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In March, 1846, Liverpool newspapers announced the launch of an iron screw steamer from James Hodgson's shipbuilding yard. Designed by John Grantham and built for M'Tear and Hadfield, of Liverpool, as "the first of a line of steamers to Brazil", she was christened the ANTELOPE. Various dimensions have been credited to her, but the firmest evidence is that of the Liverpool Registry of Shipping, which records her as a three-mast ship, of 459 tons register, 185.7 x 24.7 x 16.7. The register, dated 29 August, 1846, describes her as having one deck and a poop, standing bowsprit, square stern, sham galleries, a billet head, and as being clench-built. Engines of 100 horse-power were supplied by Fawcett. The ANTELOPE was placed on the Liverpool to Rio de Janeiro station and made several successful voyages under Captain H.H.O'Bryen, with a crew of forty. In 1848, most of her shares were transferred to J.K.Rounthwaite, City of Dublin Steam Packet Co., and a year later she was registered de novo. She is not noticed in local records afterwards until 30 January 1852, when the Liverpool Mercury announced that "The ANTELOPE, and iron steamer, has arrived here from California after an absence of about three years. She is in such sound condition after her voyages to and from the Pacific and her service there that a little paint is all that is required to smarten her up for another trip." At Liverpool, however, she came under new ownership and during 1852 was lengthened and fitted with new engines by George Forrester and Co. On 3rd December, Millers & Thompson advertised her to sail on their Golden Line of Australian Packets, describing her as of 1200 tons, 250 horse-power engines, "built specially for the Australian trade (which presumably referred to her lengthening) and as divided into six watertight compartments. She carried stewards, stewardess and surgeon, and was armed and fitted with bullion safes. On 22 February, 1853, she ran a trial trip, making 12 knots under steam and canvas, and 10 knots under sail only. Five days later she was registered anew at Liverpool in the names of James Jack, John Bacon, and James Grantham. Both Jack and Grantham were Liverpool engineers, while John Bacon was founder of the coastal steamship firm of that name. Shown as of 778 tons register, she cleared on 7 March for Melbourne with a crew of 60 men under Captain Henry G. Kean. The next record concerns her arrival at

Sydney on 27 January, 1854, and I am thus not certain as to how many voyages she had meanwhile made to Australia, but she arrived back safely in the Mersey, for local newspapers of May, 1855, announced her as for sale, giving her dimensions as 228 x 25 x 15, with 150 horse-power engines by Forrester, and fitted for 120 first and second-class passengers. Her speed is modestly put at $8\frac{1}{2}$ knots, and her cargo capacity as 700 tons. Two years later, she appeared on the Liverpool to Portland Maine route "to sail in direct communication with the Grand Trunk Railway", whose agents at Liverpool were Sabel and Searle.

In 1857, the ANTELOPE was sold to Pearson and Coleman, of Hull, after making several voyages to Quebec for the ill-fated Galway Line and, later, for Sabel and Searle's Washington Line to New York. Pearson and Coleman appear to have sold her in 1857 to a Grimsby firm, who fitted new engines and re-named her the CORAL QUEEN. In 1866, she was purchased by Pile, Spence and Co. and given engines of 90 horse-power, and five years later she appears under the ownership of Christopher M. Webster, with her dimensions changed to 753 tons gross, 478 tons nett, 236.9 x 26.4 x 16.6. Seven days years later, she is shown under the ownership of the West Hartlepool Steam Navigation Co., her tonnage being then 856 tons gross. This stout little vessel lived until sunk by collision in the North Sea in 1890. The iron steamer SARAH SANDS is given credit for the pioneer screw voyage to the Pacific, but as will be noticed from the foregoing, the ANTELOPE holds the honour of being the first screw steamer to reach South America, the first to reach California and the North Pacific.

On 19 December, 1846, a larger iron screw vessel, the SARAH SANDS, named after the wife of her owner, Thomas Sands, a Liverpool merchant, was registered at that port. This steamer, also, was built by James Hodgson, and her original measurement and tonnage has been variously shown. Fletcher, in "Steam Ships and their Story" gives the length as 182 feet b.p.p., while others state that she was 220 ft. over-all. But the Liverpool registry of 1846 shews her as 207.6 x 30.5, and on re-registration in 1860 the length is given as 218 feet. When completed in 1846 she was presumably a four-mast barque, fitted with engines of 300 H.P. by Bury Curtis, and Kennedy, but it is curious to note that in 1852, on a re-registration, she is shown as a two-mast schooner of 931 tons gross, with a scroll head. At that date, her owners are shown as Charles Oddie, W.C. Thompson (master) and John Grantham, engineer. The SARAH SANDS made her

first voyage to New York in 1847 under the house-flag of the Red Cross Line of sailing packets, and remained on that service until 1849. In 1847 her best passage from the Mersey to New York was made in 20 days, but in 1849 she made several regular voyages in 16½ to 18½ days. Her North Atlantic career proved short, for she was transferred in 1849 to a coastal service between Panama and San Francisco, a trade which had been pioneered, from a screw standpoint, by the little ANTELOPE. Discovery of gold in Australia, caused the SARAH SANDS to cross the Pacific crowded with gold-seeking passengers, and she was thus the first screw vessel to cross that ocean. In 1852 she was back in the Mersey and, as abovestated, then changed ownership. Later in the year she was advertised to sail under command of Captain W.C. Thompson, for Melbourne and Sydney, for account of the Melbourne Gold and Mining Association. In 1853 she cleared on several successive voyages for Quebec and Portland for M'Kean and M'Larty, her tonnage being shown as 930, and her crew as sixty. Thus, she can be noted as the first iron screw steamer in the Canadian trade. On her last return voyage she struck the rocks in the Straits of Belle Isle and remained fast for four days and nights, and on returning to the Mersey it was found that not a single rivet had been started! When leaving graving dock, however, she capsized, but proved none the worse for this, nor for a previous grounding in the Mersey when carrying 1,000 tons deadweight. These incidents in her career did much to demonstrate the superiority of iron over wooden vessels.

The SARAH SANDS also found much employment in trooping, and on 26 May, 1855, cleared from Liverpool for Balaclava with troops, and again on 5 March 1856, carried 250 officers and men and 209 horses from Kingstown to the Crimea. At that date she was described as of 1259 tons register and 200 horse-power. Then follows the episode which has made her name historic. On 15 August, 1857, she embarked the headquarters company of the 54th (West Norfolk) Regiment, consisting of 369 officers and other ranks, and 11 women, for India. She sailed 22 August and arrived at Simons Bay on 15 October, with the crew in a state of mutiny. Here she stayed for five days. Continuing the voyage, she met a heavy squall on 7 November which carried away the foremast, and later in the same day fire was noticed coming from the after hold. Soon it was seen that she was well alight. Women were put into the boats and, with part of the crew, sent away from the

ship, and a long struggle against odds commenced. The star-magazine was soon cleared of its contents, but attempts to ease the port magazine proved unavailing, and men were overcome by smoke fumes at every effort. The captain set her sails to bring the ship's head to the wind. Flames then broke through the deck, and soon all rigging was ablaze. Pumps were vigorously worked, and one detachment of soldiers employed throwing overboard everything of an inflammable nature, while others busied themselves at making rafts. Then a terrible explosion shook the ship, and she appeared to be sinking, but a cursory examination caused some re-assurance, and fresh attempts were made to salvage her. Again, themen of the 54th Regiment laboured with great courage. If the wind had veered astern, nothing could have saved the ship. The boats were hailed to keep her head towed to the wind, but only one responded! And so the eventful night wore on. After sixteen hours, the fire was got under. The whole of the after-part of the SARAH SANDS was seen as a steaming wreck, with four great iron tanks rolling about and threatening to go through the ship's bent and weakened plates. A huge hole, however, had been blown in her stern, and only the unusual thickness of her iron generally saved the vessel. Charts, compasses, and chronometers were all destroyed, and the last observation made had showed her 800 miles from Mauritius. Twelve days later, she arrived at Port Louis, in Mauritius, where evryone made a great fuss of the soldiers, and soon the story was all over the world and, on account of the bravery and discipline of the Norfolk, read out to every regiment in the British Army at home and abroad.

The SARAH SANDS was eventually brought home to the Mersey, and on 7-December 1860 was registered under the ownership of Edward Bates as an iron screw, four-masted barque steamer of 150 horse-power, being then described as clencher-built, with a woman bust figure-head, a square stern and no galleries. On 17 March, 1862, she cleared for Madras with a crew of 29 men and again in September 1864 for Bombay under command of Captain E. White. In 1864 she was registered anew as a converted sailing-ship. Five years later she was wrecked on the Laccative Islands.

So much has been written regarding the largest of our pioneer screw steamers as to cause the following notes to appear superfluous, but I have appended this note in order to commemorate, in the Society's records, the centenary of the launching of the GREAT BRITAIN. Credit for her design seems to lie jointly with Brunel and Scott Russell. She was ordered by the Great Western Steamship Company from Patterson,

who constructed her in a dry dock at Bristol, where the keel was laid in 1839. On 19th July, 1843, in the presence of Prince Albert and a great concourse of spectators, she was launched or floated. For some reason, never satisfactorily explained, she proved unable to enter the river Avon because the dock entrance, according to some records, was slightly askew and thus did not permit her to turn, and also that there was insufficient depth of water over the sill. Another writer states that she was constructed with so much beam that the dock entrance merely proved too narrow. Whatever the cause, she remained fitting out in the Cumberland Dock until December 1844, and left Bristol on 23rd January 1845, arriving in London in 59 hours.

Her gross tonnage has been stated as 3270 tons by many writers, and as 3443 by others; while there are various estimates as to her dimensions, but we may regard the latter as being 322 feet length over-all, 239 feet between perpendiculars, 50.5 feet breadth, 32.5 feet depth. She was originally intended as a paddle steamer, and tradition has it that from this fact sprang a most valuable invention. Owing to the difficulty of forging the huge iron shafts which would have been necessary for the paddles, Brunel, in this extremity consulted the North Country engineer, Nasmyth, who eventually produced the steam hammer to meet the occasion, and thus our iron and steel industries are indebted for an invention which did much to develop them.

But the GREAT BRITAIN (or "Mammoth" as she was intended to be named) was not destined to become a paddler. Brunel had noticed the success of the little screw vessel ARCHIMEDES, and the great iron vessel was fitted with four diagonal cylinder engines by Gupp, 38" diameter, 72" stroke, with an indicated horse-power of 1500. These worked a six-bladed propeller. The hull of the ship was constructed of iron and modelled man of war fashion, with tumbled-in or lop-sides, and she was fitted with six masts, known by her crew as "Monday to Saturday", all of which, except the second or mainmast, were hinged so as to permit them to be lowered to the deck. On 26 July, 1845, she left on her first voyage from Liverpool for New York, with 60 passengers and 800 tons cargo, and reached an average speed of 9.8 knots, making the return voyage in 14 days, with a best day's run of 287 miles. She made several good trips, not of any competitive importance to Cunard's vessels, and on one voyage broke two blades of the propeller, making her way to Liverpool under sail at better progress than under steam. Fitted with a new four-bladed screw, she continued on the station until stranding at Dundrum Bay, Co.

Down, in 1846. Here, her sound construction stood up to a great test. Protected by a large breakwater of timber and faggots, she lay there for ten months until towed off by the ill-fated H.M.S. BIRKENHEAD, and brought round to the Mersey. At this juncture her owners, Great Western Steamship Company, went into liquidation, for the GREAT BRITAIN had cost about £100,000, a huge sum for those days. At Liverpool she was bought by Gibbs, Bright and Co. for £24,000. Meanwhile there had been some change in her rig, for the Nautical Magazine of June 1846 states that her rig had been reduced to five masts, each stepped on to the keel. The new owners of 1847 contracted with Penn, of Greenwich, for new engines, and a further change was made regarding funnels, her single funnel being replaced by two funnels fixed athwartships, while a three-bladed propeller was substituted for the four-blade screw. With these alterations, she reached a trial speed of 10 knots without sail. She had, in addition, a spread of canvas measuring 1700 square yards. In 1852, Gibbs Bright and Co. promoted the Liverpool and Australian Steam Navigation Company, incorporated by Royal Charter, and it was the latter fact which gave the name to the ill-fated steamer ROYAL CHARTER of the same company, of which Tindall Bright was secretary. The GREAT BRITAIN made another voyage across the Atlantic and was put into her owners' Australian trade, alongside the famous sailing clippers of the Eagle and Black Ball Lines and, under command of Captain B. R. Mathews, formerly of the GREAT WESTERN, she arrived at Melbourne in 81 days. Again, under Mathews, she made another trips in August 1852 and returned to the Mersey in April 1853, via Algoa Bay and Sāmon's Bay, with 260 passengers and £500,000 in specie, in addition to much gold in the passengers' possession. The crew, on both voyages, spoke excellently of their captain. She had covered 13,458 miles in 70 sailing days, with an average speed of eight miles an hour.

According to the newspapers of 1853, she underwent another change. To make her resemble the ROYAL CHARTER, then building, her four masts were replaced by three taller ones, wooden masts being substituted for two of the iron masts, and she emerged as a three-masted ship, with one funnel - the prettiest of all her rigs. At lunch, on completion of these alterations, Captain Mathews stated that he first went to sea at ten years of age and was now 50 years old, having reached that age without shipwreck or accident. It was also stated at the luncheon that a coaling station had been specially fixed for the ship at the Falklands Islands. She sailed again in the following August, her passenger fares being:

After-Saloon, 70 guineas; Midship berths 65 guineas; Fore-Saloon second class 42 guineas; Lower Cabin 30 to 32 guineas and a few at 25 guineas. Before sailing, she lay in the Sandon Dock, taking in coals and preparing to bend sails, and the public were allowed aboard from noon to four o'clock each day at a shilling a head, the proceeds being applied to establishing an emigrants' home at Melbourne. Cargo was taken at £8 per ton plus 5% paid at Liverpool, the owners stipulating in the bill of lading that 40s/- would be forfeited by the ship if she failed to reach Melbourne in 65 days. She sailed on 11 August with 84 first, 119 second, and 116 third class passengers, 600 tons cargo, and 1400 tons coal. Thousands assembled at the pier-head to watch her departure, and she was accompanied as far as the Bar by Mr. Bright and Captain Schomberg, R.N., the government emigration officer. She made the voyage in 65 days.

In April, 1854, further alterations were made to the vessel, including the fitting of baths for the passengers. She was then under command of Captain John Gray, who remained master for some years. On February 19th, 1855, the GREAT BRITAIN was re-registered at Liverpool as an iron screw three-mast ship of 1794 net tons, measuring 274 feet length, 48.2 breadth, by 31.5 feet depth, with standing bowsprit, square stern, shield head, short galleries, carvel built. During the ensuing years she remained on the Australian station, except for a period of trooping. In official trooping records she is shown as of 2935 tons gross, and on 9 February 1856 carried several military units from Liverpool to Kingstown, and on 5 March took out a full load of troops for Malta. In the following June, she returned from Malta to Liverpool with the 3rd Lancers and the 48th Regiment on board. She then resumed service to Australia under Captain Gray, and from Liverpool records appears to have carried a crew of 138 men for those trips. On this trade she continued a popular vessel for 20 years, her yellow funnel and familiar house-flag being known by every seaman. When reporting one of her arrivals in the Mersey, in 1871, the local newspapers stated that she had then made no less than seven consecutive voyages averaging 57½ days, truly a creditable performance for such a venerable ship. But, the fuel cost of her voyages must have proved excessive, and in 1874 she was withdrawn from the service. Seven years later, her engines were taken out and she became a sailing ship, but her sailing career proved brief, and in 1883 the grand old vessel was condemned and hulked at Port

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Stanley, in the Falkland Islands, for use as a coal depot. In 1920 she was converted into a wool warehouse and finally, in 1933, broken up, after ninety years of service.

SOURCES.

- Liverpool Customs Registers, by kind permission of the Honourable the Commissioners for Customs.
- Liverpool contemporary Newspapers preserved at the Public Library, Liverpool.
- Nautical Magazine, 1845-1846
- Mail & Passenger Steamships of the 19th Century
Frank C. Bowen and Capt. H. Parker.
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THE GREAT BRITAIN

The third part of paper No. 11 'Three Early Liverpool Screw Steamers', read to the Society by the late Arthur C. Wardle, Founder Member, November 1943.

The first two parts dealt with the ANTELOPE and the SARAH SANDS, and appeared in News, Notes and Queries, Volume Six (New Series) No. 1, page 3 and No. 3, page 28. Copies are available on application to 28, Exchange Street East, Liverpool 2.

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Her gross tonnage has been stated as 3270 tons by many writers, and as 3448 by others; while there are various estimates as to her dimensions, but we may regard the latter as being 322 feet length overall, 289 feet between perpendiculars, 50.5 feet breadth, 32.5 feet depth. She was originally intended as a paddle steamer, and tradition has it that from this fact sprang a most valuable invention. Owing to the difficulty of forging the huge iron shafts which would have been necessary for the paddles, Brunel, in his extremity consulted the North Country engineer, Nasmyth, who eventually produced the steam hammer to meet the occasion, and thus our iron and steel industries are indebted for an invention which did much to develop them.

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