

(No Model.)

J. PHILP.
FLOATING RUDDER FOR VESSELS.

No. 284,477.

Patented Sept. 4, 1883.

Fig. 1.

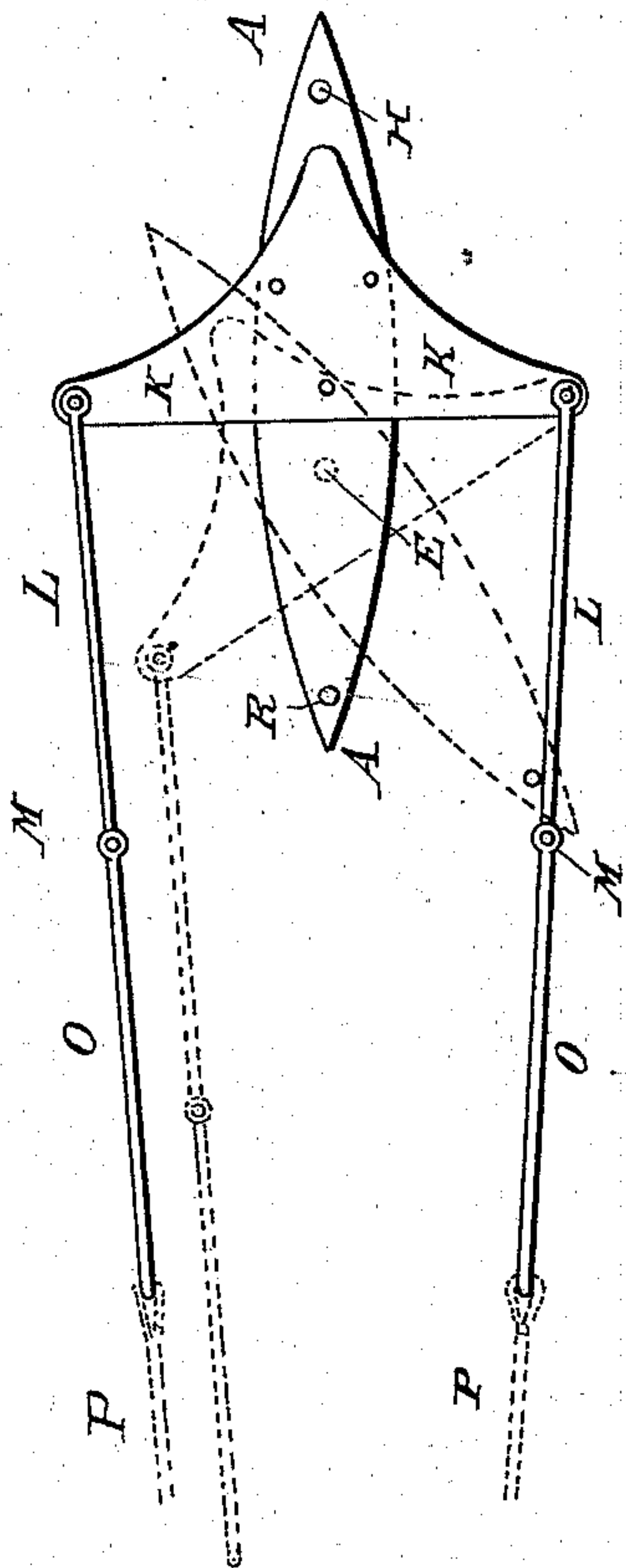
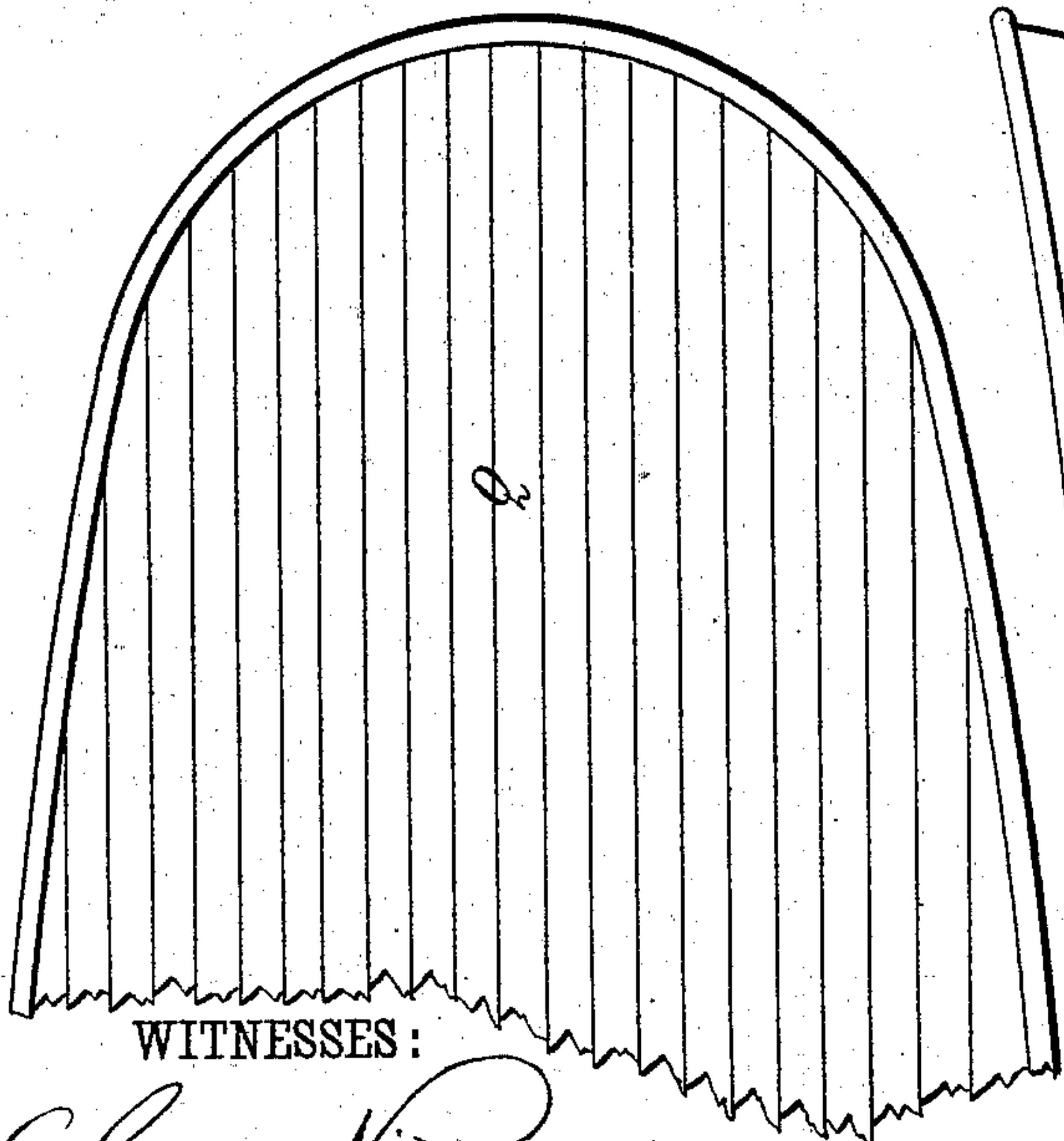
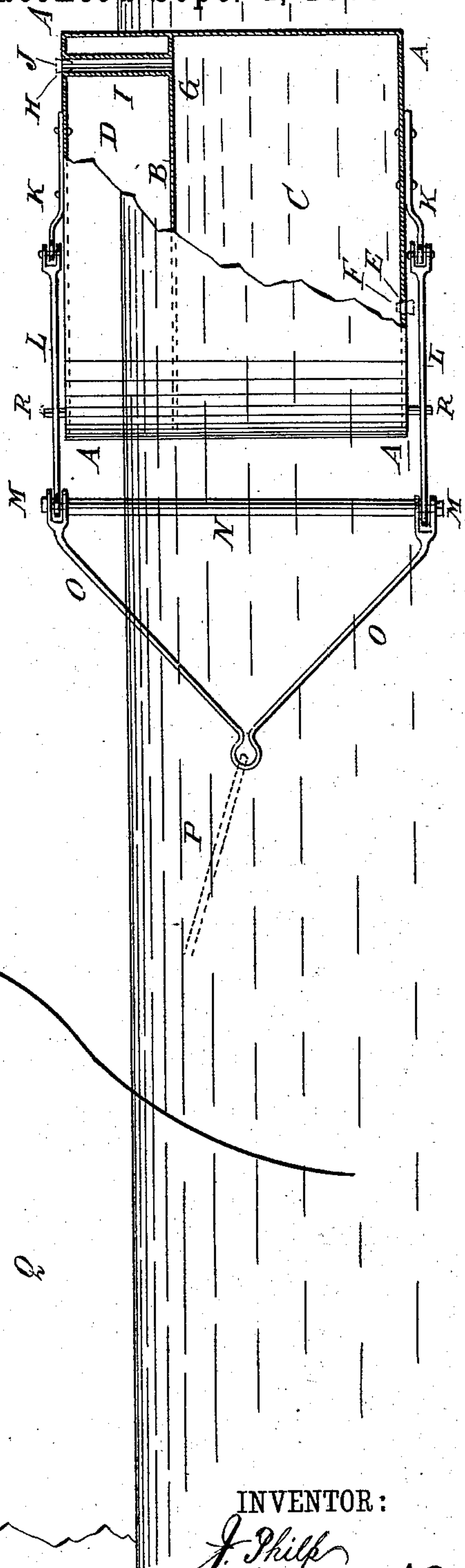


Fig. 2.



WITNESSES:

Chas. Nida.
C. Sedgwick,

INVENTOR:

BY J. Philp
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN PHILP, OF LIVERPOOL, ENGLAND.

FLOATING RUDDER FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 284,477, dated September 4, 1883.

Application filed June 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN PHILP, of Liverpool, England, have invented certain new and useful Improvements in Floating Rudders for Vessels, of which the following is a full, clear, and exact description.

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

Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation of the same, partly in section.

The object of this invention is to provide a mechanism by means of which vessels whose rudders have been lost or disabled can be readily steered.

The invention consists in a floating rudder made with a buoy having an air-tight upper compartment, and a lower compartment provided with top and bottom openings. The buoy is provided with stop-pins, and to its top and bottom are rigidly attached cross-bars, to which are hinged connecting-bars, to adapt the buoy to be connected with a vessel by hawsers and used for steering the said vessel, as will be hereinafter fully described.

A represents a buoy, which is made with a flat top and bottom, tapered toward their ends, and with vertical sides inclined toward each other toward their ends. The buoy A is made of sheet-iron or other suitable material, and water and air tight, and is divided by a partition, B, placed at a little distance from its top, into two air and water tight compartments, C D. In the bottom of the buoy A is formed an opening, E, closed by a plug, F, or other suitable means. In the partition B and in the top of the buoy A are formed openings G H, in which are secured, air and water tight, a tube, I, which is closed at its upper end by a plug, J, or other suitable means. To the middle parts of the top and bottom of the buoy A are riveted or otherwise securely attached cross bars or plates K, the ends of which project at the sides of the said buoy A, and to them are hinged the rear ends of rods L. The forward ends of the rods L, at each side of the buoy A, are connected and held at the proper distance apart by rods M and tubular washers N. To the forward ends of the

rods L, at each side of the buoy A, are hinged the ends of an angular bail, O; and to an eye formed at the angle or center of the said bail is attached the end of a hawser, P, which is secured to the stern part of the vessel Q.

With this construction, when both hawsers are of the same length, the buoy will be held directly in the rear of and in line with the vessel, and the said vessel will move forward in a straight line; but when the hawsers are of different lengths the forward end of the buoy A will be turned toward the longer hawser, as indicated in dotted lines in Fig. 1, and the vessel will be steered in the other direction, so that the vessel can be guided by varying the relative lengths of the hawsers.

To the forward ends of the top and bottom of the buoy A are attached pins R, which, when the said buoy is turned to one side, by varying the lengths of the hawsers, strike against the connecting-bars L, and thus limit the movement of the said buoy.

When the improvement is to be used for steering a vessel, the plugs F J are withdrawn, the buoy is thrown overboard, and the hawsers are secured to the stern part of the vessel. The withdrawal of the plugs F J allows water to flow into and fill the chamber C through the opening E, the air escaping through the tube I, so that the buoy A will sink to such a depth as will give it a proper hold upon the water. The air-chamber D serves as a float to keep the buoy A right side up and to prevent it from sinking too deeply in the water.

The buoy may be used as a life-raft, in which case it should be provided with life-lines, and may have a wooden frame attached to it. When designed for use as a life-raft, the plugs F J should not be withdrawn when the buoy A is dropped into the water, so that both the chambers C D will remain filled with air, making the raft very buoyant.

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

1. A floating rudder made substantially as herein shown and described, and consisting of the buoy A, having stop-pins R, the rigid cross-bars K, and the connecting-bars L M O, as set forth.

2. In a floating rudder, the buoy A, made,

substantially as herein shown and described,
with an air-tight upper compartment, and a
lower compartment having bottom opening,
E, and top opening, I, whereby water can be
5 admitted to the said lower compartment to
ballast the rudder, as set forth.

3. In a floating rudder, the combination,
with the buoy A, having rigid cross-bars K
and stop-pins R, of the connecting-bars L M O,

substantially as herein shown and described, 10
to adapt the said buoy to be connected with a
vessel by hawsers and used for steering the
said vessel, as set forth.

JOHN PHILP.

Witnesses:

JAMES T. GRAHAM,
C. SEDGWICK.