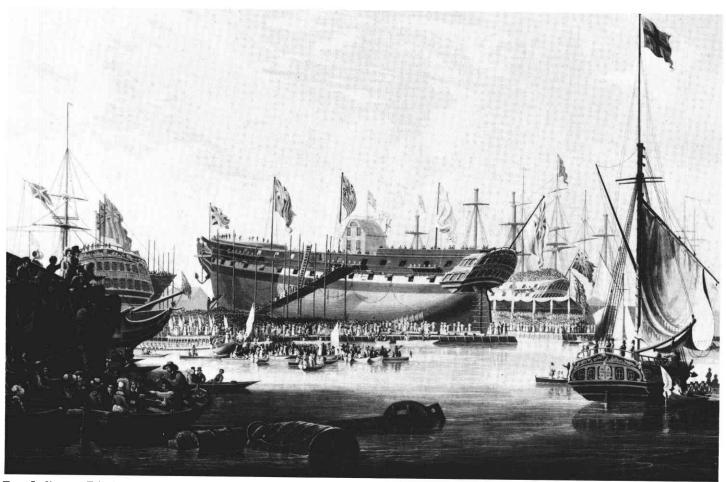


European imperial holdings in the 18th century. See page 51/33.

The Bulletin of the AMERICAN SOCIETY OF ARMS COLLECTORS

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East Indiaman Edinburgh, 1326 tons, during launching at Blackwall shippard on November 9, 1825. She made four voyages for the Company during the next six years, primarily bringing tea from China.

The British East India Company: Its Naval Operations

Clark R. Hoffman

Excitement ran high in England's Deptford harbor the summer day in 1597 when the British Navy brought in a captured Portuguese ship that was three times larger than any ship in British service and loaded with cargo richer than any seen in England to that day. Opened hatches revealed chests of gold and silver coins, pearls as big as a man's thumb, amber, and jewelry set with large diamonds. In the hold were fine tapestries and bolts of exotic silks and brightly colored calicos. Of even greater value were dye stuffs and more than 500 tons of spices: pepper, cloves, cinnamon, mace, and nutmeg. There was even ebony, 15 tons of it. The total value of the cargo aboard the Madre de Deus was estimated to be worth about half a million pounds, nearly half as much as all the money in the British treasury at that time. It was little wonder that events such as this tantalized the London merchants and sparked their interest in grasping their share of Eastern trade.

The Portuguese and the Dutch were already trading in the East Indies. The Portuguese had a hundred years' experience and had been building trade since the days of Marco Polo and Vasco de Gama. It is generally agreed that the desire for riches from the East was, in fact, the motivation behind most great voyages of discovery in those days, including those of Columbus and Magellan. England had dispatched small merchant fleets to the East but with little success. The first direct voyage of three ships left in 1591. They captured several Portuguese vessels but lost all of their own and returned in the Portuguese ships. Five years later another expedition, also of three ships, went out with high hopes but was never heard from again.

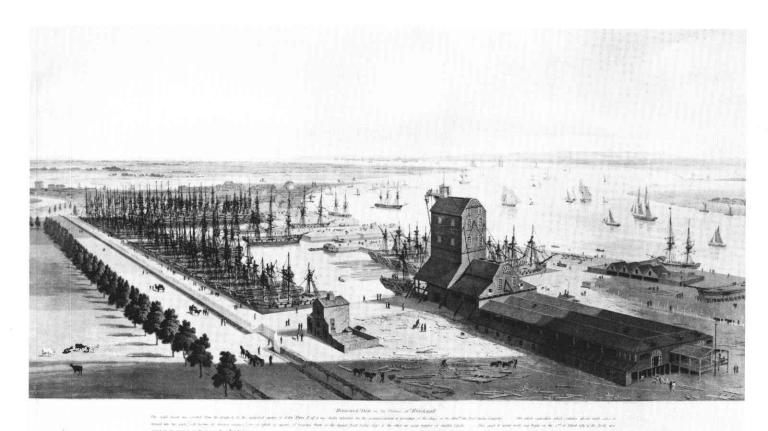
It was apparent that such ventures held endless opportunity for disaster and they were launched with great misgivings. The risks were more than many private ship owners were willing to take. In such cases, private stock companies were formed to spread the risk among many shareholders. Organizers of these stock companies also sought concessions from the government and protection of potential profits in the form of charters granting the holders exclusive rights for trade without competition for a specified period. Reduction of customs duties or duty rebates were also often requested and granted.

In 1599 a group of 101 London merchants and citizens subscribed £30,000 for formation of a company for trading with the East and petitioned Queen Elizabeth I for an exclusive charter. The Queen delayed approval because she was engaged in negotiations to end the



current war with Spain and Portugal. When peace negotiations failed, there was no point in further delay, so the request for a charter was approved and issued on December 31, 1600, in the name of "the Governor and Company of Merchants of London trading with the East Indies." It was to be known more popularly as "the East India Company" or "the London East India Company." The charter gave them exclusive privilege for trade beyond the Straits of Magellan and Cape of Good Hope "provided the trade proved beneficial to the Crown." The Monarchy did not want to be left out of any profit to be made. The Queen's charter also allowed silver and gold bullion to be taken out of the country, a very important concession, since few English goods could find a market in the East. Exports were to consist of a little woolen cloth to appease the London wool trade and a small amount of iron and lead.

England's granting of exclusive trade charters was not without precedent in that country. Forty-seven years earlier, in 1553, a charter for trade with Russia had been granted to the Muscovy Company, and in 1581 a charter for trade with Turkey was given to the Levant Company. Ironically, trade conducted by the East India Company would compete with that conducted by the Levant Company in years to come. Among the goods imported by the Levant Company from Turkey were silks, tapestries, and spices which reached Turkey from India and China via the great desert caravans. These were the same kinds of goods to be brought directly to England from India and China by East India Company ships but at a substantially lower cost. Stock in the Levant Company dropped for a short period until the Levant Company realized that they



The Brunswick dock on the Thames River was opened on November 20, 1790 and could accommodate 60 East India Company ships. The mast house in the center was used for "stepping" masts into the hull.

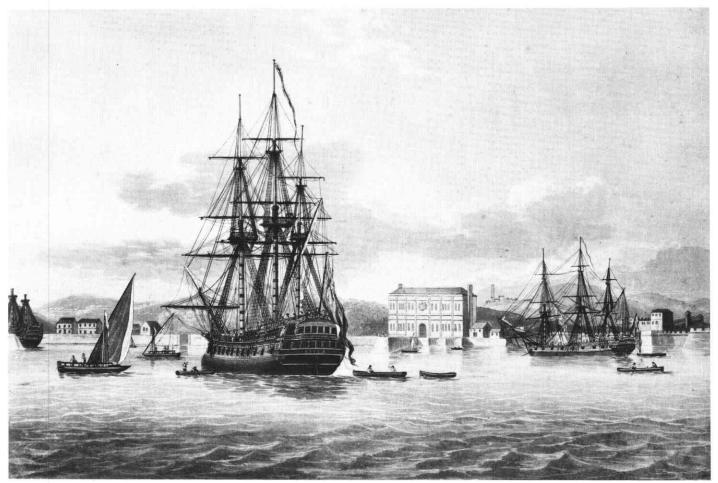
could reverse the direction of trade and buy the East India Company goods in England and reship them to Turkey and other eastern Mediterranean countries to sell at a profit. This, of course, led to the demise of the desert caravans.

A few months after receipt of the new charter, the first official voyage of East India ships, known as Indiamen, began. The four ships reached Sumatra and came home two years later with a valuable cargo of pepper. Other voyages followed on the heels of this success. The third voyage produced a profit of 234 percent, and the first twelve voyages produced an average profit of 138 percent.

In 1611 the English extended their trade to India, at that time the preserve of the Portuguese, and to Java, then the province of the Dutch. To encroach into these new territories was, in effect, to declare war. From 1600 to 1625 seven major naval actions were taken against Portuguese shipping. Defeat of the Portuguese on April 23, 1622, at Hormuz in the Persian Gulf essentially ended their commercial enterprise in the East.

Conflict with the Dutch soon developed over trade in the Spice Islands and continued from 1625 to 1673. As a result, the English were excluded from direct trade with the Spice Islands and chose to restrict their trade, for the time being, to India. Even that did not go uncontested, however: the major rival in India was the French India Company, formed in 1664, and which the English fought, along with the Dutch, from 1693 until 1763.

Obtaining and maintaining the required number of ships was a problem for the Company throughout much of its history. There were either too few or too many. Whether to buy, build, or lease ships was a question often debated over the next fifty years, and Company directors were to try all three in that order. Until 1609 they purchased ships on the open market, but this was shown to be unnecessarily costly. For the next thirty years the Company built its own ships and in the process, acquired shipyards at Deptford and Blackwall on the Thames River. In the late 1630s a serious reversal of trade occurred and many of the Company vessels lay idle at anchor in the Thames. A famine in India had made trade goods scarce and war with the Dutch and Portuguese had increased the risks beyond acceptability. There was also a period of domestic disturbance in England, ultimately leading to the English Civil War, and this reduced interest in private trade because of the unstable market. By the end of the 1650s, the Company had given up its dockyards



The Essex, an East Indiaman of 793 tons, in Bombay Harbor offshore from the Company factory.

and adopted the policy of leasing the ships it required for trade. A new exclusive charter granted in 1657 under Oliver Cromwell and the Commonwealth saw the beginning of a resurgence in trade, and the thirty years to follow were years of unparalleled success, chiefly the result of the "India craze" that caused an explosive demand for Indian cotton textiles.

With restoration of the English Monarchy in 1660, the Company and the nation both required large, stout, defensible ships, and both encouraged shipbuilding by granting great financial rewards to individuals and consortia willing to make such investments. The government enacted an ordinance stating that "for seven years to come, whoever should build ships with three decks, or with two decks, a halfdeck and a forecastle, with five feet between each deck, mounted with at least thirty cannon, should for the first two voyages receive one tenth of all customs paid on their cargo, imported and exported."

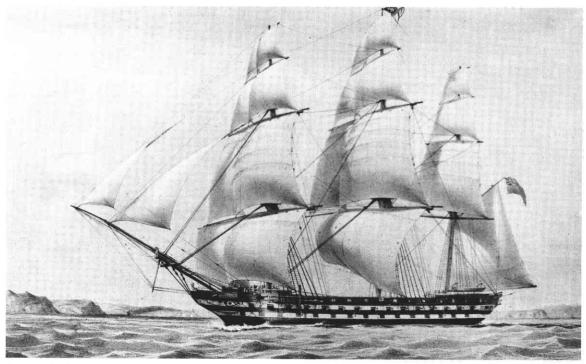
In 1668 the number of ships available was still not sufficient, and the Company offered a bonus of twenty shillings a ton to anyone offering to build for the Company "a good, able, three-decked ship of 450 to 500 tons." It was also stipulated that the Company "will give such a ship employment before any other ship at rates as good as

any." This was the first instance, followed by many others, promising preference in employing one ship over another.

It is probably to be expected that those Company directors responsible for providing ships for the Company should themselves become part owners of ships. This self-interest resulted in numerous abuses, and men in the inner circle became enormously wealthy at the expense of the shareholders.

Construction of merchant ships was customarily financed by selling shares. In the 17th century the 1/32 share was popular. A 1/32 share of a 700-ton ship would cost about £550. Insurance could be purchased if the shareholder felt the need to protect his interests. This was facilitated by the opening of the well-known Lloyds Coffee House in the late 17th century.

Management of the shareholder-owned ships was in the hands of men always referred to in the Company as the ship's "husbands." The husbands are described as "princes of the India shipping world." Their position among ship owners and the respect paid them in society exceeded even that of the commanders of the Company's ships. The ambition of a commander was to become a ship's husband upon retirement from the sea and take



Earl of Balcarres (1417 tons) was built at Bombay in 1815 of teak and completed nine voyages for the Company before being sold in 1834. At that time she brought £10,700.

responsibility for direction and management of a ship upon himself.

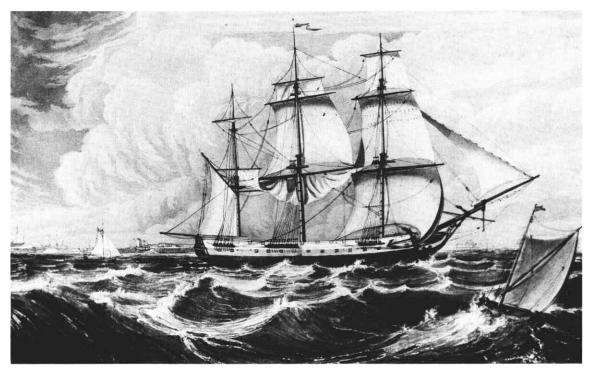
The husband possessed not only experience on the Eastern Seas but also possessed a ship's "bottom," not simply a ship but all future ships built to replace that ship. Since the early days of the Company when a ship was built specifically to meet the requirements of the India Company trade and was unsuitable for any other service, it was accepted that the ship would be hired for future voyages as well, so long as any ships were hired. When a ship wore out or was lost, it was successfully argued that the owner had the right to build a new ship for the Company's service "on the old bottom." This was referred to as "the right of hereditary bottoms."

As a group, the husbands controlled the Company's shipping interests and exercised a tremendous influence on Company affairs, particularly since so many Company directors owned shares of the ships. Establishing leasing rates, hiring ships' officers, and negotiating rules for conduct of private trade by the ship's officers were only a few factors under control of the husband. As a result, husbands were able to extract a leasing rate far in excess of that received by other merchant ships for carrying cargos not belonging to the India Company. For example, in the early 18th century, £5 a ton was the going rate for the trans-Atlantic trade and was about one-third that received a hundred or so years earlier. Rates in the India Company trade were £25 a ton and had nearly doubled in the same period. Much of this excess profit was going into

the pockets of the husbands, Company directors, and ship owners, and never reached shareholders.

Protests over improprieties in operating the Company and the monopoly on Eastern trade, which fixed prices on the imported goods, caught the attention of Parliament and King William III. In 1688 a rival charter was conferred on a new company known as the English East India Company (in contrast to the original Company, the London East India Company). The two companies conducted business in competition for twenty years, until 1707, when they merged into the "United Company of Merchants of England Trading to the East Indies." This exercise expanded the number of shareholders and prevented Company directors from being ship owners but had only a limited effect on other methods of operation.

Throughout the life of the India Company, their ships could hardly be distinguished from naval ships but they were distinctly different from ordinary merchant ships of the day. Being engaged in a trade of rich cargos, East India ships were not under the same pressure as merchant ships to keep costs down by stowing as much cargo as possible and sailing with a minimum crew. A constant presence of pirates and enemy privateers and warships in the Eastern Seas required that Company ships be defensible. Until the start of the Napoleonic Wars, it was customary for the ships to carry between 24 and 28 guns, typically 22 nine-pounders and 4 four-pounders. In addition, it was stipulated that Company ships carry 45 barrels of powder and 30 rounds of shot per gun. Security



The English-built *True Briton* (1198 tons) was the second East India Company ship of that name. Homeward bound from China on her eighth voyage, she parted company with other ships in the China Sea on October 13, 1809, and was never seen again.

for the ships was gained primarily by traveling in convoy with other Company ships. Escort by naval warships was available only as far as St. Helena, which was acquired by the India Company in 1673 and was a required port of call on both the outbound and return voyages. The war with France and the opening of trade with China brought a general increase in the size of the ships to 600- to 800-ton range, with a few still larger. Armament also increased.

In 1806 the *Warren Hastings* of 1064 tons mounted 48 eighteen-pounders that were not as large as guns used by the Royal Navy but were larger than carronades. The guns were six feet long, projected one foot from the ship's sides, and weighed 2675 pounds, while the naval eighteen-pounders were nine feet long and weighed 4200 pounds.

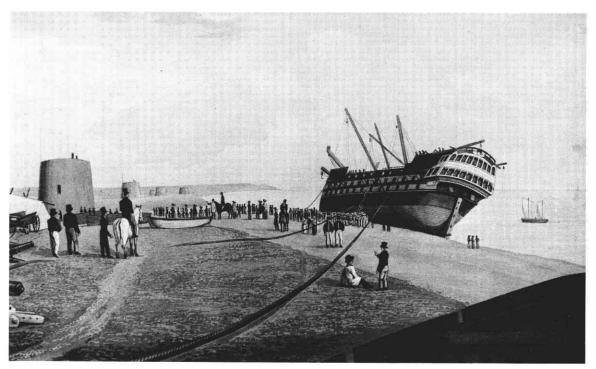
From 1750 to 1825, there were 89 East India Company ships built at the Blackwall shipyards down the Thames from London. Dockyards were also in operation in India. Initially they built smaller ships used in local trade, gathering cargo for the annual voyage of large ships. By 1775 the Bombay dockyard rivaled any dockyard in Europe, turning out ships of unsurpassed quality built of teak, the oak of Hindustan. The strength of teak is equal to that of oak but in addition, it has an oiliness that preserves the timber, rejects teredo worms, and keeps the ships tight. While English-built ships of oak with elm below the water line lasted only for four voyages, their teak-built counterparts were almost indestructible.

Another reason for building ships outside of England was a growing shortage of English oak, which was needed

for building naval warships as well. For a ship of 600 tons, at least 600 oak trees of average size, with 80 to 100 years of growth, would be required. Such a tree yielded about 50 cubic feet of lumber, which produced about one ton of ship. Oak trees of southern England were preferred. The clay soil of Sussex was thought to produce the best oak. Wood for ships' masts was pine from Sweden and later from America. In shortest supply was the naturally curved timber, known as compass timber, used for stem posts, frames, and knees. At one time workmen were sent into the forests to bend young trees and chain them down so they would grow into the required form. By 1791 iron was being used in place of some of the curved timbers. In an act of 1772, King George III forbade the East India Company to build any new ships in England because of the scarcity of oak timber.

One of the greatest problems in shipbuilding was to protect the timbers below the waterline from the teredo worm found in warm waters. One approach which achieved some success was a technique called "parselling." This process involved the use of either canvas or brown paper well-tarred and nailed to the hull below the outer layer of wood sheathing. The Navy was ahead of the India Company in use of copper sheathing. The first naval ship was copper sheathed in 1761 and the entire naval fleet had been sheathed 21 years later, by 1782.

Worm-damaged hulls became such a problem that in 1773 the Company enacted a bylaw prohibiting the use of ships for more than four voyages. This rule came through



The Indiaman *Thames* (1360 tons), built at Deptford on the Thames in 1819, went on shore on February 3, 1822, at the start of her second voyage. Refloated and repaired, she sailed again exactly six months later, remaining in service for another 20 years and completing five additional voyages.

experience that showed that goods arriving in England on older ships were often water damaged as a result of the wormy and leaking hulls. By 1790 only 22 of about 65 Company ships in service were copper sheathed. In that year also, the four-voyage rule was amended so that if, after the third voyage, the copper sheathing were removed and the ship refitted, the ship could perform six voyages. This rule was apparently amended again because records show that many ships made nine, ten and even eleven voyages in the first third of the 19th century.

Every year from September through February, ships employed by the Company gathered on the Thames at Gravesend about twenty miles below London in preparation for sailing. In the early days before the Company established settlements in the East where ships could resupply, it was necessary that they be provisioned at home for the entire voyage. Ships bound for Sumatra or the Spice Islands were provisioned for two years and those bound for India for eighteen months. By the mid-1700s, seven months' provisions were generally sufficient.

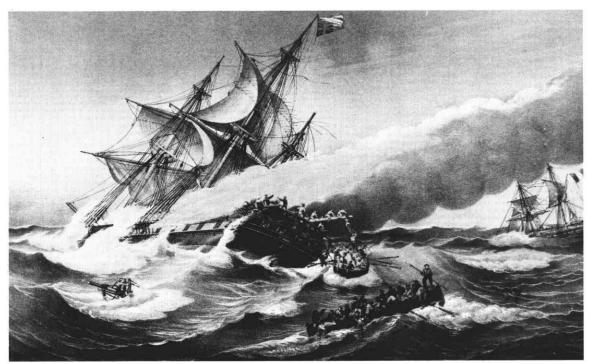
Just before sailing, the ships were inspected to insure that they were sufficiently manned. This meant a crew of 99 men and a boy on a ship of 499 tons. The Company agent mustered the crew before departure and the ship's commander was expected to maintain that number during the voyage. If the number in the crew fell short, the ship owners could be levied a penalty. With cargos worth tens of thousands of pounds in the hold, it was a great concern to the Company that the commander and crew be able to

defend the ship.

There were certain inducements to cause a seaman to fight for his ship in addition to the possibility of death, drowning, or imprisonment in a foreign land if he didn't. One was a principle recognized by the courts that "freight is the mother of wages." Under that principle, a seaman's right to wages depended on the ship's reaching port and receiving payment for the cargo. If the ship were lost or taken before the end of a voyage and delivery of her cargo, the seaman lost all claim to wages. Even when ships were sent to sea in unseaworthy condition, the seaman could not sue for wages. This rule remained in effect until passage of the Merchant Shipping Act in 1854.

Commanders were allowed to employ Lascars, half-breed Portuguese-Indian sailors, to replace crew members lost to scurvy or other causes or to their impressment by ships of the Royal Navy on the high seas. Lascars were considered inferior in strength and skill to European seamen and ship commanders were allowed to employ two Lascars to one European seaman. The ratio was changed to three to one and eventually allowed the commander to employ as many as he thought necessary. Chinese sailors were also employed after the opening of trade with China in 1699, but they were held in the same low regard as the Lascars. A further disadvantage in employing native sailors was that the Company was not allowed to abandon them in England but was obligated to return them to the East, generally as cargo.

The schedule established for ship departures was



Destruction of the Indiaman Kent (1332 tons) by fire on March 1, 1825, in the Bay of Biscay off the French coast. Built in 1820, she was on her third voyage carrying 629 passengers and crew including soldiers of the 31st regiment bound for India. All but 82 lives were saved by the brig Cambria that was carrying Cornish miners to Vera Cruz, Mexico.

related to the monsoons in the Eastern Seas. Outbound ships had to round the Cape of Good Hope between April and September to catch the southwest monsoons. Homebound ships returned on the northeast monsoons between November and March. In 1769 a fleet of nine ships sailed together from London and, though separated on the fourmonth voyage, all arrived at Madras within the space of ten days.

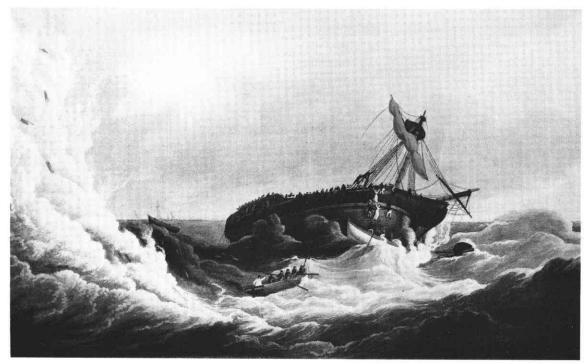
The speed at which East India Company Indiamen sailed has been a subject addressed in numerous publications. The ships were bluff-bowed, beamy, and therefore rather slow. Some authors describe them as sailing at their best speed only during daylight hours, taking in sail and "making snug" at night. This is apparently erroneous, based on an analysis of a hundred ships' logs made after demise of the Company. The study shows that a voyage of 13,398 miles from Canton to London required an average of 114 days. This indicates that the ship would cover about 117 miles per day, or an average speed of a little over four knots for 24 hours.

Navigation in the early days of the Company was precarious. Charts were scarce, and most of those that did exist showed only the simplest outlines of coasts with place names. There were no details of winds or current. Later, accumulated experience of voyagers would appear on the maps, notations invaluable to seamen, and rival nations would guard the notes so jealously that the science of hydrography would be held back for two centuries.

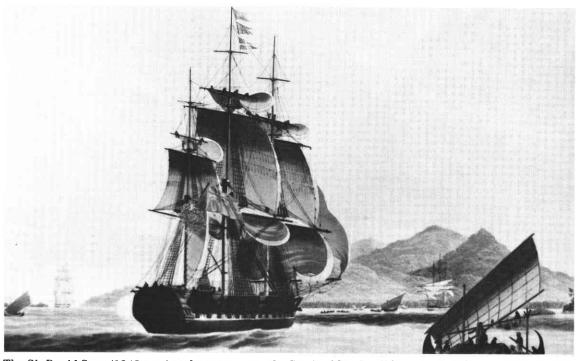
Trade patterns in the East developed quickly for the London East India Company. A number of English merchants remained in the East after the first voyage to set up a trading post, or, as it was termed, a "factory." A plan to establish a factory in Sumatra was abandoned in the face of Dutch competition. Bantam, on the island of Java, was eventually chosen and was well-sited since it was a center of trade in that region for the local merchants. By the third voyage, Company ships were directed to stop first in India and to exchange their silver bullion for Indian cotton and silk fabrics before going on to Bantam where the cotton and silk were traded for cinnamon, pepper, cloves, and nutmeg. The spices were taken back to Europe for sale and the three-cornered trade pattern began again.

At that time, a cargo of cloves that cost only £2,048 in Bantam sold in London for £36,287. Variation in the trade pattern included trade along the west coast of Africa where Indian cotton was bartered for slaves who were sold in the sugar plantations in the New World. Other goods from the East began to find a market in England. Chinese porcelain, once affordable only by the nobility and aristocracy, now became available to the middle class. By 1640 dyed cotton fabrics known as chintzes were gaining a large portion of the trade primarily due to the skill of Indian dyers who perfected bright colors far superior technically and esthetically to any then produced in Europe.

In 1628 the Dutch introduced the "China drink" called "cha" to Europe. This, of course, was tea. In 1664 the London East India Company gave King Charles II a



The Indiaman Lady Burges (20 tons) was built in 1799 and made four voyages before being wrecked in the Cape Verde Islands off the west cost of Africa on April 21, 1806. Of 180 persons aboard, 34 lost their lives.

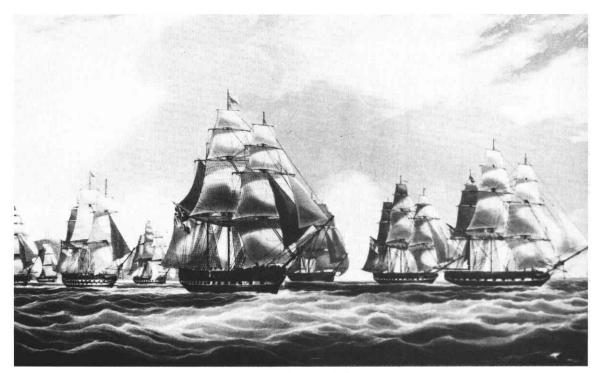


The Sir David Scott (1342 tons) at the entrance to the Strait of Sunda off Sumatra in February 1830. Built in Ipswich, England, in 1821, she made six voyages, this being the last.

gift of about one kilogram of tea, which suggests the cost and rarity of this Eastern novelty. The London East India Company began direct trade with China before 1700, but tea did not appear on Company cargo manifests until 1706. The popularity of tea in England increased until by

the end of the century it replaced ale and beer as the leading drink of the English people.

The balance of trade continued to be a problem for the Company through the 18th century. There was no shortage of Eastern goods that would bring a profit in



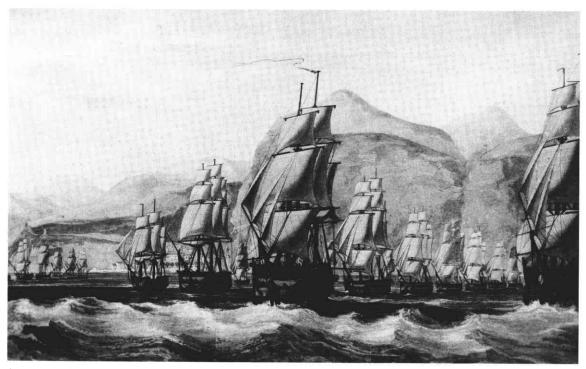
Fleet of East Indiamen leaving St. Helena for England in July 1830. The ship *Inglis* (1310 tons) in center foreground was built in Panang in 1810 and made 11 voyages for the Company before 1832; this was the ninth.



Indiaman Duke of Atholl (755 tons) sailed from Portsmouth on her maiden voyage in September 1782. After arriving at Madras, India, she caught fire and burned on April 18, 1783. It was believed the fire started when a servant dropped a candle into a cask of spirits, possibly rum.

England, but European goods did not have wide appeal in the East, particularly in China. Except for one kind of article: any elaborate, highly decorated mechanical device such as a music box, clock, or complex mechanical toy impressed the Chinese and could be used extensively to

bribe Chinese mandarins and gain favor of the Emperor. Music boxes became known as "sing-sings." Principal commodities exchanged in China for the tea, silks, and porcelain were Indian cotton and opium. China did demand, however, that at least two-thirds of all payments



A convoy of Indiamen leaving St. Helena about 1809 led by Wyndham (823 tons), built at the Blackwall shippard on the Thames in 1800.

be made in silver. Both the Company and the English Parliament became alarmed at the serious drain on silver reserves. Opium from British-controlled Bengal was legally shipped to China until 1729 and was the commodity the Chinese most wanted in exchange for tea. In that year, the Emperor of China outlawed all trading in opium and the Company was warned to desist or lose its commercial privileges there. This warning did little to hinder business. The Company merely sold the opium to Chinese smugglers and thus got the currency it needed to buy tea.

By 1772 the East India Company began suffering reversals in the international markets, and mounting debts from many sources such as maintenance of the India Company's army in India brought it to the verge of bankruptcy. Parliament saw an opportunity to impose some control on the ailing and controversial Company. A government loan of 1.5 million pounds was arranged, and at the same time administration of British India was given over to a crown-appointed governor general. The India trade that had been the preserve of the East India Company since 1600 was thrown open to competition by an act of Parliament in 1813, and only the trade with China, the most lucrative, was reserved exclusively for the Company. This trade continued until 1834, when the Company withdrew from all commercial activity. Its magnificent ships were sold.

It was the end of a marvelous era, 234 years during which a private company pioneered sea lanes to expand the civilized world and spread riches to the four corners of the globe. The British East India Company had to conquer a subcontinent, overcome financial burdens, and survive tremendous natural disasters to reach its treasures and fight again to bring them back. Foes of every venture lurked in the free-for-all competiton in which the Monarchy was eager to share in profits and also in credit for maritime achievements. Ships of the British East India Company were called "the aristocrats of the seas," "the finest that ever sailed on the high seas," and "at such a state of perfection as to make them surpass the shipping employed in almost any service, the Royal Navy of Great Britain perhaps not excepted." Men who built the ships and guns and men who used them to such an advantage deserve the enviable place they hold in the history of exploration and trade.

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The author is grateful to the National Maritime Museum, Greenwich, for permission to use the photographs shown with this material.

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