

No. 696,463.

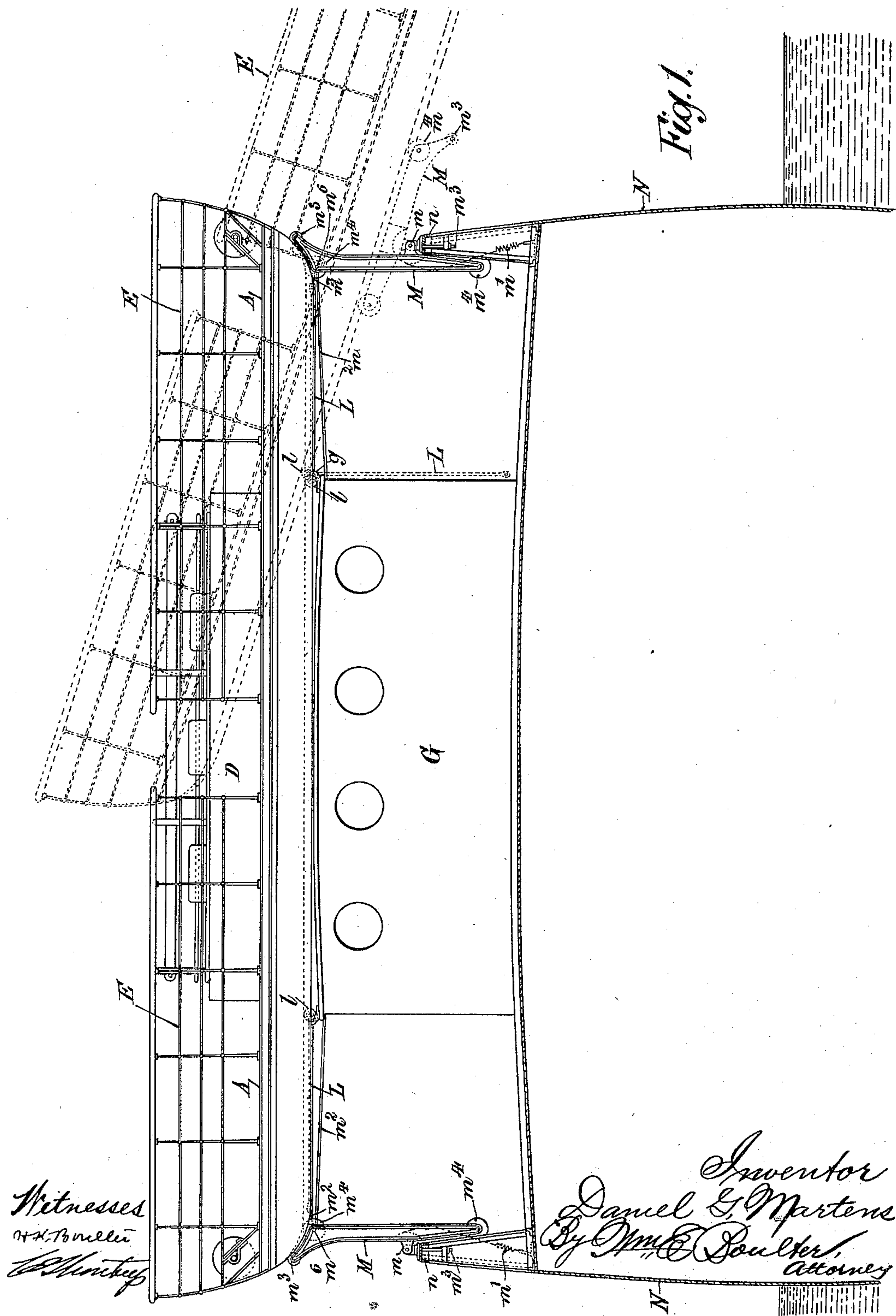
Patented Apr. 1, 1902.

D. G. MARTENS.
LIFE RAFT.

(Application filed Apr. 27, 1901.)

(No Model.)

3 Sheets—Sheet 1.



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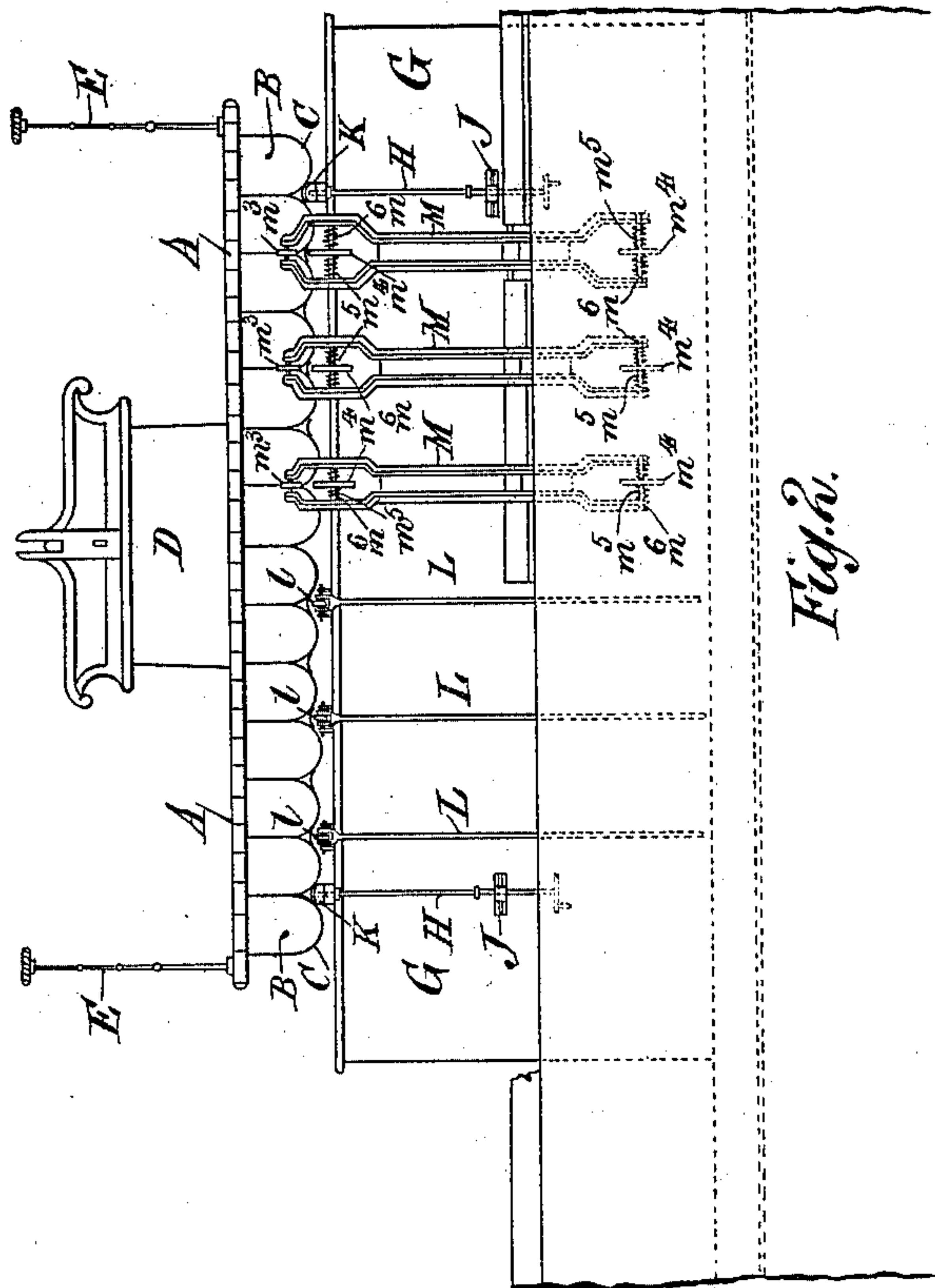


Fig. 2.

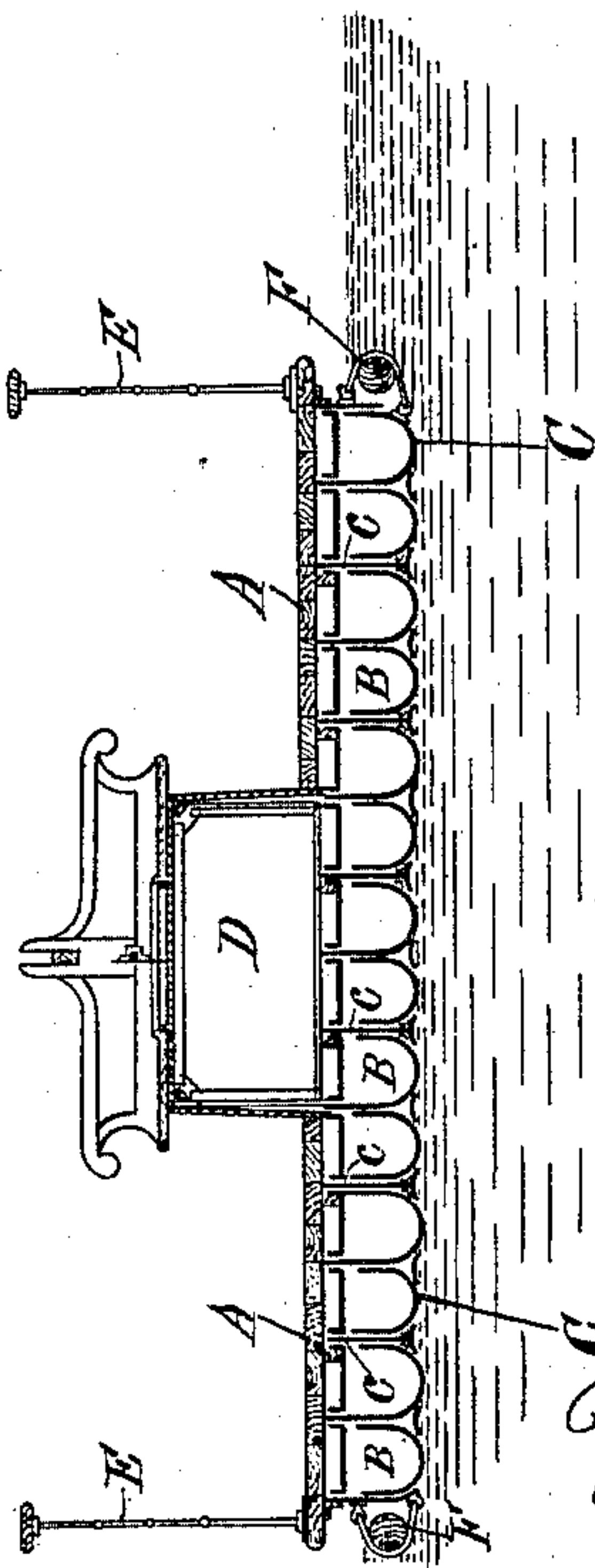


Fig. 3.

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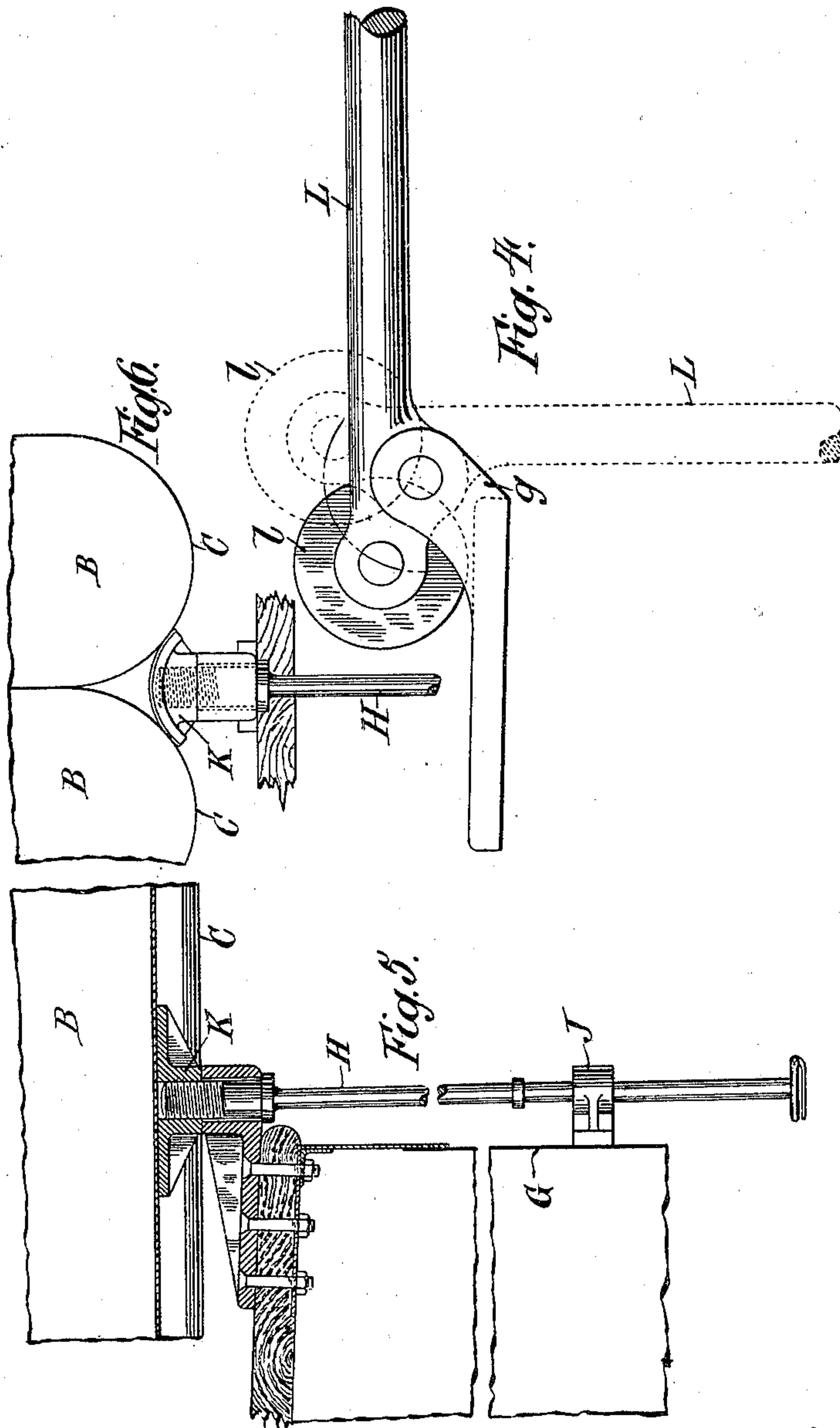
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UNITED STATES PATENT OFFICE.

DANIEL GEORGE MARTENS, OF LONDON, ENGLAND.

LIFE-RAFT.

SPECIFICATION forming part of Letters Patent No. 696,463, dated April 1, 1902.

Application filed April 27, 1901. Serial No. 57,695. (No model.)

To all whom it may concern:

Be it known that I, DANIEL GEORGE MARTENS, engineer, a subject of the King of Sweden and Norway, residing at 12 Montague Place, Russell Square, London, England, have invented certain new and useful Improvements Relating to the Construction of Ships and Vessels and to Means for Saving Life at Sea, of which the following is a specification.

The object of this invention is so to construct ships and vessels that a part or parts of the same can be used for saving life at sea when desired.

The invention is specially adapted for passenger-carrying steamships, but is applicable to all forms of vessels having deck-houses and promenade-decks.

In carrying out my invention I make the promenade-deck of the ship or vessel in a suitable number of floatable sections or rafts and provide means for launching same into the sea over the sides of the vessel.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a transverse sectional elevation of a ship or vessel with my invention fitted thereto, the normal position of the raft being shown in full lines and the launching position in dotted lines. Fig. 2 is a part side and part sectional elevation of same, showing the means for supporting and for launching the raft. Fig. 3 is a sectional side elevation of the raft as it would appear when launched. Fig. 4 is an enlarged detail view of the mechanism for lifting the raft previous to launching same, and Figs. 5 and 6 are respectively enlarged sectional side and front elevations of the raft-locking mechanism.

The same letters of reference where they occur are used to denote the same or corresponding parts in all the figures of the drawings.

Each floatable section or raft is flat on top, as shown at A in Fig. 3, and boarded or otherwise fitted to form a section of an ordinary promenade-deck, and at the under side it is provided with a number of parallel chambers B. These chambers are preferably constructed by means of curved plates C, which are secured together and to partitions c in such a way as to produce a corrugated bottom such that damage to one corrugation will not affect

the others. The chambers B are filled with inflated bladders, and canvas is glued to the steel plates inside, so as to prevent water from filling the space in the chambers B if the steel plates be broken. The raft is longitudinally divided into separate water-tight compartments, and on the deck is a water-tight hatch D, intended as a receptacle for provisions and formed externally as a deck-seat.

E is an ordinary hand-rail.

Under the deck A and on the outside the raft is fitted with masts F, which can be readily got at when the raft is launched, means being provided to fit the masts in position on the raft.

The raft is fitted on the top of the deck-house G and is kept in its position thereon by means of any suitable number of rods H, passing through suitable bearings or brackets J, secured to the sides or top of the deck-house G, said rods H being externally screw-threaded at their upper ends to engage nuts K, fast on the under side of the raft between adjacent corrugations. (See Figs. 5 and 6.)

Pivoted on or to each side of the deck-house G is a raising-lever L, (see Fig. 4,) carrying a friction-roller l on the inner extremity. Any suitable number of these raising-levers may be fitted on or to the deck-house and on both sides thereof. Three are shown in Fig. 2; but the lugs g, to which they are pivoted, are so located on the deck-house that the rollers l engage in the depression between adjacent corrugations, as shown in Fig. 2. When these levers L are in the horizontal position, (shown by the full lines in Figs. 1 and 4,) the raft is seated upon the roof of the deck-house G; but when said levers are turned to the vertical position (shown by the dotted lines in the same figures) the rollers l are raised, thereby raising the raft above the roof of the deck-house G, so that the whole weight of the raft is then carried by these rollers l. Consequently the raft can be launched with little friction to either side of the ship or vessel.

The ends of the raft are supported on swinging stanchions M, pivoted on a horizontal pin m, secured to a vertical pivot on the rail n or other fixed part of the ship or vessel N, (see Figs. 1 and 2,) so as to allow the stanchion

to swing vertically and horizontally. These swinging stanchions M are kept in the vertical position (shown in the full lines in Fig. 1) by means of powerful springs m^1 , connected to the deck of the vessel N and by means of cords or other readily separable or readily releasable flexible connections m^2 , one end of which is secured to the stanchion M and the other end to the raising-lever L, when the latter is in the horizontal position. Each stanchion is also separately connected to the deck-house by another flexible connection. Each swinging stanchion M is provided with three friction-rollers, a small roller m^3 at its outer extremity to hold the raft in proper position when on the deck-house and to guide the stanchion as the raft swings down, and two larger rollers m^4 , located in such positions that when the swinging stanchion turns on its pivot m into the position shown by the dotted lines in Fig. 1 these larger rollers m^4 will enter a groove or depression in the corrugated bottom of the raft and provide an antifriction-slipway for the launching of the raft. These larger rollers m^4 are preferably mounted loose on a spindle m^6 (see Fig. 2) and are kept central thereon by strong spiral springs m^5 , so that if the raft be launched at an angle to the ship's side toward the bow or the stern these springs m^5 will allow the rollers m^4 to accommodate themselves to this angular movement.

The launching of the raft is effected as follows: The holding-down screwed rods H are first released from the nuts K, fixed on the under side of the raft. The cords m^2 , connecting the raising-levers L to the stanchions M, are then cut on both sides, and the flexible connection between the deck-house and the stanchion is then cut on the side to which the raft is to be launched. The raising-levers L

on both sides of the deck-house G are then turned downward into the dotted position, (shown in Fig. 4,) thereby raising and supporting the raft clear of the deck-house. The raft can then be launched either by the movement of the ship or by end pressure, thereby permitting the swinging stanchions M to turn vertically on their centers m and m^3 and take up the inclined position. (Shown by the dotted lines in Fig. 1.)

The raft is fitted with sails, oars, rudder, and other conveniences, preferably secured by readily-detachable means on or to the sides or under side of the raft, so as to be out of the way on the deck, and the central chambers B are preferably arranged to carry freshwater tanks.

What I claim, and desire to secure by Letters Patent of the United States, is—

In a ship or vessel fitted with detachable floatable sections or rafts resting on the deck house or houses, means for launching the rafts, comprising raising-levers pivoted to the deck house or houses and adapted when turned to raise and support the raft above the roof of the deck house or houses, and swinging stanchions pivoted to and turning on the taffrail or other fixed part of the vessel and carrying rollers on their extremities, said stanchions being normally held upright by powerful springs and maintained in that position by a cord or the like detachable means, substantially as described.

In testimony whereof I have hereunto set my hand, in presence of two subscribing witnesses, this 2d day of April, 1901.

DANIEL GEORGE MARTENS.

Witnesses:

G. D. NEVILLE,

WALTER J. SKERTEN.