

(No Model)

M. H. DAVIDSON.
BOAT PROPULSION.

No. 582,811.

Patented May 18, 1897.

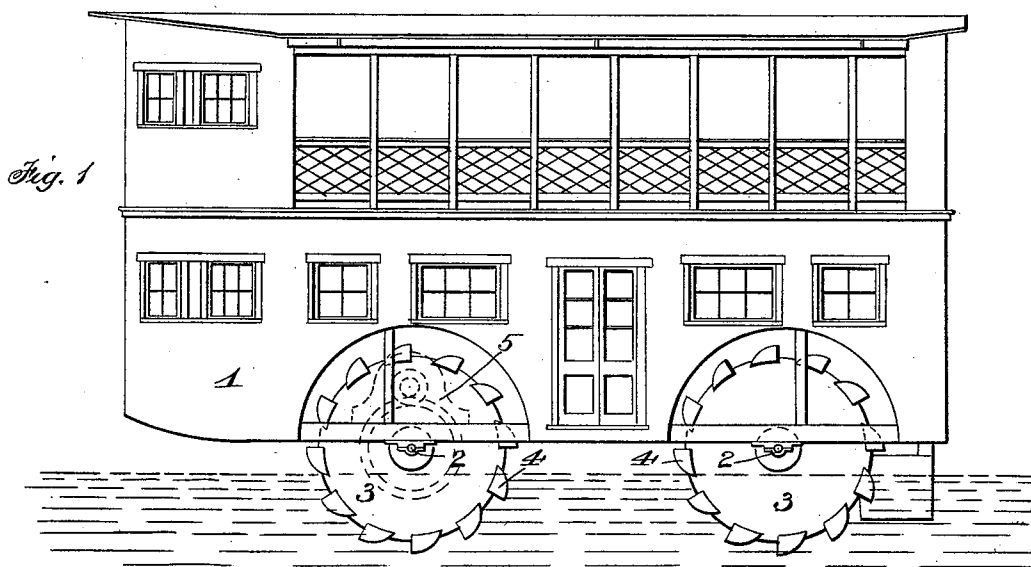


Fig. 2.

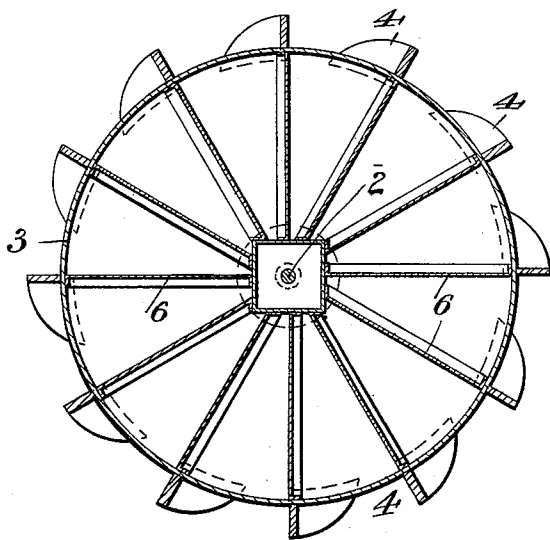
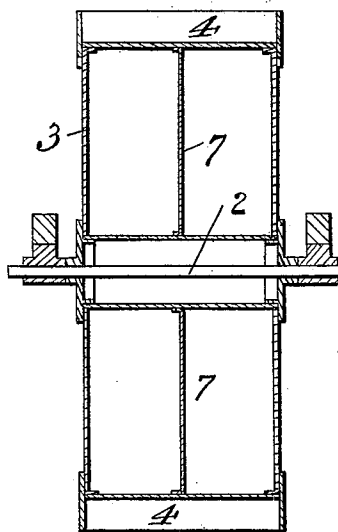


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

MOSES H. DAVIDSON, OF LOUISVILLE, KENTUCKY.

BOAT PROPULSION.

SPECIFICATION forming part of Letters Patent No. 582,811, dated May 18, 1897.

Application filed October 8, 1896. Serial No. 608,199. (No model.)

To all whom it may concern:

Be it known that I, MOSES H. DAVIDSON, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Boats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a boat or vessel; and it consists in the novel features of construction hereinafter described and claimed.

In the accompanying drawings, illustrating this invention, Figure 1 is a side elevation, Fig. 2 is a longitudinal section, and Fig. 3 is a transverse section.

In accordance with the principle involved by this invention I provide a vessel or boat which is supported by rollers—that is to say, the hull of the vessel is not submerged nor propelled through the water, but is provided with buoyant rotatable rollers that enter the water and which revolve as the vessel moves, so that the load is rolled over instead of being propelled through the water. I propose also to employ these buoyant rolling devices for propelling the vessel. As an example, I provide a vessel with a plurality of rollers or cylinders projecting below the hull and so arrange the tonnage of the vessel and the displacement of the cylinders that when the cylinders are submerged to about their axis the hull of the vessel will be above the water-line, so that the boat or vessel practically rolls upon the water instead of being forced there-through.

In the drawings I have shown an embodiment of this invention, while it will be understood that the invention can be changed in the specific construction and minor details without departing from the spirit of this invention.

In said drawings, 1 indicates the hull or the body of the vessel suitably built and provided at its bottom with bearings for the shafts 2. These carry a plurality of rollers or cylinders 3, said rollers being hollow and preferably made of sheet metal. It will be seen, therefore, that when any suitable propelling devices upon the vessel are employed to act upon the water said vessel rolls upon instead of being propelled through the water, thereby obviating the enormous resistance

consequent upon propelling the hull of a vessel through the water.

As a further improvement I contemplate constructing the propelling devices in connection with the rotatable cylinders, and as a convenient construction the periphery of the cylinder is provided with a plurality of blades 4 and are rotated by suitable gearing between the cylinders 3 and a motor 5, within the hull of the vessel. In the construction illustrated the motor is geared to the shafts 2 and said cylinders are rigidly fixed to said shafts.

The cylinders are made with separate watertight compartments by longitudinal partitions 6, as shown in Fig. 2, or by transverse partitions 7, as shown in Fig. 3, or by both longitudinal and transverse partitions, so that the cylinder cannot be disabled without injuring a great number of said compartments.

It will be understood, of course, that any number of cylinders can be used, as found most convenient and advantageous, and, further, that they can be driven by any approved gear and desired motor.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A vessel consisting of a hull provided with a plurality of rotatable hollow cylinders supported upon the bottom portion of the hull and projecting below the same, a motor within said hull geared to each of said rotatable cylinders for turning the same, radially-extending propelling-blades mounted upon the periphery of said cylinders and extending longitudinally across the same, and plates at the ends of said blades, each of said cylinders being provided with a concentric cylinder having water-tight connection with the sides of the cylinder, and intersecting transverse and longitudinal radial partitions extending between the outer shell and inner shell of said cylinder and between the sides of the same and forming a plurality of watertight compartments.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MOSES H. DAVIDSON.

Witnesses:

N. R. POCKENPAUGH,
GEO. B. HAGGETT.