Nov. 1, 1927. 1,647,677

A. L. WEEKS

SPORTING DEVICE AND LIFE PRESERVER

Original Filed March 10, 1925

Fig. 2.

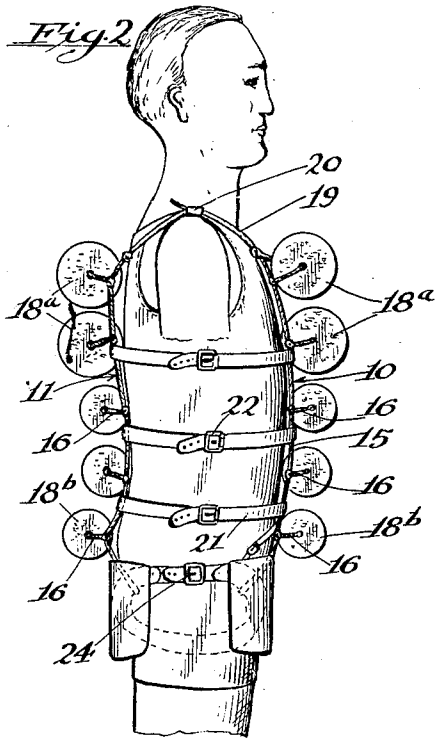


Fig. 1.

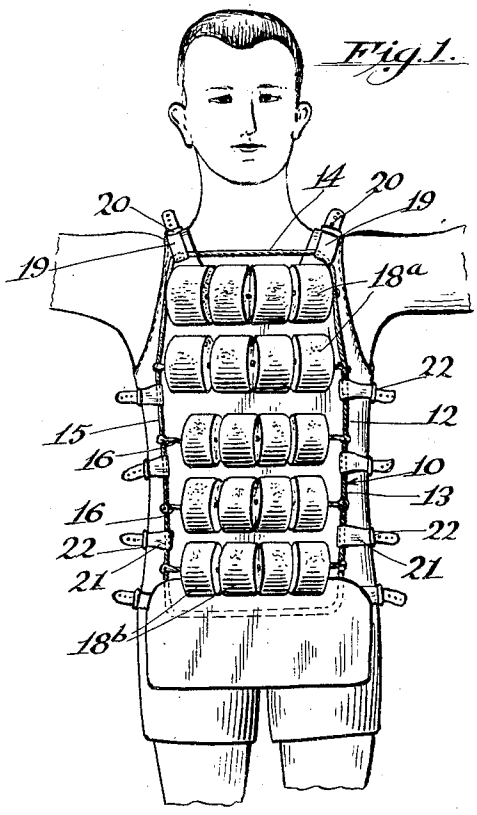
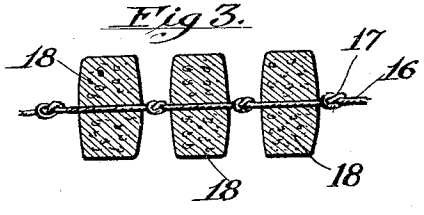


Fig. 3.



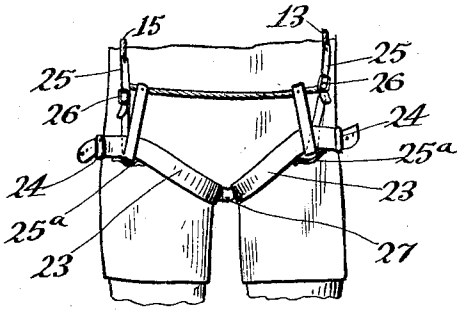


Fig. 4.

Witness:
Wm. Hall

Inventor:
Allan L. Weeks,
By Hazard and Miller
Attorneys

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UNITED STATES PATENT OFFICE.

ALLAN L. WEEKS, OF LONG BEACH, CALIFORNIA.

SPORTING DEVICE AND LIFE PRESERVER.

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This invention relates to improvements in life preservers and sporting devices for swimmers.

It is an object of this invention to provide an improved sporting device or life preserver, which consists essentially of a harness carrying a plurality of buoyant elements adapted to be secured about the body of the bather in such a manner as to permit the free use of the limbs and the body of the bather while in the water.

A further object of the invention is to provide an improved sporting device or life preserver, which is capable of adjustment, so that the device may be properly fitted upon variously sized persons.

A still further object of the invention is to provide a sporting device or life preserver, consisting of two frames adapted to be secured upon the front and back of a bather, upon which are secured a plurality of buoyant elements which tend to keep the bather supported upon the surface of the water, and to arrange the buoyant elements in such a manner that those which are mounted upon the frames adjacent the top are larger or of greater buoyancy than those adjacent the bottom, so that the bather will normally tend to assume an upright position in the water, or will tend to assume such positions as to normally keep at least his head out of water.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and pointed out in the appended claims, reference is had to the accompanying drawings, for an illustrative embodiment of the invention, wherein:

Figure 1 is a front view of a bather to whom the improved sporting device or life preserver has been applied;

Fig. 2 is a side view of the bather to whom the sporting device has been applied;

Fig. 3 is a section through several of the buoyant elements, illustrating their manner of attachment to the harness or frame; and

Fig. 4 is a front view showing the manner in which the harness is secured to the legs of the bather.

Referring to the accompanying drawings, wherein similar reference characters designate similar parts throughout, the improved sporting device consists of a harness including front and back frames, generally designated at 10 and 11 respectively. These frames are similar in construction and each consists of a flexible element 12 which extends upwardly along one side of the bather, as indicated at 13, across the shoulders, as indicated at 14, down the other side of the bather, as indicated at 15, and across the bottom. Transverse stringers 16 are secured to the side portions 13 and 15 of the flexible element 12. These stringers are knotted at intervals, as indicated at 17, and buoyant elements 18 are strung onto the transverse stringers 16 between the knots 17, the knots 17 serving to hold the buoyant elements 18 in proper position upon the stringers. In the preferred form of the invention, the buoyant elements 18 are cylindrical corks, having apertures formed therein, through which the transverse stringers 16 extend. These buoyant elements may be formed in any other suitable manner desired. The buoyant elements 18^a, which are arranged adjacent the top of each frame, are of greater size than the buoyant elements 18^b arranged adjacent the bottom of each frame; and in this manner the buoyant elements adjacent the top are of greater buoyancy than the elements 18^b so that the bather is normally urged to keep an upright position in the water.

The flexible elements 12 upon each of the frames 10 and 11 are connected together by means of adjustable shoulder straps 19, extending over the shoulders of the bather, and adjustment for these straps is provided in any suitable manner, as by a buckle 20. Adjustable side straps 21 connect the side portions 13 and 15 of the front and back frames 10 and 11, and extend over or around the sides of the bather. Adjustment for these side straps is provided in any suitable manner, as by buckles 22. Thigh straps 23 encircle the thighs of the bather, and adjustment for these thigh straps is provided by buckles 24. The thigh straps 23 are preferably of a soft flexible material and may include a strap about which may be secured horse hair, curled hair or other padding material, so as to provide a soft flexible strap which will not chafe. These thigh straps are preferably formed of hollow canvas rings which are stuffed with the hair or padding material. The lower ends of the side portions 13 and 15 of the flexible elements 12 are connected to the thigh straps 23 as by tie straps 25, which are adjustable as by buckles 26. Each tie strap extends beneath its respective thigh strap and has its other end

secured to the bottom horizontal portion of the frame. Small strips 25ª prevent lateral slipping of the tie straps upon the thigh straps. The thigh straps 23 are connected together beneath the crotch of the bather as by a strap 27, so as to maintain them in proper position. By means of the adjustable shoulder straps 19, the adjustable side straps 21, the adjustable thigh straps 23 and the adjustable tie straps 25, a complete adjustment is provided for the harness so that it may be applied to a bather of any ordinary build and it can be properly positioned upon him. Because of the fact that all of the elements forming the harness with the exception of the buoyant floats 18 are flexible and because of the arrangement of the harness, free movement of the arms of the bather is provided as well as for his legs, and the trunk of the bather is in no way hampered. Suitable skirt portions 28 may be secured adjacent the bottom of each frame so as to depend therebelow.

The thigh straps 23 are angularly related to one another so that their points of intersection fall immediately at the crotch of the wearer where the tie strap joins them together in such manner as to furnish, in effect, a draft equalizer which becomes operative for equal distribution of the loads when pull is applied to either or both of the flexible elements 12. The said thigh straps pass about the limbs of the user, and due to the angularity thereof with respect to each other, to which may be added the fact that these straps are tied together at the crotch, it obviously follows that the rear portions thereof occupy positions at the buttocks where they rest saddle-like thereagainst. It follows from the very nature of the superstructure of the device that, when the device is in use in the water, the tendency thereof is to work upward, and in so doing the said straps 23, acting saddle-like, function to provide a comfortable adaptation of said rear portions to the buttocks, rather than thrusting the strain of the load against the limbs of the wearer below the crotch which would result in discomfort to the wearer and a chafing of the limbs. Also, and due to the features above advanced, strains are taken from the body and the trunk of the wearer and distributed to the buttocks, where the loads can be best sustained and in ways that will enable the wearer to obtain a full measure of enjoyment and comfort from the use of the device. Any strains or upward pulls upon either of the side elements 13 will be transmitted about equally to the other element by virtue of the said tie strap 27 and the angular positions of the straps 23. It also should be observed that these features of construction in a device whose structure above the buttocks and the crotch is loose fitting about the body of the wearer are such that, due to the said underlying saddle structure, the said part of the device above said buttocks enables the body of the wearer to adapt itself to normal conditions. No extreme pressures are applied to the person of the user at any time that would cause restrictions to be imparted to the body.

It will be understood that various changes in the detail of construction may be made without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A sporting device and life preserver comprising front and back frames, a plurality of buoyant elements secured to each of said frames, adjustable side straps connecting said frames over the sides of the bather, adjustable shoulder straps connecting said frames over the shoulders of the bather, adjustable thigh straps, and adjustable tie straps for connecting said frames to said thigh straps.

2. A sporting device and life preserver comprising a front frame, a back frame, shoulder straps and side straps connecting said frames, thigh straps, tie straps connecting said frames to said thigh straps, and a plurality of buoyant elements secured to said frames.

3. A sporting device and life preserver comprising a front frame, a back frame, shoulder straps and side straps connecting said frames, thigh straps, tie straps connecting said frames to said thigh straps, and a plurality of buoyant elements secured to said frames, said buoyant elements adjacent the top of said frames being of greater buoyancy than those adjacent the bottom thereof as and for the purpose described.

4. A sporting device and life preserver comprising a front frame, a back frame, shoulder straps and side straps connecting said frames, thigh straps, tie straps connecting said frames to said thigh straps, and a plurality of cork buoyant elements secured to said frames.

5. A sporting device and life preserver comprising a front frame, a back frame, shoulder straps and side straps connecting said frames, thigh straps, tie straps connecting said frames to said thigh straps, and a plurality of cork buoyant elements secured to said frames, said cork elements being of greater size adjacent the top of said frames than adjacent the bottom thereof as and for the purpose described.

6. A sporting device and life preserver comprising front and back frames, each consisting of a flexible element extending up one side, across the shoulders and down the other side of the bather, transverse stringers connecting the side portions of said flexible element, a plurality of buoyant elements mounted upon each of said stringers, and

means for securing said frames together about the body of a bather.

7. A sporting device and life preserver comprising front and back frames, each consisting of a flexible element extending up one side, across the shoulders and down the other side of the bather, transverse stringers connecting the side portions of said flexible element, a plurality of buoyant elements mounted upon each of said stringers, shoulder straps connecting said frames over the shoulders of the bather, side straps connecting said frames over the sides of the bather, and means for connecting said frames together beneath the crotch of the bather.

8. A sporting device and life preserver comprising front and back frames, each consisting of a flexible element extending up one side, across the shoulders and down the other side of the bather, transverse stringers connecting the side portions of said flexible element, a plurality of buoyant elements mounted upon each of said stringers, adjustable shoulder straps connecting said frames over the shoulders of the bather, adjustable side straps connecting said frames over the sides of the bather, adjustable thigh straps, and adjustable tie straps connecting said frame to said thigh straps.

9. A sporting device and life preserver comprising front and back frames, each consisting of a flexible element extending up one side, across the shoulders and down the other side of the bather, transverse stringers connecting the side portions of said flexible element, a plurality of buoyant elements mounted upon each of said stringers, adjustable shoulder straps connecting said frames over the shoulders of the bather, adjustable side straps connecting said frames over the sides of the bather, adjustable thigh straps, and adjustable tie straps connecting said frame to said thigh straps, said thigh straps being connected together beneath the crotch of the bather.

10. A sporting device and life preserver comprising front and back frames, each consisting of a flexible element extending up one side, across the shoulders and down the other side of the bather, transverse stringers connecting the side portions of said flexible element, a plurality of buoyant elements mounted upon each of said stringers, and skirt portions depending from the bottom of each of said frames.

11. A sporting device comprising a loose fitting buoyant superstructure adapted to be supported normally from the shoulders of the wearer, and an underlying saddle including portions extending about the thighs of the wearer and tied together at the crotch and adapted to rest at the rear of the wearer against the buttocks and thereby check the ascending tendency of the superstructure when the device is worn in the water.

12. A sporting device and life preserver comprising a buoyant embracing superstructure adapted to freely accommodate the body of the wearer above the thighs, and a saddle connected with the superstructure and including thigh straps angularly related to one another and intersecting at the crotch, and means joining the straps together at the crotch so that pull applied to one strap will be transmitted in part to the other strap through said means and whereby the rear portions of the straps are positioned to bear directly against the buttocks.

In testimony whereof I have signed my name to this specification.

ALLAN L. WEEKS.