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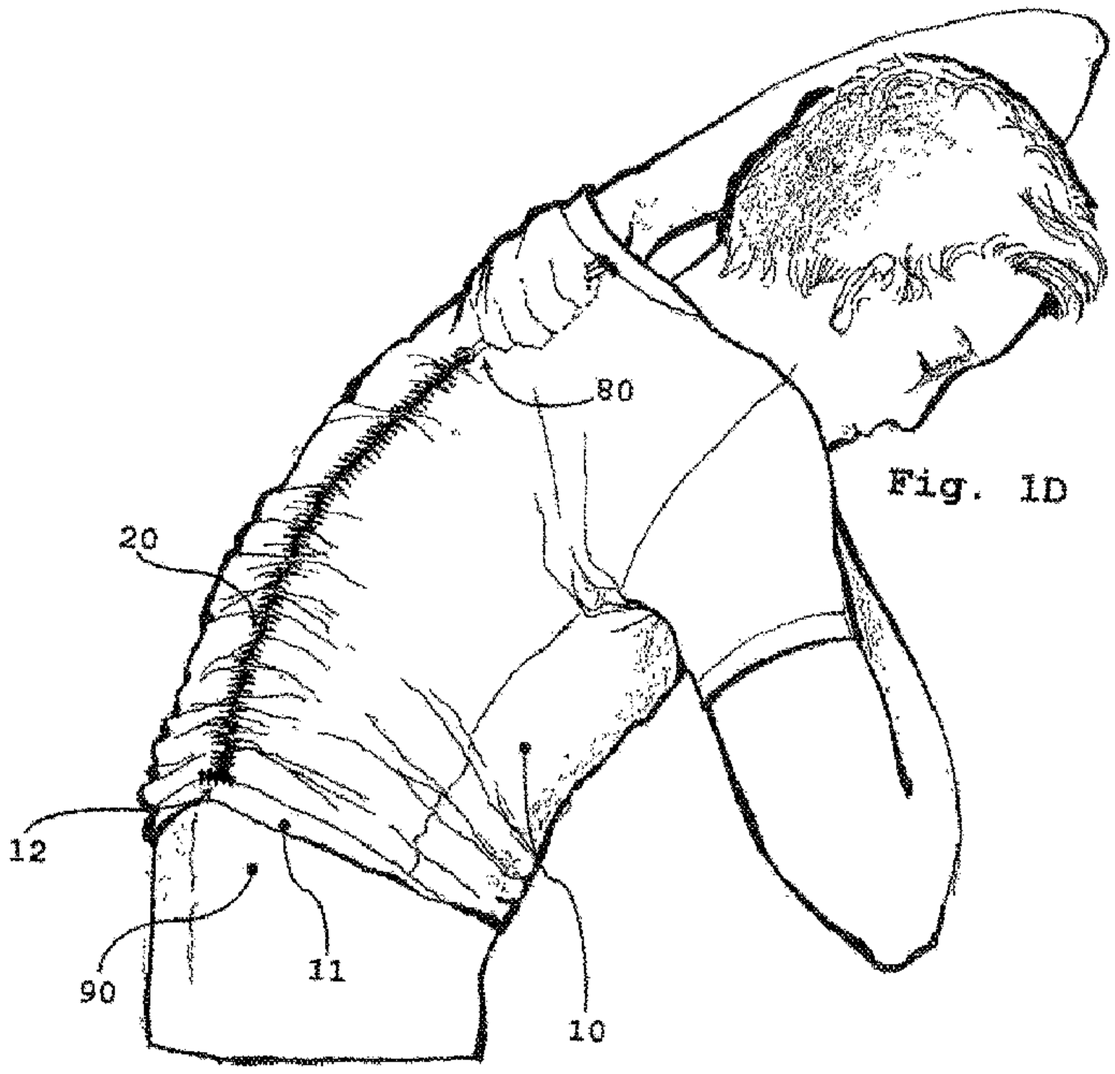

Fig. 1D

(57) Abrégé/Abstract:
Present invention discloses wet sportswear takeoff helping means for the upper sportswear (10) that is worn extremely tight to a wearer skin (90); where said takeoff helping means consists of one or more guides (20) for guiding corresponding drawstrings (30)

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(57) Abrégé(suite)/Abstract(continued):
and handgrip (80) used for activation. The guides (20) are made on the back part of the said upper sportswear (10), each guide (20) begins close to the hemline (11) and propagates to the upper part of the sportswear (10) in a continuous way, or having one or more interruptions (24) formed along the said guide (20). Pulling of the handgrip (80) by the wearer's hand causes lifting of sportswear's hemline (11) towards the wearer neck to facilitate takeoff. The invention is applicable to an ordinary T-shirt takeoff means for helping elderly or disabled people to take off said upper garment.

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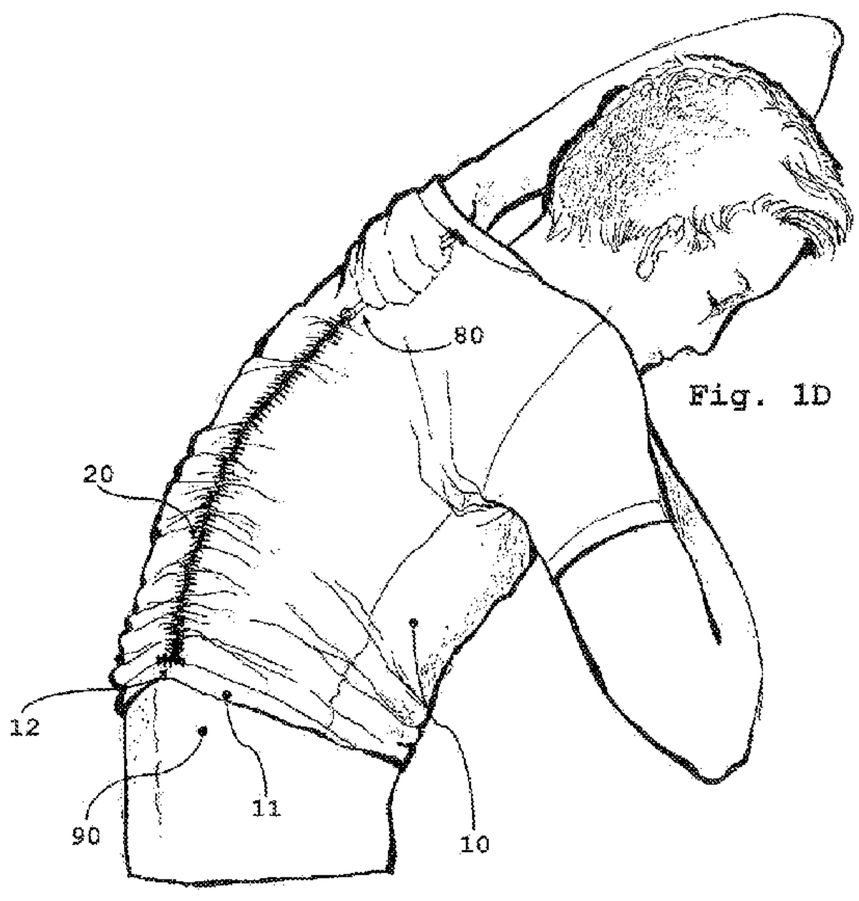

Fig. 1D

(57) **Abstract**: Present invention discloses wet sportswear takeoff helping means for the upper sportswear (10) that is worn extremely tight to a wearer skin (90); where said takeoff helping means consists of one or more guides (20) for guiding corresponding drawstrings (30) and handgrip (80) used for activation. The guides (20) are made on the back part of the said upper sportswear (10), each guide (20) begins close to the hemline (11) and propagates to the upper part of the sportswear (10) in a continuous way, or having one or more interruptions (24) formed along the said guide (20). Pulling of the handgrip (80) by the wearer's hand causes lifting of sportswear's hemline (11) towards the wearer neck to facilitate takeoff. The invention is applicable to an ordinary T-shirt takeoff means for helping elderly or disabled people to take off said upper garment.

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WET SPORTSWEAR TAKEOFF HELPING MEANS

DESCRIPTION

Technical Field

The present invention discloses a sportswear takeoff helping means that helps in takeing of wet sportswear from the wearer, especially upper part of the sportswear. Said helping means belongs to the technical field dealing with details of garments which have additional specific technical function.

Technical Problem

Nowadays healthy life trends include more and more people in various indoor and outdoor sport activities for which the special garment is designed and worn. Part of mentioned activities is carried out in a sportswear designed to be extremely skintight to the wearer. During the activities the sportswear become wet from sweat as a result of the activity, environmental conditions, or both. Once being wet, it has been observed that upper sportswear is almost impossible to take off over the wearer's head. The assistance of a colleague is needed, otherwise there is a high risk of sportswear damage. This is particularly important in garment equipped with a high-performance, microfiber, polyester fabric that should move sweat away from the body onto the fabric surface, where it evaporates. However, in rainy conditions or while performing demanding exercises, the sportswear tends to become entirely wet and impossible to take off.

So, the primary technical problem is to construct a simple, reliable and aesthetically acceptable helping means that allows the wet sportswear, in particular upper sportswear designed to be extremely

skintight to the wearer, to be simply taken off over the wearer's head.

Elderly people have problems with takeing off T-shirts or similar garments over the head due to their health conditions regarding spinal column, joints or limbs. Also the obesity may generate similar inability. Therefore, the solution to the primary technical problem can be easily extended to the above observed problems. According to the invention, if the wearer is capable of touching the neck, than it is possible to use a takeoff helping means according to the invention.

The above technical problems are solved with the device basically composed from one or more guides equipped with the corresponding, i.e. compatible, drawstrings attached to the hemline situated in the back of the garment that ends with the handgrip. Said guides are situated preferably on the back part of the upper garment; where guides start near the hemline and go to the garment top in a continuous way or in one or more continuous segments.

Previous State of the Art

The technical problem which is solved with the present invention is construction of novel takeoff helping means that helps in takeoff of wet skintight sportswear over the wearer's head. There are well known solutions in the art which comprise zippers or mechanic / magnetic snaps that allow sportswear to be unzipped or unfastened along one or more hems which facilitate the takeoff procedure. However, such zippers or snaps are also cumbersome to handle by one person, not to mention that such solutions locally change the user's experience in wearing skintight sportswear.

The present invention solves technical problem by lifting a hemline situated on the sportswear back. That is rather different from the below cited well known solutions. It is instructive to examine previous state of the art in the segment; i.e. to search for the

garment that is equipped with the means for lifting or takeoff of a garment, or at least part of it.

Probably one of the earliest technical solutions, where part of the garment is lifted, is mentioned in the US 550,683; inventor E. Brückner. Said document teaches about trousers for bicyclist capable to be drawn up to the knees and retained in this shortened condition. The implemented system is composed by drawstrings and appropriate guides with lock system.

Document US 724,758; inventor H. M. Todd, teaches about the skirt or train lifter. The object of said invention is to provide a device adapted to raise and drop the back and side breadths of women's skirts without the necessity of using hands on said breadths. The invention consist primarily of a wire frame that is attached in the back of the skirt, provided with the suitable loops through which pass suitable tapes or cords that are adapted to be tied together or otherwise secured at the waist of the wearer.

Document US 2,127,763; inventor G. B. Bentz, teaches about the improvements in overcoats, topcoats, raincoats, capes and the like. The primary focus of the said invention is to prevent said garment to be dragged down the floor or being stepped upon once left on the chair or similar. The contraction of the garment is achieved by means of cords, tapes, small chains or similar means, that can be fixed to different positions within the garment thus effectively produceing a lifting hemline.

Document US 5,299,323; inventor A. Schaefer et al., discloses an adjustment system for forming a repeatedly adjustable hem on a garment. Said document provides an adjustment mechanism comprised of a cord with one end that is attached to the garment's inside hem while the other end passes through a holding pocket or channel that is secured to the garment's inside seam. The advantage of the cited invention is in enableing the garment to be conformed to the person without tailoring skills.

Document US 5,367,709; inventor N. A. Teasley, discloses adjustable clothing for infants and toddlers that reversibly adjusts in length which accommodates growth of a child. Adjusting is performed via drawstrings situated in a side seams and fixing in desired position is provided via knots formed by drawstrings.

Document US 2010/0281597; inventor J. A. Lang discloses a partial garment lift/quick-access system for installation in an upper body garment for wearers who have a need for immediate and unobstructed access to the waist/belt line to retrieve essential items. The quick-access system allows the wearer to immediately expose an item at the waist/belt line, for complete and unobstructed access by pulling a simple cord at the chest pocket. This act produces a curtain-like affect at the bottom hem of the garment; assisting the wearer to make rapid hand-to-item contact while keeping the hem of the garment suspended for the duration of the required activity.

Document US 2006/0143779; inventor C. Lee discloses an article of clothing with two panels, front and back, that are easily detachable one from another and which may serve also as the takeoff helping means.

Document US 2011/2772121; inventor C. G. Jones discloses a vest that the user can remove without removing an outer garment such as a coat. The vest utilizes hook and loop fasteners to allow the back and front to be separated. In order to facilitate separation, a pull cord is attached at the rear shoulder and crosses the back of the vest and passes through a guide near the opposing hip. When the pull cord is pulled the opposing shoulder that has been separated is peeled back and down across the back allowing the user to remove the vest without removing an overcoat.

Document JP 2002242008; inventor F. Kawaguchi discloses bodysuit which has a concise structure and that is easily taken off. Said bodysuit comprises an upper trunk having arm parts and a neck part with an

opening, and a lower trunk having leg parts wherein at least one tensile operation member is used for transforming the opening of the neck part in order to be easily taken off.

From the above cited documents it is easy to conclude that none of the cited documents solve the takeoff problem observed with the skintight sportswear. The drawstrings or cords are used exclusively to lift trousers, skirts, or similar garment and to adjust or modify the garments appearance and functionality; not to perform take off action for skintight and wet sportswear; or even regular T-shirt used by elderly or disabled people.

Summary of the Invention

Present invention discloses a wet sportswear takeoff helping means for the upper sportswear that is worn extremely tight to a wearer skin and is wet from a sweat, as a product of exercise, environmental conditions, or both. Said takeoff helping means consists of one or more guides for guiding drawstrings and a handgrip used for activation of the said takeoff helping means.

The guides are made on the back part of the said upper sportswear and are situated on inner sportswear surface oriented to the wearer's skin, outer sportswear surface or on both sportswear surfaces simultaneously. Each guide has guide beginning situated close to the hemline from which said guide propagates to the upper part of the sportswear in a continuous way, or having one or more interruptions formed along the said guide.

Each drawstring is connected with the hemline in the joint region. Said drawstring enters into the corresponding guide beginning and passes through the corresponding guide till the guide end, or till the connection of two or more guides. Drawstrings end fixed to the handgrip or fixed to another drawstring within the connection of two or more guides. Pulling of the handgrip by the wearer's hand causes lifting of sportswear's hemline towards the wearer neck.

In one variant each guide is formed from material which is partially fixed to one of the sportswear side and allows unobstructed movement of corresponding drawstring within. Material used for guides is fixed to the sportswear via stitching, ultrasound or laser welding, by gluing said material to the said sportswear; or any other way that is known in the art. In one sub variant, the material for guides is selected to be textile material.

In another variant, guides are formed via stitches that enclose the drawstrings situated on the back part of the said sportswear. Said stitches were fixed to the sportswear in a way that allows unobstructed movement of the drawstrings situated between said stitches and the sportswear. In one sub variant, said guides are formed as the zig-zag stitches.

The invention also discloses other variants for the drawstrings propagation. Said invention is applicable as an ordinary T-shirt takeoff means for helping elderly or disabled people to take off said upper garment.

Brief Description of Drawings

Some of embodiments were described via figures representing the invention variants. Figures represent the embodiments were the guides are formed on the inner side of the sportswear; the guides being formed as a dense zig-zag stitching where the drawstrings is inserted into said guides.

Fig. 1A shows the technical solution with only one drawstring situated centrally on the inner side of the sportswear. Fig. 1B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 1C shows the way of connecting the drawstring with the hemline, and Fig 1D shows the activation of the said embodiment.

Fig. 2A shows the technical solution with two drawstrings situated on the inner side of the sportswear. Fig. 2B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 2C shows the activation of the said embodiment.

Fig. 3A shows the technical solution with three drawstrings situated on the inner side of the sportswear. Fig. 3B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 3C shows the activation of the said embodiment.

Fig. 4A shows the technical solution with three drawstrings, two being connected to the central drawstring and situated on the inner side of the sportswear. Fig. 4B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 4C shows the activation of the said embodiment.

Fig. 5A shows the technical solution with two intersecting drawstrings situated on the inner side of the sportswear where each drawstring can independently move. Fig. 5B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 5C shows the activation of the said embodiment.

Fig. 6A shows the technical solution with two drawstrings having the side seams as the guides, situated on the inner side of the sportswear. Fig. 6B shows the inside construction of said sportswear when the inner side is turned to be outer side in order to better depict the technical solution. Fig. 6C shows the activation of the said embodiment.

Figs. 7A, 7B and 7C show the technical solution similar to those presented via Figs. 6A, 6B and 6C where an extra guide and drawstring is added in the manner already depicted via Figs. 1A, 1B, 1C and 1D.

Detailed Description

The present invention discloses a sportswear takeoff helping means that helps in takeoff of wet sportswear from the wearer, especially upper part of the sportswear. The garment equipped with a high-performance, microfiber, polyester fabric such as Nike's DRI-FIT® are designed to move sweat away from the body and to the fabric surface, where it evaporates. As the technical result the wearer is dry all the time and does not lose the heat that is necessary for achieving good sports results. Said class of materials is used in many different garments, not only for manufacturing upper sportswear.

However, in case of rain or heavy exercises performed, the sportswear becomes entirely wet. In case of the upper sportswear it becomes almost impossible to take off over the head by the wearer alone. Usually the takeoff procedure requires one person for assistance in order not to damage skintight sportswear, e.g. during the long distance running, cycling or extreme climbing. Wet DRY-FIT® or similar garment produce significant friction between the wearer's skin and the said material, and forced takeff will result in garment damage.

The present invention helps to solve the above observed technical problems via embodiments described hereby in detail. It discloses simple, reliable and aesthetic acceptable takeoff helping means for the upper sportswear that is worn extremely tight to a wearer skin and which is wet from a sweat as a product of exercise, environmental conditions, or both.

A wet sportswear takeoff helping means for the upper sportswear (10) that is worn extremely tight to a wearer skin (90) consists of one or more guides (20) for guiding drawstrings (30) and handgrip (80) used for activation of the said takeoff helping means.

One or more guides (20) are made on the back part of the said upper sportswear (10) and are situated on inner sportswear (10) surface

oriented to the wearer's skin (90), outer sportswear (10) surface or on both sportswear (10) surfaces simultaneously. Each guide (20) propagates to the upper part of the sportswear (10) in a continuous way, or having one or more interruptions (24) formed along the said guide (20) as we will discuss in examples.

Drawstrings (30) used for activation are connected to the hemline (11) in the joint region (12) as depicted on Fig. 1C. Drawstring (30) can be connected to the hemline (11) by any known method in the art such as: gluing, ultrasound or laser welding. However, the most practical way is to sew the drawstring (30) directly to the hemline (11).

In the present invention, each drawstring (30) enters into the corresponding guide beginning (21) and passes through the corresponding guide (20) till the guide end (22), or till the connection (23) where this, and possibly other guides (20), are connected together.

Drawstring material can be selected from the set of suitable materials known in the art, having appropriate tensile strength. As the good example one can use even shoelaces. Each drawstring (30) ends fixed to the handgrip (80) or fixed to another drawstring (30) within the connection (23) to other drawstrings (30) where two or more guides (20) are merged together.

Figs. 1D, 2C, 3C, ... 7C depict the activation of the sportswear (10) takeoff means by pulling off the handgrip (80) by the wearer's hand which causes lifting of sportswear's hemline (11) towards the wearer neck. It is important to note that handgrip (80) is situated close to the sportswear (10) top, i.e. within a wearer neck region. Handgrip (80) can be manufactured of any suitable material known in the art capable of being connected with the used drawstrings (30) and comfortable enough for the wearer, preferably from textile materials, thermoplastic resins or elastomer materials.
Guides (20) can be manufactured from any convenient material known in the related art. Used material has to be appropriately fixed to back

side of the sportswear (10), to ensure unobstructed movement of corresponding drawstring (30) within the guides (20). Furthermore, said material used for guides (20) is fixed to the back side of the sportswear (10) by any suitable manner known in the art; by sewing / stitching, ultrasound or laser welding or gluing, where said material together with the material used for the sportswear back form sleeves that serve as the drawstring (30) guides (20). Preferred material for the guides (30) is any textile material, but the optimal material is any material that has mechanical properties similar to those used for manufacturing the sportswear.

In another aspect of the invention, guides (20) can be formed solely via stitches that enclose the drawstrings (30). Said stitches are fixed to the sportswear (10) in a way that allows unobstructed movement of the drawstrings (30) situated between said stitches and the material used to form the sportswear (10). The longitudinal stitches density has to be carefully chosen as well the stitches tension exerted to the material used for the sportswear in order to maintain unobstructed movement of the drawstrings (30) in all cases and to prevent slitting of the sportswear by extreme use. The zig-zag stitches are found to be adequate for the above mentioned task and can be considered as the preferred solution.

Examples - general remarks

The following examples, which we will study in more details, use guides (20) formed as the zig-zag stitches which are situated in the way to enclose the drawstrings (30) positioned on the inner side of the sportswear, i.e. oriented towards the wearer's skin (90). This examples do not limit the scope of protection given by the claims and are used solely to demonstrate the simplest possible variants of the present invention.

The person skilled in the art will, without difficulties or further assumptions, extent the disclosed teaching to more complex cases.

Example 1 - uninterrupted guide

Figs. 1A-1D depict the construction and use of the takeoff means that consists of only one guide (20) and drawstring (30). The other side of the sportswear (10), as visible from Fig. 1A, the guide (20) propagates from the guide beginning (21) till the guide end (22) situated close to the neck position of the said sportswear (10), within the region where the wearer can reach it by hand via its shoulder, Fig. 1D.

In above mention case, the guide (20) is formed around the drawstring (30) on the back side of the sportswear (10). Fig. 1B shows said sportswear (10) and its look when the inner side is turn out. In this specific case, the drawstring (30) is positioned on the said inner sportswear (10) side that is previously turned out and then zig-zag stitches enclose the drawstring (30) forming the guide (20). Said drawstring (10) can be stitched to the hemline (11) in the joint region (12) before or after the guide (20) is formed, as depicted on the Fig. 1C. Another end of the drawstring (10) is attached to the handgrip (80) as shown on the Fig 1B.

Now, the sportswear (10) can be again turned from the state depicted on Fig. 1B where inner side is turned out again to show the "normal" appearance of the sportswear (10) as seen on the Fig 1A where guide (20) is situated behind the sportswear (10) material used for forming backside.

The activation of the takeoff helping means is shown on the Fig. 1D; the user / wearer tucks the hand beneath the neck portion of the sportswear (10), grabs the handgrip (80) and pulls it up towards the head. This action causes lifting of the hemline (11) resembling another person which assists the wearer in case where sportswear (10) does not have any takeoff helping means. The wearer grabs the front part of the hemline (11) with another hand so that the wearer can, despite the significant friction between the skin (90) and the

sportswear (10), lift said sportswear (10) and take it off without damages.

Handgrip (80) used in the aforementioned example can be manufactured from any suitable material while being big enough to be easily gripped. In addition, it is important for the handgrip (80) to be wider than the guide (20), more precisely, wider that the guide end (22) in order to prevent unwanted entrance of the handgrip (80) in the guide (20). Preferable solution for the handgrip (80) is to be made as the loop of textile material in order to preserve wearer comfort. The disadvantage of the disclosed solution is that the force exerted to the joint region (12) might be too high and can damage the sportswear (10) fabrics in long term use.

Example 2 - two uninterrupted guides

Figs. 2A-2C show the construction and use of the takeoff means that consists of two guides (20) and two corresponding drawstrings (30). The guides (20) are formed in the way described in the example 1. The solution with two guides (20) has the advantage over the solution disclosed in example 1 because the force exerted on each joint region (12), where the drawstrings (30) are attached to the hemline (11), is reduced to 1/2 and thus prevents the tearing of the joint region (12). The activation is similar to procedure already explained in the example 1.

Example 3 - three uninterrupted guides

Figs. 3A-3C show the construction and use of the takeoff means that consists of three guides (20) and three corresponding drawstrings (30). The guides (20) are formed in the way described in the example 1. The solution with three guides (20) has the advantage over the solution disclosed in example 1 because the force exerted on each joint region (12), where the drawstrings (30) are attached to the hemline (11), is reduced to 1/3 and prevents the tearing of the joint

region (12). The activation is similar to those explained in the example 1.

Example 4 - three guides

Figs. 4A-4C show the construction and use of the takeoff means that consists of three guides (20) and three corresponding drawstrings (30). Two of the mentioned guides (20) ends in connection (23) formed on the central guide (20), at approx. 1/2 of its length. Said central guide (20) is propagating from the hemline (11) to the neck part of the sportswear (10).

This example has two sub variants; first in which all the drawstrings (30) are propagating from the joint region (12) till the handgrip (80) and second one, where two side drawstrings (30) ends connected to the drawstring (30) belonging to the central guide (20) in the part where side guides (20) end in connection (23). In the latter case, the drawstring (30) belonging to the central guide (20) propagates from the joint region (12) till the handgrip (80).

Regardless the sub variant, as in previous examples the system of drawstrings (30) is prepared and positioned on the outer side of the sportswear (10) as depicted on the Fig. 4B. The drawstrings (30) can be immediately fixed to the hemline (11) and/or handgrip (80), or after the guides (20) are formed. Then, the guides (20) are formed around the drawstrings (30) by using zig-zag stitches. If the first sub variant is used than the zig-zag stitches for the central guide (20) in the part starting from connection (23) to the corresponding guide end (22) should be formed slightly wider. Namely, that part should guide all three drawstrings (30) towards the handgrip (80).

Once the guides (20) are formed around the drawstrings (30) connected to the hemline (11) and handgrip (80) or another drawstrings (30), the sportswear (10) is turned on its ordinary wearing side depicted on the Fig. 4A where only stitches are visible. The activation is similar to those explained in previous examples.

Example 5 - two intersecting guides

Figs. 5A-5C show the construction and use of the takeoff means that consists of two intersecting guides (20) and two corresponding drawstrings (30) crossing each other in the guides interruption (24) region that overlapped each other.

As described in previous examples the system of drawstrings (30) is prepared and positioned on the outer side of the sportswear (10) as depicted on the Fig. 5B. The drawstrings (30) can be immediately fixed to the hemline (11) and/or handgrip (80), or after the guides (20) are formed. Then, the guides (20) are formed around the drawstrings (30) by using zig-zag stitches. In this example, each guide (20) is formed in two parts; first part starts from the guide beginning (21) to the interruption (24) and second part from the interruption (24) region till the guide end (22). The interruption (24) is depicted on Figs. 5A, 5B and 5C via dashed circle. In the above mentioned way, the drawstrings (30) cross each other across the interruption (24) without interference and so produced technical effect is more or less similar to those described in the example 2.

Once the guides (20) are formed around the drawstrings (30) connected to the hemline (11) and handgrip (80), the sportswear (10) is turned on its ordinary wearing side depicted on the Fig. 5A where only stitches are visible. The activation is similar to those explained in previous examples and depicted on Fig. 5C. It has to be mentioned that tilting of the handgrip (80) if it is formed as the solid body, or pulling mainly left or right part of the depicted handgrip (80) is possible to dose the pulling force exerted on the left or right drawstring (30) and transmitted to the appropriate part of the hemline (11).

Example 6 - guides as the side seams

Figs. 6A-6C show the construction and use of the takeoff means that consists of two guides (20) and two corresponding drawstrings (30)

where said guides (20) are partially used side seams of the sportswear (10) connecting the front and back part of the said sportswear (10).

As described in previous examples the system of drawstrings (30) is prepared and positioned on the outer side of the sportswear (10) as depicted on the Fig. 6B. The drawstrings (30) can be immediately fixed to the hemline (11) and/or handgrip (80), or after the guides (20) are formed. Then, the guides (20) are formed around the drawstrings (30) by using zig-zag stitches. In this example the sportswear (10) side seams are used as the guide (20) for the drawstring (30) from the hemline (11) to the kinks (25) situated beneath the sleeves. Additional guides (20) that pass from the said kinks (25) towards the neck portion which end with the guide ends (22) are formed in the manner already explained in the previous examples.

Once the guides (20) are formed around the drawstrings (30) connected to the hemline (11) and handgrip (80), the sportswear (10) is turned on its ordinary wearing side depicted on the Fig. 6A where only stitches are visible. The activation is similar to those explained in previous examples and depicted on Fig. 6C.

Example 7 - guides as the side seams with additional central guide

Figs. 7A-7C show the construction and use of the takeoff means that consists of three guides (20) and three corresponding drawstrings (30) where two of said guides (20) are partially used side seams of the sportswear (10) connecting the front and back part of the said sportswear (10) and one guide (20) is a central guide as in example 1. So, the mentioned solution represents the fusion of the solution described in example 6 and example 1; the way of producing is the same as described in the mentioned examples.

Once the guides (20) are formed around the drawstrings (30) connected to the hemline (11) and handgrip (80), the sportswear (10) is turned on its ordinary side depicted on the Fig. 7A where only stitches are

visible. The activation is similar to those explained in previous examples and depicted on Fig. 7C.

Other variants

As already mentioned before, above simple examples serve merely as the illustration of invention potential. There is also possibility to form hybrid versions where guides are formed on both side of the sportswear (10), or exclusively on the other side which we did not elaborate in the examples. The person skilled in the art will certainly recognizes how to form the more sophisticated modifications of the present invention. However, having in mind aesthetic criteria and other factors related to the manufacture it is to be expected that the most frequent implementation of the disclosed invention will be the solution where the guides are situated in inner side of the sportswear (10).

The said invention is possible to be implemented on already formed upper garment that are not worn extremely tight to the wearer, such as on ordinary T-shirts. Namely, the present invention can be very easily used in ordinary upper garment as a takeoff means for helping elderly or disabled people to take off said upper garment.

Industrial Applicability

The present invention is suitable as a simple, reliable and aesthetically acceptable helping means that allows the wet sportswear, in particular upper sportswear designed to be extremely skintight to the wearer, to be simply taken over the wearer's head. Therefore, the industrial applicability is obvious.

Considering the fact that elderly people have problems with T-shirts or similar garments takeoff over the head due to their health condition, it opens the possible application of the mentioned takeoff helping means wider than initially being contemplated.

The embodiments hereby mentioned and represented via figures have to be used only as an example of carrying out the invention as defined by the claims. The skilled person in the art will certainly modify the above embodiments to fit to desired fashion potential.

References

10 - sportswear
11 - hemline
12 - joint region
20 - guide
21 - guide beginning
22 - guide end
23 - connection
24 - interruption
25 - kink
30 - drawstring
80 - handgrip
90 - skin
S - segment

CLAIMS

1. A wet sportswear takeoff helping means for the upper sportswear (10) that is worn extremely tight to a wearer skin (90) and wet from sweat as a result of exercise, environmental conditions, or both; where said takeoff helping means consists of one or more guides (20) for guiding drawstrings (30) and handgrip (80) used for activation of the said takeoff helping means; **characterized by that:**

- the guides (20) are made on the back part of the said upper sportswear (10) and are situated on inner sportswear (10) surface oriented to the wearer's skin (90), outer sportswear (10) surface or on both sportswear (10) surfaces simultaneously; each guide (20) has guide beginning (21) situated close to the hemline (11) from which said guide (20) propagates to the upper part of the sportswear (10) in a continuous way, or having one or more interruptions (24) formed along the said guide (20);
- each drawstring (30) is connected to the hemline (11) in the joint region (12), each drawstring (30) enters into the corresponding guide beginning (21) and passes through the corresponding guide (20) till the guide end (22), or till the connection (23) of two or more guides (20);
- each drawstring (30) ends fixed to the handgrip (80) or fixed to another drawstring (30) within the connection (23) of two or more guides (20);
- where said handgrip (80) is situated close to the sportswear (10) top, within a wearer neck region;

where pulling of the said handgrip (80) by the wearer's hand causes lifting of sportswear's hemline (11) towards the wearer neck.

2. The wet sportswear (10) takeoff helping means according to claim 1, **characterized by that** each guide (20) is formed from material which is partially fixed to one of the sportswear (10) side and allows unobstructed movement of corresponding drawstring (30)

within, where said material for the guide (20) is fixed to the sportswear (10) via stitching, ultrasound or laser welding, or by gluing said material to the said sportswear (10).

3. The wet sportswear (10) takeoff helping means according to claim 2, **characterized by that**, material for the guide (20) is selected to be textile material.

4. The wet sportswear (10) takeoff helping means according to claim 1, **characterized by that**, said guides (20) are formed via stitches that enclose the drawstrings (30), situated on the back part of the said sportswear (10); said stitches being fixed to the sportswear (10) in a way to allow unobstructed movement of the drawstrings (30) situated between said stitches and the sportswear (10).

5. The wet sportswear (10) takeoff helping means according to claim 4, **characterized by that**, said guides (20) are formed as the zig-zag stitches.

6. The wet sportswear (10) takeoff helping means according to any of the preceding claims, **characterized by that**, each guide (20) propagates from the hemline (11) to the region close to handgrip (80) in a continuous way.

7. The wet sportswear (10) takeoff helping means according to any of the claims 1-5, **characterized by that**, some of the guides (20) are directed from the hemline (11) to the connection (23) of two or more guides (20) formed on one particular guide (20) that propagates along the back side of the said sportswear (10) in a continuous way and ends close to handgrip (80).

8. The wet sportswear (10) takeoff helping means according to claim 7, **characterized by that** all drawstrings (30) from the corresponding guides (20) end attached to the handgrip (80).

9. The wet sportswear (10) takeoff helping means according to claim 7, **characterized by that**, all drawstrings (30), from the guides (20) which end in the connection (23) of two or more guides (20), are connected to one drawstring (30) that ends attached alone to the handgrip (80).

10. The wet sportswear (10) takeoff helping means according to any of the claims 1-5, **characterized by that**, at least two guides (20) are formed with interruptions (24) that overlap each other so the corresponding drawstrings (30), guided by the said guides (20), cross each other in overlapping interruptions (24) and said drawstrings (30) end attached to the handgrip (80).

11. The wet sportswear (10) takeoff helping means according to any of the claims 1-5, **characterized by that**, at least two guides (20) are situated within the side seams that connect back and front parts of said sportswear (10); said guides (20) are passing from the hemline (11) across the kink (25), situated beneath the sleeves, from which said guides (20) is passing towards the direction of the handgrip (80).

12. The wet sportswear (10) takeoff helping means according to any of the preceding claims, **characterized by that**, all guides (20) and corresponding drawstrings (30) are situated on the inner side of said sportswear (10) oriented towards the wearer's skin (90).

13. Use of the sportswear (10) takeoff helping means according to any of the previous claims in ordinary upper garment as a takeoff means for helping elderly or disabled people to take off said upper garment.

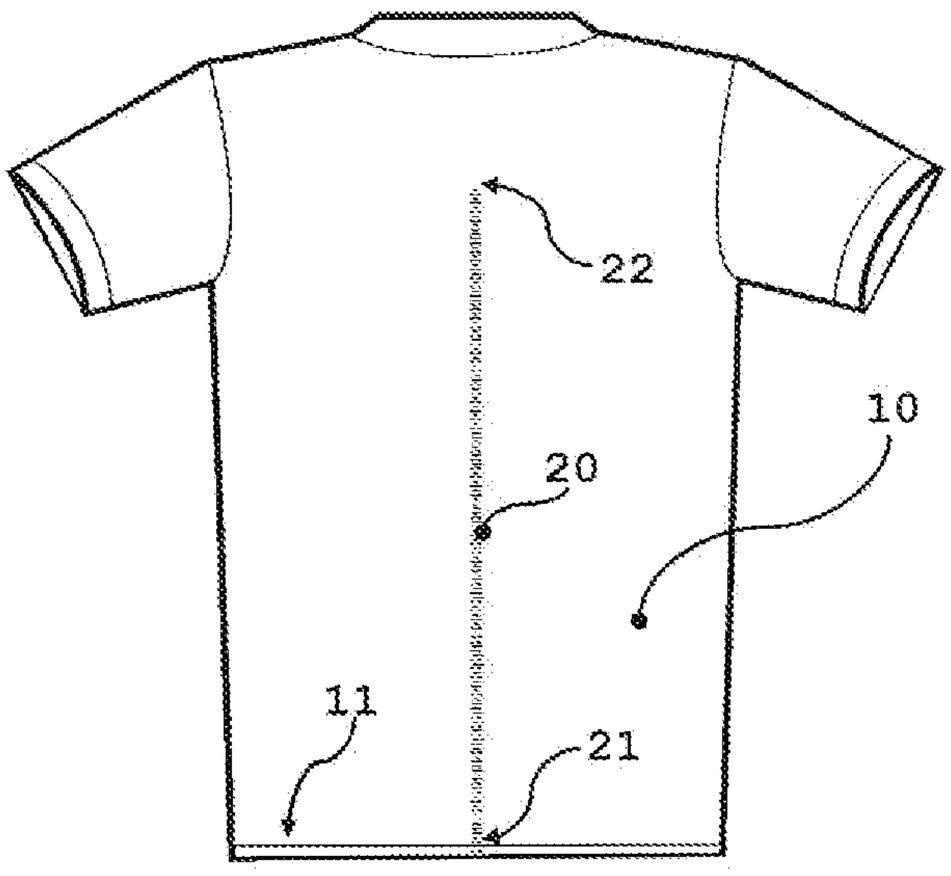

Fig. 1A

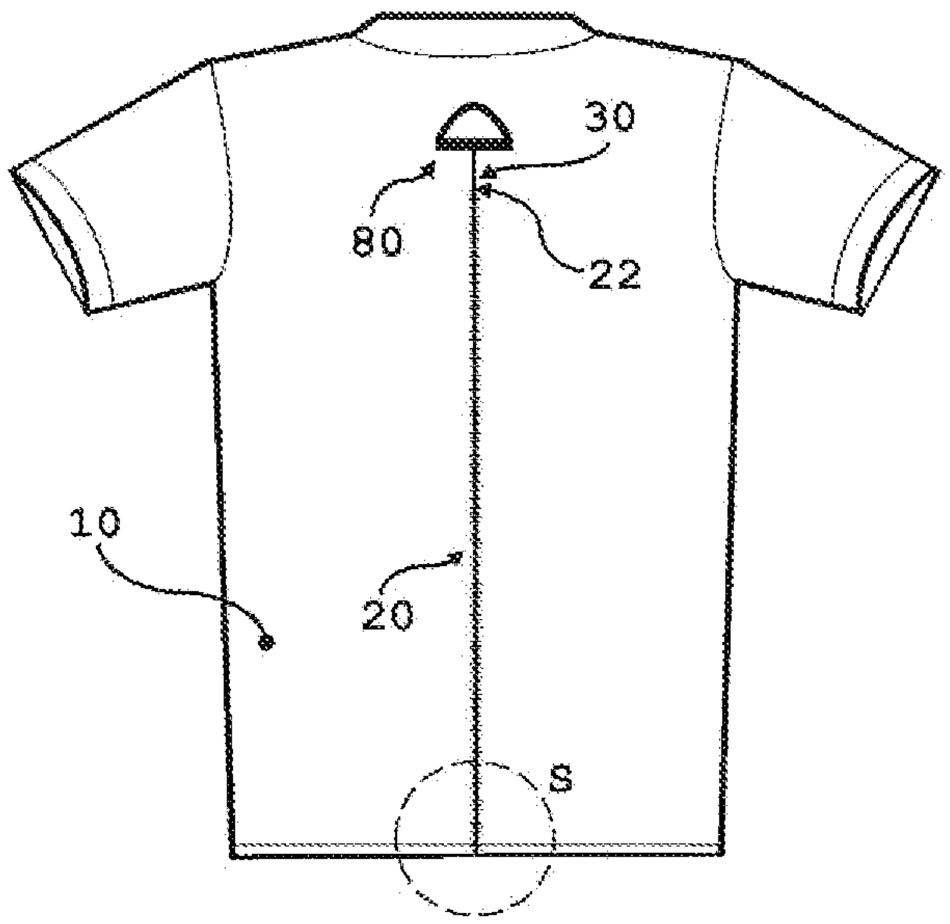

Fig. 1B

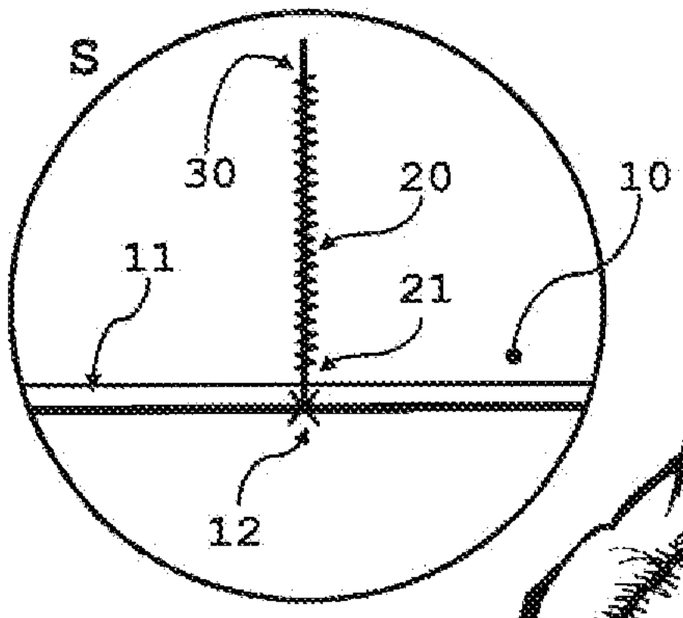

Fig. 1C

Fig. 1D

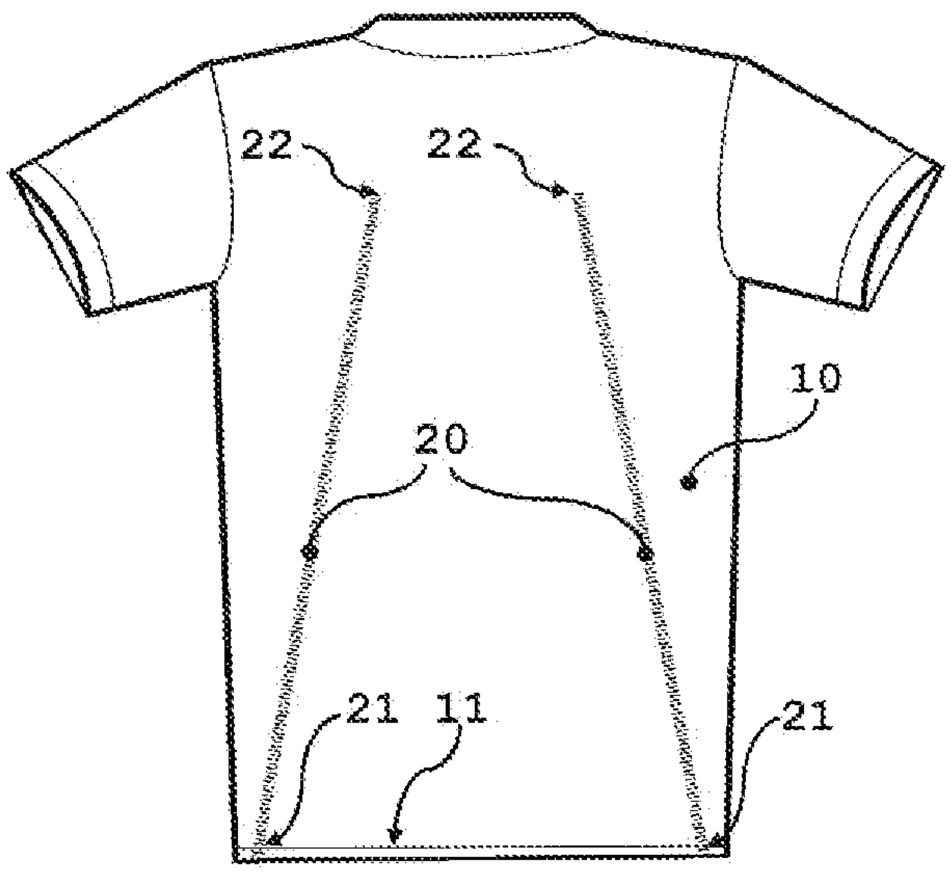

Fig. 2A

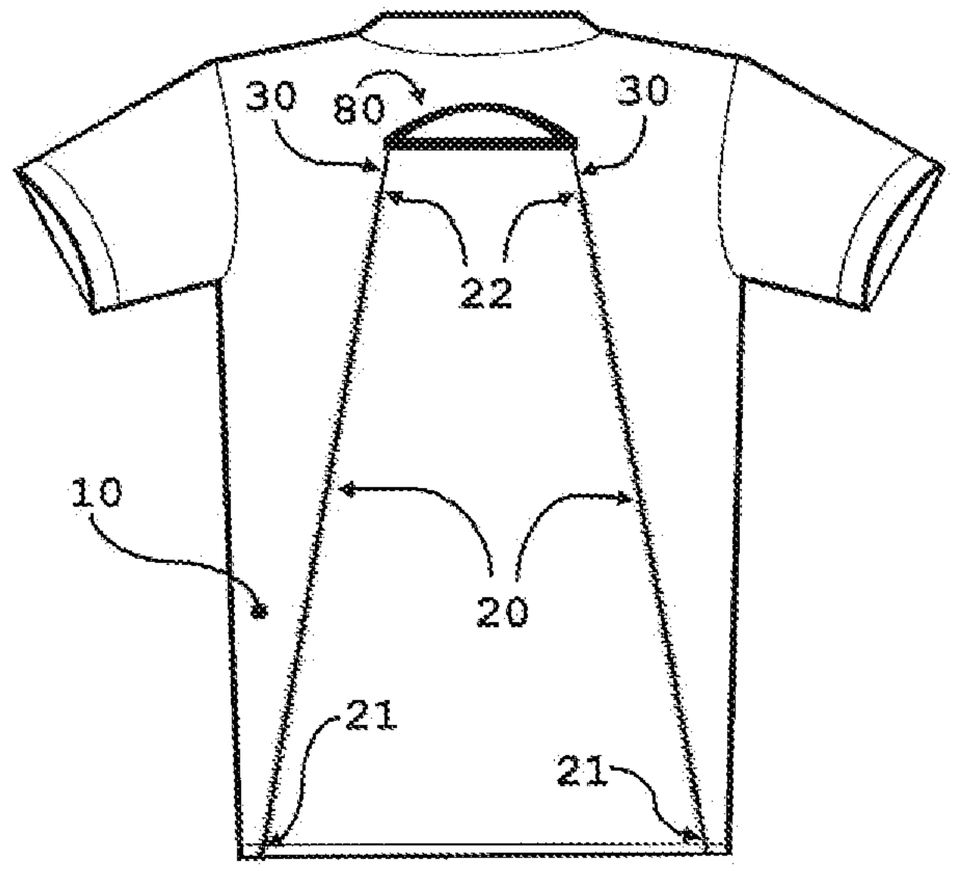

Fig. 2B

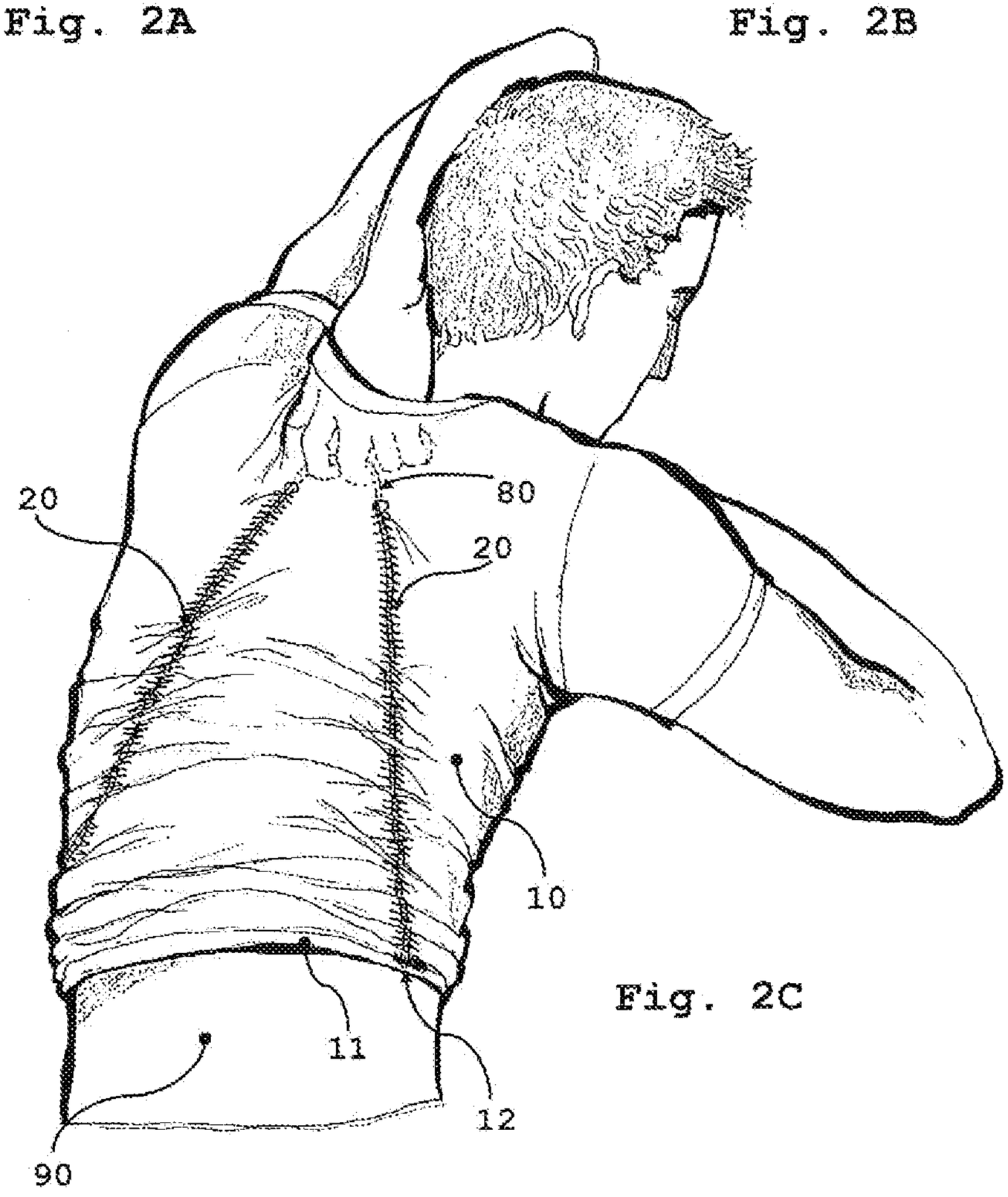

Fig. 2C

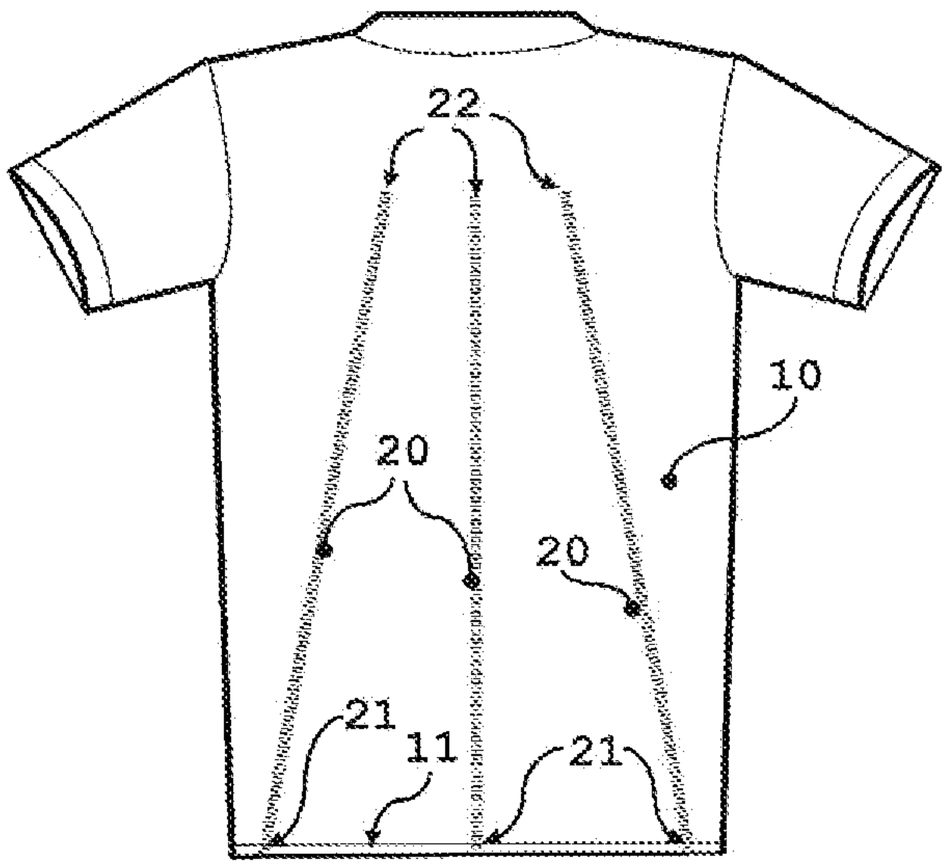

Fig. 3A

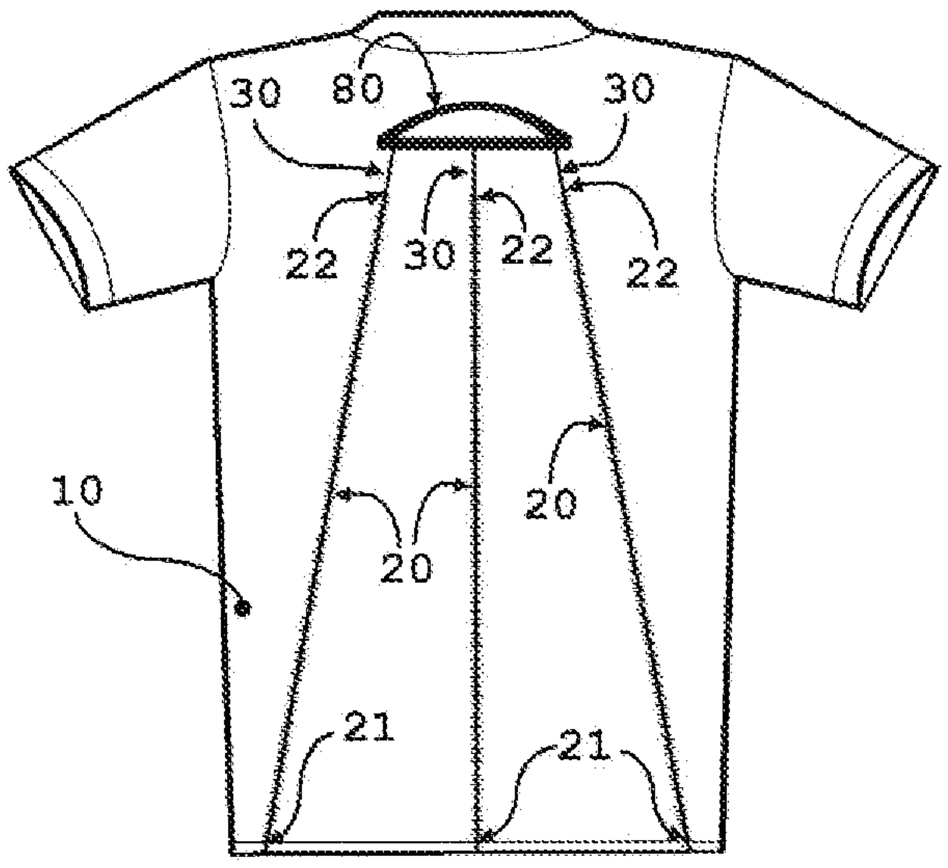

Fig. 3B

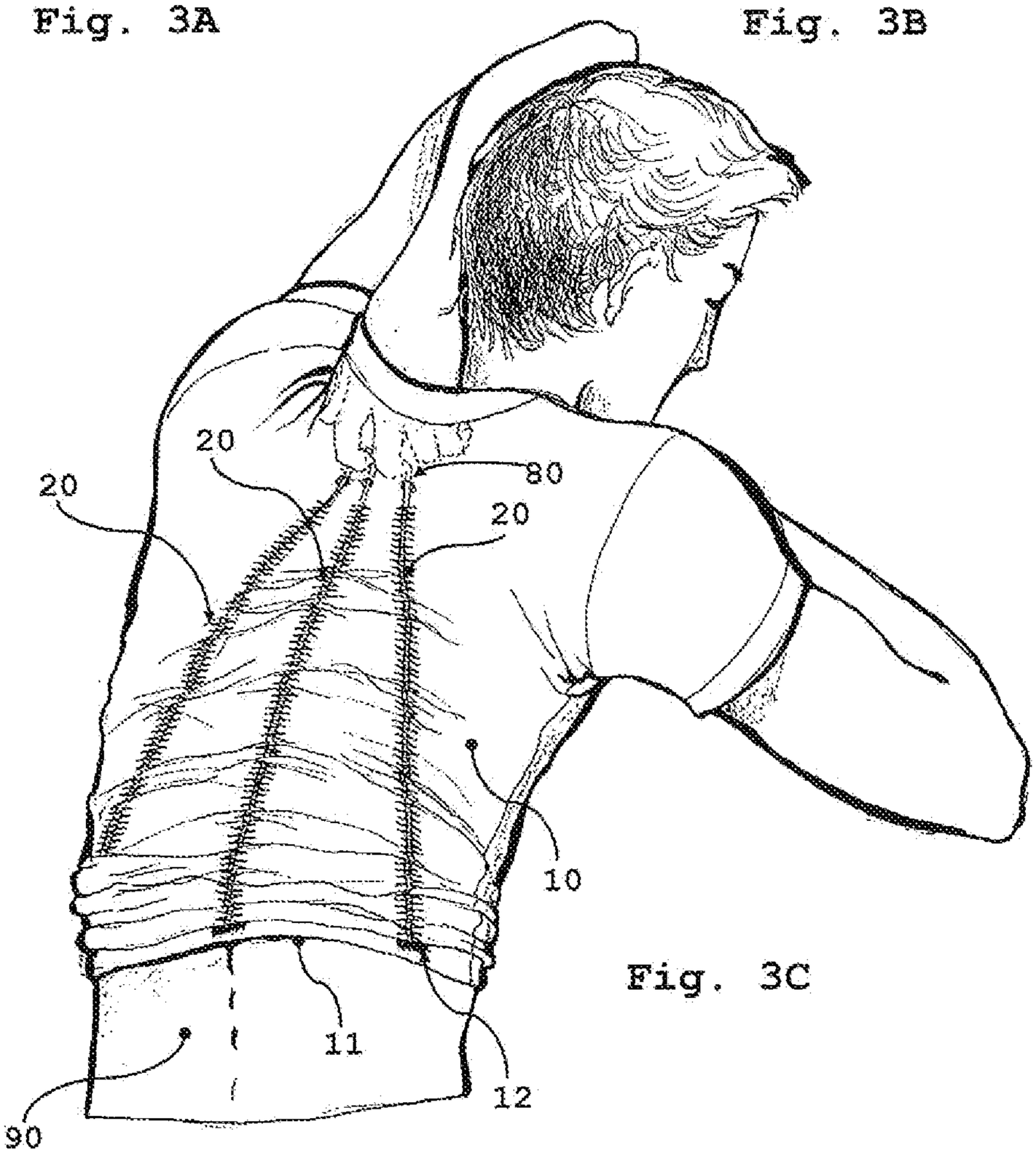

Fig. 3C

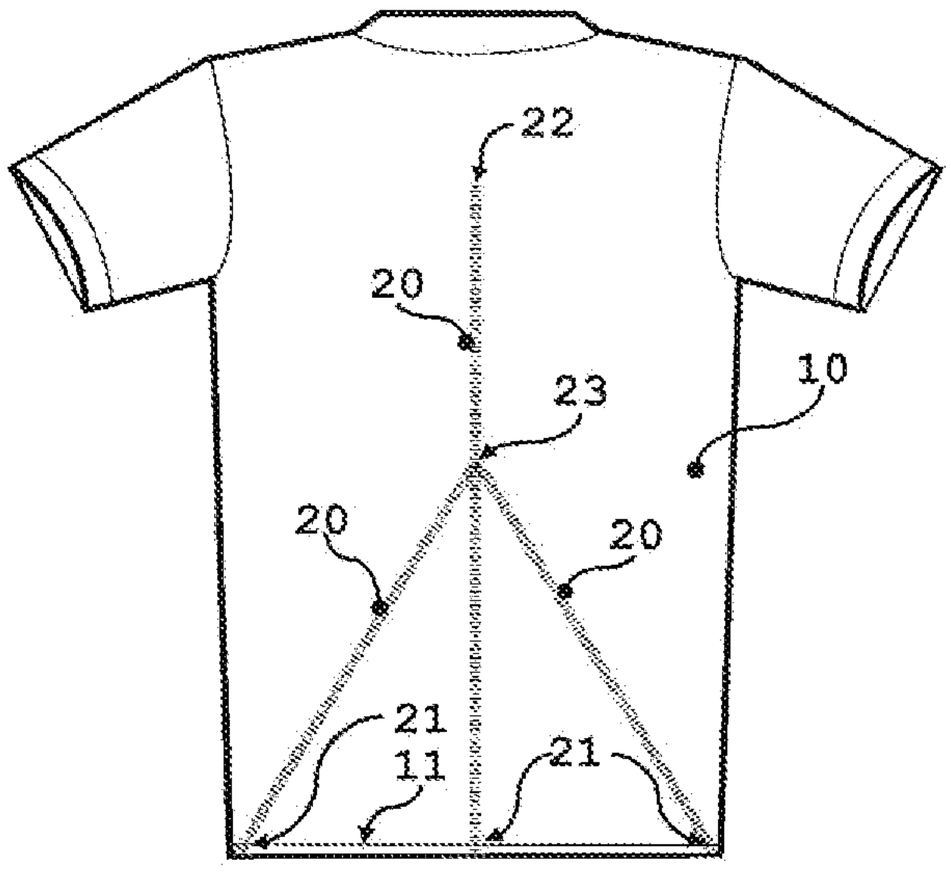

Fig. 4A

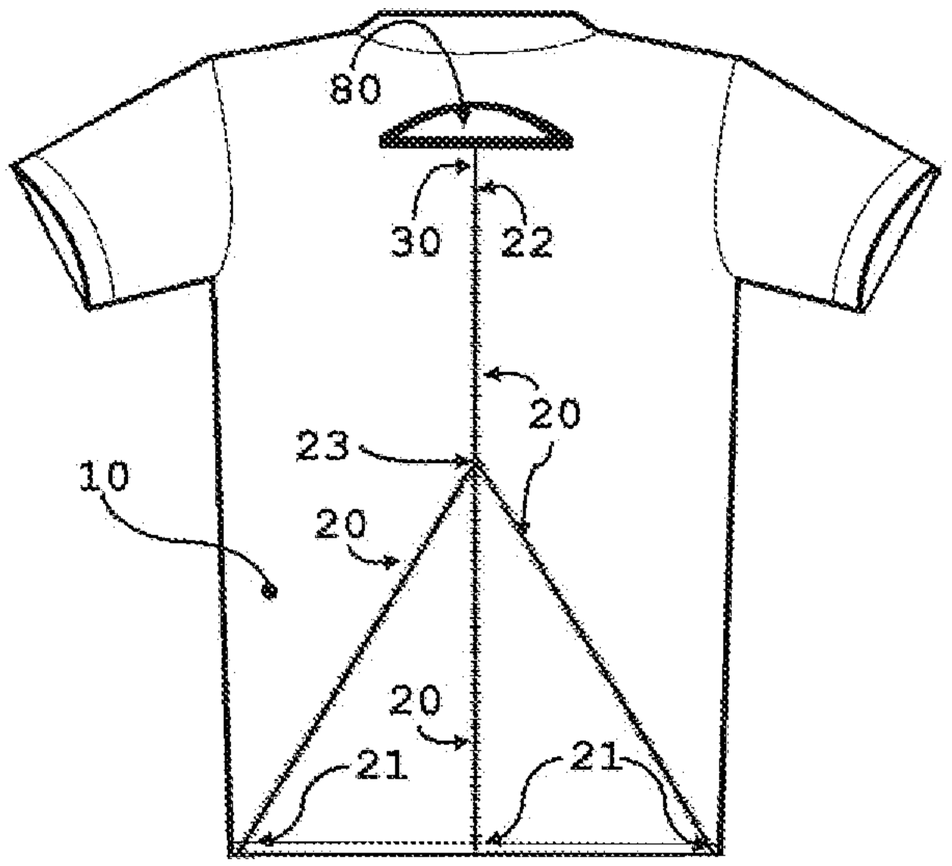

Fig. 4B

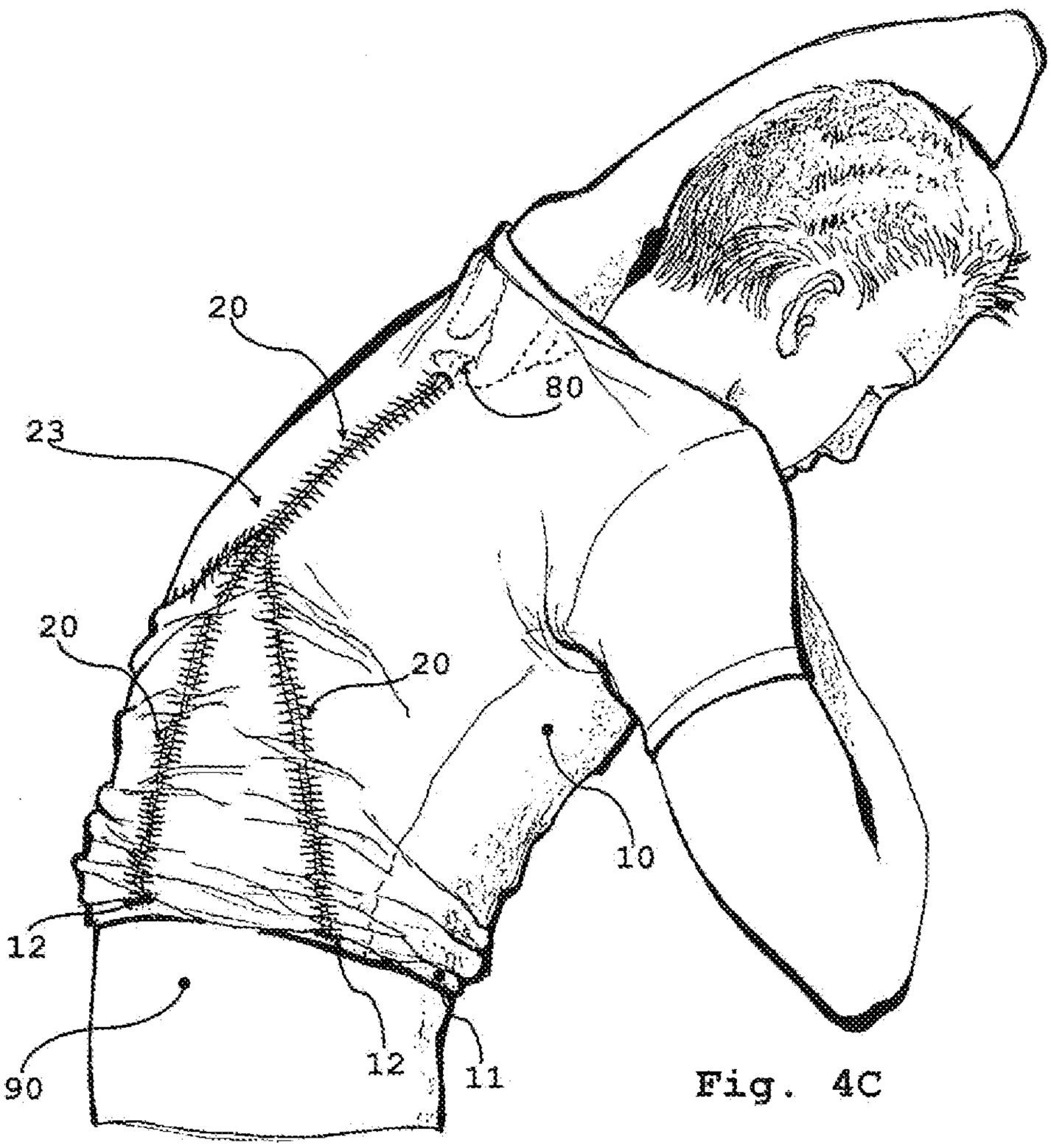

Fig. 4C

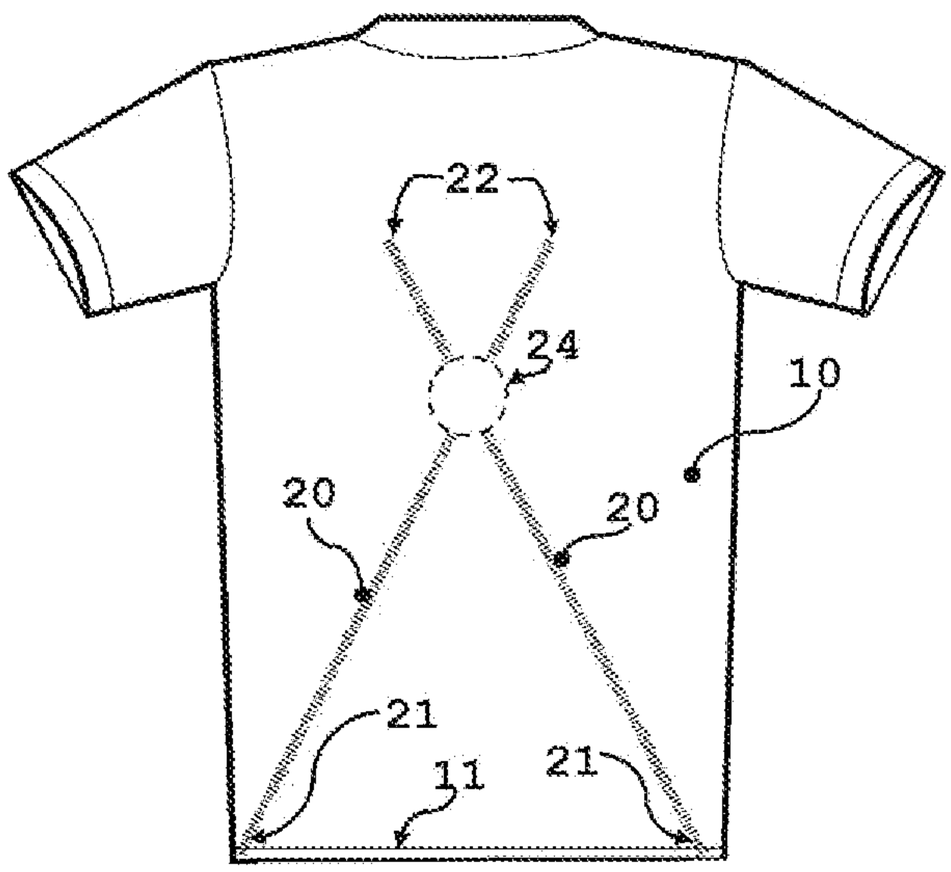

Fig. 5A

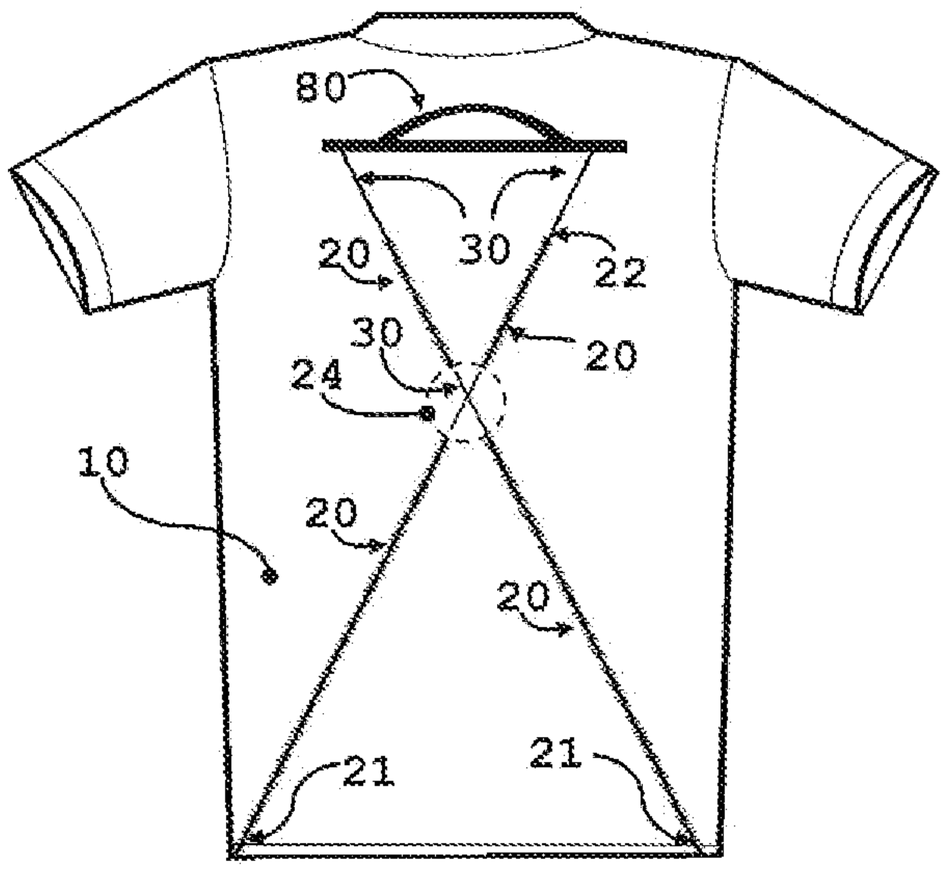

Fig. 5B

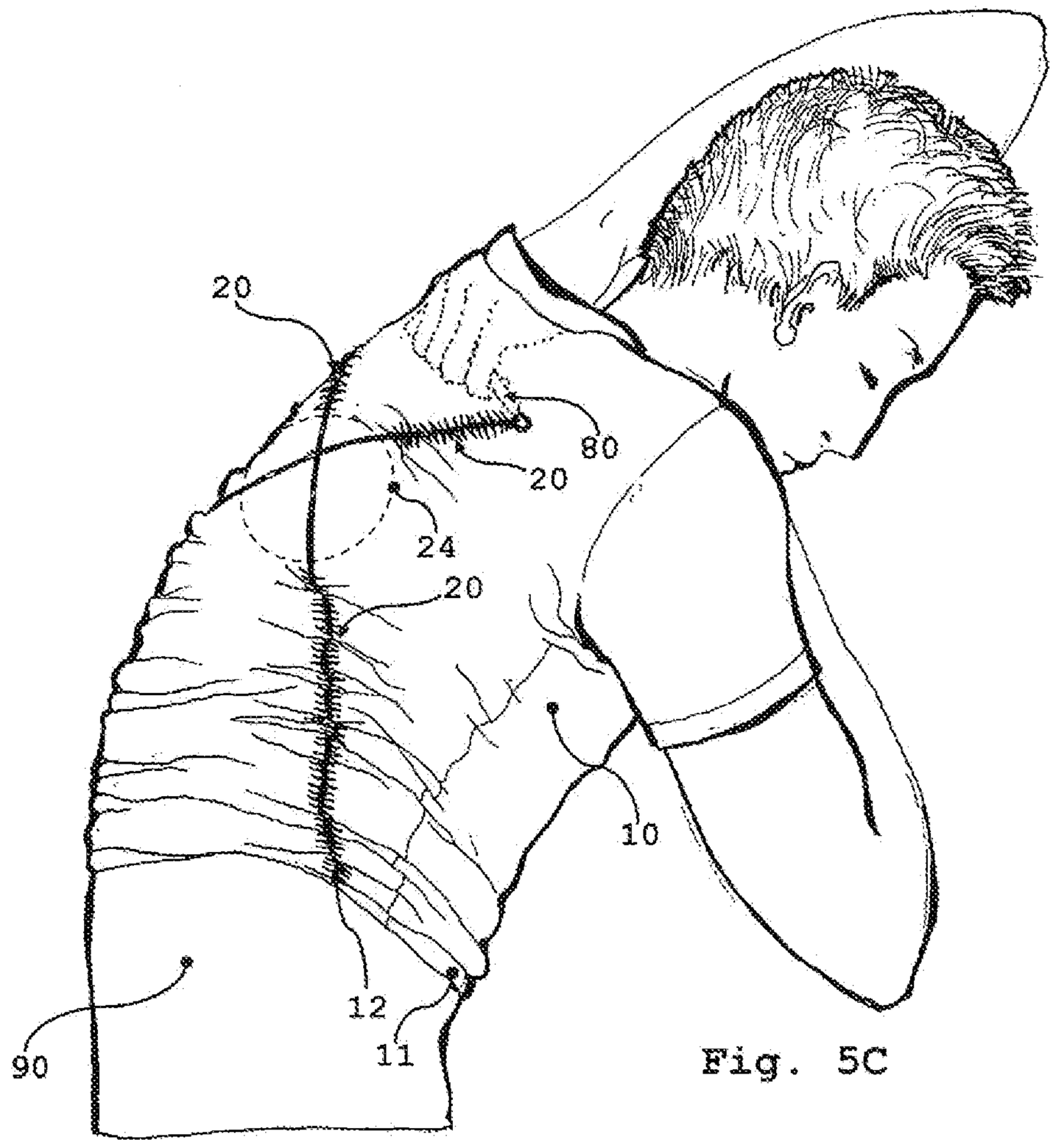

Fig. 5C

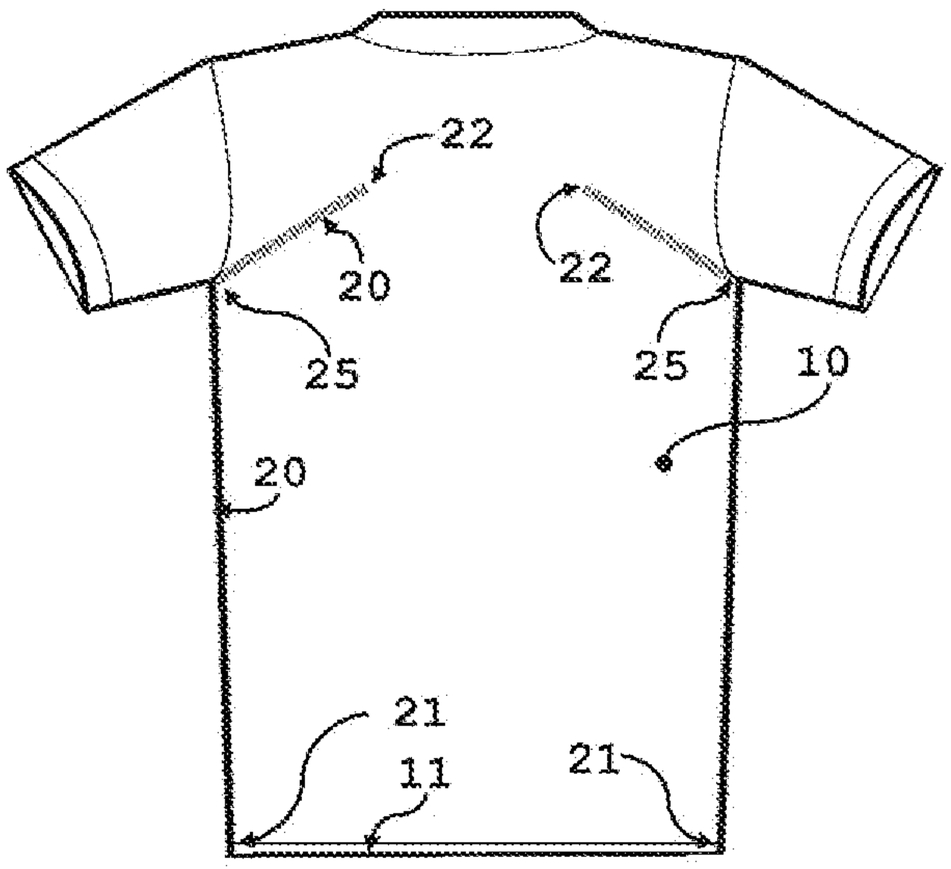

Fig. 6A

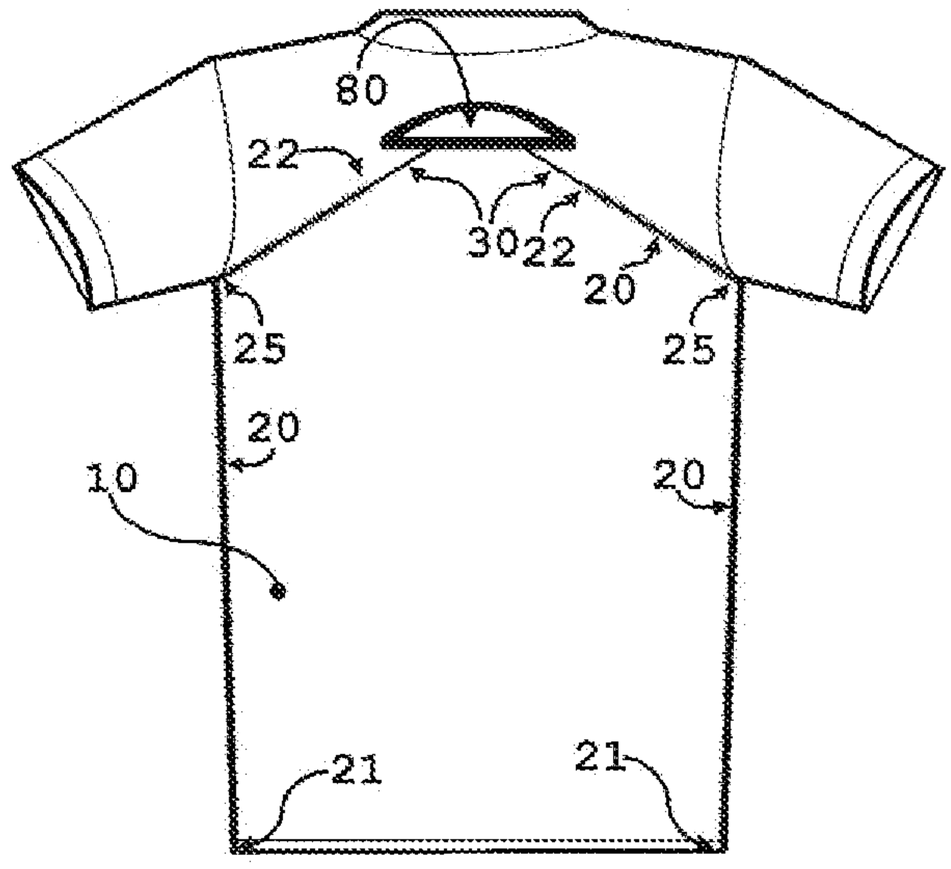

Fig. 6B

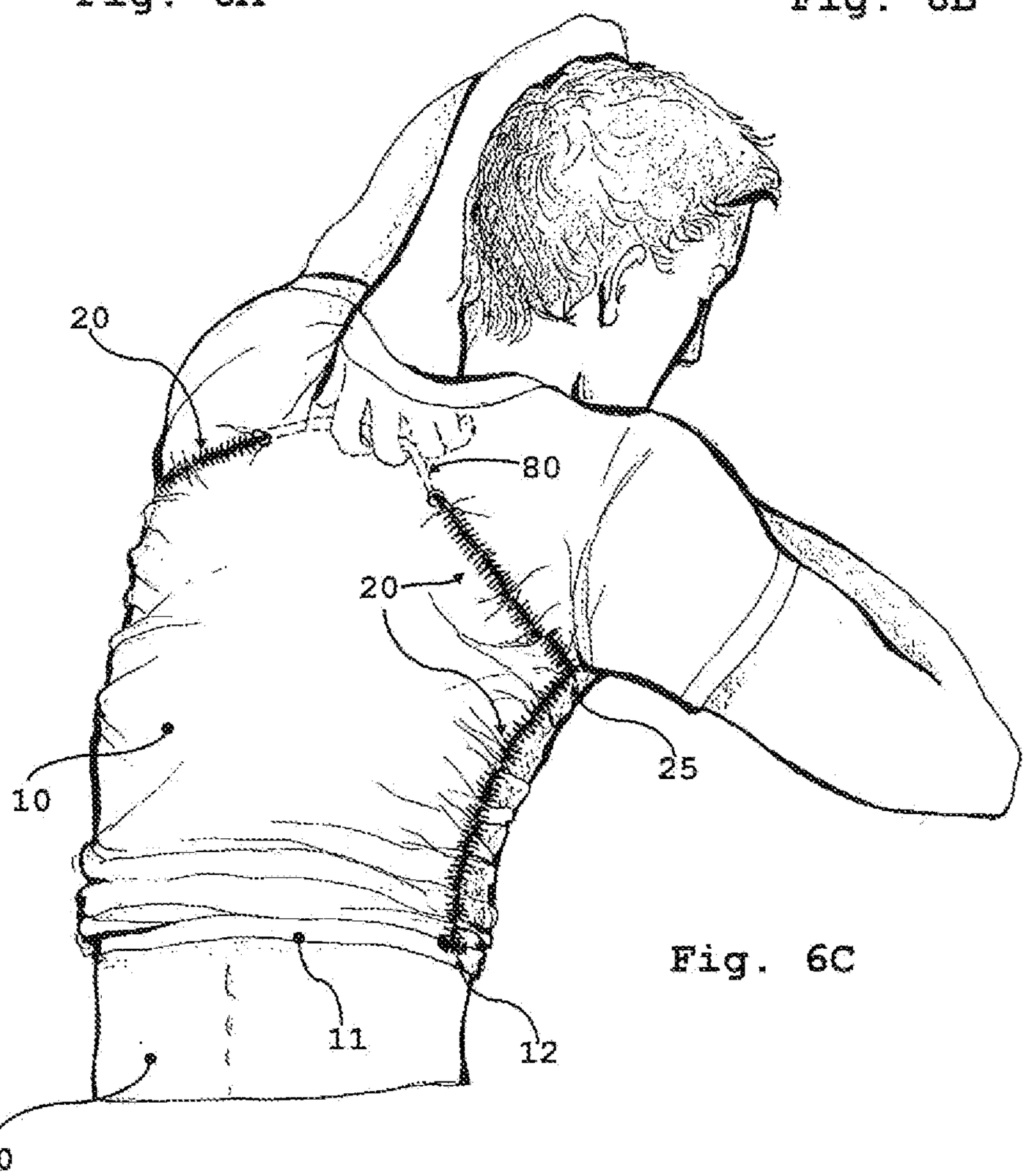

Fig. 6C

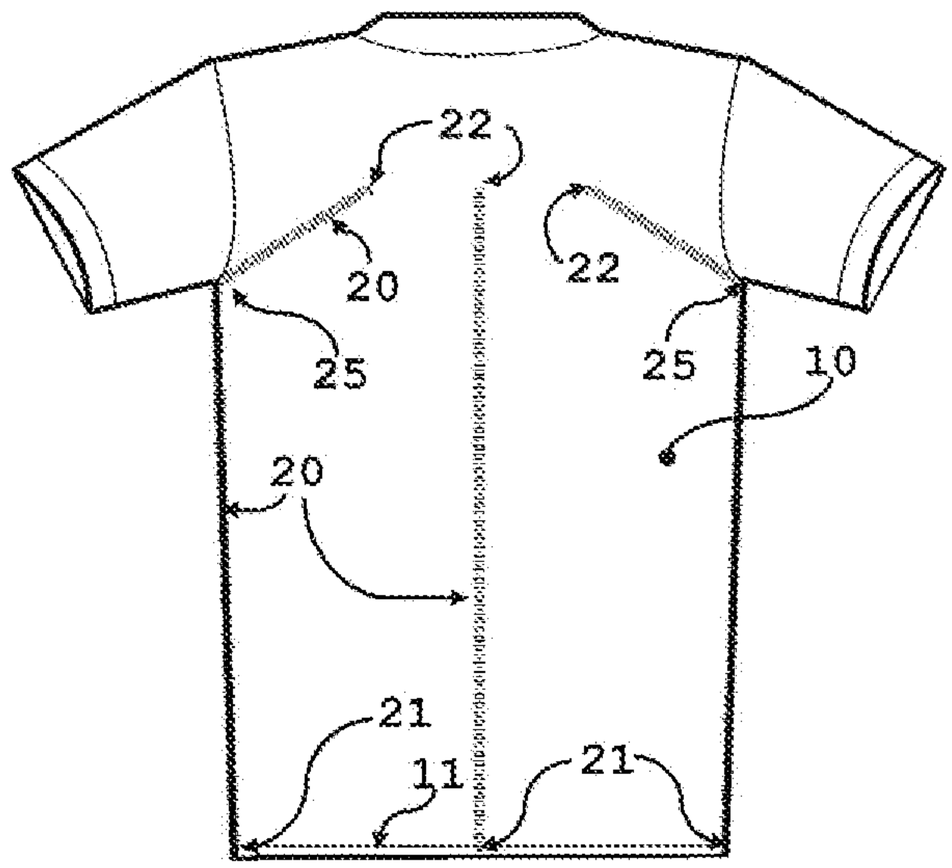

Fig. 7A

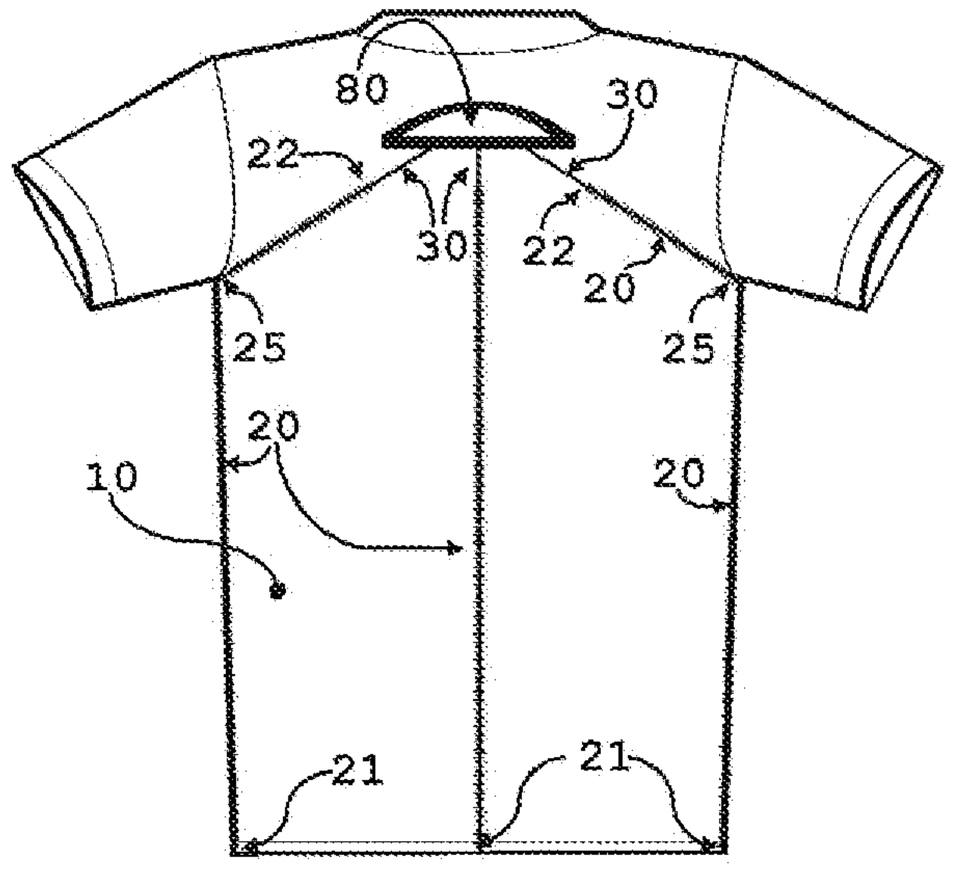

Fig. 7B

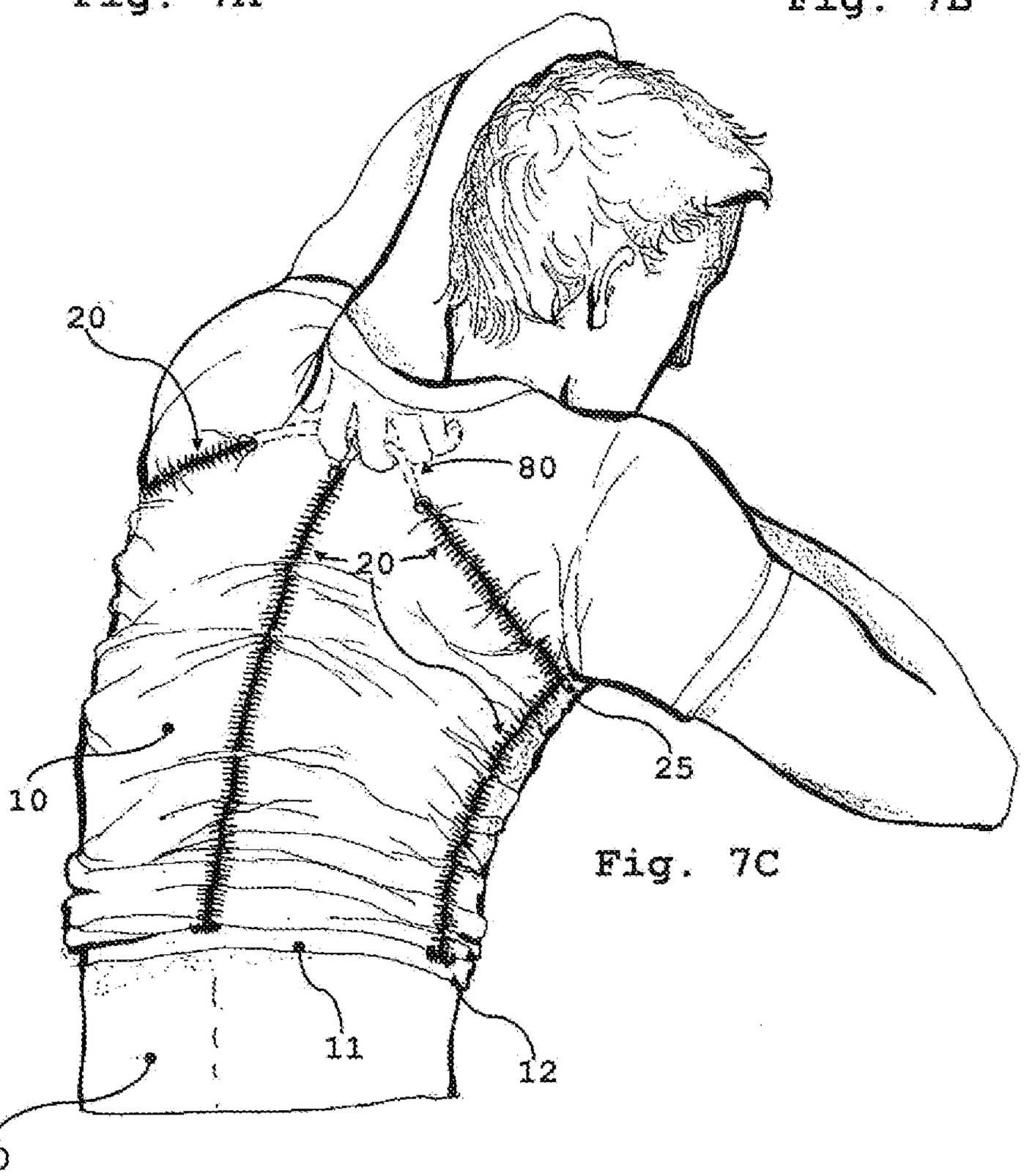

Fig. 7C

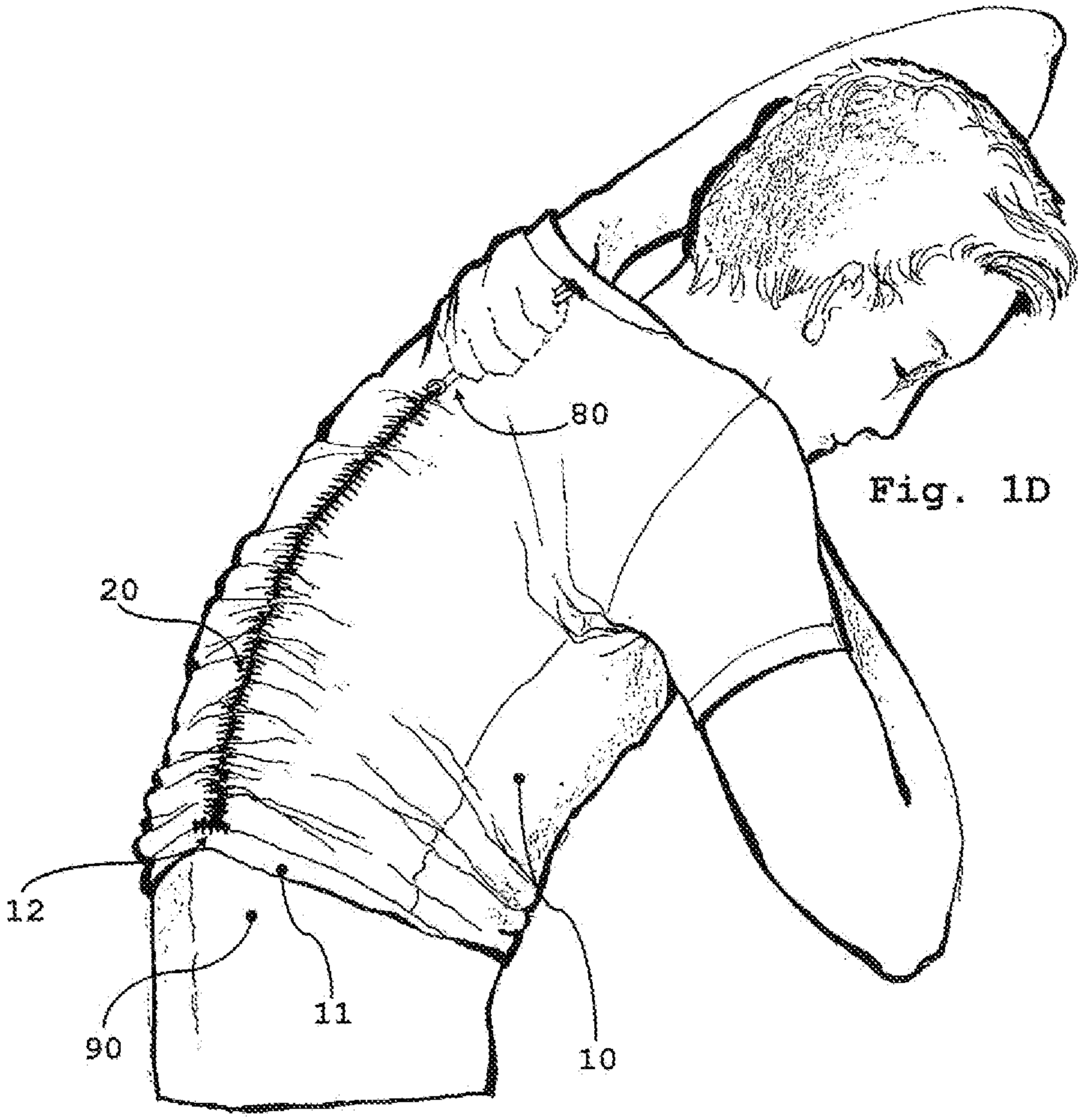

Fig. 1D