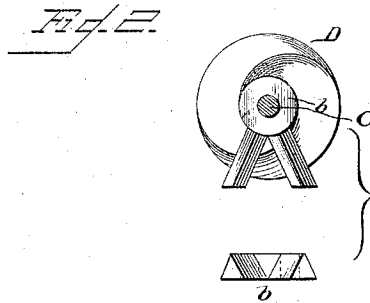
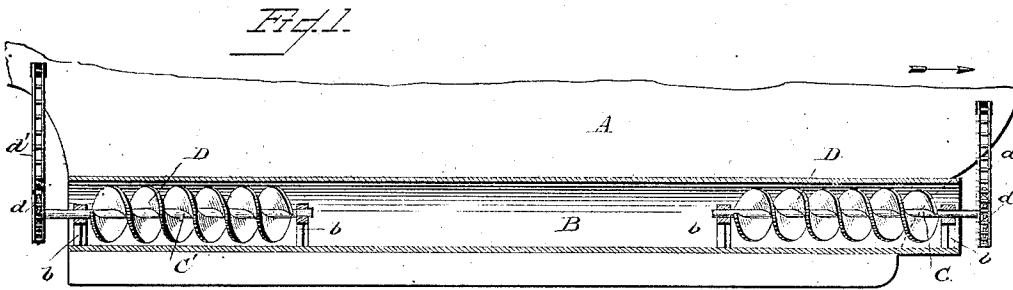


(No Model.)

J. McN. ROBINSON.
PROPELLING VESSELS.

No. 468,694.

Patented Feb. 9, 1892.



Witnesses

J. Coleman
Wm. S. Hodges

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By *his* Attorney

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UNITED STATES PATENT OFFICE.

JONATHAN MCNEIL ROBINSON, OF VACAVILLE, CALIFORNIA.

PROPELLING VESSELS.

SPECIFICATION forming part of Letters Patent No. 468,694, dated February 9, 1892.

Application filed July 18, 1891. Serial No. 399,943. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN MCNEIL ROBINSON, a citizen of the United States of America, residing at Vacaville, in the county of Solano and State of California, have invented certain new and useful Improvements in Propelling Vessels, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to an improvement in propelling vessels, and has for its object the production of cheap, simple, and highly-efficient means whereby a boat or vessel of any kind can be readily and easily propelled, 15 the means therefor being very inexpensive, strong, and durable.

The invention consists in a boat or vessel having a channel or cylinder located in its bottom and provided with open ends and extending from the bow to the stern, rotary shafts supported in said cylinder at its ends and having each an endless screw, brackets supporting said shafts, having front beveled or inclined faces, and driving-chains encompassing sprocket-wheels on the outer protruding ends of said shafts for operating the same, whereby water will be forced through said channel or cylinder from the bow to the stern.

30 The invention further comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

35 In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view showing a boat or vessel constructed in accordance with my invention. Fig. 2 is an end view of one of the rotating shafts and its endless screw, a bottom view of the supporting-bracket being also shown.

Referring to the drawings, A designates a boat or vessel of any preferred ordinary construction. In the bottom of the hull of this boat or vessel and extending longitudinally of the length thereof is a cylinder B, which projects through the bow and stern of the boat and has its ends open. This cylinder is of course suitably incased in the bottom of 45 the boat and held in place in any preferred

way. Within this cylinder, at its ends, are located rotary shafts C C', which extend inwardly from the ends of the cylinder a short distance, said shafts being supported by suitable brackets b, which consist each of an upper cylindrical portion and lower divergent arms, the front faces of which are beveled or inclined, so as to form as little resistance as possible to the passage of the water. Each shaft is provided with a double screw D, which consists of continuous plates arranged at an angle of about forty-five degrees. Upon the outer projecting ends of shafts C C' are suitable sprocket-wheels d, over which are passed chains d', leading from any suitable operating mechanism (not shown) located within the boat or vessel. By operating the shafts C C' the endless screws thereof will force the water from the bow of the boat back through the channel or cylinder behind the stern thereof, thus removing the water from the bow and condensing it at the stern of the boat, thereby causing a deficiency of water at the bow of the boat and a surplus quantity at the rear thereof, producing the effect of lowering the bow of the boat and raising the stern, thus causing the boat to travel downward on an inclined plane instead of traveling up an inclined plane, as is usual. By this means a boat or vessel can be readily and easily propelled forward, and the most important advantages of the invention are its simplicity and, more especially, its inexpensiveness, coupled with increased ease and speed of navigation.

While I have shown and described the channel or cylinder and the endless screws as being located in the longitudinal center of the hull of the boat or vessel, yet I do not restrict myself to such arrangement, since the location of two channels or cylinders within or outside of the vessel and parallel with the keel and with each other at any point beneath the water-line is clearly within the scope of my invention; also, instead of a sprocket-wheel upon the projecting ends of the shafts to be operated with chains, any other gearing or method may be employed.

I claim as my invention—

A boat or vessel having a channel or cylinder located in its bottom, extending from end 100

to end thereof, and provided with open ends,
two rotary shafts located in said cylinder, one
at each end thereof and having each an end-
less screw and a sprocket-wheel on its pro-
truding end, brackets for supporting said
5 shafts, having upper cylindrical portions and
divergent arms whose forward faces are bev-
eled or tapered, and the driving-chains en-

compassing said sprocket-wheels, all com-
bined substantially as set forth. 10

In testimony whereof I affix my signature in
presence of two witnesses.

JONATHAN McNEIL ROBINSON.

Witnesses:

JOHN N. YOUNG,

FRANK H. POWERS.