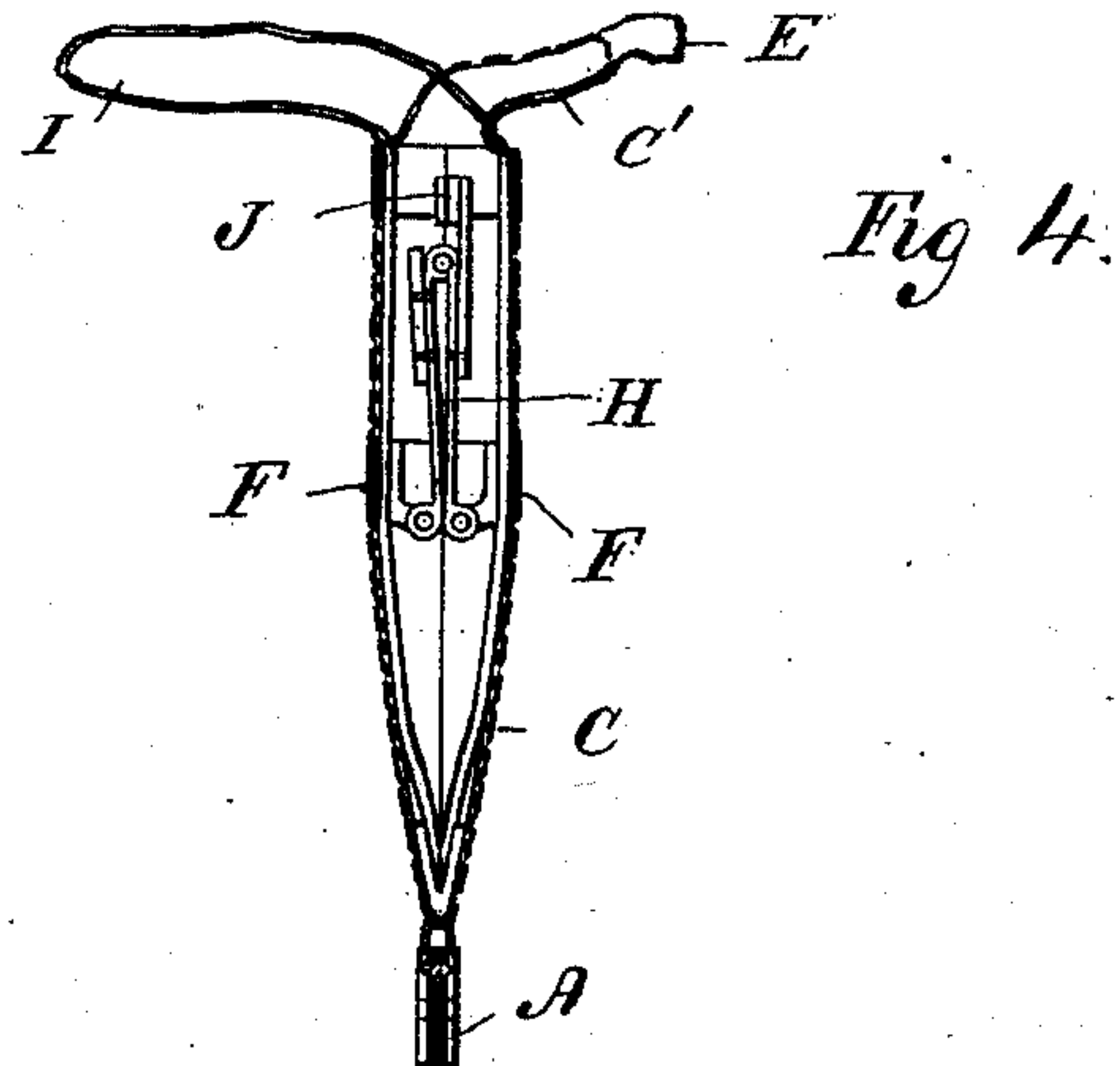
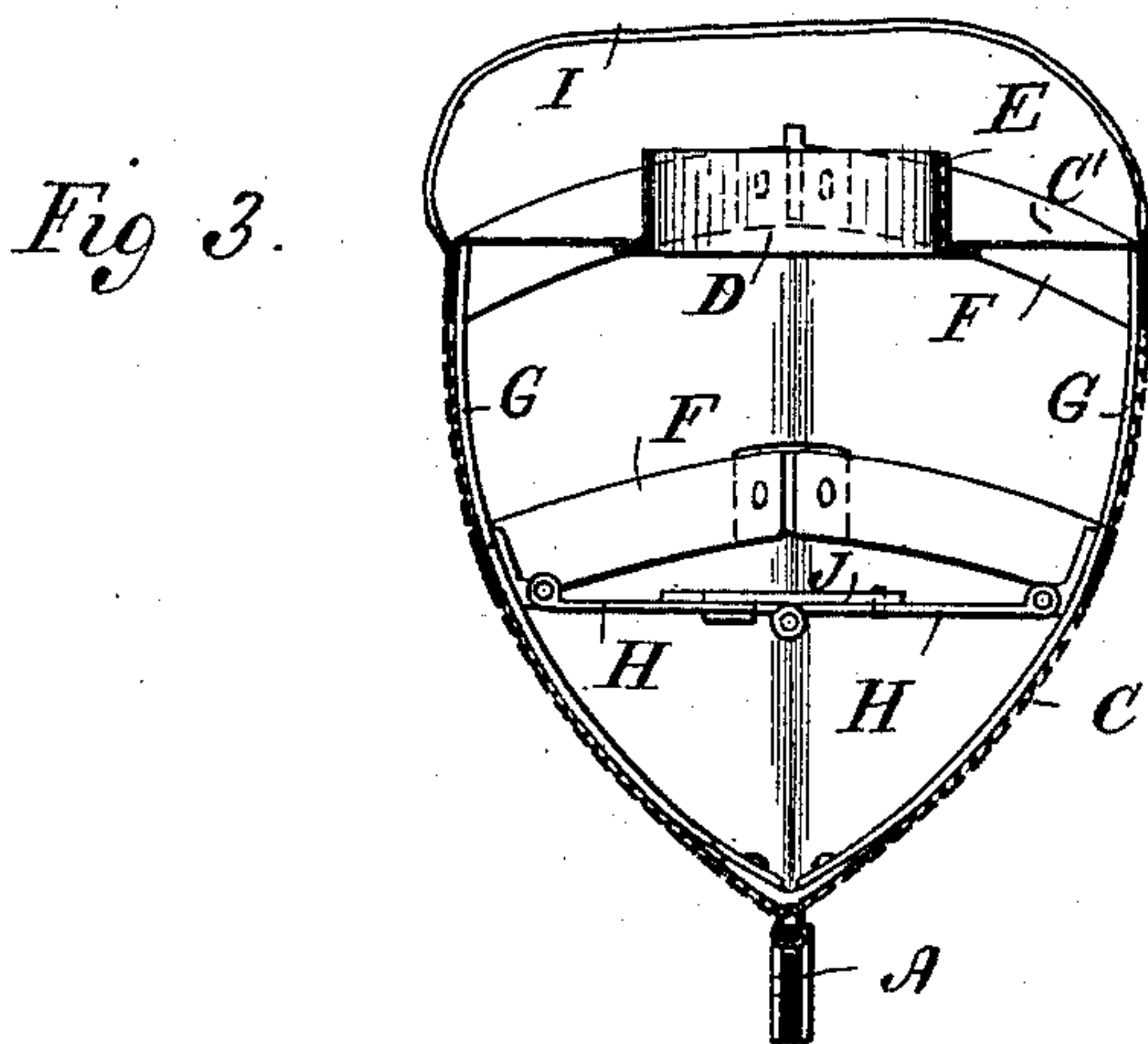
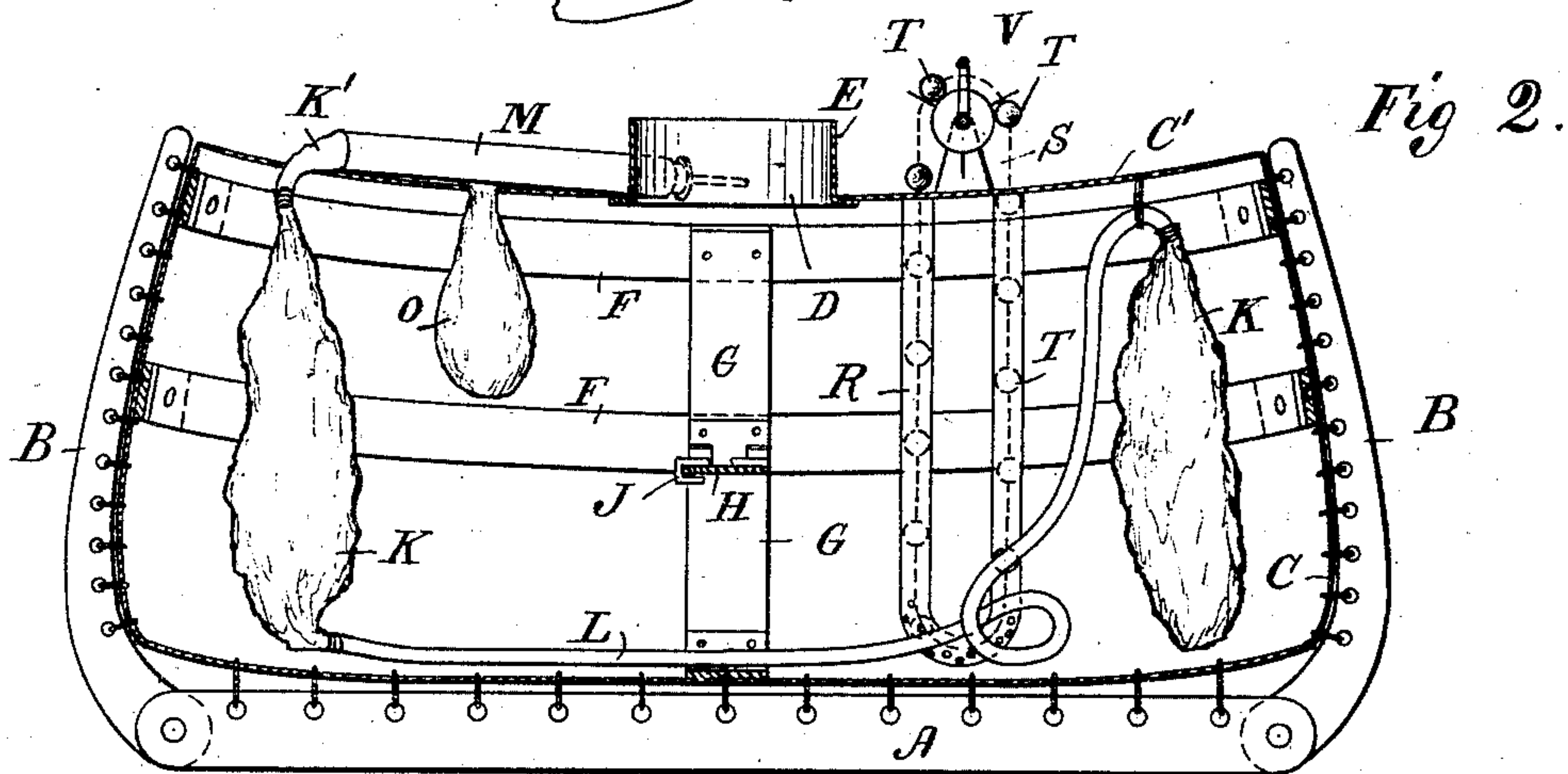
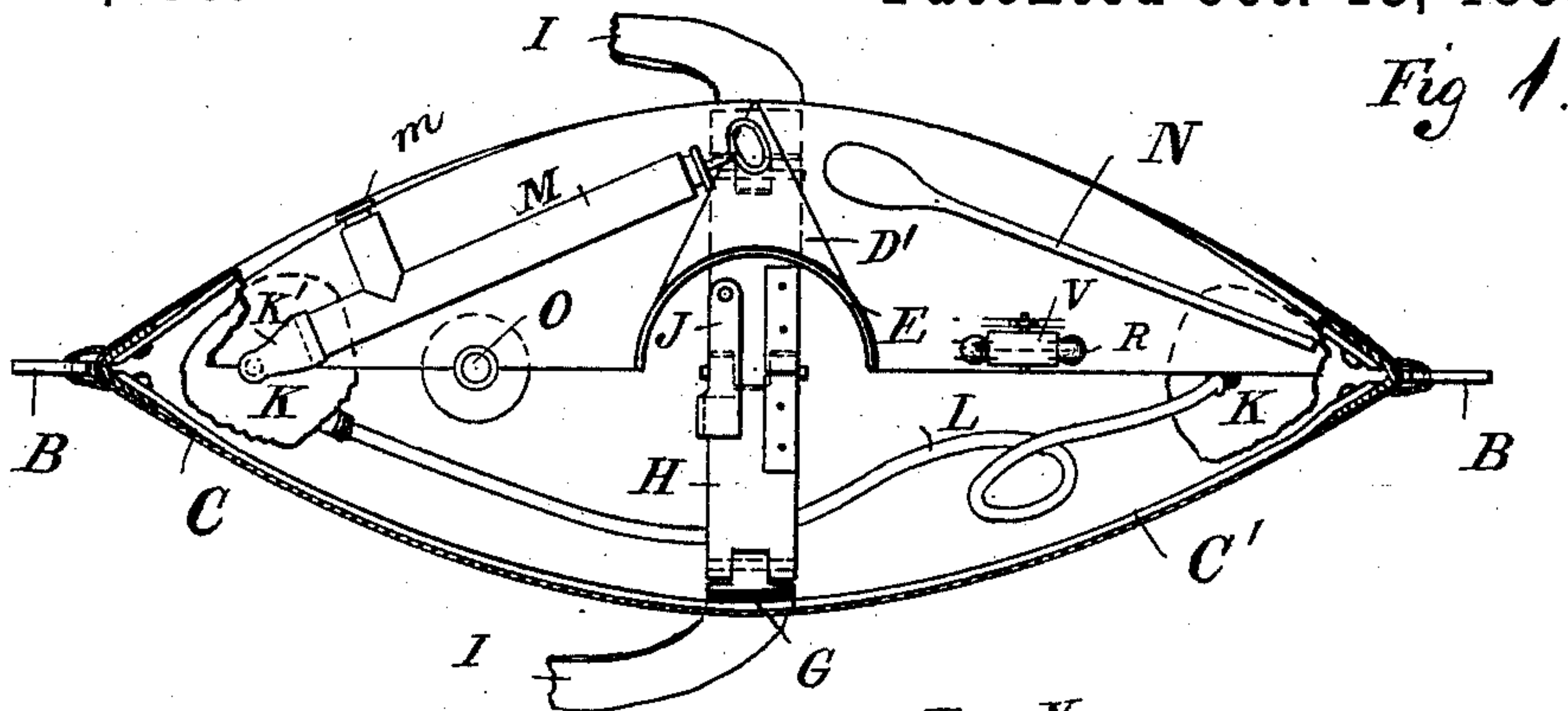


(No Model.)

P. KINGSTON.
LIFE PRESERVER.

No. 328,230.

Patented Oct. 13, 1885.



WITNESSES:

John Cook
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UNITED STATES PATENT OFFICE.

PAUL KINGSTON, OF HASTINGS, MINNESOTA.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 328,230, dated October 13, 1885.

Application filed February 11, 1885. Serial No. 155,526. (No model.)

To all whom it may concern:

Be it known that I, PAUL KINGSTON, of Hastings, in the county of Dakota and State of Minnesota, have invented a new and Improved Life-Preserver, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved life-preserver which is very compact when folded and can easily be expanded and converted into a boat for carrying the person to be saved.

The invention consists in a life preserver or boat made of water-proof fabric or other water-proof flexible material secured on a frame formed of a bottom bar or keel-bar, to the ends of which bar a bow and stern bar are hinged. On the inner sides of the vessel or bags spring-bars are secured, to which brace-bars are hinged, which are also hinged to each other and are provided with a latch for locking them in place. The vessel contains inflatable sacks or bags, which are connected with each other and with an air-pump for inflating them.

The invention also consists in various parts and details and combinations of the same, as will be fully described and set forth hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved life-preserver, parts being broken out and the life-preserver being expanded. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a cross-sectional elevation of the same, showing it expanded. Fig. 4 is a cross-sectional elevation of the same, showing it folded.

To the ends of a bottom or keel bar, A, two end bars, B, which form the bow and stern, are hinged, and to the inner edges of the bars A and B a sack or bag, C, made of water-proof fabric, rubber, leather, or other analogous material, is held by loops, wires, &c., passed through the edges of the sack and through apertures in the bars A B.

The sack is provided with a pointed elliptical top, C', in the middle of which a circular aperture, D, is formed, from which a collar, E, also made of fabric, projects upward, the

opening being of such size that the edges of the same will fit quite closely around the body of the person to be saved.

A gore, D', is formed on two opposite sides of the opening D to allow for expansion. Two longitudinal spring-bars, F, are secured to the inner surface of each side of the sack, and at the middle they are connected with vertical bars or bands G.

Two brace-bars, H, are hinged to the lower bars, F, at the middle, and the said brace-bars have their inner ends hinged to each other. On one bar H a latch, J, is hinged, which is adapted to catch on the other bar H, the said latch serving to keep the brace-bars H in a horizontal position and to keep the spring-bars stretched. Two inflatable bags, K, are suspended within the sack from the top of the same, and are connected by a flexible tube, L. One sack K is connected by a flexible pipe, K', with an air-pump, M, on the upper surface of the top C' of the sack or vessel.

A paddle, N, rests on the top of the life-preserver, which is to be used by the person in the boat formed by life-preserver.

On the top of the life-preserver a pouch or sack, O, is formed for receiving food. A pump is formed of a rubber tube, R, through which a chain, S, passes, on which balls T are formed, which chain S passes over a wheel, V, above the top of the life-preserver, which wheel V is provided with a handle.

By turning the handle the pump is operated, and any water that collects in the bottom of the life-preserver can be pumped out. The sack, bag, or life-preserver is provided with a shoulder strap or belt, I, through which the person occupying it passes his or her head for the purpose of keeping the body well in the life-preserver, and to facilitate righting in case of capsizing.

The life-preserver is used in the following manner: When not in use, it is folded, as shown heretofore, and occupies very little space, so that it can be carried very easily. If it is to be used the united bars H H are pressed down at the middle, whereby they are brought into a horizontal position, and spread the spring-bars F F at the middle, thus forming a boat-shaped vessel. The person steps

into the vessel. Then the bags K K are inflated by means of the pump M to keep the vessel buoyant and tight. The person seats himself on the braces H H, which form a transverse seat, the said braces having been previously locked in position by means of the latch J.

The paddle N is used to propel the life-preserver. One of the bags K can also be used as a cushion for the person occupying the boat, and his legs can be rested on the other bag K. If the boat is to be folded after use, the piston of the pump M is pushed out as far as possible, and the valve *m* of the pump is pulled inward, to permit the compressed air to escape from the sacks K K.

The middle keel-bar, A, and the prow and stern-bars B protect the vessel from injury and make it strong and durable, and they, with the bars H, prevent it from collapsing.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a life-preserver, the combination, with a sack or bag made of water-proof material, of a bottom bar and two end bars hinged to the same, to which bars the sack or bag is fast-

ened, inflatable bags held within the water-proof bag or sack, and means for inflating the said inflatable bags, substantially as herein shown and described.

2. In a life-preserver, the combination, with the bar A and the bars B, hinged to the ends of the same, of a water-proof sack or vessel, C, secured to the bars A B, inflatable sacks or bags K, held within the sacks or vessels C, and connected by a pipe, and of the air-pump connected with one of the bags K, substantially as herein shown and described.

3. In a life-preserver, the combination, with the bars A and the bars B, hinged to the ends of the same, of the air-tight sack or vessel C, secured to the bars A B and provided with a top, C', a food pouch, O, in the top C', the bags K K in the vessel C, the pipe L, connecting them, and the air-pump M, connected with one of the bags K, substantially as herein shown and described.

PAUL KINGSTON.

Witnesses:

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