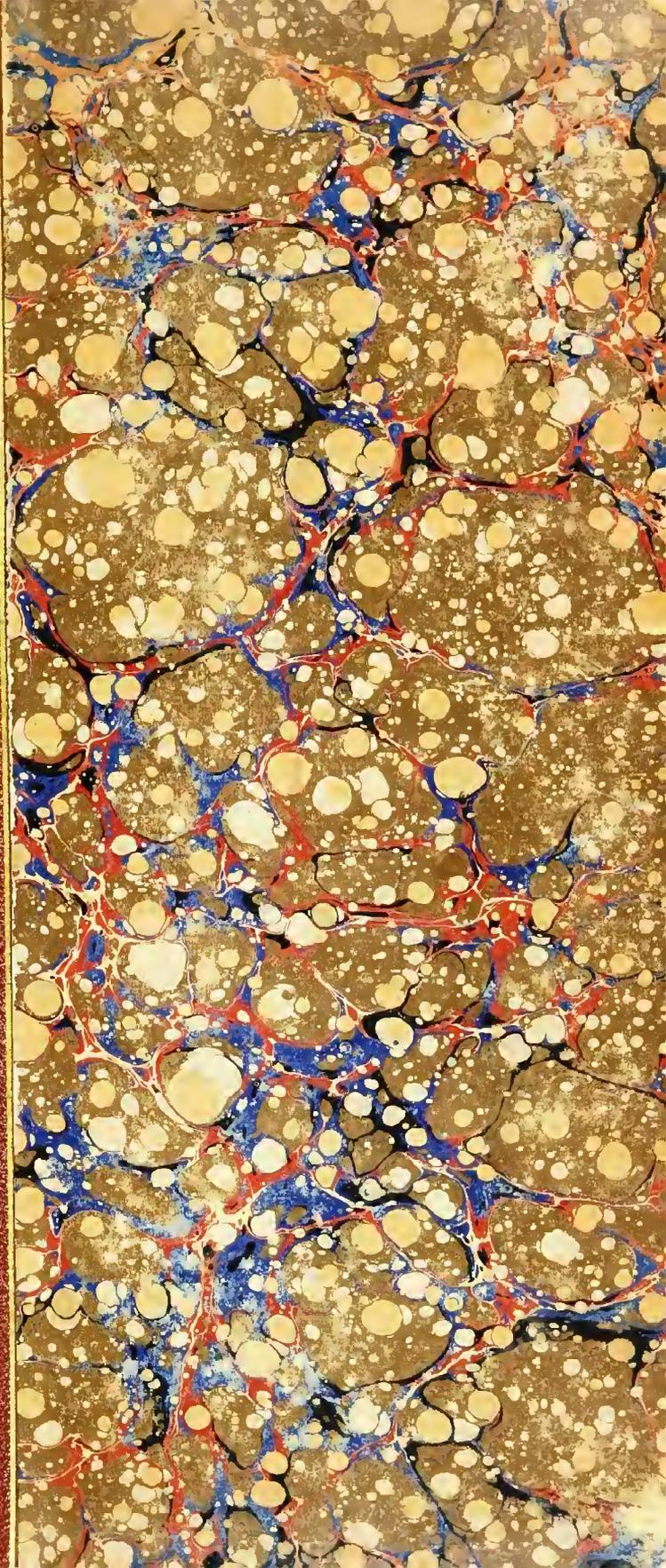


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*Charles H. Hull*



# HISTORY

OF THE

Cunard Steamship Company.

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# HISTORY

OF THE

## Cunard Steam Ship Company.



AMIDST the many gigantic companies of our mercantile marine whose enterprise has tended so greatly to place Great Britain in the enviable position which she holds among the nations, the Cunard Company occupies premier rank. The well-known care and strict surveillance exercised in the construction of the vessels of its fleet, and the rigid discipline maintained in every department of its service, have engendered in the public mind well-merited confidence, and gained for the Company a *prestige* unique in the annals of shipping.

In the gradual development of this Line may be traced that of the shipping industry generally, and in the substitution of new ships of superior types, the advance of science in relation to the steam ship and marine steam engine may be closely followed. A history of the origin and progress of the Cunard Company, as short and succinct as the magnitude of the subject will permit, cannot fail, therefore, to prove peculiarly interesting.

Up to the year 1838 the Lords Commissioners of the Admiralty (who, at that time, were invested with the arrangement of postal contracts) had been content to commit Her Majesty's mails for America to the uncertain mercies of sailing vessels bearing the somewhat unpromising designation of "coffin brigs." For, although vessels propelled by steam power had crossed the Atlantic at irregular intervals, from various European ports, within the previous 18 years or so, it was only in this year (1838) that the practicability of establishing regular steam communication with America was demonstrated beyond a doubt. Early in the spring the wooden paddle-wheel steamer "Great Western" (the first built expressly for the trade) sailed from Bristol for New York, and during that and the following year made several successful voyages between these ports, which so impressed the Government with the obvious superiority of steam ships over sailing vessels as a faster and more reliable means of transit for postal matter, that they forthwith issued circulars broadcast, inviting tenders for the future conveyance of the American mails by steam vessels. One of these circulars found its way into the hands of Samuel Cunard, a prominent merchant of Halifax (Nova Scotia), agent there for the East India Company, a man of penetrating intelligence, great energy, and strong determination. The idea of starting a line of steamers to connect the two countries had occurred to his mind as early as 1830, and he immediately recognised that here was a golden opportunity to carry out his project under the auspices of the British Government.

Being unable to raise the necessary capital in Halifax, he proceeded without delay to London, in the hope of enlisting the sympathies and financial support of merchants there, but meeting with scant encourage-

ment, he repaired to Glasgow armed with a letter of introduction from Mr. Melvill, secretary to the East India Company, to Mr. Robert Napier, the eminent Clyde shipbuilder and engineer. He was most cordially received by Mr. Napier, who, on learning the object of his mission, promised to assist him in his search after kindred enterprising spirits. By his good offices, Mr. Cunard was soon made acquainted with Mr. George Burns, a shipowner already extensively engaged in the coasting trade between Scotland and England and Ireland, a shrewd, clear-headed Scotchman, of rare administrative ability and great practical experience, and possessed of much influence with the leading capitalists of Glasgow and the West of Scotland. He, in turn, introduced Mr. Cunard to his partner in the coasting trade, Mr. David Mac Iver, who, although then resident in Liverpool, was likewise a Scotchman, and a man of great capabilities and wide knowledge of the shipping business. With these two gentlemen Mr. Cunard had several interviews, and expounded his proposals—they, with a far-sighted sagacity, for which both were distinguished above their compeers, fully comprehended the advantages of the undertaking, without being dismayed at the concomitant difficulties, and eventually intimated their readiness to throw in their lot with him. Having secured the valuable co-operation of two such men, Mr. Cunard found his chief difficulty was overcome, for within a few days—entirely through the instrumentality of Mr. George Burns—the requisite capital of £270,000 had been subscribed for, and he was enabled to tender to the Admiralty a most eligible offer for the conveyance of Her Majesty's mails once-a-fortnight between Liverpool and Halifax and Boston. A rival offer was made by the owners of the steam ship "Great Western," but the tender of Mr. Cunard was

considered to be the more favourable, and, accordingly, a contract for a period of 7 years was concluded between Her Majesty's Government and the newly-formed corporation, on whose behalf it was signed by Samuel Cunard, George Burns, and David Mac Iver, three names thenceforth indissolubly connected with the success of this famous concern.

Immediately after the contract had been fixed, the three managing partners set about the fulfilment of the conditions imposed upon them, Mr. (afterwards Sir Samuel) Cunard making London his headquarters, while Mr. George Burns remained at the seat of government in Glasgow (frequently, however, paying prolonged visits to London in connection with Admiralty and Treasury negotiations), and Mr. David Mac Iver returned to Liverpool to superintend the practical working of the steamers; but before their arrangements were finally adjusted, the Admiralty saw fit to remodel the agreement, requiring that the service should be performed by four suitable steam ships instead of three, and that fixed dates of sailing should be adhered to. In consideration of these more onerous conditions, the subsidy was raised from £60,000 to £81,000 per annum.

The first four steam ships provided by the Cunard Company, or, as it was then formally entitled, "The British and North American Royal Mail Steam Packet Company," were the "Britannia," "Acadia," "Caledonia," and "Columbia," all wooden paddle-wheel vessels, built respectively on the Clyde, in 1840, by R. Duncan, J. Wood, C. Wood, and R. Steel, and supplied with common side-lever engines by Robert Napier. The "Britannia," which was the pioneer vessel of the fleet, measured 207 ft. long  $\times$  34 ft. 4 in. broad  $\times$  22 ft. 6 in. deep, with a tonnage burden of 1154, and an indicated horse-power of 740. Her cargo capacity was 225

tons, and she was fitted for the accommodation of 115 cabin passengers, but no steerage. The horse-power and passenger and cargo accommodation of the other three ships were identical with those of the "Britannia," while their dimensions and tonnage only varied very slightly from her's. Their average speed was  $8\frac{1}{2}$  knots per hour, on a coal consumption of 38 tons per day. All of them were specially adapted for the transport of troops and stores in time of war, and their general equipment was in every respect as complete as the light of the times suggested. From the very commencement the Company distinguished itself for that care and discrimination in the selection of its officers and crews for which it is still remarkable. The inauguration of the mail service took place when the "Britannia" sailed upon her maiden voyage from Liverpool, on Friday, 4th July, 1840, which, being the "Celebration Day" of American independence, was viewed by many as a coincidence indicative of future prosperity, although some regarded the Friday departure as ominous of misfortune. However, in spite of maritime superstitious fears, the "Britannia" arrived safely at Boston, after what was then considered a rapid passage of 14 days 8 hours, and experienced an unprecedented ovation from the inhabitants. To testify their full appreciation of the benefits to be derived by the establishment of the new service, the citizens of Boston celebrated the occasion with a magnificent public banquet, at which their enthusiasm found vent in speeches of the most complimentary nature. And, later on, these same merchants gave practical proof that the goodwill expressed at this time was not of that evanescent character which is sometimes produced under the influence of mere excitement, for, when the "Britannia" was icebound in Boston harbour, in February, 1844, they liberated her by cutting a canal

through the ice, 7 miles long and 100 feet wide, at their own expense.

Thus auspiciously inaugurated, the mail service was carried on with conspicuous regularity for three years, when it was found that the increasing traffic demanded additional tonnage, so the "Hibernia" was added to the fleet in 1843, and the "Cambria" in 1845, the two being sister ships of greater dimensions and more extensive passenger and cargo capacity than their predecessors, as also somewhat higher speed. With this reinforcement the business was continued with enhanced satisfaction to the public until 1847, when it became evident to the Government that the postal facilities had become too limited for the demands arising from the rapidly extending commercial relations between Britain and America, and they wisely determined to double the Atlantic mail service. A new contract was accordingly entered into with the Cunard Company whereby it was provided that a vessel of not less than 400 horse-power, and capable of carrying guns of the largest calibre, should leave Liverpool (calling at Holyhead if required) every Saturday for New York and Boston alternately, the Boston steamer touching at Halifax and the New York one to do so also if required by the Lords Commissioners of the Admiralty; and in respect of these augmented sailings, the subsidy was raised to the substantial sum of £173,340 per annum, at which figure it remained until the end of 1867. For the adequate accomplishment of this important agreement four new ships were built—the "America," "Niagara," "Canada," and "Europa"—and took their station in the trade early in 1848, being followed in 1850 by the "Asia" and "Africa," and in 1852 by the "Arabia."

It may be said that for ten years from 1840 the

Cunard Company had practically a monopoly of the Atlantic trade, gradually displacing the famous American sailing clippers, until ultimately the latter were withdrawn from the route. In 1850, however, a formidable steam opposition known as the Collins Line, organised by the merchants of New York, Boston, and other American ports, and heavily subsidised by their Government, was started. Their vessels were all first class, having been constructed with a view to eclipse those of the Cunard Line, and keen rivalry and emulation existed between the two companies. The rates of freight and passenger fares were soon enormously reduced, and the competition for public favour became intensely exciting; the respective merit of the two lines was matter of absorbing interest, each company deriving its chief supporters from the nationality which it represented. The contest continued with unabated vigour and apparently equal success during four years, both companies putting forth strenuous exertions to take the lead, and retaining their own particular partisans owing to the national sentiment introduced into the struggle. Shortly after this, however, the Collins Line lost two of their ships, and the remainder were withdrawn in 1858.

The withdrawal of the steamers of the Collins Line gave a fresh impetus to other opponents who had by this time entered the trade; the Cunard Company had therefore still to strain every nerve to preserve the pre-eminence.

When building vessels their aim has always been that each new ship should be superior to those which preceded it, hence the various additions, although structurally of the same type as the vessels which preceded them, were of larger size and correspondingly greater engine-power, besides being fitted with the latest im-

provements for the comfort and convenience of passengers. At the same time a commendable caution has ever marked the conduct of the affairs of this Company. Viewing safety as its paramount consideration, its managers have been chary of initiating the adoption of new theories involving possible risk to hull or machinery. They prefer that others should experiment, and when the novel principle has been proved by indubitable tests to be perfectly safe as well as expedient, then, and not till then, it is introduced into the specification of their next ship. Thus, although scientists had been urging since 1830 the adaptability of iron in the construction of ships' hulls, and for several years prior to 1852 had been recommending the adoption of the screw propeller, it was not until the latter year that the Cunard Company acquired sufficient confidence in either invention to give it a trial. Once convinced of their utility, however, no time was lost in taking advantage thereof, four iron screw steam ships being added to the fleet that very year, viz.: the "Australian," "Sydney," "Andes," and "Alps"—and it is also worthy of note in connection with these vessels that they were the first belonging to the Cunard Company to be fitted with accommodation for emigrants.

The following year (1853) was eventful for the extension of the Company's field of operations. Six iron screw steam ships, specially adapted for the purpose, were built, and branch lines established between Liverpool and the principal ports in the Mediterranean, Adriatic, Levant, Bosphorus, and Black Sea, and between Liverpool and Havre. Although originally intended to act chiefly as feeders to the main line, these offshoots of the parent stem have sprung forth and become important adjuncts to the Company's business.

In this same year the House of Commons appointed a Select Committee to inquire into the matter of Contract Packets, and the following extract from their report, presented to both Houses of Parliament, throws some light upon the manner in which the Cunard Company's transatlantic service was conducted:—"This line of " packets (the Cunard) has of late years had to contend " against serious foreign competition. We find that the " vessels employed in the line are much more powerful, " and, of course, more costly than is required by the " terms of the contract, and that, as regards their fitness " for war purposes, they are reported by the Committee " of Naval and Artillery Officers as being capable of " being made more efficient substitutes for men-of-war " than any of the other vessels under contract for the " packet service. The service has been performed with " great regularity, speed, and certainty—the average " length of passage, Liverpool to New York, being 12 " days 1 hour 14 minutes."

Early in 1854 warlike rumours began to disturb the commercial as well as the political atmosphere, and before the year was far advanced war with Russia had actually been declared. The Cunard Company were called upon to assist the Government in the emergency by furnishing troopships and transports, and responded by immediately placing at the disposal of the Admiralty six of their best steamers, viz.: the "Cambria," "Niagara," "Europa," "Arabia," "Andes," and "Alps," afterwards supplementing them by the "Jura" (built that year) and the "Etna" (built the following year). These eight vessels were employed in various important commissions throughout the tedious Russian campaign. Meantime, to meet the exigencies of their own service, the Company were obliged to purchase the steam ship "Emeu" from another firm.

Notwithstanding that in many respects the adoption of the screw propeller had proved advantageous, it was found that passengers were as yet unwilling to take leave of the old paddle-wheel, which species of vessel was rapidly becoming extinct. After much consideration, the Company decided to defer to the feelings of their passengers on this point, and consequently, in 1856, the "Persia" was built—a magnificent iron paddle steamer of 3300 tons burthen, and 3600 indicated horse-power. She had accommodation for 250 cabin passengers, and, as anticipated, at once became the general favourite. She was succeeded in 1860 by five iron screw steamers for the Boston trade, of tonnage ranging from 2400 to 2900; and the Company's Mediterranean squadron received, between the years 1855 and 1861, an accession of no less than seven iron screws specially constructed to meet traffic requirements in that quarter.

The success attending the "Persia" induced the Company to produce another vessel of the same class, but of increased dimensions. This was the "Scotia," the last of the paddle-wheels, and as such, deserving particular notice. Built in 1862, on the Clyde, by R. Napier & Sons, she measured 379 ft. long  $\times$  47 $\frac{5}{16}$  ft. broad  $\times$  30 $\frac{5}{16}$  ft. deep. Her gross tonnage was 3871, and she was propelled by paddle-wheels, with engines on the side-lever principle, developing an average speed of 13 knots per hour, on a coal consumption of 159 tons per day. The diameter of her cylinders was 100 inches, length of stroke 144 inches, and her indicated horse-power was 4570. She was luxuriously fitted up for the accommodation of 275 cabin passengers, and being in every respect a distinct improvement upon all previous efforts of marine shipbuilding, she was universally acknowledged to be the finest specimen of a mercantile vessel

then afloat. Before she had been long upon her station she fully realised the high expectations formed of her speed by reducing the record of fast transatlantic passages to 8 days 22 hours, in which time she steamed from New York to Liverpool. For a number of years she and the "Persia" held the position of chief favourites with the passengers in the American trade; but not even the possession of such crack ships as these enabled the Cunard Company to rest on its laurels. The competition of other lines had become so close that every forward step taken by the premier Company was quickly followed by an onward movement on the part of their rivals, and it was evident that to keep their place in the race continuous advancement was necessary. Hence, for the ensuing eight years the Company had one or more vessels continually on the stocks, and further increased their fleet by twelve screw steam ships varying in tonnage from 2100 to 3000. As the new vessels took their places in the various trades, the older ones were disposed of, some to other companies and others to the builders in part payment of the later ships—all realising good prices in consequence of the excellent state of repair in which they had been maintained. Prominent among the later additions stands the "Russia," as marking another stage in the "progressive march of improvement." She was built on the Clyde in 1867 by James & George Thomson, and measured 358 ft. long  $\times$  43 ft. broad  $\times$   $27\frac{8}{10}$  ft. deep, with a gross tonnage of 2960, and an indicated horse-power of 2800. Her speed averaged fully 13 knots per hour on a coal consumption of 90 tons per day. Her cargo capacity was 1260 tons, and she was tastefully furnished for the accommodation of 235 cabin passengers. The beauty of her outline and the symmetry of all her proportions were deemed by nautical men to be

excellent. She quickly earned a reputation for speed and comfort, vieing with the "Scotia" as a passenger favourite. Her fastest passage across the Atlantic was 8 days and 28 minutes, from New York to Queenstown.

The Company's postal contract with the Admiralty having expired on 31st December, 1867, a new contract for one year was entered into with the Postmaster-General (to whose department the arrangement of packet services had been transferred), taking effect from 1st January, 1868; whereby the Cunard Company undertook to sail a vessel from Liverpool to New York every Saturday, calling at Queenstown; returning from New York every Wednesday, and also calling at Queenstown. Owing to the competition which then existed for the honour of carrying the mails, the Post Office were able to dictate their own terms for the service—accordingly the subsidy allowed was only £80,000. Even that sum was further reduced the following year, when another contract, for a period of seven years, was concluded between Her Majesty's Government and the Cunard Company. Under its provisions the Company guaranteed to sail a vessel from Liverpool to Boston every Tuesday, calling at Queenstown; and from Liverpool to New York every Saturday, calling at Queenstown. The subsidy, in consideration of the performance of this agreement, was £70,000 a year. From the expiration of the last-mentioned contract on 31st December, 1876, a new system of postal remuneration came into operation, based upon the amount of correspondence carried per voyage, and under it the Cunard Company have conveyed Her Majesty's mails from Liverpool to New York, via Queenstown, every Saturday continuously until the present time. It will thus be seen that the continuity of their mail service has remained intact for upwards of 45 years.

The latest evolution in the science of marine engineering engaging attention in 1869-70 was the invention of compound engines, and into the working of these the Cunard Company next directed inquiry. They were soon satisfied of the vast superiority of the new over the old method, inasmuch as it utilised steam at a far higher pressure, and produced equal or better speed results on a much smaller consumption of fuel. In fact, the saving effected by the use of compound engines was so considerable, that the Company recognised their adoption to be an imperative necessity, and promptly took action to avail themselves of the improved mechanism. The fine screw steam ships "Abyssinia" and "Algeria," each of about 3300 tons and 2480 indicated horse-power, with engines of the old-fashioned pattern, had just then been completed by Messrs. Thomson, and placed upon the New York station; but the "Batavia," a screw steamer of 2553 tons, in course of construction for another company, on Messrs. Denny's stocks at Dumbarton, was purchased, and supplied with machinery on the new principle; and an order was given to Messrs. Denny for a similar vessel of rather larger tonnage, to be named the "Parthia." Arrangements were also made for the conversion of the engines of the Company's most modern vessels.

The ramifications of the Company's business were for a time further extended by the establishment in 1872 of a line of steamers between the Clyde and the West Indies direct. Two sister ships, the "Trinidad" and "Demerara," built that year, and each of about 2000 tons, with large cargo capacity, were placed on the route; but, after sailing for about twelve months, they were withdrawn and sent to supplement the Company's service in the Mediterranean.

In the subsequent six years the Company increased

their fleet by seven large screw steamers (all fitted with compound engines), of which the last was the "Gallia," of 4809 tons and 5300 indicated horse-power. As time had elapsed since the acquisition of the "Persia" and "Scotia," the experience of the Company had proved indisputably that the days of paddle steamers on the Atlantic were gone for ever. While still much appreciated and patronised by passengers, it was found that their enormous consumption of coal in relation to their tonnage, and their restricted cargo space, rendered them unfit to compete successfully with the more economically worked screw steamers. So the "Persia" had been transferred to Messrs. J. & G. Thomson, in 1868, as part payment of one of the vessels built that year; and, although the "Scotia" continued to sail for several years later, she was laid up for some time before being eventually sold to the Telegraph Construction Company in 1878.

With respect to the ownership of the Company. The original shareholders were by degrees bought out by the founders until the whole concern became vested exclusively in the three families of Cunard, Burns, and Mac Iver. Upon the death, in 1865, of Sir Samuel Cunard, his shares were inherited by his son, Sir Edward Cunard; and at the decease of the latter in 1869 the Cunard interest devolved upon his brother, Mr. William Cunard, who from that time until the present has continued to represent the Company in London. The management at Glasgow remained long under the wise and skilful guidance of Mr. George Burns, whose firm bore the style of G. & J. Burns (his brother James having been a partner with him), and on his retirement from business about a quarter of a century ago his mantle fell upon his eldest son, Mr. John Burns of Castle

Wemyss, who has ever since been identified with the control of the Company's affairs. And here we may mention incidentally that his arduous duties in connection with the Cunard Company have not prevented him from exercising a fostering care over the affairs of the coasting business established by his father in 1824. Since its origin, 107 steamers, aggregating 48,247 tons, have been built for the firm of G. & J. Burns, and their Irish mail lines and the line between Glasgow and Liverpool are notable for vessels of the best construction, fastest speed, and most complete equipment. It is interesting to know that Mr. George Burns is yet alive, residing on his estate of Wemyss Bay, upon the Clyde; and, although in the ninety-first year of his age, is still in the enjoyment of excellent health and unimpaired mental powers. His holding in the Cunard Company was divided between his two sons, John (already mentioned) and James Cleland Burns. The business in Liverpool was ably superintended by Mr. David Mac Iver until his death in 1845, when the reins of office were assumed by his brother, the late Mr. Charles Mac Iver, whose energetic administration and untiring personal supervision lasted for nearly 35 years, at the end of which time he retired from active participation in the affairs of the Company, and was succeeded by his sons, who had some years previously been admitted into the management, but have since also retired.

In 1878 it was considered expedient to consolidate the interests of the partners by registering the Company under the "Limited Liability Acts." Accordingly, a Joint Stock Company was formed, with a capital of £2,000,000, of which £1,200,000 was issued and taken by the families of Cunard, Burns, and Mac Iver as part payment for the property and business transferred by them to the Limited Company. No shares were, how-

ever, offered to the public until 1880, when a prospectus was sent forth stating that "the growing wants of the Company's transatlantic trade demanded the acquisition of additional steam ships of great size and power, involving a cost for construction which might best be met by a large public company," and intimating that it was then proposed to issue the balance of the capital. This announcement was received with general interest, and the available shares were rapidly subscribed for—the representatives of the three founders retaining a very large financial stake in the concern. The Directors entrusted with the government of the re-constituted corporation comprised men of the highest standing and business qualifications. Mr. John Burns was elected Chairman of the Board, and under his experienced leadership, a bold and far-reaching policy has been steadily pursued, with the result that is evidenced in the splendid vessels composing the Cunard fleet of to-day.

One of the earliest duties of the Board was the consideration of yet another scientific discovery. As iron had superseded wood for ships' hulls, so steel was about to supplant iron. A crucial investigation elucidated such facts as convinced the Directors that steel possessed greater strength than iron, combined with superior ductility; and that by its use an important saving would be effected in weight, as lighter scantling could be employed. So, when they came to realise speed to be an essential requirement of the expeditious spirit of the age, and projected building a ship of leviathan size and unparalleled power, steel was the material selected for her construction. Messrs. J. & G. Thomson were entrusted with the order for this monster vessel, which was named the "Servia." She was completed in 1881, and was the largest and most powerful ship, except the "Great

Eastern," which had up to that time been constructed. Her dimensions are—Length 515 ft., breadth  $52\frac{1}{16}$  ft., depth 37 ft. Her gross tonnage is 7392. She possesses compound engines of massive description—seven steel boilers (six double and one single-ended)—and develops 10,000 indicated horse-power, producing a speed of 17 knots per hour on a coal consumption of 190 tons per day. She is fitted in the most substantial and beautiful manner for the accommodation of 480 cabin and 750 steerage passengers, and embodies all the most modern appliances conducive to comfort and safety. A striking feature in her equipment is the adoption of the incandescent electric lamps, this being their first introduction into the Company's vessels. Her performance has given the fullest satisfaction to her owners, and confirmed incontrovertibly the wisdom of contracting for vessels of her size. The fastest passage of this ship was made in December, 1884, when she steamed from New York to Queenstown in 7 days 1 hour 38 minutes.

Three large iron screw steamers of special suitability for the Boston trade followed the "Servia" in 1881-2. These were the "Catalonia," of 4841 tons and 3200 indicated horse-power; the "Pavonia," of 5587 tons and 4000 indicated horse-power; and the "Cephalonia," of 5517 tons and 4000 indicated horse-power—the two first mentioned being built (like most of the later vessels of the Cunard fleet) by Messrs. James & George Thomson, and the last by Messrs. Laird Brothers of Birkenhead.

The year 1883 witnessed the advent of the "Aurania," a noble steel screw steam ship of a fresh type in regard to proportions. Hitherto it had been the rule for the breadth of the Company's steamers to be equal to about a tenth of their length; but with the intention of

securing greater stability, a more commodious saloon and better staterooms, a departure was originated in the "Aurania," her beam being increased to about an eighth of her length. She was built on the Clyde by Messrs. Thomson, and her dimensions are—470 ft. long  $\times$   $57\frac{2}{10}$  ft. broad  $\times$   $37\frac{2}{10}$  ft. deep. Her tonnage is 7269, and she is fitted with compound engines of the same description as the "Servia's," developing 9500 indicated horse-power, and attaining a speed of  $17\frac{1}{2}$  knots per hour on a coal consumption of 200 tons per day. Her accommodation is delightfully roomy and airy, and fitted up for 480 cabin and 700 steerage passengers.

This year also saw the production of the celebrated iron screw steam ship "Oregon," emanating from the building yard of Messrs. John Elder & Company of Fairfield, on the Clyde, to the order of one of the lines running in direct opposition to the Cunard Company. She measures 501 ft. long  $\times$   $54\frac{2}{10}$  ft. broad  $\times$  38 ft. deep. Her tonnage is 7375, and she is furnished with compound, direct-acting, inverted engines, which develop 13,500 indicated horse-power, and attain a speed of 18 knots per hour with a maximum coal consumption of 268 tons per day. She did not distinguish herself on her first voyage, but on her third voyage she made the passage from Queenstown to New York in 6 days 10 hours 9 minutes, thereby excelling all previous records. She became famed as the "Greyhound of the Atlantic," and, after much deliberation, the Directors of the Cunard Company entered into a contract with the builders of the "Oregon" for two steel screw steam ships of greater power and speed than that vessel. The following year (1884), while these two ships were on the stocks, the "Oregon," passed into the possession of the Cunard Company, and has since sailed

under their flag, fully sustaining and even enhancing her former reputation, by making the run from Queens-town to New York in 6 days 9 hours 51 minutes, and maintaining the unparalleled average passage of 6 days 14 hours.

Towards the close of 1884 the "Umbria"—first of the two vessels ordered from Messrs. Elder—was delivered; and she was followed early in 1885 by her sister ship, the "Etruria." These being unquestionably the greatest triumphs of modern shipbuilding science, and the present acme of perfection in passenger steam ships, they demand a minutely detailed description. As they are identical in all important particulars, to describe one is sufficient—so let us take the later, the "Etruria." Her dimensions are—Length  $501\frac{9}{16}$  ft., breadth  $57\frac{2}{16}$  ft., depth  $38\frac{2}{16}$  ft., with a gross tonnage of 7718 tons. She is a five-decker. The promenade deck, which extends over the full breadth of the ship for nearly 300 feet amidships, is reserved for the sole use of the first-class passengers. On this deck is placed a large teak deck-house enclosing the entrances to the saloon, ladies' saloon (a fine, spacious apartment, which is fitted up in a tasteful manner), captain's room, and chart room. Above this house is placed the officers' look-out bridge and house for the steersman, and over this is the flying bridge. The extremities of the upper deck are efficiently protected aft by a turtle back, 75 feet long, which covers the wheel-house and hospitals, and forward by a large top-gallant fore-castle, extending 110 feet aft from the stem, having below accommodation for petty officers, ice rooms, store rooms, and other conveniences. The music saloon, smoking saloon, saloon entrances, several large family state-rooms, also the kitchen, bakeries, sculleries, and other offices, together with the accommo-

dition for the officers and engineers, are situated on the upper deck. They are chiefly contained in a large central deck-house, 275 ft. long  $\times$  32 ft. broad. The smoking saloon, which occupies the space between the engine and boiler hatches, is of unusually large dimensions, being 35 ft. long  $\times$  32 ft. broad. It is handsomely fitted up in hardwood. The music saloon, which contains a piano and organ, is situated forward of the machinery and boiler spaces and immediately above the grand saloon. It is 37 ft. long  $\times$  32 ft. broad, and is also handsomely fitted up. The dining-room is a large and magnificent apartment, 76 ft. in length, and extending to the full breadth of the vessel; while the height from beam to beam is 9 ft. It is arranged so as to admit of a large number of passengers sitting down to dinner. Ample light and ventilation are provided in both dining and music saloons by means of a large cupola skylight fitted on the promenade deck, the total height from the saloon floor to the cupola being over 20 ft. Aft the main saloon is the ladies' boudoir, a very comfortable apartment. The accommodation for first-class passengers, for whom the vessel is specially designed and intended, occupies the whole of the main and lower decks, with the exception of those portions set apart for the use of the crew. The vessel easily accommodates 550 first-class passengers and 800 emigrants. The state-rooms are replete with all the fittings usual in first-class vessels of the most modern type, and a number of them are arranged *en suite* for family use. The corridors are all very spacious, and amply lighted and ventilated. All the entrances, the corridors, chart room, engine room, grand saloon, music saloon, smoking saloon, ladies' saloon, and captain's cabin are lighted by a complete installation of the electric light on the incandescent principle. The

vessel is fitted with three masts, full barque rigged, according to the style characteristic of all the vessels of the Cunard fleet. The masts, which are constructed of steel, carry an extensive spread of canvas. The "Etruria" carries the large number of twelve boats, all of which are fitted as lifeboats, whilst as an additional means of safety lifebelts are stowed in all state-rooms for the full complement of passengers. Steam steering gear of the most improved type is fitted under the turtle back aft, with connections for steering from the bridge amidships. As an additional safeguard, powerful hand steering gear on the double-screw principle, with three steering wheels, is fitted in the after wheel-house. A powerful steam windlass is placed under the topgallant forecastle, with a large capstan in the forecastle deck for working the anchors and manœuvring the vessel in the harbour. Five large steam winches are fitted at the hatchways with strong derricks on the masts for the prompt loading and discharging of the cargo. The vessel is, in short, provided with all the most improved appliances for navigating and working it with safety and for promoting the comfort and security of the passengers. The "Etruria" is not classed, being built to Cunard requirements, which are in excess of the requirements for any class. She is divided into ten watertight compartments, and most of the bulkheads are carried to the upper deck, while they are fitted with waterproof and fireproof doors, which afford means of access to all parts of the ship. By this plan the danger of fire spreading, should it break out in any division of the ship, is obviated as much as possible, and greater safety is obtained. Any compartment may be completely isolated, and this arrangement would be of immense service in case of the hull being damaged or should sanitary measures require to be enforced. The

special care taken to provide for the safety of the vessel and the lives of those on board entitle both the "Umbria" and the "Etruria" to rank as transports of the highest class, and both are entered in the Admiralty list, as they are admirably adapted for service as mercantile auxiliaries in time of war. Much attention has been bestowed on such important matters as lighting, ventilation, and sanitary arrangements. The engines indicate upwards of 14,500 horse-power. They are compound, having three inverted cylinders—one high-pressure 71 in. in diameter, and two low-pressure each 105 in. in diameter. The high-pressure cylinder is placed between the two low-pressure cylinders, and all are adapted to a stroke of 6 ft. The average speed of the "Umbria" and "Etruria" may be set down at  $18\frac{1}{2}$  knots per hour, on a coal consumption of 275 tons per day. Although built chiefly to meet the requirements of an ever increasing passenger trade, they have each cargo capacity for about 1000 tons of deadweight. The fastest passage ever recorded was accomplished by the "Etruria" in August, 1885, when she crossed from Queenstown to New York in 6 days 6 hours 36 minutes—beating the "Oregon's" quickest voyage by 3 hours 15 minutes; and it is confidently anticipated that both she and the "Umbria" will yet reduce even that notable passage.

Through the acquisition of such fast ships, and by altering their sailing day from New York from Wednesday to Saturday, the Company are now enabled to conduct their Saturday service from Liverpool with four boats instead of five—thus economising capital and saving the wages of one ship's crew.

Reference has already been made to the employment of certain Cunard steamers as transports during the Crimean war, but this history would be incomplete

without a brief record of the more recent services rendered by the Company to Her Majesty's Government. At various times between 1856 and 1878 Cunard vessels were requisitioned for the conveyance of troops and stores to Halifax, Quebec, Gibraltar, Malta, and other ports. When war broke out at the Cape in 1879, the "Russia," "China," "Olympus," and "Palmyra" were under charter to the Admiralty as troop ships for a considerable period. And on the outbreak of the Egyptian war in 1882, the Cunard steam ships "Catalonia," "Batavia," "Palmyra," and "Marathon," were among the first ships to be despatched to Alexandria with troops. Then, in the spring of 1885, in consequence of the Russian war scare, the Admiralty chartered the "Umbria" and "Oregon" for six months, as merchant cruisers, and bespoke the services of the "Etruria" also if required. The two first-named vessels were completely armed and fitted up under the superintendence of Admiralty officers, and when the great naval demonstration took place in July, 1885, the "Oregon" was chosen to accompany the evolutionary squadron under the command of Admiral Sir Geoffrey Hornby, K.C.B. She was the only armed merchant cruiser present with the fleet, and proved herself invaluable as a scout, gaining the admiration of the officers of the squadron for her wonderful speed and seagoing qualities. And not only as a scout to accompany a fleet, but as an independent cruiser, or armed transport, this vessel would be invaluable in time of war, for she is as remarkable for her economy in fuel when steaming under 11 knots per hour, as for her wonderful speed when driven at full power. At 7·5 knots, the consumption is 28 tons per day; at 8·5 knots, the consumption is 36 tons per day; at 10 knots, the consumption is 55 tons per day; and as she has bunker capacity for 3000 tons of coals, she

can steam continuously at 7·5 knots per hour for 107 days, or 18,000 knots; at 8·5 knots per hour for 83 days, or 16,900 knots; or at 10 knots for  $54\frac{1}{2}$  days, or 13,000 knots, and as a cruiser keep the sea for an indefinite time quite independent of coaling stations, or as an armed transport, convey troops to any part of the world without calling at a port to fill up with coals. When fully equipped as an armed cruiser, with bunkers filled, and crew and stores on board, she can accommodate 1500 troops with all their stores and equipment. Although happily not required for the purposes for which they were chartered, the opinion has been generally expressed by competent authorities, that if occasion had arisen to test their capabilities, the "Umbria" and "Oregon" would have shown themselves to be powerful auxiliaries to our ironclad navy.

At the present time the Cunard fleet comprises 34 vessels (including tenders and barges), aggregating 98,790 tons and 102,333 indicated horse-power; and since its origin 45 years ago, the Company has built 78 steam ships aggregating 189,282 tons. Then, as an illustration of the wide extent of its business, we may quote a remark made in a recent speech by Mr. John Burns, who said: "During last year the ships of the Company traversed a distance equal to nearly five times that between the earth and the moon, whilst 42,000 men, forming the crews of the ships, were entered and discharged."

A mighty organisation is here represented, demanding the exercise of exceptional administrative powers and vigilance in its government. That these qualities are possessed by its managers is evinced by the high state of efficiency exhibited throughout their ships in every department, and the remarkable popularity—never greater than at present—enjoyed by the Com-

pany. To prove that the reputation earned by the Cunard Company is due to prudent supervision and incessant attention to the minutest details, we mention a few of many precautions observed by them to ensure their having well-built, efficiently manned, and carefully sailed ships. Their solicitude begins at the keel of each vessel, and continues throughout the whole course of construction. The progress of the work is closely scrutinised by the Company's general and engineer superintendents; and, in addition, a foreman carpenter and rivet inspector are constantly employed in the building yard, for the sole purpose of detecting defective material or workmanship, and having it rectified. Before every voyage a thorough examination of ship and crew is made by the general and marine superintendents and other officials. The men are mustered and exercised in boat drill, fire drill, and pump drill; heed being taken that every man knows his proper position, so as to avoid panic or confusion in the event of a sudden emergency. An inspection is then made of the store rooms, the rockets and other signals are critically examined, and the doors of the watertight compartments are shut and tested; and each day while the ship is at sea the men stationed at the watertight doors are mustered and every watertight door in the ship is closed, the chief officer and chief engineer reporting to the captain at 1 p.m. the condition of the doors in their respective departments. Knowing how much depends upon the acuteness of vision possessed by the officers and look-out men, the greatest care is taken to guard against weak sight or colour blindness in every person connected with the sailing department. An exhaustive code of instructions has been compiled for the use of captains, officers, engineers, and every man on board, plainly stating their individual duties,

and laying down distinct rules for their guidance under all circumstances. Lastly, with the view of diminishing the chances of collision, the Company's Atlantic steamers take specified courses according to the seasons of the year. Indeed, all the means which human forethought can devise and long experience teach, are enlisted to secure the safety of lives and property.

The present Board of Directors consists of the following gentlemen:—Mr. John Burns (Chairman), Messrs. David Jardine (Chairman of Executive Committee), William Cunard, Thomas Baring, James Cleland Burns, Wilfrid A. Bevan, and John Williamson, while the executive at Liverpool comprises Mr. Thomas Bournemouth (general manager), Mr. A. P. Moorhouse (secretary), Captain William Watson (general superintendent), Captain Inglis (marine superintendent), and Mr. James Bain (superintending engineer)—to whom may be added the superintending engineers at Glasgow, Messrs. William Muir and John Rae.

The vast changes which have taken place in ship-building since the Cunard Company came into existence 45 years ago, can best be grasped by instituting a comparison between the earliest and the latest vessels of their fleet. Thus, whereas the "Britannia" measured 207 ft. long  $\times$  34 ft. 4 in. broad  $\times$  22 ft. 6 in. deep, with a tonnage of 1154 and an indicated horse-power of 740, the "Etruria" measures  $501\frac{6}{10}$  ft. long  $\times$   $57\frac{2}{10}$  ft. broad  $\times$   $38\frac{2}{10}$  ft. deep, with a tonnage of 7718 and an indicated horse-power of 14,500. While the former steamed at the rate of  $8\frac{1}{2}$  knots per hour, the latter has attained a speed of 20·25 knots per hour. The first could carry 115 cabin passengers and 225 tons of cargo, the last can carry 550 cabin passengers, 800 emigrants, and 1000 tons of cargo. Then, to summarise the advancement, the

length of the passage across the Atlantic has been reduced by fully one week !

It is still possible to augment the engine-power of ocean steamers of the "Etruria" class, but the cost of construction would be so heavily increased, and the carrying capacity so much diminished by the additional space occupied by the boilers and machinery, as to render it a problematical question if faster vessels could be made to pay. The next great advance may therefore be sought in the direction of a new motive power in locomotion, rather than in any further development of the steam engine.



## LIST OF THE COMPANY'S PRESENT FLEET.

No.	NAMES.	Material.	How Propelled.	Gross Tons.	Indicated Horse Power.
1	Umbria ... ..	Steel.	Screw.	7,718	14,500
2	Etruria ... ..	do.	do.	7,718	14,500
3	Servia ... ..	do.	do.	7,391	10,000
4	Oregon ... ..	Iron.	do.	7,375	13,500
5	Aurania ... ..	Steel.	do.	7,268	9,500
6	Pavonia ... ..	Iron.	do.	5,587	4,000
7	Cephalonia ... ..	do.	do.	5,517	4,000
8	Catalonia ... ..	do.	do.	4,841	3,200
9	Gallia ... ..	do.	do.	4,809	5,300
10	Scythia ... ..	do.	do.	4,557	3,115
11	Bothnia ... ..	do.	do.	4,535	3,160
12	Samaria ... ..	do.	do.	2,574	1,530
13	Marathon ... ..	do.	do.	2,403	1,500
14	Atlas ... ..	do.	do.	2,393	1,500
15	Malta ... ..	do.	do.	2,244	1,360
16	Saragossa ... ..	do.	do.	2,166	950
17	Tarifa ... ..	do.	do.	2,146	1,260
18	Palmyra ... ..	do.	do.	2,144	1,250
19	Aleppo ... ..	do.	do.	2,143	1,255
20	Demerara ... ..	do.	do.	1,904	900
21	Trinidad ... ..	do.	do.	1,899	900
22	Kedar ... ..	do.	do.	1,876	960
23	Morocco ... ..	do.	do.	1,855	960
24	Cherbourg... ..	do.	do.	1,614	803
25	Nantes ... ..	do.	do.	1,473	650
26	British Queen ... ..	do.	do.	772	430
27	Skirmisher, tender ...	Steel.	Twin Screw.	607	800
28	Otter, do. ...	Iron.	Screw.	287	150
29	Jackal, do. ...	do.	Paddle.	180	200
30	Monkey, barge ...	do.	Barge.	167	—
31	Badger, do. ...	do.	do.	165	—
32	Swan, do. ...	do.	do.	165	—
33	Satellite, tender ...	do.	Paddle.	157	200
34	Squirrel, barge ...	do.	Barge.	140	—
				98,790	102,333

## OFFICES OF THE COMPANY.

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### ENGLAND.

LIVERPOOL, 8 Water Street and 1 Rumford Street.  
(Head Offices.)

LONDON, 6 St. Helens Place and 28 Pall Mall.  
(Messrs. W. & W. S. Cunard.)

MANCHESTER, 77a Market Street.

### SCOTLAND.

GLASGOW, 30 Jamaica Street.  
(Messrs. G. & J. Burns.)

LEITH, Exchange Buildings.

### IRELAND.

QUEENSTOWN, 3 Scott's Square.

BELFAST, 49 Queen's Square.

### FRANCE.

PARIS, 38 Avenue de l'Opera.

HAVRE, 21 Quai d'Orleans.

### AMERICA.

NEW YORK, 4 Bowling Green.  
(Messrs. V. H. Brown & Co.)

BOSTON, 99 State Street.  
(Mr. P. H. Du Vernet.)

CHICAGO, N.-W. Corner Clark and Randolph Streets.  
(Mr. F. G. Whiting.)

















