Nov. 24, 1931. C. G. RENTOS 1,832,998

SWIMMING APPLIANCE

Original Filed Dec. 7, 1928

Fig. 1.

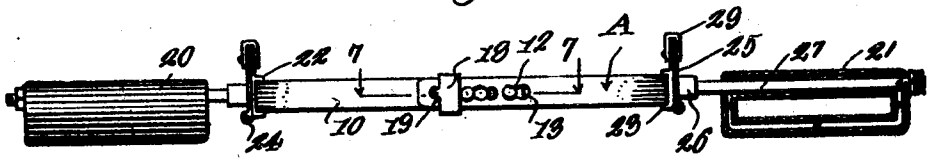


Fig. 2.

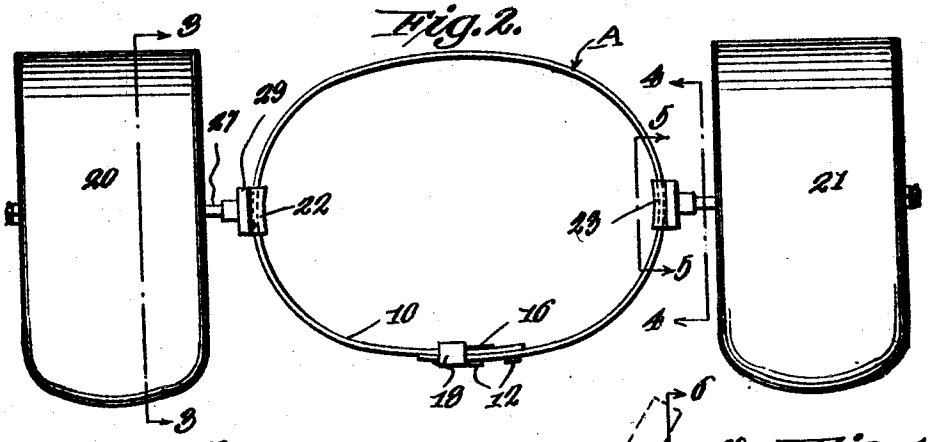


Fig. 3.

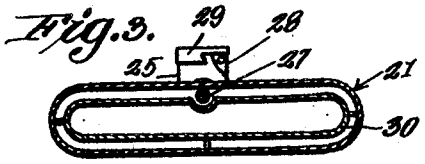


Fig. 4.

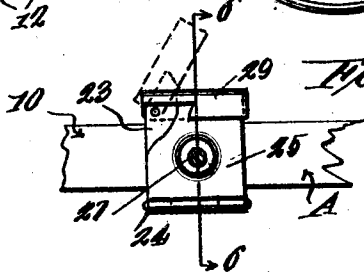


Fig. 6.

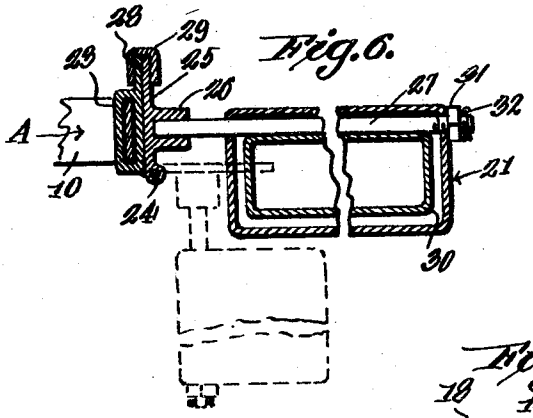


Fig. 5.

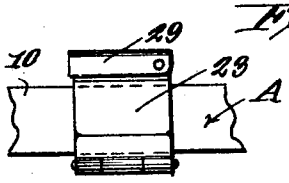
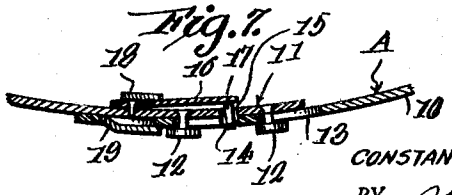


Fig. 7.



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UNITED STATES PATENT OFFICE

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SWIMMING APPLIANCE

Application filed December 7, 1928, Serial No. 324,393. Renewed August 10, 1931.

This invention appertains to life saving and swimming belts and has for one of its primary objects novel means for keeping a person afloat in the water.

Another salient object of the invention is the provision of a life preserver and swimming appliance comprising a flexible belt having adjustably mounted thereon a pair of float members, the float members being carried by the belt in a novel way so as to permit the rocking thereof with the waves.

Another important object of the invention is the provision of a resilient belt for encircling the body of the wearer with guides slidably mounted upon said belt and novel means carried by said guides for rockably supporting a pair of floats, said means also allowing the floats to be held either in a horizontal position at right angles to the body of the user or in a depending position hanging from the sides of the body of the user.

A still further object of the invention is to provide a life preserver and swimming appliance comprising a novel resilient belt for supporting the floats with novel means for retaining the belt in a closed body encircling position around the user.

A still further object of the invention is to provide a combined life preserver and swimming appliance of the above character, which will be durable and efficient in use, one which will be simple and easy to manufacture, and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a front elevation of the improved combined life preserver and swimming appliance, one of the floats thereof being shown in transverse section;

Figure 2 is a top plan view of the float and swimming appliance;

Figure 3 is a longitudinal section through one of the floats taken on the line 3—3 of Figure 2 looking in the direction of the arrows;

Figure 4 is a detail section taken on the line 4—4 of Figure 2 looking in the direction of the arrows;

Figure 5 is a detail section taken on the line 5—5 of Figure 2 looking in the direction of the arrows illustrating the construction of one of the slides;

Figure 6 is a detail section taken on the line 6—6 of Figure 4 looking in the direction of the arrows illustrating the position of the float in normal position in full lines and the position of the float in its released position in dotted lines, and

Figure 7 is a detail horizontal section taken on the line 7—7 of Figure 1 looking in the direction of the arrows illustrating the novel construction of the lock for the belt.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views the letter A generally indicates the improved life preserver and swimming appliance which comprises a belt 10. This belt is preferably formed from resilient steel and is in the nature of an open band preferably oval shaped in plan to encircle the waist of a wearer. The terminals of the band or belt 10 are connected together in a novel way as generally indicated by the reference character 11. This means 11 includes a pair of headed studs 12 which are adapted to be received within keyhole slots 13 formed in the opposite end of the belt. In order to prevent the accidental opening of the belt one keyhole slot 13 at one end is provided with a keeper recess 14, which is adapted to aline with a keeper opening 15 in the other end of the belt when the headed studs 12 are placed within the keyhole slots, for a purpose which will be later described. The inner face of the steel band 10, at the terminal thereof having the opening 15 therein, carries a substantially arcuate leaf spring 16 the free end of which is provided with the inwardly directed latch pin 17. Due to the normal shape of the leaf spring 16 the latch will be normally held away from the opening 15.

In order to urge and hold the latch pin 17 within the registering openings 14 and 15, I provide a slide ring 18 which can be slipped

over the ends of the band and over the leaf spring 16. As the slide collar or ring 18 is moved over the overlapping ends of the band, the same functions not only to hold the latch pin within the openings 14 and 15, but to also hold the ends of the band 10 together. To prevent slipping of the slide ring 18 off the overlapping ends of the band, the same can be provided with a spring tooth 19 for snapping into one of the keyhole slots 13. By this construction it is obvious that a simple yet positive means is provided for connecting the ends of the belt together. When it is desired to take off the belt, it is merely necessary to press the slide ring 18 outwardly until the tooth 19 slides from out of engagement with the wall of its keyhole slot after which the ring can be slipped off of the overlapping ends of the belt 10. The spring 16 will now move the latch pin 17 out of engagement with the walls of the openings 14 and 15 after which the headed studs 12 can be removed from the keyhole slots 13.

The belt supports a pair of floats 20 and 21 which floats are carried by the belt in a novel way. The means for mounting the floats 20 and 21 upon the belt includes slide collars 22 and 23 which collars are shaped to conform to the configuration of the belt and it is obvious that these collars or slides can be led around the belt to any desired position. Each of the slides or collars 22 and 23 has hingedly connected to its lower edge, as at 24, a hinge plate 25. Each of these hinge plates 25 supports outwardly extending sockets 26 in which are secured stub shafts 27. Each of the slide rings 22 and 23 has formed thereon an upwardly extending latch plate 28, which plate pivotally supports a latch member 29. This latch 29 is of substantially U-shape in cross section and when in its lowered position is adapted to embrace the latch plate 28 and the hinge plate 25 for holding the hinge plate 25 in a raised position in snug engagement with the slides or collars whereby the stub shafts 27 will be held in a horizontal position.

Each stub shaft 27 rockably receives its float 20 or 21 and it is obvious that the floats are free to rotate on said shafts.

I prefer to construct the floats 20 and 21 out of sheet metal and each of the floats may include inner and outer spaced walls 30, so that if the outer wall is punctured the inner wall will form a housing having sufficient buoyancy to support a person in the water. In the present instance the stub shafts have been extended through the floats between the inner and outer walls 30 and the floats can be retained on the shafts in any desired way, such as by the use of nuts 31 and cotter pins 32. If preferred, the openings formed in the floats for receiving the shafts can be packed so as to prevent the entrance of water around the shafts into the floats.

When a person wearing the belt stands upright in the water, the floats will assume a horizontal position substantially parallel with the belt and the floats will rock on the shafts with the waves. When a person lies in a prone position in the water the floats will rock on the shafts 27 and assume a substantially horizontal position at right angles to the belt 10.

When a person wearing the belt leaves the water the latches 29 can be raised so that the shafts 27 will depend from the belt and the floats will swing down at the sides of the user.

From the foregoing description, it can be seen that a combined life preserver and swimming appliance has been provided which will effectively keep a person afloat and which will be exceptionally durable in use.

Changes in details may be made without departing from the scope of this invention, but

What I claim is:

1. A life preserver comprising a belt, slides adjustably mounted upon said belt, shafts carried by said slides, and floats rockably mounted upon said shafts, said shafts extending through the floats at the transverse center thereof.

2. A life preserver comprising a belt, slides mounted upon said belt, plates hingedly connected to said slides, outwardly extending shafts connected to said plates, floats rockably mounted upon said shafts, and releasable means for holding the plates in a raised position in contact with said slides.

3. In a life preserver, a resilient steel open band, one end of said band being provided with a plurality of keyhole slots, the other end of said band being provided with headed studs for reception in said keyhole slots, the ends of the band being provided with alined keeper openings, a resilient leaf spring carried by one end of the band having a latch pin normally held away from said openings, and a slide ring movable over the overlapping ends of the belt for urging and holding the latch pin in engagement with the walls of the registering openings, said slide ring having a tooth for engaging a wall of one of the keyhole slots.

4. A life preserver comprising a belt, and floats associated with the belt adapted to be held normally in a lowered position by gravity, at right angles to said belt, and releasable means for holding the floats in a raised position in the same plane with the belt.

In testimony whereof I affix my signature.

CONSTANTINOS G. RENTOS.