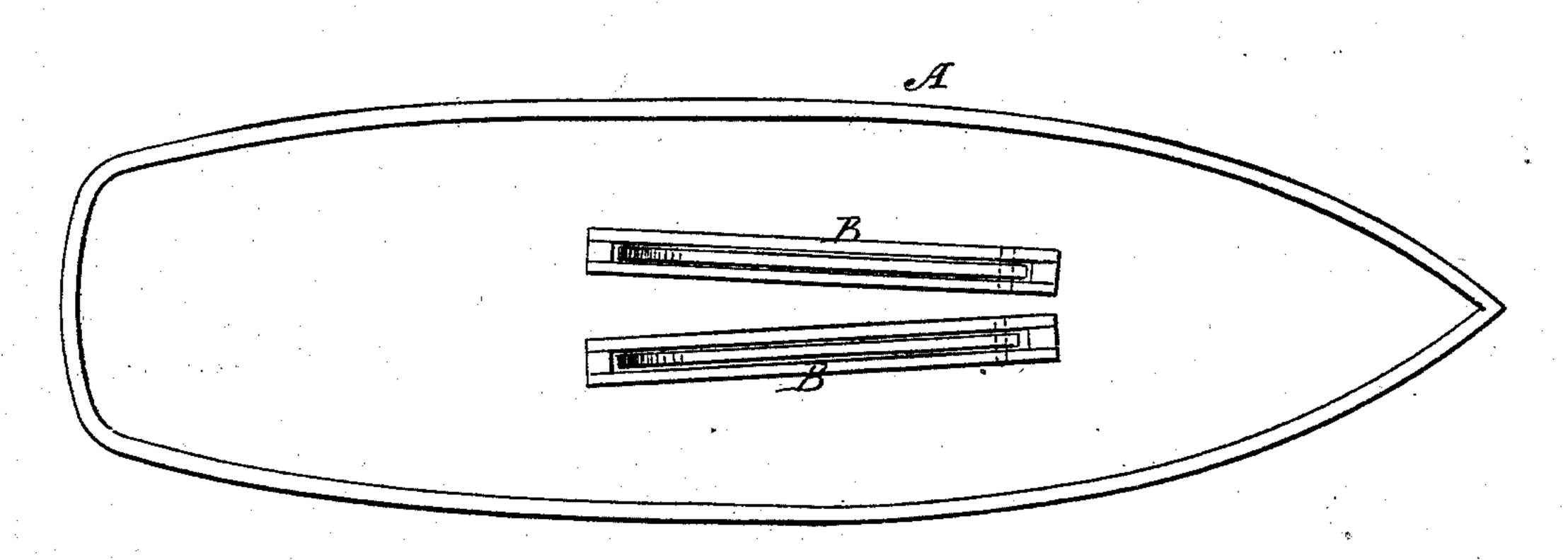
W. AUSTIN.
CENTER-BOARD.

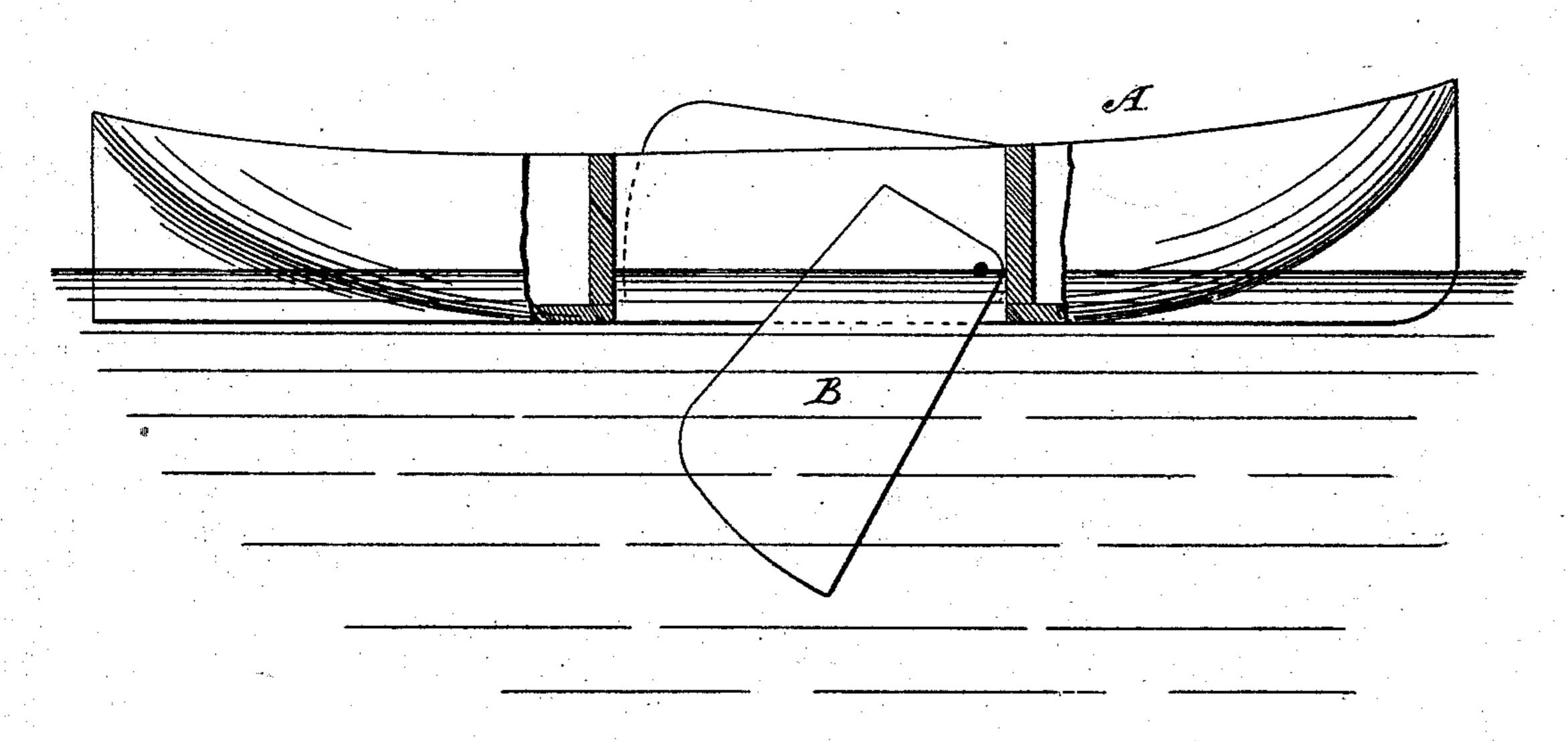
No. 172,291.

Patented Jan. 18, 1876.

Fig:1.



Jig: 2



WITNESSES:

A. Herry

William Austin

BY

Munuf

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM AUSTIN, OF APALACHICOLA, FLORIDA.

IMPROVEMENT IN CENTER-BOARDS.

Specification forming part of Letters Patent No. 172,291, dated January 18, 1876; application filed May 28, 1875.

To all whom it may concern:

Be it known that I, WILLIAM AUSTIN, of Apalachicola, in the county of Franklin and State of Florida, have invented a new and useful Improvement in Center-Board for Sailing-Vessels, of which the following is a specification:

This invention relates to the construction of sail-boats and other sailing-vessels; and consists in the center-board device with which light sailing-craft are provided for preventing leeward motion when under sail.

In the accompanying drawing, Figure 1 is a top or plan view, showing the position of two separate and distinct center-boards, confined to the boat and arranged to be raised and lowered in the usual manner. Fig. 2 is a sectional side view.

Similar letters of reference indicate corresponding parts.

A represents the boat. B B are the two center boards. These center boards do not differ from the usual single center boards, except they are each placed obliquely to, instead of parallel with, the keel of the vessel or boat. These two center-boards are placed one foot, more or less, from each other at their forward ends, one being on each side of the keel, and two feet, more or less, at the rear ends, the divergence (being in the length of an eight-

foot center-board) about one foot from the center of the keel. About the same ratio of divergence is maintained whether the vessel be large or small. The eight-foot center-board is about the right length for a twenty-four foot boat, so that the length is about one-third that of the vessel.

In using the leeward center-board the wind-ward board is hauled up.

By virtue of the angle at which the center-boards are placed the vessel is set to wind-ward, and made to run much closer to the wind than vessels having the ordinary center-board. The pressure of the wind upon the sails naturally sets the vessel to the leeward, but the oblique center-board counteracts this tendency and sets the vessel to the windward by the same action upon the water that the rudder has in steering the vessel.

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

In combination with a sail-boat or sailing-vessel, the center-boards B B, placed obliquely or at an angle with the keel, substantially as and for the purposes described.

WILLIAM AUSTIN.

Witnesses:

ROBERT KNICKMEYER, JOHN W. MALONE.