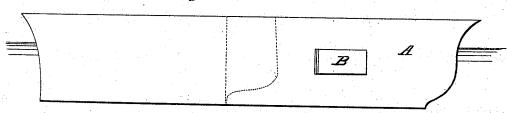
## E. J. COLLETT.

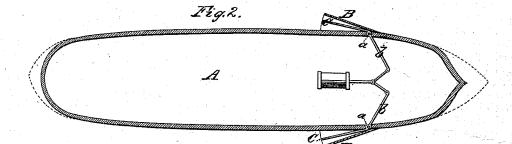
## PROPULSION OF VESSELS.

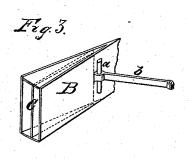
No. 182,517.

Patented Sept. 26, 1876.









WITNESSES.

George G. Uphan.

INVENTOR.

## UNITED STATES PATENT OFFICE.

EUSTACE J. COLLETT, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN PROPULSION OF VESSELS.

Specification forming part of Letters Patent No. 182,517, dated September 26, 1876; application filed March 1, 1876.

To all whom it may concern:

Be it known that I, EUSTACE J. COLLETT, of Washington, in the District of Columbia, have invented a new and valuable Improvement in Propellers; and I hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of a vessel having my propeller applied; and Fig. 2 is a horizontal sectional view thereof. Fig. 3 is a perspective

view of one of my propellers.

The nature of my invention consists in the construction and arrangement of a device for propelling vessels or other bodies through water, as will be hereinafter more fully set forth

in the annexed drawings.

A on the drawings designates the hull or shell of any vessel or other body to be propelled through the water. On each side of the shell A, at a suitable distance from the front end, is secured a case, B, made in wedge form, closed at top and bottom and open at the rear side, said rear side being the wide or base end of the wedge, while the narrow or front end is closed and close to the side of the shell, the case corresponding on its inner side with the curvature or shape of the shell A. At the narrow front end of each case B is hinged or pivoted a wing, C, which extends the entire length of the case. a is a bolt or rod that pivots the wings. From said rod an arm, b, extends into the shell A, the inner ends of said two arms b being connected

with and operated by a suitable engine so as to cause the wings C C to vibrate, laterally from side to side in the cases B B. This vibration of the wings compresses the water first against one side of the case, and then against the other, and the resistance of the water to compression causes the vessel or body A to be propelled forward.

This invention is applicable to any vessel or other body that it is desired to propel through water, and very great speed may be

attained thereby.

It is obvious that the principle of this invention, namely, the propulsion of bodies through water by the means hereinbefore described, may be applied in a similar way to the propulsion of bodies through other medium, such as the air.

Having thus described my invention, what I claim as new, and desire to secure by Let-

ters Patent, is-

1. A laterally-vibrating wing pivoted within a wedge-shaped case attached to a vessel or other body to be propelled, substantially as herein set forth.

2. The combination, of the hull or shell A, wedge-shaped cases B B, wings C C pivoted therein, pivot-rods a a, and the arms b b connected to and operated by an engine, all substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EUSTACE J. COLLETT.

Witnesses:
GEORGE E. UPHAM,
JOS. B. LOOMIS.