H. LEE.

GARMENT FITTER FOR WAISTS.

APPLICATION FILED MAY 20, 1910.

**1,014,885.**

Patented Jan. 16, 1912.

3 SHEETS—SHEET 1.

Fig 2

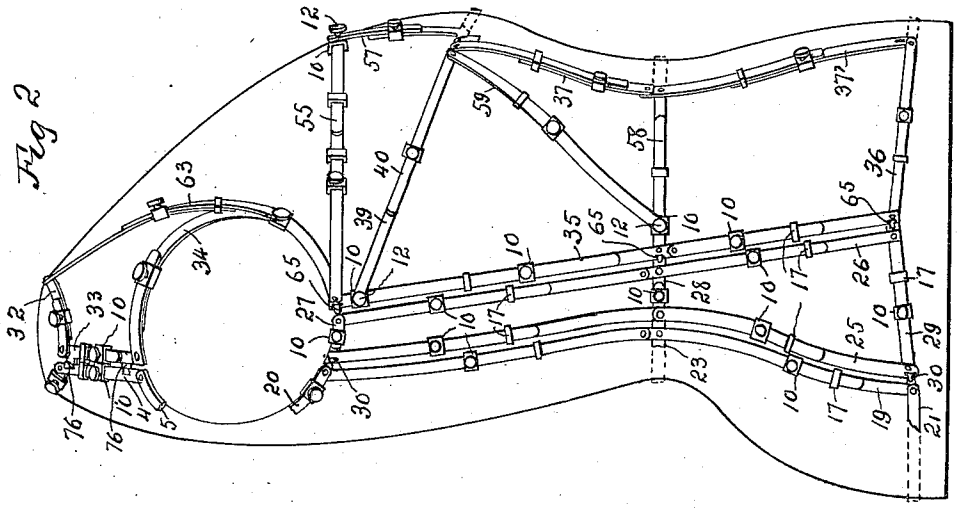
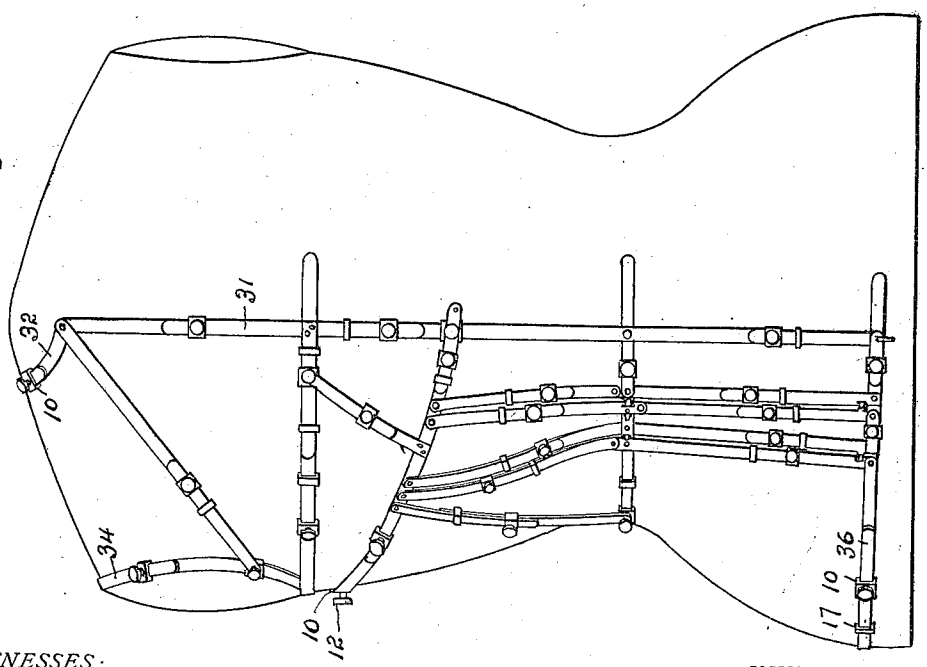


Fig 1



WITNESSES:

R. C. Hamilton

E. B. House

INVENTOR.

Harriet Lee

BY Warren D. House

Her ATTORNEY.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

H. LEE.

GARMENT FITTER FOR WAISTS.

APPLICATION FILED MAY 20, 1910.

**1,014,885.**

Patented Jan. 16, 1912.

3 SHEETS—SHEET 2.

Fig 3

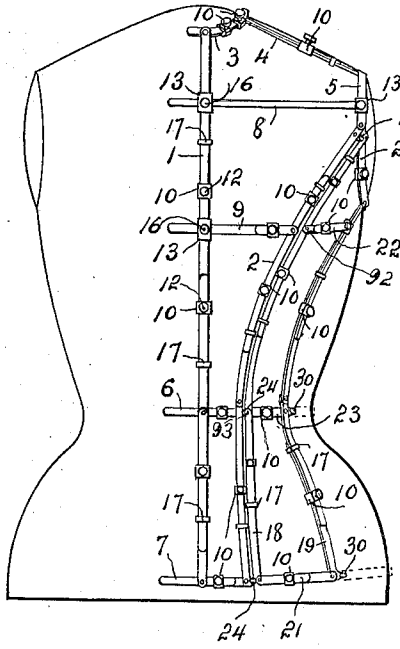
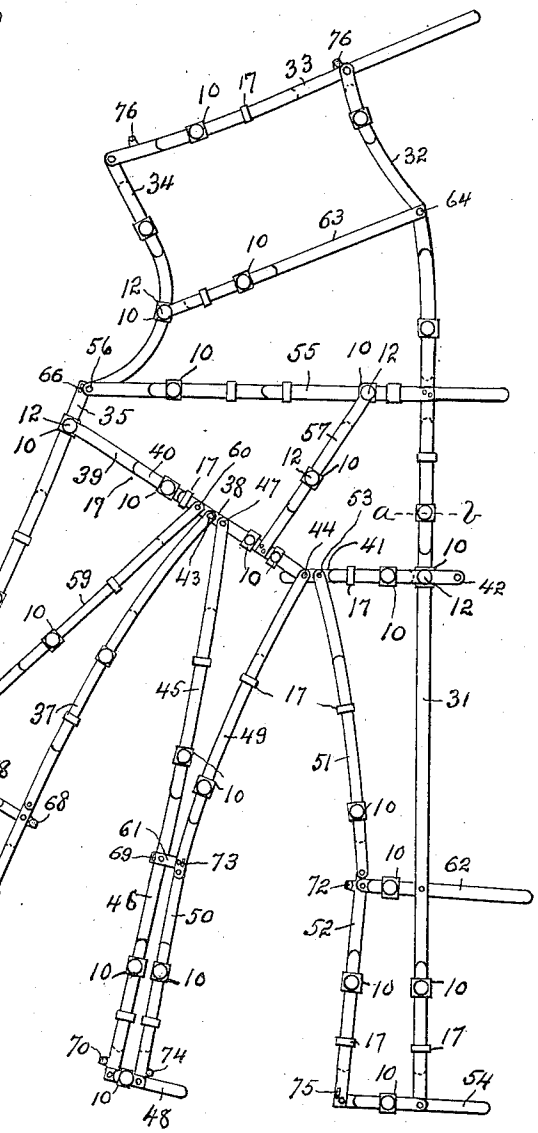


Fig 4



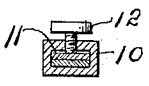
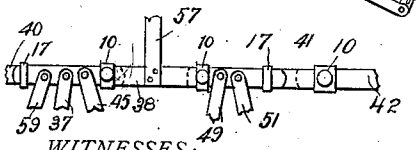


Fig 5

Fig 6



WITNESSES:

R. Hamilton.

E. B. House

INVENTOR.

Harriet Lee

BY

Warren D. House

Her ATTORNEY.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

H. LEE.

GARMENT FITTER FOR WAISTS.

APPLICATION FILED MAY 20, 1910.

**1,014,885.**

Patented Jan. 16, 1912.

3 SHEETS—SHEET 3.

Fig 7

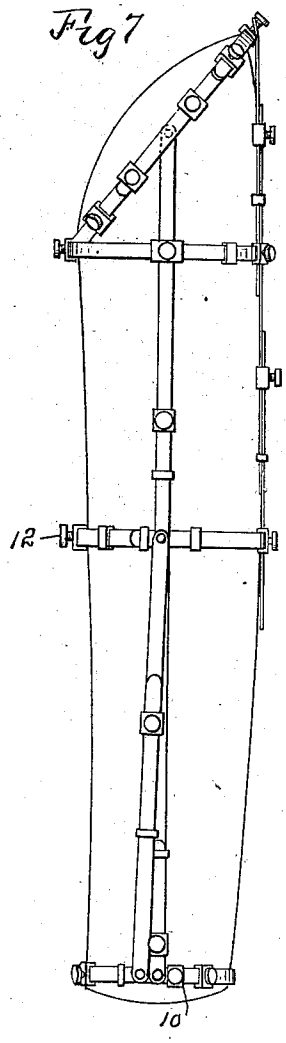


Fig 8

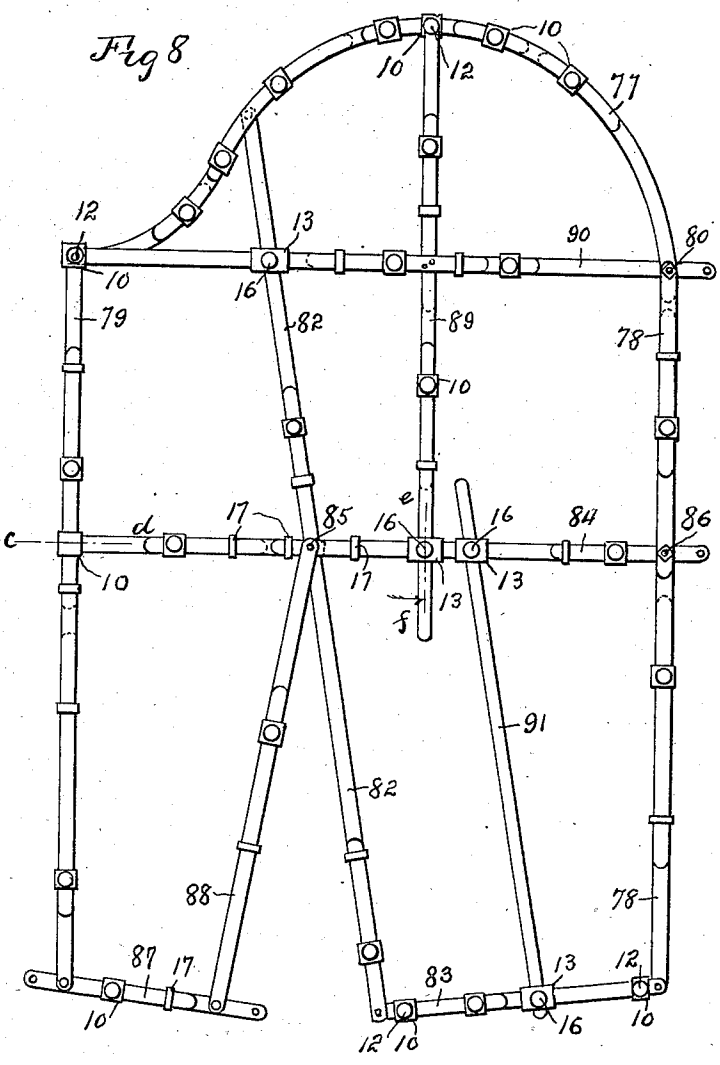



Fig 10

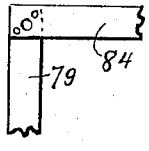



Fig 11

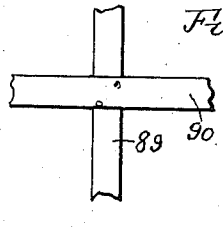



Fig 9

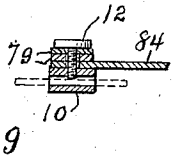
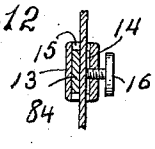



Fig 12




WITNESSES:

R. Hamilton.

E. B. House

INVENTOR.

Harriet Lee

BY

Warren D. House

Her ATTORNEY.

# UNITED STATES PATENT OFFICE.

HARRIET LEE, OF KANSAS CITY, MISSOURI.

## GARMENT-FITTER FOR WAISTS.

1,014,885. Specification of Letters Patent. Patented Jan. 16, 1912.

Application filed May 20, 1910. Serial No. 562,411.

*To all whom it may concern:*

Be it known that I, HARRIET LEE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Garment-Fitters for Waists, of which the following is a specification.

My invention relates to improvements in garment fitters for waists.

The object of my invention is to provide an adjustable garment fitter for a waist adapted to be fitted to and worn by a person, and comprising a plurality of patterns capable, when detached from the person, of being disposed in flat form for delimiting the seam lines.

My invention provides, further, a garment fitter for a waist having a plurality of adjustable patterns, preferably flexible, provided with means for being detachably connected together to form a pattern garment, adapted to be fitted to and worn by a person.

My invention provides further, an adjustable pattern adapted to be fitted to and worn by a person and having means for delimiting the converging lines of a dart.

My invention provides also, a sleeve pattern, having means for being adjusted and fitted to a person's arm and provided with means for releasably securing together opposite longitudinal edges of the pattern.

Other novel features of my invention are hereinafter more fully described and claimed.

In the accompanying drawings which illustrate the preferred form of my invention—Figure 1 is a front elevation of a figure, to which is fitted my improved garment fitter for a waist, the sleeve pattern being omitted. Fig. 2 is a side elevation of what is shown in Fig. 1, a portion of the form being omitted and some of the parts being broken away. Fig. 3 is a rear elevation of the figure with a portion of the garment fitter fitted thereto. Fig. 4 is a stretched-out view of the front pattern. Fig. 5 is a horizontal section, taken on the dotted line *a—b* of Fig. 4, and showing one of the screw fastening devices. Fig. 6 is an enlarged fragmentary view of a portion of the top of dart rib. Fig. 7 is a side elevation of the sleeve pattern fitted on the figure of an arm. Fig. 8 is a stretched-out view of the sleeve pattern. Fig. 9 is a cross section on the dotted line *c—d* of Fig. 8. Fig. 10 is a fragmentary view of a portion of one of the side seam ribs and of the elbow rib of the sleeve pattern. Fig. 11 is a fragmentary view of a portion of the top of arm rib and of the regulating rib secured thereto. Fig. 12 is a vertical section on the dotted line *e—f* of Fig. 8.

Similar numerals of reference denote similar parts.

The portion of the garment fitter for a waist which is fitted to the trunk of a person, preferably comprises a plurality of patterns which are adjustable and flexible and which are provided with means for being detachably secured to each other to form a pattern garment which embraces one-half of the trunk and extends from the front to the back of the medial lines thereof. These patterns preferably comprise front, under arm, side back, and center back patterns. Each of these patterns preferably consists of a plurality of extensible ribs for delimiting the various seam lines and of adjustable brace ribs for locating and securing in position the seam delimiting ribs. The ribs may be composed of flat, flexible metallic strips, longitudinally adjustable relative to each other, as is well known in the art, suitable well known securing means being employed for clamping the strips in the positions to which they may be adjusted. The center back, side back and under arm patterns correspond in their general structure to corresponding patterns of this type which are well known in the art, with the exception that I have provided means for detachably connecting them together and to the front pattern, in a manner hereinafter described, to form a pattern garment which may be fitted to and temporarily worn by a person for the purpose of obtaining accurate measurements and a perfect adjustment of the patterns.

The center back pattern, best shown in Fig. 3, comprises a vertical, extensible rib 1, a side rib 2, also extensible, an extensible neck rib 3, pivotally connected at one end to the rib 1 and connected at the other end to an extensible shoulder rib 4, the ribs 2 and 4 being connected to each other by a scye rib 5. The ribs 1 and 2 are connected to each other by an extensible waist rib 6 and an extensible hip rib 7, which extend transversely to the ribs 1 and 2. Intermediate of the ribs 4 and 6 and connecting the ribs 1 and 2, may also be provided transverse

ribs 8 and 9. The overlapping strips of each rib may be releasably secured to each other in the positions to which they are adjusted by screw clips 10, one of which is shown in cross section in Fig. 5. Each screw clip 10 is of a well known type and is provided with a rectangular hole 11 through which the strips extend, the clip being provided with a threaded hole in which is mounted a thumb screw 12 which serves to clamp the strips together. Where two intersecting ribs are slidably connected with each other, as for instance, the ribs 1 and 8, such ribs are locked together by screw clips 13, similar to the one shown in Fig. 12, each of such clips being provided with two slots 14 and 15, adapted to respectively receive the intersecting ribs. Each clip 13 is provided with a threaded hole in which is fitted a thumb screw 16, which serves to clamp the intersecting ribs together.

Having thus described the manner in which the ribs are constructed and the securing devices for clamping the strips of each rib together and also the securing devices for clamping together intersecting slidably connected ribs, I will hereinafter omit reference to the specific construction of the ribs and securing devices of the other patterns, excepting in cases where the structures differ from what I have just described, but will refer to ribs of similar construction as "extensible" ribs, and to the securing devices respectively as "clips 10" or "clips 13" as the case may be. For preventing lateral movement of the strips of which the ribs are formed I provide the usual plain clip, similar to clip 10 but without the screw 12. These clips are denoted by 17, and hereinafter I will refer to the plain clips by that number.

The side back pattern, also best shown in Fig. 3, comprises extensible side ribs 18 and 19, a scye rib 20, which is also extensible, and which connects the upper ends of the ribs 18 and 19, an extensible hip rib 21, which connects the lower ends of the ribs 18 and 19, and two extensible ribs 22 and 23, which connect the ribs 18 and 19, and are in alinement respectively with the ribs 9 and 6. The rib 2 of the center back pattern is provided with a plurality of hooks 24, which are adapted to be inserted in slots provided in the rib 18 for detachably connecting the center and side back patterns. The strips of each rib 18, 19, 20, 21, 22 and 23, are secured to each other by clips 10 and, when needed, by clips 17.

The under arm pattern, best shown in Fig. 2, comprises side ribs 25 and 26, a scye rib 27, which connects the upper ends of the ribs 25 and 26, and waist and hip ribs 28 and 29, which are also connected at their ends to the ribs 25 and 26. All of the ribs of the under arm pattern are extensible and are provided with clips 10 and, where needed, with plain clips 17. The rib 19 of the side back pattern is provided with hooks 30, adapted to be inserted in slots provided therefor, in the strip 25 of the under arm pattern, for releasably securing the under arm and side back patterns together.

I will now describe the front pattern, referring particularly to Figs. 1, 2 and 4:— The front pattern is provided with a vertical, extensible rib 31, located at the front edge of the pattern, and having its upper end pivotally connected to the lower end of an extensible neck rib 32, the upper end of which is pivotally connected to a shoulder rib 33, which is also extensible and is pivotally connected to an extensible scye rib 34, the lower end of which is pivotally connected to the upper end of an extensible side rib 35, comprising respectively extensible upper and lower sections 35 and 35′ pivotally connected to each other, and the lower end of the lower section 35′ being pivotally connected to an extensible transverse hip rib 36, the other end of which is pivotally connected to the lower end of an extensible side of dart rib comprising respectively extensible upper and lower sections 37 and 37′, pivotally connected to each other, the upper section 37, at its upper end, being pivoted by a pin 43 to a transverse plate 38, which forms part of an extensible top of dart rib, comprising overlapping longitudinal plates 38, 39, 40, 41 and 42, the plates 39 and 42 being respectively pivoted to screws 12 of two clips 10, longitudinally slidable respectively on the front rib 31 and the section 35 of the side rib. The strips 39 and 40 are connected by clips 10 and 17. Opposite ends of the plate 38 are pivoted respectively to the plates 40 and 41 by pins 43 and 44. Clips 10 and 17 connect the plates 41 and 42. Clips 10 connect the plate 38 with the plates 40 and 41. The side of dart rib which cooperates with the side of dart rib having sections 37 and 37′ comprises extensible upper and lower sections 45 and 46, pivotally connected together, the upper end of section 45 being pivoted to the plate 38 by a pin 47, located adjacent to the pin 43. The lower end of the section 46 is pivoted to one end of an extensible transverse hip rib 48, which is pivotally connected to the lower end of another extensible side of dart rib comprising upper and lower extensible sections 49 and 50, the upper end of section 49 being pivoted by the pin 44 to the plate 38 of the top of dart rib. An extensible side of dart rib which coöperates with the rib comprising sections 49 and 50, comprises extensible upper and lower sections 51 and 52, pivotally connected together, the upper end of the section 51 being pivoted to the plate 41 by a pin 53. The lower end of section 52 is pivotally connected to a transverse, extensible

hip rib 54, which is pivotally connected to the lower end of the front rib 31. An extensible breast rib 55, has one end rigidly secured above the top of dart rib, to the front rib 31, the other end being pivoted by a pin 56, to the scye rib 34, and the upper section 35. Connecting the breast rib 55 with the top of dart rib, is an inclined extensible rib 57, the lower end of which is rigidly secured to the plate 38 and the upper end of which is pivoted to the screw 12 of a clip 10, mounted on the breast rib 55. A transverse extensible waist rib 58, has one end pivoted to the section 37′. The rib 58 is also pivotally connected to the section 35, adjacent the lower end thereof. An extensible brace rib 59 has its upper end pivoted by means of a pin 60 to the plate 38, the lower end being pivoted to a screw 12, of a clip 10, mounted on the waist rib 58. A waist rib 61, intermediate of the rib 48 and the top of dart rib, is pivotally connected at its ends respectively, to the ribs 45 and 46, and to the section 49. An extensible waist rib 62 is pivotally connected to the front rib 31, and to the section 52. An inclined extensible brace rib 63, is pivotally connected by a pin 64 to the neck rib 32 and front rib 31, said pin 64 serving to pivotally connect said front and neck ribs. The other end of the rib 63 is pivotally connected to a screw 12 of a clip 10, mounted on the scye rib 34.

For securing together the under arm and front patterns, the rib 26 of the under arm pattern is provided with hooks 65, which are adapted to enter slots 66, provided in the sections 35 and 35′ of the side rib of the front pattern shown in Fig. 4. To secure together the side of dart ribs comprising 37 and 37′, and 45 and 46, the section 37′ is provided with a hook 68, adapted to enter a slot 69, provided in the waist rib 61 and the section 46 is provided with a hook 70, adapted to enter a slot 71, in the section 37′. To secure together the other two side of dart ribs, the lower section 52, is provided with a hook 72, adapted to enter a slot 73, in section 49, and the section 50 is provided with a hook 74, adapted to enter a slot 75 in the section 52. To releasably secure the front pattern to the center back pattern, the shoulder rib 33 of the front pattern is provided with hooks 76 adapted to enter slots provided therefor in the shoulder rib 4 of the center back pattern.

In applying the center back, side back, under arm and front patterns to the body, these patterns are hooked together by the mechanism hereinbefore described, and the two pairs of side of dart ribs have their ribs hooked together with the mechanism already described. The said patterns are then fitted on the person in their appropriate positions, the arm of the person being thrust through the opening encircled by the scye ribs 5, 20, 27, and 34 of the several patterns. The different ribs of each pattern are then adjusted to properly fit the figure, after which the screws of the different screw clips, which are mounted on the ribs, are adjusted so as to secure the ribs in their adjusted positions. In the front pattern, shown in Fig. 4, the extensible rib 57 serves to regulate the top of dart rib of said pattern, as to its height relative to the breast rib 55. When the patterns are applied to the body the clips 10 on the plate 38 of the top of dart rib are arranged so that all the plates or strips of this rib are in alinement with each other, as shown in Fig. 1. After the patterns just referred to have been fitted to the body, after the fashion of a garment, they are removed therefrom and detached from each other. When so detached the center back, side back and under arm patterns may be disposed in a substantially flat position so that the seam lines may be delimited on the goods of which the waist is to be made. The hooks 68, 70, 72 and 74 of the front pattern are then removed from the recesses in which they are located, thereby allowing the side of dart ribs of said pattern to assume the proper positions in which the darts are delimited. The brace rib 59 serves to regulate the amount of cloth to be cut out in the back dart, which is delimited by the ribs comprising the sections 37, 37′, 45 and 46. In case that the dimensions of the breast and top of dart lines are such that the front pattern cannot be disposed in the flat position after the side of dart ribs of this pattern have been released from each other, the clips 10, connecting the plate 38 of the top of dart rib, may be moved toward the rib 57 to positions in which the plates 40 and 41 may swing from positions in alinement with the plate 40 to positions regulated by the rib 57. In Fig. 4 the clip 10, connecting the plates 38 and 41, is shown disconnected with the plate 41 so as to permit of the movement just described. After the front pattern has been spread out on the cloth the different seam lines are delimited by tracing lines following the outer edges of the ribs 31, 32, 33, 34, sections 35 and 35′, hip ribs 36, 48 and 54, and the sections 37, 37′, 45, 46, 49, 50, 51 and 52, no note, of course, being taken of the projecting portions of the ribs 33, 55, 62, 58, 48, 54, 3, 8, 9, 6 and 7, which, as will be understood, extend beyond the true boundaries of the patterns to permit of their being expanded and contracted.

Referring now to the sleeve pattern, shown in Figs. 7 and 8, 77 denotes an extensible curved scye rib at the top of the pattern, the different strips of the rib being connected by clips 10. 78 and 79 denote two longitudinal, extensible front seam ribs, the upper ends of which are pivotally connected by

screws 80 and 12 to opposite ends of the rib 77. The upper end of an extensible back seam rib 82 is pivotally connected to the rib 77, its lower end being pivotally connected to one end of an extensible wrist rib 83, the other end of which is pivotally connected to the lower end of the rib 78. A transverse, extensible elbow rib 84 is pivotally connected by a pin 85 to the back seam rib 82. The ends of the rib 84 are pivotally mounted on screws 12 and 86, which are respectively mounted in the ribs 79 and 78. The ribs 79 and 78 each comprise upper and lower sections which are respectively pivotally connected with each other by said screws. The lower sections of each of the ribs 79 and 78 are rigidly secured respectively to the end strips of the elbow rib 84 so that the lower sections of the ribs 78 and 79 may be flexed laterally relative to the upper sections. The lower end of the rib 79 is pivotally secured to a transverse wrist rib 87, which is pivotally connected to a side of dart rib 88, the upper end of which is pivoted to the ribs 82 and 84, by the pin 85. The rib 88 is adapted to be swung to a position parallel with the back seam rib 82, in which position it may be held by a screw clip 10, mounted on the wrist rib 83, the wrist rib 87 having a protruding portion which is adapted to be inserted in said screw clip. To regulate the height of the elbow rib 84, I provide an extensible vertical rib 89, the upper end of which is pivoted to the screw 12 of a clip 10, located at the highest portion of the rib 77. The rib 89 extends through a clip 13, mounted on the elbow rib 84, intermediate of the ribs 78 and 82, and is secured to the rib 84 by a screw 16, as shown in Figs. 8 and 12. The rib 89 is preferably secured rigidly to the transverse extensible top of arm rib 90, the ends of which are pivoted to the screws 80 and 12. A clip 13, such as shown in Fig. 12, connects the rib 90 with the rib 82. A brace rib 91 is connected to the ribs 83 and 84 by clips 13, corresponding to the clips shown in Fig. 12.

To fit the arm pattern it is formed around the arm, as shown in Fig. 7, the wrist rib 87 being first inserted in the clip 10, on the rib 83, and secured thereto by the screw 12 of said clip. The extending ends of the ribs 90 and 84 are then extended through the clips 10, which are mounted on said ribs and on the rib 79. The opposite end of the rib 87 is secured to a screw clip 10 mounted on the wrist rib 83 adjacent to the rib 78. The various ribs are then adjusted to the proper positions, after which the ribs 87, 84 and 90 are released from the clips which secure them in the encircling positions, after which the pattern may be laid flat for delimiting the seam lines in the manner described with reference to the other patterns. The elbow rib 84 is preferably composed of two sections connected by the pin 85, which also connects together the ribs 82 and 88. By making the rib 84 in two pivoted sections the pattern is permitted to lie flat when the adjusted length of the rib 84 exceeds that of rib 90, the clips 17, mounted on the rib 84, which serve to hold the strips of the rib 84 in alinement with each other, being at such times moved to positions on said rib to permit lateral movement of the sections relative to each other.

Referring to Fig. 3 the side rib 18 of the side back pattern is preferably composed of three sections, the upper and middle section being pivoted together by a pin 92, the middle and lower sections being pivoted together by a pin 93. In Fig. 3 the upper end of the middle section is back of and hid by the rib 22. By pivoting the upper and middle sections together, the sections of the side rib 18 may be adjusted or swung laterally relative to each other so that the pattern may be fitted to stooping shoulders and to the arm after the center back and side back patterns are connected together in the manner hereinbefore described.

Various modifications of my invention, within the scope of the appended claims, may be made without departing from its spirit.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a garment fitter for a waist, a sleeve pattern having a scye rib, two front seam ribs respectively connected to opposite ends of the scye rib, a back seam rib intermediate of the front seam ribs, a dart rib pivoted to the back seam rib and movable from a position substantially parallel with the back seam rib to a position at an angle thereto, two wrist ribs respectively pivoted to the front seam ribs and to the back seam and dart ribs, and means for releasably securing together in the parallel position the dart and back seam ribs.

2. In a garment fitter for a waist, a sleeve pattern having a scye rib, two longitudinal front seam ribs respectively secured to opposite ends of the scye rib, a transverse elbow rib vertically adjustable relative to the scye rib and having means for being secured to the front seam ribs, a back seam rib intermediate of the front seam ribs, the back seam rib being extensible and secured to the scye rib, an extensible dart rib pivoted to the elbow rib so as to swing to and from a position substantially parallel with the back seam rib, and means for securing the elbow rib in the position to which it may be adjusted.

3. In a garment fitter for a waist, a flexible sleeve pattern having a scye rib, two longitudinal front seam ribs respectively secured to opposite ends of the scye rib, a transverse vertically adjustable elbow rib, a

back seam rib intermediate of the front seam ribs and secured to the scye rib, a dart rib pivoted to the elbow rib so as to swing to and from a position substantially parallel with the back seam rib, two wrist ribs respectively pivoted to the front seam ribs and to the back seam and dart ribs, all of said ribs being extensible, means for releasably locking the elbow rib in the position to which it may be adjusted, means for releasably locking together the front seam ribs when the pattern has been formed to encircle an arm of a person, and means for releasably locking the back seam and dart ribs in the parallel position.

4. In a garment fitter for a waist, a front pattern having front and side ribs, neck and scye ribs respectively connected to the front and side ribs, a breast rib connected with the front and side ribs, a top of dart rib connected and vertically adjustable relative to the front and side ribs, two side of dart ribs secured to the top of dart rib and movable relative to each other from and to a position substantially parallel with each other, a waist rib connected with the side rib and with one of the side of dart ribs, all of said ribs being extensible, a brace rigidly secured to the top of dart rib and pivoted to the breast rib for locking the top of dart rib in the position to which it is adjusted, and means for releasably locking the side of dart ribs in the parallel position.

5. In a garment fitter for a waist, a front pattern having a front and a side rib, a breast rib rigidly secured to the front rib and pivoted to the side rib, a vertically adjustable top of dart rib connecting the front and side ribs, an extensible brace connected to the breast rib and the top of dart rib intermediate of the front and side ribs for regulating the adjustment of the top of dart rib, two side of dart ribs secured, one pivotally, to the top of dart rib, the pivoted side of dart rib being movable to and from a position substantially parallel with the other side of dart rib, a waist rib connecting the side rib with the pivoted side of dart rib, all of the aforesaid ribs being extensible, and an adjustable brace connecting the top of dart rib with the waist rib.

6. In a garment fitter for a waist, a front pattern having a front and a side rib, a breast rib, a vertically adjustable top of dart rib connecting the front and side ribs, and an extensible brace connected to the breast and top of dart rib intermediate of the front and side ribs for regulating the position of the top of dart rib, the breast rib connecting the front and side ribs.

7. In a garment fitter for a waist, a front pattern having a front rib and a side rib, a breast rib connecting the front and side ribs, a vertically adjustable top of dart rib having its ends pivotally connected respectively to the front and side ribs, and an extensible brace rigidly secured to the top of dart rib intermediate of the ends of the top of dart rib, and pivoted to the breast rib for regulating the position of the top of dart rib.

8. In a garment fitter for a waist, a sleeve pattern having two front ribs, elbow, top of arm and scye ribs connecting said front ribs, and a vertical extensible rib rigidly secured to the top of arm rib and secured to the elbow rib intermediate of the front ribs.

9. In a garment fitter for a waist, a sleeve pattern having two front ribs, elbow, top of arm and scye ribs connecting said front ribs, and a vertical extensible rib rigidly secured to the top of arm rib and secured to the scye and elbow ribs intermediate of the front ribs.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

HARRIET LEE.

Witnesses:
E. B. HOUSE,
CHESTER THOMAS.