

Robert Fulton didn't invent the steamboat, but with the help of the Hudson River he made it a revolutionary force in commerce.

Born in Little Britain, Pennsylvania, on November 14, 1765, Fulton showed precocious talent at an early age. By the age of 14 he had become a gunsmith, a painter, and the inventor of a manually-operated paddle-wheel boat.

In 1786, Fulton went to London for advanced study in art and engineering. He made his living as a painter while cultivating technological interests. While he first expressed interest in steamboats in the 1790s, he showed more interest in developing dredging tools and submarine warships.

Fulton believed that a "diving boat" that attacked ships underwater could defeat naval blockades of harbors and ports. He offered his idea to the revolutionary government of France, then under a British blockade. His first diving boat, the *Nautilus*, was tested successfully in 1800, but failed to sink any British ships. After the French lost interest, he offered the diving boat to Britain, with no more success.

While in France, Fulton made an important American contact. The American ambassador, **Robert R. Livingston**, had been involved in steamboat development since he rode an experimental boat from lower Manhattan to the dock of Greenwich Village in 1796. Using his influence as a major Hudson Valley landowner, he secured a monopoly of steamboat traffic on the river from the state legislature in 1798.

The very first steam-powered boat was built in France in 1783, but sunk in 15 minutes. Benjamin Franklin popularized the concept in a 1785 article, proposing a form of steam-powered jet propulsion. Between 1787 and 1790, John Fitch successfully tested steamboats on the Delaware River, while James Rumsey conducted experiments on the

Potomac River. Fitch ran regular trips from Philadelphia to Trenton, but went out of business due to limited demand for steamboat service.

Livingston believed that steamboat service on the Hudson would prove profitable. While Fitch had competed with faster stagecoach service over level ground, a steamboat on the Hudson could outpace stages struggling over the hills along the river. The level-flowing Hudson was also an ideal route for steamboats compared to rougher rivers.

Livingston had not yet built a boat capable of carrying passengers and freight at a competitive speed when he formed a partnership with Fulton in October 1802. Their first steamboat test in France sunk under the weight of Fulton's machinery, but a second effort in August 1803 maintained a speed of four miles per hour.

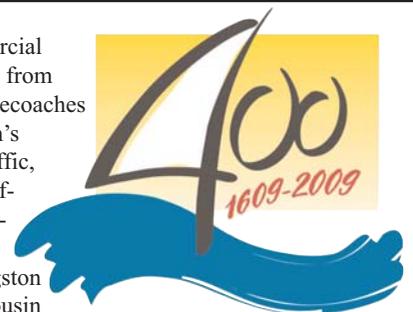
When Fulton returned to America in December 1806 he resumed work on Livingston's steamboat. While the 1783 French steamboat was propelled by a stern fan, and Fitch's first boat used steam-powered rows of oars, Fulton opted for piston-operated 15' paddle wheels on either side of his boat. Using a still-common name for the Hudson, Fulton called his ship the *North River Steam Boat*.

Fulton launched the *North River* from New York City on August 17, 1807. On August 18 he reached Livingston's estate at Clermont (Despite popular legend, Fulton never named his boat after the estate). He reached Albany on August 19. Not counting stops, Fulton's steamboat made the trip in only 32 hours, while sailing sloops took four days to cover the same distance. Some observers mistook the steamboat for a sea monster, while sloop captains later attacked it for making them obsolete.

Fulton started taking paying customers on the return trip to New

York. He began regular commercial trips in September, charging \$7 from New York to Albany when stagecoaches cost \$10. Backed by Livingston's renewed monopoly on river traffic, Fulton quickly developed a profitable passenger trade and slowly built a fleet of steamboats. He also married into the Livingston family by marrying Robert's cousin Harriet.

Fulton and Livingston's monopoly limited steamboat traffic on the river. The state law forbade other businesses from operating steamboats on the Hudson, or ferries between New York and New Jersey, without purchasing a franchise. Rivals challenged the monopoly by disputing Fulton's patents on important innovations. It wasn't



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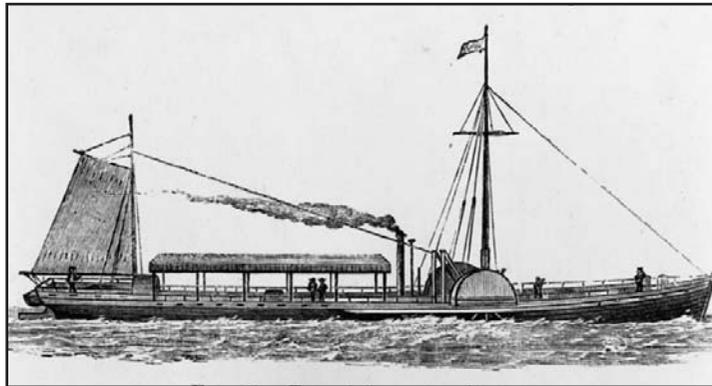
Robert Fulton and the Steamboat

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until after Fulton died in 1815 that the monopoly was broken.

The Supreme Court's *Gibbons v. Ogden* decision in 1824 declared the monopoly unconstitutional because Congress alone could regulate navigation between New York and New Jersey. Emboldened by the court, the state legislature abolished the monopoly on the Hudson in 1825. The Hudson River was then open to anyone who could afford to build a steamboat. Commerce on the river was free to expand beyond even Robert Fulton's immense imagination. Steamboats flourished on the river

through the 1920s, rapidly declined during the Depression and except for excursion boats had all but ceased by 1948.



Newspaper Tie-ins to Today:

Many people were working on the development of steam-powered boats in the late 1700s into the turn of the century. After looking through the newspaper (in-print or online) what type of research and development do you think many people might be working towards?

Robert Fulton's steamboat was largely successful because his steamboat offered faster, and more economical transportation. Look through recent editions of the newspaper for articles about innovations in transportation. How are these similar to the steamboat?

Robert Fulton finally achieved success with a steamboat design and a transportation company in partnership with Robert R. Livingston. Look through the newspaper for partnerships or company mergers. What talent or strength does each side bring to the partnership? Do you think they will be successful? Why or why not?

Image: Fulton's steamboat, Library of Congress, reproduction number LC-USZ62-110382. For more information on the Hudson-Fulton-Champlain Quadricentennial go to www.exploreny400.com.