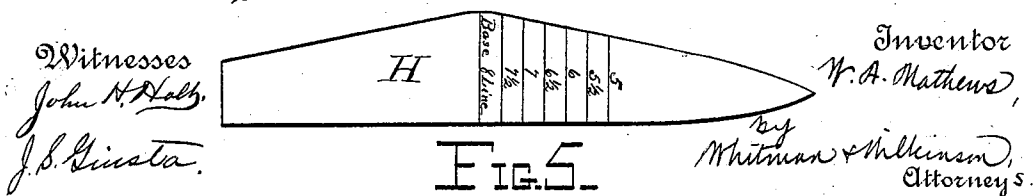
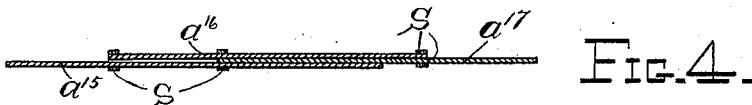
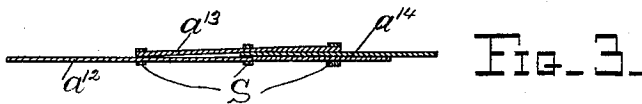
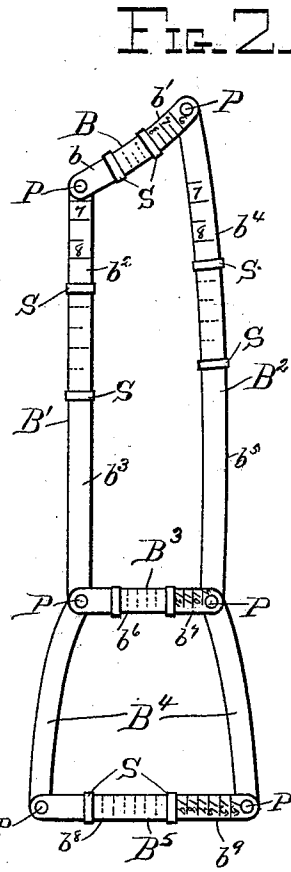
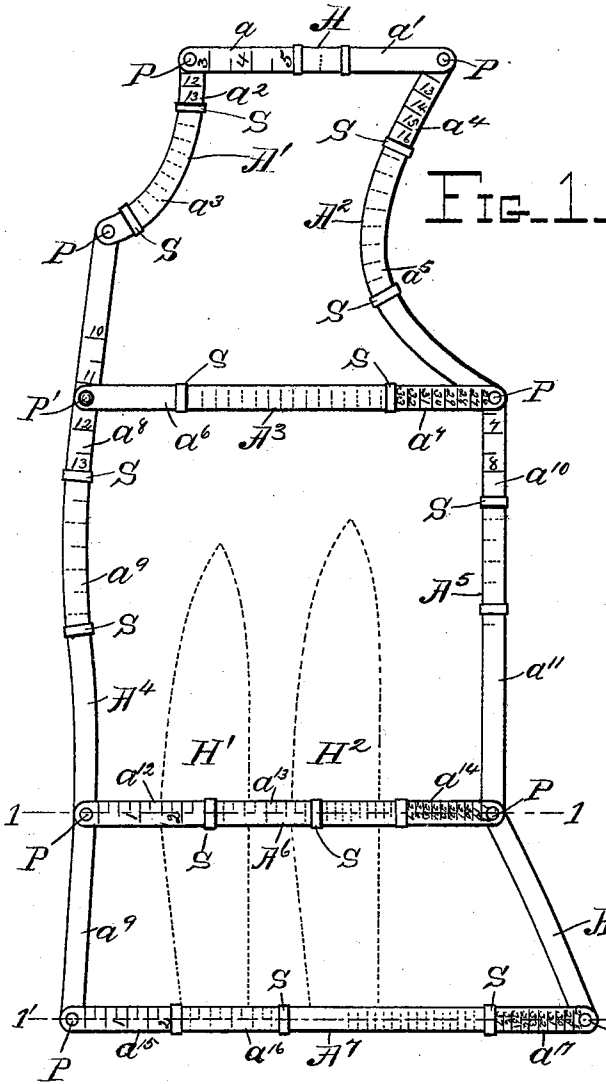


W. A. MATHEWS.
ADJUSTABLE PATTERN.

No. 560,593.

Patented May 19, 1896.



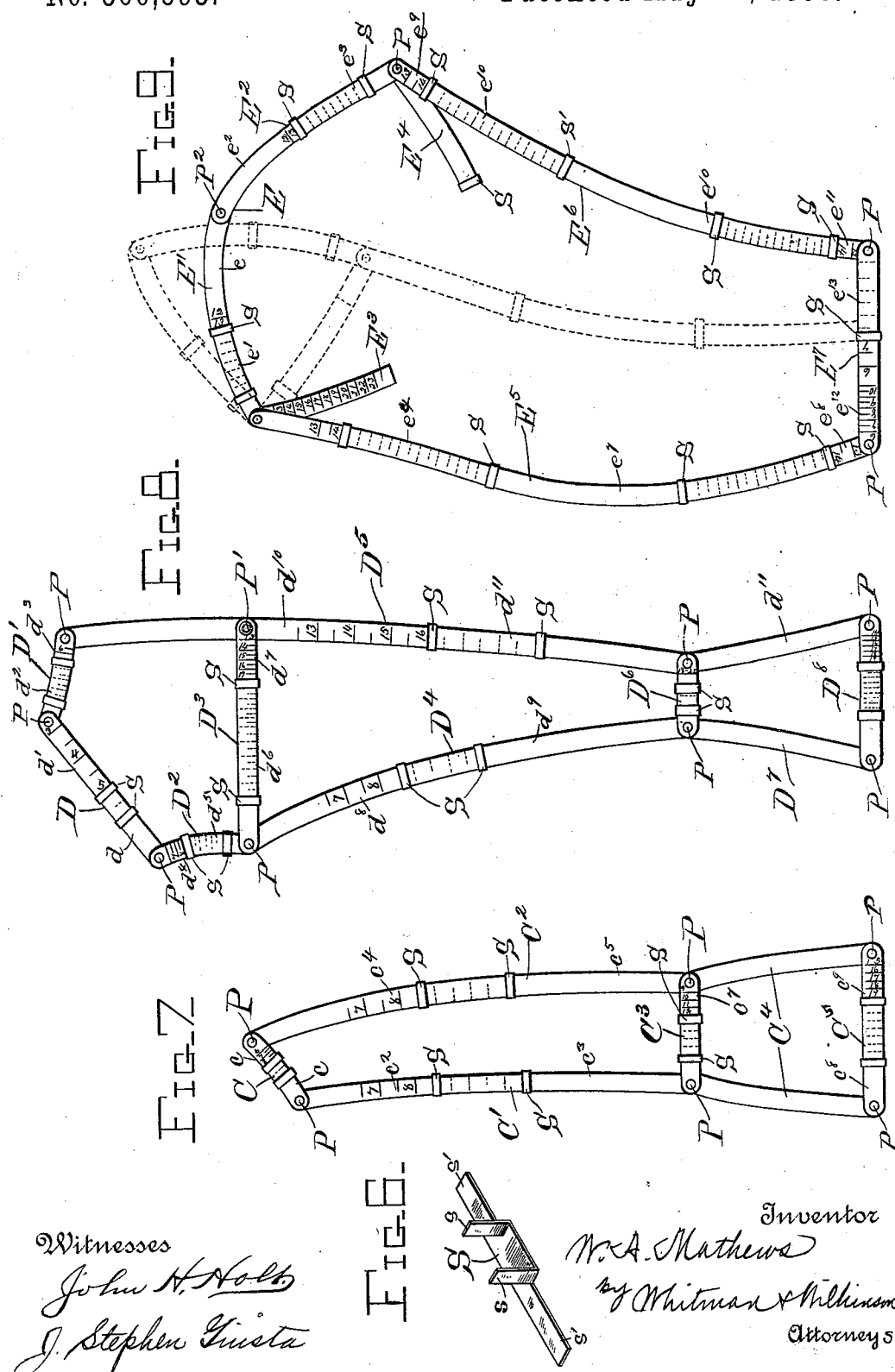
(No Model.)

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Witnesses
John H. Holt
J. Stephen Gust

Inventor
W. A. Mathews
by *Whitman & Wilkinson*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM A. MATHEWS, OF GRATIS, OHIO.

ADJUSTABLE PATTERN.

SPECIFICATION forming part of Letters Patent No. 560,593, dated May 19, 1896.

Application filed February 25, 1896. Serial No. 580,643. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. MATHEWS, a citizen of the United States, residing at Gratis, in the county of Preble and State of Ohio, have invented certain new and useful Improvements in Drafting-Patterns for Garments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in adjustable drafting-patterns for dresses and other garments, and has for its object the providing of a light and readily-adjustable pattern consisting, essentially, of flexible pivoted ribs with sliding connection between the different members of the said ribs or strips.

The invention consists of certain novel features which will be hereinafter more fully described and claimed.

Reference is had to the accompanying drawings, in which similar parts are indicated by similar letters and figures throughout the several views.

Figure 1 represents a plan view of the pattern for the front of a waist. Fig. 2 represents a plan view of the pattern for the front side body. Fig. 3 represents a section of a rib, taken along the line 1 1; and Fig. 4, a similar view along line 1' 1'. Fig. 5 represents a plan view of the dart. Fig. 6 represents an enlarged perspective view of one of the sliding clips. Fig. 7 represents a plan view of the pattern arranged for the "back side body" of a waist. Fig. 8 represents a plan view of the pattern of the "back" of a waist, and Fig. 9 represents a plan view of the pattern adapted for cutting out both top and bottom of the sleeves.

The pattern is shown in solid lines as arranged for cutting the top of the sleeve. Then it is adjusted to that position shown in dotted lines for cutting the bottom of the sleeve.

Referring particularly to the pattern as arranged for the front of a waist, as shown in Fig. 1, the shoulder-piece A is composed of two pieces a and a' , the latter being adapted to slide on the upper face of the former, which piece a' is provided with a scale upon its upper face. Both pieces are pivoted near their ends to the adjoining pieces by means of eye-

lets P. The sliding clips S, made, preferably, of thin strips of brass or other metal, pass around the strips a and a' , and one clip is made fast to each strip or rib, thus allowing the strips to slide readily upon each other and retain their position when adjusted.

Throughout the entire pattern the ribs are supposed to be of the same width and thickness, being composed of strips of thin cardboard, sheet metal, or any other material suitable for such purposes. All the pieces are pivoted together by similar eyelets, and the method of attaching the clips is practically the same throughout the several portions of the pattern.

The neck-piece A' is composed of two pieces a^2 and a^3 , adapted to slide upon each other, allowing the length and curvature of the neck to be altered or adjusted to any extent within reasonable limits.

The portion a^3 of the neck-piece is pivoted at P to the top of the front piece A⁴. This arrangement allows an adjustment of the "neck-piece" particularly adapted to large necks, whereas were the junction between the piece A⁴ and a^3 a solid one the angle formed between the two pieces would be always the same. The portion a^2 is graduated upon its upper face.

The arm-scyce A², pivoted to one end of the shoulder-piece, is also composed of two parts a^4 and a^5 . The curvature of the arm-scyce, as in the case of the neck-piece, is capable of great latitude of adjustment, being pivoted at both ends and provided with sliding connections between those ends.

The bust-piece A³ is composed of the two members a^6 and a^7 , each provided with a clip S on its inner end through which the other member passes, and it is adapted to slide, thus forming an adjustable connection between the two, and the member a^7 is provided with a graduated scale thereon for indicating the adjustment. The outer end of the member a^7 is permanently pivoted to the lower end of the arm-scyce piece A² and the upper end of the under-arm piece A⁵ by means of the eyelet P, which passes through the several pieces, while the outer end of the member a^6 is pivotally connected to the front piece A⁴ by means of a pin P', which is pivoted in the end of the said member and

mounted upon a clip which incloses the said front piece, and thus allows of vertical adjustment of the forward end of the bust-piece and holds this end in position when adjusted.

5 The front piece A^4 , consisting of the two pieces a^8 and a^9 , adjustably connected to each other, extends from the lower portion of the neck to the hip-piece A^7 , and at each end is pivoted to the adjoining pieces. If a long or
10 short waist is desired, the pieces a^8 and a^9 may be pushed together or lengthened, as desired, thereby altering the length as well as curvature of that portion, as the case may be.

The under-arm piece A^5 is pivoted at one
15 of its ends to the lower portion a^3 of the arm-scye and to the portion a^7 of the bust-piece, and is pivoted at its lower end to the portion a^{14} of the waist-piece A^6 . This under-arm piece, like most of the rest, is composed of two
20 parts adjustably connected by the clips S. The waist-piece A^6 , pivoted to the lower part of the front piece and to the lower extremity of the under-arm piece, differs in its construction and mode of adjustment from the other
25 pieces of the pattern. This waist-piece A^6 is composed of three pieces a^{12} , a^{13} , and a^{14} , all adjustably connected together by the clips S, as heretofore described. The part a^{12} is graduated in inches for dart-measurements,
30 and the portion a^{14} is graduated for the regular waist-measurements. When it is desired to change the measurements for width of dart without altering the distance between the
35 under-arm piece and the front piece, the portion a^{13} is slid along over the pieces a^{12} and a^{14} to the right or left, as the case may be, thereby leaving the scale for the waist-measurements uninterrupted. The hip portion
40 A^7 is constructed similarly to the waist-piece A^6 and is adjusted for the hip-measurement on the scale carried by the portion a^{17} and for the dart on the scale carried by the portion a^{15} , which portion a^{15} is pivoted to the
45 lower extremity of the front piece A^4 . The link A^8 connects the waist-piece with the hip-piece and is continuous throughout its length. The dart H is a separate piece and is not made attachable to the pattern, but is
50 simply laid thereon when it is required to mark out a dart. The dart is made of some thin suitable material and is graduated on its upper face from the base-line 8 to the line marked 5 for the purpose of obtaining the proper length of dart.

55 Suppose it is required to cut two darts, as H' and H^2 . (Shown in dotted lines in Fig. 1.) To cut the dart H' , place the dart H in a vertical position with the line 6 on the scale of the dart coinciding with the top of the
60 waist-piece. Then outline the portion of the dart from the waist-line to the point, slide the dart up until the base-line thereon coincides with the position previously occupied by the line 6, and outline the lower portion
65 of the dart. To cut the second dart H^2 , the operation is the same as in cutting the first,

with the exception that the dart is placed a little higher above the waist-line.

The graduation in inches on the portions a^{12} and a^{15} of the waist and hip pieces, respectively, serves as an index indicating the
70 difference in the measurements of the bust and waist equal to the amount to be taken out by the dart.

The front side body is composed of the several adjustable pieces B B^5 , all of which except B^5 are composed of two members each, the said members being connected together
75 by means of the sliding clips S. The several pieces B to B^5 are pivotally joined together by means of the eyelets P, as explained for the parts of the pattern in Fig. 1.

The graduations on the piece b^7 are numbered in halves as regards those on the piece a^{14} —that is, if the scale on a^{14} indicates 24
80 that on b^7 will indicate 12 when the same waist is being cut. The same rule holds true as regards the scales on the pieces b^1 and b^9 .

As the back side body (shown in Fig. 7) is similar to the front side body as regards its
90 construction, the principal difference being only in shape, the figure is sufficiently clear without further description.

The back (shown in Fig. 8) possesses many advantages by virtue of the number of joints
95 and adjustable pieces.

The shoulder-piece D, neck-piece D' , arm-piece D^2 , back curve D^4 , back-piece D^5 , waist-piece D^6 , and hip-piece D^7 are pivotally connected together by eyelets P and are composed of two pieces each, slidingly connected,
100 allowing them to be made longer or shorter, as the case requires. The neck-piece D' , being pivoted at both ends and provided with a sliding connection between the said ends,
105 allows an adjustment which adapts itself readily to almost any sized neck.

The back-width piece D^3 is composed of the two members d^6 and d^7 , provided with sliding connections S similar to those of the bust-piece, hereinbefore described, and the member d^7 is provided with a graduated scale thereon for indicating the adjustment. One end of this
110 back-width piece D^3 is pivoted to the lower end of the arm-scye piece D^2 , and to the upper end of the back-curve piece D^4 by means of an eyelet P, passing through the several pieces, while the opposite end of the said back-width piece is pivotally connected to the back-seam
115 piece by means of a pin P' , pivoted in the end of the said back-width piece and mounted upon a clip which incloses the said back-seam piece, and being adapted to slide thereon allows of vertical adjustment of the latter end
120 of the said back-width piece in like manner as the forward end of the bust-piece hereinbefore referred to. The portion d^{11} of the back piece is solid from its connection with the hip-piece to the upper clip on the back
125 piece, whereas the portion D^7 is not solid with the lower portion of the piece D^4 , but is only continuous between its pivotal connections
130

with the waist-piece and hip-piece, so that when the back curve is carried to the left the curvature of that portion may be altered both by the sliding connection and by virtue of the broken joint at the upper extremity of the part D⁷. The scales on the different parts are so arranged that the sum of the scale of the various parts will equal the measurement for which they are adjusted.

10 The pattern shown in Fig. 9 for cutting the sleeve, both top and bottom portions, is capable of quite a number of different adjustments by virtue of the many pivotal and sliding connections. The top of the pattern E is composed of two members E' and E², pivoted together at P², and each member is composed of two parts, the said parts being scaled and slidingly connected together. The portions e' and e³ of the members E' and E² are pivotally connected to the upper extremity of the back and front seam pieces, respectively. The members E³ and E⁴ are pivotally connected at the junction of the members E' and E² with the back and front seam pieces at one of their ends and the inner ends left free; but when the said free ends are brought together the pieces E³ and E⁴ form the top part of the bottom portion of the sleeve.

The back-seam piece E⁵ is made up of three parts e⁶, e⁷, and e⁸, the portion e⁷ having no scale upon it and adapted to slide over the scales on the under portions e⁶ and e⁸. The construction of the front-seam piece E⁶ is similar to that of the back-seam piece E⁵, the only difference being in the length and a slight difference in curvature.

The wrist-piece E⁷ is composed simply of two straight members e⁹ and e¹⁰, slidingly connected and pivoted at their outer ends. By virtue of the pivoted joint, where the front-seam piece joins the top piece of sleeve an adjustment is obtained which makes the pattern again especially adapted to sizes differing largely. The solid lines show the pattern in position for cutting the top of the sleeve. To cut the bottom, the same pattern is used, being capable of adjustment for that purpose. To accomplish this adjustment, the back-seam piece E⁵ may be held stationary and the front-seam piece moved along toward it until the pattern occupies the position shown in dotted lines. The members E' and E² will rise out of the way, as they are not needed in the operation of cutting this portion of the sleeve. The members E³ and E⁴ are then brought together and form the top seam of the bottom part of the sleeve. It is thus seen that a very wide range of adjustments can be had between the maximum position for a large person and the minimum for a child. The wrist-piece is provided with two scales, the member e¹³ carrying the scale for use when cutting the top of the sleeve and the member e¹² carrying the scale for use when cutting the bottom of sleeve.

The clip S, by which the sliding connection is made between the different members of the

several parts, is shown in Fig. 6. The upwardly-extending spurs s are made to pass through the lower member and are then braided or bent over, the distance between the spurs being slightly less than the width of the member or rib. Then the top member or rib is placed over the bottom one and the wings s' bent or braided over, forming a sliding loop. The ribs or members of the pattern are made in width to agree with the most common width of seams.

In using the herein-described pattern the tracings should be made on the inside for sewing and on the outside for cutting, and, in respect to the tracing, among other advantages not the least one claimed to be possessed by this pattern is its absolute freedom from any obstructions around the outside edges, presenting a continuous and uninterrupted line.

It will be seen that the various parts herein described, taken together, constitute a complete pattern for a waist and sleeves of a dress or other garment capable of adjustments which render it applicable to widely different shapes and figures; and it will be further obvious that the same principle may be adapted to any other pattern without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. An adjustable pattern for drafting the sleeves of a garment, comprising an upper-arm piece consisting of two main members pivotally connected together and each composed of a plurality of submembers adjustably connected together; a back-seam piece, and a front-seam piece, each pivotally connected at one end to one of the ends of said upper-arm piece, and each composed of a plurality of members adjustably connected together; a wrist-piece composed of two members with an adjustable connection between them, and pivotally connected at its ends to the said back-seam and front-seam pieces; a member pivotally connected at one end to the upper end of said back-seam piece, and a member pivotally connected at one end to the upper end of said front-seam piece, with an adjustable connection between said members, which, when brought together form the upper portion of the bottom of the sleeve; and suitable scales being provided upon the several parts, substantially as and for the purposes described.

2. An adjustable pattern for drafting the front of a garment-waist, comprising a shoulder-piece; a curved neck-piece pivotally connected at one end to one end of the said shoulder-piece; a front piece pivotally connected at its upper end to the opposite end of the said neck-piece and extending below the waist-line; a curved arm-scyce piece pivotally connected at one end to the opposite end of said shoulder-piece from said neck-piece; a straight under-arm piece pivotally connected at its upper end to the lower end of said arm-

5 scye piece, and extending as far as the waist-
 line only; each of the said pieces being com-
 posed of two members adjustably connected
 by means of a clip on the end of each member
 10 through which passes the other member, and
 one member of each piece being provided with
 a scale thereon for measurements; a straight
 bust-piece also composed of two members ad-
 justably connected by means of a sliding clip
 15 on each member, and one member provided
 with a graduated scale thereon, one end of
 said bust-piece being pivoted to the lower end
 of the arm-scyer piece and the upper end of
 the under-arm piece at the junction of the
 20 two, and the opposite end of said bust-piece
 carrying a pivoted pin mounted upon a clip
 which incloses the said front piece and is
 adapted to slide thereon and thus permit of
 adjustment of the forward end of said bust-
 25 piece; a waist-piece and a hip-piece each piv-
 otally connected at its forward end to the
 front piece, and each composed of three mem-
 bers adjustably connected by means of slid-
 ing clips, one of the members of each piece
 30 being provided with a scale for dart-meas-
 urements and another member of each being pro-
 vided with a scale for waist-measurements
 and hip-measurements, respectively, the rear
 end of the said waist-piece being pivotally
 35 connected to the lower end of the under-arm
 piece; and a plain integral connecting-piece
 pivotally connected at one end to the rear end
 of the waist-piece and the lower end of the
 under-arm piece at their junction, and piv-
 otally connected at its opposite end to the rear
 end of the hip-piece, substantially as de-
 scribed.

3. An adjustable pattern for drafting the
 back of a garment-waist, comprising a curved
 40 neck-piece; straight shoulder-piece pivotally
 connected at one end to one end of said neck-
 piece; a curved arm-scyer piece pivotally con-

nected at one end to the opposite end of said
 shoulder-piece from said neck-piece; a back-
 curve piece pivotally connected at its upper 45
 end to the lower end of said arm-scyer piece, and
 extending downward as far as the waist-line
 only; a curved back-seam piece pivotally con-
 nected at its upper end to one end of the neck-
 50 piece, and extending below the waist-line; a
 straight waist-piece pivotally connected at
 one end to the lower end of said back-curve
 piece and at its other end to said back-seam
 piece; a hip-piece pivotally connected at one
 end to the lower end of said back-seam piece; 55
 each of the said pieces being composed of two
 members adjustably connected by means of
 a clip on the end of each member through
 which passes the other member, and one mem-
 ber of each being provided with a scale for 60
 measurements; a plain integral connecting-
 piece pivotally connected at one end to the
 back-curve piece and the waist-piece at their
 junction, and at its opposite end to one end
 of the hip-piece; and a back-width piece piv- 65
 otally connected at one end to the arm-scyer
 piece and the back-curve piece at their junc-
 tion, and at the opposite end provided with
 a pivoted pin mounted upon a clip which in-
 closes the back-seam piece and is adapted to 70
 slide thereon, thus allowing vertical adjust-
 ment of the said back-width piece at its lat-
 ter end, the said back-width piece being com-
 posed of two members adjustably connected
 by means of a sliding clip on each member, and 75
 one member being provided with a scale for
 measurements, substantially as described.

In testimony whereof I affix my signature
 in presence of two witnesses.

W. A. MATHEWS.

Witnesses:
 JOHN C. WILSON,
 JOHN H. HOLT.