

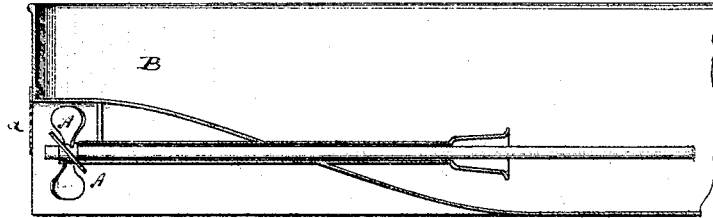
*T. Main,*

*Propeller.*

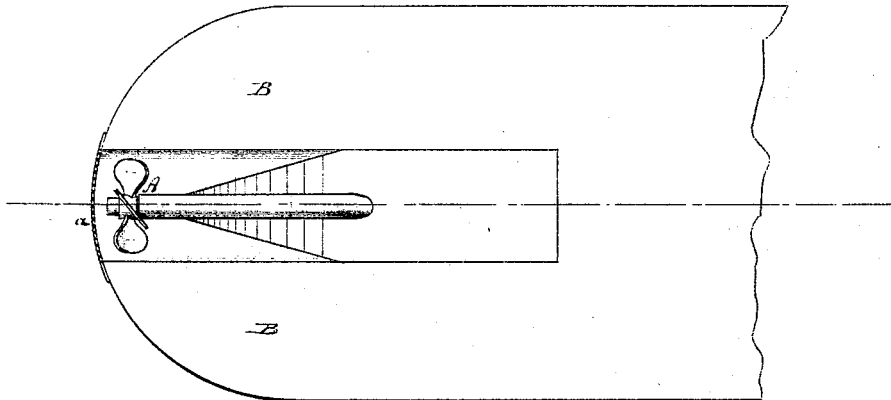
*No. 111,462.*

*Patented Jan. 31. 1871.*

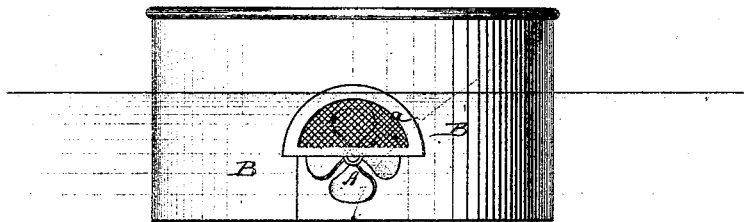
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



**Witnesses:**

*Chas. Nida.*  
*Geo. H. Mabee.*

**Inventor:**

*T. Main*

**PER**

*Munn & Co.*

**Attorneys.**

# United States Patent Office.

THOMAS MAIN, OF GREEN POINT, NEW YORK.

Letters Patent No. 111,462, dated January 31, 1871.

## IMPROVEMENT IN PROPULSION OF CANAL-BOATS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern :*

Be it known that I, THOMAS MAIN, of Green Point, in the county of Kings and State of New York, have invented a new and useful Improvement in Steam-Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a longitudinal section of my improved steam-vessel.

Figure 2 is an inverted plan view of the same.

Figure 3 is a front view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to screw-propellers for canal and other boats, and has for its objects to confine the movement of the water and to free the screw from obstruction.

A represents the cavity in the bow of a boat, B, and is covered on all sides except at the bottom.

The cavity is shown to extend only a short distance toward the stern, but may reach entirely back, diminishing toward the stern, as shown. The object of this construction is, first, to prevent the formation of a wave on each side, which would retard the progress of the vessel and wash the canal banks; also, to force the water under the vessel, which will prevent its settling on the bottom when sailing in shallow water.

The water will, by the screw, be drawn into the cavity and displaced in front of the boat, being replaced behind the same. The screw is concealed within the cavity, and will, therefore, not produce the violent side currents by which the canal banks are frequently seriously injured. The speed of the vessel will, in consequence, be materially increased.

A wire netting, *a*, may be secured across the front end of the cavity in the boat, for the purpose of arresting obstructions of all kinds and preventing them from encumbering the operation of the screw.

As the cavity diminishes toward the stern the water which is crowded back by the screw will be apt to elevate the boat and lift it over shallow places, obtaining thereby greater ease of propulsion.

Motion is imparted to the propeller by steam-engines or other mechanism.

I do not claim a paddle-wheel placed in front of the boat; but

What I do claim is—

The screw-propeller A, when placed in the cavity in the bow of the boat and within the body of the hull thereof, in combination with a channel inclining downward to the bottom of the boat, substantially as described.

THOMAS MAIN.

Witnesses:

GEO. W. MABEE,  
T. B. MOSHER.