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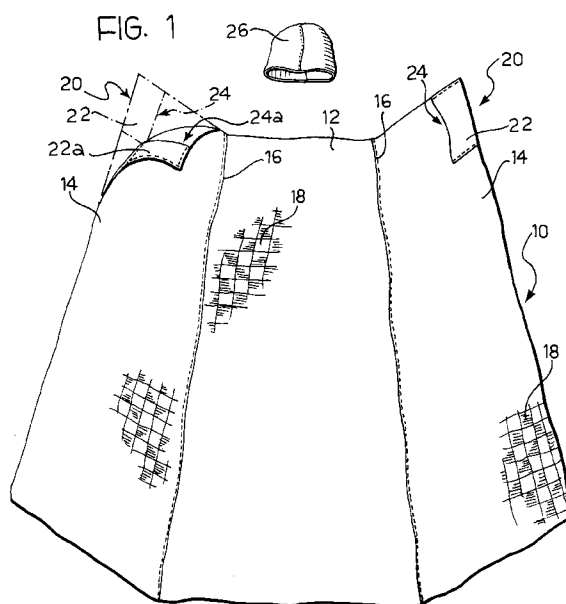
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(54) **A fireproof outfit.**

(57) The outfit includes a garment of woollen fabric or an equivalent material which can be wrapped around a person's body and is soaked with an extinguishing mixture. The garment is cut like a cloak (10) and has two opposite, upper corner regions (20) with pockets (24) for housing the hands. The outfit preferably also includes a hat (26) of the same fabric, soaked in an extinguishing mixture. The outfit is also preferably enclosed in an easily-opened hermetic wrapper, in which the cloak (10) is folded like a concertina and the hat (16) is placed on top of the folded cloak (10).



The present invention relates to a fireproof outfit including a garment of a woollen fabric or an equivalent material which can be wrapped around a person's body and is soaked in an extinguishing mixture.

An outfit of this kind is known, inter alia, from the document IT-A-989 680. Amongst other things, this document discloses a garment in the form of a rectangular blanket which, before use, is disposed in a wrapper which contains an extinguishing mixture constituted by an aqueous gel which impregnates the fabric of the blanket.

Known blankets have the disadvantage that once their wrappers have been opened anyone who needs to put one on in order to pass through a barrier of fire is almost always in a state of panic and finds it difficult to drape the blanket around his body. If, as inevitably occurs, the user does not succeed in wrapping himself in the blanket properly, large spaces are left through which the fire can penetrate.

The object of the invention is to provide a fireproof outfit of the type in question, in which the garment which is soaked with the extinguishing mixture can be removed from its wrapper and put on easily and very quickly following preliminary instructions which are preferably symbolic so as to eliminate completely the risk of linguistic barriers, or even in the absence of specific instructions.

According to the invention, this object is achieved by means of a fireproof outfit of the type mentioned above, characterised essentially in that the garment is cut like a cloak and has two opposite upper corner regions with pockets for the hands.

According to the invention, each corner region preferably includes two similar pockets on opposite faces of the cloak.

By virtue of this concept, anyone who has to put on the cloak under conditions of panic, or at least of urgency, can grasp it and wrap it around his body using his two hands as shown in Figures 4 to 7 of the appended drawings.

In the drawings:

Figure 1 is an elevational view of a cloak according to the invention, with a hat,

Figure 2 is a section of a fireproof outfit showing a cloak and its hat packaged in a hermetic wrapper which in turn is disposed in a rigid outer container,

Figure 3 is an exploded, perspective view of the fireproof outfit of Figure 2, and

Figures 4 to 7 are pictorial illustrations of the method of use of the outfit.

With reference to Figure 1, a garment cut like a cloak is generally indicated 10. For ease of manufacture, the cloak 10 includes a central portion 12 and two side portions 14 joined by stitching 16 in a yarn of the same type as that of the portions 12 and 14.

The material of the cloak 10 is a fabric of fire-resistant yarn.

The yarn preferably has the following characteristics:

- 100% pure virgin wool,
- fibre diameter: 35 microns in a cellular weave with 5 cm squares 18 (Figure 1),
- No. 9 ends per cm finished and No. 9 courses per cm finished,
- metric warp count: 7.700 (3-ply 1/14.500 twist, worsted yarn),
- metric weft count: 7.700 (2-ply of 1/14.500 twist, worsted yarn),
- weave: interchanging double cloth woven with a heddle loom.

The cloak 10 has two opposite upper corner regions 20 to which pieces 22, 22a of fabric are sewn to define pockets 24 for the hands, as will be explained below.

Each corner region preferably has pieces 22, 22a applied to both its opposite faces so as to define similar pockets 24, 24a on both the opposite faces of the cloak 10.

The cloak 10 is supplied with a hat 26 in the form of a cap of the same fabric as the cloak 10.

With reference to Figures 2 and 3, the cloak 10, preferably with its hat 26, is packaged in a hermetic wrapper 28 of flexible sheet material, preferably aluminium foil. The wrapper 28 has an opening 30 which is shown closed and sealed in Figure 2 and open in Figure 3. The opening 30 is easily opened simply by tearing or by means of a tear strip (not shown).

In the hermetic package, the cloak 10 and the hat 26 are soaked in a liquid extinguishing mixture, preferably constituted by a gel with a very high water content of about 90-95%. In any case, the gel used must adhere easily to its substrate, constituted by the cloak 10 and the hat 26, and must be non-toxic, that is, it must not generate toxic substances in use, in the presence of fire. Preferably, the gel should also have antibacterial characteristics in order to have good resistance to microbial attack throughout its life, until its expiry date or until it is used.

The gel used must also have a good ability to wet, penetrate and spread over the woollen fabric so as to provide an adequate layer of moisture around the fabric and thus to enable excess liquid also to spread to the person's garments at the time of use.

The gel is also preferably highly biodegradable so as not to be polluting.

The hermetic wrapper 28 is preferably kept in a rigid container 32, shown conventionally in the form of a box 34 with a lid 36. The container 32 may be of any shape and of any suitable material such as, for example, plastics material, and may have means for fixing it to a structure such as that of a vehicle or a room.

In any case, the rigid container must be of a type which is quick and easy to open.

As shown in Figures 2 and 3, in the wrapper 28, the cloak 10 is folded like a concertina with its upper portion, which corresponds to the pockets 22, 22a, uppermost. The hat 26 is on top of the folded cloak 10 as can best be seen in Figure 3.

As shown in Figure 4, when the container 32 and the wrapper 28 have been opened, the user immediately finds the hat 26 and the underlying upper portion of the cloak 10 through the opening 30 and can grasp and remove them easily by hand as shown in Figure 5.

The user can thus make immediate use of the hat or cap 26 which he can immediately put on his head as shown in Figure 6.

After putting on the hat 26, the user finds the upper portion of the cloak ready to hand and, as he lifts it up, he has no difficulty in finding the pockets 22 or 22a into which he puts his hands as shown in Figure 6. The presence of pockets 22, 22a on both the faces of the cloak 10 facilitates this operation by preventing a succession of clumsy attempts to put it on.

After he has put on the cloak 10 in the manner shown in Figure 6, the user can drape it around his body, as shown in Figure 7, and can also protect his face with the upper portions held by his hands which are inserted in the pockets 22 or 22a.

In transit through the flames, the liquid impregnating the cloak 10 constitutes a further protection by virtue of the formation of drops and its transfer to the clothes.

A cloak such as that indicated 10 is also quite suitable for use as a conventional fire blanket.

Amongst its many applications, an outfit according to the invention is intended for use in all kinds of buildings, public and private premises, filling stations, and transport vehicles, and by fire brigades, the police, emergency teams, etc.

Claims

4. A fireproof outfit according to Claim 1 or Claim 2, characterised in that it also includes an easily-opened hermetic wrapper (28) in which, before use, the cloak (10) is enclosed, soaked in the extinguishing mixture and folded like a concertina in an arrangement such that, after the wrapper (28) has been opened, the upper portion of the cloak (10) is accessible to be grasped by hand.
5. A fireproof outfit according to Claim 4, characterised in that the hermetic wrapper (28) also contains a hat (26) of the same fabric as the cloak (10), the hat being soaked in an extinguishing mixture and disposed on top of the cloak (10), which is folded like a concertina, so that the hat can be grasped by hand before the cloak.
6. A fireproof outfit according to any one of the preceding claims, characterised in that the hermetic wrapper (28) is of a flexible sheet material and in that the outfit also includes an easily-opened, rigid outer container (32) which contains the hermetic wrapper (28).
1. A fireproof outfit including a garment (10) of a woollen fabric or an equivalent material which can be wrapped around a person's body and is soaked with an extinguishing mixture, characterised in that the garment is cut like a cloak (10) and has two opposite, upper corner regions (20) with pockets (22, 22a) for the hands.
2. A fireproof outfit according to Claim 1, characterised in that each corner region (20) includes a pair of similar pockets (22, 22a) on opposite faces of the cloak (10).
3. A fireproof outfit according to Claim 1 or Claim 2, characterised in that it also includes a hat (26) of the same fabric, soaked in an extinguishing mixture.

FIG. 1

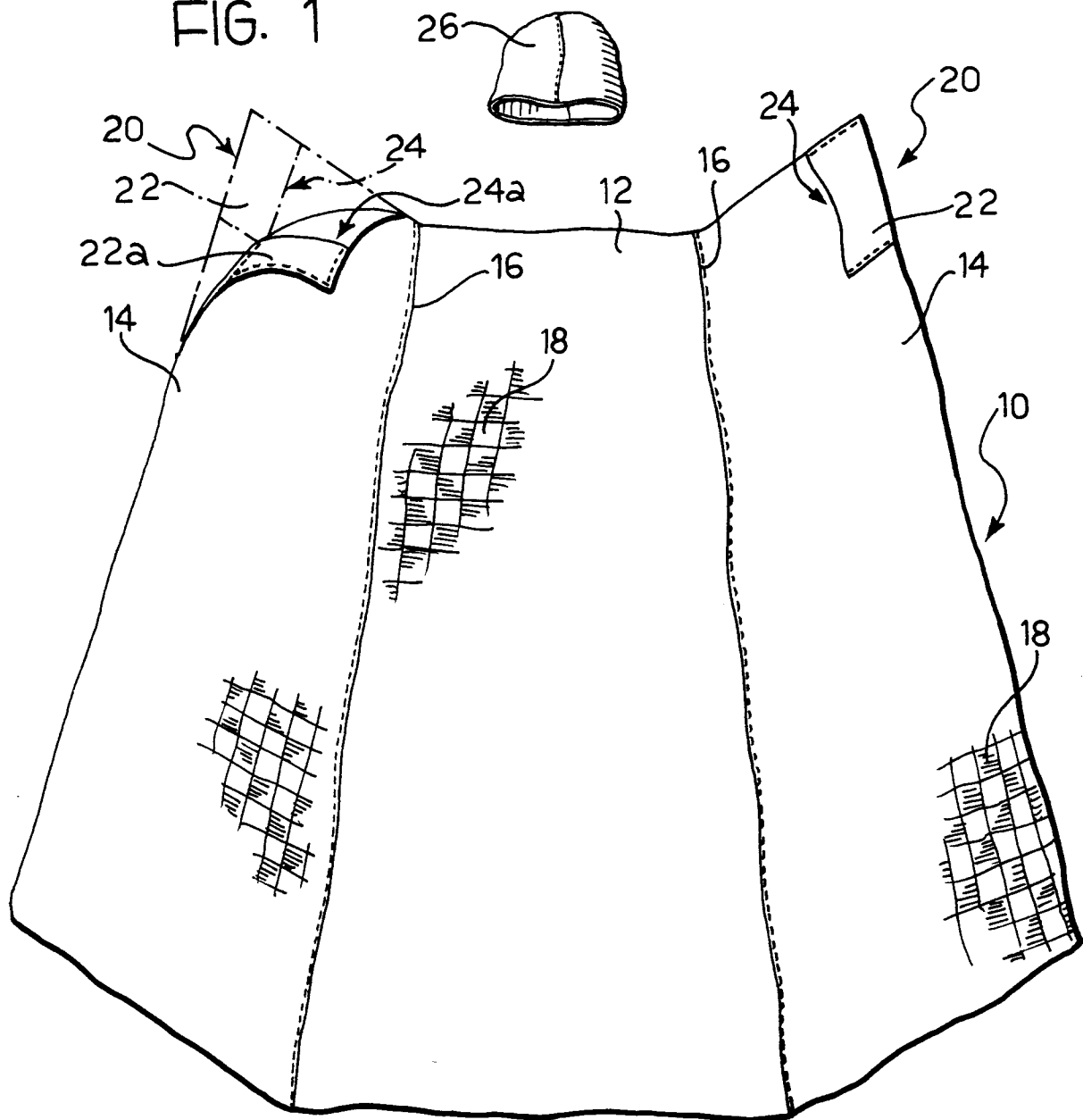


FIG. 2

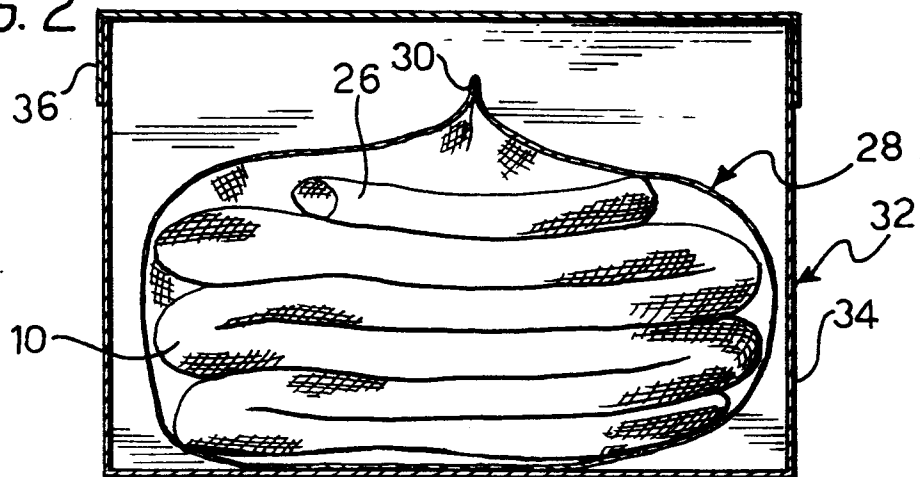


FIG. 3

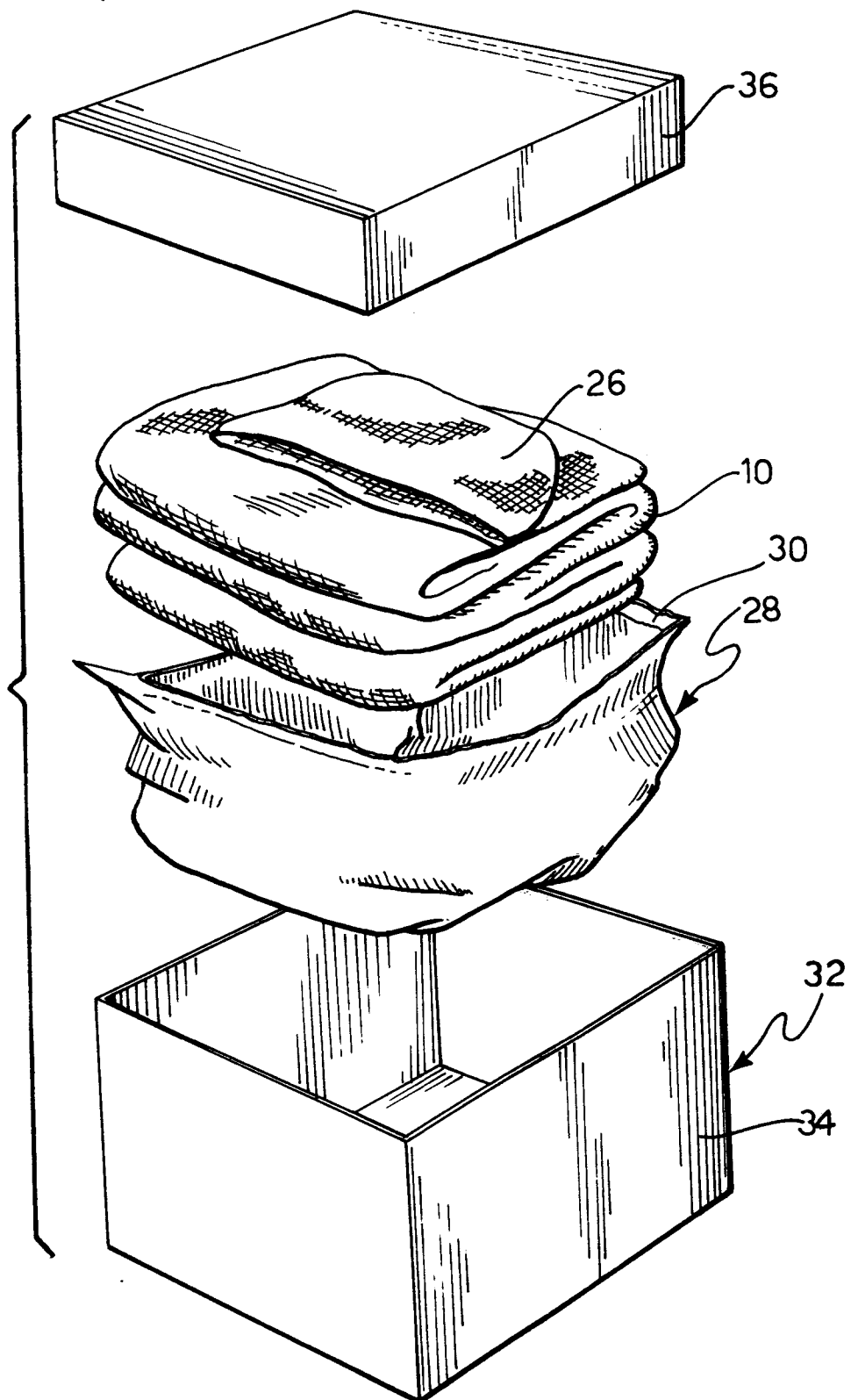


FIG. 4

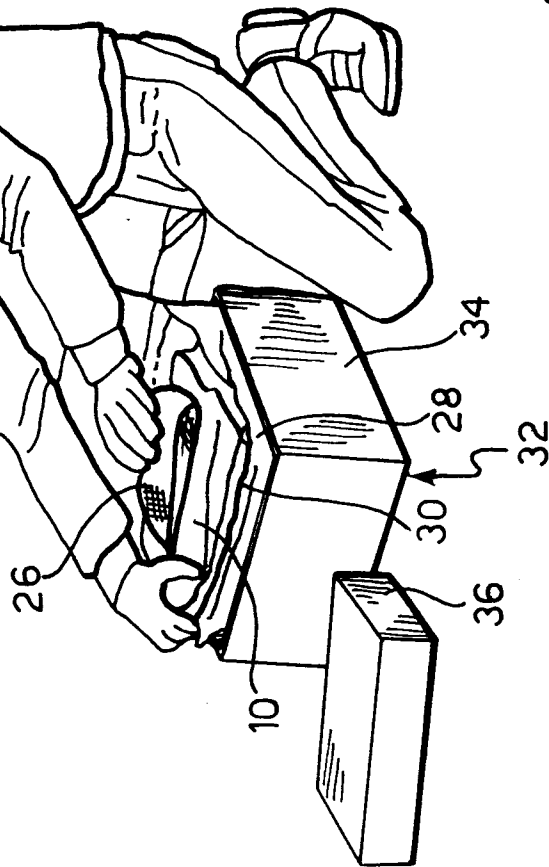
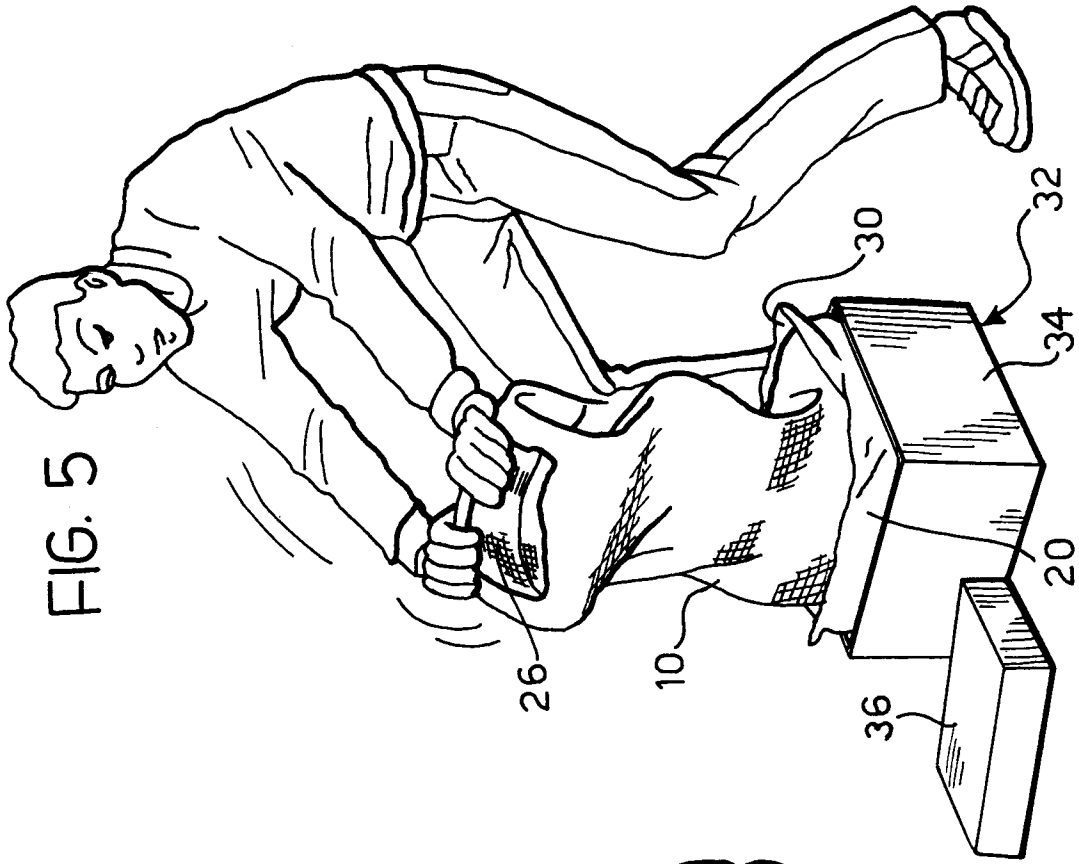
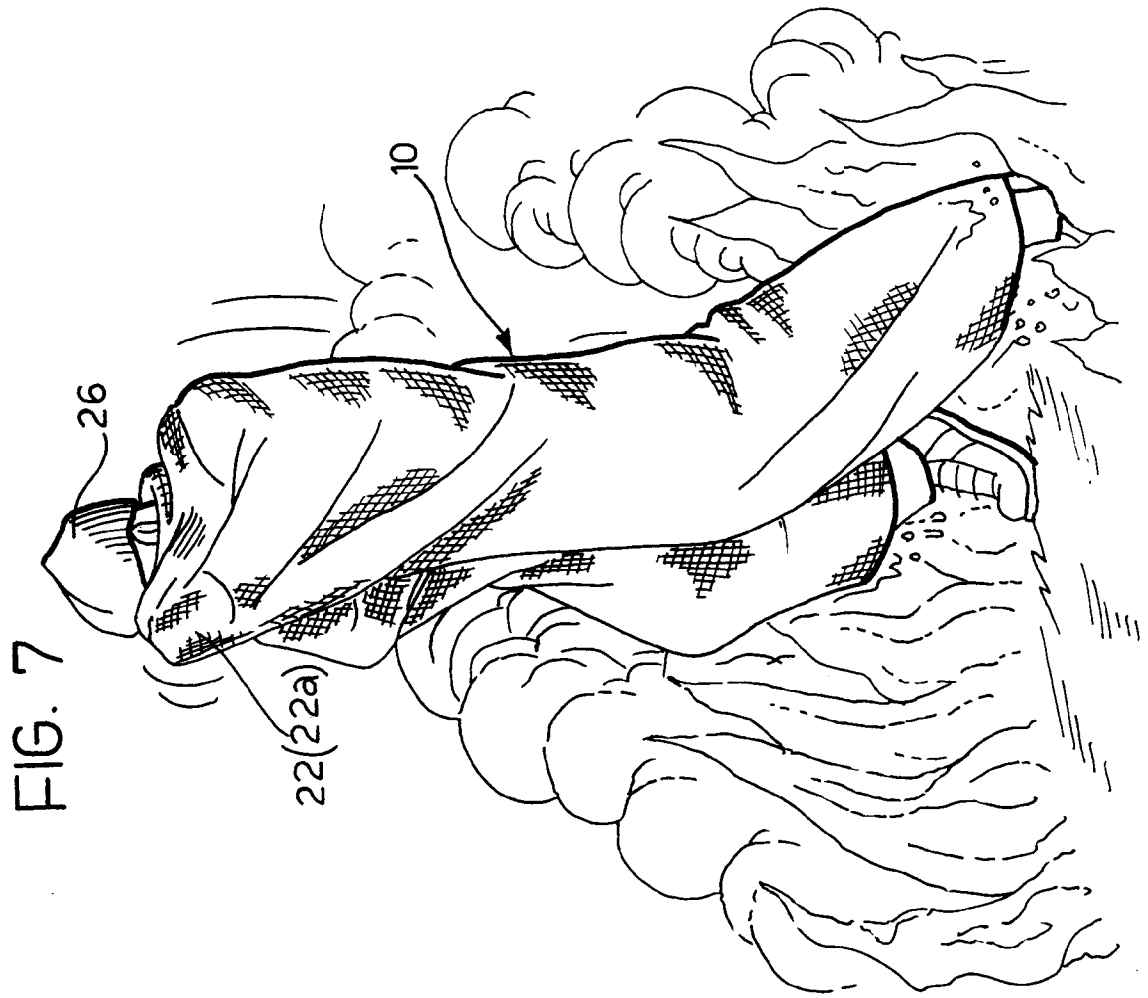
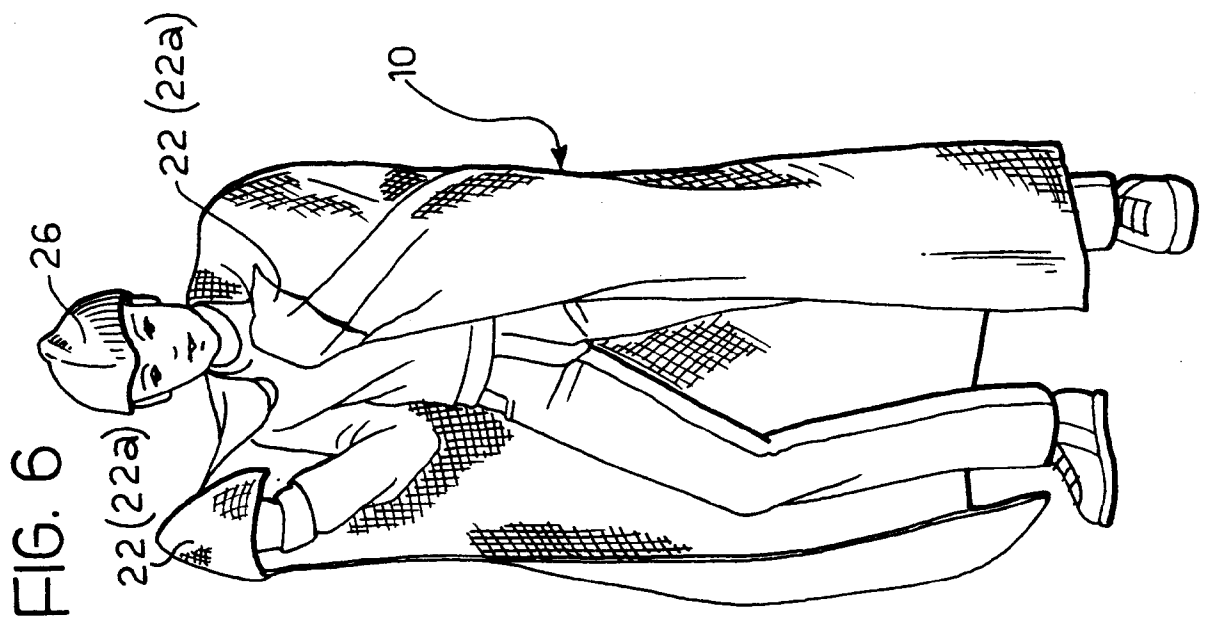


FIG. 5







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EUROPEAN SEARCH REPORT

Application Number

EP 92 83 0009

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y, D	IT-A-989 680 (WATER JEL INTERNATIONAL) * claims; figures * ---	1, 3-6	A62B17/00
Y	FR-A-862 676 (CR&TTE) * page 2, line 40 - line 102; figures * ---	1, 3-6	
A	FR-A-2 597 755 (LE VETEMENT DES TEMPS NOUVEAUX) * claims; figures * ---	1	
A	US-A-2 683 876 (SULLIVAN) * figures * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5) A62B A62C
Place of search THE HAGUE		Date of completion of the search 07 APRIL 1992	Examiner ERNST R. T.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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