Aug. 26, 1958 J. CLYNE 2,848,719

PULL-FREE GARMENT CONSTRUCTION

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FIG. 2

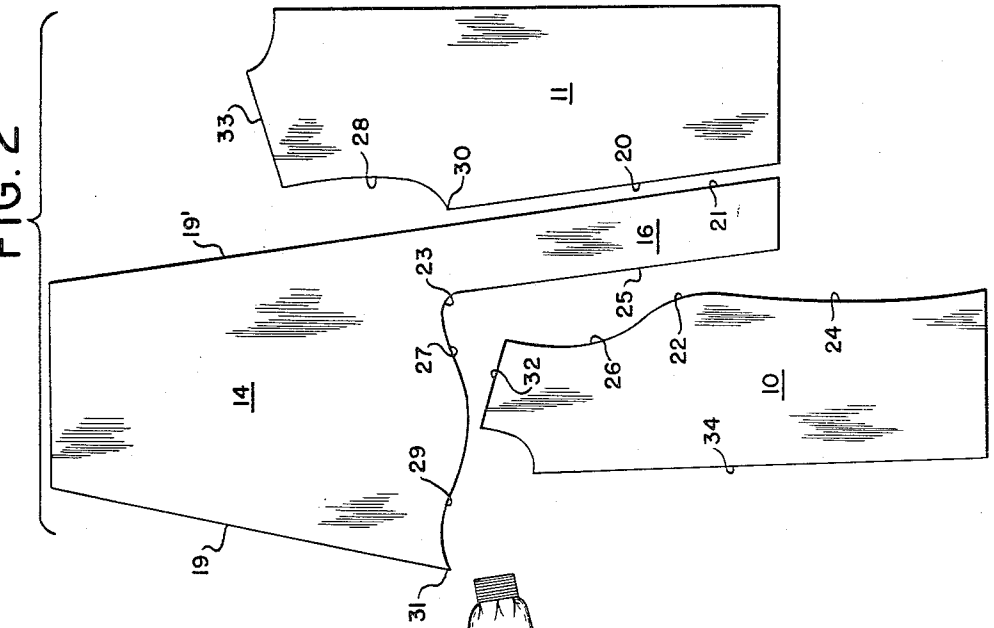


FIG. 1

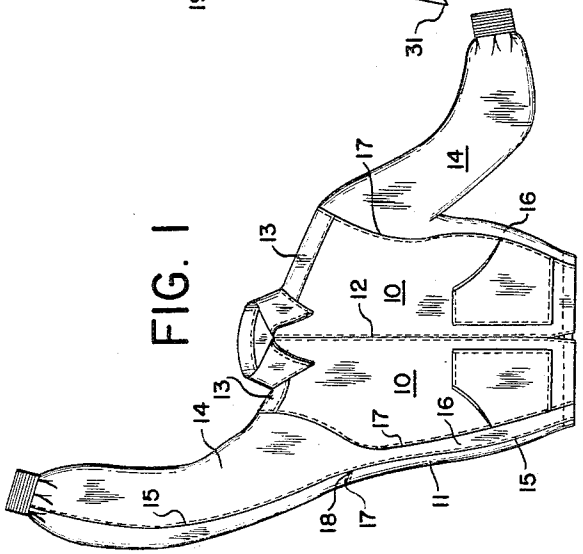
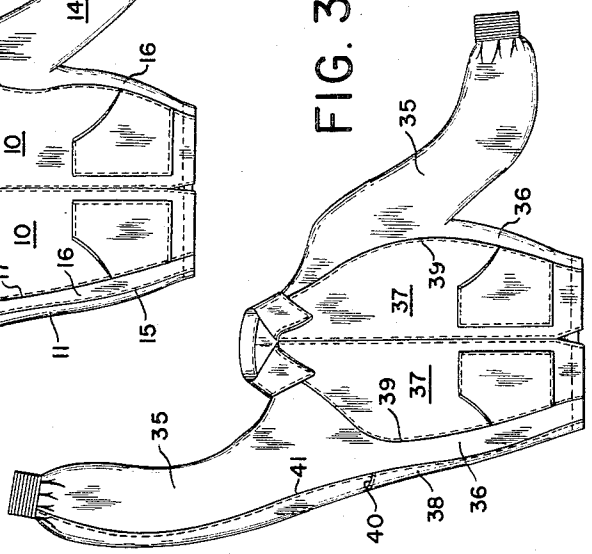


FIG. 3

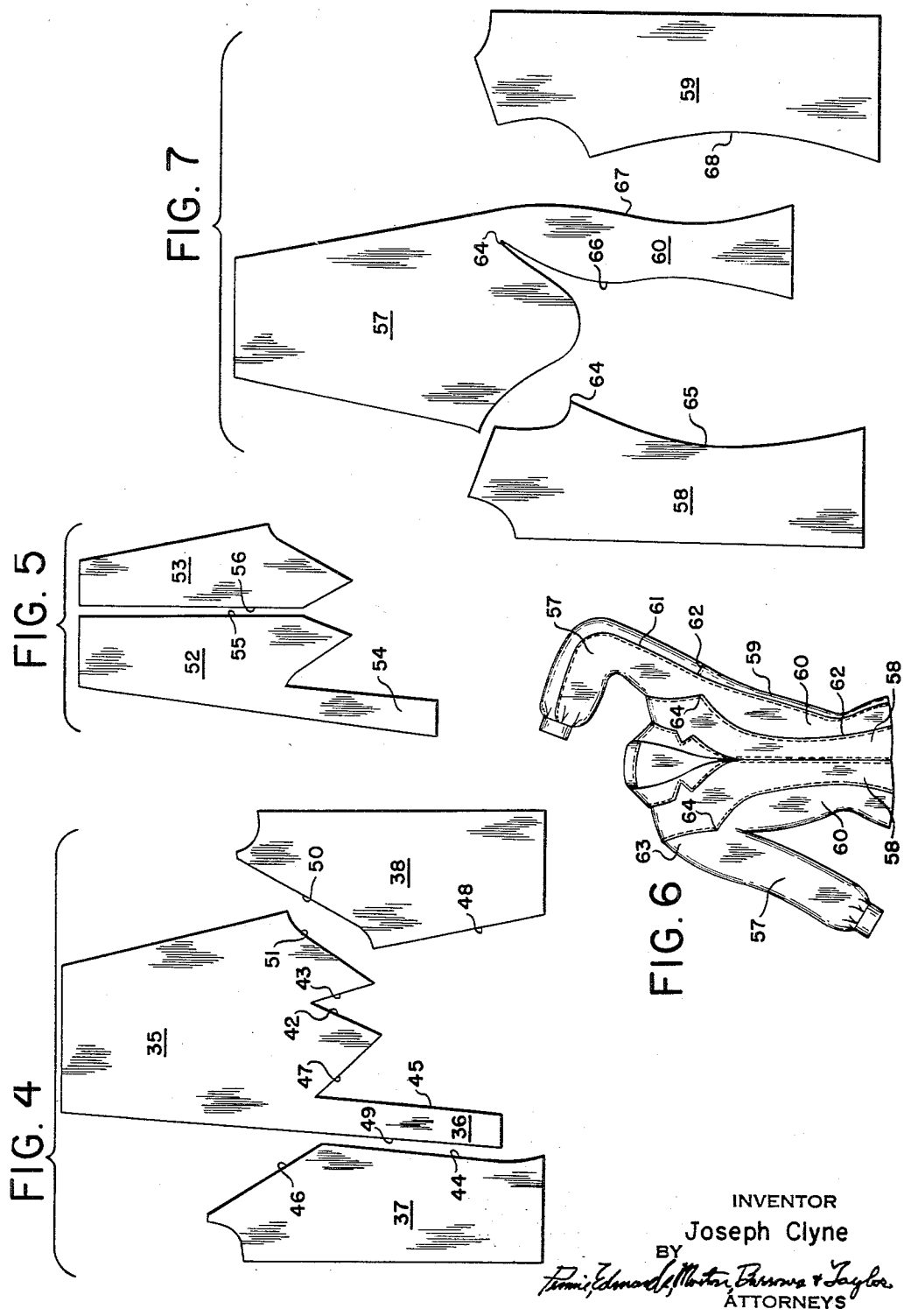


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2,848,719

PULL-FREE GARMENT CONSTRUCTION

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6 Claims. (Cl. 2—125)

My invention relates to garments provided with improved sleeve and body structures, and more particularly to an improved jacket construction, for uniforms, for example, adapted to provide for greater freedom of movement for the arms of the wearer of the jacket or uniform.

Many jackets and most uniform jackets are designed to fit so snugly that the sleeve and body structure around the shoulder and under the arms restrain free use of the arms of the wearer. In such jackets the underarm seams furthermore cause wrinkling and bunching of the fabric so as to create considerable discomfort.

The primary object, therefore, of the present invention is to provide an improved sleeve and body construction which will overcome the foregoing objections and provide a jacket or uniform giving freedom of arm movement, even when the arm is raised or moved in any direction.

A further object of the invention is to provide a garment having a body and sleeve construction such that considerable time is saved in the manufacture of the garment.

Having in mind the foregoing objects, the improved garment of my invention is preferably a jacket type garment including a body portion and a sleeve in which the material of the sleeve comprises an integral panel extending down the front or side of the body portion of the garment so that the sleeve and panel provide a seamless structure adjacent the underarm portion of the garment and of such a nature as to permit free arm movement. In this construction the body portion of the garment comprises front and back sections and seams joining them to the sleeve and to the respective edges of the panel, which extends between the front and back sections of the body of the garment at the front or toward the side thereof.

The sleeve with its integral panel extending through the body of the garment provides a construction which includes additional material at the front underarm portion of the garment which may be as much as the width of the panel. Furthermore, the time saved in sewing up the garment is very substantially less than that now required because one continuous seam extends the full length of the sleeve and body along one edge of the panel, while another extends along the other edge of the panel substantially continuously from the bottom of the jacket upwardly and around the attachment edge of the sleeve.

Additional features and advantages are included in the jacket type construction of my invention, as will be pointed out hereinafter in connection with a more detailed description taken in connection with the accompanying drawings constituting a part of this application.

In the drawings:

Fig. 1 is a front elevational view of a jacket embodying the features of my invention;

Fig. 2 is a pattern type view showing the improved

sleeve and body elements of the jacket shown in Fig. 1;

Fig. 3 is a view similar to that of Fig. 1 showing the features of the invention in connection with a raglan type sleeve;

Fig. 4 is a pattern type view of the sleeve and body elements of the jacket shown in Fig. 3;

Fig. 5 is a pattern type view of a two-piece sleeve having features similar to those of the one-piece sleeve shown in Fig. 4;

Fig. 6 is a view similar to that of Figs. 1 and 3 showing a lady's jacket constructed in accordance with the invention; and

Fig. 7 is a pattern type view showing the sleeve and body elements of the jacket shown in Fig. 6.

The embodiment of the invention shown in Fig. 1 relates to the construction of a jacket, the body of which includes front sections **10** and back sections **11** joined together at the back of the garment by a seam in the usual manner. The two front sections may be joined together by an invisible zipper along the line **12**. The front sections **10** are connected to the back sections **11** only by the yokes **13**. The collar and pockets of the jacket are conventional, but the jacket includes a novel construction comprising a one-piece sleeve **14**, the longitudinal edges of which are joined together by an underarm seam **15**. The one-piece sleeve **14** includes an integral panel **16** of substantial width constituting a part of the body of the jacket and secured between the adjacent front and back sections **10** and **11**. The panel **16** is attached to the back section **11** by a continuation of the seam **15** which extends the full length of the sleeve and body of the jacket. A long seam **17** secures the front edge of the panel **16** to the front body section **10** and continues on around the armhole of the garment to secure the attachment edge of the sleeve **14** to the front section **10**, the yoke **13** and the back section **11**, this seam terminating at the point **18** where it comes under the seam **15**. In sewing the elements of the jacket together, the seam **17** is preferably first formed along the front section **10** and panel **16**, so that it extends clear around to the point **18**. The seam **15** may then be formed as a second continuous seam which closes the sleeve and secures the back section **11** to the panel **16**.

Fig. 2 of the drawings shows the three main elements of the jacket of Fig. 1, that is, the front and back body sections **10** and **11** and the one-piece sleeve **14** including the integral panel **16**. It is, of course, understood that the jacket includes two front and two back sections **10** and **11**, although if desired, the two back sections may be integral. Referring to Fig. 2, it will be understood that the lower edges of the elements **10**, **11** and **16** will be substantially in line and form the bottom of the jacket. With respect to the sewing up of the sleeve **14** and the attachment of the sections **10** and **11** thereto, it will be noted that the edge **19** of the sleeve will be sewed to the opposite edge **19'** to form a portion of the seam **15** and that the edge **20** of the back section **11** will be sewed to the adjacent edge **21** of the panel **16** by the remainder of the seam **15**. The point **22** on the front section **10** will be located approximately at the bend **23** of the sleeve section so that the edge **24** is sewed to the edge **25** by a part of the seam **17**. The curved portion **26** of the section **10** will extend along the top edge portion **27** of the sleeve, while the curved edge **28** of the back section **11** will be sewed along the remaining portion **29** of the sleeve with the point **30** of the section **11** coinciding with the point **31** of the sleeve **14**. The top edges **32** and **33** of the sections **10** and **11** occur at the top of the jacket and are sewed to one of the yokes **13**.

The three elements of the garment shown in Fig. 2 represent the elements of the left side of the garment in Fig. 1 so that the edge **34** of section **10** runs along the line **12**.

The unrestrained freedom of movement of the sleeves with respect to the body of the garment is illustrated in Fig. 1 by the upraised right sleeve **14** and the showing that the material of the sleeve element including the panel **16** comprises adequate excess material for the front underarm portion of the garment so that there is no restraint applied to the arm of the wearer. When the sleeve is down as in the case of the left sleeve, the material at the top of the panel **16** is merely folded over to provide a seamless structure of maximum comfort to the wearer. It will be furthermore understood that the labor involved in sewing the elements of the jacket together is greatly reduced because each side of the jacket includes only two main seams, that is, the seams **15** and **17** which may be made by the sewing machine operator as continuous seams without interruption. Since the one-piece sleeve **14** integrally includes the panel **16**, the pattern for the front section, as shown in Fig. 2, is much simpler than otherwise would be the case, and adequate excess fullness is provided at the front of the jacket and under the sleeve. The simplified pattern form readily permits the continuous seam **17**, which is free of any abrupt turns.

The jacket construction shown in Figs. 3 and 4 is similar to that shown in Figs. 1 and 2, except the jacket of Figs. 3 and 4 is provided with raglan sleeves which necessitates a somewhat different pattern for the main elements of the jacket. In Fig. 3 the jacket comprises one-piece sleeves **35** each including an integral panel **36** extending through the body of the jacket at the front toward the side thereof. The body of the jacket includes front sections **37** and back sections **38**. The front sections are sewed to the respective sleeves by seams **39** which extend from the bottom of the jacket along the panel **36** and up to the collar section of the jacket. The back section **38** of the jacket is sewed to the back portion of the sleeve **35** by a seam **40** which extends from the panel **36** around the back and up to the collar section of the jacket. The construction shown in Fig. 3 includes a long continuous seam **41** extending along the underside of the sleeve **35** to the waist of the jacket.

The elements of the jacket shown in Fig. 3 are shown in pattern form in Fig. 4. The one-piece sleeve is somewhat similar to that of Fig. 2, except that the shoulder portion of the sleeve is cut out to provide edges **42** and **43** which are sewed together to comprise a short seam along the top of the shoulder. The elements shown in Fig. 4 are secured together in much the same manner as that described above in connection with Fig. 2, it being noted that the edge **44** of the front section **37** is sewed to the edge **45** of the panel **36**, while its sloping edge **46** is sewed to the edge **47** of the sleeve element **35**. The edge **48** of the back section **38** is sewed to the opposite edge **49** of the panel **36**, while its edge **50** is sewed to the edge **51** of the sleeve **35**.

The jacket construction of Figs. 3 and 4 includes essentially the same advantages as those described above in connection with the jacket construction of Figs. 1 and 2, and in addition, the freedom of movement is provided because of the raglan type construction.

Instead of using a one-piece sleeve in Fig. 3, the sleeve may be a two-piece sleeve, the elements of which are shown in pattern form in Fig. 5, these elements comprising a front sleeve **52** and a back sleeve **53**, the former integrally including a body panel **54** corresponding to the panel **36** in Fig. 4. When the elements shown in Fig. 5 are used in the jacket of Fig. 3, the sleeves will each include a top seam extending from the collar section of the jacket to the end of the sleeve. The main portion of this seam will secure together the edges **55** and **56**.

The jacket shown in Figs. 6 and 7 of the drawings comprises a construction modified somewhat from that shown in Figs. 1 and 2 to provide a lady's jacket having the features and advantages referred to above. As shown, the jacket comprises one-piece sleeves **57** sewed to a body including front sections **58** and back sections **59**. Each one-piece sleeve integrally includes a specially-shaped

gore **60**, and at each side of the garment, the sleeve and front and back sections are joined together by two main seams, including a substantially straight continuous seam **61** and a seam **62** which extends from the lower edge of the jacket along the outer edge of the front section **58**, upwardly over the shoulder and around the back to the seam **61**. The gore **60** corresponds to the panels **16** and **36**, respectively of Figs. 1 and 3. The jacket includes shoulder seams and a back seam, not shown.

The material of the one-piece sleeve including the gore **60** is cut in the manner shown in Fig. 7 to provide a wrinkle or crease-free sleeve by including the curved shoulder portion **63** extending a considerable distance from the main body of the sleeve and having a considerable amplitude. Furthermore, the front section **58** and the gore section **60** are shaped in such a manner as to provide ample bust room and a construction as shown in Fig. 6, in which the upper part of the front section from the outer edge of the shoulder extends downwardly toward the armpit of the garment but only to a point **64**, from which the edge of the front section extends inwardly over the bust section of the garment and then downwardly to the waist where an outward curve is provided. In a complementary manner, the inner edge of the material of the sleeve, particularly gore **60**, is curved inwardly over the bust section of the garment from the point **64**.

The pattern form of the elements **57** and **58** is shown in Fig. 7 for the left side of the jacket, from which it will be noted that the point **64** is identified on the front section **58** and on the sleeve element **57**. The front section **58** in pattern form in Fig. 7 has a long concave curve **65** along the outer edge of the material from the point **64**, whereas the upper portion of the gore **60** in Fig. 7 comprises a convexly curved edge **66** providing a considerable width of material at the bust section of the garment. This curve **66** extends to approximately the waist of the garment and then reverses so that the lower end of the gore **60** has a relatively wide flare to the hip section of the jacket.

The sleeve pattern shown in Fig. 7 differs from that shown in Fig. 2 by including an inwardly and then outwardly curving edge portion **67** instead of the straight edge of Fig. 2 comprising the edge portions **19** and **21**. The edge section **67** is sewed to the concave edge **68** of the back section **59**. The construction shown in Figs. 6 and 7 not only provides a jacket in which the sleeves provide no appreciable resistance to movement of the arms but also one in which the construction provides ample material across the front of the jacket at the bust and underarm portions so that there is no binding or pull when the wearer's arms are moved upwardly or in any other direction. Furthermore, when the wearer's arm are raised, as shown by the left sleeve in Fig. 6, the jacket is not pulled out of its normal position and there is no strain across the bust.

In all of the embodiments of the invention, the underarm seam occupies in general about the same position as the underarm seam in conventional type jackets so that the extra allowance provided in the sleeve, including the panel or gore, is at the front of the garment or at least along the front side of the garment as shown in the various figures. While the improved garment construction of the invention has been described and illustrated in connection with jackets and uniforms, it is to be understood that the improved construction may be applied to other sleeved garments.

What I claim is:

1. In a sleeved garment including a body having front and back sections of material, a combination sleeve and body panel structure the material of which when laid out flat in pattern form comprises a sleeve section proper having an attachment end edge and longitudinal edges diverging toward the attachment end edge, said combination structure in pattern form also including an elon-

gated body panel of material integral with the material of the sleeve section proper located at the attachment end of the sleeve section proper and projecting therefrom generally in line with the sleeve section proper, one longitudinal edge of said elongated body panel being a continuation of one of said longitudinal edges of the sleeve section proper, the attachment end of the sleeve being sewn to and between the upper portions of the front and back sections of the body of the garment, said one edge of the body panel being sewn to the side edge of the back section and its opposite edge being sewn to the front section of the body of the garment below the sleeve section proper, and the longitudinal edges of the sleeve being sewn to each other, the resulting seam by which the elongated body panel is joined to the back section of the body of the garment and the seam joining the longitudinal edges of the sleeve section proper to each other constituting a single continuous seam extending through the underarm portion of the sleeve and down through the side of the body of the garment to the lower end of the elongated body panel, said combination structure providing a seamless area adjacent to and in front of the underarm portion of the garment permitting free arm movement.

2. A sleeved garment as claimed in claim 1, in which the attachment end of the sleeve proper includes a central rounded shoulder-forming portion projecting generally in the same direction as the elongated integral body panel, and in which the edge of the body panel adjacent said rounded portion extends at an abrupt angle away from the attachment end of the sleeve adjacent thereto.

3. A sleeved garment as claimed in claim 2, in which the edge of the body panel adjacent the attachment end of the sleeve proper extends inwardly generally along a part of the rounded portion of the attachment edge

to provide an enlarged section for the bust portion of the garment.

4. A sleeved garment as claimed in claim 1, in which said elongated integral body panel extends from the sleeve proper along the front side section of the garment and in which the seam by which the body panel is joined to the front section of the garment merges smoothly into the seam by which the attachment edge of the sleeve section proper is joined to the upper portion of the front section of the garment.

5. A sleeved garment as claimed in claim 1, in which the seam by which the elongated body panel is joined to the front section of the garment and the seam by which the attachment end edge of the sleeve section proper is joined to the front and back sections of the body of the garment comprise a continuous seam extending from the waist of the garment at the front, over the shoulder and around the attachment end edge of the sleeve to the underarm portion of the garment at the back edge of the elongated integral body panel.

6. A sleeved garment as claimed in claim 1, in which the sleeve section proper includes an integral section of material of substantial width at the front underarm portion of the sleeve proper from which said elongated integral body panel of material extends along the front of the garment adjacent to the side thereof.

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