D. McFarland,

Raft.

No. 110,059. Patented Dec. 13. 1870.

Fig. 1.

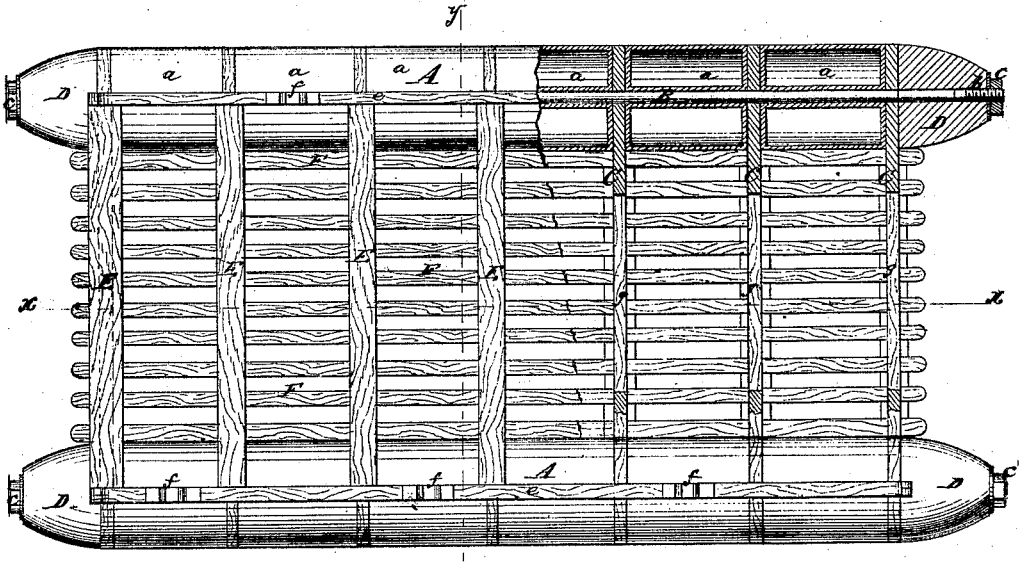


Fig. 2.

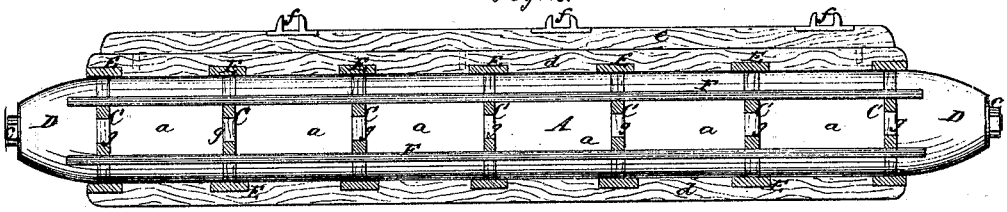
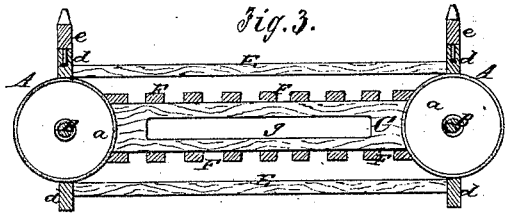


Fig. 3.



Witnesses.
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Letters Patent No. 110,059, dated December 13, 1870.

IMPROVEMENT IN LIFE-RAFTS.

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

To all whom it may concern:

Be it known that I, DAVID McFARLAND, of the city, county, and State of New York, have invented a new and improved Life-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 drawing and to the letters of reference marked thereon making a part of this specification.

This invention relates to a new and useful improvement in life-rafts; and

It consists in a novel construction of the same in sections, as hereinafter fully shown and described, whereby the raft is rendered capable of being taken apart, the several sections disconnected one from the other, and the whole stowed away within a small space or compass, so as to monopolize but comparatively little room on shipboard, and also rendered capable of being put together with the greatest facility and expedition.

The dimensions of an ordinary-sized raft for a vessel would be about twenty-two feet long by nine feet wide, and would weigh about one thousand pounds, and, in order to render such raft available for general use, they should be constructed of such material and in such a manner as to be capable of being taken apart in sections, and stowed away within a small space, and, at the same time, when required for use, admit of being readily put together.

The object of this invention is to obtain this result.

In the accompanying drawing—

Figure 1 is a plan or top view of my invention, partly in section.

Figure 2, a longitudinal central section of the same, taken in the line *x x*, fig. 1.

Figure 3, a transverse section of the same, taken in the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

A A represent two longitudinal cylinders, placed parallel with each other, and constructed in sections, *a*, of metal or wood.

These cylinders may be of any suitable length and diameter, say about twenty-two feet long and two feet two inches in diameter.

I do not, however, confine myself to any particular dimensions, nor to any particular number of cylinders, for two or more of the latter may be used.

The sections *a*, if made of metal, may be lapped at their edges, and riveted together like the plates of a steam-boiler, and also soldered or brazed, if desired.

The sections are closed water-tight at their ends, and each has a central tubular opening, through which a rod, B, passes to secure the several sections together.

The cylinders are secured at a proper distance apart by transverse pieces C, the ends of which are fitted between the ends of the sections, and secured in position by the rods B, and each cylinder terminates at both ends in a conical head, D, of wood or metal, which are also secured in position by the rods B passing centrally through them.

These rods B have iron tips *b* inserted in their ends, on which screw-threads are cut to receive nuts *c*, by screwing up which all parts of the cylinders are secured firmly in contact.

If the sections *a* be made of wood, I design to have them constructed of staves bound with hoops.

The rods B I prefer to have made of a suitable hard wood, hence the necessity of the metal tips to receive the nuts.

E are thwarts, secured to the raft at each side, so that either side may be used, whichever may turn uppermost after being cast or launched from the vessel.

F are slats, secured to the upper and lower edges of the transverse pieces C.

These slats are attached in such a manner as to be removable.

To the upper and lower sides of each cylinder there are attached wooden strips *d*, and to the upper strip *d* of each cylinder there is secured, by dowels, a wooden bar, *e*, having rowlocks *f* attached.

The bars *e* are designed to be secured to the strips *d* which are uppermost after the raft is launched or cast overboard.

The thwarts E have oblong slots *g* made in them, to receive oars and other articles necessary to be used.

Having thus described my invention,

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

1. The cylinders A A, two or more, composed each of a series of air and water-tight sections, *a*, connected together by a rod, B, provided with screw-nuts *c* at its ends, substantially as shown and described, and for the purpose specified.

2. In combination with the air and water-tight sections *a* of the cylinders A A, the transverse pieces C, fitted or connected to the cylinders in the manner substantially as and for the purpose set forth.

3. The detachable bars *e*, to which the rowlocks *f* are secured, in combination with the fixed strips *d* on the cylinders A A, arranged substantially as and for the purpose specified.

4. The combination of the cylinders A A constructed in sections *a*, the transverse pieces C, thwarts E, and removable rowlock-bars *e*, all arranged substantially as and for the purpose set forth.

DAVID McFARLAND.

Witnesses:

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