May 22, 1928. 1,670,474

M. D. NEILSON

GARMENT OF INELASTIC MATERIAL

Original Filed June 22, 1920 2 Sheets-Sheet 1

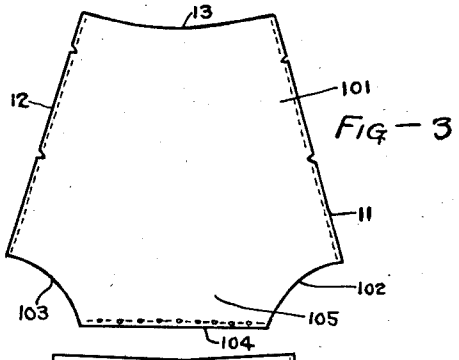


FIG. - 3

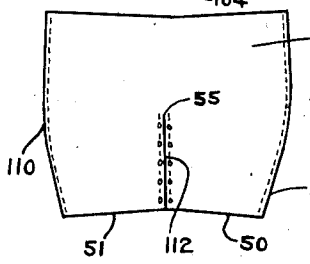


FIG. - 4

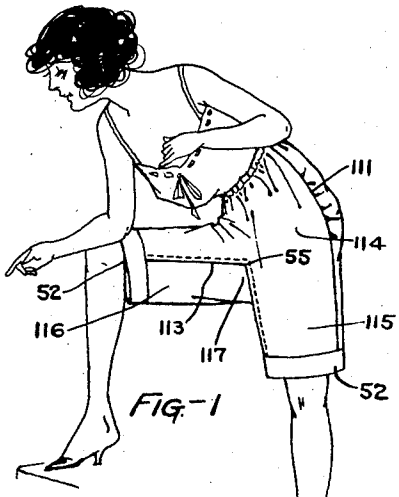


FIG. - 1

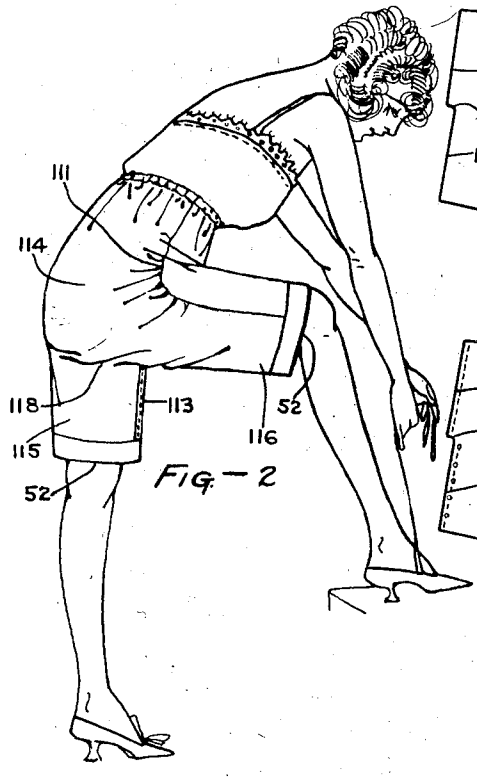


FIG. - 2

FIG. - 5

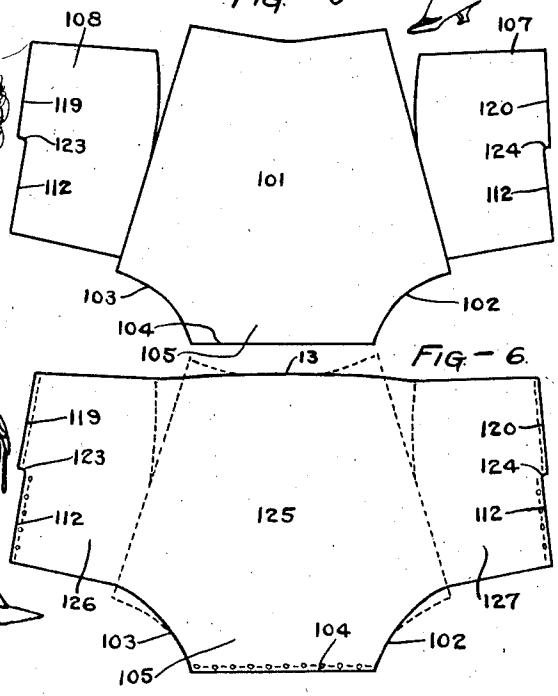


FIG. - 6

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GARMENT OF INELASTIC MATERIAL

Original Filed June 22, 1920 2 Sheets-Sheet 2

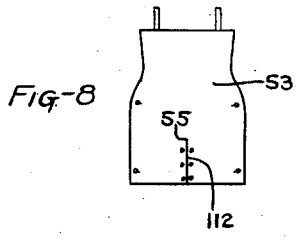


FIG-8

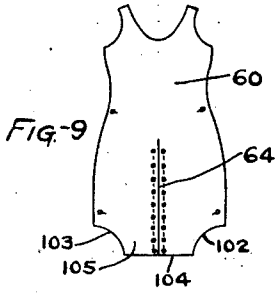


FIG-9

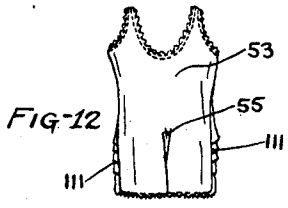


FIG-12

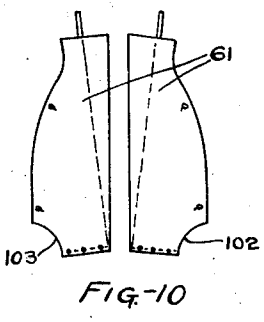


FIG-10

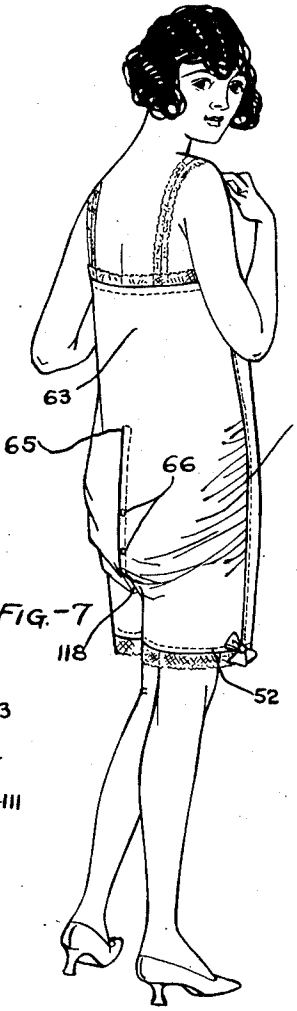


FIG-7

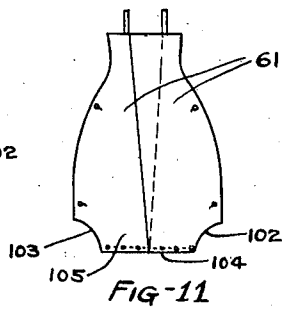


FIG-11

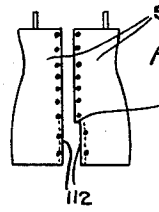


FIG-13

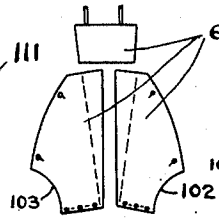


FIG-14

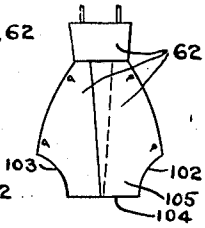


FIG-15

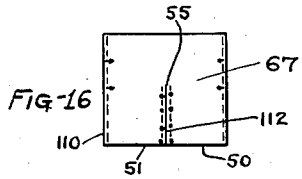


FIG-16

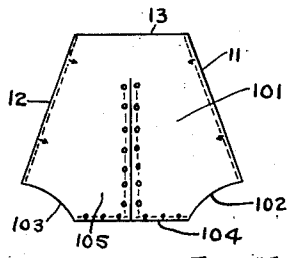


FIG-17

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Patented May 22, 1928. 1,670,474

UNITED STATES PATENT OFFICE.

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GARMENT OF INELASTIC MATERIAL.

Continuation of application Serial No. 390,731, filed June 22, 1920. This application filed October 29, 1923. Serial No. 671,305.

My invention relates to undergarments of inelastic material and has for its object to provide underwear either of the bloomer type, specifically the open knee bloomer type, or combination underwear wherein a back member is employed which is connected at its side edges to the front member and is provided with excess length of material at its lower part extending below the bottom edges of the front before said lower part of the back has been sewed into the garment. In connection with this back a front is employed which has a division along the lower part of the longitudinal center line of the front. The extended lower part of the back is provided with a straight or substantially straight lower edge which is double the length of the division, and between the lower edge and the sides of the back are curved edges which form extensions of the bottom edges of the front when the garment is sewed together, and the combined edge so formed comprises the open edges of the legs of the garment. Whether the bloomer form of garment or the combination form is employed, the back in one form is provided with a division extending along its center line from a point approaching the waistline of the garment through so as to substantially bifurcate the said bottom edge of the back. When these bottom edges are sewed to the division of the front therefore it leaves a long opening in the back of the garment extending rearwardly and upwardly from the upper points of union of the bottom edges of the back with the edges of the division at a point at the front of the garment and just above the crotch, this opening passing back to near the waistline of the garment; and in connection with such an opening there will be crotch fullness extending directly back from the center of the front of the garment so that the edges of the opening will never be under strain or cause any pulling. If the rear opening is not employed a garment is provided having crotch fullness extending directly back from the bottom of the front center of the garment and great fullness of material on the median lines between the center and sides of the back, together with a short straight front, thus providing a garment which hangs properly and most effectively for the positioning of the outer garments thereover, and which is always comfortable no matter what position the wearer may take. This application is a continuation of my co-pending application Serial Number 390,731, filed June 22, 1920.

The full objects and advantages of my invention will appear in connection with the detailed description thereof, and the novel features of this invention will be more particularly pointed out in the appended claim.

In the drawings, illustrating applications of my invention,—

Fig. 1 is an illustration of one form of the garment embodying the invention as worn with the limbs of the wearer in extreme position. Fig. 2 is a somewhat similar view from the opposite side and to the rear. Figs. 3 and 4 are views of the front and back respectively from which the garments shown in Figs. 1 and 2 are fabricated. Fig. 5 shows a modification whereby the front may be formed in two pieces instead of one. Fig. 6 shows another modification wherein the front and back are formed of a single piece of material. Fig. 7 shows a combination form of the garment as worn from a rear view. Figs. 8 and 9 illustrate the front and back respectively of the garment illustrated in Fig. 7. Figs. 10 and 11 show a modified form of back member having the excess length of material at its lower part extending below the bottom edges of the front before said lower part has been sewed into the garment and in which the back is formed of two overlapping and ununited pieces. Fig. 12 shows the appearance of the front of the garment made with either the back of Figs. 8 and 9 or the back of Figs. 10 and 11. Fig. 13 shows a form of front similar to that of Fig. 8, which is however divided through the center and adapted to be closed by buttons. Figs. 14 and 15 show a three-piece back having the excess length of material at its lower part extending below the bottom edges of the front before said lower part is sewed into the garment, which is adapted to be united with either the front of Fig. 8 or Fig. 13. Figs. 16 and 17 show a front and back respectively for a bloomer-type garment wherein the back has a central opening along its center extending from a point near the waistline to, and so as to substantially bifurcate, the bottom edge of the back.

Referring to Figs. 3 and 4, the back member 101 is provided with side edges 11 and

12 and a top edge 13. A front member 106 is provided with side edges 109 and 110 which edges are materially shorter than the side edges 11 and 12 of the back 101. The side edges of the back 101 are, however, united with the side edges of the front 106, the excess length of the back side edges being taken up by fulling or gathering as indicated at 111. When the two parts 101 and 106 have been united in this manner along the side edges the back 101 has a portion 105 extending beyond or below the points of union of the side edges of the back with the side edges of the front. That is, extending below the bottom edges of the front before the downwardly extended portion of the back 105 has been sewed into the garment. This portion 105 has a central bottom edge 104 which in practice will be substantially straight and which is continued at its ends in curved edges 102 and 103 extending between the bottom edge 104 and the side edges 11 and 12, and which become continuous with the bottom edges 50 and 51 of the front 106 to form the terminal edges 52 of the legs of the garment. The front 106 (or the other forms of front 53 and 54 as shown in Figs. 8 and 13, 107 and 108 as shown in Fig. 5 and 126 and 127 as shown in Fig. 6 and 67 as shown in Fig. 16) is formed with a division 112 along the lower part of the longitudinal center line thereof, and the lower edge 104 of the bottom extension of the back is substantially twice the length of the division 112. This lower edge of the extension is sewed into the garment, one-half of the same to one edge and the other half to the other edge of the division 112, bringing the center of this lower edge at the point 55 at the upper edge of the division 112, which is on the center line of the front of the garment just at the top or beginning of the crotch. It will be apparent that the combining effect of this union is exactly the same whichever form of front is employed, thus, as shown in Fig. 5, the front is composed of two parts 107 and 108, which have their side edges sewed to the back member 101 in exactly the same way that the side edges 109 and 110 of the front 106 are united to the side edges of the back 101. The difference here is only in that the front is made in two pieces having a union by sewing or otherwise along the center edges 119 and 120, which pieces may be offset slightly as indicated at 123 and 124 to reinforce or strengthen the point 55 where the center of the bottom edge 104 unites with the top of the division 112. Similarly, in Fig. 6, where the front portions 126 and 127 are made integral with the back portion, there designated as 125, the edges 119, 120 and offsets 123 and 124 are identically the same and will provide the same garment as in the other forms excepting that there will be no fulling of the side edges of the back to the side edges of the front. The relation of the parts to each other is well shown in Figs. 5 and 6 by the dotted line overlay of the parts of Fig. 5 on the parts of Fig. 6.

It is also true, as will be obvious, that where the back is divided as shown in Figs. 9, 11, 15 and 17, the lower extension 105, with its bottom edge 104 double the length of the division 112 and when sewed into the garment to the edges of that division, will produce exactly the same kind and extent of fullness and shaping of the garment as if the back were undivided and in one piece, as in Figs. 3, 5 and 6. The fullness produced in the manner specified by the excess length of material entering into the extension 105 is of a peculiar character in that it provides a peculiar type of fullness at the crotch extending directly back from the point 55 at the lower part of the central line of the front of the garment as indicated at 117 in Fig. 1, 118 in Fig. 2 and also 118 in Fig. 7. This is a fullness which, as stated, is carried straight back from the front of the crotch between the limbs and over the seat of the wearer in such manner as to give a large amount of fullness where it is needed and at the same time avoid any bunching or awkward hang of the garment. Of course the fulling at 111, where that is employed, increases the amount of fullness in the garment, especially toward the sides of the seat, but a garment constructed without any fulling, as for example from a single piece according to the pattern of Fig. 6, will have the characteristic of fullness extending directly back at the crotch, which is an essential feature of my invention.

As illustrated in Figs. 7 to 15 inclusive, the garment may be fabricated as a combination piece of underwear, and in that case the front 53, as in Fig. 8, or 54 as in Fig. 9, is made of material so extended as to provide a waist portion. Similarly, the back 60, as in Fig. 9, 61 as in Fig. 11 or 62 as in Fig. 15, will embody extended portions for a back waist part of the garment as indicated at 63.

In a combination garment which is suspended from the shoulders of the wearer, it is essential that an opening be provided in the lower part of the garment of sufficient size and so positioned as to be convenient to use. Such openings are shown in each of the back members 60, 61 and 62 so combined with the novel construction hereinbefore referred to as to provide the necessary and satisfactory opening without in any way interfering with the advantages obtained from the use of the feature of my invention comprising the provision of a substantially straight-edged extension to the lower part of the back united with the central division

in the front as hereinbefore pointed out. A particular form of rear opening which is specifically claimed in this application is shown in Figs. 7 and 9. Here the back member 60, preferably in one piece, is provided with a central slip or division 64 which extends from a point not far removed from the waistline of the garment along the center line of the back through and so it bifurcates the bottom edge 104 of the extension 105. It follows that when the edge 104 is sewed one half to one edge and the other half to the other edge of the division 112 of the front 53, the opening 64 will extend from substantially the point 55 at the front of the garment and above the crotch straight back along the maximum crotch fullness and up the back of the garment as indicated at 65 to a point not far from the waistline of the garment. In practice, where this form of opening is employed, an overlap piece will be sewed to one edge of the division or opening 64, and by means of buttons or other fastenings indicated at 66 the opening will be kept closed. This opening is peculiarly effective for use because of its very long extent, and particularly because it comes clear to the front of the garment and extends through those portions of the garment where there is excess material and crotch fullness going directly back from the bottom of the center line of the front of the garment, thus making it peculiarly satisfactory and convenient for use.

The advantages of my invention it is thought have been sufficiently pointed out in connection with the detailed description thereof. It may be well here to note, however, that not only is the garment unusually convenient and satisfactory to wear as hereinbefore pointed out, but it is exceptionally economical of material and inexpensive to make. The bloomer form of the garment may be made conveniently of either one, two or three pieces, while the combination garment can be made of two, three or four pieces. The two-piece form for either the bloomer or the combination is very satisfactory, and perhaps the most economical in both labor and material.

I claim:

An undergarment comprising a front formed with a division along the lower part of the longitudinal center line thereof, a back united along its side edges to the side edges of the front and having excess length of material at its central lower portion extending below the bottom edges of the front before said lower part of the back is sewed into the garment, said excess length of material having a central bottom edge substantially double the length of said division, there being a longitudinal division along the back, one half of said bottom edge being united directly with one edge and the other half of said bottom edge directly with the other edge of the division in the front, whereby the legs of the garment are formed with crotch fullness extending directly back from the center of the front of the garment and providing a central rear opening extending rearwardly and upwardly from adjacent the point of union of the central part of the lower edge of the back with the upper edge of the division in the front.

In testimony whereof I hereunto affix my signature.

MARY D. NEILSON.