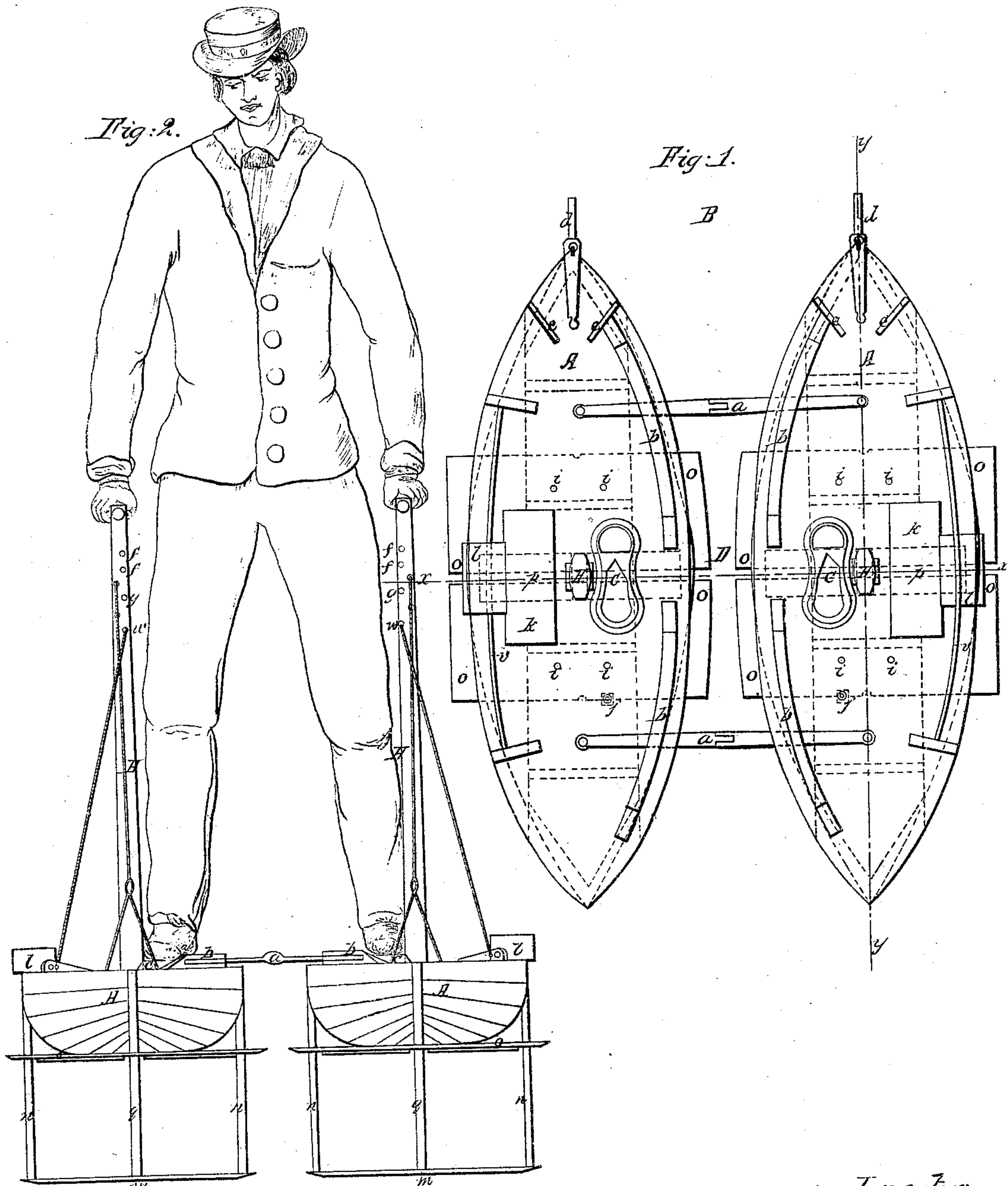


H. R. Rowlands.
Life Raft

N^o 22,457.

Patented Dec. 28, 1858.



Witnesses:

G. S. Huntington
N. W. Harris

Inventor:

H. R. Rowlands.

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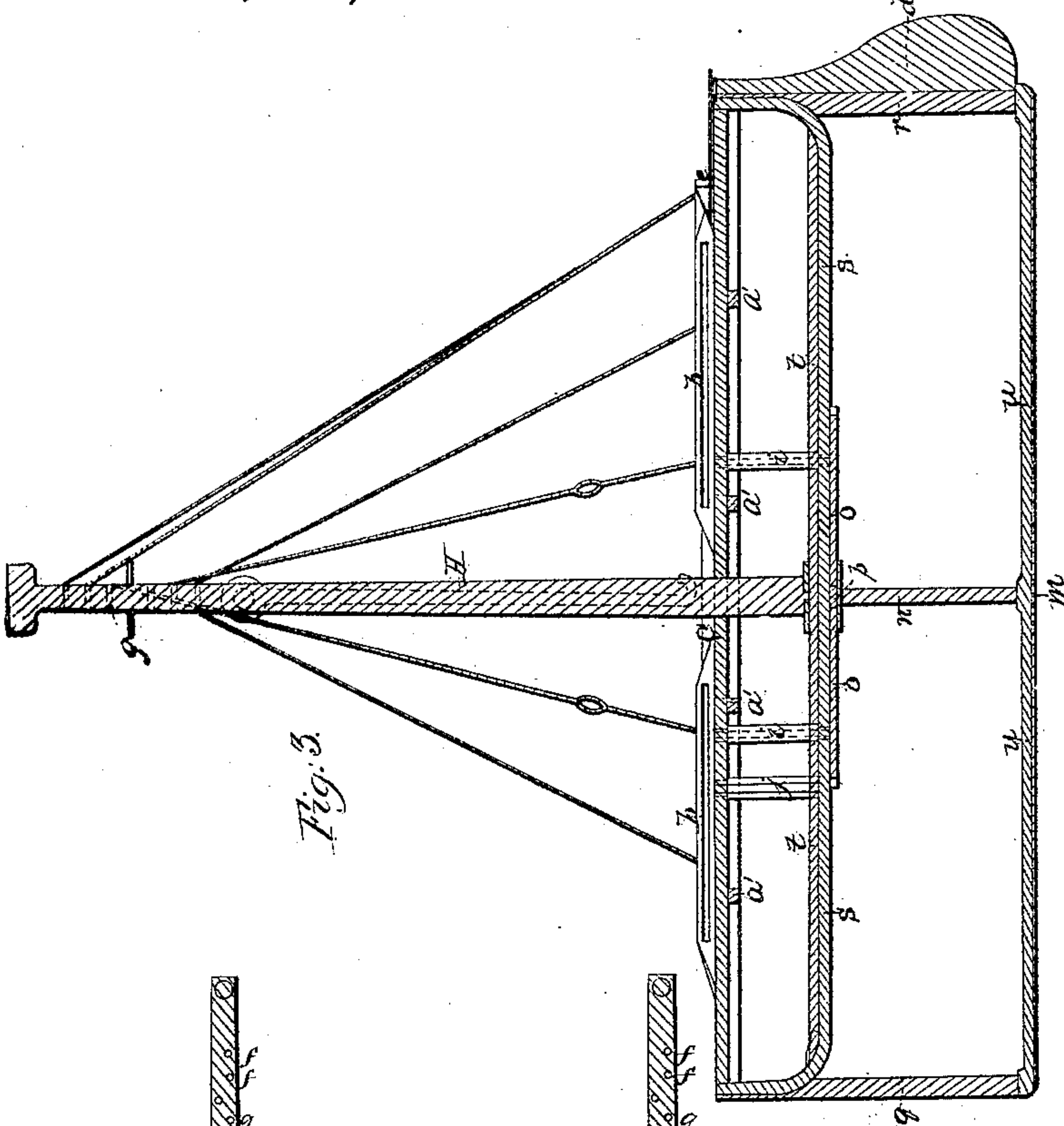


Fig. 3.

Fig. 5.



Fig. 4.

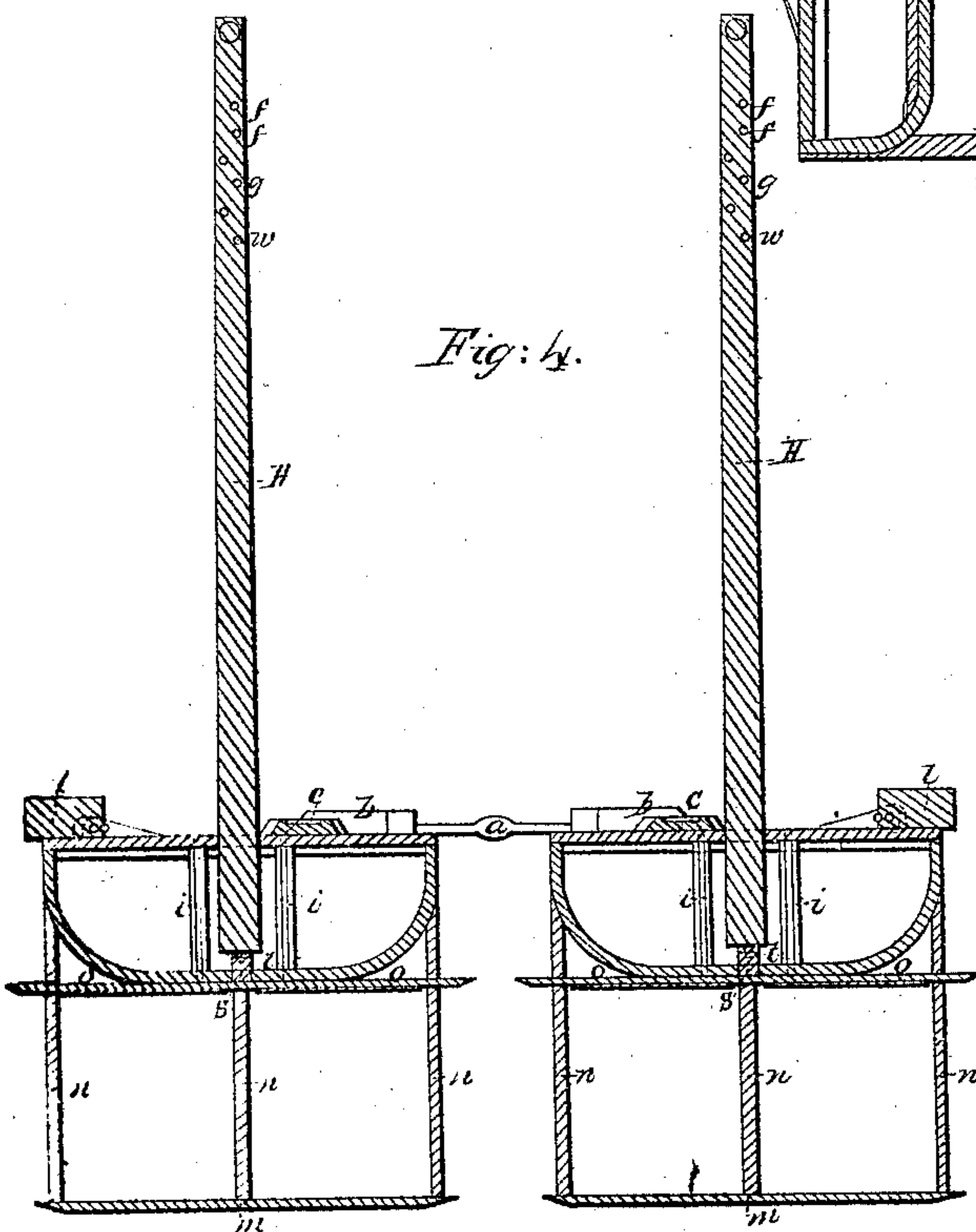
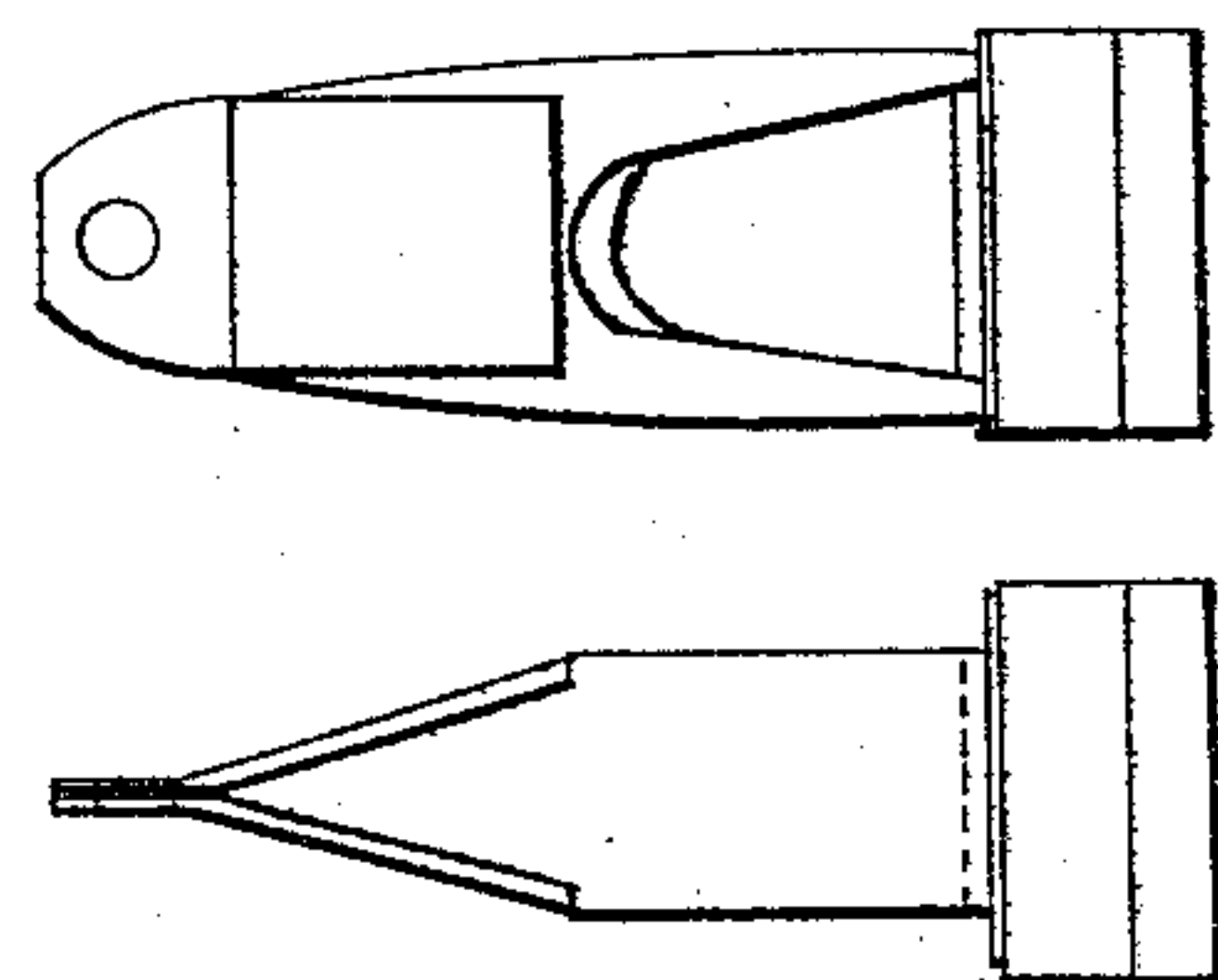


Fig. 6.



Witnesses:

G. H. Burlington
N. H. Starnes

Inventor.

H. R. Rowlands.

UNITED STATES PATENT OFFICE.

HENRY R. ROWLANDS, OF BOSTON, MASSACHUSETTS.

APPARATUS FOR WALKING ON THE WATER.

Specification of Letters Patent No. 22,457, dated December 28, 1858.

To all whom it may concern:

Be it known that I, HENRY ROBERT ROWLANDS, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, shipwright, have invented a new and useful Contrivance for Traveling on Water; and to enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation, and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a horizontal plan; the full lines representing the parts seen on the decks and the dotted lines represent the parts underneath and not visible from the decks. A, A, are the two boats, connected by the two bars *a, a*, which are so hinged in the center as to avoid a vertical strain upon them, and working on pivots at their extremities describing a parallel course through the horses *b, b, b, b*, each horse being secured to the deck and stringers. *c, c*, are two steps or shoes for inserting the feet of the operator to prevent him from slipping, and to obtain the necessary purchase in actuating the machine through the water *d, d*, are rudders worked by lines passing through the leading cleats *e, e*, and thence through the holes *f, f*, in the stanchions or supporters H, H. The object of these stanchions is to form a support to the operator of the machine, and they are firmly secured in a step on the keelson. *i, i, i, i*, are hollow tubes through the boats by which the float ropes are conducted to, and fastened on the pins *g, g*, on the stanchions H, H. *j, j*, are pumps to use in freeing the hold from water. *k, k*, are hatchways communicating with the hold. *l, l*, are movable pigs of ballast sliding on the horses *v, v*, by means of lines attached to either end and conducting to and fastened through the holes *w, w*, in the stanchion H, H.

Fig. 2 is an elevation of the two boats A, A, showing the position of the operator. *m, m*, are ballast boards designed to contain a body of water which will act as a weight or ballast to keep the boats in proper trim.

These ballast boards are attached to the hulls by the midship stanchions *n, n, n*, the stem *q*, and the stern post *r*.

Fig. 3 is a section on *y, y*, of Fig. 1 looking toward D. *o, o*, are the floats or paddles of metal which are attached by hinges to the cleats *p, p*, at the bottoms of the boats. *s, s*, is the keel, *t, t*, the keelson, and *u, u*, the lower keel. *a', a', a', a'*, are cross beams dovetailed into the stringers and which support the deck.

Fig. 4 is a section on *x, x*, of Fig. 1 looking toward B representing the parts shown by the cutting plane and also some other parts beyond.

Fig. 5 represents an elevation of the side of the boat, with the lines of the planks.

Fig. 6 are two elevations of the pump box, drawn at full size.

Operation: The operator standing in the steps *c, c*, belays taut the forward float lines and slackens the after ones; then, taking hold of the stanchions H, H, he advances one foot forward similar to the action in walking, the water forcing open the after floats, a short pause then ensues, and the floats falls by its own weight to its first position thereby preventing a retrograde motion of that boat while the other is advancing in the same manner. To back water, the after floats are raised and the forward floats are lowered.

What I claim as my invention and desire to secure to my own benefit by Letters Patent, is—

The construction and use of the apparatus, by the arrangement of the metal floats *o, o*, the metal ballast-boards *m, m*, and the wooden stanchions H, H, in a manner substantially as, and for the purpose herein described.

In testimony whereof I have hereunto set my hand this fifth day of November in the year of our Lord one thousand eight hundred and fifty eight.

HENRY R. ROWLANDS.

Witnesses:

N. W. STEARNS,

G. N. WHITTINGTON.