July 14, 1959 R. B. SMITH 2,894,271

APPLIANCE FOR FLOATING THE HUMAN BODY IN WATER

Filed Feb. 25, 1957

Fig. 2.

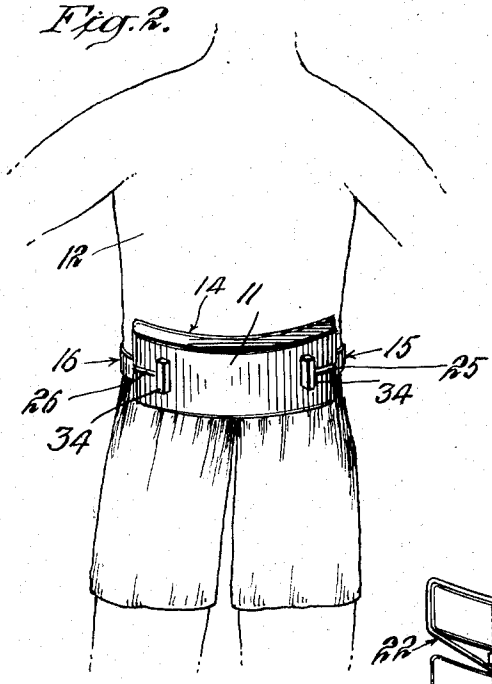


Fig. 4.

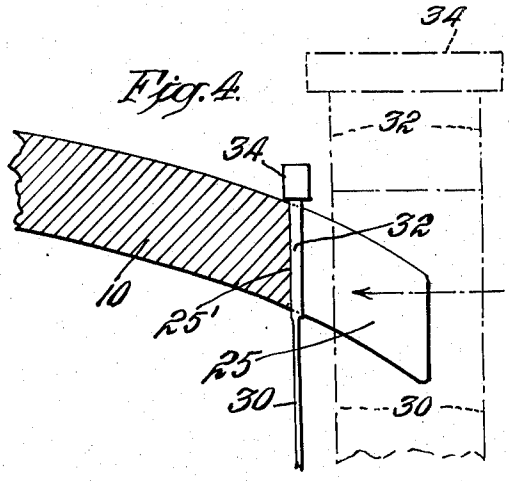


Fig. 7.

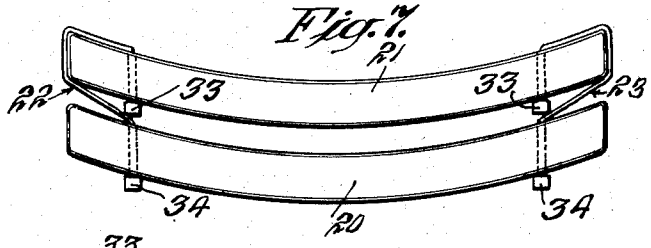


Fig. 1.

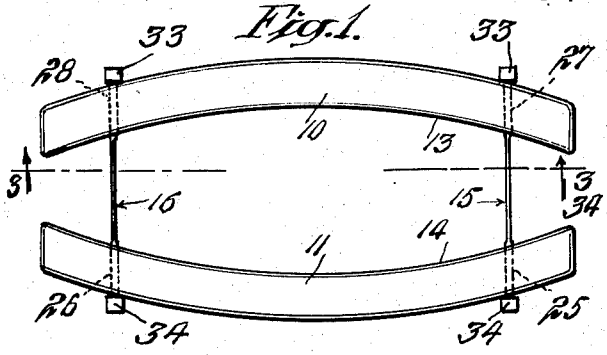


Fig. 5.

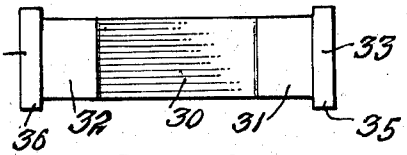


Fig. 6.

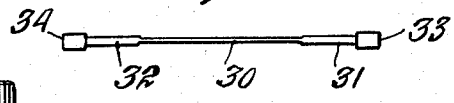
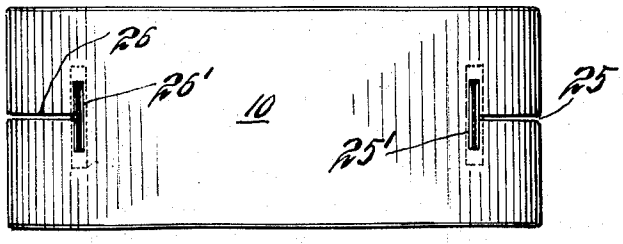


Fig. 3.



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APPLIANCE FOR FLOATING THE HUMAN BODY IN WATER

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2 Claims. (Cl. 9—17)

This invention relates to an appliance for floating a person in water, more particularly to a novel form of swimming belt or life preserver which may be applied to the wearer merely by stepping therein and then drawing the same upwardly into position about the waist.

Devices, as heretofore provided for supporting or floating the body, have been of a more or less bulky construction and were of considerable weight, rendering such devices uncomfortable in use as well as not particularly portable nor suited for convenient shipment. Aside from being relatively expensive and not too durable, considerable inconvenience was experienced by the wearer in attaching the known appliances and in effecting adjustments of the same.

The present invention has for an object to provide a simple, effective and light-weight combination of buoyant members with extensible members which latter are designed to afford a resilient attachment thereof to the wearer's body and which automatically adjust, within limits, the appliance thereto.

Another object of the invention is to provide a simple and relatively inexpensive unit comprising a pair of independent buoyant members and a pair of elastic bands detachably uniting the two members into a unit adapted to embrace the waist of the wearer, said members being shaped to conform generally thereto.

A further object of the invention is to provide a readily constructed unit suitable as a swimming and floating appliance which will not become disarranged in use; also, of a nature such as not to cause skin irritation or discomfort when worn.

A still further object of the invention is to provide a combination of elements which, when the unit is not in use, may be nested into a relatively compact and small package.

The nature of the invention, however, will best be understood when described in connection with the accompanying drawings, in which:

Fig. 1 is a plan view of the assembled unit; and Fig. 2 is a perspective view showing the same applied to the wearer's body.

Fig. 3 is a longitudinal section, taken on the line 3—3, Fig. 1, and looking in the direction of the arrows.

Fig. 4 is an enlarged, fragmentary section illustrating the manner of assembling the unit.

Figs. 5 and 6 are respectively a plan and a side elevation of the elastic bands used in assembling the unit.

Fig. 7 is an elevational view illustrating the manner of nesting a plurality of collapsed units.

Referring to the drawings, the novel unit or belt is

formed of a pair of supporting members or blocks **10**, **11** which are constructed of waterproof, cellular and buoyant material and more or less rigid, for example, a material such as a plastic known as Spongex—a unicellular polyvinyl chloride—and a product of B. F. Goodrich. These blocks are of a more or less elongated or rectangular conformation shape, at least on the body-contacting side, to conform substantially to the waist of a wearer and being to this end arcuately formed longitudinally. Approximately 1/10 cubic foot of such material has been found capable of sustaining afloat a human body of 150 lbs. weight; and a convenient length of material for each member is 12 inches of 1½ inch stock, 5 inches in width. The weight of a pair of blocks of such dimensions is approximately ½ pound, including the means, of insignificant weight, for attachment of the blocks to the wearer.

The appliance thus is readily transportable and may be shipped conveniently and at relatively low cost.

For service, it will be understood that the two blocks **10**, **11** are to be united and held to the body **12** of the wearer, embracing the waist as is indicated in Fig. 2. This embodiment shows the concave faces **13**, **14** in contact with the body.

The connection of the two blocks to each other, to provide an assembly into which a person may step and then draw the unit upwardly into position, is most satisfactorily accomplished through the medium of a pair of bands **15**, **16** which are fashioned at their extremities in a manner such as to afford ready adjustment, as well as removal, with respect to a block or blocks. Removal of bands, however, is not essential in the case of shipment of the units. As is shown in Fig. 7, the two elements **20**, **21** of an assembled unit may readily be nested, their respective bands **22**, **23** being folded under and about the blocks.

A convenient way to assemble the blocks with bands into a unit is to provide slots in the opposite ends of said blocks, for example, T-slots **25**, **26** and **27**, **28** respectively, said slots extending inwardly, preferably midway of the corresponding edges, to admit edgewise a band. The respective heads of said slots, as is indicated in the case of the heads **25'**, **26'**, Fig. 3, are preferably made slightly wider than the width of the entrance portions of said slots to allow of readily twisting a band 90° in fitting it therein—in the manner indicated in Fig. 4.

Moreover, it is desirable to thicken the outer portions of the bands beyond the width of the entrance portions of the T-slots; and still further at the extreme outer ends and at which ends such further thickened portions are also to be slightly increased in width, e.g. beyond the length of the corresponding heads of the T-slots to overlap the same. Thus, reference being had to Figs. 5 and 6, the thickened outer portions **31**, **32** of band **30** are further thickened, as at **33**, **34** and slightly widened as is indicated at **35**, **36**.

It will be understood that, in introducing a band **30** edgewise into the entrance portion, the thinnest section, i.e. that between the thickened end portions, is used; and the band then twisted into the wider head of the corresponding T-slot and drawn down to fit the said thickened portion snugly therein and until the further thickened and widened portions contacts the body of the corresponding block.

I claim:

1. An appliance for floating a person in water, comprising in combination: a pair of independent and generally elongated, non-inflatable buoyant members adapted for fitting about the waist of a person, said members being slotted longitudinally inwardly from their edges with right-angle termination to afford a T-slot thereat, the termination being of greater width than the entrance portion width; and a pair of elastic, removable bands, of a thickness to fit an entrance slot, as the sole means for uniting the buoyant members to support the same on the wearer, the bands at their respective outer portions being thickened beyond the width of the entrance portion

of a slot and additionally thickened at their respective extreme outer ends to fit snugly the termination of a T-slot.

2. The appliance according to claim 1, wherein the bands are also increased in width, at their respective outer ends, beyond the length of the corresponding T-slot termination to overlap the same.

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