April 7, 1959 J. P. POLANCO 2,880,421

YOKE-SLEEVE FOR WATERPROOF GARMENTS

Filed Sept. 30, 1954 2 Sheets-Sheet 1

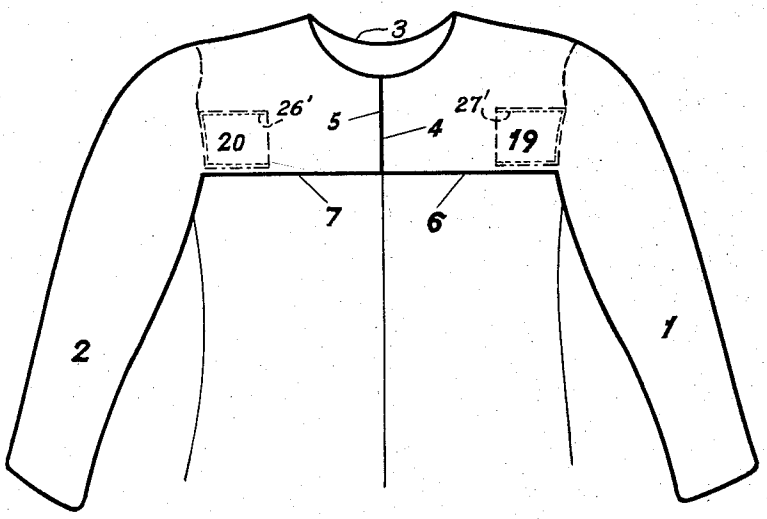


FIG. 1

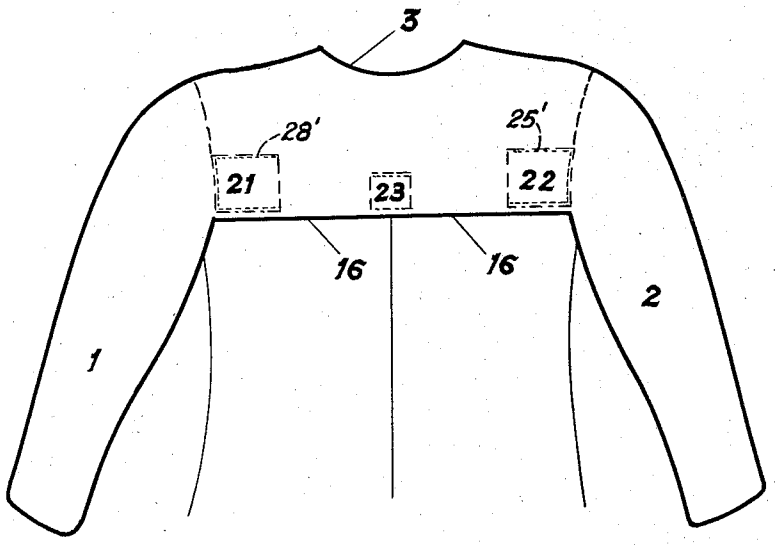


FIG. 2

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YOKE-SLEEVE FOR WATERPROOF GARMENTS

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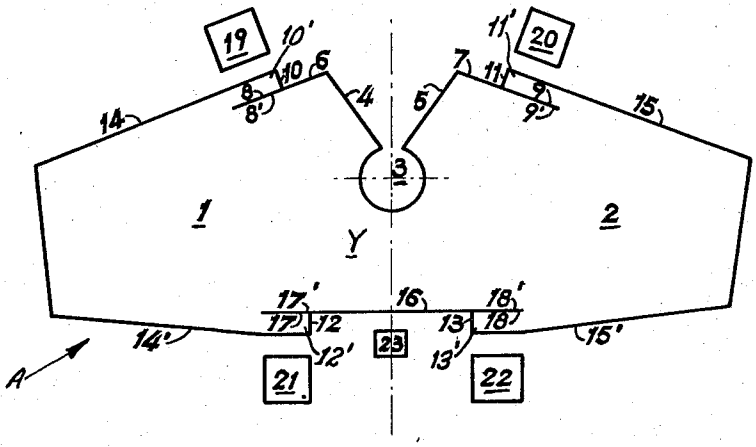


FIG. 3

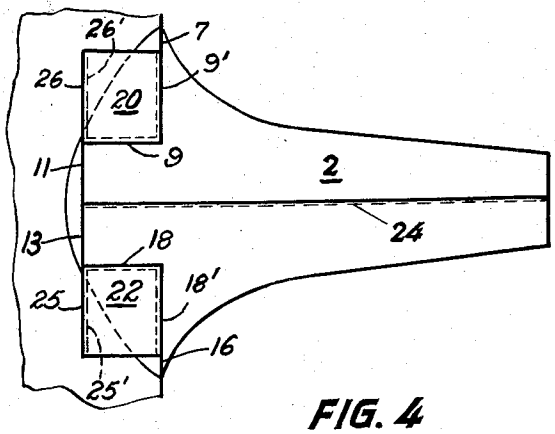


FIG. 4

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United States Patent Office 2,880,421
Patented Apr. 7, 1959

2,880,421

YOKE-SLEEVE FOR WATERPROOF GARMENTS

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Application September 30, 1954, Serial No. 459,469
Claims priority, application Spain September 30, 1953
4 Claims. (Cl. 2—87)

The present invention relates to waterproof garments, and more particularly to a yoke and sleeve construction for such garments.

It is one of the objects of the present invention to provide for a combined yoke and sleeve construction for waterproof garments which has no seams on the upper portions of the garments through which rain water could penetrate.

It is a further object of the present invention to provide a combined yoke and sleeve construction for such garments which insure complete freedom of movement for the arms of the user.

It is an additional object of the present invention to provide a combined yoke and sleeve construction for such garments which will facilitate free air circulation through the sleeves of the garment, thus contributing to the comfort of the user thereof.

It is yet another object of the present invention to make the garment from few parts which can be cut according to a simple pattern and which can be assembled in a very efficient manner so as to facilitate the production of the garment and to reduce the production cost.

With these objects in view the present invention relates to a combined sleeve and yoke arrangement as used in a waterproof garment, which comprises essentially a central yoke portion adapted to cover the shoulders of the wearer and two sleeve structures on opposite sides of said central yoke portion, each of the sleeve structures composed of an elongated tubular sleeve member having at its upper end two closely spaced cuts extending in longitudinal direction of the tubular sleeve member along a fraction of the length thereof so as to form between themselves a flap having two edges extending in longitudinal direction of the tubular sleeve member and to form opposite edges on the tubular sleeve member itself, each of the flap edges corresponding to one of the opposite edges, and two inserts each having consecutive edge portions forming an angle with each other, one of the inserts being secured along one of the consecutive edge portions to one flap edge and along the other of the consecutive edge portions to the corresponding opposite edge portion of the tubular sleeve member and the other of the inserts being secured along one of the consecutive edge portions to the other edge of the flap and along the other of the consecutive edge portions to the other of the opposite edge portions of the tubular sleeve member.

Preferably the consecutive edge portions of the two inserts form an angle of substantially 90 degrees.

In attaching the combined sleeve and yoke construction to the body of the garment the inserts are folded along the edge portions thereof which are secured to the corresponding edge portions of the tubular sleeve member against the inside of the respective tubular sleeve member and the portion opposite this edge portion of the insert is secured to the body portion of the garment so as to loosely connect the free bottom edge of the yoke portion to the body portion and to provide air passages leading respectively from this bottom edge and between the

inserts and the yoke portion into the respective sleeve member.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which:

Fig. 1 is a partial front view of the garment of the present invention;

Fig. 2 is a partial rear view of the garment as shown in Fig. 1;

Fig. 3 shows the pattern to which the various elements of the combined sleeve and yoke arrangement of the present invention have to be cut;

Fig. 4 shows to a slightly enlarged scale a bottom view of one sleeve according to the present invention with the necessary inserts sewn thereon, before this sleeve is connected to the body portion of the garment.

Referring now to the drawings and more particularly to Figs. 1 and 2 of the same, it will be seen that the garment of the present invention comprises a sleeve and yoke arrangement A superimposed on the upper part of the body portion B of the garment. The combined sleeve and yoke arrangement comprises a central yoke portion Y and two sleeves **1** and **2**, integrally formed with the central yoke portion Y. The central yoke portion Y has an upper cut-out **3** along which a collar, not shown in the drawing, is to be attached to the garment. The front edges **4**, **5** of the central yoke portion Y abut against each other and this central yoke portion has in the front of the garment bottom edges **7**, **6** and in the rear of the garment a bottom edge **16**. It should be noted that the body portion B extends upwardly beyond the edges **6**, **7** and **16** shown in Figs. 1 and 2 and the front edges **4**, **5** as well as the edge along the cut-out **3** of the yoke portion Y are connected, as for instance by sewing, to the corresponding edges of the body portion. The front portions of the garment may be connected by a zipper or be slightly overlapping and be provided, respectively, with buttons and button holes for closing the garment. The kind of closure used does not form part of the present invention and is, therefore, not shown in the drawing.

The pattern from which the various elements forming the combined yoke and sleeve arrangement are to be cut is best shown in Fig. 3. These elements comprise yoke portion Y formed with a substantially circular cutout **3**, from which the front edges **4**, **5** extend upwardly and spaced from each other in directions oppositely inclined to the center line of the yoke portion. Connected to the upper end of the edge **4**, **5** are respectively the edges **6** and **7** of the yoke portion which form in the finished garment the bottom front edges of the yoke portion. The edges **6** and **7** includes with the edges **4** and **5**, respectively angles of slightly more than 90°. Arranged at opposite sides of the central yoke portion Y and integrally cut therewith are the sleeve portions **1** and **2**. The upper edges **14** and **15** of the sleeves **1** and **2** are respectively parallel to the edges **6** and **7** of the central yoke portion and the lower edges **14'** and **15'** thereof are substantially parallel to the rear edge **16** of the central yoke portion. However, these edges **14**, **14'**, **15** and **15'** are respectively staggered with relation to the edges **6**, **7**, **16** of the central yoke portion Y and short edge portions **10**, **11**, **12** and **13** substantially normal to the edges **6**, **7** and **16**, respectively connect the edges **14**, **15**, **14'** and **15'** of the sleeve portions **1** and **2** with the corresponding edges **6**, **7** and **16** of the central yoke portion Y. The edges **6** and **7** are respectively elongated beyond the edges **10** and **11** by cuts into the respective sleeve portions **1** and **2** in

line with the edges 6 and 7, thereby separating from the sleeve portion at the front of the garment two flaps 10' and 11'. The thus formed edges on the yoke portions Y are respectively shown as 8' and 9', whereas the corresponding edges on the flaps are designated with 8 and 9. Similar cuts are formed in the rear portion of the garment, that is the edge 16 is continued in opposite direction by short cuts into the sleeve portions so as to form flaps 12' and 13' adjacent the edge portions 12 and 13. 17' and 18' designate respectively the continuing edge portions of the edge 16 formed by these cuts, whereas the edges formed on the flaps 12' and 13' are respectively shown as 17 and 18. The pattern for the combined yoke and sleeve arrangement comprises further four substantially rectangular inserts 19, 20, 21 and 22 of substantially the same size and a slightly smaller, also rectangular insert 23, which are to be connected with the other elements of the garments as will be described below.

In assembling the sleeve 2 the cuts respectively formed in continuation of the edge portions 7 and 16 are opened up by bending the flaps 11' and 13' respectively to the remainder of the sleeve so that the edges 9, 9' 18 and 18' respectively include an angle of substantially 90° with each other and the inserts 20 and 22 are respectively sewn along two consecutive edges thereof respectively to the edges 9, 9' and to the edges 18, 18' as shown in Fig. 4 in which the respective stitch lines are indicated in dotted lines. The sleeve 2 is then bent along its longitudinal center line until the edges 15, 15' thereof come together and these edges are then sewn together along the stitching line 24 indicated by the dotted line in Fig. 4. The sleeve 1 is formed in the same way, that is the edges 8, 8' and 17 and 17' are separated from each other to include substantially angles of 90 degrees and the inserts 19 and 21 are sewn the same way as the inserts 20 and 22 to the opened edges. Sleeve 1 is then bent substantially along its center lines and the edges 14 and 14' are also sewn together. After the inserts 19, 20, 21 and 22 are thus respectively assembled with the sleeves 1 and 2, the inserts 20 and 22 are respectively folded along the edge portions 9' and 18' against the inside of the tubular sleeve member 2, whereas the inserts 19 and 21 are respectively folded along the edge portions 8' and 17' against the inside of the sleeve member 1. The free edges 26 and 25 of the inserts 20 and 22 are then sewn to the body portion B of the garment as indicated respectively by the stitch lines 25', 26' shown in short dotted lines in Figs. 1, 2 and 4 and the corresponding edges 27 and 28 of the folded inserts 19 and 21 are sewn in the same way to the body portion B as likewise indicated respectively by the stitch lines 27', 28' in Figs. 1 and 2. It will be noted from Fig. 4 that the short edge portions 11 and 13 of the sleeve are not attached to the body portion so that the body material falls away from these short edge portions forming thereby a gap between body and sleeve. The small insert 23 is also connected along one edge thereof to the center of the rear edge 16 then this insert 23 is folded against the yoke portion of the garment and the upper free edge of the insert 23 is sewn to body portion as indicated by the dotted line 30 in Fig. 2. The free bottom edges 7, 6, 16 of the yoke portion Y is thus loosely connected to the body portion B and air passages are provided leading respectively from this bottom edge between the inserts 19, 20, 21 and 22 and the yoke portion Y into the respective sleeve members 1 and 2.

The combined sleeve and yoke portion of the garment are preferably formed from plastic, rubber, oil cloth, rubberized fabric or any other waterproof fabric.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of waterproof garments differing from the types described above.

While the invention has been illustrated and described as embodied in yoke sleeve arrangement for a waterproof garment, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What is claimed as new and desired to be secured by Letters Patent is:

1. For use in a garment, a combined sleeve and yoke arrangement, comprising, in combination, a central yoke portion adapted to cover the shoulders of the wearer and two sleeve structures on opposite sides of said central yoke portion, each of said sleeve structures composed of an elongated tubular sleeve member having at its upper end two closely spaced cuts extending in longitudinal direction of said tubular sleeve member along a fraction of the length thereof so as to form between themselves a flap having two edges extending in longitudinal direction of said tubular sleeve member and to form opposite edges on the tubular sleeve member itself, each of said flap edges corresponding to one of said opposite edges; and two inserts each having consecutive edge portions forming an angle with each other, one of said inserts being secured along one of said consecutive edge portions to one flap edge and along the other of said consecutive edge portions to the corresponding opposite edge portion of the tubular sleeve member and the other of said inserts being secured along one of said consecutive edge portions to the other edge of said flap and along the other of said consecutive edge portions to the other of said opposite edge portions of said tubular sleeve member.

2. For use in a garment, a combined sleeve and yoke arrangement, comprising, in combination, a central yoke portion adapted to cover the shoulders of the wearer and two sleeve structures on opposite sides of said central yoke portion and integral therewith, each of said sleeve structures composed of an elongated tubular sleeve member having at its upper end two closely spaced cuts extending in longitudinal direction of said tubular sleeve member along a fraction of the length thereof so as to form between themselves a flap having two edges extending in longitudinal direction of said tubular sleeve member and to form opposite edges on the tubular sleeve member itself, each of said flap edges corresponding to one of said opposite edges; and two inserts each having consecutive edge portions forming an angle with each other, one of said inserts being secured along one of said consecutive edge portions to one flap edge and along the other of said consecutive edge portions to the corresponding opposite edge portion of the tubular sleeve member and the other of said inserts being secured along one of said consecutive edge portions to the other edge of said flap and along the other of said consecutive edge portions to the other of said opposite edge portions of said tubular sleeve member.

3. For use in a garment, a combined sleeve and yoke arrangement, comprising, in combination, a central yoke portion adapted to cover the shoulders of the wearer and two sleeve structures on opposite sides of said central yoke portion and integral therewith, each of said sleeve structures composed of an elongated tubular sleeve member having an underarm seam extending in longitudinal direction thereof and said sleeve member having at its upper end two closely spaced cuts located adjacent said underarm seam respectively on opposite sides thereof and extending in longitudinal direction of said tubular sleeve member along a fraction of the length thereof so as to form between themselves a flap having two edges extend-

ing in longitudinal direction of said tubular sleeve member and to form opposite edges on the tubular sleeve member itself, each of said flap edges corresponding to one of said opposite edges; and two inserts each having consecutive edge portions forming an angle of substantially 90° with each other, one of said inserts being secured along one of said consecutive edge portions to one flap edge and along the other of said consecutive edge portions to the corresponding opposite edge portion of the tubular sleeve member and the other of said inserts being secured along one of said consecutive edge portions to the other of said opposite edge portions of said tubular sleeve member.

4. For use in a garment having a body portion, a combined sleeve and yoke arrangement comprising, in combination, a central yoke portion adapted to cover the shoulders of the wearer and having a free bottom edge and two sleeve structures on opposite sides of said central yoke portion, said yoke portion and said two sleeve structures being integral, each of said sleeve structures composed of an elongated tubular sleeve member having an underarm seam extending in longitudinal direction over the whole length thereof and said sleeve member having at its upper end two closely spaced cuts located adjacent said underarm seam and respectively on opposite sides thereof and extending in longitudinal direction of said tubular sleeve member and substantially parallel to said underarm seam along a fraction of the length thereof so as to form between themselves a flap having two edges extending in longitudinal direction of said tubular sleeve

member and to form opposite edges on the tubular sleeve member itself, each of said flap edges corresponding to one of said opposite edges; and two inserts each having consecutive edge portions forming an angle of substantially 90° with each other, one of said inserts being secured along one of said consecutive edge portions to one flap edge and along the other of said consecutive edge portions to the corresponding opposite edge portion of said tubular sleeve member and the other of said inserts being secured along one of said consecutive edge portions to the other edge of said flap and along the other of said consecutive edge portions to the other of said opposite edge portions of said tubular sleeve member, said inserts adapted to be folded along said other of said consecutive edge portions against the inside of the respective tubular sleeve member and the portion opposite said other of said consecutive edge portions adapted to be secured to the body portion of the garment so as to loosely connect said free bottom edge of said yoke portion to said body portion and to provide air passages leading respectively from said bottom edge and between said inserts and said yoke portion into the respective sleeve member.

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