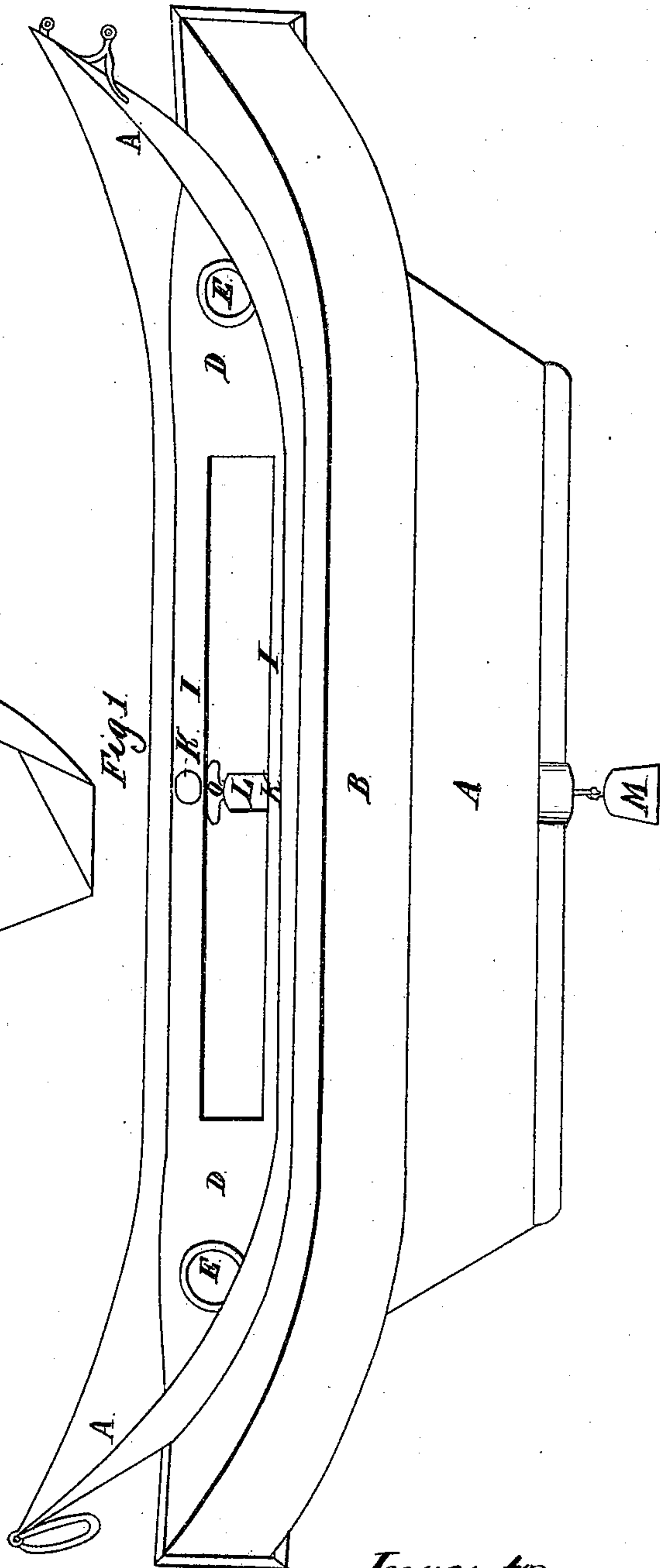
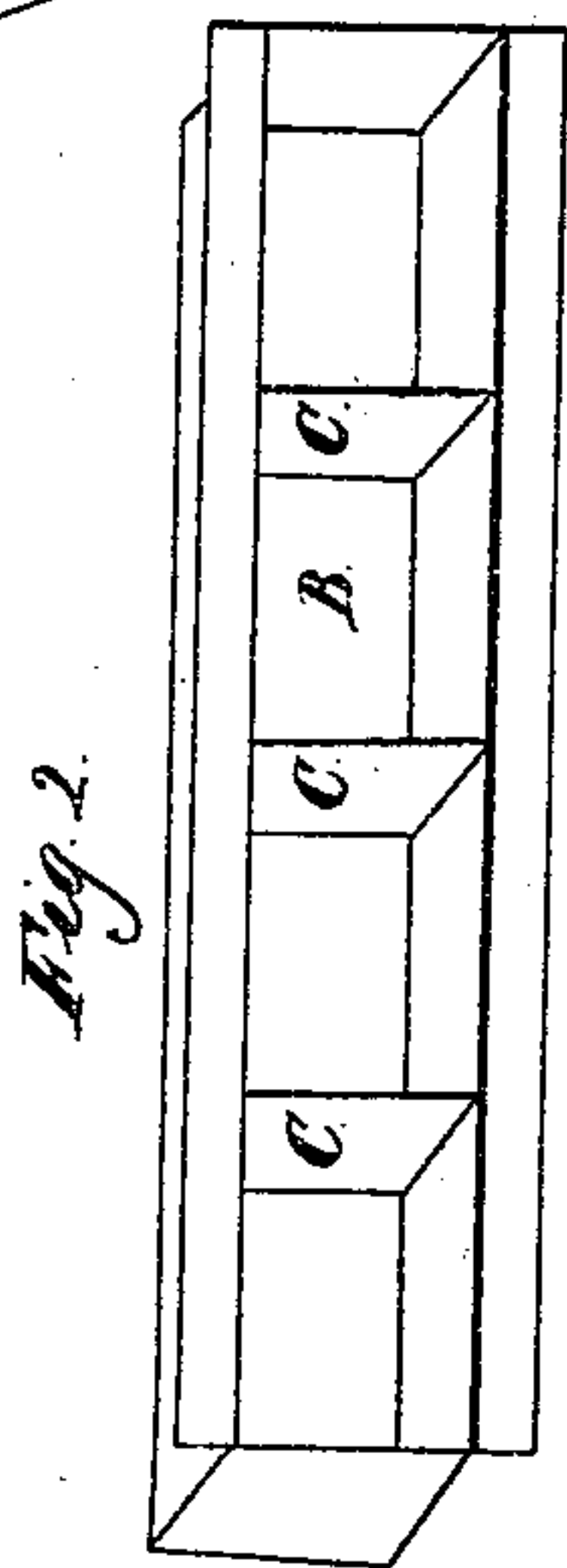
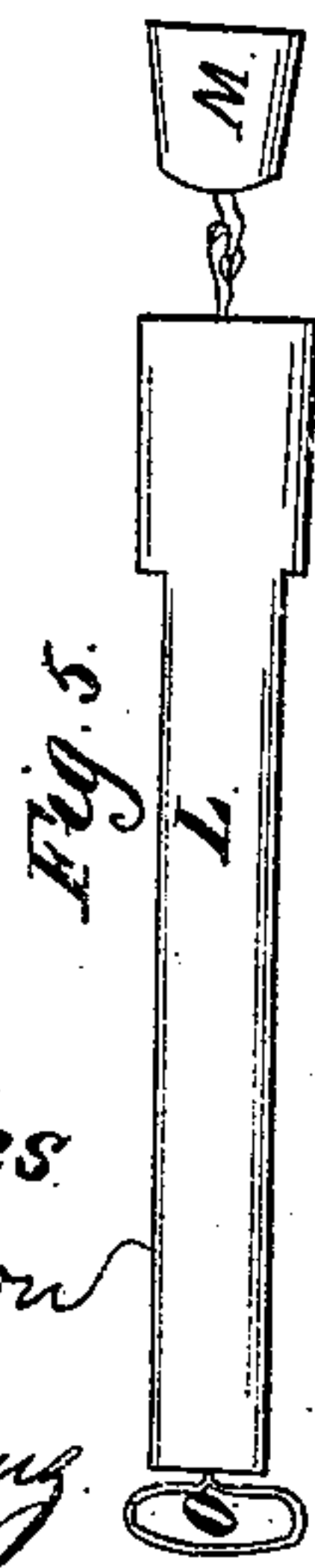
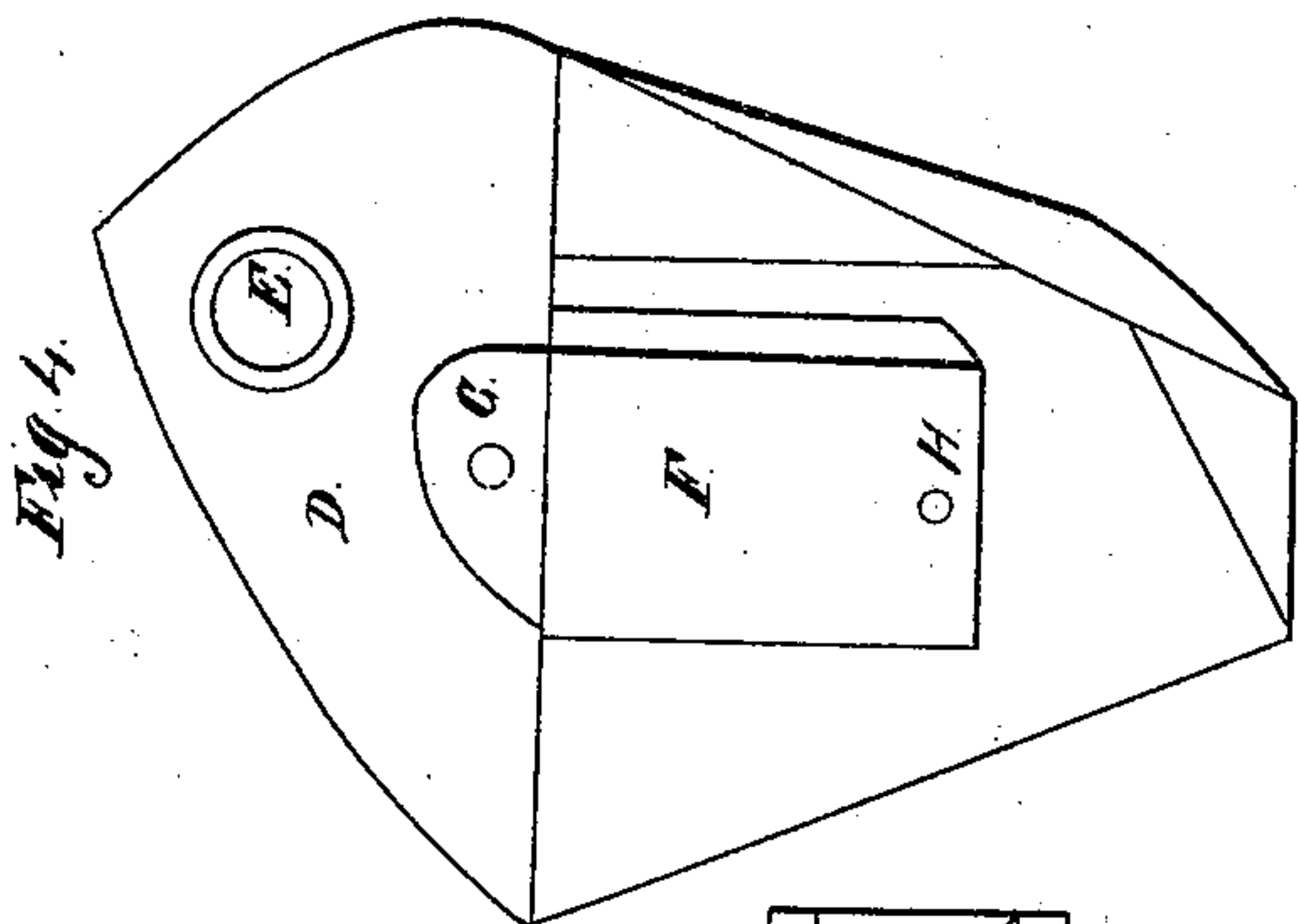
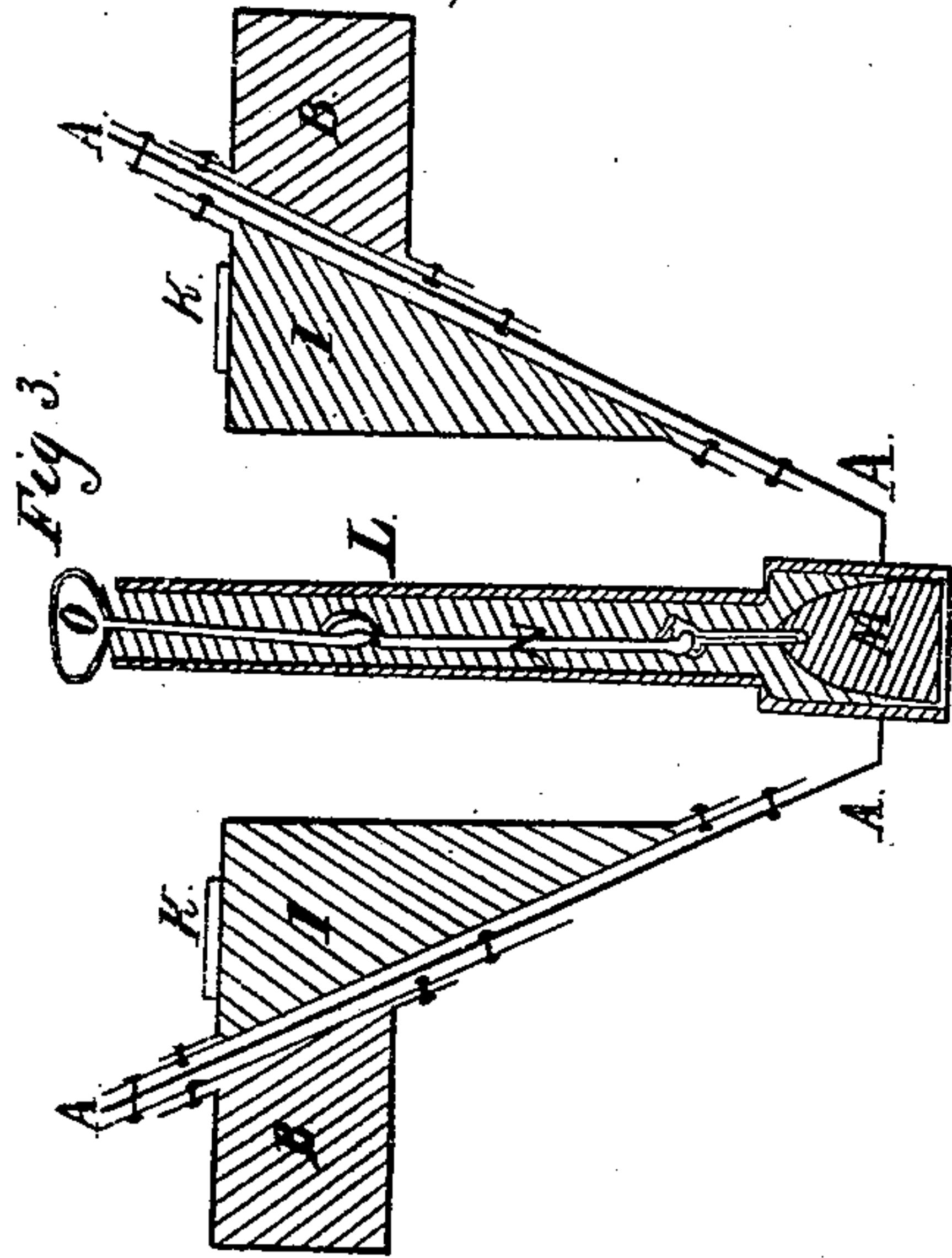


P. Heinrich.

Life Boat.

Patented Apr. 26, 1870.

No 102,261.



Witnesses  
Eduard F. Brown  
Felix Maunz

Inventor.  
Philip Heinrich

# United States Patent Office.

PHILIP HEINRICH, OF ALLEGHENY CITY, PENNSYLVANIA.

Letters Patent No. 102,261, dated April 26, 1870.

## IMPROVEMENT IN LIFE-BOATS.

The Schedule referred to in these Letters Patent and making part of the same.

I, PHILIP HEINRICH, of the city and county of Allegheny, of the State of Pennsylvania, have invented certain Improvements in Life-Boats, of which the following is a specification.

### *Nature and Objects of the Invention.*

The first part of my invention consists of a hull formed in about the shape and proportion of the accompanying drawing.

This hull is encompassed by a hollow square girdle, containing a certain amount of air, which acts as a counter-pressure against the weight it is intended to carry.

I also have on each extreme end of the hull two hollow spaces, which can be used to carry valuables, provisions, and water.

I further place two hollow sea seats, that is, one on each side of the inner part of the hull.

These seats are so constructed as to contain a certain amount of air, or they can be used for provisions also.

The second part of my invention is in the balance weight, which is brought into use by a conical hollow tube. This tube is fastened to about the center of the hull bottom in a vertical direction; the weight being fastened to a chain of proper length and is drawn through this tube, which can be regulated so as to leave it down in case of necessity, or to draw it up into this tube, which is wide enough below for the purpose of keeping it out of water on account of speed and movement, when such is desired.

This weight, at a short distance, suspended below the bottom of the hull, in combination with the air-girdle, will render it impossible to overthrow the boat, even in the highest gale.

### *Description of Drawing.*

Figure 1 is a side elevation of my invention.

Figure 2 represents the interior of the air-girdle.

Figure 3 represents the interior of the hull-girdle and seats.

Figure 4 represents the interior of the water and provision chamber.

Figure 5 represents the balance-weight and tube.

### *General Description.*

A is the hull of the boat, which is constructed of

sheet-iron, or any other material as substitute thereof, tightly riveted so as to make it both water and air-tight.

B is the girdle or hollow conductor which runs parallel with the outside of the hull A, and is so constructed that it is divided into a number of cells or air-tight apartments, C C C, so that when one part of the girdles is damaged the other remains air-tight, thus rendering the boat more safe.

D D are those air-tight inclosures or chambers at the extreme ends of the hull, which also act as a resisting power, at the same time that they can be used as safe keepers for valuables, provisions, and water.

These chambers form a part of the deck, and are provided with air-tight openings E E.

One or both chambers are provided with a separate water-reservoir, F, provided with an inlet, G, and an outlet, H.

I I are those inclosures which form the seats.

These seats run parallel with the length of the hull and are also divided into air-tight cells or apartments, and they can also be used for carrying provisions, being provided with air-tight openings at K.

L is the cone-tube, which stands erect on the bottom of the hull.

The weight M is attached to chain N.

This chain is provided with ring O, for the purpose of drawing up the weight in case of necessity, as, by leaving the weight M down, the boat becomes more securely balanced in case of high gales; and by drawing up the weight M into the tube L the motion of the boat will not be interfered with.

### *Claim.*

I claim as my invention—

The air girdle B, divided as represented at C C C, the seats I I with chambers D D, in combination with the weights M and tube L, with chain attachment, substantially as and for the purpose herein set forth.

PHILIP HEINRICH.

Witnesses:

FELIX MANZ,  
JAMES S. GRINNELL.