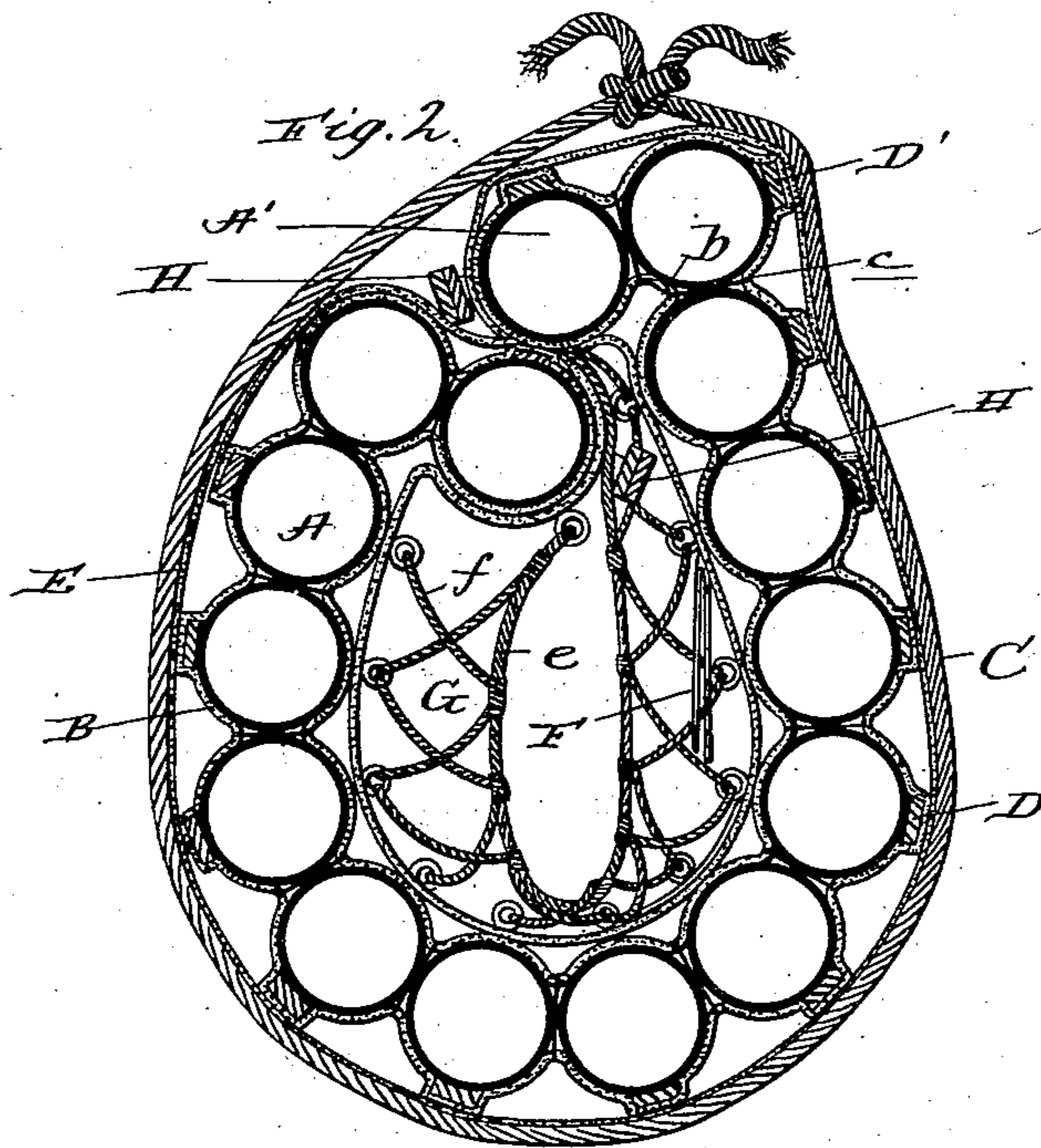
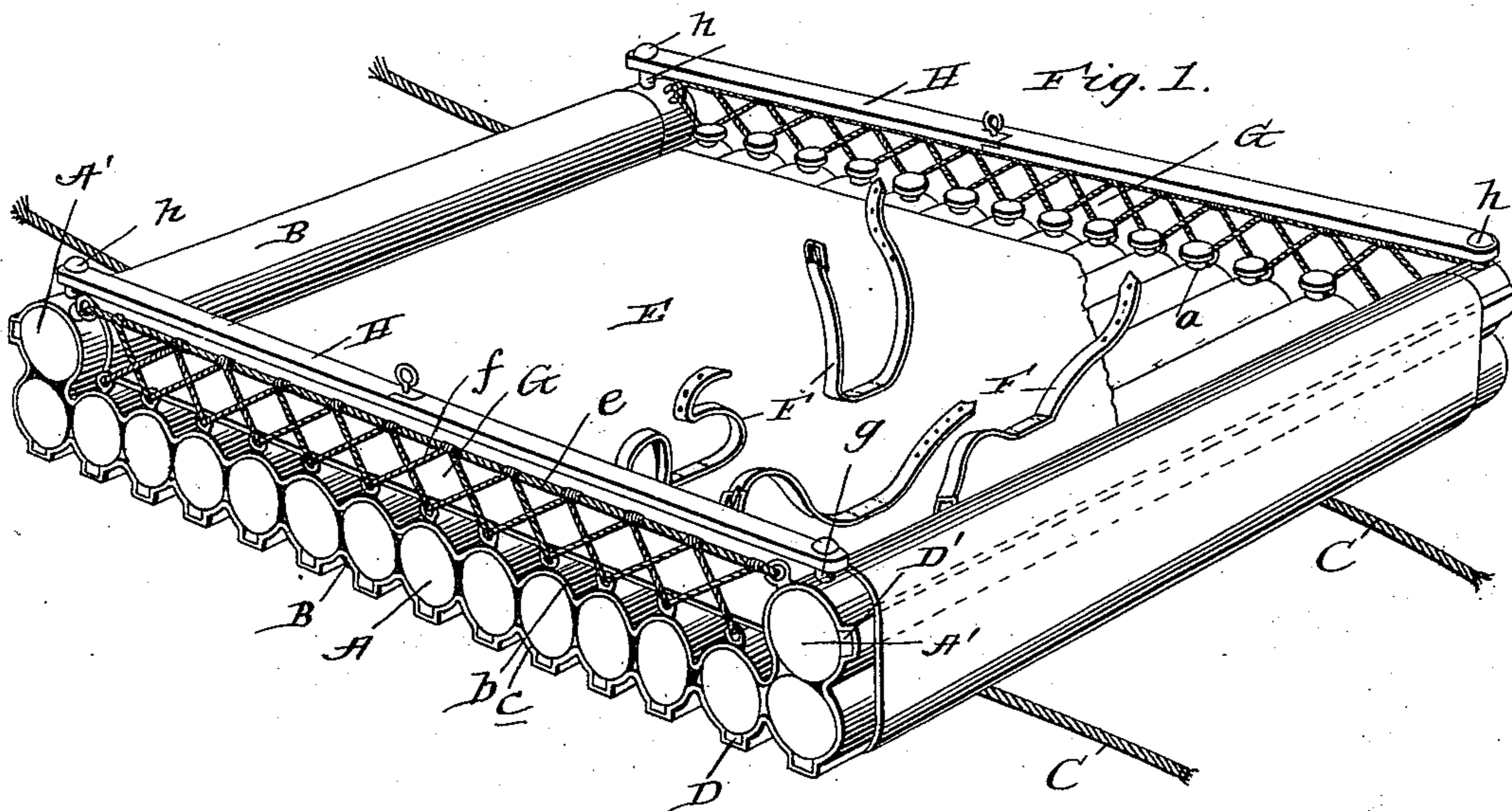


(No Model.)

B. H. MEYER.
LIFE RAFT.

No. 534,275.

Patented Feb. 19, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

BERNHARD H. MEYER, OF NEW YORK, N. Y.

LIFE-RAFT.

SPECIFICATION forming part of Letters Patent No. 534,275, dated February 19, 1895.

Application filed May 16, 1894. Serial No. 511,443. (No model.)

To all whom it may concern:

Be it known that I, BERNHARD H. MEYER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Life-Boats; and I do 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.

My invention relates to improvements in life rafts; and it has for one of its objects to provide such a raft composed of a plurality of separate, inflated compartments, and one which while very light and easy to launch, is capable of supporting a large number of people.

Another object of the invention is to provide such a raft adapted to be folded into a compact bundle without exhausting the air therefrom so that it will always be ready for instant use, and still another object is to provide a life raft formed of such material and constructed in such a manner that it is capable of withstanding the shock and jar incidental to a collision with a ship's side, rocks or the like.

Other objects and advantages of the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a perspective view of my improved raft in an operative position with a portion of the envelope or outer cover broken away to show the inflated tubular compartments, and Fig. 2, is a sectional view of the raft as folded up in condition to be hung from a davit or stored upon a ship's deck.

Referring by letter to the said drawings:—
A, A', indicate the inflated tubular compartments of my improved raft, of which there may be any suitable number employed according to the size of the raft. These compartments A, A', are disposed transversely of the raft in order to permit of the same being compactly folded while the compartments are inflated, and they are formed of india rubber or other suitable material and are provided, preferably at a point adjacent to one of their ends, with the normally plugged or closed openings *a*, through which compressed air or the like may be introduced. The compart-

ments A, are arranged in series upon the same horizontal plane so as to form the body or floor of the raft, while the compartments A', are arranged upon the end compartments A, as better shown in Fig. 1, so as to form end walls, designed and adapted to prevent the passengers from sliding off the raft into the water.

All of the compartments A, A', are connected together and reinforced or strengthened by the strip or piece B, of canvas or other strong and flexible material, better illustrated in Fig. 1. This strip or piece B, is passed around and rests above and below the compartments and extends the full width of the raft as shown, and it is connected to the compartments in any approved manner and has its upper and lower portions *b, c*, connected together between the compartments so as to securely hold said compartments and prevent displacement of the same.

In order to prevent transverse flexing or bending of the raft when a load is imposed upon it, I provide the compartments A, with the rigid transverse bars D, and the compartments A', with the rigid transverse bars D'. The bars D, of the compartments A, are interposed and fixed in position between the canvas strip B, and the bottom of the compartments A, while the bars D', are interposed and fixed between the said strip B, and the outer sides of the compartments A', as better shown in Fig. 1. This arrangement of the bars D, D', is advantageous since it enables the bars D, to prevent floating wreckage, rocks, &c., from puncturing or otherwise injuring the compartments A, and the bars D', to prevent injury to the raft in case it collides with wreckage, a ship's side or with rocks.

E, indicates the outer cover or envelope which extends the full width of the raft and covers the compartments A, A', as shown. This outer cover or envelope is formed of canvas or other suitable flexible material and is connected to the canvas reinforce piece B, in any suitable manner, and it is provided upon its upper side which forms a smooth floor, with straps, ropes, or the like F, whereby the passengers may be tied on the raft to prevent them from being washed overboard by the seas. The said cover or envelope E, has connected to its under side the ropes C,

and these ropes may have their extended portions formed into loops as *d*, which serve as life lines when the raft is in the water, and which may be readily connected together when the raft is folded up as shown in Fig. 2, so as to hold it in such position.

In order to prevent the passengers from falling off the sides of the raft, I provide the guard fences *G*, which preferably comprise the longitudinal ropes *e*, which are connected with the compartments *A'*, adjacent to the ends thereof, and the ropes *f*, which are interlaced between the ropes *e*, and the compartments *A*; and for the purpose of preventing the raft from folding or curling up in a longitudinal direction when in operation, I provide the rigid bars *H*, shown in Fig. 1. These bars *H*, are detachably connected with the compartments *A'*, so that they may be readily removed to permit of the raft being folded up, and I prefer in practice to effect such a connection by the interiorly threaded posts *g*, which are connected with and rise from the compartments *A'*, and the screws *h*, which take through the bars and into the posts *g*. This manner of connecting the bars *H*, is preferable as it enables a person to quickly connect the bars in case of emergency but I do not desire to be understood as confining myself to such connection as any suitable connection may be employed.

In the practice of the invention the raft may if desired be provided with suitable life lines and with oar locks and devices whereby a sail can be fixed in position.

It will be appreciated from the foregoing that my improved raft while very light and easy to launch is capable of supporting a large number of people, and that it will on account of its great buoyancy ride lightly upon the sea. It will also be appreciated that the raft is capable of being compactly folded and hung from a davit or stored upon a ship's deck without exhausting the air from the compartments, so that it is always ready for instant use, it being simply necessary when the raft is to be launched to disconnect the loops *d*, and fix the bars *H*, in position in the manner described, which can be quickly accomplished.

While I have in some respects specifically described the construction and relative arrangement of the parts of my improved raft, I do not desire to be understood as confining myself to such construction and arrangement as such changes or modifications may be made in practice as fairly fall within the scope of my invention.

Having described my invention, what I claim is—

1. A life raft comprising a series of inflated compartments, a strip or piece *B*, of flexible material, passed around and resting above and below the compartments and connected to the same so as to hold the series together, and a rigid bar interposed and fixed in position between the strip or piece *B*, and each of the

compartments and extending in the direction of the length of said compartments, substantially as specified.

2. A life raft comprising a series of transversely - disposed, inflated compartments formed of flexible material and flexibly connected together whereby the raft may be compactly folded in a direction at right angles to the compartments without exhausting the air from said compartments, and a rigid bar *D*, connected with each compartment and extending in the direction of the length of the same, substantially as and for the purpose set forth.

3. A life raft comprising a series of transversely - disposed, inflated compartments formed of flexible material and flexibly connected together whereby the raft may be folded into a compact bundle without exhausting the air from the compartments, a rigid bar *D*, connected with each compartment and extending in the direction of the length of the same, and the detachable bars *H*, disposed in the direction of the length of the raft or at right angles to the compartments and bars *D*, substantially as and for the purpose set forth.

4. A life raft comprising a series of transversely - disposed, inflated compartments *A*, the inflated compartments *A'*, arranged upon the end compartments *A*, a flexible connection between the compartments whereby the raft may be compactly folded without exhausting the air from said compartments, the rigid, transversely-disposed bars *D*, arranged upon the under side of the compartments *A*, and connected therewith, the rigid, transversely-disposed bars *D'*, arranged upon the outside of the compartments *A'*, and connected therewith, and the rigid, longitudinally-disposed and detachably connected bars *H*, substantially as specified.

5. A life raft comprising a series of transversely disposed, inflated compartments *A*, the inflated compartments *A'*, arranged upon the end compartments *A*, a flexible connection between the compartments whereby the raft may be compactly folded without exhausting the air from said compartments, the rigid, transversely disposed bars *D*, arranged upon the under side of the compartments *A*, and connected therewith, the rigid, transversely-disposed bars *D'*, arranged upon the outside of the compartments *A'*, and connected therewith, the flexible strip or reinforce piece *B*, surrounding the compartments and connected thereto and having its upper and lower portions connected between the compartments, the outer cover or envelope *E*, and the ropes connected to the under side of the outer cover or envelope and having extended portions formed into loops, substantially as specified.

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

BERNHARD H. MEYER.

Witnesses:

THOS. CRAWFORD,
EDWARD WHITE.