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(54) **Garment**

(57) The invention relates to a garment A garment comprising: a torso portion (3);

- a pair of sleeves (5, 6);

- a junction between the torso portion (3) and each of the sleeves (5, 6) comprising a closable opening (11);

wherein

- each of said closable openings (11) comprising

- a first portion (15) positioned on the respective under-arm, extending along a side of the torso portion ,

- and a second portion (17) extending on the respective one of the sleeves (5, 6);

and each of said sleeves (5, 6) comprising:

- a proximal portion (19) adjacent to the torso portion (3);

- a distal portion (21) adjacent to the proximal portion (19);

- an arrangement carried by the proximal portion (19) for maintaining the distal portion (21) in a lifted-up state.

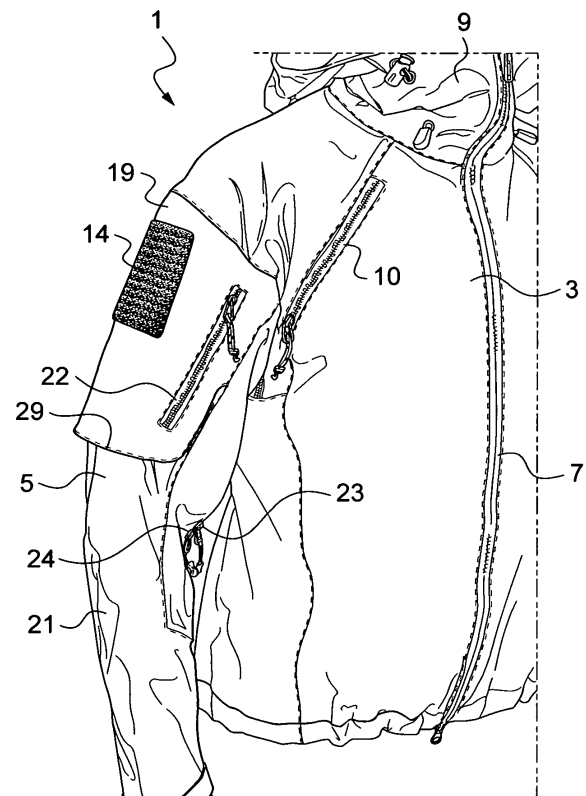


Fig.1

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Description

[0001] The present invention relates to garments or clothes such as jackets and more particularly, relates to garments providing means for adapting them to weather and temperature changes.

[0002] Under inclement and cold weather conditions, the wearer may desire greater arm dexterity, but may not wish to expose, even temporarily, the upper part of his body to inclement weather. In the past, many different types of approaches have been made to provide garments of various types having removable sleeves.

[0003] The problem in connection with such sleeves is that frequently there is no convenient storage place for the sleeves once they are detached, so these might be lost or may be not easily retrieved and reinstalled for arm protection and warmth. Additionally, it is frequently desirable to have a garment which, while being worn, can be easily manipulated so that the sleeves can be removed from arm areas and conveniently stored.

[0004] US 4261059 discloses a jacket having removable sleeves. The sleeves are attached to the torso portion, or vest portion, of the jacket using a zipper. The zipper is essentially circular and is positioned at the junction between the torso portion and the sleeve. One length of the zipper extends around the upper and of the sleeve and the other length of the zipper is arranged on the shoulder seams of the torso portion of the jacket. The removed sleeves are stored inside the jacket. This jacket has many disadvantages like for example the need to take off the jacket prior to the removal of the sleeves; or the discomfort of the wearer when the jacket is worn sleeve-less and the zipper-half of the torso portion comes into contact with the armpit. Further, when the jacket is worn without the sleeves, the sleeveless jacket becomes bulky and results in greater warmth from the detached sleeves being stored inside the vest portion of the garment.

[0005] Other prior art includes US 4006495 and FR 2474285.

[0006] US 4006495 discloses a coat garment having semi-detachable sleeves and a pocket means for receiving such sleeves in their semi-detached condition; the sleeves having essentially longitudinal, selectively openable seams for accommodating arm removal from such sleeves; the sleeves can then be tucked into the pocket means provided in storage pouch means provided in the back of the coat proximate the sleeve openings. This coat has the disadvantage that the removal of arms from sleeves still remains uncomfortable for the wearer who doesn't take off the coat. Moreover, the sleeve-less coat becomes bulky and warmer when the sleeves are stored inside the garment and wearer's shoulders are not protected when the garment is worn sleeve-less.

[0007] FR 2474285 discloses a garment with retractable sleeves that can be tucked into arm annular pockets. However, those annular pockets still provide discomfort to the wearer and wearer's shoulders are still not protect-

ing when the garment is worn sleeve-less.

[0008] Therefore, it is an object of the present invention to provide a garment which reply to the disadvantages of the prior art.

[0009] This object is achieved by a garment comprising a torso portion; a pair of sleeves; a junction between the torso portion and each of the sleeves comprising a closable opening; wherein each of said closable openings comprising a first portion positioned on the respective underarm, extending along a side of the torso portion, and a second portion extending on the respective one of the sleeves; and each of said sleeves comprising a proximal portion adjacent to the torso portion; a distal portion adjacent to the proximal portion; an arrangement carried by the proximal portion for maintaining the distal portion in a lifted-up state.

[0010] According further embodiments of the invention,

- said distal portion is maintained in a rolled-up state,
- said arrangement for maintaining the distal portion in a lifted-up state includes a pocket,
- said arrangement for maintaining the distal portion in a lifted-up state includes snaps,
- the proximal portion and the distal portion comprise snaps to maintain the proximal portion against the distal portion, in a sleeve-on state,
- said arrangement for maintaining the distal portion is positioned on the upper part of the proximal portion,
- said closable opening between the torso portion and the respective sleeve comprises a substantially U-shaped closable-opening with a first portion oriented substantially vertically and a second portion oriented substantially vertically,
- said closable opening between the torso portion and the respective sleeve comprises a double slider zipper,
- the first portion positioned on each underarm, extending along a side of the torso portion and the second portion extending on the respective one of the sleeves, belong to the same piece of fabric,
- the upper proximal portion is lined,
- said arrangement for maintaining the distal portion in a lifted-up state includes an elastic band adapted to extend at least partially around a wearer's arm to apply tension to the lifted-up distal portion of the sleeve against the arm,
- said proximal portion of the sleeve further comprises an arrangement to hold the proximal portion of the sleeve against an upper arm of a wearer,
- said arrangement to hold the proximal portion of the sleeve against an upper arm of a wearer comprises an elastic band.

[0011] Other features and advantages of the invention will become apparent from the following drawings and description.

[0012] For a better understanding of the invention with regard to the embodiments thereof, reference is made to the accompanying drawings, in which like numerals designate corresponding elements or sections throughout, and in which:

- Figure 1 is a garment worn in a first normal wear position with the sleeve-on state,
- Figure 2 is similar view to figure 1 in which the garment is in the sleeve-on state with raised arm showing a pit zip closed,
- Figure 3 is similar view to figure 1 with the garment in the sleeve-on state with the proximal portion of the sleeve being lifted thereby showing the opening of the pocket
- Figure 4 is similar to figure 3 with the garment in the sleeve-on state with the edge of the pocket opening pulled thereby showing the inside of the pocket,
- Figure 5 is similar to figure 2, with the garment in the sleeve-on state with raised arm showing the pit zip open,
- Figure 6 is similar to figure 5, with the arm being removed from the sleeve through the pit zip,
- Figure 7 is similar to figure 6, with the sleeve being rolled-up,
- Figure 8 is similar to figure 7, with the sleeve in its rolled-up stated being inserted within the pocket,
- Figure 9 is similar to figure 8, with the garment in the sleeve-less state with the proximal portion of the sleeve being lifted thereby showing the pocket filled with the rolled up sleeve and the black elastic band,
- Figure 10 is similar to figure 9 with the arm being inserted between the proximal portion of the sleeve and the elastic band,
- Figure 11 is similar to figure 10 with the garment in the sleeve-less state in the normal wear position, the upper arm and the shoulder being protected,
- Figure 12 is a similar view of figure 10 in a second embodiment of the invention in which the means for maintaining the sleeve in the rolled-up position comprise a snap and,
- Figure 13 is a similar view of figure 10 and 12 in a third embodiment of the invention in which the means for maintaining the sleeve in the rolled-up position coincide with the means for holding the proximal portion of the sleeve against the arm.

[0013] In the figures, a garment 1, such as a jacket, comprises a torso portion 3 and a pair of sleeves 5, 6, linked to the torso portion 3. The garment 1 is configured to cover the wearer's upper body.

[0014] As used in the description, "vertical" means substantially parallel with respect to a longitudinal axis of the wearer's upper body standing up.

[0015] In the example represented on figures, the garment 1 is closable in a front panel by a principal zipper 7 arranged vertically towards the collar 9. A first storage pocket 10 may be provided on the front upper panel, as

represented on figure 1. Figure 1 illustrates a garment according to a first embodiment of the invention, in form of a jacket, although this is not limiting to the invention. For example, the length of the torso portion of the garment could be varied from that shown in the drawing.

[0016] The garment 1 comprises a junction between the torso portion 3 and each of the sleeves 5, 6. Each junction comprises a closable opening 11.

[0017] As represented in figure 2, each of said closable openings 11 comprising a first portion 15 positioned on respective underarm, extending along a side of the torso portion and a second portion 17 extending on the respective one of the sleeves 5. The side of the torso portion is shorter than the sleeve 5 portion and the first portion 15 is positioned at the wearer's armpit level.

[0018] Each of said sleeves 5, 6 comprising a proximal portion 19 adjacent to the torso portion 3; a distal portion 21 adjacent to the proximal portion 19 that extends further along the arm of the wearer; an arrangement carried by the proximal portion 19 for maintaining the distal portion 21 in a lifted-up state, the proximal portion 19 being arranged between the torso portion 3 and the distal portion 21. The proximal portion 19 is attached to the torso region as by means of stitching or otherwise

[0019] Thus, the garment 1 can be worn in a "sleeve-on position" (figures 1, 2) coverings arm or in a "sleeveless position" (figure 11, 12, 13) in which both sleeves distal portion 21 are lifted-up by the wearer and maintained in their lifted-up state by the proximal portion 19 means.

[0020] The sleeveless position allows full freedom of the arms 35, 44 while protecting the wearer's torso and shoulders, whereas sleeve-on position allows full upper body protection including arms 35, 44 needed for example, if the temperature drops.

[0021] The extending closable openings 11 provides a large pit opening for the arm 35 passage allowing an easy withdraw of the arm and elbow 35 and avoiding any discomfort for the wearer to remove his arm 35 from the sleeve 5.

[0022] Moreover, the proximal portion 19 remains attached to the torso portion 3 allowing good protection of the wearer's shoulders. Each proximal portion 19 is adapted to cover the respective wearer's shoulder.

[0023] The modularity of the garment 1 allows it to be worn with or without sleeves 5, 6 while remaining on the wearer. Moreover, the wearer does not need any exterior help to transform the garment 1.

[0024] The closable opening 11 can be slightly positioned more in front portion of torso portion 3 and sleeve 5, to be more easily accessible by the wearer's hand 44.

[0025] The removing of the arms 35, 44 from the respective sleeves 5, 6 is easy because there is no need of taking off the garment 1, the arms 35, 44 are simply slipped out of the sleeves 5, 6 which still remain attached to the garment 1.

[0026] Said arrangement for maintaining the distal portion 21 in a lifted-up state may be positioned on the upper

part of the proximal portion sleeve 19. The upper proximal portion 19 can be lined. This emplacement, on the upper part of the proximal portion 19, allows avoiding any discomfort for the wearer when the garment 1 is worn sleeve-less. Moreover, the protection of the shoulders is reinforced.

[0027] A second storage pocket 22 can be arranged on the proximal portion 19 (figure

1). As shown in figure 1, the optional pocket 22 includes a lengthwise-extending zipper. Also, a fastening mean 14 can be arranged on the proximal portion, to attach a blazon for example. The blazon will be visible in both positions "sleeve-on" or "sleeve-less".

[0028] In an embodiment shown in figure 2, said closable opening 11 between the torso portion 3 and each of the sleeves 5, 6 comprises a substantially U-shaped closable-opening with a first portion 15 oriented substantially vertically on the torso portion 3 and a second portion 17 oriented substantially vertically on the respective one of the sleeves 5, 6.

[0029] In a further embodiment, the first portion 15 positioned on each underarm and extending along a side of the torso portion and the second portion 17 extending on the respective one of the sleeves 5, 6, belong to the same piece of fabric 13 (figures 2 and 6).

[0030] As seen in figure 2, the closable opening 11 comprises a zipper or "pit zip".

[0031] Said closable opening 11 between the torso portion 3 and the respective sleeve 5 can also comprises a double slider zipper.

[0032] The double slider zipper includes a first row of teeth attached to a first stringer, a second row of teeth attached to a second stringer and an upper slider 23 and a lower slider 24. The sliders 23, 24 are configured in a face-to-face arrangement so that the zipper's teeth are locked together when the sliders 23, 24 are moved from the ends 25, 26 of the stringers towards the middle of the stringers, and open or separate when the sliders 23, 24 are moved in the opposite direction.

[0033] Thus, closable opening 11 may be opened by sliding the upper slider 23 or the lower slider 24 to the ends 25, 26 of the stringers and the wearer can readjust the closable opening 11 around his arm 35 once withdrawn from the sleeve 5 by closing both sliders 23, 24 towards the middle or leave it open for a better ventilation of the armpit.

[0034] According to an embodiment, said distal portion 21 is maintained in a rolled-up state. A rolled-up state allows taking less place in the lifted-up state. To facilitate the roll-up, the distal portion 21 is done in a slight fabric.

[0035] Moreover, said arrangement comprises fastening device for maintain the distal portion 21 in the lifted-up state.

[0036] For example, said arrangement includes a pocket 28.

[0037] Accordingly, the wearer will not separate the sleeves 5, 6 from the garment 1 but can immediately store them while still wearing the torso portion 3 of the garment 1.

[0038] The pocket 28 can be formed by a piece seamed inside an extending sleeve proximal portion 19, on bottom 29 and sides 30 so that the pocket 28 forms a flap on the wearer's shoulder.

[0039] The pocket aperture 32 is turned up, towards the armpit, so that the distal portion 21 is better retained.

[0040] Figure 4 shows an interior pocket 28 by lifting up by the wearer's hand.

[0041] The aperture edge 34 comprises a small elastic, to improve the maintaining of the distal portion 21 lifted-up in the pocket 28.

[0042] Said proximal portion 19 of the sleeve 5 can further comprises an arrangement to hold the proximal portion 19 of the sleeve 5 against an upper arm 35 of a wearer.

[0043] For example, said arrangement to hold the proximal portion 19 of the sleeve 5 against an upper arm 35 of a wearer comprises an elastic band 36. The elastic band 36 can be sewn under the pocket 28, on its back side outside to the sleeve 5, at its two ends 38, 39 to the sides 30, 31 of the pocket 28 as can be seen in figure 3.

[0044] Thus, in the first and second wear position, the arrangement is not visible. Moreover, in the first sleeve-on position, the elastic band 36 is not embarrassing the wearer.

[0045] Said arrangement for maintaining the distal portion 21 can includes an elastic band 36 adapted to extend at least partially around a wearer's arm 35 to apply tension to the distal portion 21 of the sleeve 5 against the arm 35.

[0046] This elastic band 36 may be the same than the elastic band 36 of the arrangement to hold the proximal portion 19 of the sleeve 5 against an upper arm 35 of a wearer.

[0047] The distal portion 21 could therefore stay in position through a full range of motion with minimal restriction and excellent comfort.

[0048] In an embodiment, the proximal portion 19 and the distal portion 21 comprise snaps 41, 42 to maintain the proximal portion 19 against the distal portion 21 (figure 3). Snaps 41, 42 allow a well positioning of the arrangement means, such as the pocket 28, against the distal portion sleeve 21 in a sleeve-on state.

[0049] The proximal portion 19 and the distal portion 21 comprise for example a pair of snaps 41, 42 with one snap part between each bottom corner of the bottom pocket 28 and one snap part positioned on corresponding distal portion sleeve 21.

[0050] The snaps may be positioned under the pocket 28 to be not visible in normal wear positions.

[0051] Figures represent the use of the garment 1 sequence from a first normal wear on sleeve-on state (figure 1) to a second normal wear on sleeve-less state (figure 11).

[0052] From figure 1 to figure 3, the wearer lifts up the proximal portion 19 comprising the pocket 28 and opens the snaps 41, 42 of the arrangement, to access the pocket aperture 32.

[0053] Then, as shown in figure 5, the wearer opens the right closable openings 11 with his left hand 44 so the wearer's arm 35 can be withdrawn from the sleeve 5 through the closable opening 11.

[0054] In figure 6, the wearer pulls out his arm 35 of the distal portion 21 of the sleeve 5 through the pit zip closable opening 11.

[0055] Distal portion 21 is then rolled-up by the wearer (figure 7) and stowed into the pocket 28 (figures 8 and 9). While still wearing the jacket, the wearer can, with both hands, begin to roll up the sleeve, i.e. the loose portion of the sleeve.

[0056] In figure 8 the wearer holds the rolled up distal portion 21 with his left hand, while he maintains the pocket opened with his right hands.

[0057] Figure 9 shows the garment in the sleeveless state, or with the length of the sleeve shortened to that of the proximal portion 19. More particularly, figure 9 shows the proximal portion 19 of the sleeve being raised, thereby showing the rolled-up distal portion contained within the pocket.

[0058] In figure 10, the wearer has inserted his free arm 35 between the elastic band 36 and the proximal portion 19 to apply a firmly but flexibly tension to the distal portion 21 of the sleeve 5 against the arm 35 and hold the proximal portion 19 of the sleeve 5 against an upper arm 35. With the garment in the shortened sleeve state, as shown in figure 10, the shortened sleeve stays in position through a full range of motion with minimal restriction and excellent comfort.

[0059] The wearer can readjust the closable opening 11 round his arm 35 by closing both sliders 23, 24 towards the middle or leave it open for a better ventilation of the armpit.

[0060] The garment 1 is thus in the second wear position in figure 11, i.e. the sleeveless, or shortened-sleeve state.

[0061] Then, the torso portion 3 is covered and kept warm by the garment 1 and the arms are now free from sleeve covering while the garment 1 provides a good protection of the shoulders, even in this sleeve-less wear position. In addition, the zippered pocket of the proximal sleeve portion is still easily accessible via its zipper. Although a zipper is depicted, another type of fastener could be used instead.

[0062] Those steps are of course performed at both arms so that the wearer's arms are free from the sleeves 5, 6 without the necessity of removing the garment 1 from the wearer.

[0063] As can be seen by comparing figure 1 and figure 11, there is no compromise on an aesthetic of the garment with or without sleeve, both are pleasant to the eye.

[0064] Figure 12 and figure 13 show two other embodiments of the arrangement for maintain the sleeve 5 in a

lifted-up state, in which said arrangement does not comprise a pocket.

[0065] In the second embodiment of figure 12, said arrangement for maintaining the distal portion 21 in a lifted-up state includes complementary, or mating, snaps 46. For example, female snap 46 is arranged on the proximal portion 19 and the mating male snap (non visible) is arranged on the distal position in such a position that when the distal portion is in the rolled-up state, the male snap faces the female snap. Further, although a single snap fastener is shown, a second or further fastener could be located transversally spaced from that which is shown.

[0066] In the third embodiment of figure 13, the distal portion 21 is maintained in a rolled-up state by an elastic band. The elastic band coincides with the one 36 which hold the proximal portion 19 of the sleeve 5 against an upper arm 35 and which apply tension to the distal portion 21 of the sleeve 5 against the arm 35.

[0067] Thus, such a garment 1 does not need to be taking off prior to the removal of the sleeves 5, 6 and presents an excellent comfort for the wearer in both wear positions.

Claims

1. A garment comprising: a torso portion (3);

- a pair of sleeves (5, 6);
- a junction between the torso portion (3) and each of the sleeves (5, 6) comprising a closable opening (11);
- wherein
- each of said closable openings (11) comprising

- a first portion (15) positioned on the respective underarm, extending along a side of the torso portion ,
- and a second portion (17) extending on the respective one of the sleeves (5, 6);

and each of said sleeves (5, 6) comprising:

- a proximal portion (19) adjacent to the torso portion (3);
- a distal portion (21) adjacent to the proximal portion (19);
- an arrangement carried by the proximal portion (19) for maintaining the distal portion (21) in a lifted-up state.

2. A garment according to claim 1, wherein said distal portion (21) is maintained in a rolled-up state.

3. A garment according to anyone of claims 1 or 2, wherein: said arrangement for maintaining the distal portion (21) in a lifted-up state includes a pocket (28).

4. A garment according to anyone of claims 1 to 3, wherein: said arrangement for maintaining the distal portion (21) in a lifted-up state includes snaps (46).
5. A garment according to anyone of the previous claims wherein the proximal portion (19) and the distal portion (21) comprise snaps (41, 42) to maintain the proximal portion (19) against the distal portion (21). 5
6. A garment according to anyone of the previous claims, wherein said arrangement for maintaining the distal portion (21) is positioned on the upper part of the proximal portion (19). 10
7. A garment according to anyone of the previous claims, wherein said closable opening (11) between the torso portion (3) and the respective sleeve (5, 6) comprises a substantially U-shaped closable-opening with a first portion (15) oriented substantially vertically and a second portion (17) oriented substantially vertically. 15
8. A garment according to anyone of the previous claims, wherein said closable opening (11) between the torso portion (3) and the respective sleeve (5, 6) comprises a double slider zipper. 20
9. A garment according to anyone of the previous claims, wherein the first portion (15) positioned on each underarm, extending along a side of the torso portion and the second portion (17) extending on the respective one of the sleeves (5, 6) belong to the same piece of fabric. 25
10. A garment according to anyone of the previous claims, wherein the upper proximal portion is lined. 30
11. A garment according to anyone of the previous claims, wherein: said arrangement for maintaining the distal portion (21) in a lifted-up state includes an elastic band (36) adapted to extend at least partially around a wearer's arm to apply tension to the lifted-up distal portion (21) of the sleeve (5, 6) against the arm. 35
12. A garment according to anyone of the previous claims, wherein: said proximal portion (19) of the sleeve (5, 6) further comprises an arrangement to hold the proximal portion (19) of the sleeve (5, 6) against an upper arm of a wearer. 40
13. A garment according to claim 12, wherein: said arrangement to hold the proximal portion (19) of the sleeve (5, 6) against an upper arm of a wearer comprises an elastic band (36). 45

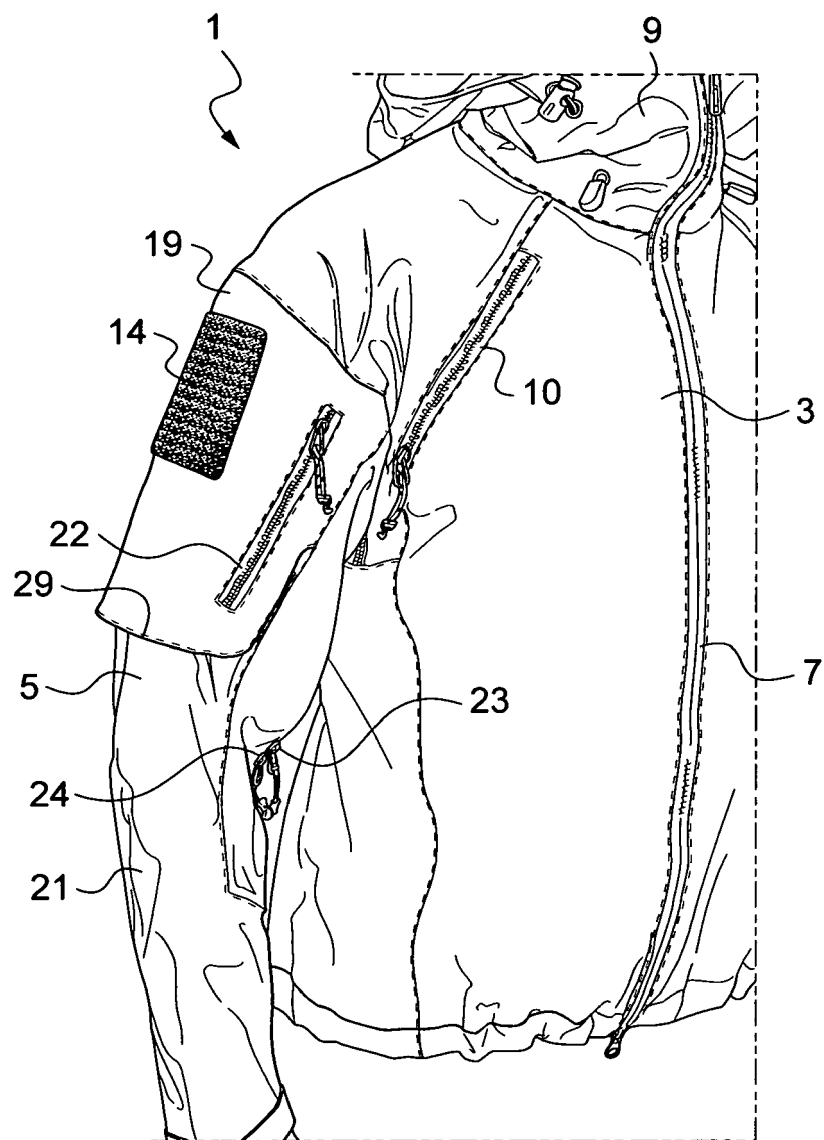


Fig.1

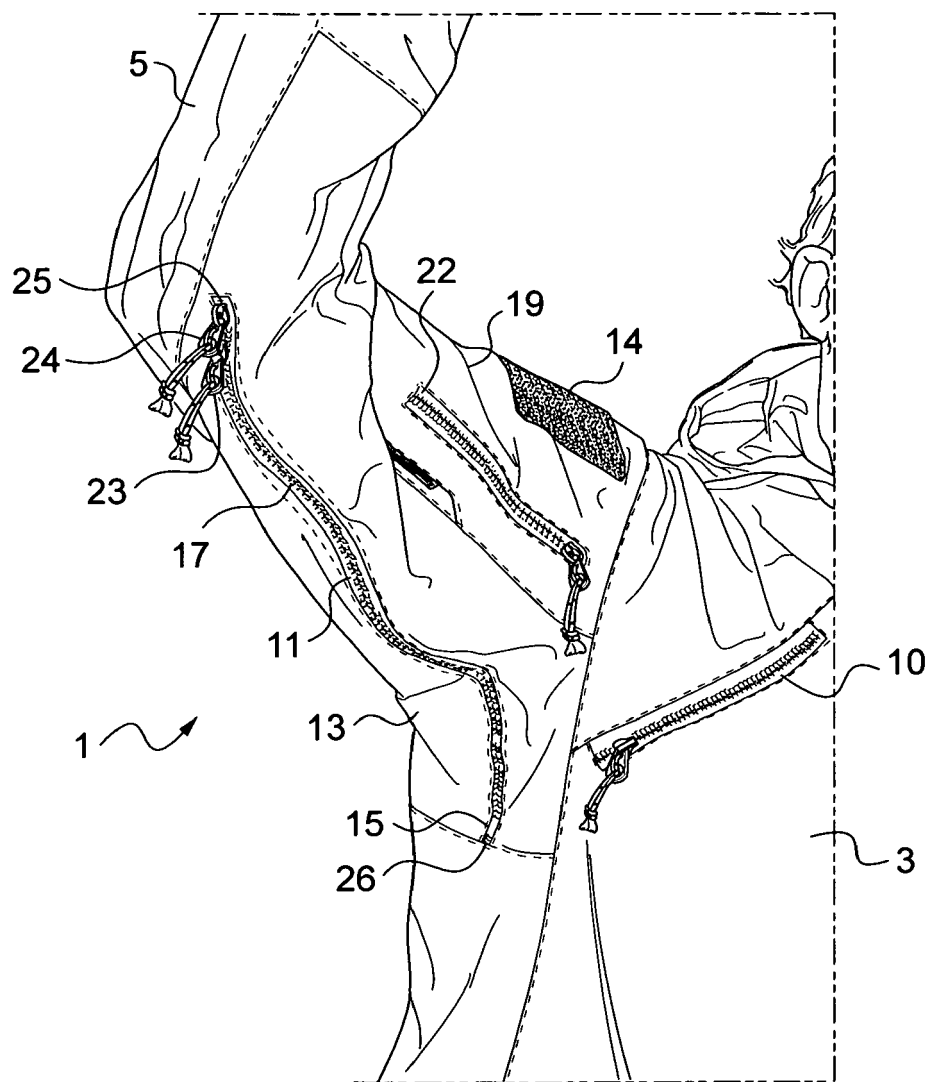


Fig.2

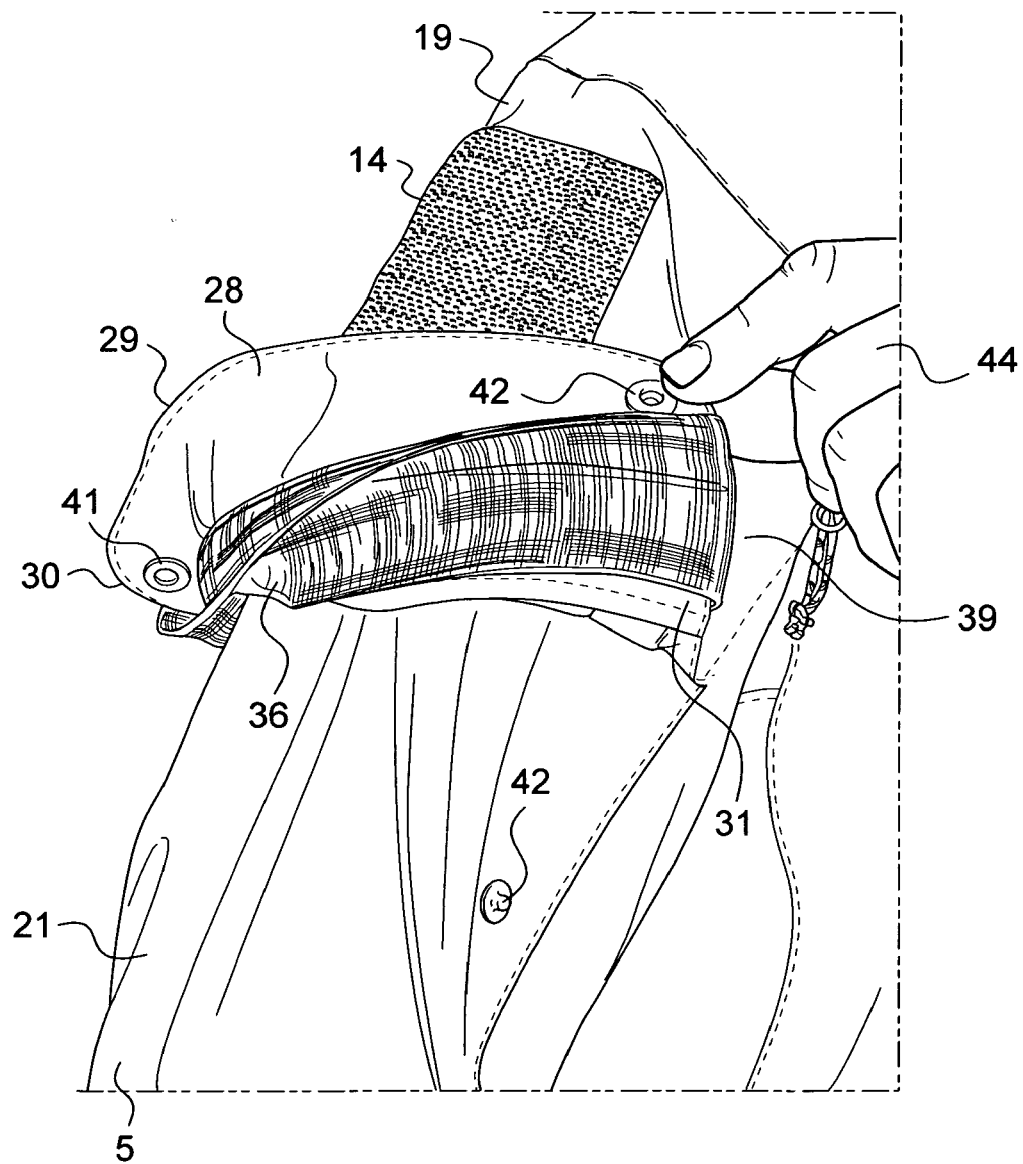


Fig.3

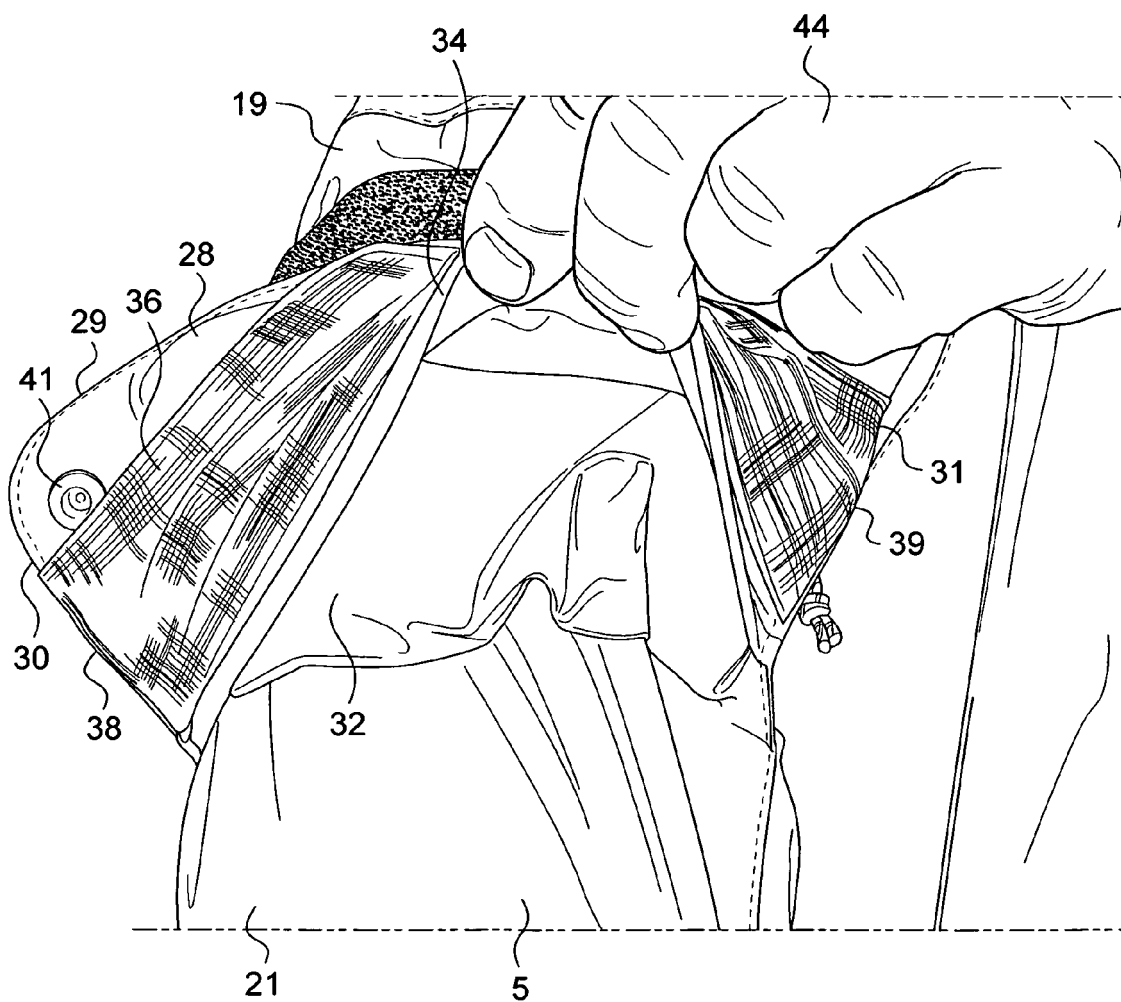


Fig.4

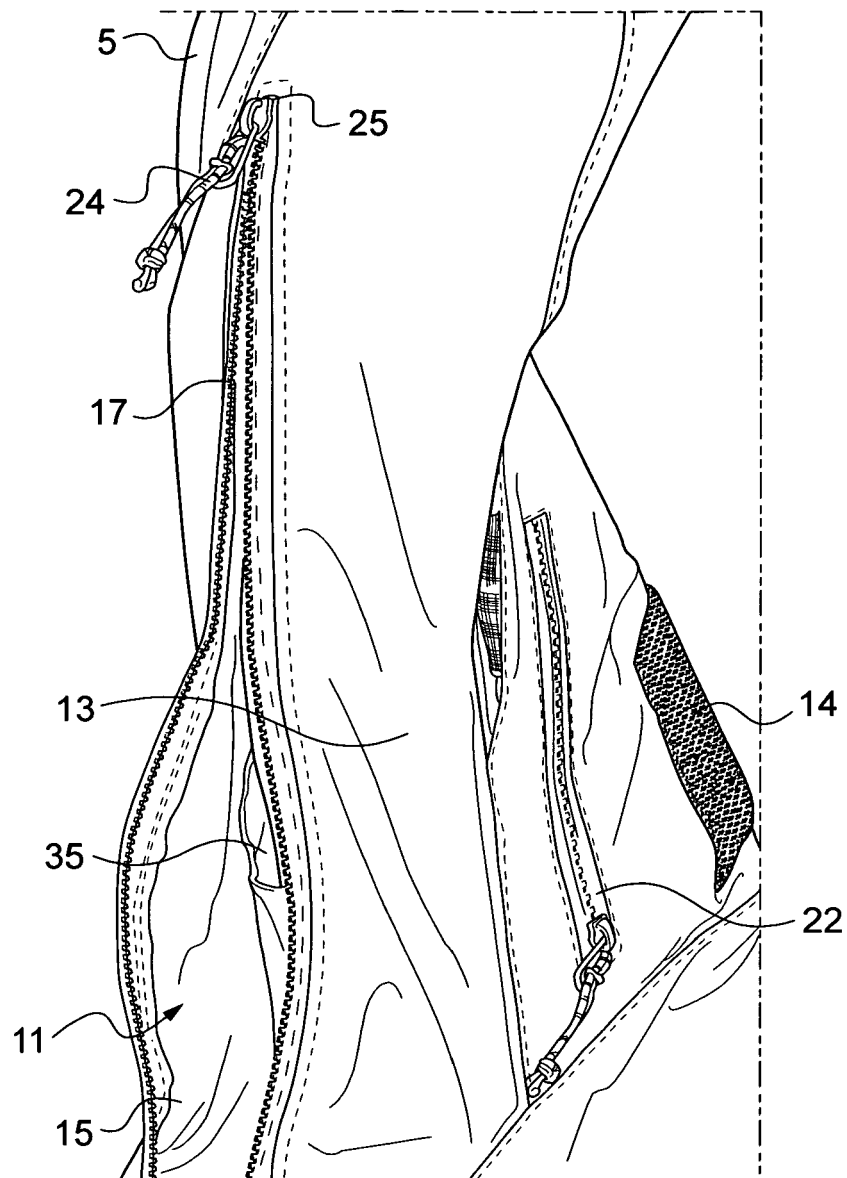


Fig.5

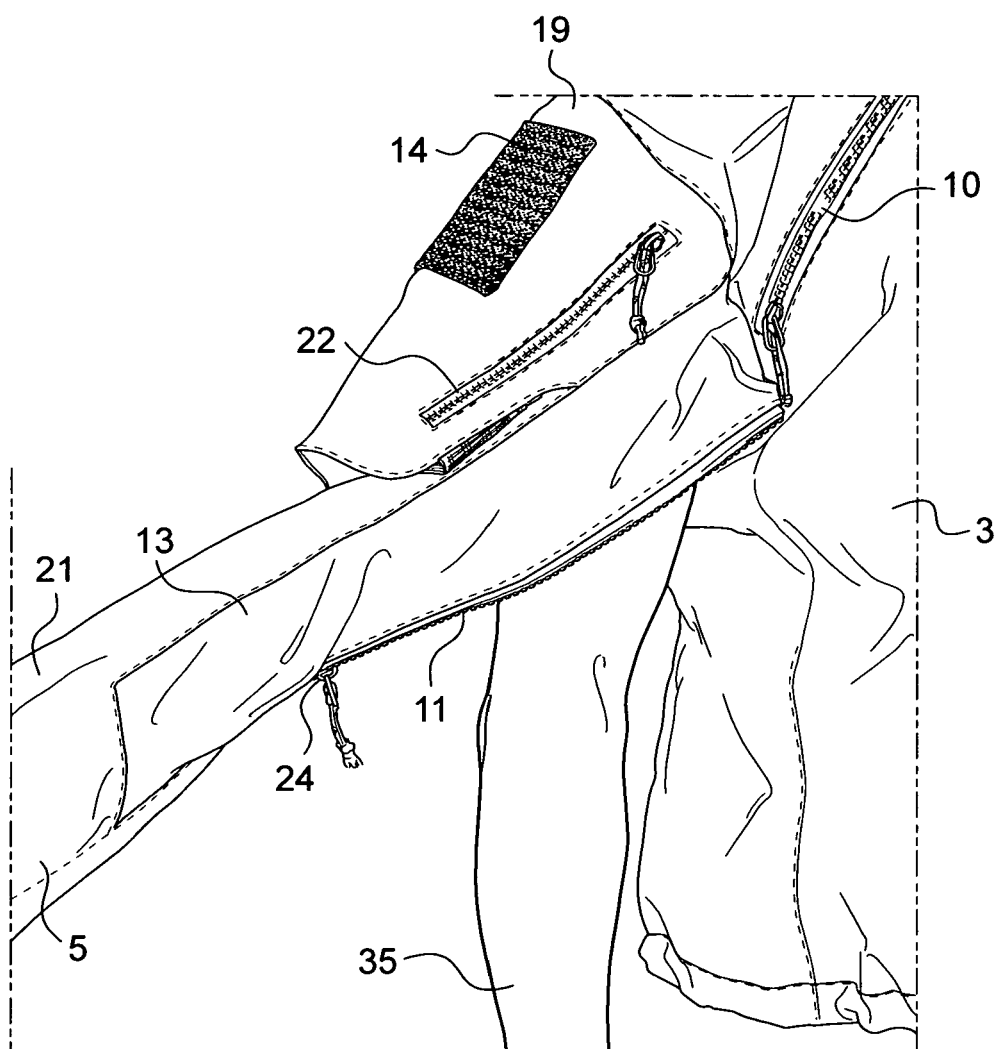


Fig.6

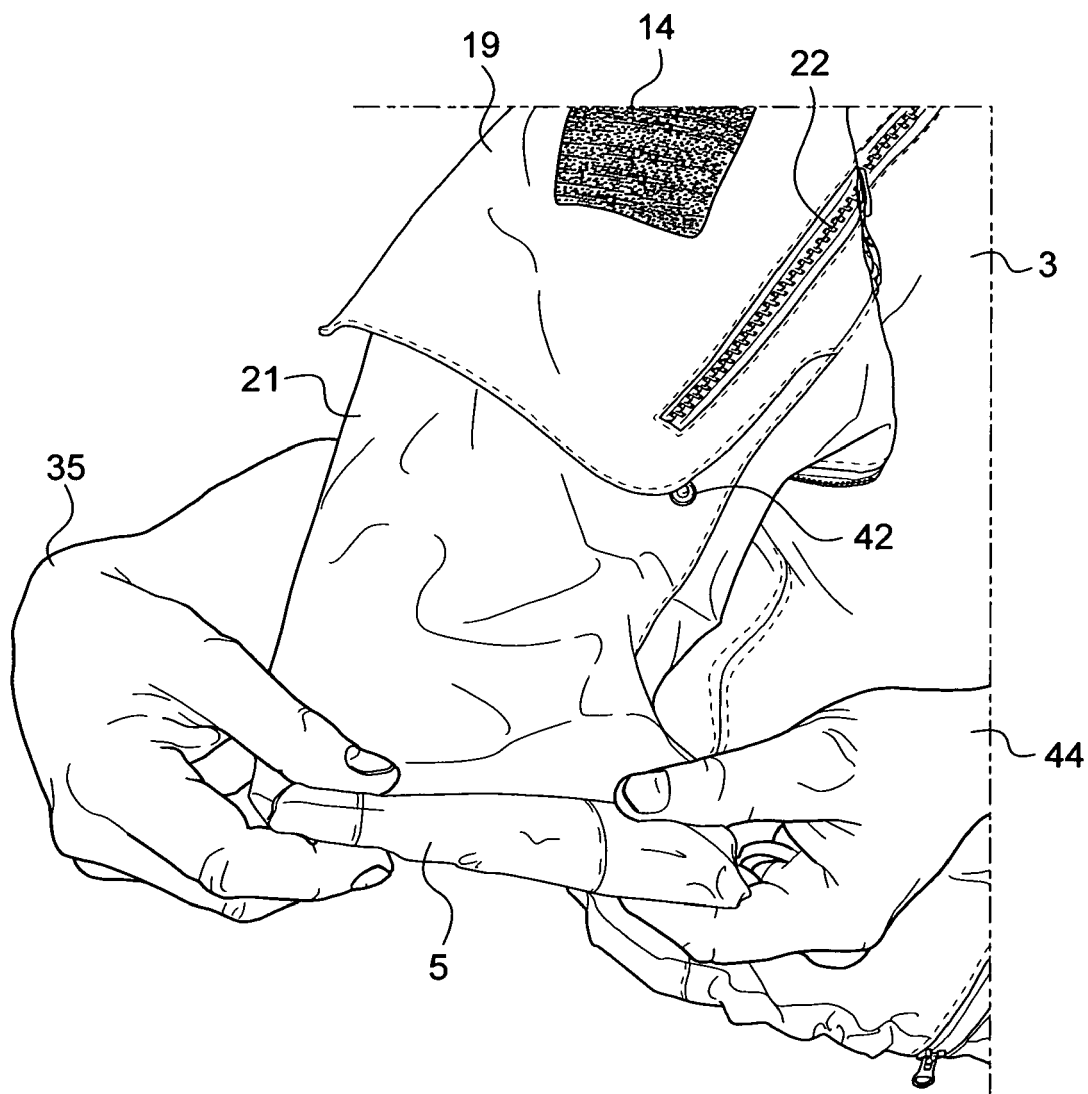


Fig.7

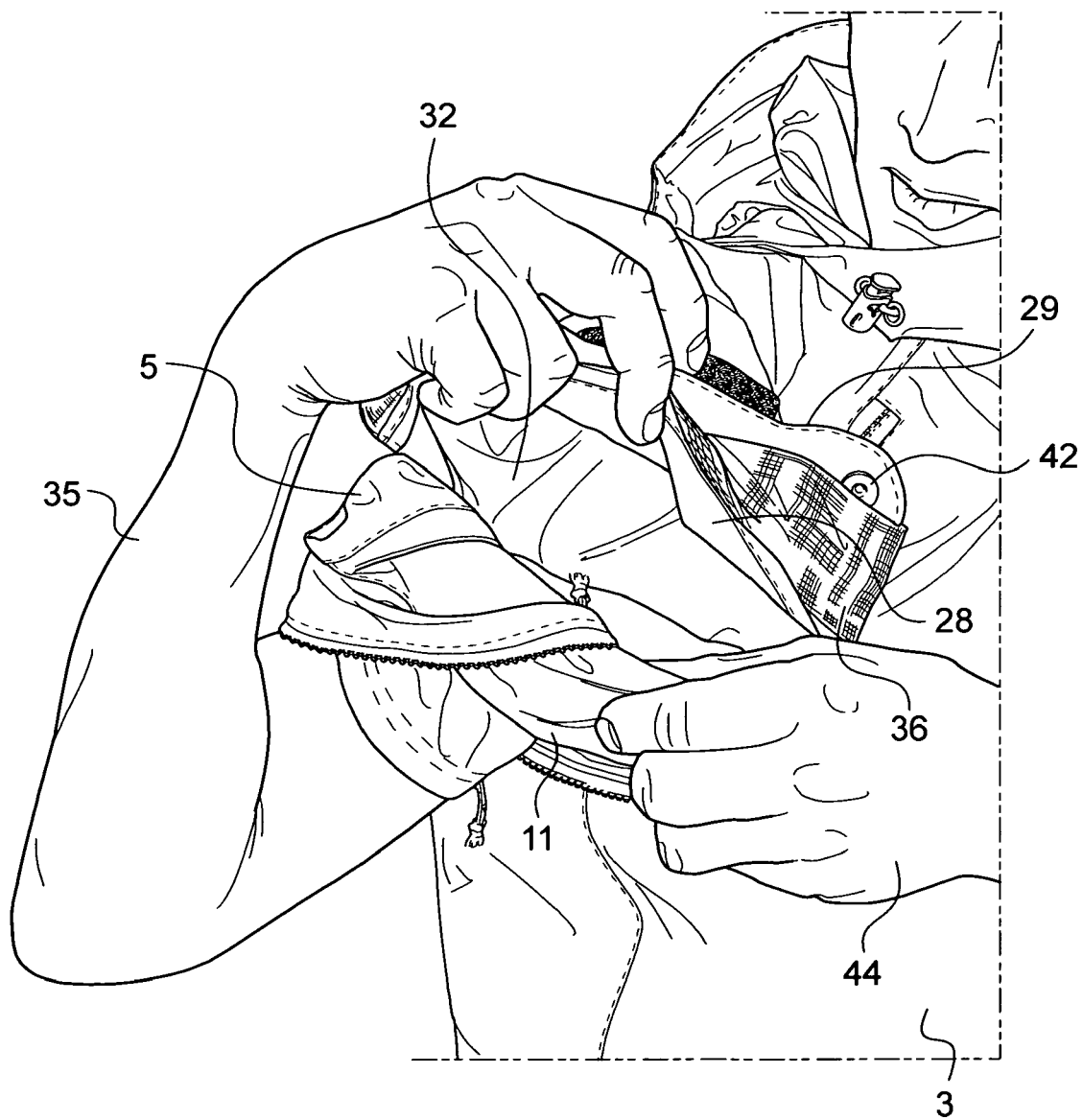


Fig.8

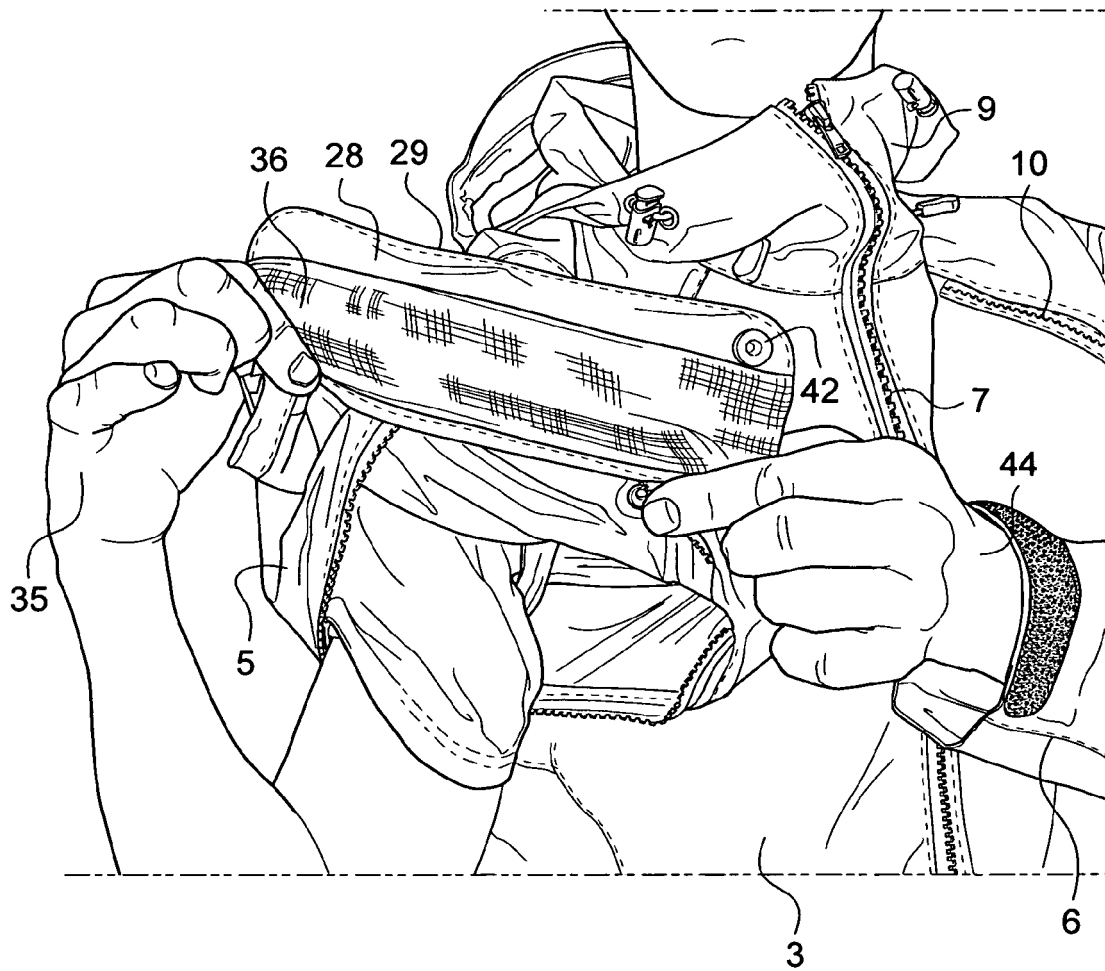


Fig.9

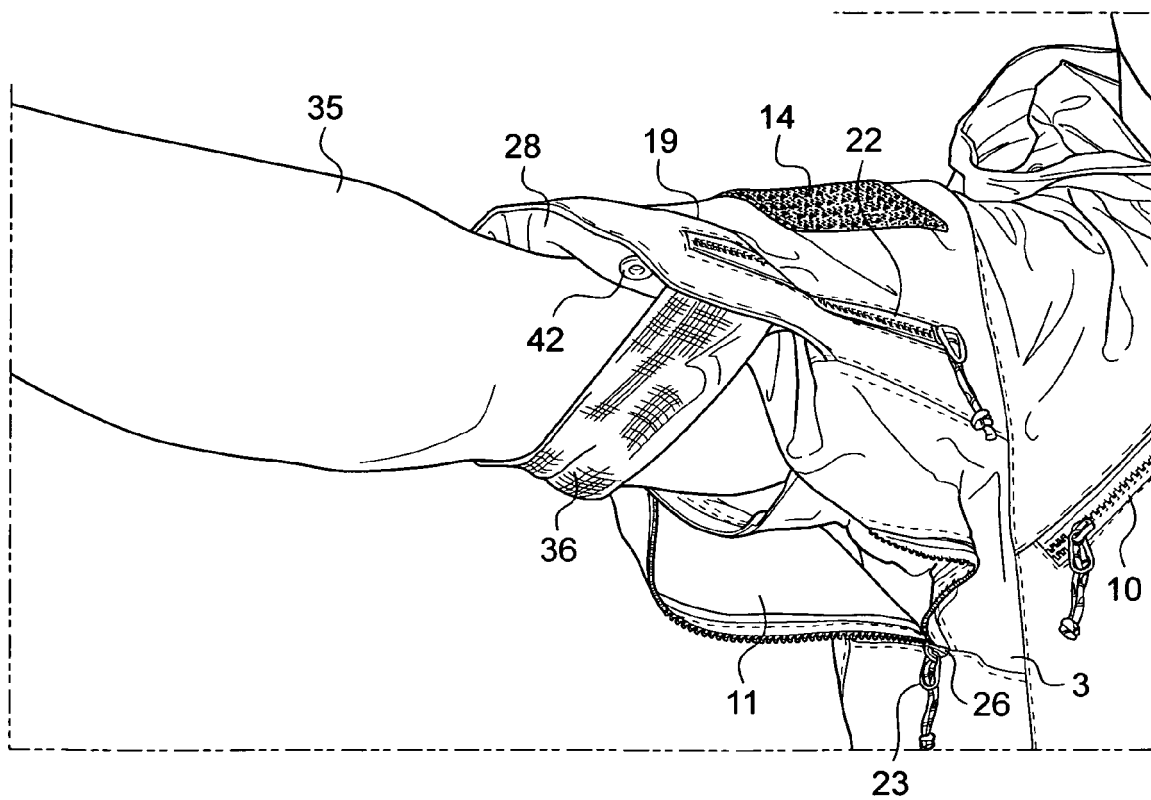


Fig.10

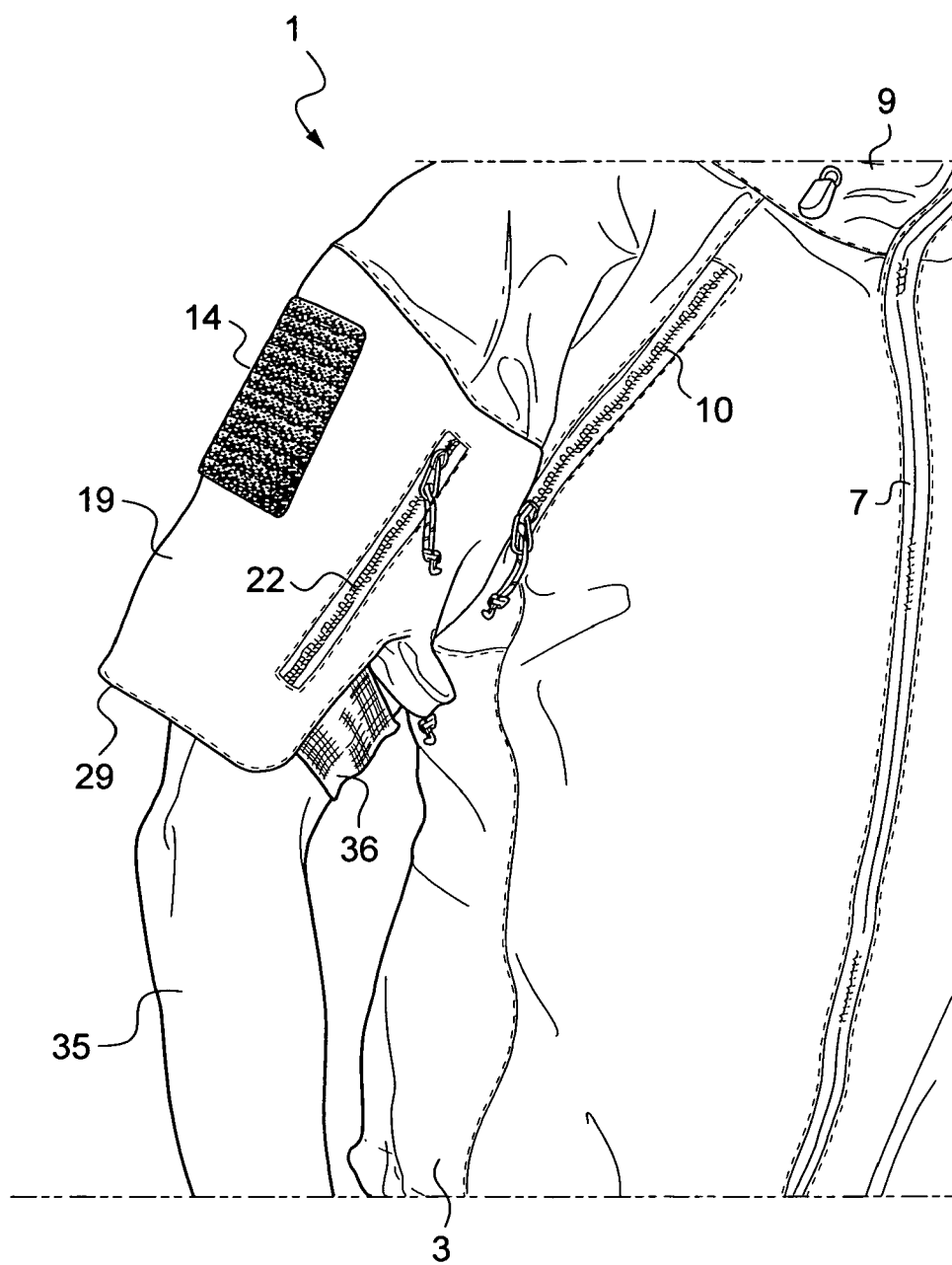


Fig.11

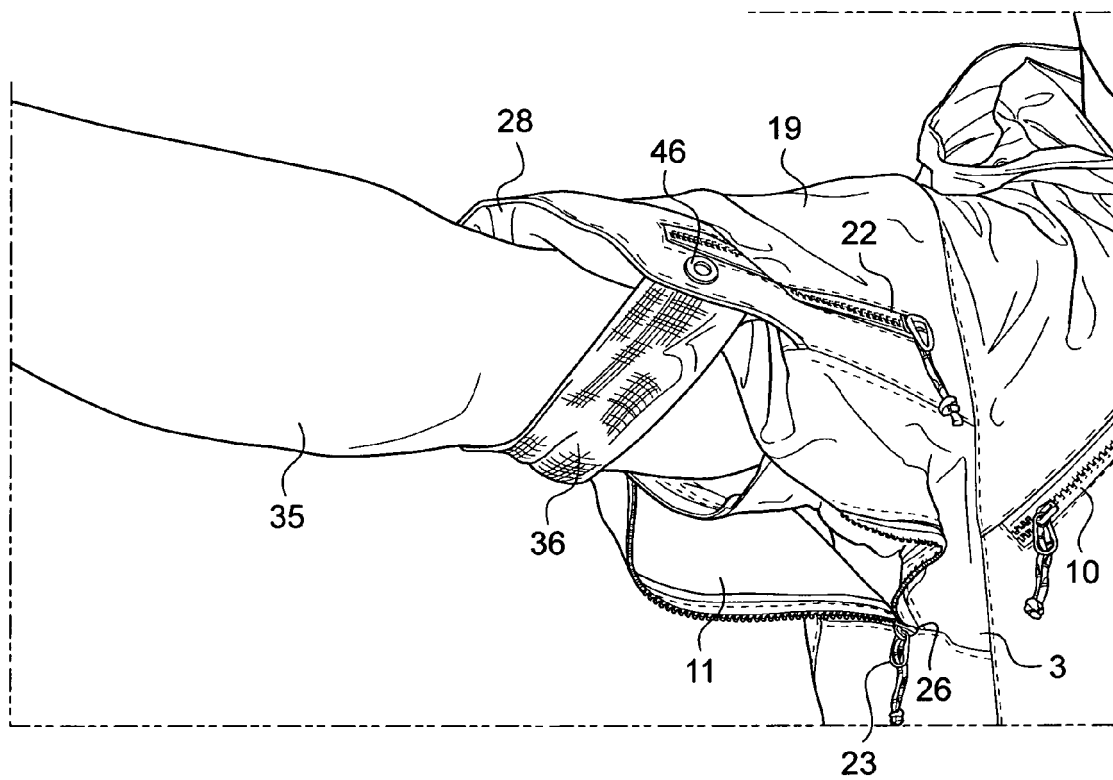


Fig.12

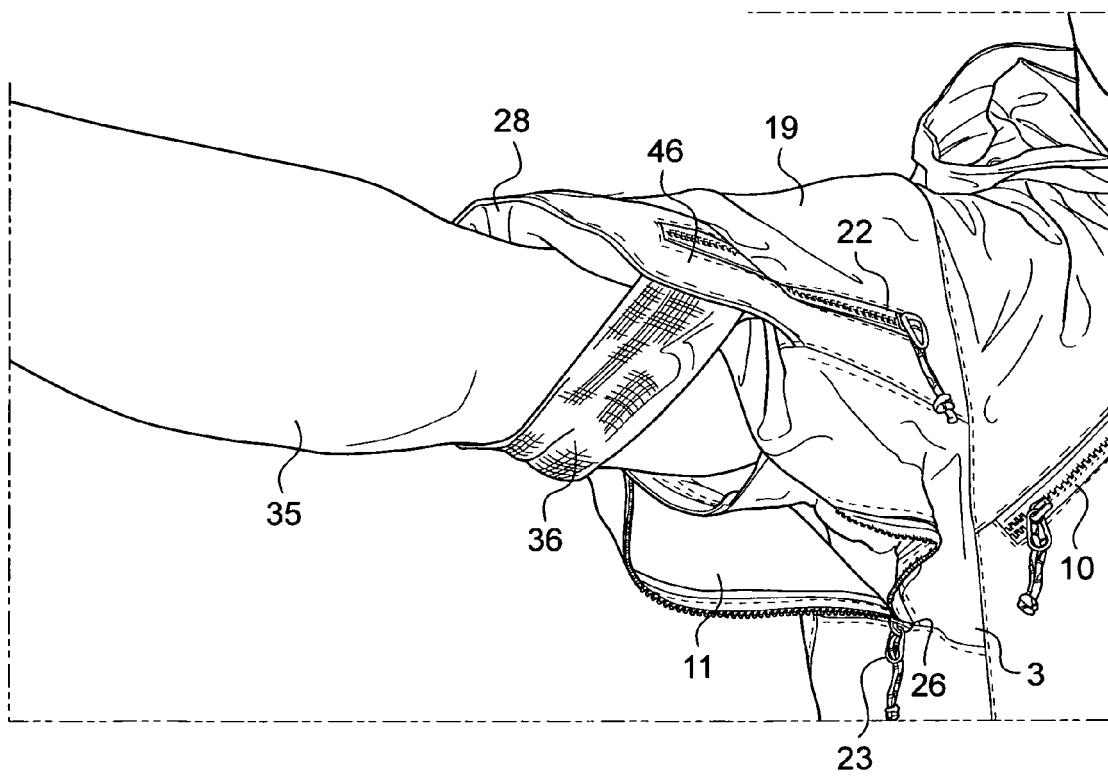


Fig.13



EUROPEAN SEARCH REPORT

Application Number
EP 09 00 7296

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 1 October 2009	Examiner Fonseca Fernandez, H
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 00 7296

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The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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