D. COPLIN.

LIFE PRESERVER. Patented July 14, 1896. No. 563,747. Fig. 7. A Freg. 5. WITNESSES: P. Fr. Angles. L'Houville.

United States Patent Office.

DAVID COPLIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO BACKIE WABER, OF SAME PLACE.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 563,747, dated July 14, 1896.

Application filed January 18, 1896. Serial No. 575,979. (No model.)

To all whom it may concern:

Be it known that I, DAVID COPLIN, a subject of the Czar of Russia, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Life-Preservers, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a life-preserver in which provision is made for buoying a person in a sack or bag, which is provided with a seat and other conveniences and safety appliances.

It also consists of means for covering the bag, and of means for preventing the opening and closing of the same as required.

It also consists in adapting the preserver to be folded in compact form, and of details of construction as will be hereinafter set forth.

Figures 1 and 2 represent side elevations of a life-preserver embodying my invention, the views being at right angles to each other. Fig. 3 represents a vertical section thereof. Fig. 4 represents an end view of a detached portion. Fig. 5 represents a bottom view thereof. Fig. 6 represents an end view of the preserver in folded condition. Fig. 7 represents a vertical section of the air-nozzle of one of the buoys or floats.

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

Referring to the drawings, A designates a sack or bag formed of waterproof material, which is held distended by the horizontal 35 rings B, B', and B². The opposite sides of the mouth C of the bag are supported and held distended by frames D, whose lower sides are pivotally connected with the buoys or floats E, the latter being provided on their 40 lower sides with the cross-bars F, on which are mounted the links G, which latter have their lower ends freely connected with the ring.B. The links are formed in sections and provided with heads H, between which the 45 adjacent portion of the bag A is clamped, thus connecting the body of the bag with the floats. The links are also provided on their ends with eyes J, whereby they may be freely connected with the cross-bars F and ring B, 50 respectively, thus allowing great freedom of motion to the connected parts.

Rising from the floats E are ears K, within which the pivotal ends of the frames D are received, and on which they are mounted, their inner walls serving to limit the inward 55 motions of the frame D, as most clearly shown in Fig. 1. In order to prevent improper outward motions of said frames D, there are secured to the same and to the cross-bars F the springs L, which in the present case are of 60 the form of rubber cords, and are secured to the cross-bars F by the clamps M thereon.

When it is desired to open the mouth to a greater extent than that shown in Fig. 1, the upper portion of the mouth is lowered and the 65 frames D moved to the right and left, the cord A' being first unloosed, in which case the floats approach each other, and the said frames rest thereon, the said springs L assisting in moving outwardly the upper ends 70 of said frames D.

Connected with the ring B are straps N, which may be placed over the shoulder of the person occupying the bag, so that the preserver may be attached to the body of the 75 occupant of the bag.

The rings B' and B² are suspended from the ring B by the cords P, and the bottom ring B² has secured to it the floor Q, on which the weight of the occupant when standing is 80 superimposed, said floor being netting, interlaced straps, or other suitable material. The bag has a lining R of fabric or other suitable material, thus preventing the occupant from contacting with said bag, while retaining said 85 party within said lining.

Suspended from the ring B is the flexible seat S, the child's hammock or cradle T, and the box or receptacle U for necessary things.

Attached to the links F, or if desired any 90 other suitable part of the floats E, are cords V, which are provided with snap-hooks W for coupling adjacent life preservers.

Connected with the top of one of the frames D is the curtain X, to which is attached the 95 cord Y, which is passed through the eye Y' on the other frame D, whereby said curtain may be drawn over the mouth C of the bag to cover the same when so desired, said curtain when not in use being, if desired, formed 100 into a roll, as shown in Fig. 1.

The floats E are designed to be filled with

air, for which purpose the walls of the same are provided with nozzles Z for attachment of a suitable air-pump, each of said nozzles Z having an opening in its side for the con-5 necting-tube of the pump, a screw-valve Z[×] for closing the same, and a cap Z' for covering it when the float is inflated or filled with air.

In order to limit the outward or opening 10 motions of the mouth of the bag, there is connected with the top of the frame thereof the cords A', the effect of which is evident.

It will be seen that the floats buoy the bag in the water, and a person or persons enter-15 ing the same will be carried standing or sitting with comparative safety, and furthermore that the mouth of the bag may be covered and uncovered and opened and closed as desired, it being also seen that articles of 20 convenience may be placed in the receptacle U, and a child may occupy the hammock or cradle T.

> When the preserver is empty, its parts may be brought together in compact form, as illus-25 trated in Fig. 6, by folding the sides of the body of the bag bellows-fashion and closing the mouth thereof.

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

30 Patent, is— 1. A life-preserver consisting of a collapsible bag having a mouth, and provided with floats connected with opposite sides of said mouth, and frames for opening or closing said 35 mouth, said frames being connected at their upper ends with said mouths and at their lower ends pivoted to said floats, said parts

being combined substantially as described. 2. A bag with horizontally-distending rings 40 and connected floats, in combination with links which are attached to said floats and rings, and provided with clamping-heads by which the bag is secured to the floats, substantially as described.

3. A bag, and a float attached thereto, in combination with an ear on said float, and a vertically-supporting frame for the mouth of said bag, whose pivotal end is mounted within said ear, substantially as described.

4. A bag, and a float attached thereto, a 50 pivotal frame mounted on said float for supporting the mouth of said bag, and a spring connected with said float and frame for holding the frame in operative position, substantially as described.

5. A bag in combination with a float, a crossbar on said float, a link with eyes on its ends. a head on said link to which the bag is clamped. and a distending-ring attached to said bag, one of the eyes of said link being mounted on 60 said cross-bar, and the other eye being mounted on said ring, substantially as described.

6. A bag, a float attached thereto, a frame on the float secured to the mouth of the bag, a covering-curtain connected with said frame 65 at the top thereof, an operating-cord attached to said curtain, and a guide for said cord, substantially as described.

7. A life-preserver having a bag, floats on two of the opposite sides of the mouth thereof. 70 and above the body of the said bag, frames having their upper ends connected to the said two opposite sides and their lower ends pivoted to ears on said floats and means connected with said frames for retaining said mouths in 75 open position, said parts being combined substantially as described.

8. A life-preserver having a bag, rings in the body thereof forming a frame for the same. cords connecting said rings, a floor connected 80 with the lower one of said rings and a lining within said rings and floor, said parts being combined substantially as described.

9. A life-preserver consisting of a collapsible bag, floats connected with the opposite 85 sides of the mouth thereof, frames secured with said mouth and pivotally connected with said floats, means connected with said frames for holding said mouth in open position, frames connected with said floats and top of 90 the mouth, and cross-bars connected with the floats and with said bag, said parts being combined substantially as described.

DAVID COPLIN.

Witnesses:

JOHN A. WIEDERSHEIM, WM. C. WIEDERSHEIM.