

J.P. McLean. Sheet 1, 2 Sheets.

Life Raft.

N^o 22,258.

Patented Dec. 7, 1858.

Fig. 1.

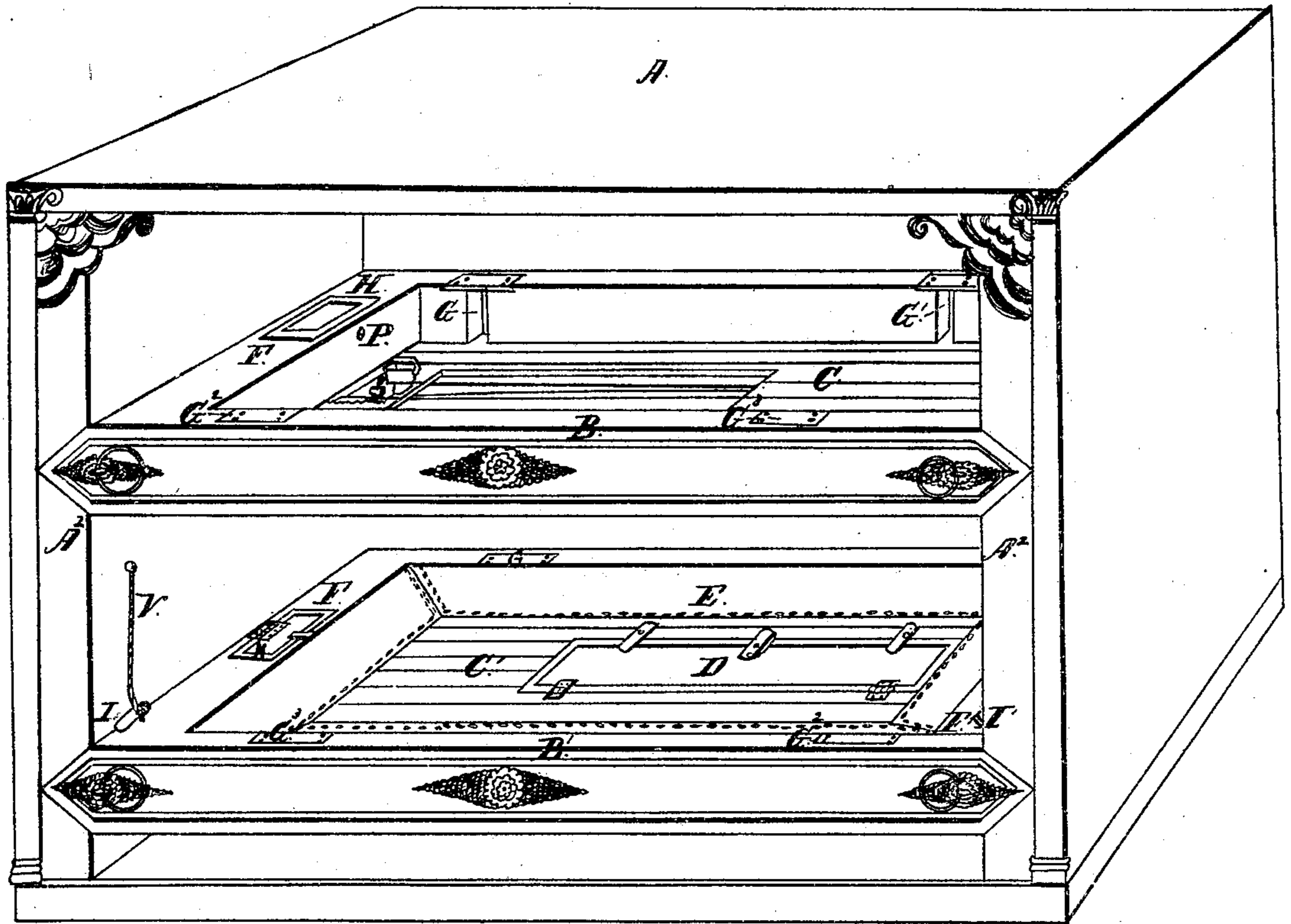
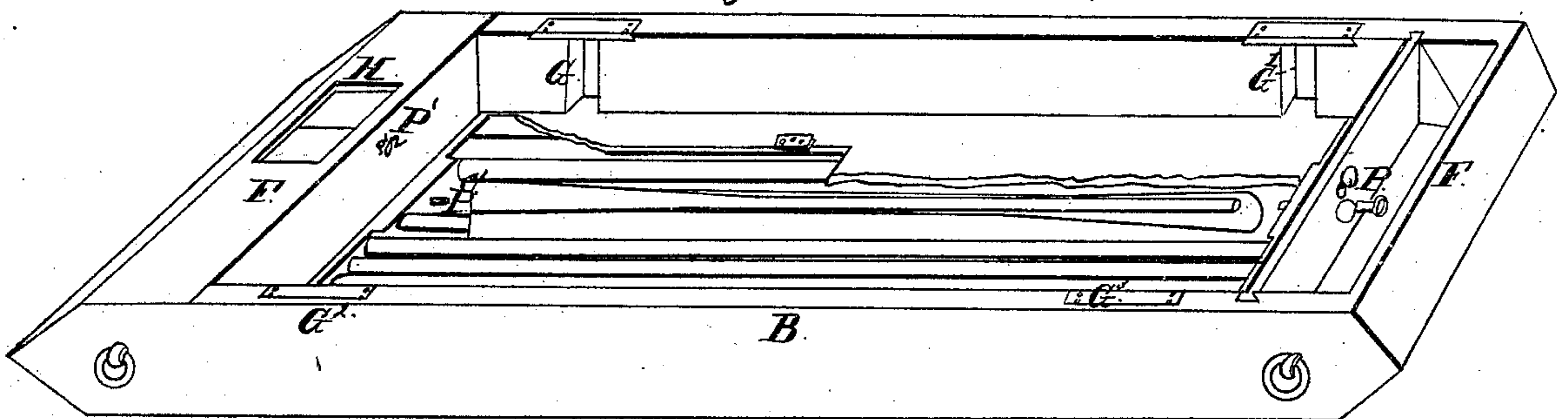


Fig. 2.



Witnesses
John Oakley
Abraham P. Hunt

Inventor:
James Potter McLean

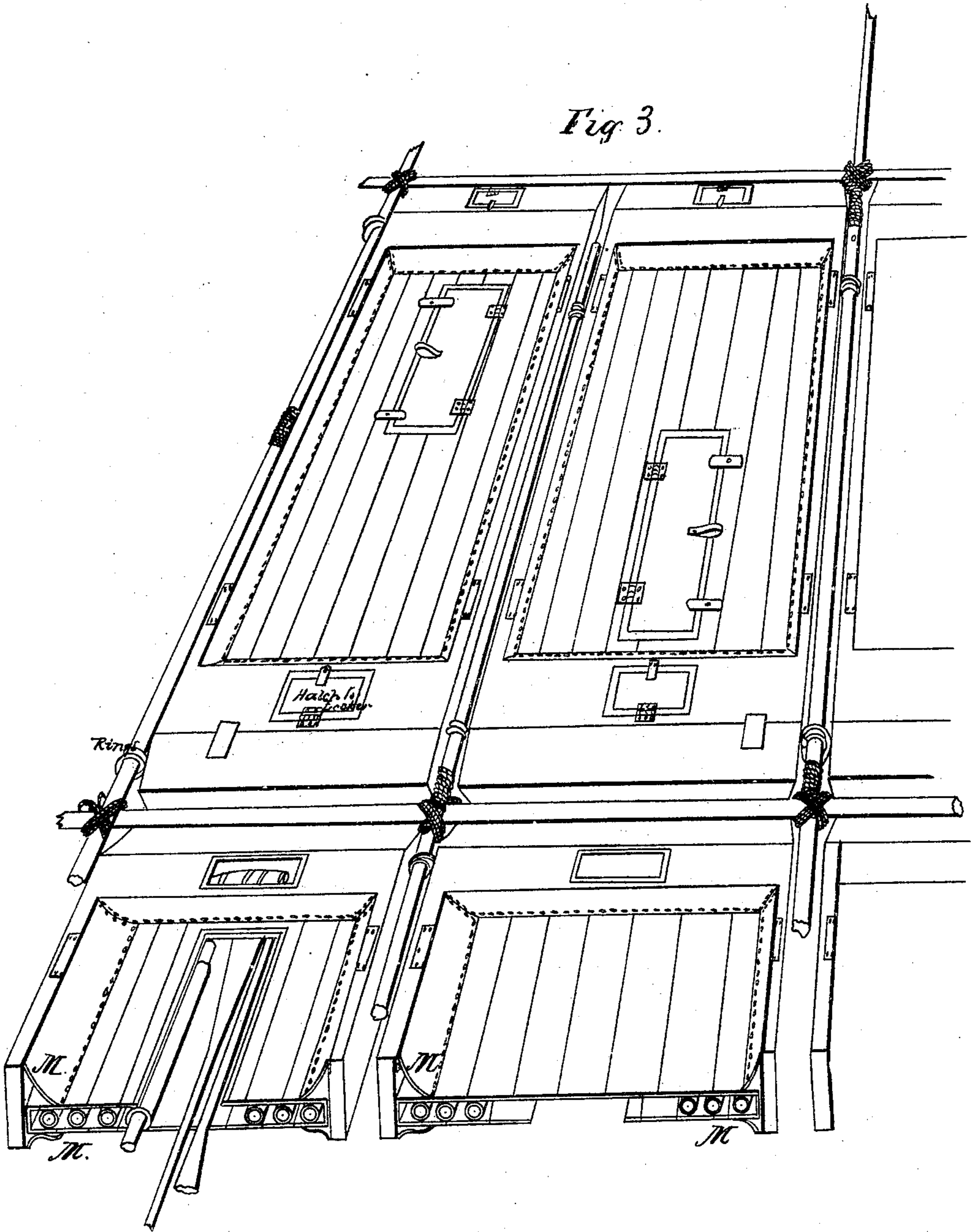
J. P. McLean. Sheet 2, 2 Sheets.

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Fig 3.



Witnesses:

John Oakley
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Inventor:

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UNITED STATES PATENT OFFICE.

JAMES P. McLEAN, OF NEW YORK, N. Y.

LIFE-BERTH FOR VESSELS.

Specification of Letters Patent No. 22,258, dated December 7, 1858.

To all whom it may concern:

Be it known that I, JAMES P. McLEAN, of New York city, in the county and State of New York, have invented certain novel and useful Improvements in the Construction of a Life Berth or Raft for Ships, Steamboats, or other Vessels; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are lettered to correspond with the specification and constitute a part of the same.

In order that the public may fully understand the nature of my invention and those skilled in the art of manufacture be enabled to construct and operate the same I will describe it as follows.

Description.

Figure 1, is a perspective view of the top and stanchions (A, A', A²,) which receive and support the life berths or rafts (B, B',) when used as an ordinary berth on board of ship for sleeping purposes.

Letter (B,) is a perspective view of my life berth, having the air and water tight canvas joints removed in order to more clearly exhibit the operation of the removable bed (C,) in the grooves (G, G', G², G³,). The hatch of locker (F,) and signal hatch (D,) have also been removed in order to show the manner of stowing the oars and signal rods, also showing the mode of securing the adjustable bed (C,) at either extreme upward or lower points (P, or P',) by means of a pin, or pins, passing through the bulk heads, or cross timbers at each end of the adjustable bed (C,).

Letter (B') represents a perspective view of the lower berth secured in the stanchions by means of two keys (I, I',) which are attached to and secured by a cord to the end of the stanchion as shown at (v.).

(E,) is a water proof canvas joint firmly secured to the top and bottom edges of the sides and end lockers of the berths by means of hydraulic, glue, and copper nails, or, any other suitable means as more clearly shown at Fig. (3,) letters (M, M, M,). These flexible joints merely serve to prevent the water from passing up around the edges of the adjustable or reciprocating bed (C,) when the berth is employed as a life raft; thereby keeping the occupant of the little craft dry, or at least from being submerged in water, which would be the case if the berth was

used as shown at (B,) without the canvas joint (E,).

All the hatches are secured by means of buttons, and hinges; and the joints thereof are inlaid with cork as shown in the drawings thereby rendering them perfectly water tight.

The adjustable bed or bottom of the berth (C,) is made double so that there is sufficient room between the upper and lower bed to arrange three or more air tubes, on each side of the berth and parallel to each other, and to the sides of the berth; and secured in their places as shown in the drawings or by other means; each tube is about five feet long and should be tightly plugged or sealed to prevent any escape of air; they should be of sufficient capacity to contain two cubic feet of air which would be susceptible of keeping afloat seven hundred pounds, more or less in fresh water. These tubes and reciprocating bed or bottom (C,) I propose making of veneer, and canvas, after the following manner: Take a piece of veneer the desired width and length of a tube, steam it until it can be rolled around a stick, and when the edges are lapped and glued then give it a coat of hydraulic glue over the entire outer surface, then take a piece of cotton cloth and wrap around the tube, apply a coat of glue over the cloth, another layer of veneer and so on until you get any desired thickness.

It will be found that three layers of veneer and two of canvas, well glued and doweled or pinned will be sufficiently strong for any ordinary purpose and less liable to spring and get out of shape than any other material of equal weight. However I do not confine myself to the above described alone, but I use that material which may be the most convenient for the time and place. Ordinary glue would not be suitable for the aforesaid "use"; but should be prepared expressly for such purposes, and each individual part should be well doweled.

There is sufficient room between the two sets of air tubes to receive and pack away two small oars, and a signal rod, which rod is made similar to an ordinary pencil case, so that the rod may be extended up through a sleeve or barrel ten or twelve feet more or less; this rod, and case, may also be employed as spars for lashing the life raft together (as shown at Fig. 3,) by means of the rings which are strongly secured to each

side of the berth and which rings serve to draw the berth out of the stanchions (A, A'), similar to a bureau drawer.

Fig. (2,) is a sectional drawing of my life raft, or berth, having the upper section or top of the bed (C,) removed, in order to show more fully the novel arrangement of the air tubes, signal rods, water tank, in compartment or locker (F,) and locker (F') and pin (P,) with eccentric levers over the holes through which the pin passes when required to secure the adjustable bed (C, C') in its place against the action of the sea.

Fig. 3, represents six berths as having been drawn out of the stanchions (A, A') "and cast upon the water," and there lashed together by means of the signal rods, or other spars, and ropes, as shown in the drawing; which drawing, also shows a transverse section of two of the berths at (M, M, M,) in order to more clearly set forth the arrangement of the water proof canvas joint air tubes, and storage of the implements of navigation. The oar compartment between the sets of air tubes is air and water tight; consequently in case the adjustable bed (C, C') should be too buoyant the lower signal hatch may be tapped or opened, and the space between the sets of air tubes will fill with water, and thus serve as a ballast for the little craft. Remove the keys (I, I') Fig. 1, then draw the berth (B,) (which weighs about forty pounds) by means of the rings out of the stanchions (A, A') provide yourself with rope if possible, to lash the spars (after you have flung the berth over board). In case you wish to form a universal raft by uniting a number of berths as shown at Fig. 3, then let yourself down with as much care as possible upon either side of your little craft which forms a flat bottom boat, or scow, either side up provided with the necessary implements of navigation and with a signal rod which may be employed as a signal or spars for lashing the life raft together and by a little alteration may also be employed as a mast and each end of the berth is divided in such a manner that it forms a locker susceptible of retaining a small can of water, and a supply of provisions, sufficient to sustain a person for a week or longer; and thus give him strength to navigate his raft until he is picked up or has reached the shore in safety which would be the case on either lake or river navigation; one end of the berth may be used as a locker for any articles of value, and would be found very useful either in the raft or on board of ship; and each berth may be pro-

vided with detached oar locks if necessary made to screw into the sides thereof.

The novelty of the above described apparatus does not consist in the construction of air tubes and compartments for saving life at sea, or on lake or river navigation, as those have been long in common use, but the application of a removable air and water tight bed secured in its place by means of the projections of the bed (C, C') working in the grooves (G, G', G², G³) in the sides of the berth which is provided with plates to prevent the projection of the bed (C, C') from getting out of the grooves aforesaid, and the use of a water proof canvas joint or joints in combination with the arrangement of air tubes, so that each berth can be provided with the implements of navigation, together with a water tank and locker, for the purpose of saving human life and property at sea, and which apparatus takes up no more room or storage of a ship (or other craft) than an ordinary berth, or bunk, and which is constructed lightly, but of strong material, and is susceptible of being drawn out and thrown over-board, there forming a raft, or boat either side up capable of carrying two persons for any length of time, particularly on rivers or lakes, I believe to be novel, and one of the most complete and practical life, and property saving apparatus, ever brought before the public.

I am aware that berths have been constructed to lift out of the stanchions like a tray, provided with cork and other buoyant material placed in the bottom of the inner berth or tray, but this is of little use, and entirely unmanageable if it falls bottom upward in the water therefore I do not claim any thing of that kind, neither do I claim the application of air tubes for saving life nor the manner of drawing the berth out of the stanchions.

What I claim as novel, and what I wish to secure by Letters Patent of the United States is—

The arrangement of the removable bed or bottom (C, C,) canvas joints (E, E,) lockers (F, F') oar and signal compartment (D,) air tubes, and the projections, grooves, and plates, (G, G', G², G³) combined and operated in the manner and for the purpose substantially as described and shown in the drawings.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses.

JAMES P. McLEAN.

Witnesses:

JOHN OAKLEY,
HIRAM N. HUNT.