

Nov. 20, 1945.

N. H. KEELER ET AL

2,389,152

PROTECTION GARMENT

Filed April 15, 1942

2 Sheets-Sheet 1

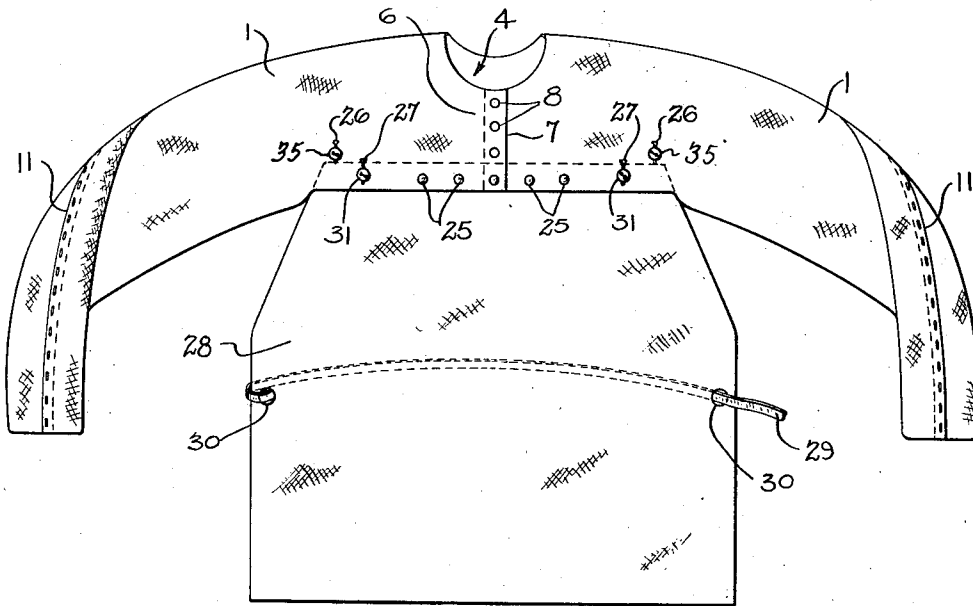


Fig. I

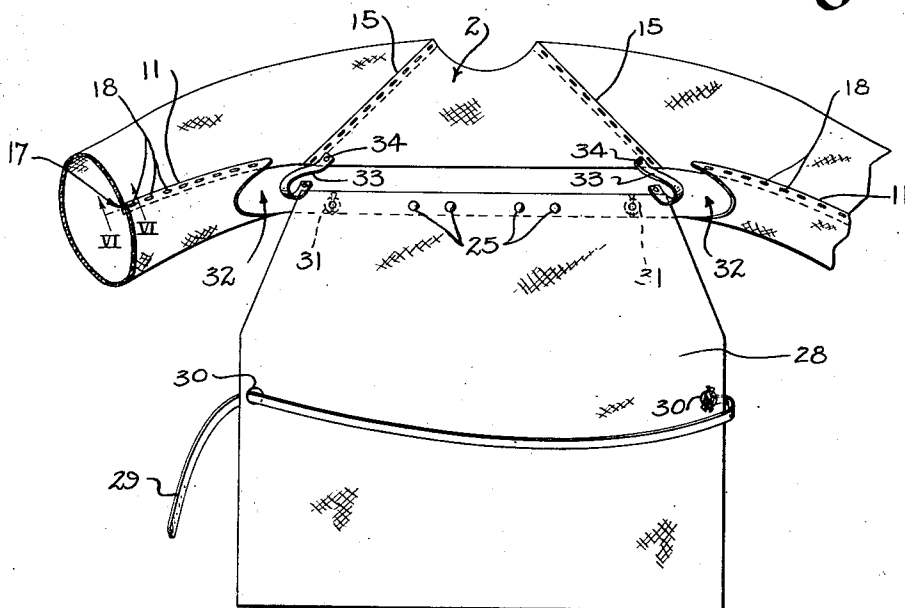


Fig. II

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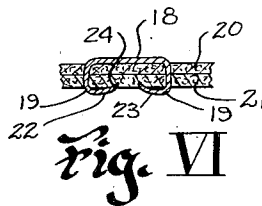
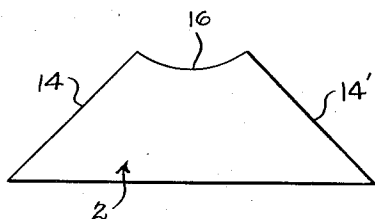
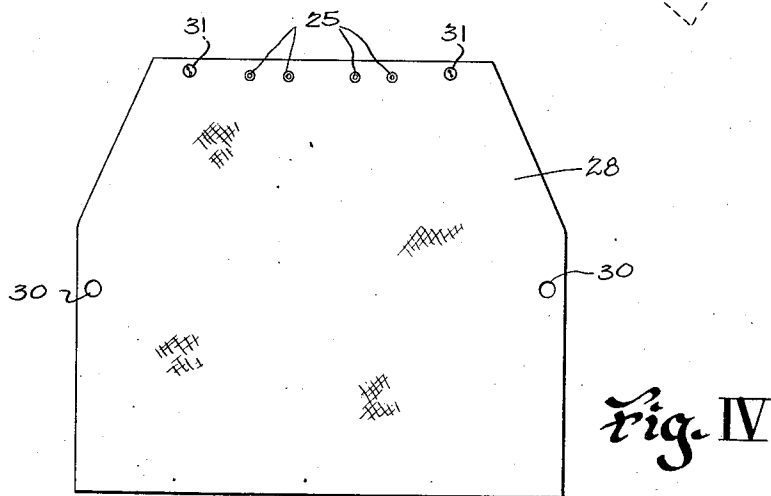
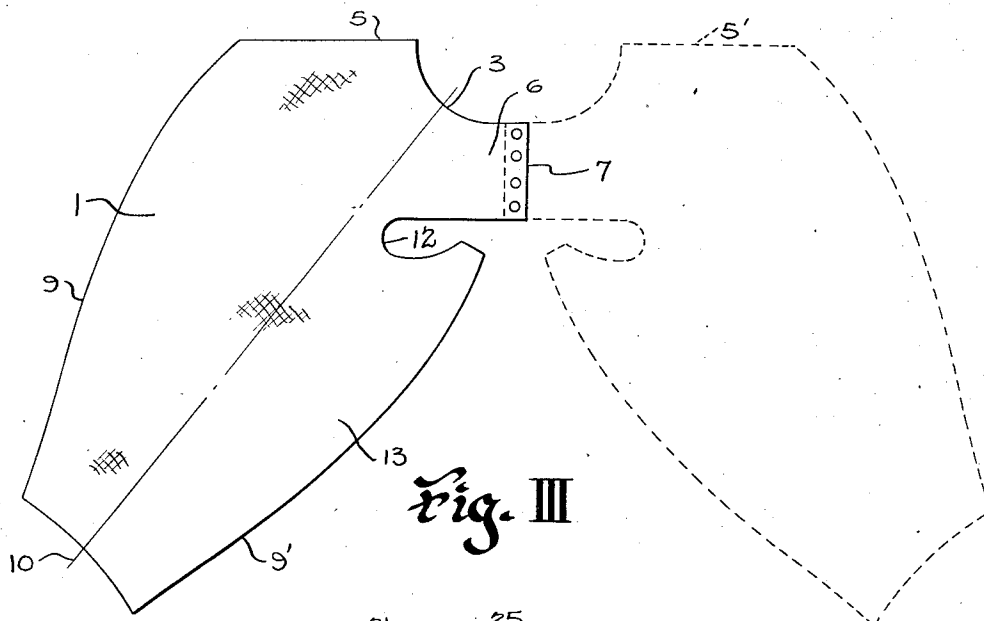
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PROTECTION GARMENT

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2 Sheets-Sheet 2



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PROTECTION GARMENT

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10 Claims. (Cl. 2--2)

This invention relates to improvements in wearing apparel and has particular reference to a novel construction of protective cape sleeve for use with or without a bib.

One of the principal objects of the invention is to provide a novel construction of cape sleeve for use with or without a bib.

Another object is to provide a device of the above character adapted particularly for use by individuals who are subjected to the hazards of heated flying particles such as welders or acetylene torch operators and which has no exposed seams in the front which might be susceptible to injury by flying sparks or other projected heated particles.

Another object is to provide a device of the above character with a plurality of parts capable of being cut from cowhide or the like and having the various parts joined with each other so as to have no exposed seams in the front susceptible to heat injury and which will provide full protection against possible leakage whereby sparks may penetrate through the garment and cause injury to the wearer.

Another object is to provide a novel construction whereby the various parts may be formed from relatively small hides with a minimum of parts required and with the said parts joined with each other in a manner to provide a simple, economical and durable construction.

Another object is to provide a construction of garment whereby right and left hand parts may be cut with the same pattern for said parts thereby greatly reducing the cost of manufacture of such garments.

Another object is to provide bib attachment means on said cape sleeve which will insure against having the cape sleeve and bib pull apart at said point of attachment.

Another object is to provide novel and efficient means of maintaining the cape sleeve in position of use on the wearer.

Another object is to provide a garment of the above nature which may be formed of a minimum of parts and in an inexpensive and efficient manner and which will provide full protection across the shoulders, chest and back of the individual with substantially no exposed seams at the front which might be injured by flying heated particles.

Another object is to so join the various parts as to provide extreme comfort for the wearer during the use of the garment and yet insure full protection throughout the covered areas of the body.

Another object is to provide a garment of the

above character having no shoulder seams throughout the front and sides thereof.

Other objects and advantages of the invention will become apparent from the following description taken in connection with the accompanying drawings and it will be apparent that many changes may be made in the details of construction and arrangement of parts shown and described without departing from the spirit of the invention as expressed in the accompanying claims. We, therefore, do not wish to be limited to the exact details of construction and arrangement of parts shown and described as the preferred form only has been given by way of illustration.

Referring to the drawings:

Fig. I is a front elevation of the garment embodying the invention;

Fig. II is a partial sectional rear elevation thereof with parts broken away;

Fig. III is a plan view of the part forming the sleeve, shoulder and chest portion of the garment;

Fig. IV is a front view of the bib which may or may not be used with the cape sleeve as desired;

Fig. V is a plan view of the part forming the back portion of the garment;

Fig. VI is a fragmentary sectional view taken as on line VI—VI of Fig. II.

Cape sleeves of the character set forth herein are adapted particularly for use by welders, acetylene torch operators or other individuals whose work is of such a nature that they are subjected to the hazards of heated flying particles either in solid or molten form. The garment or cape sleeve is intended to protect the wearer or his clothing against injury from such flying particles. If it were possible to form such garments with no joining seams such a garment would be the most ideal. However, such garments are preferably formed of chrome tan cowhide and such cowhides in most instances are not of a size sufficient to form the entire garment or cape sleeve from a single piece of material, even if it were possible to do so, it is of necessity that they be formed of separate pieces which must be joined with each other.

Most prior art garments were therefore formed of a plurality of joined pieces with no particular attention being taken as to where the joining seams were formed with the result that many of the seams were in the front of the garment and were susceptible to heat injury from flying or projected particles. Such heated particles not only caused injury to the garment itself through the burning out of portions of the seams but

such burnt out areas also permitted the heated particles to be projected through the garment with the result that the under garments and individual, himself, was subjected to possible injury. Such prior art garments, in most instances, were composed of several individual parts, all of which must be joined with each other by separately formed seams in order to enable them to be readily cut from relatively small hides and in order to provide the required size and fit with the individual. Such prior art garments therefore were relatively expensive to manufacture as they required many different patterns and cutting dies and were more readily susceptible to heat injury because of the exposed stitchings and so forth. One of the primary objects of the present invention therefore is to overcome all of the above difficulties through the provision of a garment or cape sleeve which may be readily formed from available cowhides or other suitable material which is formed of a minimum of separate parts requiring a minimum amount of seams and which has its parts so formed and cut as to provide various sizes and fit with the different individuals with substantially no exposed seams at the front which are susceptible to heat injury.

Referring more particularly to the drawings wherein like characters of reference designate like parts throughout the several views the device embodying the invention comprises two main shoulder and sleeve sections 1 and a back section 2.

The main shoulder and sleeve sections 1 require only a single pattern, such as shown in Fig. III, having an edge portion 3 to form a part of the contour of the neck opening 4 of the completed cape sleeve such as shown in Fig. I. The said sections 1 have a relatively straight contour portion 5 adapted to form one of the joining seams to the section 2 in the rear of the cape sleeve. The said sections 1 also have an extended portion 6 having edge members 7 adapted to overlies each other at the front of the cape sleeve and be held in said relation by means of a plurality of snap fasteners or the like 8 as shown in Fig. I. The said portions 6 are so dimensioned as to bring about this result. The contour edges 9 and 9' are so formed and cut relative to a shoulder line, such as illustrated by the dot and dash line 10 in Fig. III, as to cause a joining seam 11 to be positioned in the rear of the sleeve portion of the garment. Suitable incisions 12 are formed below the portions 6 to provide clearance in the vicinity of the arm pits to enable the adjacent portion 13 of the cape sleeve to be turned rearwardly so that the edge 9' thereof may be joined with the edge 9 in the rear of the sleeve.

The back section has a shape simulating a trapezoid provided with angled edge portions 14 and 14' adapted to be joined with the edges 5 and 5' of the respective sections 1 of the cape sleeve. The edges 14, 14' are so angularly disposed with respect to each other as to provide a suitable back section 2 which, when joined with the edges 5 as illustrated by the seams 15 in Fig. II, will have the proper fit with the individual. The said section 2 has a contour edge 16 which, when said portion 2 is joined with the sections 1 by the seams 15, will complete the neck opening 4 of the garment. It is to be understood, however, that the section 2 may be of any desired contour shape depending of course upon the shape of the sections 1 particularly

along the edges 5. If the said edges 5 were disposed at a different angle then the edges 14, 14' of the section 2 would likewise be disposed at a compensating angle to obtain the fit desired. The parts, however, are controlled as to shape so as to obtain the greatest amount of parts from available material keeping in mind avoiding unnecessary wastage.

The various seams 11 and 15 are of an overlapping type, as illustrated at 17 in Fig. II, and are joined with each other by thread-like stitchings or by metal stitchings which, as shown in Fig. VI, comprise metal staples or the like 18 having spaced branches 19 extending through the overlapped sections 20 and 21 of the material along the seams and having ends 22 and 23 turned inwardly toward each other to overlies the adjacent side surface of the section 21 and having their extreme ends 24 turned inwardly so as to be embedded in the material. A plurality of such staples 18 are provided along the seam thereby forming the metal stitchings. It is to be understood that the seams 11 and 15 are so formed and it is also to be understood that the thread stitchings along with the metal stitchings may also be used simultaneously if desired. It is to be understood that one of the sections 6, preferably the under section, is provided with the male portions of the snap fasteners and the other or top section with the female portions of said snap fasteners. Such snap fasteners 8 are of the conventional commonly known type.

The sections 6, as illustrated in Fig. I, are provided with additional snap fasteners 25 adjacent the lower edges thereof and are provided with spaced button holes 26 and 27 also along said lower edge. The purpose of the snap fasteners 25 and the button holes 27 is to provide attachment means for a detachable bib or the like 28. The bib is of an ordinary apron type which extends down below the chest to cover the front of the individual and has a suitable thong 29 which extends through spaced openings 30 at the sides of the bib. This thong is adapted to extend along the rear of the back of the individual to secure the bib in place on the body. The bib has a plurality of male snap fastener members adapted to interfit with the female snap fasteners 25 on the front of the section 6 of the cape sleeve and has spaced buttons 31 adapted to interfit with the button holes 27. The purpose of the buttons 31 and button holes 27 is to avoid having the sides of the bib become unsnapped or unfastened from the cape sleeve during the use of the entire garment, that is, to prevent having the members pull apart at said locations during use. It is to be understood that the bib 28 has an upper portion which is adapted to underlie the lower edges of the sections 6, as illustrated in Fig. I, when in assembled relation with the main cape sleeve portion.

The main cape sleeve may be used independently of the bib as desired and in several instances only the bib need be used if desired.

Although the preferred material for use in forming the cape sleeve and bib is described herein as being chrome tan cowhide, etc., it is to be understood that any other suitable wear resisting duck or asbestos cloth might be used.

The purpose of forming the cape sleeve, as described above, is to insure comfort during the use thereof. The portions of the sections 1 having the incisions 12 therein is for the purpose of providing uncovered areas 32 beneath the arms and in the vicinity where the greatest possible dis-

comfort to the wearer might occur. The areas 32 are intended to provide suitable ventilation within the cape sleeve during use thereof.

Suitable resilient straps 33 are provided adjacent the cut out areas 32, as illustrated in Fig. II, for retaining the cape sleeve in desired position on the wearer. The resilient straps 32 are preferably attached to the section 2 by suitable metal rivet, stitchings or the like as illustrated at 34; they are adapted to extend beneath the arm and are provided adjacent the opposite ends thereof with a suspender button or the like 35 adapted to be received in the button hole 26.

With the above arrangement the resultant cape sleeve is formed of only three normally separate parts; requiring only two cutting patterns, as illustrated in Figs. III and V of the drawings. The pattern of Fig. III may be used for the right and left combined sleeve and shoulder portions of the finished garment while the portion 2 forms the back of the garment, as is illustrated in Fig. II. The bib 28 is cut from a single piece of material to the contour shape and size as illustrated in Fig. IV. All of the parts are preferably cut to the size and shape desired; suitable connections therefor and connection openings formed therein and the various parts are then assembled by thread or metal stitchings used in seams formed in a manner such as shown at 17 in Fig. II. It is to be understood that instead of forming the part 2 of a single piece of material it may be formed of two or more sections which are joined with each other along suitable seams. This is because of the fact that this part lies in the back of the garment and is not subjected to the danger of heat injury such as is true of the front of the garment. However, it is preferably formed of a single piece of material.

From the foregoing description it will be seen that simple, economical and durable means have been provided for accomplishing all of the objects and advantages of the invention.

Having described our invention, we claim:

1. A device of the character described comprising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having longitudinal edge portions joined with each other along a seam having portions in overlapping relation and disposed in the rear of said arm portions, said shoulder portions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other and having upper curved edges shaped to form a part of the neck opening, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along seams having portions in overlapping relation and disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portion and chest portions to complete the neck opening when the parts are in assembled relation with each other.

2. A device of the character described comprising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having spaced longitudinal edges joined with each other along a substantially continuous seam disposed in the rear of said arm portions, said shoulder por-

tions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along substantially continuous seams disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portion to complete the neck opening when the parts are in assembled relation with each other, the lower edges of the chest portions having attachment means thereon and a separable apron or bib detachably connected with said attachment means.

3. A device of the character described comprising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having spaced longitudinal edges joined with each other along a substantially continuous seam disposed in the rear of said arm portions, said shoulder portions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along substantially continuous seams disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portions to complete the neck opening when the parts are in assembled relation with each other, and strap members connected adjacent one end thereof with the chest portions and adjacent the opposite ends thereof with the normally separate back portion.

4. A device of the character described comprising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having spaced longitudinal edges joined with each other along a substantially continuous seam disposed in the rear of said arm portions, said shoulder portions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along substantially continuous seams disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portions to complete the neck opening when the parts are in assembled relation with each other, the lower edges of the chest portions having attachment means thereon and a separable apron or bib detachably connected with said attachment means, said attachment means comprising in part intermediate snap fasteners and buttonhole and button-type attachment means adjacent the opposed sides of the bib.

5. A device of the character described com-

prising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having spaced longitudinal edges joined with each other along a substantially continuous seam disposed in the rear of said arm portions, said shoulder portions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along substantially continuous seams disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portions to complete the neck opening when the parts are in assembled relation with each other, said pattern sections each having an incision or cut-out portion in the vicinity of the point of joinder of the chest portion with the sleeve portion to provide an open area beneath the arm pits of an individual wearing said device.

6. A device of the character described comprising integral arm, shoulder and chest portions formed of right and left pattern sections of similar contour shapes, said arm portions having spaced longitudinal edges joined with each other along a substantially continuous seam having portions in overlapping relation and secured in said relation by metallic stitching, said seams being disposed in the rear of said arm portions, said shoulder portions each having a curved edge shaped to form a part of a neck opening and having integral parts extending outwardly to one side thereof having end portions disposed in overlapping relation with each other, connecting means for detachably securing said overlapping end portions together with said portions constituting the chest portion of the device and a separate back portion having edges secured with similarly shaped edges of the shoulder portions along substantially continuous seams embodying overlapping portions disposed in the rear of said device and having an upper edge functioning cooperatively with the curved edge portions of the shoulder portions to complete the neck opening when the parts are in assembled relation with each other.

7. A cape sleeve type device having no exposed stitchings on the front thereof comprising two portions constituting integral sleeve, shoulder and chest portions of similar pattern contours joined

with each other by a backing member with the seams of said sleeve portions located in the rear thereof and separable connecting means for joining the chest portions, and resilient strap like means connecting the backing member with the chest portions and adapted to fit beneath the arm pits of an individual wearing said cape sleeve.

8. A cape sleeve type device having no exposed stitchings on the front thereof comprising two separate portions constituting integral sleeve, shoulder and chest portions of similar pattern contours joined with each other by an intermediate backing member along seams having overlapping portions, said sleeve portions having seams with overlapping portions located in the rear thereof, said chest portions having overlapping edges and separable connecting means for joining said overlapping edges, a separable bib and means for detachably connecting said separable bib to the chest portions.

9. A cape sleeve type device having no exposed stitchings on the front thereof comprising two portions constituting integral sleeve, shoulder and chest portions of similar pattern contours joined with each other by a backing member with the seams of said sleeve portions located in the rear thereof and separable connecting means for joining the chest portions, a separable bib and means for detachably connecting said separable bib to the chest portions of the cape sleeve, said connecting means comprising intermediate snap fasteners and buttonhole and button-type means adjacent the opposed sides of the bib.

10. A device of the character described comprising joined pattern sections embodying portions shaped to overlie the back, chest, arms and shoulders of an individual, said arm, shoulder and chest portions being integrally formed of two separate right and left pattern sections of similar contour shapes, said arm portions having edges extending longitudinally thereof joined in meeting relation with each other in the rear of said arm portions, said back portion and said shoulder portions having meeting edges in secured relation with each other, said shoulder portions and portions shaped to overlie the back and chest of the individual having curved edges blending with each other and shaped to form a neck opening, said portions overlying the chest constituting parts having overlapping end portions, and connecting means for detachably securing the overlapping end portions together, said integral arm, shoulder and chest portions being so joined with the back portion as to have no exposed stitchings on the front of said device.

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