The famous tea-clipper, "Cutty Sark."

Sailing ships may be divided roughly into two classes—the large sailing ships, all of whose sails, except their triangular head-sails, stay-sails and mizzen, are square and carried athwart the mast, and the foreand-aft rigged craft—the schooners, yachts, brigs, barques, etc. These carry peaked head-sails and triangular mainsails and all the other modern variations of the old-fashioned square sail.

By the end of the 17th century the sailing ship had reached a stage in development which altered but little until the close of the 18th century.

At that time the French stood superior to any European power in the art of ship-building. But the English were not slow to avail themselves of any opportunity of studying the lines and construction of the foreign ships. Whenever they could capture a crack French man-o'-war it was fairly certain that within the next few years an English man-o'-war, based on the lines of the foreigner, would be launched.

GOLDEN AGE SAILING SHIP

The story of the most beautiful craft that ever roved the seven seas

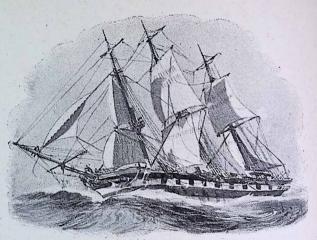
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The success of the American frigates during the unhappy war with the United States in 1812 created a wave of enthusiasm among the British naval authorities for frigates. Many big ships were converted into frigate shape, and the sight of frigates of such unusual size first gave the Americans the idea of utilising large vessels for commercial purposes. Thus the way was paved for the coming of the clippers.

Gradually throughout the centuries the English had been acquiring bigger and bigger ships for the purpose of carrying merchandise. The discovery of the West Indies, of North America and of the Newfoundland fisheries, and, subsequently, the founding of the East India Company had, step by step, developed the ships which were used for commerce. The East and West Indian trade had been specially favourable to the encouragement of merchant shipping.

At the beginning of the 19th century the largest and finest merchant ships on the seas belonged to the East India Company which, owning an exceedingly valuable and profitable monopoly, could afford to build its ships well and strongly. The old East Indiamen with their lofty tiers of sails were much finer in their lines and easier to handle than the vessels of the Royal Navy of this time. But their bluff, rounded bows necessarily made them slower than was really good for trade.

Very soon there appeared on the seas ships



An American frigate, of the type which proved so successful in the American War of 1812.

with a clipper bow that cleft the waves, instead of hitting them and retarding the passage of the hull through the water. These were invented by the Americans, who proceeded to improve their ships still further by modifying the design of the stern, so that instead of holding the dead water the ship slid through it cleanly and with a minimum of resistance.

Furthermore, they lengthened their ships considerably, which gave them an opportunity of adding another mast and of carrying more sails. The sails were also improved in cut, and were no longer mere bags to hold the wind.

The object of the Americans was to sail every other craft off the seas and to capture the carrying trade of the world.

They very nearly succeeded, but the English shipbuilders awoke to the danger just in time, and started to build clippers which were to eclipse even the splendid American flyers. From the English shippards some of the finest sailing ships the world has ever seen were launched during the 'fifties.

They were built of teak planking, with iron frames and enormous spars. A few years later we started to build our sailing ships of iron, partly on account of a shortage of English oak, partly because iron meant a saving of about a third on the weight of the hull, but mainly because, as ships became longer, the wood lacked the necessary structural strength.

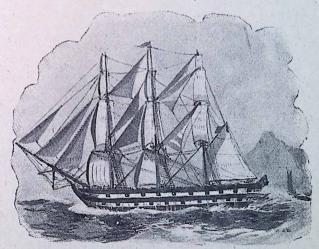
Curiously enough the China tea trade had an enormous effect upon the sailing ship. Tea cannot be left too long in the hold of a ship, or it quickly loses its delicate flavour and quality. This fact, and the desire of the London merchants to obtain the first portion of the new tea crop at the earliest possible moment, made a quick passage a matter of great importance. Speed meant money. Enormous prices were held out as an inducement, and the keenest rivalry existed between different ships on the race home from the East.

For a few years the Americans had the best of the competition, but before the end of the 'fifties the China tea trade had been won by the British clippers. The rivalry did not diminish, however, but continued between ship and ship, skipper and skipper, and ship-owner and shipowner. 'This fine spirit gave a tremendous incentive to the development of the sailing ship, and these clipper races will remain famous for ever for the skill and sporting instinct of their crews which led them to break record after record.

The two fastest clippers ever built were the "Sir Lancelot" and the "Thermopylae." The "Thermopylae" had a marvelous capacity for speed. In one day she made a run of 350 knots, an average of 16 miles an hour, whilst the "Sir Lancelot" broke all records by making a voyage from China to the Thames in 89 days. But perhaps the most famous of all was the "Cutty Sark," which ran home from Shanghai in 122 days without her rudder, which had been carried away in a terrific storm. This gallant and beautiful ship is still in existence.

The most important of all the fore and aft rigged sailing ships is the schooner, which some folk imagine is merely a cutter with another mast and sails added. But the schooner originated quite independently. The first one was built by the Dutch settlers in Massachusetts in the United States; the port of Gloucester, Massachusetts, is still famous to-day for the finest schooners and schooner sailors that ever roamed the seas.

For a century and a half the Americans went on building and improving the design and rig of their beautiful vessels, giving them greater draught and speed, larger spars, a vast square measurement of canvas, and sometimes as many as seven masts. In 1852 the schooner vacht "America" sailed across the Atlantic and won the special cup offered by the Royal Yacht Squadron at Cowes. In the race around the Isle of Wight, the "America" beat the English vachts and cutters so overwhelmingly that thereafter all yachts and cutters were built upon the same lines as the American schooners—with sails laced to the spars to set flatter and hold a better wind. In spite of all our efforts we have never been able to win the Cup back from the Americans.



The East Indiamen were the largest and finest merchant ships on the seas at the beginning of the nineteenth century.