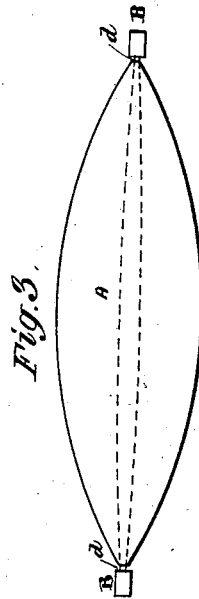
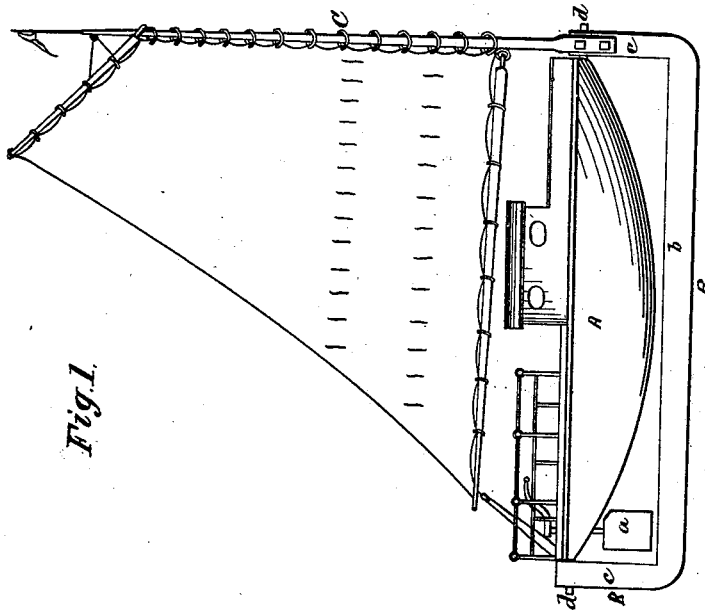
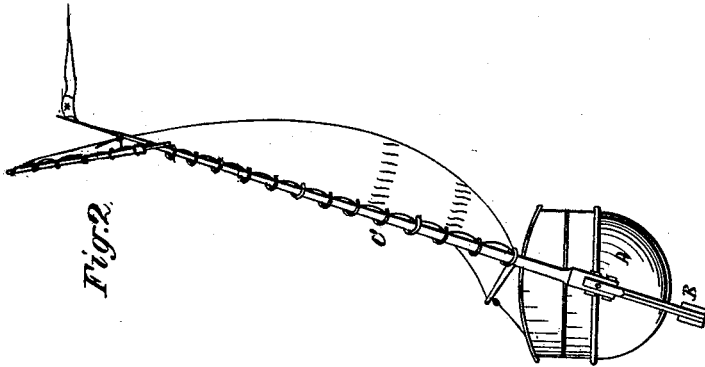


T. WINANS.

CONSTRUCTION OF SAIL BOATS, &c.

No. 180,691.

Patented Aug. 1, 1876.



Witnesses

*Ewell A. Dick*  
*T. P. Lowe*

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# UNITED STATES PATENT OFFICE.

THOMAS WINANS, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN CONSTRUCTION OF SAIL-BOATS, &c.

Specification forming part of Letters Patent No. **180,691**, dated August 1, 1876; application filed July 1, 1876.

*To all whom it may concern:*

Be it known that I, THOMAS WINANS, of Baltimore, Maryland, have invented certain new and useful Improvements in Boats and other Vessels for Navigation, of which the following is a specification:

My invention relates to vessels adapted and intended to carry sail. It is my intention to remove the vessel as far as possible from all danger of capsizing—a danger to which sailing-vessels, particularly sail-boats and small craft, are specially liable, either from carrying too much sail, or from sudden gusts or squalls—thereby rendering it practicable to spread more canvas with impunity, and, consequently, to obtain more speed on an average. To this end I combine the body or hull of the vessel with an independent keel, the two being pivoted or jointed together, or otherwise connected in such manner that the keel can rock or tilt on its axis from side to side without imparting that movement to the hull, and this keel carries the masts, sail or sails, and rigging, and is of such weight and make as to offer the needed resistance to the draft of the sail.

The independent keel can and should also be made of such form and material as to offer the least obstruction to the progress of the vessel through the water.

With a boat thus constructed the mast may incline as far as possible from the perpendicular without at all affecting the position of the hull.

In the accompanying drawing I have shown one way of carrying my invention into effect.

Figure 1 is a side elevation of a small sailing-vessel embodying my invention. Fig. 2 is a view of the same, bow on. Fig. 3 is a plan of the hull and keel, with mast and rigging removed.

A is the hull, of any ordinary or suitable construction, provided with a proper rudder, *a*, and steering apparatus. With the hull is combined what I have termed an "independ-

ent keel," B, which is a structure preferably consisting of the bottom piece *b*, extending longitudinally and centrally of and below the hull, and the end upright pieces *c*, which, in small vessels, are united with the bow and stern of the hull by pivots or pintles *d*. This independent keel may, however, be of any suitable or desired construction, the main point to be regarded being that it should have sufficient weight or offer sufficient lateral resistance, when in the water, to uphold the mast, sail or sails, and rigging, when acted upon by the wind.

The structure shown in the drawing is preferred, because it will offer but little resistance to the progress of the boat.

To the front portion of the independent keel is fixed the mast C. Whatever rigging is employed should also be carried by the independent keel. The sheet, also, is preferably made fast to the rear portion of the keel.

The hull lies in the water like an ordinary hull, the water having free course between it and the keel.

It will be seen that with a boat thus constructed there is absolutely no danger of capsizing from the action of the sails. The sail, being carried by the independent keel, can yield, and give to the wind without at all disturbing the level of the boat, or that portion of it which carries the passengers.

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

A vessel adapted for sailing purposes, combining a hull with a pivoted independent keel which carries the mast and sail, substantially as set forth.

In testimony whereof I have hereunto signed my name this 19th day of June, A. D. 1876.

THOMAS WINANS.

Witnesses:

W. S. WILKINSON,  
GEO. WORTHINGTON.