Sept. 2, 1947. J. CLYNE 2,426,818

GARMENT

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Fig. 1.

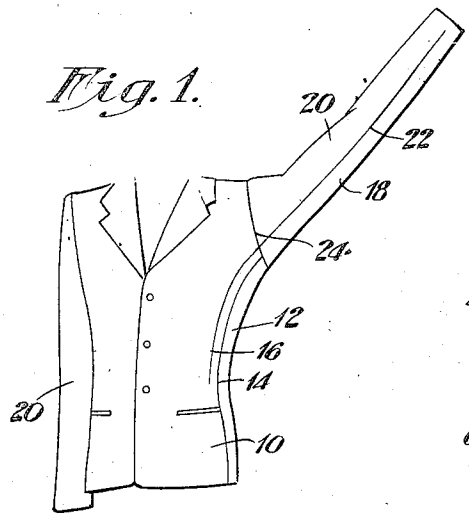


Fig. 2.

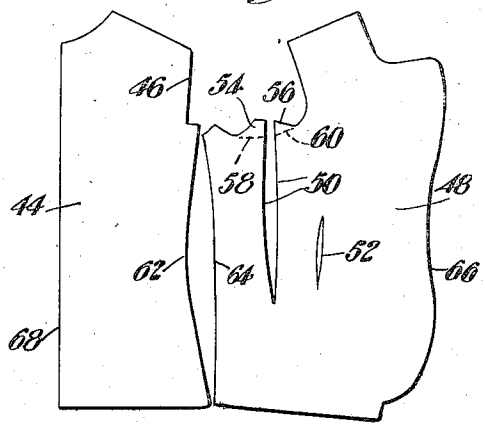


Fig. 3.

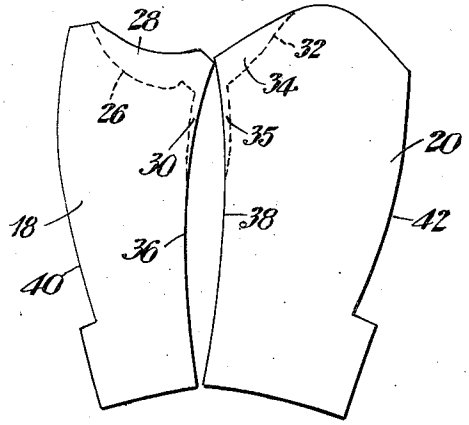


Fig. 4.

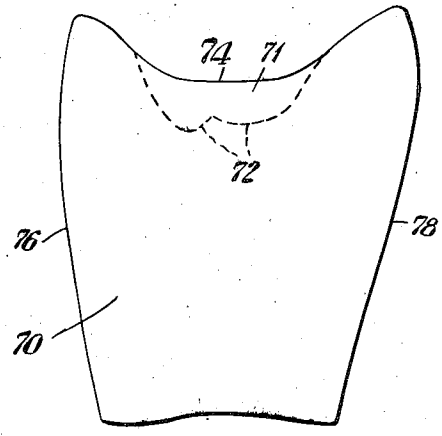
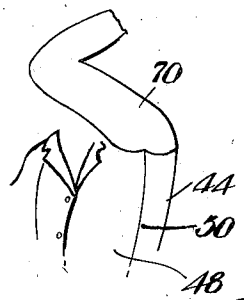


Fig. 5.



INVENTOR
JOSEPH CLYNE
BY
Pennie, Davis, Marvin & Edmonds
ATTORNEYS

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Fig. 6.

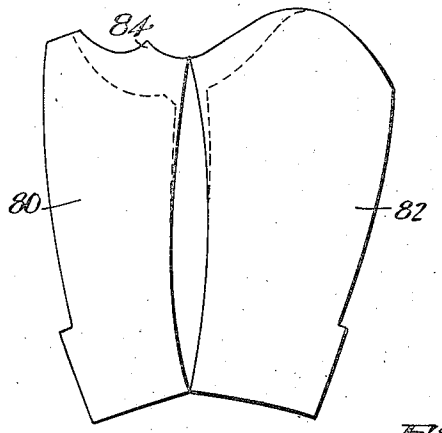


Fig. 7.

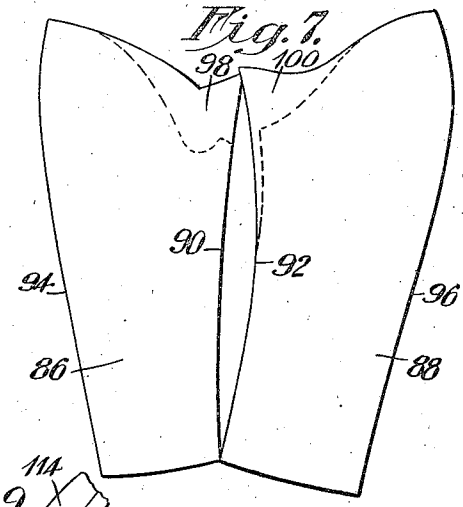


Fig. 9.

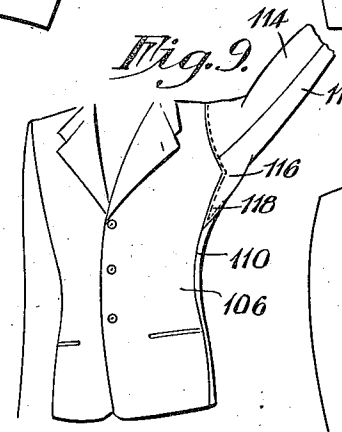


Fig. 8.

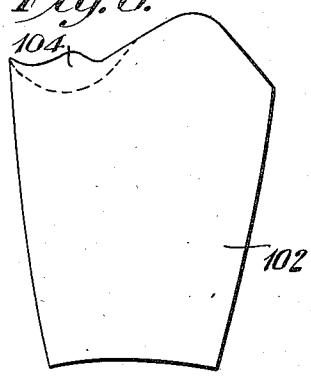


Fig. 11.

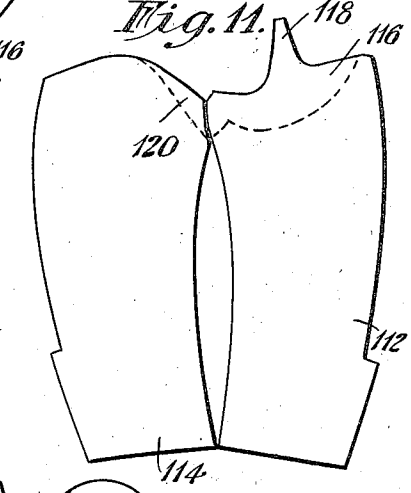
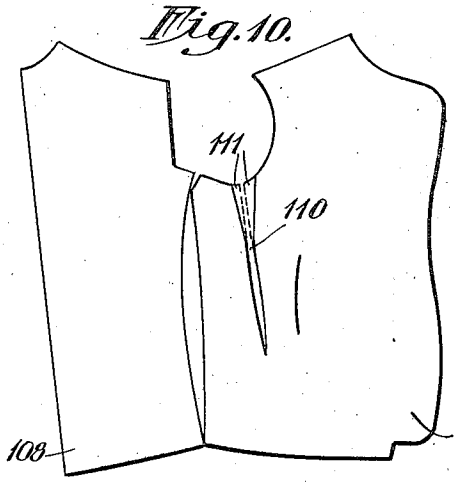


Fig. 10.



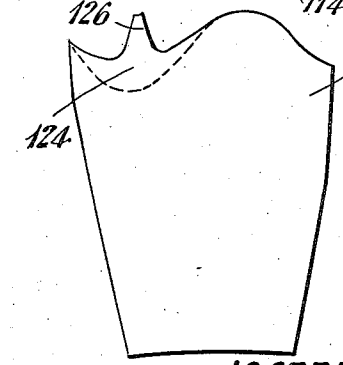


Fig. 12.

INVENTOR
JOSEPH CLYNE
BY
Pennie, Davis, Marvin & Edmonds
ATTORNEYS

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GARMENT

Joseph Clyne, Bronx, N. Y.

Application May 23, 1945, Serial No. 595,411

7 Claims. (Cl. 2—93)

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My invention relates to improvements in garments and more particularly to an improved jacket construction in which the elements are combined in such a manner as to provide a normal fit for the wearer and at the same time provide a construction which will permit free movement of the arms and body of the wearer.

When a person wearing a jacket of common construction attempts to raise his arm, it is a common experience to find that the sleeve of the jacket places a strain on the upper arm muscle so that the wearer does not have free movement of his arm. Furthermore, it is a common experience to find that the wearer of an ordinary jacket cannot raise his arms without pulling the rest of his garment out of position, to either twist it around his body, or make it ride up. This is particularly true if the wearer of the garment is in a sitting position. In some cases, it is very difficult for one in a sitting position to raise his arms when wearing a jacket of ordinary construction. The strains produced on the arm muscles under such conditions necessarily make the wearer of the garment uncomfortable and gives him the feeling that his arms are held down under tension.

The primary object, therefore, of the present invention is to provide an improved garment construction which will overcome the difficulties and objections referred to above, and particularly to provide a jacket in which there is a minimum of restraint against free arm movement.

Another object of the invention is to provide an improved garment construction which permits raising of the wearer's arms without strain on his arm muscles and without pulling the rest of the garment out of its normal position.

A further object of the invention is to provide an improved garment construction which is adapted to permit the free swinging of the arms.

Accordingly, the improved garment construction of the present invention comprises a garment having front and back sections attached to each other under the armhole by a seam, a dart in the front section of the garment extending to the armhole, an integral gore on each side of the dart at the armhole, an under sleeve section and a top sleeve section each provided with a compound gore, the sleeve gores being attached to the gores on the front section of the garment, thereby providing a garment having an arm hole of substantially standard circumferential measurement while the jacket permits the free swing of the sleeve with respect to the remainder of the garment. According to a preferred form, the

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sleeve gore includes a pointed extension which projects into the body of the garment at the armpit.

Instead of providing a two-section sleeve, a single-piece or combined sleeve may be provided in which the armpit section includes an allowance of particular configuration adapted to be attached to the body of a garment having a standard armhole, or to the body section of a garment provided with a gore or gores at the armhole, of the type described above.

The two-piece sleeve provided with the special compound gores may also be attached to a body having a standard armhole construction.

The jacket of the present invention is no more difficult to make than the standard jacket, and may be manufactured without additional cost to the wearer.

Other features, objects and advantages of the improved jacket construction of the present invention will be apparent to those skilled in the art from the following more detailed description taken in connection with the accompanying drawings forming a part of this application.

In the drawings:

Fig. 1 is a view partly to one side, of a jacket constructed in accordance with the features of the present invention, illustrating the relationship between the sleeve and the body of the jacket with a sleeve in raised position.

Fig. 2 is a view showing the front and back sections of the jacket, with the front section provided with a dart and with a gore on each side of the dart.

Fig. 3 is a view of the top and under sections of a two-piece sleeve in which each section is provided with a compound gore or allowance of particular configuration.

Fig. 4 is a view of a one-piece sleeve provided with a special allowance adapted to occupy the armpit of the jacket.

Fig. 5 is a broken side view of a jacket showing the appearance of a jacket made with a one-piece sleeve as illustrated in Fig. 4.

Fig. 6 is a view similar to that of Fig. 3 representing a sleeve and under sleeve in which the gore or allowance includes a substantial projection on the under sleeve.

Fig. 7 is a view of a two-piece sleeve showing a front and back sleeve construction including integral allowances or gores.

Fig. 8 is a view representing a combined under sleeve and top sleeve including an integral allowance or gore in accordance with the present invention.

Fig. 9 is a view similar to that of Fig. 1, partly to one side, of a jacket constructed in accordance with the features of the present invention and illustrating the appearance of the garment made with the body and the sleeve elements shown in Figs. 10 and 11.

Fig. 10 is a view similar to that of Fig. 2, showing front and back sections of a garment in which the front section is provided with a special dart construction.

Fig. 11 is a view similar to that of Fig. 3, showing a top sleeve and under sleeve containing integral allowances, that for the under sleeve having a special projecting section.

Fig. 12 is a view showing a combined under sleeve and top sleeve provided with a special shaped gore or allowance similar to that shown in Fig. 11.

Referring to Fig. 1 of the drawings, this figure shows a jacket constructed of suitable fabric in accordance with the present invention, from front and back body sections similar to those shown in Fig. 2 but having a standard armhole, and under and top sleeve sections patterned the same as those shown in Fig. 3. In Fig. 1 the jacket comprises a front section 10 attached to a back section 12 by means of a seam 14 which extends to the armpit. The front section 10 includes a dart 16 which also extends to the armpit. The two back sections of course are attached to each other by a seam in the back of the jacket. The sleeves of the jacket shown in Fig. 1 comprise an under sleeve section 18 of the same pattern as that shown in Fig. 3 and a top sleeve section 20 of the same pattern as that shown in Fig. 3. These sleeve sections are attached to each other by a front seam 22 and a back seam, not shown, the front seam substantially matching the position of the dart 16. The sleeve is attached to the armhole section of the front and back sections of the garment by means of a seam 24. The jacket of Fig. 1 includes the usual collar and pockets, as indicated, which may be of any desired style.

The under sleeve section 18 of the jacket, as shown in Fig. 3, differs substantially from the standard sleeve pattern at the armhole section of the sleeve, the shape of the standard sleeve pattern where it differs from the sleeve section 18 being indicated by a dotted line 26. Therefore, according to the present invention, the under sleeve section 18 includes at the armhole additional material or a compound gore or allowance integral with the sleeve section and comprising a crescent-shaped gore 28 which is enlarged toward the armpit section of the sleeve and which includes an integral tail piece or extension 30 comprising a gore extending substantially along the front edge of the under sleeve section.

The top sleeve section 20 as shown in Fig. 3 also differs from the standard pattern which is indicated by the dotted line 32. This section of the sleeve therefore includes a substantial allowance at the armpit and along the lower edge of the sleeve section which is integral with the material of the sleeve. This allowance or compound gore is a double wing-shaped section, one wing of which, 34, extends from the front edge of the sleeve along the armpit section, while the other wing, 35, extends along the front edge of the sleeve from the armpit section.

In making up the sleeve of the jacket shown in Fig. 1 from the sleeve sections 18 and 20 shown in Fig. 3, edge 36 is attached to edge 38 by means

of a seam to form the seam 22 shown in Fig. 1, while an edge 40 of the under sleeve section 18 is attached to the edge 42 of section 20 by means of a seam. When the sleeve sections 18 and 20 are sewed together, the tail or wing allowance 30 is sewed to the wing allowance 35, and the ends of the allowances 28 and 34 are also sewed together since they comprise a portion of the edges 36 and 38. The allowances 30 and 35 serve to provide a sleeve having an armpit section which is slightly larger than the standard sleeve, but the allowances 28 and 34 provide a sleeve which gives the wearer freedom to swing his arms and raise them in any position without having his arm muscles placed under any sleeve strain or tension. The illustration in Fig. 1 shows the appearance of the sleeve in raised position when the sleeve sections include the allowances shown and described in detail in connection with Fig. 3 of the drawings.

Fig. 2 of the drawings show the structure of the back and front sections of a preferred form of jacket made in accordance with the present invention, the back section 44 being the same as the standard pattern, and including only a relatively small portion of the armhole at 46. The front 48 of the jacket has a pattern of the form shown in Fig. 2 and includes the edges 50 which form a dart which extends into the armhole portion of the jacket. The front also includes a fitting dart 52 in front of the dart edges 50, the edges of both of which are sewed together in completing the dart. The front section 48 in other respects differs substantially from the standard pattern by providing underarm allowances or gores 54 and 56, on opposite sides of the dart 50. Each of these allowances 54 and 56 comprises a substantially triangular-shaped section extending beyond the edge of the armhole of the standard pattern, as indicated by the dotted lines 58 and 60. While the allowance 56 is shown as triangular, the allowance 54 is a four-sided irregular polygon in which the top edge is intended to match the upper sloping edge of the allowance 56 when the edges 50 are sewed together.

In making a jacket having front and back sections as shown in Fig. 2, and sleeve sections as shown in Fig. 3, the sleeve sections may be joined in the manner described above, while the back and front sections 44 and 48 are attached to each other by sewing along adjacent edges 62 and 64. The edges 50 are sewed together and the fitting dart 52 is also sewed up while any buttonholes or buttons or other fastening means are provided on the front section 48 adjacent the edge 66. It will be understood that for each jacket two front and two back sections are provided and that the two back sections will be joined by sewing along the edge 68. After the seleeve shown in Fig. 3 has been assembled as described above, it is sewed into the armhole after the top shoulder seam of the jacket body is made, in the usual manner. A jacket made from material cut in the manner shown in Figs. 2 and 3 has the general appearance of the jacket shown in Fig. 5 in which the effect of the underarm allowances 54 and 56 is readily apparent.

By combining the allowances 28, 30, 34 and 35 with the allowances 54 and 56, a combined sleeve and body structure is provided which gives unusual freedom for the movement of the wearer's arms. The arm may be raised freely without pulling the body and jacket up and without binding the arm muscles, and particularly the upper

arm and shoulder muscles used in raising the arms. Furthermore, the adjacent body and arm construction provides a jacket having a very neat appearance. There is no bagginess or apparent extra fullness which would detract from the style and appearance of the jacket. The sizes of the armhole structure is not materially enlarged over that of a jacket made from a standard pattern, so that this feature, taken in conjunction with a combination of the particular shaped gores or allowances, provide a very effective and practical jacket construction.

Fig. 4 shows a single-piece sleeve 70 which may be employed in place of the two-piece sleeve construction shown in Fig. 3, in making a jacket either of the form shown in Fig. 1 or of the form shown in Fig. 5. A preferred construction for using the single-piece sleeve 70 is the combination of this sleeve with the body sections 44 and 48 as shown in Fig. 2. This combination produces a jacket having substantially the appearance of the jacket shown in Fig. 5.

The single-piece sleeve 70 differs from the standard single-piece sleeve pattern by the complex allowance 71, between the dotted line 72, representing the shape of the standard sleeve pattern where it differs from the sleeve 70, and the line 74 representing the upper edge of the allowance 71. The complex allowance 71 between these lines is generally the shape of a crescent with a scalloped lower edge so that the line 72 is of substantially different shape from the line 74.

In making up a jacket with the sleeve 70, the body sections 44 and 48 are combined as described above, while edges 76 and 78 of the sleeve 70 are sewed together to complete the sleeve, which is then set in the armhole provided by the sewing up of the back and front sections 44 and 48. In the finished jacket, the allowance 71 is combined directly with the gores 54 and 56 to provide a jacket construction having a form very similar to that shown in Fig. 5. The sleeve 70 is set in the armhole with the gores 54 and 56 pointing directly into approximately the center of the allowance 71. The seam formed by joining the edges 76 and 78 will be substantially at the upper back portion of the sleeve.

The single-piece sleeve 70 may also be used in a jacket body of a standard pattern such as shown in Fig. 1. However, the sleeve will differ from that shown in Fig. 1 because it will not include the gores 30 and 35 of Fig. 3 and will not include the seam 22. While the cuff portion of the sleeve shown in Fig. 3 differs from that in Fig. 4, this is a matter of style, not comprising the feature of the present invention.

The sleeve construction shown in Fig. 6 includes an under sleeve 80 and a sleeve or top sleeve 82 which differs from the sleeve construction shown in Fig. 3 by including a projection 84 on the allowance of the under sleeve. In this figure, as in Fig. 3, the dotted lines represent the extent of the standard patterns. This sleeve construction may be combined with standard body units to make a garment of the style shown in Fig. 1 of the drawings.

Fig. 7 shows a two-piece sleeve construction including a front sleeve 86 and a back sleeve 88, in which the dotted lines represent the extent of the standard patterns. When this sleeve is sewed up and combined with standard body sections such as shown in Fig. 1, a style is produced having the general appearance of that shown in Fig. 1. In combining the sleeve sections 86 and 88,

edges 90 and 92 are sewed together and edges 94 and 96 are sewed to each other. The sleeve is then combined with the standard body sections of the garment with the allowances at the underarm section of the garment. In sewing a two-piece sleeve of this type, the seam formed by the edges 94 and 96 will be at the top of the sleeve. The sleeve sections 86 and 88 shown in Fig. 7 have special shaped relatively large allowances 98 and 100, the latter having a double wing construction similar to that of the allowance 34 in Fig. 3, but also having an upper edge which extends to a substantial point not included in allowance 34. The allowance 98 is substantially like a single extended wing shape in which the upper portion includes an indented section, or a projection extending to the edge 90.

Fig. 8 shows a sleeve 102 comprising a combination of an under and top sleeve, in which the dotted line represents the outline of the standard sleeve pattern where it differs from that of the sleeve 102. This sleeve 102 may be combined with the body elements 44 and 48 shown in Fig. 2, or with standard body elements to produce a style similar to that shown in Fig. 1. The sleeve 102 includes a substantially symmetrical generally crescent-shaped allowance 104 having an enlarged central body section and side sections which terminate substantially at a point. The use of this sleeve provides a garment in which there is only one seam in the sleeve and in which the allowance gives ample freedom for lifting the arm.

Fig. 9 of the drawings shows a modified form of jacket to that shown in Fig. 1, made by sewing body sections of the construction shown in Fig. 10 and sleeve sections of the construction shown in Figs. 11 and 12. The jacket shown in Fig. 9 comprises a front section 106 which has a back section 108 shown in Fig. 10. The front section 106 includes a dart 110 formed by cutting upper portions 111 (Fig. 10) from the sides of the dart of the standard pattern, as indicated by the dotted lines representing the upper edges of the standard dart. The sleeve of the garment shown in Fig. 9 includes an under sleeve 112 and a top sleeve 114 which are sewed together as indicated, the under sleeve having a substantial allowance 116 which includes an integral extension 118 projected into the dart 110 and sewed therein, as clearly indicated in Fig. 9. This figure therefore shows the general style and free arm movement effect produced by combining the body sections 106 and 108 with the sleeve sections 112 and 114, shown in Figs. 10 and 11.

The allowance 116 is integral with the under sleeve 112, and it, with the extension 118, provides an unusual shaped allowance comprising three somewhat similar shaped projections forming a shape bounded substantially by a convex line and two concave lines, the latter of which substantially bounds the extension 118. The extension or projection 118 on the under sleeve 112 as shown in pattern form in Fig. 11, is a steeply tapering projection of substantial length extending from the end of the sleeve. The sides of the projection 118 diverge slightly toward the end of the body of the under sleeve to form a steep slope. Each side edge makes an abrupt turn of about 90° into the end edge sections of the under sleeve. The extension or projection 118 is approximately in the middle of the end of the under sleeve 112 and the left edge of the projection is somewhat longer than the right edge and merges abruptly

into the end edge of the sleeve, the latter being sewed to the front lower oval edge of the armhole of the garment. The top sleeve 114 includes an allowance 120 along the upper right side which tapers from a point along the sleeve seam line to approximately the middle of the top sleeve section.

The edge of the top sleeve 114 which is sewed onto the top oval edge of the armhole of the garment is of generally convex shape in which the curve of the convex edge is of only small amplitude, as shown in pattern form in Fig. 11. This slight convex edge is the result of providing the extra material 120. When the top sleeve 114 is sewed into the garment, the convex edge of low amplitude automatically provides for more than the normal material at the front arm section of the garment above the seam line between the sleeve sections 112 and 114, as shown in Fig. 9. This materially aids in conjunction with the structure of the under arm sleeve to give increased freedom of arm movement without binding the top muscles of the arm when it is raised. In this connection it will be noted that the end edge section of the sleeve 112 at the left of the projection 118 is only slightly lower than the edge on the opposite side of the projection and that therefore when the under sleeve is sewed into the armhole of the garment the extra material 116 is automatically provided because of the positioning caused by the upper right hand corner of the under sleeve 112.

Instead of using the two-piece sleeve sections of Fig. 11 in producing a garment of the style shown in Fig. 9, a combined under sleeve and top sleeve 122, as shown in Fig. 12, may be used. This combined sleeve is somewhat similar to that shown in Fig. 8 except that the allowance 124 includes an extension 126 similar in shape to the extension allowance 118 shown in Fig. 11. The allowance 124 and the extension 126 are integral with each other and integral with the body of the sleeve 122. These allowances form a crescent-shaped allowance in which the concave edge has a substantial extension. This allowance has a shape like the head of a miner's pick. In making a garment such as shown in Fig. 9, the edges of the sleeve 122 are sewed together and the sleeve sewed to the body portions 106 and 108 of Fig. 10 with the extension 126 extending into the dart 110.

The single-piece sleeve 122 in Fig. 12, has a top edge portion which is sewed to the edge of the armhole including the V-shaped opening in the bottom of the armhole into which the extension or projection 126 is sewed. The one-piece sleeve 122, in pattern form as shown in Fig. 12, has an upper edge which generally combines a general concave curve at the left with a general convex curve at the right, both of low amplitude. These curves or curve sections are of approximately equal length. The extension 126, however, breaks the concave curve and projects directly from approximately its low point so that the sloping side edges of the extension form angles of less than 90° with the respective portions of the concave curve. The sloping edges of the extension 126 diverge only slightly toward the main body of the sleeve to provide a steep slope. The left edge of the extension 126 is somewhat longer, but only slightly longer than the right edge, so that the results pointed out above in connection with the structure shown in Fig. 11, are achieved.

The sleeves of Figs. 11 and 12 may be combined in a slightly different manner with the body elements of Fig. 10, if desired, to produce a style quite similar to that shown in Fig. 9, by sewing up the dart 110 and fastening the projections 118 or 126 in the underarm seam between the body sections 108 and 106. This change will slightly rotate the sleeve but produce substantially the same appearance and will still provide the necessary allowance for permitting the free upswing of the arm. The extension allowances 118 and 126 are unruffled in any way, and provide a smooth insert either in the dart 110 or in the underarm side seam of the garment.

The improved jacket construction of the present invention results from a combination of relatively simple structural features which give the jacket a sleeve and armpit structure permitting free movement of the wearer's arms without distorting the jacket and without binding the arm muscles. A wearer of the jacket of the present invention may raise his arms in any position without breaking the sleeve or pulling the body of the jacket out of its normal position. From the foregoing description, it will be apparent that certain variations may be made in the structure of the jacket and still achieve the objects of the invention. Such changes are contemplated as coming within the spirit and scope of the invention.

While the invention has been illustrated in connection with a jacket construction, it is to be understood that the invention may be applied to the making of other garments, such as ladies' waists, men's shirts, and other garments.

What is claimed as new is:

1. A one-piece sleeve section, for use in forming a sleeved garment, adapted to extend under the arm and of sufficient width to extend to each side of the armpit section of the garment, said section having an integral tapering projection extending from an intermediate part of one end thereof, said projection having its tapering side edges converging outwardly at a relatively small angle to one another, each outwardly tapering edge of the projection turning abruptly into the adjacent edge of said end of said section, said tapering projection being adapted to be sewed into a generally V-shaped opening extending from the armhole of the garment.

2. In a garment, a body portion, and a sleeve having an underarm portion and an overarm portion, said underarm portion extending to each edge of the armpit section of the sleeve and having an integral tapering projection extending from an intermediate part of the end thereof which is attached to the body of the garment, the side edges of said tapering projection converging away from said underarm portion at a relatively small angle to one another, said tapering projection being sewed into a generally V-shaped opening extending from the armhole of the garment, and each tapering edge of said projection turning abruptly into the adjacent edge of the end of the said underarm portion.

3. A one-piece sleeve section, for use in forming a sleeved garment, having an underarm portion of sufficient width to extend to each side of the armpit section of the garment, said underarm portion having an integral tapering projection extending from an intermediate part of one end thereof, said projection having its tapering side edges converging outwardly at a relatively small angle angle to one another, each outwardly tapering edge of said projection turning abruptly into the adjacent edge of said end of said underarm portion at an angle of less than 90°, said projec-

tion being adapted to be sewed into a generally V-shaped opening extending from the armhole of the garment.

4. A sleeved garment having a body including front and back sections secured together by a shoulder seam and forming and defining an armhole having a lower portion with a sharp, deep, generally V-shaped opening extending therefrom downwardly into the garment, and a sleeve sewed into the armpit section of the garment and including a portion extending under the armhole and to each side of the armpit section, said portion having an integral tapering projection extending from an intermediate part of the end thereof which is sewed into the armpit section of the garment, the side edges of said projection converging downwardly at a relatively small angle to one another and being sewed into said generally V-shaped opening, and each outwardly tapering edge of the projection turning abruptly into the adjacent edge of the end of said sleeve section, the armpit section of the sleeve including a substantial allowance of material in addition to that of the projection and that of a standard sleeve, whereby a garment is provided which permits free arm movement without distorting the position of the garment on the wearer and without binding the arm muscles of the wearer.

5. A sleeved garment having a body including front and back sections secured together by a shoulder seam and forming and defining an armhole having a substantially oval upper portion, the body portion adjacent the lower portion of the armhole having a sharp, deep, generally V-shaped opening extending from the armhole downwardly into the garment, and a sleeve sewed into the armpit section of the garment and including an underarm portion and an overarm portion, said underarm portion extending to each side of the armpit section, said underarm portion having an integral tapering projection extending from an intermediate part of the end thereof which is sewed into the armpit section of the garment, the side edges of said projection converging downwardly at a relatively small angle to one another, the side edges of said tapering projection being sewed into said generally V-shaped opening, and each outwardly tapering edge of the projection turning abruptly into the adjacent edge of the end of said sleeve section at an angle of about 90°.

6. A sleeved garment having a body including front and back sections secured together by a shoulder seam and forming and defining an armhole having a lower portion with a sharp, deep, generally V-shaped opening extending therefrom downwardly into the garment, and a one-piece sleeve sewed into the armpit section of the garment and including a portion extending under the armhole and to each side of the armpit section, said portion having an integral tapering projection extending from an intermediate part of the end thereof which is sewed into the armpit section of the garment, the side edges of said projection converging downwardly at a relatively small angle to one another and being sewed into said generally V-shaped opening, and each outwardly tapering edge of the projection turning abruptly into the adjacent edge of said portion of the sleeve section at an angle of less than 90°, the end of the sleeve, in pattern form, on the opposite side of its longitudinal center from the portion having the said tapering section, comprising a gentle convex curve fitting the upper portion of the armhole of the garment.

7. In a sleeved garment having a body including front and back sections secured together by a shoulder seam and forming and defining an armhole having a substantially oval upper portion and an oval lower portion having a sharp, deep, generally V-shaped opening extending therefrom into the body portion of the garment, a one-piece sleeve sewed into the armpit section and including an underarm portion extending to each side of the armpit section, said underarm portion having an integral tapering projection extending from the end of said underarm portion which is sewed into the armpit section, said projection having its tapering side edges converging away from said end of the underarm portion and sewed to the edges of the body of the garment defining said V-shaped opening, said sleeve, in pattern form, having the end edge which is joined to the body of the garment combining a concave curve for the underarm portion with a convex curve for the top arm portion, said projection extending from approximately the middle lower portion of the concave curve, the respective side edges of said projection merging into the concave curve at angles of less than 90°, said convex and concave curves being of relatively low amplitude.

JOSEPH CLYNE.

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