

J. B. BAPTISTA.
Rudders for Vessels.

No. 142,367.

Patented September 2, 1873.

Fig.1.

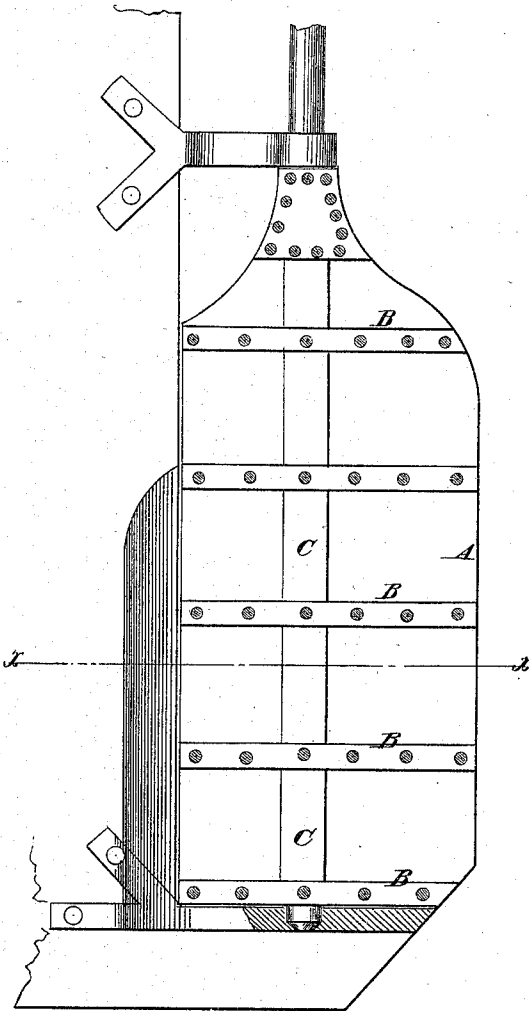


Fig.2.

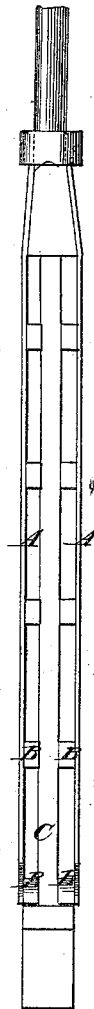
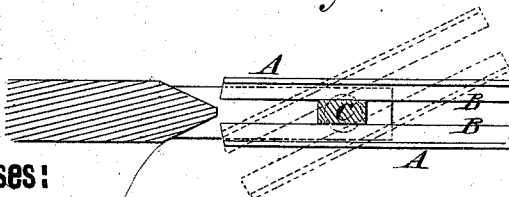


Fig.3.



Witnesses:

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JUAN B. BAPTISTA, OF NEW YORK, N. Y.

IMPROVEMENT IN RUDDERS FOR VESSELS.

Specification forming part of Letters Patent No. **142,367**, dated September 2, 1873; application filed July 5, 1873.

To all whom it may concern:

Be it known that I, JUAN B. BAPTISTA, of the city, county, and State of New York, have invented a new and useful Improvement in Rudders for Vessels, of which the following is a specification:

My invention is an improvement in the class of hollow rudders; and consists in forming a balanced rudder of two parallel plates attached to transverse bars, which impart rigidity to said plates, and are in turn secured to the vertical shaft in such a manner as to leave a space between each of said plates and the shaft, as hereinafter described. The object is to increase the surface acted on by the water.

Figure 1 is a sectional elevation of my improved rudder. Fig. 2 is a rear elevation; and Fig. 3 is a horizontal section.

Each of the two plates A A is attached to a series of cross-bars, B, by suitable bolts, and the latter are bolted to the shaft C on opposite sides, as shown, so that the plates A A are parallel to each other and the shaft, and also separated therefrom by the width of the cross-bars. Thus a space is left on both sides of the shaft, through which the water can pass freely. The rudder is balanced by the location of the shaft C near the transverse middle of the plates. Boiler-iron is employed in forming the plates, on account of its strength and thinness as compared with other available material.

It is obvious that when the rudder is turned on its axis, so as to stand more or less oblique to the line of direction of the vessel to which it is attached, it will not only operate to effect a change of course, for the same reason and to the same extent that the ordinary rudder would do, but to a still greater extent, and more quickly by reason of an extra current passing through the rudder and coming tangentially or obliquely in contact with the plate A on the side opposite to that toward which the vessel is being turned. This mode of operation is, however, substantially the same as the class of rudders above referred to.

The improved construction of my rudder involves the combination of the highest degree of strength, compactness, efficiency, durability, and cheapness of construction.

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

The improved rudder formed of the plates A A attached to the cross-bars B, which are secured near their middle to opposite sides of the shaft C, so as to leave spaces for the passage of water, as and for the purpose specified.

JUAN B. BAPTISTA.

Witnesses:

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