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BATHING OR SWIMMING COSTUME OR GARMENT

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Fig. 1.

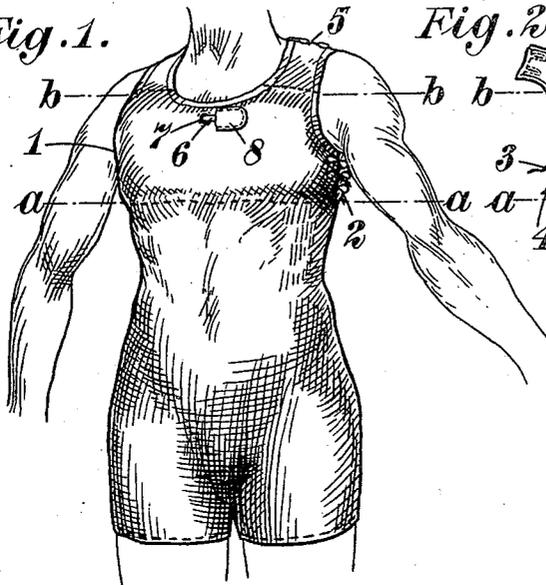


Fig. 2.

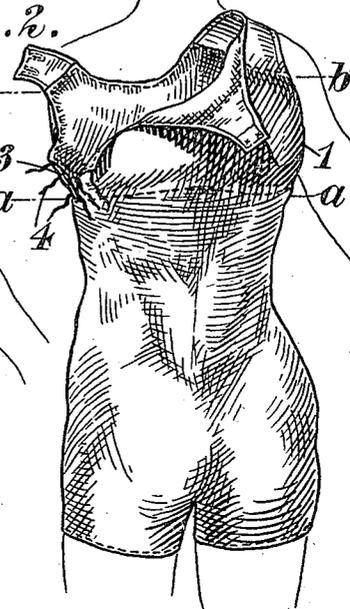


Fig. 5.

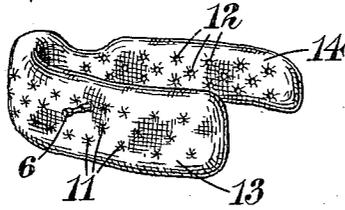


Fig. 4.

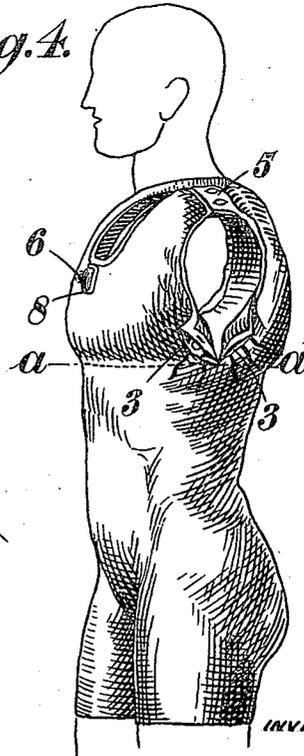
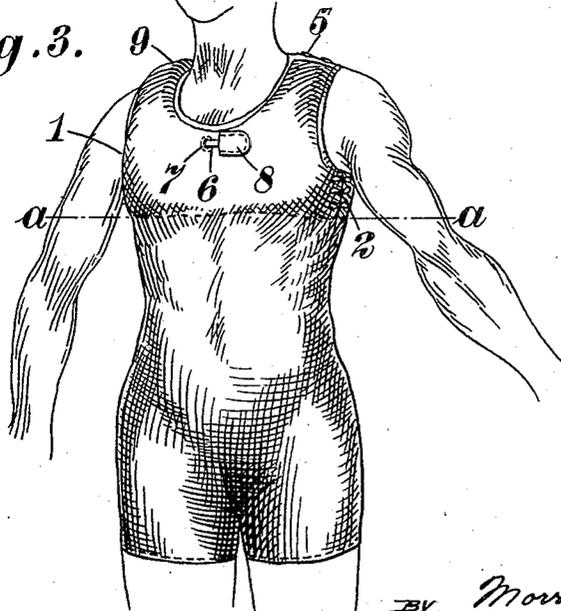


Fig. 3.



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BATHING OR SWIMMING COSTUME OR GARMENT.

Application filed September 1, 1927, Serial No. 216,974, and in Great Britain September 16, 1926.

This invention comprises improvements in or relating to bathing or swimming costumes or garments of the type which are provided with inflatable chambers.

5 An object of the invention is to produce a bathing costume which has the appearance of an ordinary one but contains a removable chamber capable of inflation to enables bathers (whether swimmers or not) to keep afloat with head above water (or with nose and mouth above water) in any emergency until rescued.

10 Another object is to enable non-swimmers to learn the art of swimming without danger of drowning.

15 The costume as a whole may be what is known as a one-piece costume or a two-piece costume, or the costume as a whole may take any of the forms customary for such garments.

20 According to this invention, the bathing dress or the like is of the type provided with inflatable chambers and is characterized in that the part of the dress which extends across the chest and/or back of the wearer is formed with two thicknesses of material and is provided with an opening or openings through which the inflatable chamber or chambers may be inserted, or removed at will by the wearer, between the said two thicknesses.

25 A single opening may be employed which is disposed beneath one of the armholes of the dress.

35 Either the inner or outer thickness of material may be made of a non-distendable material instead of the fabric of the bathing dress, whereby undue distention of the bathing dress is prevented when the chambers are inflated; further, the non-distendable material tends to maintain the centre of buoyancy of the chambers in the required position. Undue distention of the bathing dress may also be prevented by forming the walls of inflatable compartments with concavities, which concavities may be so shaped that when the compartments are inflated their inner surfaces conform to shape of the chest or back of the wearer.

40 Another method of preventing undue distention according to this invention consists in encircling the compartments with bands, which bands may have circular perforations formed therein.

45 The inflatable chambers may be made of rubber, rubberized fabric, oiled silk or other

suitable water-resisting material impervious to gaseous liquids and capable of inflation.

Further, according to this invention, a tube is provided through which the inflatable chamber or chambers may be inflated, which tube is positioned centrally in front of the wearer, preferably at the centre of the upper edge of the chamber, and is threaded through a hole in a corresponding position in front of the costume. A small pocket may be attached to the outside of the dress for the purpose of accommodating the end of the said tube, or a slit may be formed in the dress through which the end of the tube may be inserted.

60 An important feature of this invention consists in so shaping the part of the dress comprising the double thickness of material and the inflatable chamber or chambers that the centre of buoyancy of a wearer and the inflated dress is towards the front of the wearer. By this means should the wearer become unconscious the inflated costume would cause him to float in a position with his nose and mouth above the water.

65 In the accompanying drawings, which show one form of bathing costume according to this invention,

70 Figures 1 and 2 show a back and front view respectively of a bathing dress having an inflatable chamber disposed in one way according to this invention, and

75 Figures 3 and 4 show a front and side view respectively of a bathing costume provided with an inflatable chamber arranged in another way according to this invention.

80 Figure 5 is a perspective view of an inflated bag suitable for use in a bathing costume shown in Figures 1 and 2.

85 In all the figures, the bathing costume is formed with two thicknesses of material from the dotted line *a-a* upwards, and the inflatable chamber is shown in position between the said two thicknesses.

90 In Figures 1 and 2, the double portion of the dress and the inflatable chamber are so shaped as to pass under one arm at 1 on one side, while under the other arm at the other side the inflatable chamber terminates in a closed end front and back. These closed ends are not shown in the drawing since they are entirely within the dress. Under the latter arm a slit 2 is made through the double thickness of material extending downwardly from beneath the arm, and the two thicknesses are there left separable and

form an opening 3 to facilitate the removal or replacement of the inflatable chamber. The slit may be conveniently fastened by tapes indicated at 4. The double thickness of material and the inflatable chamber terminate at the dotted line marked *b-b* back and front at about the level of the collar bones. The double thickness of material may be stitched along the line *b-b* or may be left separable for a short distance and fastened together by suitable means such as tapes, buttons and buttonholes, and snap fasteners (not shown in the drawing). By this latter means the inflatable chamber may be more readily inserted between the two thicknesses of material.

The costume may be provided with the usual buttoned strap 5 over one shoulder or adjustable shoulder straps. The inflatable chamber is provided with a valve controlled tube 6. The valve may be opened or closed at will so as to regulate the pressure in the chamber. The tube is preferably disposed in front of the chamber at the upper edge thereof and is threaded through a hole 7 in the dress. A pocket 8 is formed on the outside of the dress to accommodate the end of the said inflating tube.

In Figures 3 and 4, the inflatable chamber and the double thickness of the dress are shown so shaped as to encircle the chest and the shoulder blades and to extend on one side over the shoulder at 9, while on the other side they extend back and front up to the shoulder strap 5. The other features are similar to those described with reference to Figures 1 and 2 and are similarly designated.

It will be appreciated that the article described above may be used as a buoyant life-saving costume or as an ordinary bathing costume.

Figure 5 shows an inflatable rubber chamber comprising a front portion 13 and a rear portion 14, in which undue distention is prevented by securing together the outer and inner walls at a number of points spaced apart. The walls may be secured together by the known method of forming similarly located perforations 12 in each wall, and vulcanizing or solutioning together the exposed edges. The chamber when inflated thus has a number of depressions formed in it as shown at 11, and a substantially uniform distention is produced throughout its whole length. When such a chamber is inserted into a suitable compartment in a bathing costume and inflated, the tendency to bulge excessively in any part of the chamber will be overcome by the attachment of the two walls as above described. In this way the chamber may be made to remain in close proximity to the contour of the body of the wearer without further retaining means. It

will be noted that the front 13 of the chamber is made higher than the rear 14.

I claim:—

1. A bathing dress having its upper end formed by two thicknesses of material constituting a compartment which is shaped to extend around the chest and back portions of the dress, and a releasable shoulder strap over one arm-hole, which two thicknesses of material are slit downwardly beneath said arm-hole and provide two openings for the insertion of an inflatable chamber.

2. A bathing dress having its upper end formed by two thicknesses of material constituting a compartment which is shaped to extend around the chest and back portions of the dress, and a releasable shoulder strap over one arm-hole, which two thicknesses of material are slit downwardly beneath said arm-hole and provide two openings for the insertion of an inflatable chamber, and means for securing together the slit portion of the dress.

3. A bathing dress having its upper end formed by two thicknesses of material constituting an inflatable compartment which is shaped to extend across the chest portion of the dress, one of said thicknesses being formed of distendable material while the other is formed of non-distendable material.

4. A bathing dress having its upper end formed by two thicknesses of material constituting a compartment which is shaped to extend across the chest portion of the dress and which is provided with an opening for the insertion of an inflatable chamber, one of which thicknesses of material is formed of distendable material while the other is formed of nondistendable material.

5. A buoyant device comprising in combination a bathing dress having its upper end formed by two thicknesses of material constituting a compartment which is so shaped as to extend across the chest and back portions of the dress, and having a releasable shoulder strap over one arm, which two thicknesses of material are slit downwardly beneath the arm and provide openings for the insertion of an inflatable chamber, which compartment is so proportioned that its front portion when distended is of a greater capacity than its back portion when distended, an inflatable chamber so inserted in said compartment and so shaped that when distended it conforms to the shape of the chest and back of the wearer, a valve-controlled inflating tube secured centrally to the outer front wall of said chamber towards the upper edge thereof, an opening similarly disposed in the front wall of the compartment in the bathing dress for receiving said tube and a pocket in said compartment for receiving the end of said tube.

6. A bathing dress having its upper end formed by two thicknesses of material con-

stituting a compartment which compartment is so shaped and disposed that it extends around the upper half of the chest, over the shoulders and around the upper 5 half of the back only of the wearer and is provided with an opening formed in the outer wall of the compartment beneath an armhole of the dress for the insertion of an inflatable chamber.

10 7. A bathing dress having an inflatable compartment which is so shaped that when in use it extends around the upper part of the chest and upper part of the back only of the wearer and that the buoyancy of 15 the front portion of the compartment when inflated is greater than the back portion of the compartment for the purpose described.

20 8. In a buoyant device of the character described, an inflatable chamber for insertion into a compartment in a bathing dress which inflatable chamber has free ends ar-

ranged to meet beneath one arm of the wearer and is so shaped that the front portion has parallel upper and lower edges and covers the upper part of the chest of the 25 wearer only and that the back portion is narrower in width than the front portion.

9. In a buoyant device of the character described, an inflatable chamber for insertion into a compartment in a bathing dress 30 which inflatable chamber has free ends arranged to meet beneath one arm of the wearer and is so shaped that the front portion has parallel upper and lower edges and covers the upper part of the chest of 35 the wearer only, that the back portion is narrower in width than the front portion and that a depression is formed in the top edge of the compartment beneath the other arm 40 of the wearer.

In testimony whereof I affix my signature.
MORRIS WILLIAM BROWDY.