

(No Model.)

G. B. HUSSEY.
LIFE RAFT.

No. 497,375.

Patented May 16, 1893.

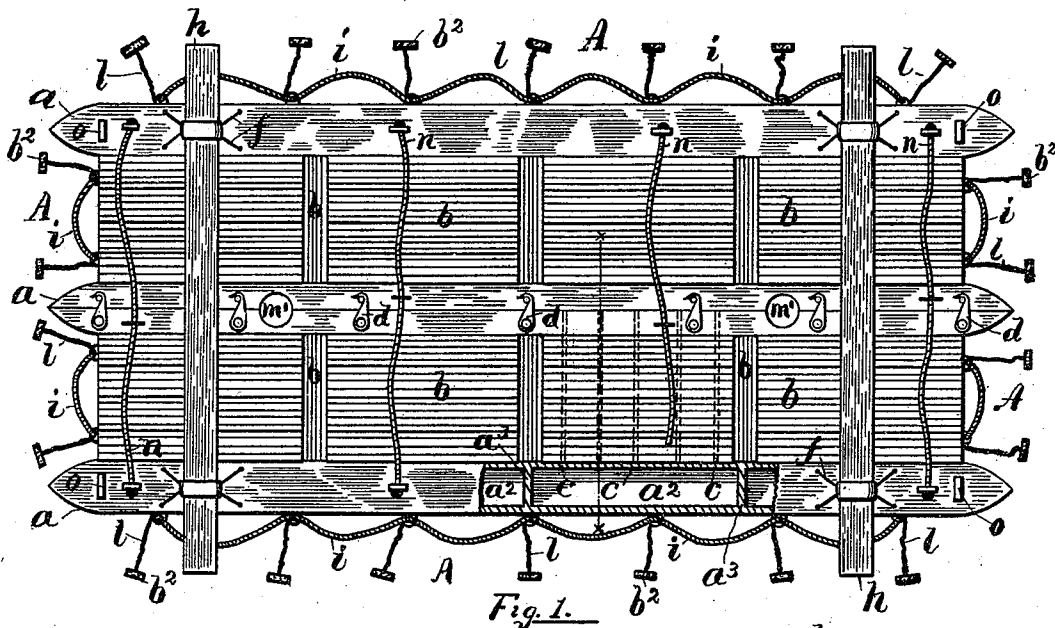


Fig. 1.

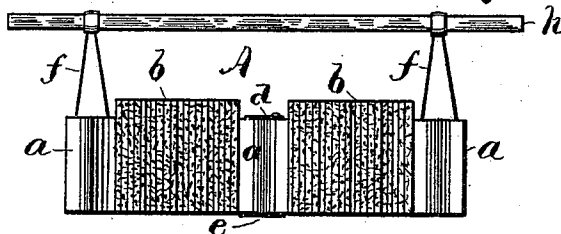


Fig. 2.

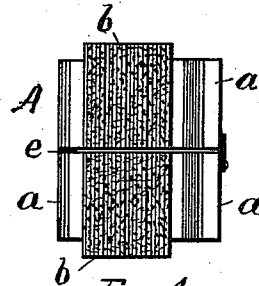


Fig. 4.

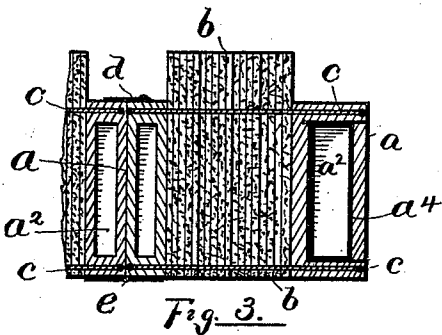


Fig. 3.

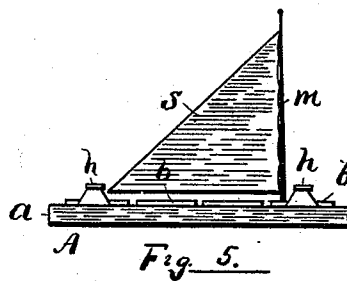


Fig. 5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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LIFE-RAFT.

SPECIFICATION forming part of Letters Patent No. 497,375, dated May 16, 1893.

Application filed June 23, 1892. Serial No. 437,713. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. HUSSEY, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Life-Rafts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to life-rafts, and it consists essentially of a series of laterally separated buoyant rigid bars or frames extending longitudinally of the raft and having the spaces between the series of bars filled with cork, bolsa wood or other suitable buoyant material; and further having the raft provided with suitable life-lines and a sail-carrying mast adapted to be stepped into either end of the said frame, all as will be more fully hereinafter set forth and claimed.

The raft forming the subject of my present invention is more particularly adapted to form one of the life-saving means or devices constituting a vessel's outfit; the same to be used only in case of an emergency, as for example upon the foundering or loss of the vessel.

I am aware that portable rolling or folding life-rafts have been made heretofore, but such former devices have not embodied many of the characteristic features of my improved life-raft. The latter is composed of two main sections jointed together; the arrangement of the frames being such that the raft is rendered very stiff and strong and not liable to be overturned in a rough sea. It possesses great carrying capacity, and it also can be sailed and guided.

By means of my improved life-raft the survivors thereon may be carried shoreward directly through the breakers without unduly endangering the lives of the shore patrol of the life-saving service. Or in other words in certain forms of non-controllable life-rafts it would be necessary for the life-saving crew to launch a boat through the surf in order to reach and save the persons on the raft.

In the accompanying sheet of drawings

Figure 1 is a plan view of a life-raft embodying my improvements, a portion of one of the frames being broken away. Fig. 2 is an end view of the same, the several ropes and life-lines being omitted. Fig. 3 is a transverse sectional view, enlarged, taken on line *xx* of Fig. 1. Fig. 4 is an end view of the raft when folded, and Fig. 5 is a side elevation, in reduced scale, showing the raft under sail.

The following is a more detailed description of the invention.

A, again referring to the drawings, indicates my improved life-raft as a whole. As drawn the frame portion is composed of three hollow bars *a* extending longitudinally of the raft. The center bar is divided lengthwise, the two parts being united on the under side by hinges *e*; the upper side is provided with a series of hooks *d* or other suitable means for securing the parts together when in use, see Figs. 1, 2, &c. I preferably make the frame of wood, and provide it with a series of chambers *a*² separated say by partitions *a*³; these chambers may be air-tight or they may contain each an air-tight removable sheet metal box to increase the buoyancy of the raft, as indicated at *a*⁴, Fig. 3. The spaces intermediate of the several bars *a* are filled in with a series of sections *b* of cork, bolsa wood or other very light and buoyant material the same being suitably doweled or otherwise bonded together. The sections are secured to the adjacent bars *a* by transverse connecting ropes *c*; see Fig. 3 and the dotted lines shown in the sectional portion of Fig. 1. This arrangement renders portions of the raft somewhat yielding or flexible. I prefer to have the cork sections extend above the surface of the frame *a*, as clearly shown.

Near each end of the raft the frame is provided with upwardly extending removable iron supports or rods *f* arranged to carry wooden seats *h*; these also serve to render the raft more safe and comfortable. Contiguous to these seats the center bar is cut away to form openings *m*' to receive a short mast *m* carrying a sail *s*, see Figs. 1 and 5.

Along the sides of the frame are secured looped life-lines *i*; while combined connecting and life-lines *n* extend across the top of the raft at intervals. In order to render the raft still more efficient I provide it with a series

of smaller life-lines *l*, to the free ends of which are secured pieces of cork *b*³, the latter serving to keep the lines *l* afloat and visible.

When the raft is on ship board it may be folded together, as shown in Fig. 4, the seats *h* and rods *f* being first removed. When thus arranged it occupies a comparatively small space.

Now, whenever the raft is to be used it is simply unfolded or opened and locked together by the hooks *d*, followed by attaching the seats *h* and their supporting rods *f*. The raft is now ready to be launched. If desired it can be temporarily attached to the vessel by a rope leading from the latter to cleats *o* located at the ends of the raft. The sail-carrying mast can be readily stepped into the hole *m'* when desired.

The removable sheet metal boxes *a*⁴ may be utilized for the purpose of carrying stores or provisions. I prefer to make these boxes in comparatively short sections rather than in one long section, thereby lessening the risk of leakage.

The raft may be rendered more efficient by covering its exterior surface with luminous paint, that is paint in which phosphorus forms an essential part of the composition. When thus coated the raft is much more liable to be discerned when floating upon the water at night, thereby to a greater extent insuring the safety of the persons on board.

I claim as my invention—

1. The combination with the longitudinally arranged buoyant hollow frame divided lengthwise and jointed together and further

arranged to receive a sail-carrying mast, of connected sections of buoyant material, as cork, secured to said frame, an elevated detachable seat extending across each end of the frame and one or more series of suitably disposed life-lines, substantially as described.

2. In a life-raft provided with a hollow frame or body and having connected sections of buoyant material, as cork, secured thereto, a series of looped life-lines attached to the frame and a series of similarly attached smaller life-lines having an end of each provided with a piece of cork, substantially as hereinbefore described and for the purpose specified.

3. The life-raft A, hereinbefore described, consisting of the longitudinally divided and hinged hollow buoyant frame *a*; closely connected sections *b* of cork secured to said frame; a suitably mounted sail arranged to be fixed at either end of the raft; detachable seats *h* extending across the frame, and one or more series of suitably disposed life-lines.

4. In a life-raft provided with means for sailing the same, a hollow frame portion having a series of removable air-tight boxes arranged therein, connected sections of buoyant material, as cork, secured to said frame and further provided with conveniently arranged life lines, substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE B. HUSSEY.

Witnesses:

GEO. H. REMINGTON,
IDA M. WARREN.