American Enterprise in the 19th Century

Introduction

During the 1800s, millions of Europeans made the New World their new homeland, and brought the technological revolution going on in Europe to America.

In the beginning of the century, immigrants sailed in wooden ships that would take from 4 to 12 weeks to cover the distance between the two continents. By the end of the century, there were regular packet lines, and immense steam ships covered that distance in 5 days.

Transatlantic telegraphic cables provided almost instantaneous inter-continental communications.

During this time, the American merchant fleet sailed all the world's seas in search of new markets and products. Importing pepper, tea, silk, coffee, porcelain, fur, leather, wood, ivory, spices, iron, textiles, gum copal, and slaves, and exporting fish, lumber, textiles and leather goods, American ships crossed all the seas and helped to complete mapping the planet.

The New England whaling fleet discovered more than 400 islands in the Pacific Ocean.

Centered in New England in the beginning of the century, the American shipbuilding industry gained such a fine reputation that ships would be purchased with their cargo in foreign ports.

Coastal trade

During the 18th century, the coastal trade was carried on by sloops, ketches, and small square-rigged vessels.

In the 19th century this trade, and some of the long sea trade, would be carried on two-masted schooners. The fore-and-aft rig was more weatherly, allowing better sailing angles into the wind, and required smaller crews since the sails were operated from the deck rather than aloft.

This two-masted schooner evolved in the early 1800s into a three-masted schooner, which soon became a common sight in the harbors and fisheries of the seven seas.
Long sea trade

The long sea trade in the 18th-Century was carried on two-masted (brigs) and three-masted (ships) square-rigged vessels which grew in size, measuring 400 to 600 tons, during the early 19th century.

Surviving French and Barbary attacks, English impressment, and shipwrecks, the merchant marine grew continuously after the Revolutionary War.

Then, from 1807 (the Jefferson Embargo Act) to the end of the War of 1812, it saw a great depression. However, during this period the southern pilot schooners evolved into the fast Baltimore Clippers that carried out most of the smuggling, slave trading, and privateering with major success in this period.

A steady growth resumed after the war. From the late 18th century on, New York grew to be the most important harbor in the continent.

In 1818, the British Black Ball Line started a regular operation between New York and Liverpool. Now ships would leave port at regular dates with or without full holds.

In 1824, there were regular lines from New York to Le Havre and London.

Imports from Europe consisted mainly of textiles, hardware, cutlery, books, and luxury items, as well as iron, millstones, wine, salt, and coal. Packets would also bring passengers, mail, and immigrants.

Exports were mainly cotton, tobacco, furs, skins, salt meat, flaxseed, rice, tar, turpentine, and pitch.

By 1840, these packets were sturdy three-masted ships of 1,000 tons, almost all built in New York shipyards.

The Golden Age

The Golden Age of Sail encompasses the period 1814 to 1861, between the War of 1812 and the Civil War.

After the War of 1812, the US enjoyed almost half a century of peace and economic growth. During this period the American maritime enterprise consisted of:

- The rise and development of the steamship
- The rise and development of the transatlantic packet
- The short rise and demise of the clipper ships
- The settlement of the Pacific Northwest
- The development of the whaling industry
Atlantic steamships

Within the US, the North imported cotton, tobacco, sugar, and molasses from the south, coal and flour from the mid-Atlantic, and exported lumber, fish, stone and lime.

By the 1820s, small wooden side-wheel paddle steamers were sailing along the east coast of the US, carrying mail, passengers, and cargo.

Several ports developed:

In the south were Mobile, Charleston, Savannah, and New Orleans.

In the north were Boston, New York, Albany, Philadelphia and Baltimore.

Then, in 1840, the development of the propeller brought a regular transatlantic steam line which caused the quick obsolescence of the sailing packets.

Transatlantic steamers were not new. In 1819, the Savannah had crossed the ocean from Georgia to Liverpool in less than a month.

In 1840, the Cunard line appeared as a heavily subsidized English regular line between Liverpool and the New World. The Cunard line had 4 identical sister ships. One of them, the Britannia, made the first voyage to Boston. In 1848, the line shifted from Boston to New York.

The Collins Line

Samuel Cunard's only competitor was Edward Collins, an American that launched the Collins Line in 1847, running between New York and Liverpool. He also started with 4 sister ships named Atlantic, Pacific, Artic, and Baltic. With 86 m (283 ft.) of length overall and 2,783 tons these ships enjoyed a successful carrier until 1854, when the Artic collided with another vessel while sailing recklessly fast. 348 people died in the disaster, including Collins' own wife and two children. Then, in 1856, the Pacific disappeared in the Atlantic with 150 passengers.

The Cunard Line was quick to advertise the fact that they had never lost a passenger and Collins lost the public goodwill, part of the Congressional subsidy, and eventually disappeared in 1858.

Isambard Brunel

A British civil engineer built a large wooden steamer in 1838, intended to be the first to cross the Atlantic from Europe to the New World using only steam power. The Great Western was not the first to arrive in New York, losing the race to another British steamer, the Sirius.

Brunel gathered funds to build another steamship, the Great Britain, which was again not a major commercial success. After running aground in Ireland, she was refloated and committed to the transport of immigrants to Australia. The Great Britain ran aground in the Falkland Islands in 1886. In 1970, she was towed to Bristol, re-built, and is now a museum.
Although the first two vessels were financial disasters, Brunel gathered money to build yet another steamship. The Great Eastern was ready in 1857, after bankrupting three consecutive sets of investors. Brunel died prior to her launch. Another financial disaster, she was committed to laying telegraphic cable from 1866 to 1873, when she was finally laid up.

The Great Western (1838)
Built in 1838, she was a side-wheeler, had a wooden hull with 73 m (236 ft.) of length overall, and 1,321 tons.

The Great Britain (1844-1886)
Ready in 1844, she was built of iron, measured 84 m (274 ft.) and displaced 3,270 tons. For propulsion she had a propeller and six masts.

The Great Eastern (1857-1873)
Launched in 1857, she was built of iron, measured 207 m (680 ft.) and displaced 18,914 tons. She could carry 4,000 passengers and enough coal to sail from England to Australia and India without stopping. For propulsion, she had a propeller, side-wheel paddles, and sails.

Clipper ships
In 1844, a treaty opened several Chinese ports to American vessels, and tea and luxury products became available for American traders at prices compatible with those enjoyed by other nations already trading with China.

This trade rewarded speed greatly. The first vessels to arrive in port would get the highest profit margins. Speed also protected the tea and expensive textiles from mold, and guaranteed a faster turnaround of a merchant's capital.

Shipwrights in England and America engaged in the conception of faster ships, even if some cargo capacity had to be sacrificed. The result was the clipper ship, a fast three-masted, square-rigged ship, capable of making the voyage between New York and San Francisco in 110 days or less. With sharp entrances below the water, clippers had up to 1/3 less cargo capacity of a vessel of the same length and beam. The extremely raked stem was called clipper bow. The length to beam ratio varied between 4.5 and 6 to 1. Very fast, clippers carried heavier spars and larger sails, manned by crews of 100 seamen.

The best known American shipwright is Donald McKay, who built the Flying Cloud, which sailed New York - San Francisco in 89 days, and the Sovereign of the Seas, which achieved 22 knots of top speed, an unmatched record.
Only one of these extreme clippers has been found, the *Snow Squall*, grounded on Falkland Island in 1864.

These vessels were extremely tough on their crews, and captains are known for badly mistreating their sailors.

The depression of the 1850s lowered the transport rates to levels that proved to be unacceptable for the small capacity Clippers, and they disappeared soon afterwards. Many were committed to the Pacific nitrate trade, others to the cotton and lumber trade.

After 1856, the capacity of the sailing merchants increased enormously at the cost of speed.

**The *Snow Squall* (1851-1864)**

Built by Alfred Butler in 1851 in South Portland, Maine, she was 50 m (163 ft.) long and had 742 registered tons.

The *Snow Squall* won a race against McKay's *Romance of the Seas* in 1854, from China to New York, registered the record for a round trip New York - Rio de Janeiro in 1856 (28 and 53 sailing days), and managed to escape the Confederate raider *Tuscalosa* in 1863.

In 1864, she was caught in a gale off Cape Horn and had to sail to the Falklands for repair. Once there, it was not possible to fix the damages, and she was sold and used as a storehouse for wood.

In 1982, she was studied by a team of the Peabody Museum, and eventually part of her stem was removed and transported to Maine.

**The *Great Republic* (1853-1872)**

Built by Donald McKay in New York in 1853, she was 102 m (334 ft.) long and had 4,555 registered tons. With 4 decks and a crew of 130, she was intended to be the best clipper ever built. Mahogany and velvet furniture, oil paintings, and stained glass windows were part of McKay's intended masterpiece.

The *Great Republic* burned to the water line before her first voyage. Reconstructed with a reduced hull and rig, she was sailed until 1872, when she was abandoned in Bermuda after a gale.

**The colonization of the Pacific Northwest**

When gold was found at Sutter's Mill in Coloma, California, in December 1848, people from all over the world rushed to California. A passage to San Francisco became a much wanted service, and many rushed to offer it. Moreover, all new settlers needed food, clothing, shelter, outfitting, and other basic items.

In 1847, there were around 7,000 settlers in California. By 1852, there were 207,000.
Anything afloat was pressed into the service of transporting settlers and goods. 
The problem was that once the ships arrived in San Francisco, the crews would often disappear and the ships would remain in port with no way to sail back. 

Some were transformed into buildings. After the *Niantic* in 1849, by 1851 there were 148 surplus ships transformed into warehouses, shops, saloons, jails, office buildings, and hotels.

**The Niantic (1835-1851)**

The *Niantic* was a China packet built in Connecticut in 1835 and converted into a whaler in 1844.

In 1849, during her second whaling voyage she stopped in Peru and learned the news of the gold rush. Changing its whaling course she headed for Panama and loaded 246 passengers at rates varying from 150 to 250 dollars per passenger. Arriving in San Francisco all of its crew deserted. She was transformed into the first storeship. In 1851, a fire destroyed 22 city blocks on the city's waterfront and the *Niantic* burned to the ground. In four months, a house was built on her spot, followed by a hotel, a commercial building, and an office building.

In 1978, she was uncovered during the excavations for the foundations of yet another building. She was quickly excavated, yielding some 4,000 artifacts related to the her story and the gold rush period:

- A set of Navigating dividers, a telescope, a flensing spade for cutting blubber, and a ship's hand pump.
- Alcohol and luxury items: champagne bottles, truffled sausages, sherry, hundreds of bottles of spirits, casks and barrels of beer and whisky;
- Printing items: leather-bound blank books, pencils, paper, pens, ink bottles, scissors, paper cutters, calendars and two complete copy presses;
- Guns: Swards, muskets, carbines, pistols, bullet molds, powder gauges;
- Tools: a hand scale to weigh gold, crucibles and shovels;
- House implements: kitchenware, glassware and tableware, carpets, wallpaper, and ceramics (both China and European export porcelain);
- Personal implements: clothing and footwear;

**Whaling**

Since the 1760s, the New England whaling fleet had been growing steadily.

By 1840, its ships engaged in 4 year voyages to hunt whales in the Pacific and Arctic oceans.

Oil from the blubber was used for lamp fuel, lubricant and softener for rope-making fibers;
Spermaceti, a fine liquid wax from the brain cases of sperm whales made candles, fine lubricants, and industrial detergents; Whale bone was used for women's corset stays, umbrella ribs, and buggy whips; Carved ivory came from sperm whale teeth; Ambergris, found in the stomach of diseased animals for the perfume industry, sold for 400 dollars a pound.

By 1846, there were 736 whalers in business, all originating from ports in southern New England and Long Island. New Bedford was the largest whaling port with 329 vessels in 1857.

Whaling was threatened by the introduction of coal gas illumination in the 1850s, and the discovery of petroleum in Pennsylvania in 1859. During the Civil War, many whalers were sunk to protect the entrance of southern ports, while others were simply captured and sunk by Confederate warships. Although the prices of whale products increased after the war, the whaling fleet never recovered.

Down-Easters

The American merchant marine also never recovered after the Civil War. Many hundreds of ships were sunk, or transferred to flags of convenience. England took a great share of American commerce during the war. Moreover, European shipyards moved on to the construction of iron hulls.

America could only keep advantages on the commerce of grain from California to Europe.

These wooden vessels were medium clippers, with a sharp bow and a full body, combining speed and capacity in a specific kind called Down-Easters. With less canvas than the clippers, they were nevertheless almost as fast. Full-rigged, three-masted ships, they measured 61 to 91 m (200 to 300 ft.).

Down-Easters were profitable until the late 1880s. Afterwards, they were replaced by lighter, iron-hulled steamships.

The George R. Skolfield (1885-1920)

Built in 1885 in Brunswick, Maine, she measured 71 m (232 ft.) and sailed around the globe on her maiden voyage to San Francisco, China, and Liverpool.

In 1900, she was converted into a schooner and used as a coastal barge for bulk cargoes until 1920, when she ran aground in New Jersey.

Her remains were uncovered by a storm in 1971 and partly recovered, conserved and exhibited by the Maine Maritime Museum.
The last schooners

Although the American deepwater sailing merchant fleet decreased sharply in number and tonnage after the Civil War, the coastal traders survived under governmental protection.

The three-masted wooden schooners, or terns, as they were known, thrived on both coasts. They served in the transport of bulk cargos like lumber, bricks, stone, lime, coal, sugar, flour, and oil. With obvious advantages on scale-economy, these terns evolved around 1880 into four-masted schooners, then into five-masted schooners in 1888, their rigging being operated with the help of small steam engines. After 1900, ten six-masted schooners were built, and, in 1902, the only seven-masted schooner ever built, the *Thomas Lawson*, was launched in Quincy, Massachusetts.

Fierce competition from highly subsidized English steamers ended the life of these last sailing ships.

The *Thomas Lawson* (1902-1907)

Built in Quincy, Massachusetts in 1902 with an iron hull, she measured 114 m (376 ft.) and displaced 5,218 tons. After running aground on her maiden voyage, she was considered dangerous due to her unseaworthiness. Converted into an oil tanker she sunk off the Scilly Isles in 1907 with the loss of 15 of her 17 man crew.

Readings for this class
