T. S. SEABURY.

PROPULSION OF VESSELS.

No. 191,475. Patented May 29, 1877.

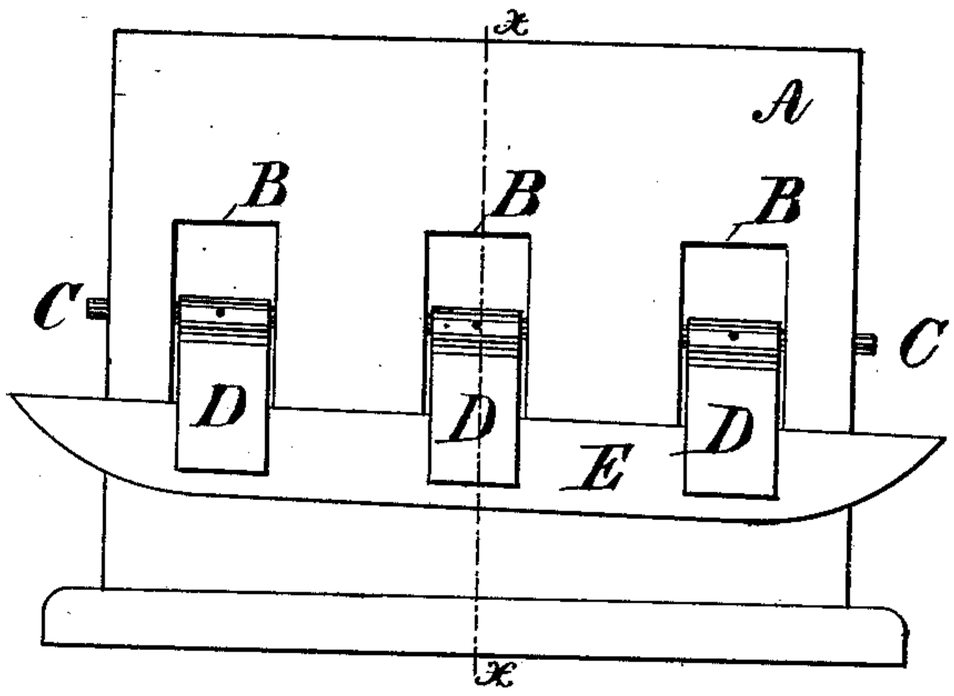

Fig. 1.

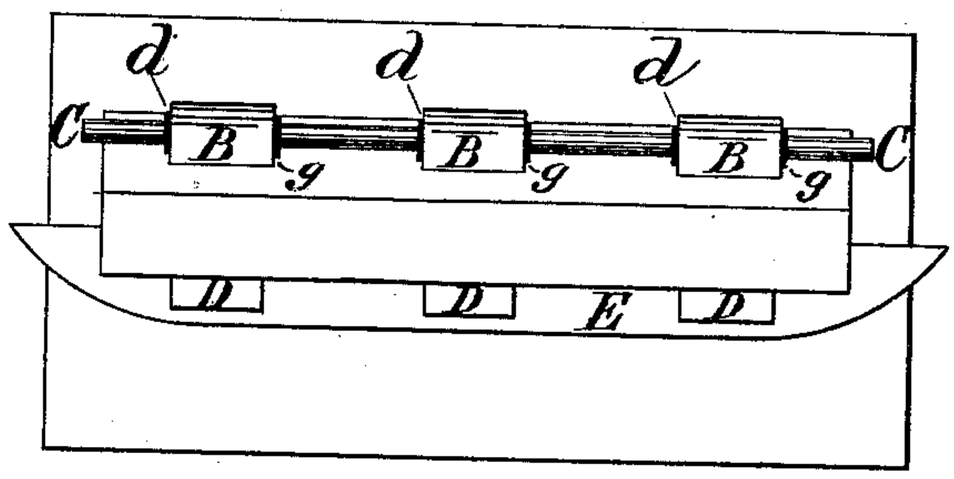

Fig. 2.

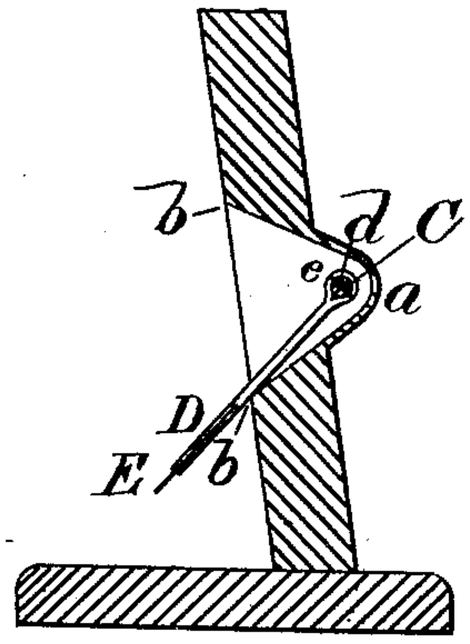

Fig. 3.

Witnesses;
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UNITED STATES PATENT OFFICE.

THOMAS S. SEABURY, OF NEW YORK, N. Y.

IMPROVEMENT IN PROPULSION OF VESSELS.

Specification forming part of Letters Patent No. **191,475**, dated May 29, 1877; application filed April 23, 1877.

To all whom it may concern:

Be it known that I, THOMAS SHEPARD SEABURY, of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Motive-Powers for Vessels; and I do hereby declare that the following is a full, true, and exact description of my invention, which will enable others to make and use the same, reference being made to the accompanying drawings forming a part of this specification, and to the letters and figures of reference indicated therein.

My invention relates to obtaining motive-power for vessels by utilizing the never-ceasing motion of the sea or ocean, whether arising from the continuous swell or from the effect of winds or currents, to operate suitable machinery to drive a vessel in any desired direction, when such motion and power are transmitted from the outside, through the sides of the vessel, by means of a horizontal lever or levers placed below the surface of the water, to suitable machinery in the inside of the vessel.

My invention also relates to devising means for utilizing this motive-power for vessels, and I will here describe one method of constructing suitable machinery or apparatus herefor; but I do not restrict myself to the herein-described and shown device. Others, probably as effective, may be constructed, but probably not as desirable and cheap.

It is evident that in employing the devised power as an effective motive-power for a vessel, a lever or levers, presenting a horizontal surface in the water, must be put through the side of a vessel, and, reaching outward in the water, will be acted upon by the weight of the water above and the pressure of the water below, and will thus be kept stationary, or nearly so, when the vessel is raised or depressed in the sea by the motion which is imparted to it by the swell of the ocean or the movement arising from the wind or the current, and which causes its rolling and pitching; and the said lever or levers will therefore give motion and power to any machinery and suitable connection between the said lever or levers and the screw or paddle-wheel, or any other devices for propelling the vessel.

Referring to the accompanying drawings, Figure I is a side view of a part of the side of a vessel embodying my invention. Fig. II is a plan view of the same. Fig. III is a vertical section through the line *x x*, Fig. I.

A represents a part of the side of a vessel. B B B are boxes placed in and through the sides of the vessel, and are closed at *a*, where they extend through the side into the vessel. At *b* they are left open, and are flush with the outside. C is an axle or shaft placed in the journals *d d*, in the sides of the boxes B B, and is provided with suitable packings *g g*, in order to prevent ingress of the water through the journal-boxes into the vessel.

To this shaft or axle at *e e e* are fastened or keyed the arms or bars D D, which extend outward through the boxes B B. The outer ends of these arms are fastened to the horizontal plate E.

Thus it will be readily understood that by any movement of the vessel caused by any action of the sea the plate E, presenting a horizontal surface in the water, will be retained in position, or nearly so, and prevented from making the same movement as the vessel is compelled to make, and therefore the position of the vessel will be changed in reference to the p'ates and arms, such changes effecting a partial rotary reciprocating motion of the shaft C.

The motion and power so obtained are transmitted through suitable means from the shaft inside of the vessel to the propelling machinery.

Having thus described my invention, I claim—

The submerged plate E, arms D, and rocking shaft C, in combination with the sides of a floating vessel, as and for the purpose substantially as set forth.

THOS. S. SEABURY.

Witnesses:

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