than 2500 shareholders in the Lloyd forfeited their shares, but the directors were not dismayed, and had the loyal support of their fellow citizens. Four big ocean steamers were constructed for the American line and three for the English, and large docks for repairs were established at Bremerhaven. The first voyage was made in June 1858, when the "Bremen ” started for New York, carry­ing many steerage passengers, but only one in the saloon. The second snip, the "Hudson,” was shortly afterwards burned while lying in harbour. At the end of the first year both lines showed a loss. At the end of the second year matters improved, the English cattle trade especially showing great progress. But the company still commanded little confidence, for the Darmstadt Bank parted with 1,000,000 thalers’ worth of shares at a loss of 75%. These the directors themselves took over. But the American Civil War now came, to deal another severe blow at the Lloyd, just when its prospects were growing brighter, and till 1864 no dividend greater than 21/2% was paid to the shareholders. After the termina­tion of the war the trade with the United States grew enormously, and the English traffic also revived in a most unexpected way. One result was the foundation of rival lines, which, however, were unable to maintain effective competition, and succumbed. In 1868 a new line was opened. Bremen’s staple of commerce is tobacco, and the directors determined to bring their port into direct communication with the tobacco-producing areas in the States; so in that year they inaugurated their line to Baltimore. In the following year a line was started to New Orleans, another great centre of the tobacco and cotton trade. It was necessary to con­struct three special liners for that service, as the ordinary ships could not pass the bar of the Mississippi. In 1869 a line to Central America and the West Indies was set on foot, and new steamers were ordered to run on it. With the outbreak of the war of 1870 the company naturally had anxious times, as the French fleet blockaded the German coasts; but its vessels often ran the blockade with success. S00n after the war the West Indian service, proving unprofitable, was given up. In 1875 a new line of steamers to Brazil and Argentina was started. This was separated into two distinct services in 1878. In 1880 the approach of the great struggle for supremacy on the Atlantic made itself felt, and the company began to prepare for the contest, and ordered the con­struction of the “ Elbe," the first of its express line of steamers. She commenced running in 1881, and was quickly followed by others. Between 1881 and 1888 an entirely new fleet was placed on the New York line. In 1886 the Australian and East Asian Lines were founded in accordance with a contract with the imperial government. This included a monthly service to China, with a branch service to Japan, and a monthly service to Australia, with a branch line to the Samoan and Tonga Islands. From that time onwards the story of the Norddeutscher Lloyd has been one of increased prosperity. The company’s fleet includes four large and fast steamships of about 23 to 231/2 knots speed for its weekly express service to New York, whilst it has also large vessels—one, the “George Washington,” being of 27,000 tons—for its intermediate service to the same port, built by the Vulcan Company at Stettin. The company runs many lines from its headquarters at Bremen; among them are those to New York—a line of express steamers and a line of ordinary mail steamers, all calling at Southampton or Cherbourg; to Balti­more direct; to Galveston direct.—there are no first-class passengers by this line; to Brazil; to the River Plate, calling at principal ports on the way. There are also lines of imperial mail steamers between Bremen and Hamburg and eastern Asia, and Bremen and Australia, and a freight line to east Asia, which runs in connexion with the Hamburg-American Line. In pursuance of the German policy of securing the feeders to maintain traffic, the Norddeutscher Lloyd purchased the ships and business of the Kinsing Line and of the Scottish Oriental Company, when it began seriously to develop its Eastern trade. Feeling in common with all large steamship companies the difficulty of providing efficient personnel for its constantly expanding fleet, and believing in the necessity for sea­men of experience in masted ships, the Lloyd has provided itself with a sea-going training-ship. Such success attended this ex­periment that a second vessel has been added and the idea has since commended itself to certain British steamship companies.

*Ocean Steamship Company.—*The Ocean Steamship Company is the successor of older steamship enterprises, mainly under the same management and ownership. These began in 1852 with the coast­ing trade, and extended in following years to French ports, and in 1855 to the West Indies. The last-named line attained some moderate importance, comprising seven vessels; it was sold in 1863, and eventually became the West India & Pacific Steamship Company, which in its turn was absorbed by the Leyland Line in 1900. The. managers thereupon, seeking other trades, decided on attempting that to China, and the company under its present title was registered as unlimited in 1875. Up to this date low- pressure jet-condensing engines were alone used, burning perhaps 5 to 51/2 ft of coal per indicated horse-power per hour.. This rate of consumption would have been fatal to the scheme, since vessels could not have carried any cargo in addition to the coal necessary for so long a voyage as that via the Cape, the Suez Canal not being opened till 1870. A small vessel, the “ Cleator,” of which the exact speed and consumption with the old type of engine was well known, was therefore experimentally fitted with new machinery of the compound high-pressure (70 lb), surface-condensing type. The result of the experiment was that her consumption was reduced to about 3 or 31/2 lb per i.h.p. per hour, and this warranted the con­struction of the "Agamemnon," “ Ajax ’’and “ Achilles,” all 309 ft. long, 38 ft. 6 in. broad,. 28 ft. 6 in. deep, fully rigged as barques, with screws outside their rudders. These rigs were subsequently altered to that of barquentines, but. the relative positions of the screws and rudders were retained till they were disposed of in 1899. In these vessels the consumption was further reduced to about 21/2 ft, which allowed margin for a reasonable cargo. The “ Agamemnon ” sailed from Liverpool in 1866 ; the itinerary being Mauritius, Penang, Singapore, Hong-Kong and Shanghai, and, with similar calls, back to London. The cargoes in those days were mainly manufactured g00ds outwards and tea homewards. The average speed was perhaps 93/4 knots, and the consumption about 211/2 tons of Welsh coal per day. These and succeeding steamers were at that date the only vessels carrying high-pressure steam on long voyages, and they traded regularly round the Cape, being the only line that did so. When the Suez Canal was opened in 1870 they changed the route. The trade from the United King­dom to China has since steadily grown, and increasingly large cargoes are also procurable homewards from the Far East, in spite of the successful competition of Indian and Ceylon teas. In 1891 a service was begun from Amsterdam and Liverpool to Java, and this is maintained about once a fortnight, finding employment for about ten of the smaller ships. The vessels in this trade, which is princi­pally between Holland and her eastern possessions, fly the Dutch flag. A limited number of passengers were formerly carried be­tween England and the East, but these ships now take cargo only to and from Europe, though Mahommedan pilgrims are conveyed in considerable numbers to and from Jeddah, the port for Mecca. The ships generally commence loading at Glasgow, and occasionally at other West Coast ports. They usually carry the greater part of the cargo from Liverpool, the most important element being fine goods (manufactured cottons, .&c.) from Lancashire and Yorkshire. Abroad the regular service has been extended to the principal Japan ports—Nagasaki; Kobe and Yokohama, and, as opportunity arises, additional ports of call in China and Korea have been added to its itinerary. The following local services have their headquarters at Singapore: (1) Singapore to West Australian ports, including Fremantle. These steamers carry passengers, and bring large quantities of wool and pearl shell from Australia to Singapore for transshipment to the main line steamers bound for London. (2) Singapore to Deli (Sumatra). Three small steamers bring tobacco from Deli for transshipment to Europe.. (3) Singapore and Penang to China. The great emigra­tion of Chinese coolies to the British colony of the Straits Settle­ments keep several steamers regularly employed. The company is colloquially known in the shipping world as the “Blue Funnel” Line, and is also often referred to by the name of Mr Alfred Holt, who has been closely identified with it throughout its history. In 1902 the Ocean Company absorbed its younger rival, the China Mutual Steam Navigation Company, with a fleet of. thirteen vessels of 106,870 tons, and shortly afterwards re-registered itself under the Limited Liability Acts. The company’s most recent develop­ment is in its connexion with Australia. For its direct service thither several 10,000-ton ships fitted with refrigerating apparatus and accommodation for some 300 passengers each are provided.

*Orient Line.—*The Orient Line of steamers between London and Australia took up the work of the Orient Line of clipper packets, which in the days of sailing-ships used to ply between London and Adelaide. In April 1877 it was announced that “ the Orient Line would sail the under-mentioned steamships of the Pacific Steam Navigation Company to Australia.” That connexion between the two organizations was continued and strengthened till in 1901 the name of Orient Line was changed to that of Orient- Pacific. In June of 1877 the “ Lusitania ” was despatched from London to Adelaide, Melbourne and Sydney, via the Cape of Good Hope. Other sailings followed at about two-monthly intervals. In the following year the Orient-Pacific Line came into existence. It was formed by the joint efforts of Messrs Anderson, Anderson & Co. and .F. Green & Co., who are the managers of the line. When the service was begun it was intended to be run monthly, but the in­crease of traffic soon demonstrated that fortnightly sailings would be successful. This extension was determined on in 1880., the year following that in which the “ Orient,” the first ship specially built for the company’s trade, commenced work. Since 1888 the Orient Company has carried the mails to Australia by contract with the English post office, once a fortnight. These despatches, alternat­ing with those of the P. & O., give Australia a weekly mail. Several twin-screw steamers have been built for this service by both the Orient and the Pacific Companies. The latter company subsequently retired from the partnership, the Royal Mail Company taking its place and purchasing the vessels which it employed. In 1910, however, a new mail contract came into operation, and this was undertaken by the Orient. Company alone. The Royal Mail withdrawing its ships, the Orient Company replaced them with a new fleet of 12,000-ton steamers, of which the first five are twìn- screws and the sixth is to have three propellers driven by a