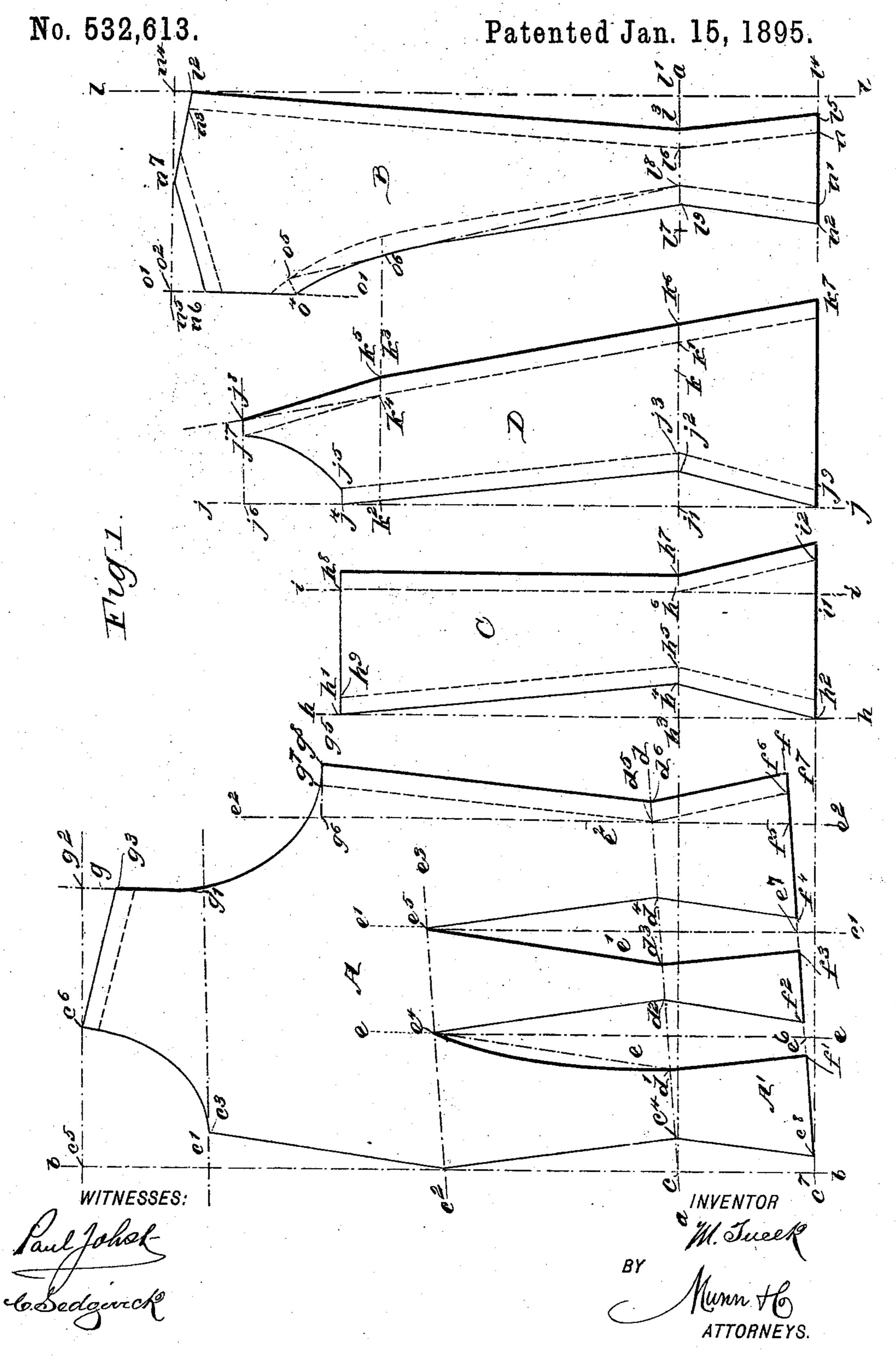
## M. TUCEK. METHOD OF PRODUCING GARMENT PATTERNS.

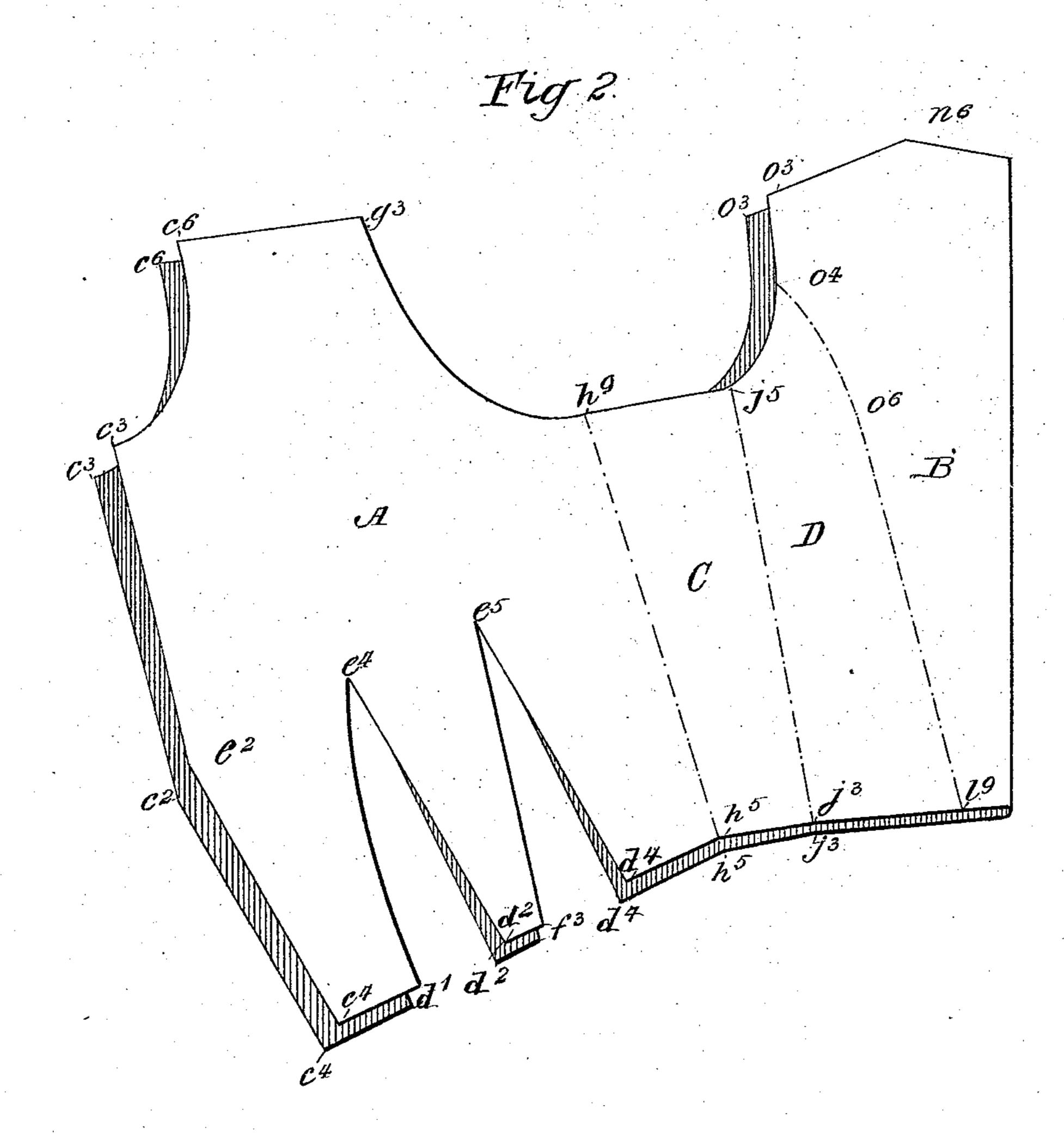


## M. TUCEK.

METHOD OF PRODUCING GARMENT PATTERNS.

No. 532,613.

Patented Jan. 15, 1895.



Paul Johnel-Co. Sedgiros INVENTOR M. Fueek BY Munn + B ATTORNEYS.

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## United States Patent Office.

MARIE TUCEK, OF NEW YORK, N. Y.

## METHOD OF PRODUCING GARMENT-PATTERNS.

SPECIFICATION forming part of Letters Patent No. 532,613, dated January 15, 1895.

Application filed March 30, 1894. Serial No. 505, 714. (No specimens.)

To all whom it may concern:

Be it known that I, MARIE TUCEK, of the city, county, and State of New York, have invented a new and Improved Method for Producing Garment-Patterns or Garments, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved method for producing or laying out and cutting garment patterns or garments, in such a manner as to require but few measurements of the body, and comparatively little skill to lay out and cut a pattern or garment to be produced in either one, two or any desired number of parts, according to the predominant style.

The improved method will be fully described hereinafter, and the novel features of the in-

vention pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of the pattern or garment material defined and cut for forming a lady's waist composed of eight parts; and Fig. 2 is a perspective view of the material defined and cut for forming a lady's waist of a single piece.

In order to carry the above described method into effect, I make use of a unit measure, which equals one inch, and hereinafter I will refer to units with the understanding that each unit représents one inch. I further make 35 use of measurements taken from the body of the person for whom the garment is intended, the measurements being first waist measurement, then breast height by measuring from the neck to a temporary tape fastened to the 40 body at the waist line, then the center back height from the said temporary tape to the uppermost spinal bone, then the breast measure, then the measure over the shoulder blades from arm to arm. Having obtained these 45 measures, I proceed as hereinafter more fully described, for forming a lady's waist for instance composed of eight pieces, it being understood that Fig. 1 shows the four parts for the same, namely, the front half part A, the

50 back half part B, and the side parts C and

D intermediate of the parts A and B, the said

four parts when duplicated and united, forming the waist without sleeves.

On the pattern or garment material is first drawn a straight line a a, representing the 55 waist line, and on the same I erect the perpendicular line b b, representing the front center breast line, and then lay on this line b b from the point of intersection at c, the distance c c', corresponding to the height of the 60 breast measure obtained from the person's body. The distance c c' is then divided in two to obtain the point  $c^2$ . From the intersecting point c an angular line c d is drawn, which rises from the waist line a a, one unit 65 in every twelve units of length measured off on the said line a a. From the point c', I measure in a right angular direction, one unit to obtain the point  $c^3$ , and a like unit is measured from the point c along the line cd to ob- 70 tain the point  $c^4$ . I then draw the lines  $c^3 c^2$ and  $c^2$   $c^4$ , to obtain the front edge of the front half parts A. I then measure from the point c' along the line b b in an upward direction, four units, to obtain the point  $c^5$ , and from the 75 latter I measure in a right angular direction a like number of units to obtain the point  $c^6$ , and then draw from the latter point a curved line for forming the top neck edge for the front half part A. From the point c in a downward 80 direction I measure along the line b b a distance of four units to obtain the point  $c^7$ , and then measure in a right angular direction one-half unit to obtain the point  $c^8$ , and then draw the line from the point  $c^4$  to the point 85  $c^8$ , to obtain the front edge of the skirt portion A' of the waist, as illustrated in Fig. 1. From the point  $c^4$ , I measure along the angular line c d a distance of two units, to obtain the point d', then again measure a like num- 90 ber of units from the point d' to obtain the point  $d^2$ , and from the latter I measure one unit to obtain the point  $d^3$  on the line c d, then again two units from this point  $d^3$  to obtain the point  $d^4$ , and then I lay off from this 95 point  $d^4$  six units less one-eighth of the waist measure to obtain the point  $d^5$ , and then add a distance  $d^5 d^6$ , corresponding to the amount of the desired seam, usually one-half unit.

In the middle of the distance between the roo points d' and  $d^2$  and the points  $d^3$   $d^4$ , as well as on the point  $d^5$  are erected lines e e'  $e^2$  par-

allel to the line b b, and from the point  $c^2$  I draw a line  $e^3$  parallel to the line c d, intersecting the lines e and e' at e<sup>4</sup> and e<sup>5</sup>, and from these points I draw a curved line  $e^4 d'$  and 5 straight lines  $e^4 d^2$ ,  $e^5 d^3$  and  $e^5 d^4$ . Then I draw a line  $c^8 f$  parallel to the line c d, and at the intersecting points  $e^6 e^7$  with the lines ee and e' e' I measure one-half unit at each side to obtain the points  $f' f^2$ ,  $f^3 f^4$ , and then ro draw the lines d'f',  $d^2f^2$ ,  $d^3f^3$ ,  $d^4f^4$ , to complete the contour or outline for the darts in the front half part A, as plainly shown in Fig. 1. Then from the intersecting point  $f^5$ on the lines  $c^8 f$  and  $e^2 e^2$ , I measure one unit 15 to obtain the point  $f^6$ , and draw from this point the line  $f^6$   $d^5$ , and then parallel thereto the line  $d^6 f^7$  for the seam of the skirt of the waist at this end of the part A. From the point  $c^3$ , I measure a distance corresponding 20 to one-half of the breast measure to obtain the point g' and through this point I draw a line q' q parallel to the line b b, intersecting with the continuation of the line  $c^5$   $c^6$  at  $g^2$ . From this point  $g^2$  I measure one unit on the 25 line g' g in a downward direction to obtain the point  $g^3$ , and from the latter I draw the line  $g^3 c^6$  to obtain the upper edge of the part A. From the line c d, I measure, in an upward direction of the line  $e^2 e^2$  the distance of 30 two-thirds of the breast height measure to obtain the point  $g^6$  and then draw from this point  $g^6$  a line  $g^6$   $g^5$  parallel to the line a a, and from the intersection of this line with the line  $e^2 e^2$  on the point  $g^6$ , I measure one 35 unit to obtain the point  $g^7$ , and then draw from this line  $g^7$  a curved line to the point  $g^3$ , to obtain the scye edge of the part A, and likewise measure from the point  $q^7$ , one-half unit to obtain the point  $g^8$  for the seam, finally 40 drawing the line  $g^{\rm s} d^{\rm o}$ . By this arrangement I have obtained all the outlines for the part A and can cut the pattern or garment material accordingly, to obtain the front half part A, which as previously stated, is cut in du-45 plicate for a waist. If no skirt is desired on the waist then the parts below the lines c d are left off.

In order to obtain the outline or contour of the side part C, I first erect a perpendicular so line h h on the waist line a a, and measure thereon upward from the waist line a distance equal to the height  $d^5 g^5$  previously obtained, to obtain the point h'. The intersection of the line h h with the base line for the 55 skirt part of the waist gives the point  $h^2$ , as shown in Fig. 1, and then by measuring one unit from the intersection of the line h h with the waist line a a from the point  $h^3$  to the point  $h^4$  and then drawing the lines h'  $h^4$  and 60  $h^4 h^2$  gives the left edge of the side part C to fit onto the edge  $d^6$   $g^8$  of the front half part A. From  $h^4$  is measured off the width of the seam usually one-half unit to obtain the point  $h^5$ , and then from this point  $h^5$  is measured off 65 along the waist line  $\alpha$  a the distance of six units less one-eighth of the waist measure to obtain the point  $h^6$  from which is measured

the width of the seam one-half unit to obtain the point  $h^7$ . On the point  $h^6$  is erected a line i i parallel to the line h h and this line inter- 70 sects with the top edge of the part C, the said top edge being the line  $h'h^8$  extending at right angles between the said lines from the point h', previously obtained. The line i i at its intersection with the base line for the skirt part 75 of the waist gives a point i' from which is measured along the base line a distance of one unit to obtain the point  $i^2$  from which is drawn the line  $i^2$ ,  $h^6$ , thus indicating the stitch line for the right hand edge of the side 80 part, it being understood that the width of the seam is added to this stitch line  $i^2 h^6 h^8$  to obtain the extreme right edge of the part C.

In order to obtain the outline of the next following side part D, I erect on the waist 85 line a a the perpendicular line j j intersecting at j' with the said waist line and from this point j', I measure one unit to the point  $j^2$  a one-half unit or width of seam to obtain the point  $j^3$  along the said waist line. On the 90 line j j is then measured the distance  $j' j^4$  corresponding to the distance  $h^3h$  of the part C, after which the lines  $j^4 j^2$  and the lines  $j^5 j^3$  are drawn. From the point  $j^2$  is measured the distance  $j^4$   $j^6$  corresponding to three units, 95 and then a right angular line is drawn from the point  $j^6$  to measure off two units to obtain the point  $j^7$  to which is added the point  $j^8$ . The curved line  $j^7 j^5$  is then drawn to obtain part of the scye. From the point  $j^3$  I measure 100 along the waist line a a the distance of six units less one-eighth of the waist measure to obtain the point k, from which I measure a distance of one unit to obtain the point k'. I then draw a line from the point k' to the 105 point  $j^8$  previously obtained, and then measure one unit from the point  $j^4$  along the line j to obtain the point  $k^2$ , that is, the lowest point of the seye, from which I draw a horizontal line  $k^2 k^3$  intersecting at  $k^4$  with the line 110 k'  $j^8$ . From this point of intersection  $k^4$  I measure along the line  $k^2 k^3$  one-half unit or width of seam to obtain the point  $k^5$ , and then draw the lines  $j^8 k^5$  parallel to  $k^4 j^7$  and  $k^5 k^6$ parallel to k'  $j^8$ , the line  $k^5 k^6$  being continued 715 to the base line for the skirt part of the waist to obtain the point k'.

For the half back part B, I first erect a perpendicular line l l on the waist line a a and from the point of intersection at l'I measure 120 along the line l l a distance corresponding to the center back measure obtained, as previously described. The point l<sup>2</sup> thus reached is connected by a line with a point l³ measured along the waist line a a a distance of 125 one unit from the point l'. At the intersection of the line l l with the base line of the skirt part of the waist, I obtain the point l4, from which I measure along the base line one-half unit to obtain the point loconnected by a line 130 with the point l<sup>3</sup> and then I measure from the latter inward one-half unit or width of the seam and draw parallel lines to the lines  $l^5 l^3$ and  $l^3 l^2$ ; that is, the lines  $n l^6$  and  $l^6 n^3$ . From

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the point n on the base line of the skirt part of the waist I measure along the said base line a distance of six units less one-eighth of the waist measure to obtain the point n' from 5 which I measure one-half unit or width of seam to obtain the point  $n^2$ . From the point l<sup>6</sup> previously mentioned, I lay off along the waist line a a the distance of six units less oneeighth of the waist measure to obtain the 10 point  $l^7$ , and from this I measure in a reverse direction one unit to obtain the point l<sup>8</sup> connected by a line with the point n' previously mentioned, and likewise I measure off the width for the seam to obtain the line  $l^9 n^2$  for 15 the skirt part of the waist. From near the upper end of the line  $l^6 n^3$ , I lay of the distance corresponding to one-half of the shoulder measure obtained from the person and then at the end of this distance the line o' o' 20 parallel to the line l l. From the point  $l^2$  Imeasure upward on the line l l the distance of one-half unit to obtain the point  $n^4$ , and then draw the horizontal line  $n^4$   $n^5$  to the intersection of the line o' o' to obtain the point 25 o<sup>2</sup>. From the latter I measure downward along the said line o' o' the distance of one unit to obtain the point  $n^6$  from which I measure likewise downward a distance of one-fourth the width of the shoulder measure to obtain 30 the point  $o^4$ . From the point  $l^2$  I measure in an oblique direction to the intersection of the line  $n^4 n^5$  a distance corresponding to onefourth of the shoulder measure to obtain the point  $n^7$  and then draw the lines  $l^2 n^7$  and  $n^7$ 35  $n^6$ . A line parallel to this last mentioned line and corresponding to one-half unit or width of seam gives the stitch line for the upper end of the part B, to be connected with the upper part of the part A having a like 4c stitch line parallel to the line  $c^6 g^3$ . From the point o<sup>4</sup> I measure inward a distance of onehalf of a unit to obtain the point o<sup>5</sup> and then draw from this point  $o^5$  a line to the point  $l^8$ , this line intersecting at 0<sup>6</sup> with a continua-45 tion of the line  $k^2 k^3$  obtained as before described. From this point  $o^6$  the line  $o^6 l^9$  is drawn and a curved line to the point o4. Likewise a stitch line is drawn from the point  $l^8$ . parallel to the line  $l^9 o^6 o^4$ .

It is understood that the various lines thus obtained for the individual parts A, B, C, D, are always necessary whether the dress waist is to be made of eight parts or of a less number of parts or of only one part, as illustrated 55 in Fig. 3. It is further understood that when

the waist is to be made of less parts, then two or more such parts A, C or C, D, or D, B, or A, C, D or B, D, C, may be unitedly drawn on the material from which the pattern or garment is to be cut.

When the waist for instance, is made of a single piece of material only, then of course the skirt part of the waist is omitted and the material is preferably doubled up, and then the operator commences to first draw on the 65 doubled up material the part B in the manner described it being understood that the measurements are first taken on the lines l land a a at the right of the part B, and then from the edge  $l^9 o^6 o^4$  is drawn the second piece 70 D to obtain the line  $j^3 j^5$  and the line  $j^5 o^4$  corresponding to the line  $j^5 j^7$  of Fig. 1. Next the piece C is drawn from this line  $j^3 j^5$  to obtain the stitch line  $h^5$   $h^9$  and then the line  $h^9$  $j^5$  is drawn corresponding to the line  $h^8$   $h^9$  of 75 Fig. 1. Next the piece A is drawn from this line  $h^5$   $h^9$  in the manner above described and when the entire outline is completed the doubled up material is cut with the exception of the crease or rear edge of the part B. Thus, 80 the pattern or blank for the waist is obtained. After the outlines are drawn on the material for the waist, then the single or several parts are cut, after which the several parts are united in the usual manner to complete the 85 bodice part of the waist, it being understood that the sleeves are obtained in a separate manner.

Having thus fully described my invention, I claim as new and desire to secure by Letters 90 Patent--

The herein described method of obtaining waist patterns or waists, which consists in producing upon the material a system of lines composed of a waist line, lines perpendicular 95 thereto, a line arranged at an acute angle to the waist line, and lines parallel to the said acute angled line, then transferring on the said lines measurements obtained from the body, in conjunction with unit measurements, 100 and thus laying out the individual parts of the pattern or garment, each part being laid out complete before the drafting of the next adjoining part is commenced, substantially as shown and described.

MARIE TUCEK.

Witnesses:

THEO. G. HOSTER, C. SEDGWICK.