

**AMERICAN STEAMBOATS PRIOR TO THE "CLERMONT."**

It is one of the estimable qualities of Robert Fulton that, in spite of the obvious temptation so to do, consequent upon his brilliant success with the "Clermont," he never claimed the distinction of being the original inventor of the steamboat. He was perfectly familiar with the ingenious work in the development of steam navigation which had been done both in the United States and in Europe during the two decades preceding the successful trip of the "Clermont." He had intimate knowledge of the previous history of the art; he was personally acquainted with the more successful inventors; and, as a guest, had made trips on at least one of the more successful boats. The present celebration, so far as Fulton is concerned, is held in honor of the successful inauguration of practical commercial steamboat navigation on the Hudson River. There is glory enough, surely, in this to make a fitting crown for the life work of one man. Were Fulton in our midst to-day, he would be among the first to do justice to the work of his predecessors and contemporaries, in other times and on other waters.

It is impossible, within the limits of the present article, to describe at any length the dozen or more steamboats, big and little, which were built and tried

1790 was placed in regular service on the Delaware as a packet, its sailing dates being advertised in the local press.

The sixth steamboat, a stern-wheeler, built by Capt. Samuel Morey of Connecticut, sailed from Hartford to New York, with Chancellor Livingston and others on board, in 1794.

The seventh steamboat, by Fitch, tried on the old

velt, John Stevens, and Chancellor Livingston, had side chain wheels driven by a steam engine. It was tried successfully in October, 1798, and with the Spanish Minister on board as a guest made three miles an hour.

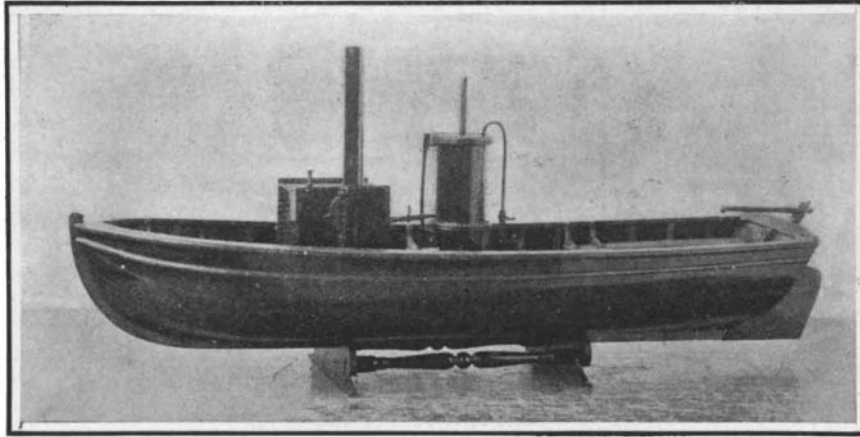
The twelfth steamboat, built by Col. John Stevens, was a 25-foot flat-bottomed boat, which was driven by a screw propeller on the Hudson River at a speed of four miles per hour in 1803 and 1804.

The thirteenth steamboat, built in 1804 by Stevens, was propelled by twin screws at a speed of seven to eight miles per hour, and made several trips on the Hudson River.

The fourteenth steamboat, built by Oliver Evans in 1804, was a large scow, or lighter, driven by a paddle wheel at the stern.

The fifteenth and last steamboat before 1807 to make a trip under her own steam was a large pirogue, with side paddle wheels, called the "Phoenix," built by Stevens in 1806-7, which, being debarred by Fulton's monopoly from navigating on the Hudson, subsequently steamed to Philadelphia by sea, and thus became the first steamship to make an ocean voyage.

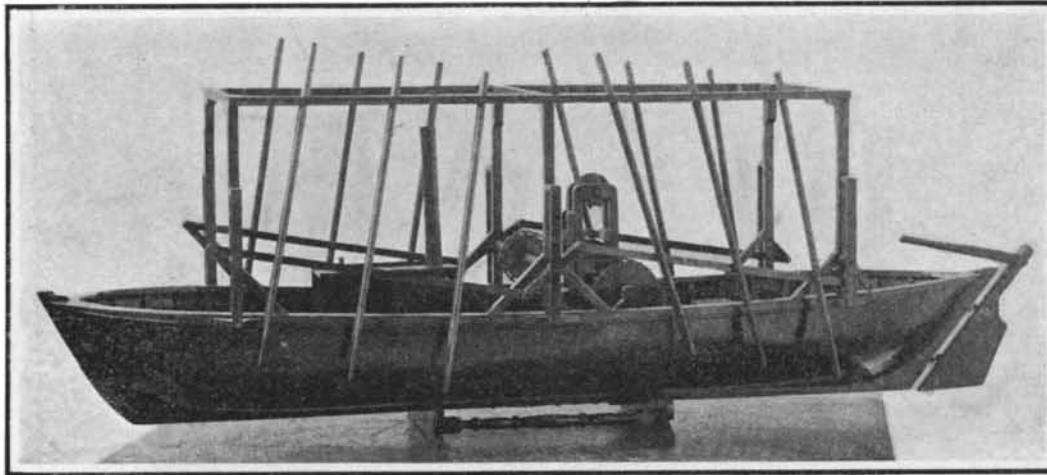
It should be understood that although the above enumeration includes vessels that were actually moved by steam, no claim is made that they were all of a practical character. Of the Americans who turned their attention to the development of the steamboat in the pre-"Clermont" period, two men, in our opinion, stand head and shoulders above their competitors, namely, John Fitch and John Stevens; the first, for



Rumsey's boat was propelled by a steam engine and pump which drew in water through the bottom and discharged it in a jet at the stern. Made four miles an hour in a short trial on the Potomac; but never reached the stage of practical operation. (From photograph of the model in the Smithsonian Institution taken especially for the SCIENTIFIC AMERICAN.)

**JAMES RUMSEY'S STEAMBOAT OF 1787.**

Collect Pond, now the site of the Criminal Court building and City Prison, New York, was driven by both paddle wheels and a screw propeller. Chancellor Livingston was aboard on this trip, and a very crude model of the boat, shown in the accompanying illus-

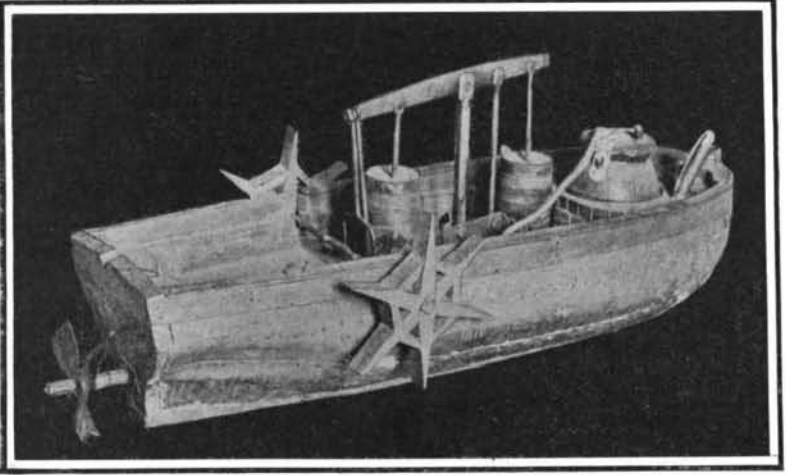


This boat made six miles an hour on the Delaware. It was propelled by vertical paddles, driven in sets of three by side rods operated by a steam engine. (From photograph of the model in the Smithsonian Institution.)

**JOHN FITCH'S STEAMBOAT OF 1787.**

with varying degrees of success in America prior to 1807. We must content ourselves with the following summary (based on Preble's history) of these early efforts, followed by a brief sketch of the remarkable work of Fitch and Stevens.

The first boat successfully propelled by steam in



This crude model was made from memory in 1852 by a witness of the trials of the boat on the old Collect Pond, New York city. (From photograph of the model at the New York Historical Society.)

**JOHN FITCH'S STEAMBOAT OF 1796.**

tration, is now in the keeping of the New York Historical Society.

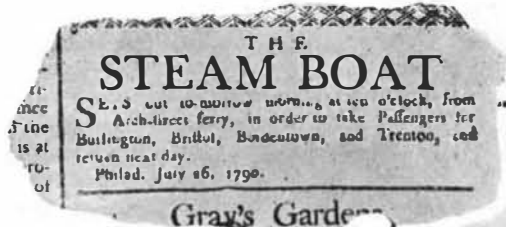
The eighth boat, by Morey, was tried on the Connecticut River in 1797.

The ninth steamboat was built to plans of Chancellor Livingston by a Mr. Nisbet, and tried at De Koven's Bay, south of Tivoli, in March, 1798.

The tenth steamboat was a model side-wheel vessel built by Fitch and tried on the Ohio in 1798.

The eleventh boat, built and designed conjointly by Nicholas Roose

the reason that as far back as 1790 he placed on the waters of the Delaware a steamboat which ran on a regular schedule, was advertised extensively in the local papers, and carried freight and passengers at specified fares; the latter, because he was the first to apply the screw propeller as the sole means of pro-



Photograph of advertisement in the "Federal Gazette" of Philadelphia, July 26th, 1790.

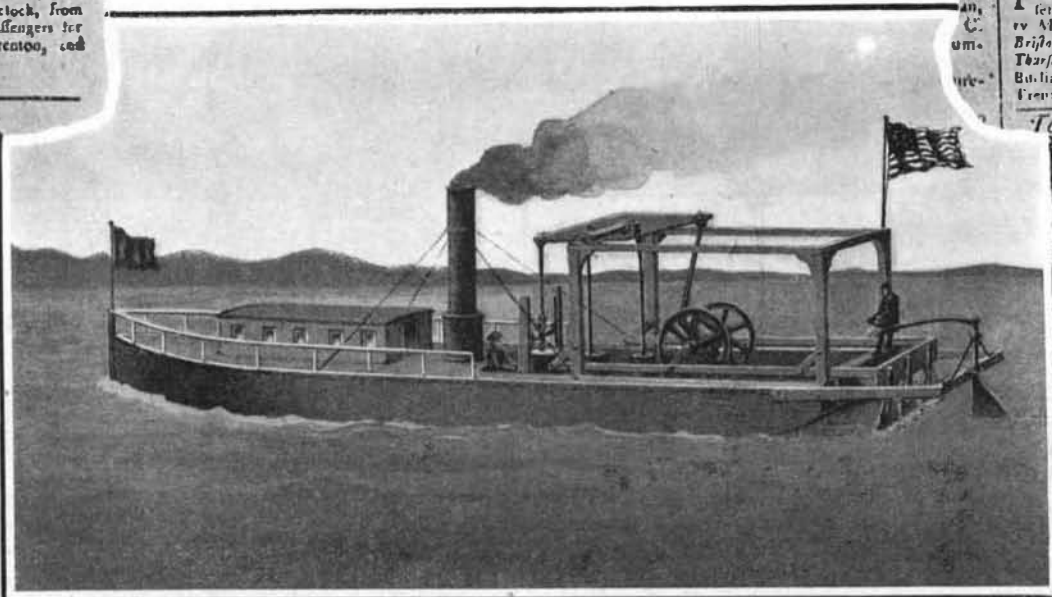
America was one built by John Fitch, which was tried on the Delaware, July 27th, 1786.

The second American steamboat, also built by Fitch, was tried on the Delaware in 1787.

The third boat, built by James Rumsey, and driven by a water jet, was operated at Shepards-town on the Potomac, September 3rd, 1787.

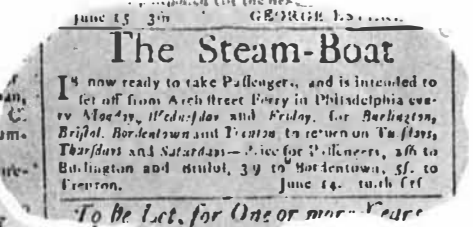
The fourth steamboat, built by Fitch, ran from Philadelphia to Burlington in 1788.

The fifth steamboat, also built by Fitch, made eight miles an hour over a measured course at Philadelphia in 1789, and in



This boat, 60 feet long, driven by an engine with cylinder 18-inch diameter, designed and built by Fitch, was put in regular service, advertised in the Philadelphia papers, and for three months in 1790 sailed according to schedule between Philadelphia, Trenton, and way points. Its average speed was 7 miles an hour. It was propelled by paddles at the stern.

**JOHN FITCH'S STEAMBOAT, WHICH SAILED REGULARLY BETWEEN PHILADELPHIA AND TRENTON IN 1790.**



Photograph of advertisement in the "Pennsylvania Packet" of Philadelphia of June 14th, 1790.

pellung a boat; that he used tubular boilers and high-pressure steam; and that he was the first to adopt that system of twin propellers which subsequently became the standard method of propulsion throughout the world.

**JOHN FITCH.**

John Fitch stands out as a splendid type of a large class of ingenious, courageous, but poor inventors, who did so much to promote the industrial development of the country during the early years of the young republic. Born at