

W. WELLS.

Improvement in Propulsion of Vessels.

No. 133,275.

Patented Nov. 19, 1872.

FIG. 1.

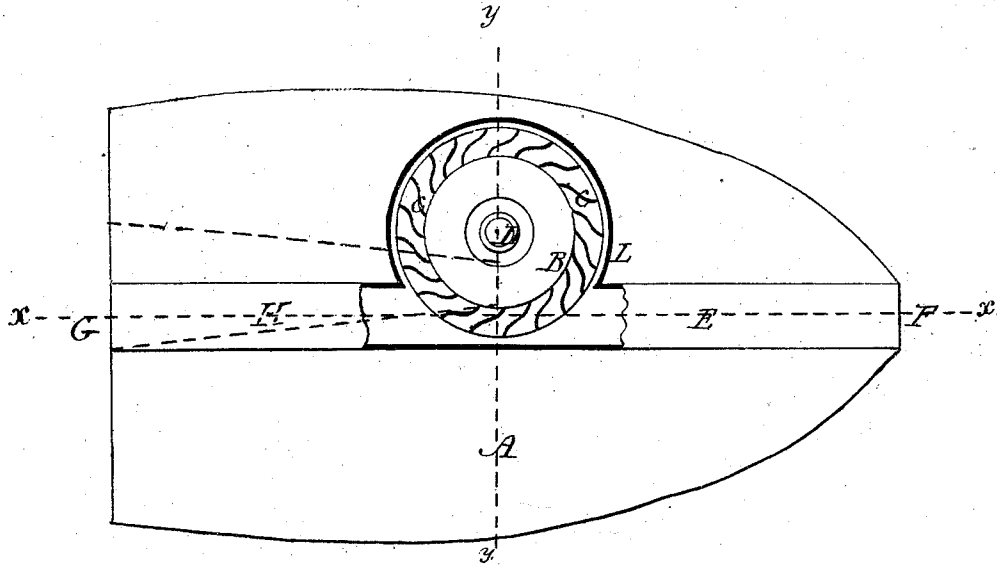


FIG. 2.

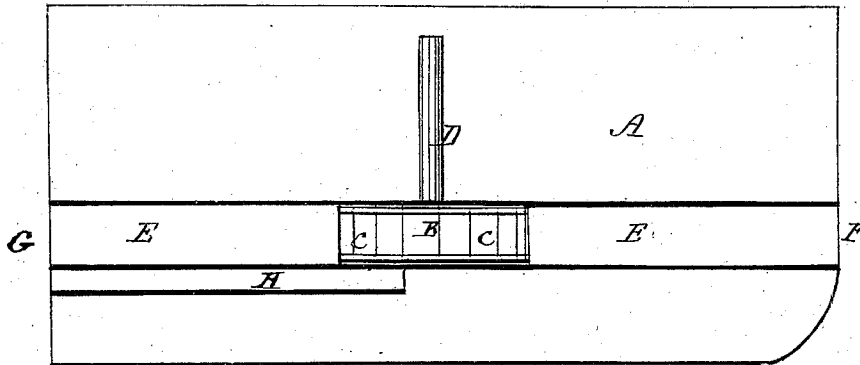
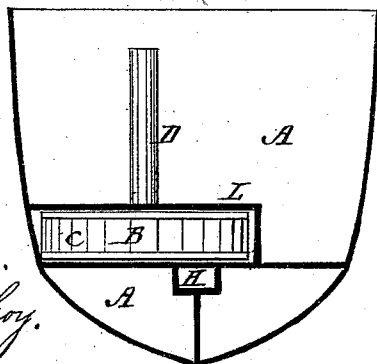


FIG. 3.



WITNESSES.

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WILLIAM WELLS, OF SALEM, MASSACHUSETTS.

IMPROVEMENT IN PROPULSION OF VESSELS.

Specification forming part of Letters Patent No. 133,275, dated November 19, 1872.

To all whom it may concern:

Be it known that I, WILLIAM WELLS, of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in the Propulsion of Vessels; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and the letters of reference marked thereon.

This invention relates to certain improvements in the means for propelling vessels; and it consists of the combination of certain parts, too fully hereinafter described to need preliminary explanation.

In the accompanying drawing my improvements in the propulsion of vessels are illustrated, Figure 1 being a horizontal section of a vessel above the plane of the turbine-wheel, showing the chamber in which it is arranged as partially broken away; Fig. 2, a longitudinal section in plane of line *x x*, Fig. 1; and Fig. 3, a transverse vertical section in plane of line *y y*, Fig. 1.

A in the drawing represents the hull of a vessel, which, in itself, may be made of any of the ordinary forms and constructions; B, a turbine-wheel, constructed in any of the usual forms—as, for instance, substantially similar to the Warren turbine-wheel, so known—and, therefore, needing no particular description, except that it is provided, as usual, with curved floats or buckets C, open at the outside periphery and at the center, as shown. This

wheel B is attached, in any suitable manner, to a shaft or axis, D, by which it is intended to arrange the wheel within the chamber L of hull A to turn in a horizontal plane, said plane being below the water line or space. E is a horizontal channel in the bottom portion of hull A, from bow to stern, at both of which ends it is open. Within this channel E the buckets C of the wheel B, as they come round, in turn, by the revolution of the wheel, are arranged to act upon the water in said channel, forcing thereby the vessel forward, as is obvious. H is a channel leading from wheel B at a point where the water escapes from its buckets to the stern G of the vessel, this channel H being provided for the discharge of water, and the relief, consequently, of its back pressure or action on the wheel.

Having thus described my improvements in the propulsion of vessels, I shall state my claim as follows:

The turbine-wheel B arranged horizontally within the hull of the vessel, in combination with the channel E and discharge H, all constructed and operating as herein shown and described.

The above specification signed by me this 26th day of June, A. D. 1871.

WILLIAM WELLS.

Witnesses:

EDWIN W. BROWN,
ALBERT W. BROWN.