

(No Model.)

2 Sheets—Sheet 1.

W. KING.  
MARINE VESSEL.

No. 559,717.

Patented May 5, 1896.

Fig. 1.

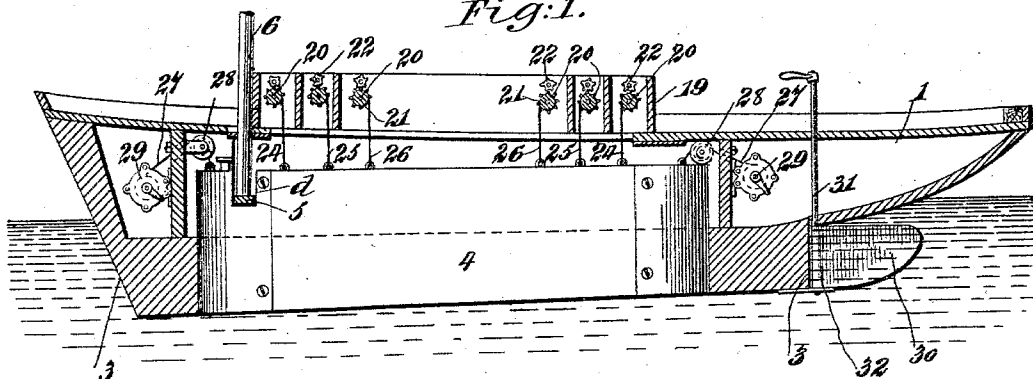


Fig. 2.

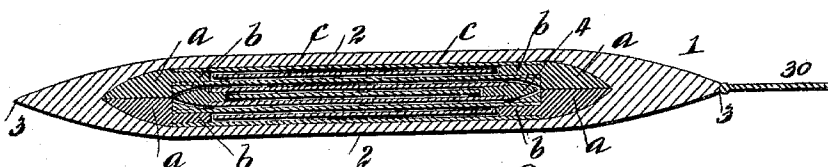


Fig. 3.

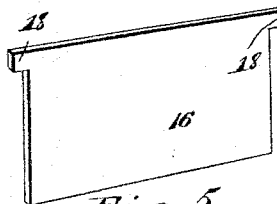
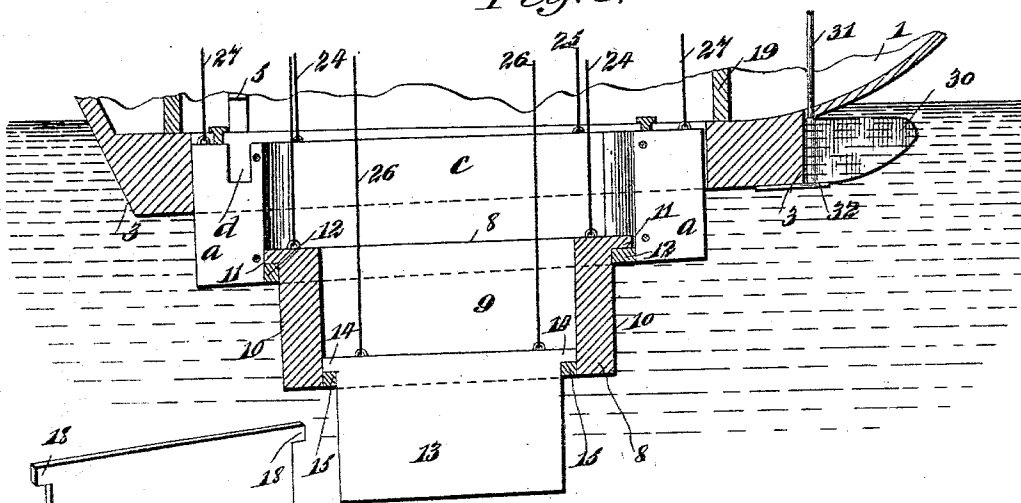
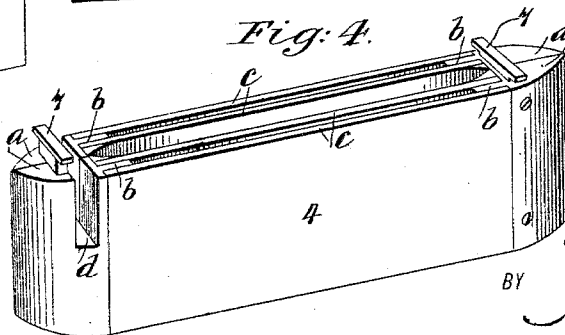


Fig. 5.

Fig. 4.



WITNESSES:  
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*Isaac B. Deneves.*

INVENTOR  
*W. King.*  
BY *Mum & Co.*  
ATTORNEYS.

(No Model.)

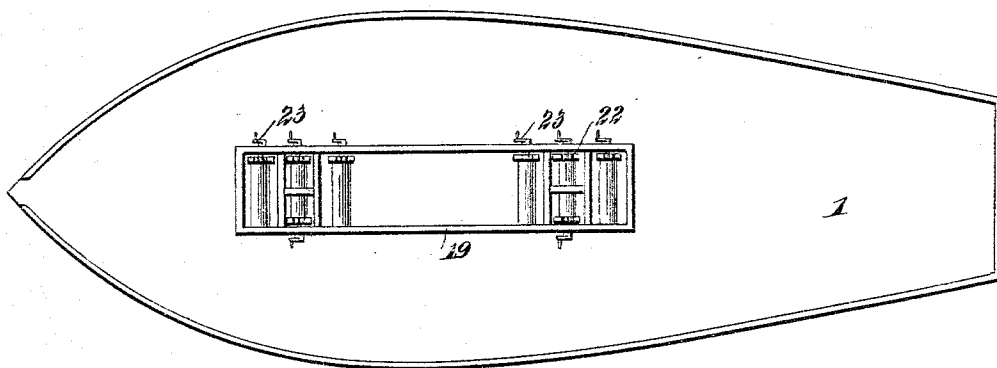
2 Sheets—Sheet 2.

W. KING.  
MARINE VESSEL.

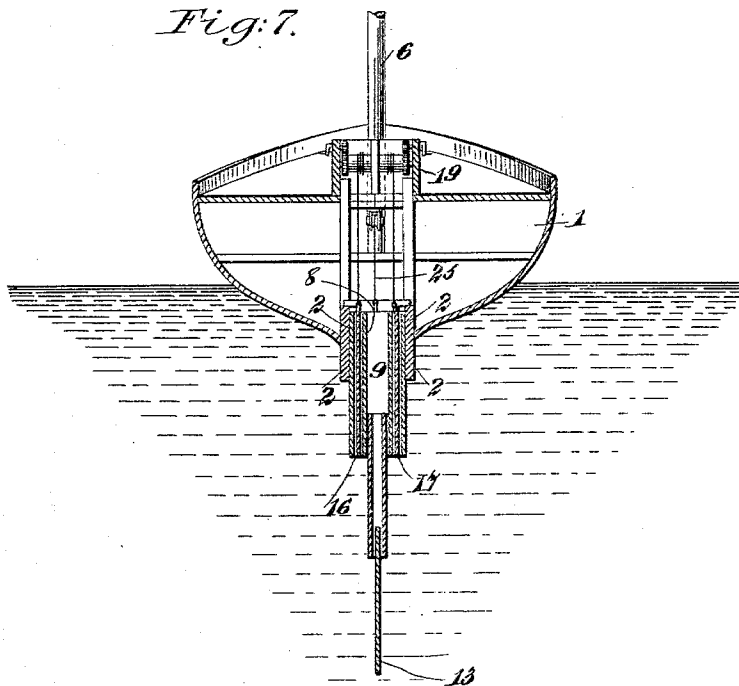
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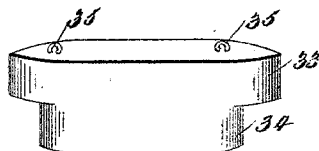
*Fig: 6.*



*Fig: 7.*



*Fig:8.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM KING, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF TO  
RICHMOND J. MARTINEZ, OF SAME PLACE.

## MARINE VESSEL.

SPECIFICATION forming part of Letters Patent No. 559,717, dated May 5, 1896.

Application filed October 15, 1895. Serial No. 565,704. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM KING, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Marine Vessel, of which the following is a full, clear, and exact description.

This invention relates to an improved construction of the hull and centerboard mechanism of marine vessels, the object being to provide a vessel which will be capable of carrying a very much enlarged sail area.

The invention consists in certain peculiar features of construction and combinations of parts, as will be described hereinafter, and finally embodied in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal section of a marine vessel constructed after the manner of my invention. Fig. 2 is a horizontal section taken through the vessel and illustrating the centerboard as housed therein. Fig. 3 is a broken vertical section showing the centerboard extended to its fullest area. Fig. 4 is a perspective view of the main centerboard, showing it detached from the other portions of the vessel. Fig. 5 is a similar view of one of the port and starboard centerboards. Fig. 6 is a plan view of a vessel having the improved centerboard applied. Fig. 7 is a cross-section of the same, and Fig. 8 is a perspective view of an attachment for filling the space usually occupied by the main centerboard in the event the latter is removed.

In carrying out my invention the hull 1 of the vessel may be of any construction and is provided with two parallel keels 2, merged into each other at their fore and aft ends to form the points 3, as best shown in Fig. 2. Located between the keels 2 and movable vertically therein is the main centerboard 4, composed of eight principal sections, four end sections *a* being arranged two at each end and each having a tongue *b* and side boards or panels *c*, secured one on each side of the tongues. This construction forms three parallel and longitudinally-extending compartments in the main centerboard, the central

compartment being wider than the side compartments and slightly longer.

The two forward sections *a* of the main centerboard are each formed with a transversely-aligned recess *d*, adapted to receive the step 5 of the mast 6 when the main centerboard 4 is raised to the position shown in Fig. 1. Each pair of sections *a* is provided with a transversely-extending bar 7, adapted to engage the upper edges of the keels 2 when the main centerboard is lowered, as best shown in Fig. 7, so as to limit the downward movement of the said centerboard.

Movable within the center compartment of the main centerboard 4 is the double centerboard 8, having a central compartment 9 and having pointed front fore and aft edges 10. The double centerboard has at its fore and aft extremities projecting ears 11, adapted to engage inwardly-extending ledges 12, located at the lower portion of the central compartment of the main centerboard. By these means the double centerboard is prevented from excessive downward movement. The double centerboard 8 has the amidship centerboard 13, movable in its compartment 9, and the said amidship centerboard has projecting arms 14 similar to the arms 11 of the centerboard 8, and which are adapted to rest upon ledges 15, arranged at the lower ends of the compartment 9 of the double centerboard 8. It will thus be seen that the main centerboard 4 is adapted to project into the water and serve as a portion of the centerboard, and also that it carries in its middle compartment two centerboards which are extensible to increase the area of the centerboard.

Located in the side compartments of the main centerboard 4 and movable vertically therein are port and starboard centerboards 16 and 17. These centerboards are duplicates of each other, as shown in detail view, Fig. 5. There it will be seen that each of said centerboards has outwardly-extending arms 18 at its fore and aft extremities, and these are adapted to rest upon ledges projecting inwardly from the lower portions of the side compartments of the main centerboard.

Rising from the deck of the vessel and

cated over the centerboards is a housing 19, having a series of shafts 20 revolubly mounted therein, and each shaft is provided with a drum 21, having cog-teeth with which the pinions 22 respectively mesh. The shafts 20 are provided with cranks 23, whereby they may be operated.

Over the drums 21 are wound the two cables 24, connected to the double centerboard 8, the two cables 26, connected to the amidship centerboard 13, and the four cables 25, connected to the port and starboard centerboards 16 and 17, and by means of these cables said centerboards may be operated. Two cables 27 are connected to the ends of the main centerboard 4, said cables passing over pulleys or sheaves 28, supported within the hull of the vessel, and are finally wound upon drums 29, whereby the cables may be drawn on. By this means the main centerboard is raised or lowered.

The rudder 30 is provided with a suitable stem 31 and is located at the aft extremities of the keels 2, it being supported at its lower portion on a step 32, as shown in Fig. 1.

In using my invention, should the vessel be close-hauled, the port and starboard centerboards 16 and 17 should be raised, and the main centerboard 4, the double centerboard 8, and the amidship centerboard 13 should be lowered to their fullest extent, as shown in Figs. 3 and 7. This will present a large centerboard area and sustain the vessel, notwithstanding the very much increased area of sail which it may carry.

Should the vessel be sailing before the wind, all of the centerboards should be raised. If cruising with light sails or with nearly a fair wind, one or both of the centerboards 16 or 17 should be lowered.

Fig. 8 illustrates a block comprising an enlarged upper portion 33 and a reduced lower portion 34, said block being adapted to fill the space occupied by the main centerboard 4, should it be desired to remove said centerboard, and by means of this block the centerboard-well or the space between the keels 2 will be filled. The block is provided with staples 35, to which suitable ropes may be

attached, whereby the block may be raised or lowered, all of which will be understood.

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

1. A marine vessel provided with a well, a main centerboard within said well, a double centerboard carried by the main centerboard, an amidship centerboard carried by the double centerboard, and a port and a starboard centerboard respectively carried on each side of the double centerboard and within the main centerboard, substantially as described.

2. A marine vessel having a centerboard-well, a main centerboard within said well, and a port and starboard centerboard carried by the main centerboard, substantially as described.

3. A marine vessel having a centerboard-well, a main centerboard within said well and having three parallel and longitudinally-extending compartments, and a centerboard within each compartment, substantially as described.

4. A marine vessel having a centerboard-well, a main centerboard within the centerboard-well and provided with three longitudinally-extending and parallel compartments, a double centerboard within the middle compartment, an amidship centerboard carried by the double centerboard, and a port and a starboard centerboard respectively carried by the other compartments of the main centerboard, substantially as described.

5. A marine vessel having a main centerboard composed of two pairs of end sections, each formed with a tongue, and a board secured to each side of each tongue, said boards extending from one pair of end sections to the other, a double centerboard arranged between two of the side boards, and a port and starboard centerboard, substantially as described.

WILLIAM KING.

Witnesses:

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