

## THE STEAM MAN.

A number of years ago what purported to be a steam man was widely advertised and exhibited in this city. The remains of the individual in question were quite recently to be seen in one of the downtown junk stores. Within the last two years the project has been taken up by another inventor, and a practical steam man that actually walks and exerts considerable tractive power has been exhibited in actual operation in this city and elsewhere. It was invented and constructed by Prof. George Moore. Prof. Moore is of mixed Scotch, English, Irish, and Dutch extraction, and is a native of Canada. His steam man seems to be a native of America.

In our illustration we show the section and general view of the steam man. In the body is the boiler, containing a very large heating surface, and which is supplied with a gasoline fire. Below the boiler is situated the engine. While small in size, it is a high speed engine running up to 3,000 revolutions per minute or more, and hence is of high power, the combination of boiler and engine giving about  $\frac{1}{2}$  horse power. From the engine the exhaust pipe leads to the nose of the figure, whence the steam escapes when the machine is in motion. Through the head the smoke flue is carried and the products of combustion escape from the top of the helmet. The steam gauge is placed by the side of the neck. The skirts of the armor open like doors, so as to give free access to the engine. The main body of the figure is made of heavy tin. By reducing gear the engine is made to drive the walking mechanism of the figure at reasonable speed.

In our sectional view we show the combination of levers by which the figure is made to walk. The engine imparts a swinging to the whole length of the leg from the hip; a second swinging motion, from the knee downward, is accomplished by a similar system of levers and connections, and, finally, a true ankle motion is given to the foot by the rod running down through the lower leg. The heels of the figure are armed with calks or spurs, which catch on the surface on which it is walking and give it its power. As exhibited the steam man is connected to the end of a horizontal bar about waist high, which is fastened to a vertical standard in the center of the track. Thus supported, the man walks round in a circle at quite a rapid rate of progress.

For the last eight years the inventor has been at work on a larger steam man, which he hopes to have in operation during the present year. The new one is designed for use on the open streets and is to draw a wagon containing a band. In the upper figure we

indicate the method of attachment to the wagon which has been adopted. By the long spring at the side of the figure an elastic connection is secured, so that the figure shall always have its weight supported by the ground. The present man, which is about 6 feet high,

at a brisk walk and can cover about four or five miles an hour.

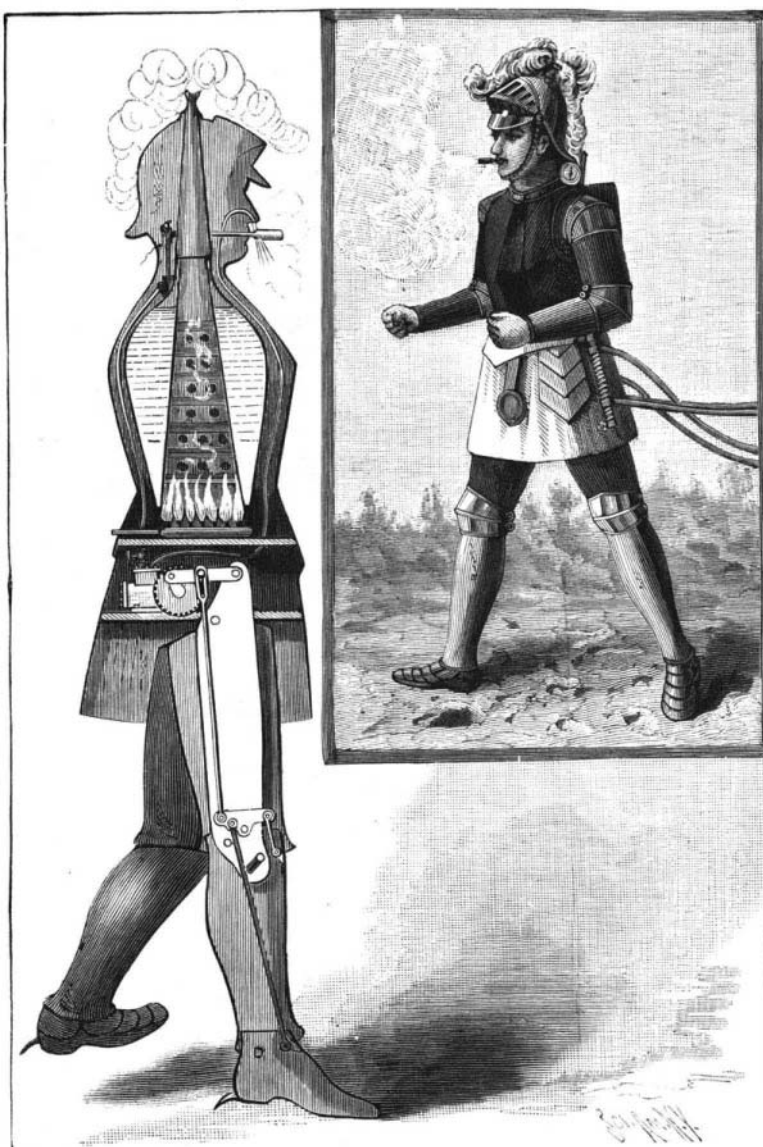
## THE FIRST WAR STEAMER OF THE WORLD.

Robert Fulton, illustrious from his connection with the early invention of steam navigation, was not content to apply his inventive and constructive genius to passenger ships alone. During the war of 1812, when our navy was making a glorious record at sea, its disproportion to the work which it had to do in protecting the great line of coast was evident. For the defense of cities and harbors, Fulton designed a steam ship of war, which he called the Demologos, the first war steamer of which there is any record. Fulton's original design for the Demologos presents a double-ended ship with two keels, flat bottom, and with a gun deck and main deck. Her sides were to be 5 feet in thickness, diminishing below the water line. In her center was a well containing a paddle wheel designed for her propulsion. A single cylinder engine was to be provided to turn the shaft; the weight of the engine on one side was counterbalanced by the weight of the boiler on the other. Twenty guns were to be carried by this craft. Her length was to be 140 feet, width 42 feet. The engraving, page 234, represents the original sketch submitted by Robert Fulton to the President of the United States. Fulton intended it to carry a strong battery, with furnaces for red hot shot, and to be propelled by steam alone at the rate of four miles an hour. It was proposed to have submarine guns suspended from each bow to attack a ship below the water line. An engine was to have been added to discharge hot water upon the enemy to repel boarders.

By special legislation a law was passed in 1812, authorizing the construction at New York of one or more floating batteries of this description. A sub-committee of three gentlemen obtained recognition by the government as agents for the construction of the ship: Samuel L. Mitchell, Thomas Morris, and Henry Rutgers—three good New York names.

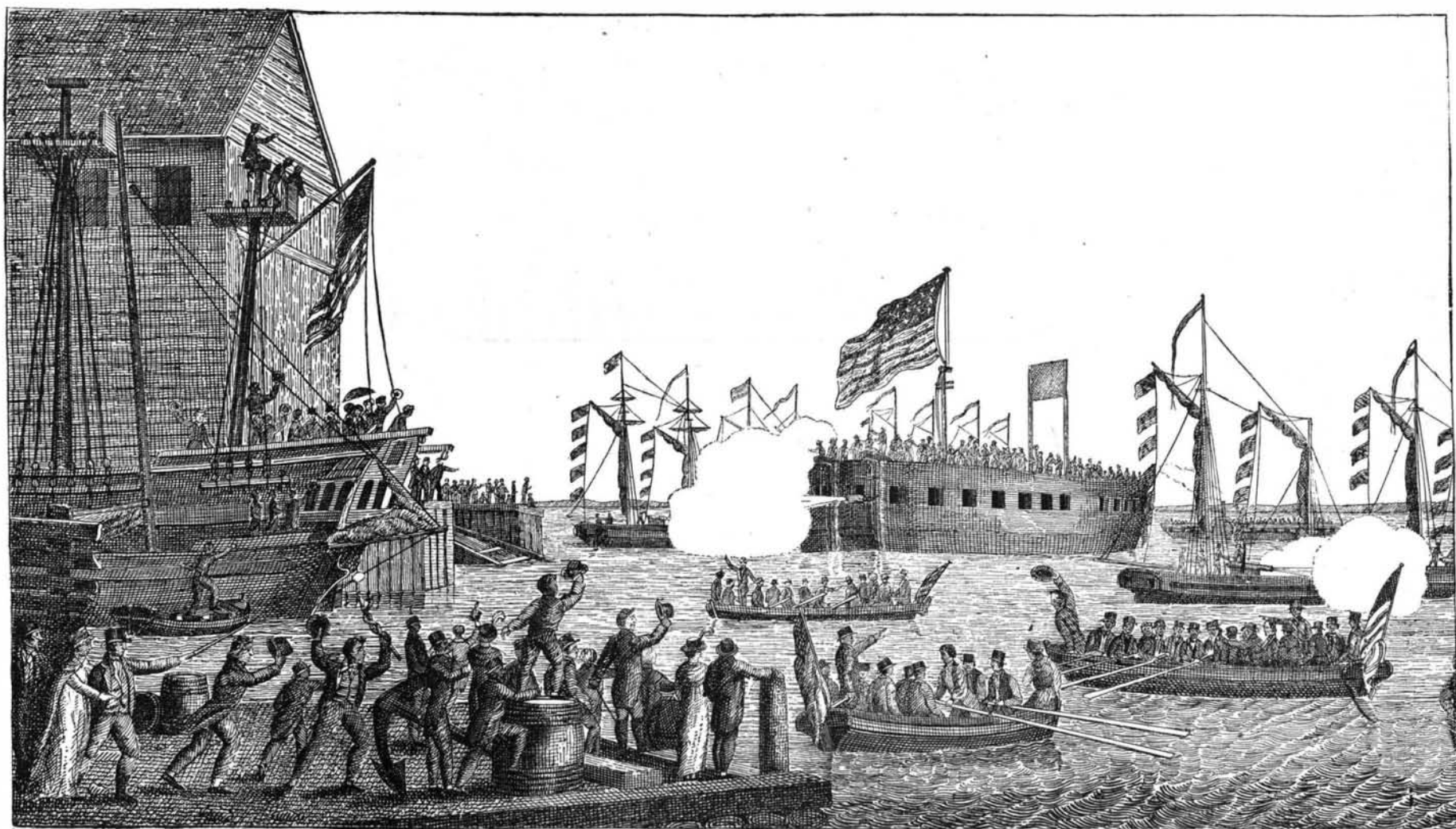
The work of construction was carried out under the direction of Fulton as engineer, and Messrs. Adam and Noah Brown, of this city, as the naval constructors. Her keels were laid in the shipyard at Corlaers Hook, on the East River, New York, on June 20, 1814, and on the 29th of the following October she was launched in the presence of many spectators. She was named the Fulton the First. We give below a view of the launch, as drawn on the spot by the artist Morgan.

Our sketch of the launch shows her safely embarked in the water, firing her bow guns, while in the distance



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when in full operation, cannot, it is said, be held back by two men pulling against it. The larger man, built for heavier work, is expected to pull as many as 10 musicians in his wagon. Our cuts show the general appearance of the figure, which is attired in armor like a knight of old, and which appears to be thoroughly operative. The action is quite natural, and the hip, knee, and ankle motion of the human leg have been very faithfully imitated. The figure moves



LAUNCH OF THE FIRST WAR STEAMER, THE FULTON FIRST, AT NEW YORK, OCTOBER 29, 1814.