

Lewis & Howard,
Screw Propellers.
No. 106,824. Patented Aug. 30, 1870.

Fig: 1.

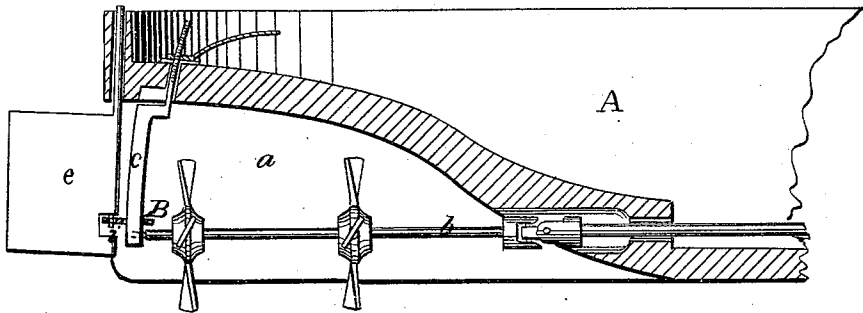
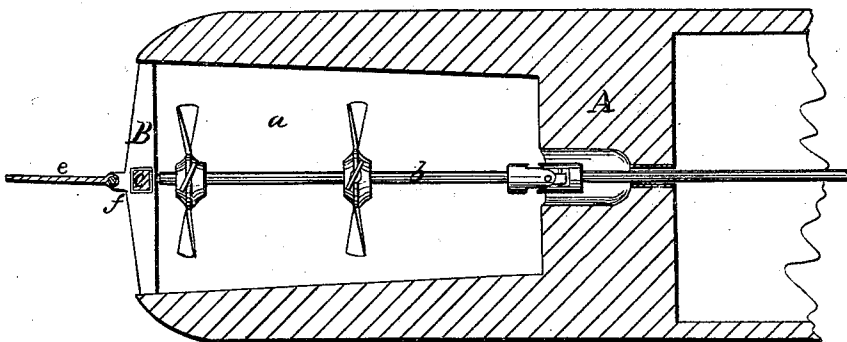


Fig: 2.



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United States Patent Office.

LEWIS HOWARD AND CHARLES HOWARD, OF WATKINS, NEW YORK.

Letters Patent No. 106,824, dated August 30, 1870.

IMPROVEMENT IN PROPELLERS.

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

To all whom it may concern :

Be it known that we, LEWIS HOWARD and CHARLES HOWARD, of Watkins, in the county of Schuyler and State of New York, have invented a new and useful Improvement in Canal-Boats; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a horizontal transverse section.

This invention relates to a canal-boat of the kind that is propelled by a screw, located in a chamber within the boat, said screw being rotated by an engine carried in the boat.

The invention consists of a bar placed at the stern of the boat, across the rear end of the chamber that contains the propeller, said bar serving as a brace between the sides of the chamber; also as a guide for the vertical sliding post in which is supported the rear end of the propeller-shaft, and also as a support for the lower end of the rudder.

In the drawing—

A is a section of a canal-boat;

a, the chamber in the stern of the boat;

b, the propeller-shaft, placed lengthwise of the chamber;

c, the vertical post, in an orifice in which the rear end of the propeller-shaft is supported, said post extending upward through the top of the chamber a, and passing through a nut, by turning which the post may be raised or lowered; and

e is the rudder.

In the foregoing arrangement there is nothing new.

B is the bar, placed at the stern of the boat, crosswise of the chamber a, and serving as a brace between the sides of the same.

Through an orifice in the bar B the vertical post c passes, so that the bar serves as a guide to the post.

In an offset, f, of the bar B, the rudder-pintle i is stepped, so that the bar serves as a support for the rudder.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The bar B, placed across the rear end of the chamber a, as described, and for the purposes set forth.

LEWIS HOWARD.

CHARLES HOWARD:

Witnesses:

M. F. ROOD,

WILLIAM TOTTEN.