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54 **A safety garment.**

57 A safety garment which provides buoyancy to its wearer in an emergency comprises a jacket (1) having an inflatable stole (2) secured thereto and located inside it. The stole has two limbs (3,4) which extend down the front of the jacket and are joined in the region of its collar. A belt (7) secured to the lower part of the two limbs extend round the users body when the jacket is being worn.

*FIG. 3*



" A SAFETY GARMENT "

The present invention relates to a safety garment for providing buoyancy to its wearer in an emergency, which is particularly suitable for people involved in water sports, or working aboard ships or close to  
5 waterways. The garment is comfortable and convenient to wear.

Various different types of life saving garments are available, some of which are provided in the form of a jacket having pouches for receiving buoyant  
10 materials and which act only to provide an assistance to the wearer in keeping afloat, whilst other devices have one or more inflatable buoyancy bags. These inflatable devices are either in the form of a yoke-like collar which the user places over his  
15 head and secures by means of a belt round his waist, or in the form of a jacket or full length, one-piece, waterproof suit, wherein inflatable buoyancy bags are provided as to form a yoke-like collar. With these various inflatable buoyancy arrangements, inflation  
20 may be performed by the wearer blowing into a mouthpiece conveniently located for this purpose, or by means of a cylinder of compressed gas provided for the purpose.

The various above-mentioned garments are  
25 generally quite satisfactory for maintaining a person afloat, but are cumbersome and inconvenient, due to the fact that they normally have to be worn externally to other clothing worn by the user to allow access to the mouthpiece, or to the release for the gas bottle,



for inflation of the buoyancy bags. Further, when in use, they are at risk of being damaged by the rigging or fittings, for example, on a yacht. Furthermore, a person having such a life-jacket would, when  
5 going ashore, tend to leave his life-jacket behind so as to avoid having to carry it around whilst ashore, thus placing his own life at risk since many accidents occur in travelling in a small dinghy or skiff from a moored yacht to shore.

10 Accordingly, it is the object of the present invention to provide a safety garment for providing buoyancy for its wearer to maintain him afloat, which is combined with a jacket in such a manner that the inflatable buoyancy aid, which is preferably in the  
15 form of a substantially yoke-shaped bag, is invisible externally, and can be worn with safety and comfort, but is readily accessible and inflatable in the event of an emergency.

According to the present invention there is  
20 provided a safety garment for providing buoyancy to its wearer to keep him afloat, comprising a jacket having an inflatable stole secured thereto and located inside the jacket, the stole having two limbs extending down the front of the jacket, and the limbs  
25 being joined around the collar region, and a belt secured to and encompassing the lower part of the stole and passing around the body in use.

With this arrangement the stole may be partially inflated and the belt may be fastened around it, the  
30 belt being worn loose under normal circumstances.



This arrangement is comfortable and the jacket may be worn unfastened. If the wearer should fall overboard, the stole is prevented by the arm-holes of the jacket from riding up over his head and is prevented by the belt from floating up from his body. Thus, sufficient flotation is achieved to allow the stole to be fully inflated. The belt will be tight around the fully inflated stole and will hold the stole firmly for full long term support. Preferably the belt is fixed to the outside of one limb of the stole and is slidable in a retainer on the outside of the other limb.

Preferably the garment comprises two waterproof layers with the stole accommodated between them. The belt also may pass between the layers of the jacket, the two ends of the belt emerging through the inner lining layer of the jacket, in the region of the front fasteners of the jacket, where they may be fastened together by means of a buckle of suitable type. To enable access to the mouthpiece for inflating the stole, an aperture is provided in the inner lining of the jacket, near the collar, through which the mouthpiece projects, and preferably, a flap is provided on the inner lining which covers the mouthpiece when not in use, but which can be easily opened, for example using a "Velcro" (RTM) fastening means, when it is required to inflate the stole.

The jacket may be of conventional type, but is preferably of a lightweight waterproof material and



may be provided with pockets as required. Further, a hood may be provided in the collar of the jacket if desired.

The present invention will now be described further with reference to the accompanying drawings, in which:-

Figure 1 illustrates the external appearance of a jacket incorporating a stole in accordance with the present invention;

Figure 1A illustrates the manner in which the mouthpiece of the stole is accessible under a flap inside the front of the jacket;

Figure 2 illustrates the shape of the stole; and

Figure 3 illustrates the positioning of the stole within a jacket of the type shown in Figure 1.

As shown in the drawings, a jacket 1 incorporating a stole 2 in accordance with the present invention is of normal appearance and the incorporation of a stole 2 is totally invisible externally. The stole 2 provided within the jacket 1 is illustrated in Figure 2 and is formed of a conventional shape having two large front limbs 3 and 4 joined together by a collar portion 5 which extends behind the collar of the jacket 1. The stole 2 is inflatable by means of a mouthpiece 6 which is positioned so as to be readily accessible to the wearer in the case of an emergency, and as illustrated in Figure 1a the mouthpiece 6 may be accommodated in a pocket 9 provided in the inside



lining of the jacket, which pocket 9 may be closable by means of, for example, a "Velcro" strip fastener 10 so as to be readily accessible in the event of an emergency. Alternatively, a cylinder of compressed gas could be provided for the purposes of inflation, in which case an additional pocket would be provided in the inside lining of the jacket 1 to accommodate such a cylinder.

5 A belt 7 is provided which is fixed by bonding to the limb 3 and which is slidably attached to limb 4 by means of a belt loop 8. The ends of the belt 7 pass out through slits provided in the inside layer of the jacket to enable the belt 7 to be fastened by means of a buckle 11.

10 The stole 2 can be positioned between the inner and outer layers of the jacket 1 and secured in position by any suitable means, such as loops secured by press studs, or by "Velcro" strips, and the stole 2 is readily accessible for inspection for leaks, or for removal and replacement, in that the inner and outer layers are not stitched together at the bottom hem but are fastened together by a plurality of fastening means such as "Velcro" strips or press studs.

15 The jacket 1 may be provided with any number of pockets as required and a hood may be provided in the collar of the jacket, as is known. The position of the stole 2 within a jacket 1 can be seen from Figure 3, in that the two front limbs 3 and 4 of the stole 2 pass down between the inner and outer layers of the front panels of the jacket 2 whilst the portion

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5 extends behind the collar of the jacket 1. When inflated, this arrangement ensures that the wearer is maintained in a face-up position with his head supported out of the water by means of the portion 5 behind the collar.

As can be readily seen, the present invention provides a jacket which can be worn at any time without anyone other than the wearer being aware that it incorporates a life-jacket so that it can be worn ashore without embarrassment, whilst ensuring that the wearer is protected against drowning. Further, since the stole 2 is positioned within a jacket, the stole 2 is additionally protected against damage since it is covered by the outer layer of the jacket.

The jacket can be provided in a variety of styles providing sufficient allowance is made for the expansion of the buoyancy stole following inflation thereof, so that a presentable garment is provided which may induce persons to wear the jacket whereas they may not have done so in the case of a conventional life-jacket.



CLAIMS:

1. A safety garment for providing buoyancy to its wearer to keep him afloat, comprising a jacket having an inflatable stole secured thereto and located inside the jacket, the stole having two limbs extending down the front of the jacket, and the limbs being joined around the collar region, and a belt secured to and encompassing the lower part of the stole and passing around the body in use.

2. A safety garment as claimed in claim 1 wherein the belt is fixed to the outside of one limb of the stole and is slidable in a retainer on the outside of the other limb.

3. A safety garment as claimed in claim 1 or claim 2 comprising two waterproof layers with the stole accommodated between the layers.





FIG. 1



FIG. 1a

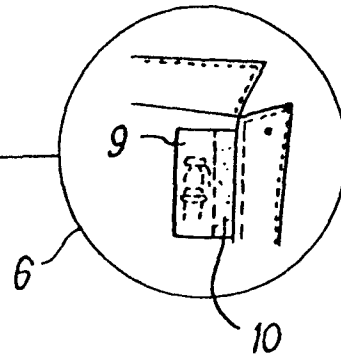


FIG. 3

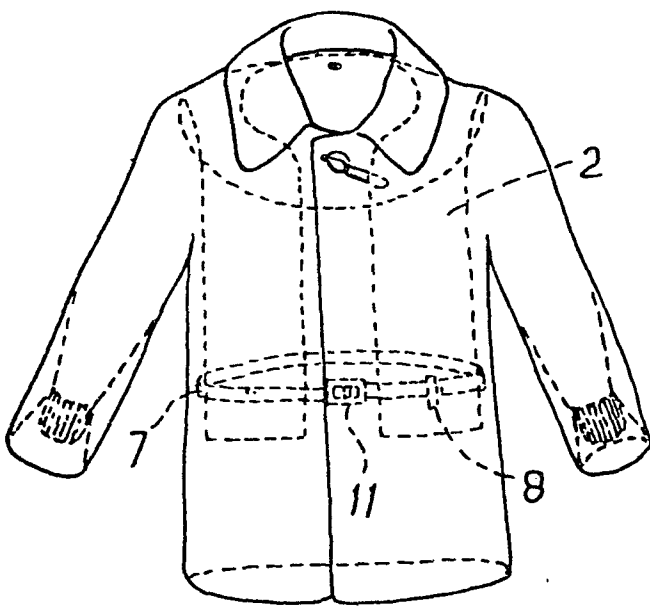
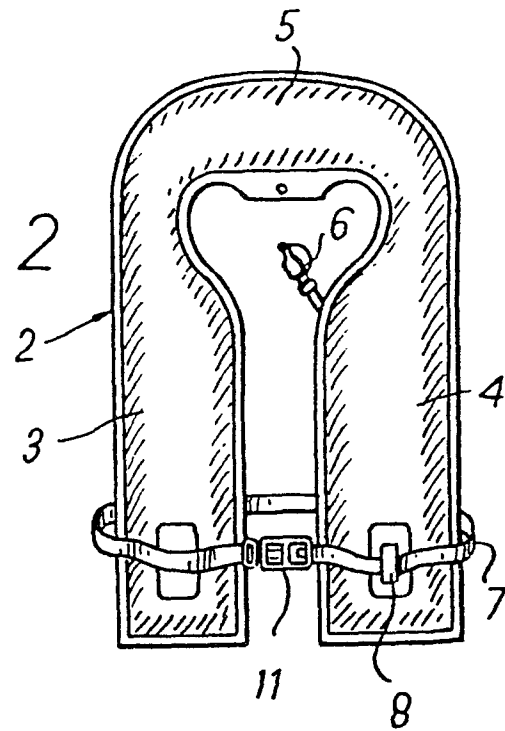


FIG. 2





European Patent  
Office

# EUROPEAN SEARCH REPORT

0023430

Application number  
EP 80 30 2575

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	<u>US - A - 4 131 974</u> (BOLTON) * Figure 1; column 1 * --	1,2	B 63 C 9/16
	<u>GB - A - 1 540 924</u> (COSALT) * Figures 1-3,6,7; claims 1,2 * --	1,3	
	<u>US - A - 2 607 934</u> (BAILHE) * Figures 3,8 * --	1,3	
	<u>GB - A - 1 039 348</u> (NOJD) * Figures 4,6,7,22; claim 1 * ----	1,3	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			B 63 C
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
X The present search report has been drawn up for all claims			&: member of the same patent family, corresponding document
Place of search The Hague		Date of completion of the search 31-10-1980	Examiner LUKAS