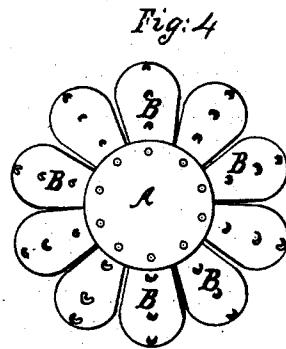
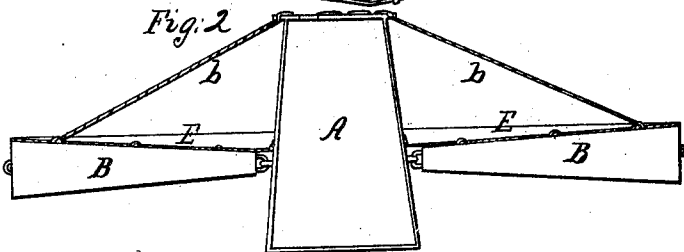
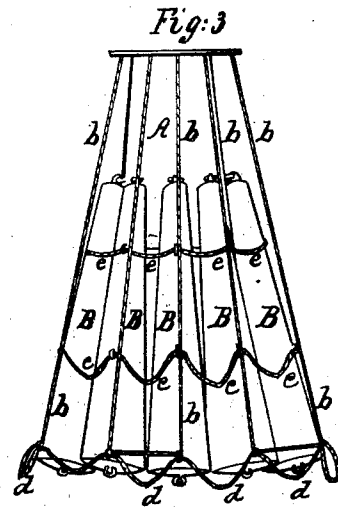
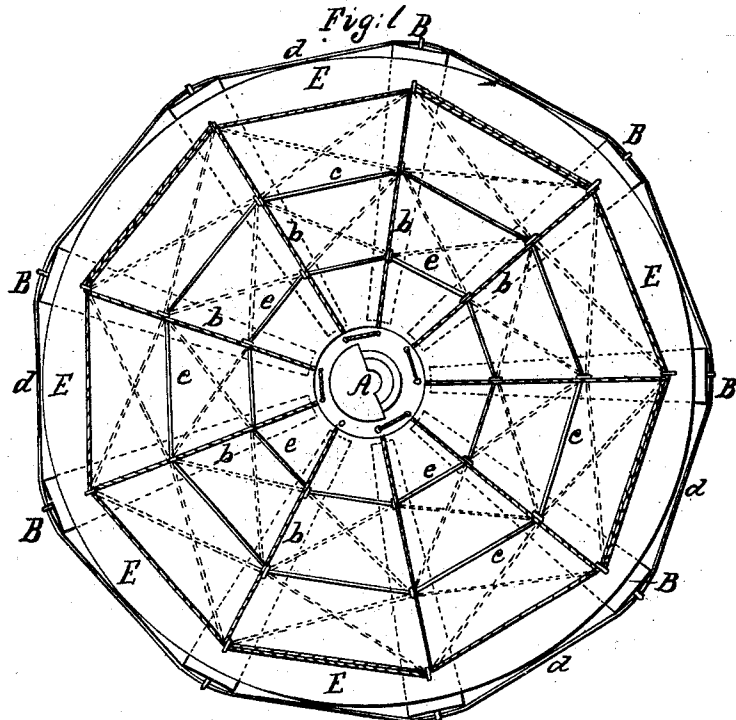


A. G. Mack. Raft.

N^o 24,747.

Patented July 12, 1859.



Witnesses
Gilbert Eggleston
W. G. Payne

Inventor
A. G. Mack

UNITED STATES PATENT OFFICE.

A. G. MACK, OF ROCHESTER, NEW YORK.

IMPROVED LIFE-PRESERVING RAFT.

Specification forming part of Letters Patent No. 24,747, dated July 12, 1859.

To all whom it may concern:

Be it known that I, A. G. MACK, of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Raft; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, of which—

Figure 1 represents the raft when spread out as when floating on the water. Fig. 2 is a vertical section of the same. Fig. 3 shows the raft closed up or in a position for stowing away. Fig. 4 is a top view of the same, the canvas in both these last figures being removed.

Similar letters of reference refer to like parts in the several figures.

The nature of my invention consists in surrounding a cylindrical chamber which is made water-tight with a number of radial floats hinged to said chamber at determined points around the central chamber and braced by cords arranged as hereinafter described, so that the whole raft thus formed may be closed up like an umbrella when not in use, the raft to be covered by canvas or other suitable material, described and represented as follows:

A central chamber A is furnished with a man-hole in the top and covered by a trap-door, so as to exclude water. This chamber, which is cylindrical and made tapering to the top, serves for stowing away provisions, and at the same time serves as a buoy for the raft. Surrounding this chamber A and hinged to it are a number of conical floats B, which are all arranged radial from the center of the cask or chamber A and held in their respective positions when in the water by ropes arranged as follows: A rope *a* passes around the extreme ends of the floats B, being looped to eyes fixed to the ends of each float. This prevents in a great measure the floats from spreading out of their radial position. Ropes *b* are then passed from eyes fixed upon the surface of each float and to a flange projecting from the top of the cask A and through holes in this flange connecting with each float

B. These ropes are so arranged that when the raft is raised from the water they allow the floats to fold or close up, as represented by Fig. 3 of the drawings. A rope *c* is then passed through eyes fixed midway between the ends of the floats B, which is carried entirely around the raft and concentric with ropes *d* and *e*, which are arranged in the same manner. These ropes hold the canvas E down upon the floats and keep it in place both when the raft is in the water and when it is folded up. Ropes are placed under the canvas and arranged diagonally with those above it, as indicated by the red lines of Fig. 1. The ropes may be arranged and disposed about the raft in many different ways for keeping the floats extended and at the same time allowing the floats a free vertical play while in the water; but the disposition of the ropes forms no part of my claim.

The manner of using the raft in time of shipwreck is to suspend it from a yard-arm or over the side of the vessel in any convenient way, in the position shown by Fig. 3, and lower it into the water, when it will spread out and assume the position of Figs. 1 and 2. It can then be furnished with provisions, or it may have been previously supplied. The raft when in the water has great floating capacities, and the conical or tapering form of the floats gives to the raft a dished or inclined surface, which prevents persons from being thrown off by the motions of the raft and at the same time prevents the raft shipping seas.

What I claim as new, and desire to secure by Letters Patent, is—

Surrounding a cask or chamber A with conical floats B, arranged radially with said chamber and hinged thereto, and covering the same with canvas or other suitable material, and bracing the whole together by ropes suitably arranged, all substantially in the manner and for the purposes herein specified.

A. G. MACK.

Witnesses:

G. EGGLESTON,
W. G. JAYNE.