern equipments; three greenhouses ready for utilization anywhere, each 300 feet long, with many sorts of plants and flowers; a fire department big enough for a city of 50,000 inhabitants, comprising nine engines and 100,000 feet of rubber hose; thousands of chairs of all sorts; miles of iron picket and woven wire fences; hundreds of desks; wagons, dump cars, and steam rollers enough to fit up a dozen good roads societies, and many other sorts of paraphernalia.

Out of the structures, equipments, and furnishings of the Louisiana Purchase Exposition a good-sized city could be built. The débris would construct half a dozen fairs like that at Buffalo in 1901, or that which is to open in Portland, Ore., in June, 1905.

The wreckers are actively at work tearing down and removing the buildings, but the task of covering the 1,240 acres comprised in the exposition grounds is big. It will take 1,000 men twelve months to complete the job. Long before that time ends, the business of wrecking the Lewis and Clark Exposition at Portland, which closes in October, 1905, will start. A smaller job of the same sort will be offered by the Jamestown Exposition of 1907, to commemorate the establishment, three centuries earlier, of the first permanent settlement of English-speaking people on the American continent. San Francisco promises to furnish a task of that kind in 1913, for it is agitating the celebration, in that year, of the four hundredth anniversary of the discovery of the Pacific by Balboa, the celebration also to cover the completion of the Panama Canal, which, as it estimates, will be finished by that year. Chattanooga is making a bid for a world's fair in 1915, to commemorate the semi-centennial of the close of the Civil War. All these fairs will also provide employment for the exposition wreckers.

CITY WORKERS LIVING ON SHIPBOARD

ON summer afternoons, several years ago, a number of young women employed in one of Arbuckle Brothers' coffee factories distributed free excursion tickets to the panting dwellers in the tenement district of New York's East Side. These tickets entitled the bearers to go on board Mr. John Arbuckle's ship the "Jacob A. Stamler," at nine o'clock in the morning, and be taken out to sea for an all-day cruise. Five cent meals were served, which included soup, sandwiches, pie, and coffee, tea, or milk. The ship was brought back to anchor by six o'clock in the evening.

The philanthropy thus begun with summer excursions, has recently been extended to serve in the winter months too. To-day the "Jacob A. Stamler" is securely moored in the slip at the foot of West 21st Street. It has been so remodeled within as to justify its new title of "The Floating Hotel." Beside it is another ship, the "John Wise," similarly reconstructed. These two vessels now receive tenants who must possess a unique qualification for guests at a hotel: they must be poor. Except in unusual cases, no one who earns more than $8 a week is admitted. Any respectable man or woman whose salary is less than that amount, is made welcome. Board and lodging cost the women forty cents a day; the men pay fifty cents. For this modest price, a tenant gets a steam-heated, well-ventilated room, supplied with a stationary washstand; meals that are better than those at the average boarding house and much better served; the social privilege of the large reception room, which is supplied with books and magazines, a piano, a piano player, and music; and on pleasant days, the use of the promenade deck above the dining-room and saloon.

Those who have thus far availed themselves of Mr. Arbuckle's generosity are mostly young people who have come to New York from other parts of the country, and are homeless in the city. Mr. Arbuckle personally considers each application for admittance, with the result that no one who does not fit into the plan for which the hotel was opened has been received. All applications are treated as confidential, and the tenants pay for what they get, so that no sense of delicacy restrains any who need this help from accepting it.

Mr. Arbuckle's own words best explain his motives: "I read in the paper a while back about the low wages paid many self-respecting, earnest working people—hardly enough to keep soul and body together. My life was once saved by an ocean voyage, and it naturally occurred to me that these two idle ships of mine might as well be doing something to help make life in the city less hard for these people. So I fitted them up and advertised them. There will be accommodations for about one hundred people when I get my private yacht fitted up for more of the men to sleep in. When summer comes, I shall start the ocean cruises again. It is one of the greatest pleasures of my life to be able to help these young men and women help themselves to make their lives more wholesome and enjoyable."

Thus, with his practical business sense guiding his generosity, Mr. Arbuckle has provided for one hundred workers a home which they may accept on terms that they can afford, and yet with no loss of self-respect.

A BENEFICENT SALOON TRUST

AN ADVANCE in the methods of promoting temperance is being made both in the United States and abroad. In Great Britain, for example, the Central Public House Trust Association, capitalized at $1,500,000, under Lord Grey, has transferred the control of 150 "public houses" from the men who are financially interested in them to disinterested trustees who will conduct them on a temperance basis. The original of the plan of operation is the so-called "Gothenburg" system of Norway, the main principles of which are: that the liquors sold shall be good, and that the manager of the house shall have no interest in increasing the sales.

In the United States, the first attempt to follow the English plan is the Subway Tavern, in New York City. Opposite the Bleecker Street entrance to the Subway there is a yellow brick wall decorated with trees and apples and Old English lettering, painted in a pleasing color scheme, and, above them, the sign of the Tavern. The corner entrance leads into a refreshment room, where only "soft" drinks are served. Staring from the rear wall of the room, a large sign invites one to the Old English cellar dining-room. Beneath this sign, in modest letters over a door, is the single word, "Café." Even after entering this door, one reaches only a reading room, supplied with magazines and a writing table near a big stove. Back of this room is the bar. Here none but the best liquors are served at the same price that is charged for cheaper brands at ordinary saloons. In the bar-room the lunch counter is as attractive and as conspicuous as the bar. Above the row of bottles and glasses, two quotations, one from Shakespeare and one from Pope, warn the drinker of the evils of excess. The bar-keeper applies the quotations by summarily refusing to sell liquor to a man after he reaches a point where he evidently has drunk as much as sobriety allows. The whole atmosphere of the Tavern is that of an orderly eating place, where one may drink if one insists upon doing so.

In England, the plan has been successful in promoting temperance. It is observed that there is less disorder, less drunkenness and less drinking of spirits in every community in which there is a trust house. The interest of Americans in its success led to the opening of the Subway Tavern, and other similar establishments may follow.