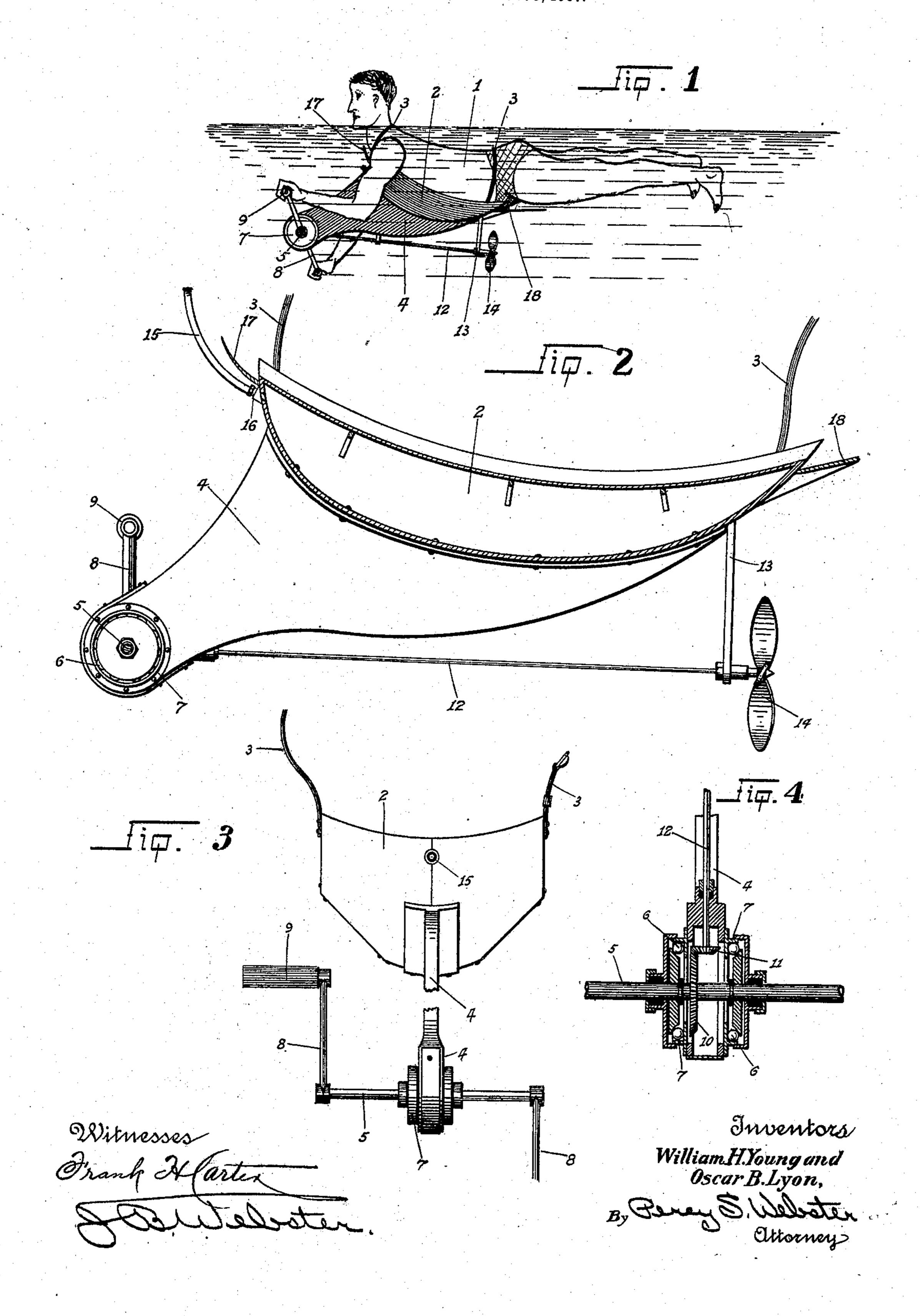
W. H. YOUNG & O. B. LYON.
LIFE PRESERVER AND SWIMMING MACHINE.

APPLICATION FILED NOV. 9, 1907.



## UNITED STATES PATENT OFFICE.

WILLIAM H. YOUNG AND OSCAR B. LYON, OF MODESTO, CALIFORNIA.

## LIFE-PRESERVER AND SWIMMING-MACHINE.

No. 885,212.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed November 9, 1907. Serial No. 401,380.

To all whom it may concern:

Be it known that we, WILLIAM H. YOUNG and Oscar B. Lyon, citizens of the United States, residing at Modesto, in the county of 5 Stanislaus and State of California, have invented certain new and useful Improvements in Life-Preservers and Swimming-Machines; and we do declare the following to be a full, clear, and exact description of the same, such 10 as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a 15 part of this application.

This invention relates to improvements in life preservers and the like, our object being to produce such a life preserver as may also be used for a swimming machine, either for 20 recreation or in a case of necessity, whereby in cases of accident or ship wreck the survivors may get safely away from the vessel and propel themselves to a place of safety. This object we accomplish by means of an 25 air tight compartment adapted to be strapped to the trunk of a person, said compartment having a keel similar to that of a boat, connected with which is a driving screw propelling mechanism adapted to be 30 operated by the manual force of the wearer; also by such other and further construction as will appear by a perusal of the following

In the drawings similar characters of refer-35 ence indicate corresponding parts in the several views.

specifications and claims.

Figure 1 represents a man in water with our improved device secured to his body. Fig. 2 is a sectional view of the device. Fig. 40 3 is a front elevation of the device. Fig. 4 is a sectional view of a screw propeller driving mechanism.

Referring more particularly to the characters of reference on the drawings 1 desig-45 nates a man; 2 designates an air tight compartment adapted to be secured to the body of the man by means of straps 3. Said compartment 2 is formed with a keel 4 at the lower end of which is journaled a shaft 5 having ball bearings 6 suitably inclosed in 50 boxes 7. Said shaft 6 is provided with

cranks 8 having handles 9.

Secured to the center of the shaft 5 is a beveled gear 10 which intermeshes with a smaller beveled gear 11 on the end of a shaft 55 12, said shaft 12 being suitably journaled in the keel 4 and extending to a point near the rear of the member 2 where it is journaled in a hanger 13, there being a screw propeller 14 secured to the outer end of said shaft 12.

In operation the operator straps the device to his body as shown in Fig. 1, and when in the water he grasps the handles 9 and turns the cranks 8, thus revolving the gear 10 which intermeshing with the smaller gear 11 drives 65 the shaft 12 and incidentally the propeller 14 in a rapid manner, thus propelling the operator through the water, he being held on the surface by means of the air tight recep-

If desired the receptacle 2 may be filled with compressed air and provided with a hose 15 having a check valve 16 whereby the operator may supply himself with air when going through breakers or the like.

If desired the receptacle 2 may be made into several separate chambers so that if one becomes punctured the remainder will still be operative. Also the receptacle 2 may be provided with a front guard member 17 and a 80 rear guard member 18 to protect the operator's body from any interference with objects or the running mechanism.

Thus it will be seen that we have produced a device which is admirable as a life pre- 85 server, since it permits the wearer to propel himself through the water away from danger such as the suction caused by the sinking of a vessel or other similar dangers. Also the device may be used simply as a recreation 90 swimming machine as at sea side resorts and the like.

While this specification sets forth in detail the present and preferred construction of our device, still in practice many small devia- 95 tions from such detail may be resorted to without departing from the spirit of our invention.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

An air tight receptacle, a narrow down-5 wardly depending keel thereon, a shaft disposed in said keel, a propeller secured on said shaft and spaced apart from said receptacle below the same, as shown and described.

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In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. YOUNG. OSCAR B. LYON.

Witnesses:

Percy S. Webster, Frank H. Carter.