

(No Model.)

4 Sheets—Sheet 1.

J. WALKIE.  
TAILOR'S MEASURE.

No. 452,090.

Patented May 12, 1891.

*Fig. 1.*

27	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
28	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
29	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
30	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
31	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
32	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
33	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
34	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
35	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
36	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
37	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
38	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
39	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
40	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
41	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
42	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
43	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
44	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
45	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
46	1	2	3	4	5	D	C	BA	$\frac{1}{2}$
47	1	2	3	4	5	D	C	BA	$\frac{1}{2}$

Witnesses:

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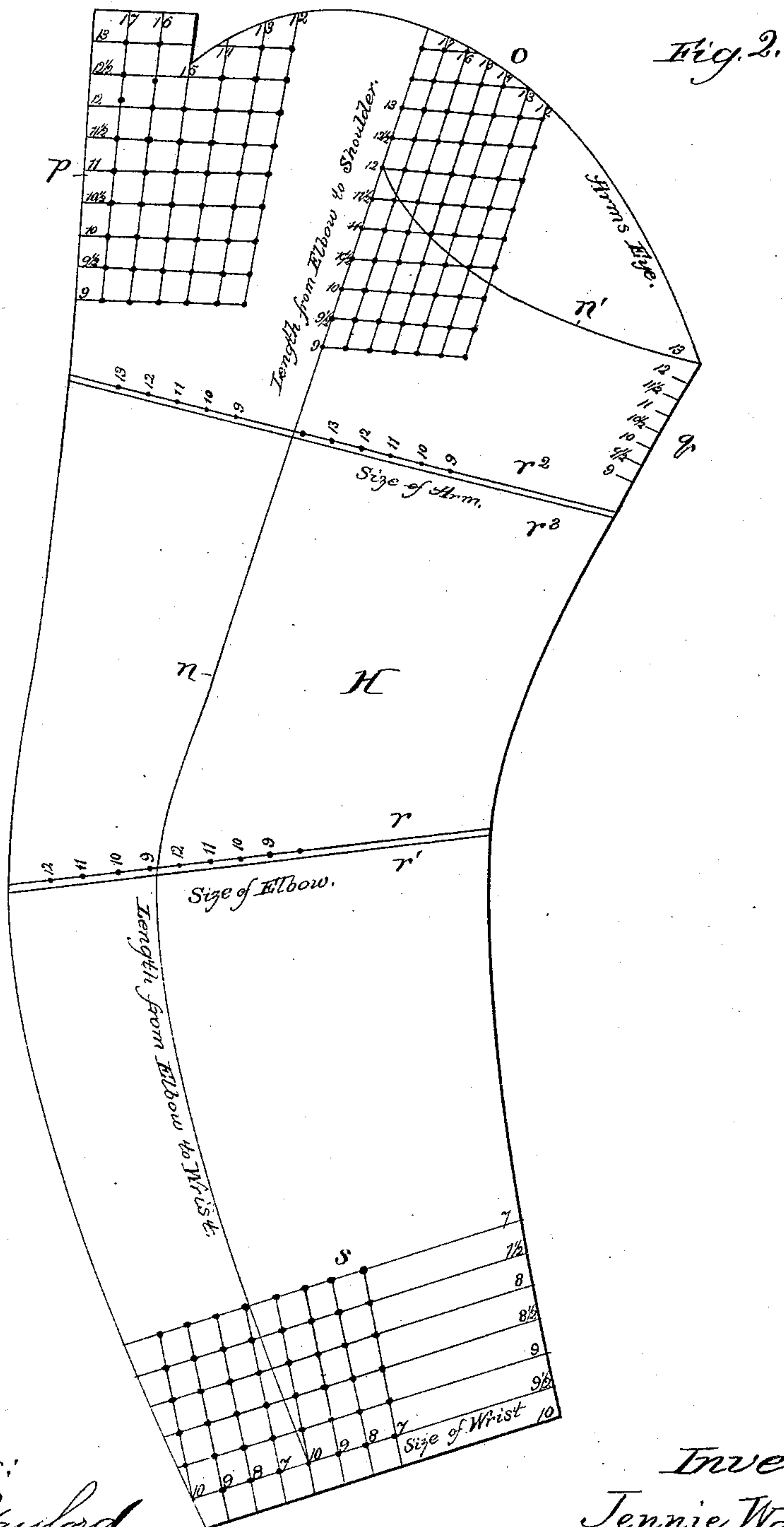
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4 Sheets—Sheet 2.

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4 Sheets—Sheet 3.

J. WALKIE.  
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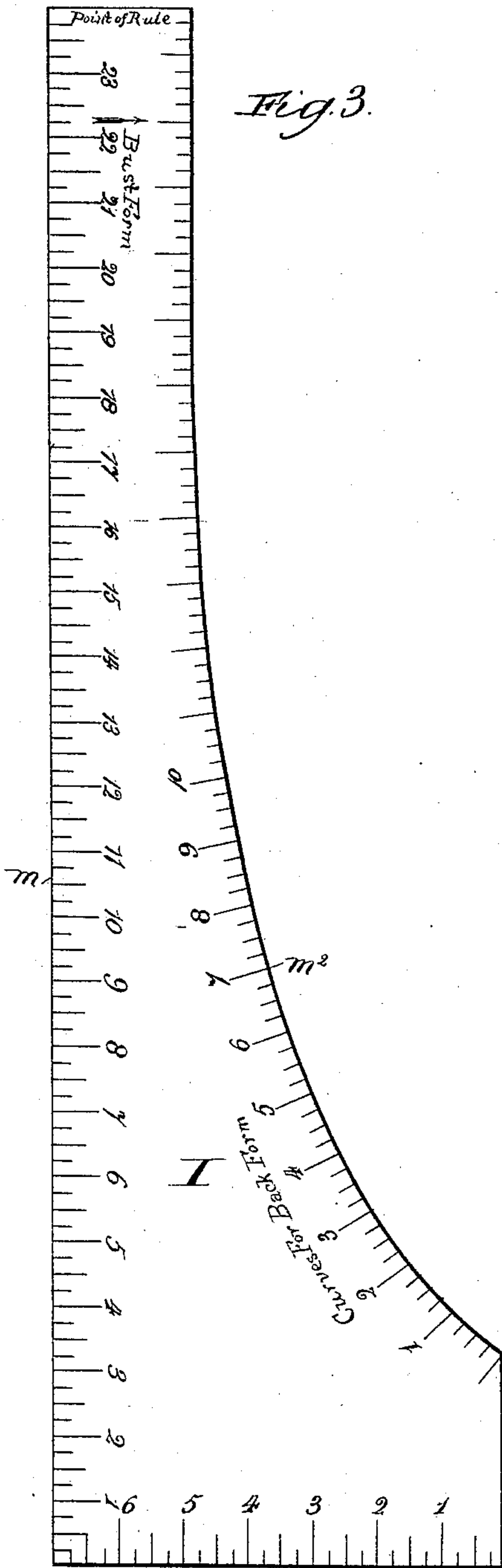


Fig. 3.

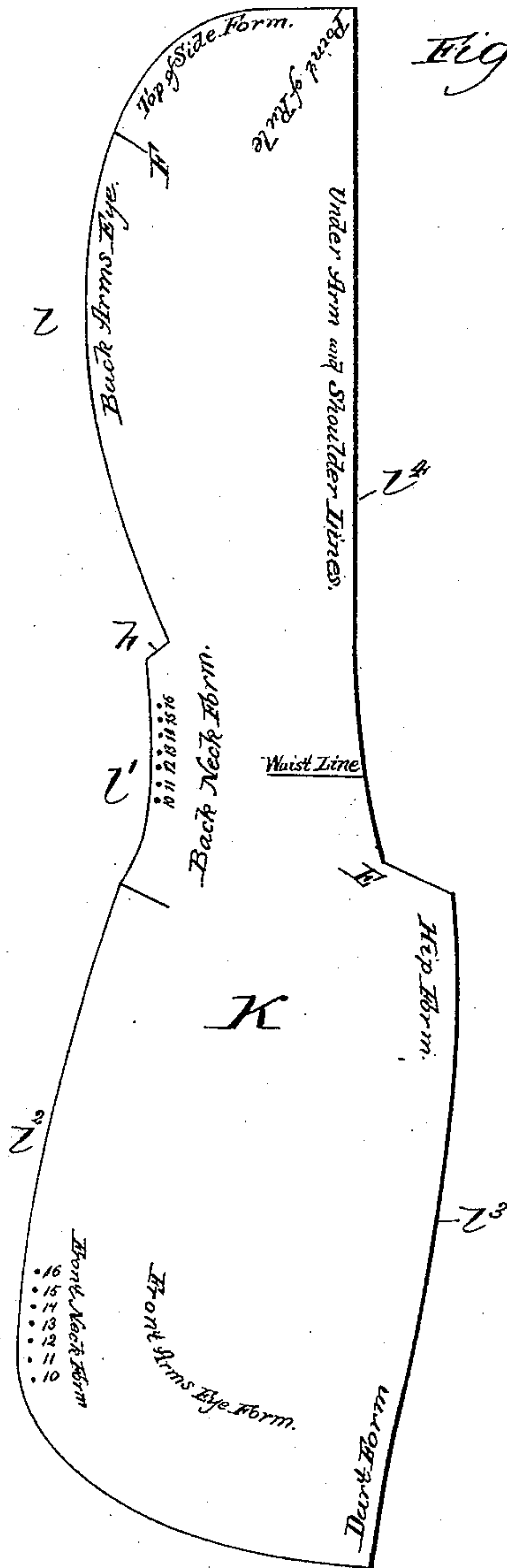


Fig. 4.

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Fig. 5.

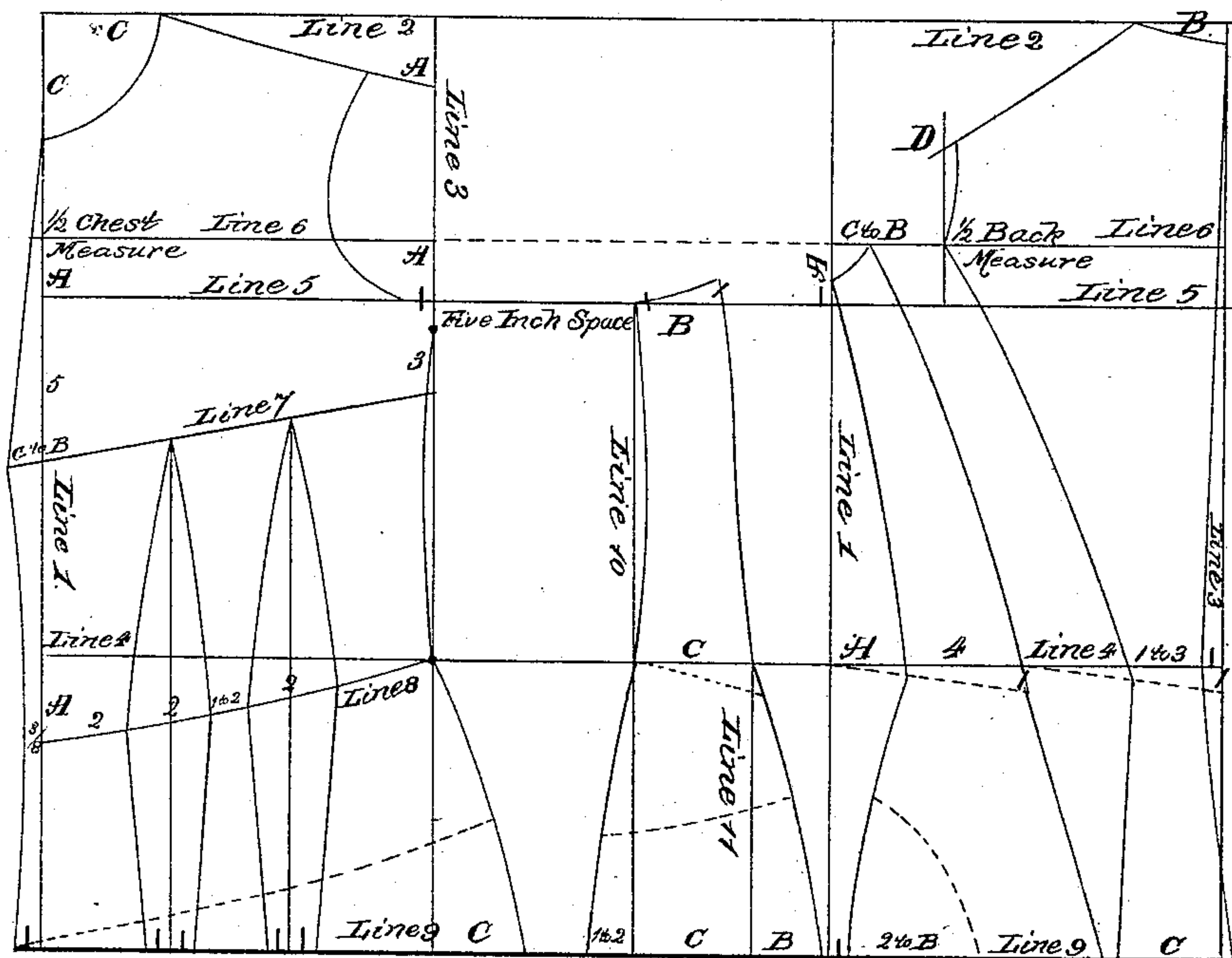
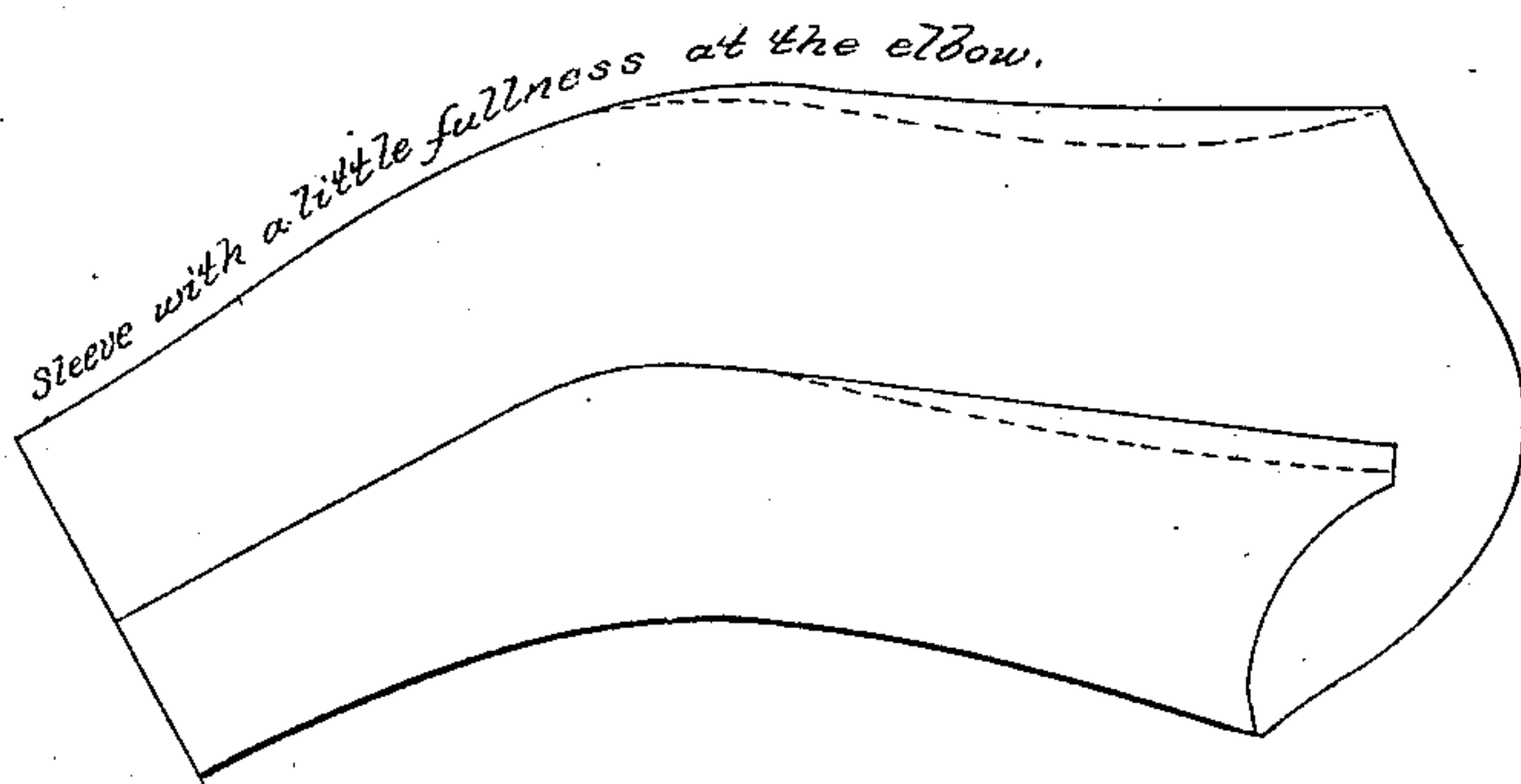


Fig. 6.



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# UNITED STATES PATENT OFFICE.

JENNIE WALKIE, OF CHICAGO, ILLINOIS.

## TAILOR'S MEASURE.

SPECIFICATION forming part of Letters Patent No. 452,090, dated May 12, 1891.

Application filed January 24, 1889. Serial No. 297,334. (No model.)

*To all whom it may concern:*

Be it known that I, JENNIE WALKIE, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Measuring and Shaping Devices for Use in Cutting Women's and Children's Garments; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, of which—

Figure 1 is a plan view of the series of bust-measures; Fig. 2, a plan view of the sleeve-form; Fig. 3, a plan view of the square rule; Fig. 4, a plan view of the curve rule; Fig. 5, a diagram illustrating the application of the aforesaid devices; and Fig. 6, a view of an unfinished sleeve for further illustrating the application.

The object of my invention is to provide a system of measures and forms to permit garments of the class above designated to be cut and fitted accurately to any ordinary figure without involving the exercise of exceptional skill and without requiring the arithmetical calculations usual in systems of this nature.

My devices and their manner of application will be sufficiently understood from the following description:

G G are the series of bust-measures in the form of separate strips, which, like all the other measures represented in the drawings, are of flexible material, commonly pasteboard. Each strip is in length one-fourth the bust-measure indicated by the number at the lower end, increased, preferably, by about one inch. Thus the strip marked 27 is one-fourth of twenty-eight inches in length, the strip marked 47 is one-fourth of forty-eight inches in length, and so for the intermediate strips designated. Each strip has at one end an inch-measure  $t$ , divided into halves, quarters, and eighths of an inch, and at intermediate points between the inch-measure and the opposite end the strips are divided proportionately by the transverse lines marked 1 2 3 4 5 D C B A. The ratio of the distance between any two lines to the length of the strip is the same throughout the series in an accurately-drawn scale.

The sleeve-form H is of the shape indicated in Fig. 2, and is provided at the wrist end

with the graduated scale  $s$ , comprising the transverse lines 7,  $7\frac{1}{2}$ , 8,  $8\frac{1}{2}$ , 9,  $9\frac{1}{2}$ , and 10, and the longitudinal lines 7 8 9 10 7 8 9 10. This scale is used to give the size of the wrist, as indicated by those words on the drawings, both for the under and upper half of the sleeve. Extending partly across the form at the elbow in the position indicated by the transverse parallel lines  $r$   $r'$  are perforations indicated by the numbers 9, 10, 11, &c. This scale is used to give the size of the elbow, as indicated by those words. Between the elbow and the shoulder is a second series of transverse perforations indicated by the numbers 9, 10, 11, &c., in the position indicated by the lines  $r^2$   $r^3$ . This scale is used to give the size of the arm as indicated by those words. On the inner upper edge of the form is a graduated scale  $q$ , comprising the lines 9,  $9\frac{1}{2}$ , 10, &c. At the opposite upper corner of the form is a graduated scale  $p$ , formed of intersecting lines, and between the scales  $p$  and  $q$ , at the upper end of the form, is another scale  $o$ , formed of intersecting lines. All the scales comprising intersecting lines have perforations through the form at the points of intersection. A portion of the top edge of the form  $p$  is used to draft the arm-sceye, as indicated by those words. A curved line  $n$  extends from the scale  $o$  to a point within the scale  $s$ , as the point 10, and a second curved line  $n'$  extends from the upper end of the scale  $q$  to a point within the scale  $o$ , as the point 12. The upper portion of the line  $n$  gives the length from elbow to shoulder, and the lower portion the length from elbow to wrist, as indicated, respectively, by those words on the drawings. The principal function of the lines  $n$  and  $n'$  is to distinguish the upper from the under part of the sleeve. The square rule I has the two straight edges  $m$  and  $m'$  and the curved edge  $m^2$ , each divided into inches and fractions of an inch.

The curved form K is of the shape represented in Fig. 4. At the upper portion of the form K (as it is placed on the drawings) is the irregular curve  $l$ , divided into two parts by the line F. Above the line F the curve is used to draft the top of side-form, as indicated by those words on the drawings, and below the letter F the curve is used to draft the back arm-sceye, as indicated by the latter words.



Below the curve  $l$  is an angle  $h$ , and below this angle is a convex curve  $l'$ , used to draft the back-neck form, as indicated by those words. Within the compass of the curve  $l'$  perforations (indicated by the numbers 10, 11, 12, &c.) are formed. Below the curve  $l'$  is a curve  $l^2$ , somewhat resembling the curve  $l$  in form. At an intermediate point in this curve, near where it changes its direction abruptly, is the portion used for drafting the front-neck form, as indicated by those words, and within the compass of this portion of the curve are perforations indicated by the numbers 10, 11, 12, &c. The lower portion of the curve  $l^2$  is used for drafting the front arm-scye, as indicated by those words on the drawings.

At the lower portion of the form K on the edge opposite the one having the curves thus far described is the compound curve  $l^3$ , the lower portion of which is used to draft the dart-form and the upper part to draft the hip-form, as indicated, respectively, by those words on the drawings. Above this curve is an angle, (indicated by the letter E,) and above this angle is the partly-straight and partly-curved edge  $l^4$ , used to draft the under arm and shoulder lines, as indicated by those words on the drawings.

The function of the points indicated by the words "point of rule" and "waist-line" will appear farther on.

None of the parts represented in the drawings are drawn to scale, though the proportions of measurements are approximately preserved throughout.

The application of the above-described devices will now be understood by a reference to the diagram shown in Fig. 5 and the sleeve shown in Fig. 6.

We will assume that measures have been taken for a garment as follows: bust, length of back, under arm, length of shoulder, chest, width of back, waist, and neck. The operation is begun by drafting the straight lines for the front and under arm form before putting in the curves. These commence by drafting the first or base line two and one-half inches from the edge of the paper, the length of waist required for the front waist-line. Then draw line 2 one inch from the left-hand edge of the paper for the top waist-line. Then take the scale indicating the proper bust-measure, measure out the exact length of this scale from line 1 on line 2 and dot, and also at the lower end of line 1 and dot, and draw line 3 by the dots just made parallel with line 1 to the length of the waist required. Next measure down from line 2 on lines 1 and 3 the required length of back-measure and dot, and draw line 4 by the dots just made for the level waist-line. Next measure up from line 4 on lines 1 and 3 the length of the required under-arm measure and dot for line 5, which is the under-arm line. These five lines give the exact length and breadth of one-half the front of the waist, and the diagram is now ready for putting in the

curves. To put in the first curve, take the scale, measure from line 2 down on line 1 to C on the scale for front of neck. Next measure out on line 2 from line 1 to C on the scale for shoulder-point of neck. Take the curved rule and draw the neck-curve from the dots just made by placing the size of neck on the dot on line 1. Then measure from line 2 on line 3 to A on the scale for front shoulder-slope. Draw the shoulder-line with the shoulder-line on the curved rule by placing the point E at the shoulder-point of the neck on line 2 and carrying the rule down to the slope of shoulder on line 3. Turn the rule face down for drawing the front shoulder. Now measure the length of shoulder on the line just drawn from shoulder-point of neck and dot. Next take the scale and measure up from line 5 on lines 1 and 3 to A on the scale and dot for line 6, which is the chest-line. Take the square rule and draw line 6 by the dots just made. Next measure half of the chest-measure on line 6 from line 1 and dot for breadth of chest, and measure in on line 5 from line 3 to "1" on the scale and dot. Take the front arm-scye form on the curved rule, place so that it will touch at the same time the length of shoulder, breadth of chest on line 6 and the dot just made on line 5, and draw the front arm-scye curve. Take the scale and measure down from line 5 on line 1 to "5" on the scale and dot. Now measure down from line 5 on line 3 to "3" on the scale and dot. Take the square rule and draw line 7 by the dots just made for the top dart-line. Take the scale, measure down from line 4 on line 1 to "A" on the scale and dot. Now take the curved side of the rule, place figure 5 at the intersection of lines 3 and 4, carry the rule across to the dot just made on line 1 and draw line 8, which is the lower waist-line. Next measure about seven inches down from line 4 on lines 1 and 3 and dot. Take the square rule and draw line 9 by the dots just made for the bottom waist-line. Take the scale, measure in on line 8 from line 1 to "2" on the scale for front curve of first dart, and measure from this dot to "2" on the scale again for the width of first dart at waist. Measure from the last dot from 1 to "2" on the scale for the space between darts. Measure to "2" on the scale again for the width of the second dart, and then mark the exact center of each dart on line 8. Take the square rule, place the square end thereof on line 9, carry the straight edge of the rule up parallel with line 1 and touch the center dot of the first dart on line 8 and draw the center line of the first dart from line 7 to line 9. Take the scale, measure to "1" on the scale each side of the center of the dart on line 9 for the width of dart at bottom of waist. Take the curved rule, place the point of the dart-form on the center line of the first dart just below line 7, carry the rule down to the first dot on line 8, and draw the curve from line 7 to line 8. Draw a straight line from line 8 to the first



dot on line 9 for the front dart-line, turn the curved rule over, face down, and draw the back line of the first dart in the same manner as the front line, and then draw the second dart the same as the first dart. Now take the scale, measure out on line 9 from line 3 to "C" on the scale for the front hip-spring. Take the under-arm line on the curved rule, place the waist-line on the rule on line 4 at the intersection of lines 3 and 4, carry the point of the rule up to the intersection of lines 3 and 5, and draw the under-arm line. Place the hip-form of the rule on the line just drawn to line 4, carry the lower part of the rule down to the dot previously made on line 9 for the hip-spring and draw the curved hip-form from line 4 to line 9. For the bust-line take the scale, measure out on line 7 from line 1 from C to B on the scale and dot. Next measure out on line 8 from line 1 about three-eighths of an inch and dot. Next measure out on line 9 from line 1 to "1" on the scale and dot. Then take the square rule, place the arrow indicating the point of the bust-form on line 1 at the front of the neck and draw the bust-line from the neck-line to the dot just made on line 7. Turn the rule so that it will curve in toward line 1. Have figure 8 of the rule touch the line just drawn on line 7 and carry the lower part of the rule to touch the dot on line 8 and draw a line from line 7 to line 8. Now draw a straight line from the line just drawn on line 8 to the dot on line 9, as seen in the diagram. For drafting the under-arm form continue lines 4, 5, and 9 across the width of the paper, measure out about five inches on line 5 from line 3 and dot, also on line 9 and dot, and draw line 10 by the dots just made. The space left between lines 3 and 10 is for hip-spring, and varies according to size. Next take the scale, measure out on line 5 from line 10 to B on the scale for the width of top of the under-arm form. Measure up to "1" on the scale above the dot just made on line 5 and dot for the height of side-form. Then measure out on line 4 from line 10 to C on the scale and dot for the width of side-form at waist, also to C on the scale on line 9 and draw line 11 by the dots just made from line 4 to line 9. Next measure out on line 9 from line 11 to B on the scale for back hip-spring, and measure out on line 9 toward the front from line 10 from "1" to "2" on the scale for the front hip-spring. Take the under-arm line on the curved rule, turn it face down, placing the waist-line on the rule at the intersection of lines 4 and 10, carry the point of the rule up to the intersection of lines 5 and 10 and draw the under-arm line from line 4 to line 5. Now place the hip-form of the rule on the line just drawn to line 4, carry the lower part of the rule down to the dot for front hip-spring on line 9, and draw the front hip-form from line 4 to line 9. Now turn the rule face up. Place the waist-line of the rule at the intersection of lines 4 and 11, and

carry the upper part of the rule up to touch the dot on line 5 for the width of side-form. Draw the under-arm line up from line 4 to the dot made above line 5 for the height of side-form. Then place the hip-form of rule on the line just drawn on lines 4 and 11. Carry the lower part of the rule down to the dot on line 9 for the back hip-spring and draw the hip-form from line 4 to line 9. Draw the top of the side-form with the curve on the rule, as seen in the diagram. To draft the side back-form, draw lines 1, 2, 3, 4, 5, 6, and 9 the same as for the front. Then take the scale, measure in on line 6 from line 1 from C to B on the scale and dot for the width of top of side back-form; also measure up from line 5 on line 1 to "1" on the scale and dot for the height of under-arm form. Now measure in on line 4 from line 1 to A on the scale, and measure from the dot just made along line 4 to "4" on the scale and dot for the width of side back-form at waist. Next measure in on line 9 from line 1 to "1" on the scale and dot, and measure from the dot just made along line 9 from "2" to B on the scale and dot for the width of side back-form at the bottom. Now take the under-arm line on the curved rule, turn the rule face down, place the waist-line on the rule on the first dot made on line 4, carry the upper part of the rule up to the dot made on line 1 above line 5 for the height of form under the arm, and draw the front line of under-arm form from the dot down to line 4. Next place the hip-form of rule on the line just drawn on line 4, carry the lower part of the rule down to the first dot made on line 9 and draw the hip-spring of side back-form from line 4 to line 9. Next take the curves for back-form on the square rule, place figure 2 or 3 on the dot made on line 6, carry the lower part of the rule down to the dot on line 4 for the width of form at waist, and draw the curve for side back-form from line 6 to line 4. Draw a straight line from the line just drawn on line 4 to the dot on line 9 for the width of form at bottom. Now draw the top of side back-form with the curve on the rule from the dot on line 6 to the dot on line 1, as seen in the diagram. For drafting the back-measure in on line 2 from line 3 to B on the scale and dot for the width of back of neck. Now measure down on line 3 from line 2 about three-eighths of an inch and dot; take the back neck-curve on the curved rule and draw the back of neck from the dot on line 2 to the dot just made on line 3. Measure in on line 6 from line 3 half the width of back-measure and dot. Now take the scale, place the lettered end of scale on line 5, carry it up to touch the dot just made on line 6 at width of back and draw a line up from line 5 to D on the scale for height of shoulder. Now take the shoulder-line on the curved rule, place E at width of back of neck on line 2, carry the lower part of the rule down to height of shoulder at D, and draw the back



shoulder-line. Now measure the length of shoulder on shoulder-line and dot, allowing the back shoulder one-half inch more length than the front. Next draw the arm-sceye line with the back arm-sceye form on the curved rule by placing F on the rule on line 6 at the dot made for the width of back, carry the upper part of the rule to touch the dot on shoulder-line for length of shoulder and draw the line from the shoulder-line to line 6. Now take the scale, measure in on line 4 from line 3 to "1" on the scale and dot for the back seam, and without moving the scale dot at 3 for width of back at waist. Now measure in on line 9 from line 3 to C on the scale and dot for the width of back at bottom. Then take the square rule, place the straight edge of it on line 3 at back of neck, carry the lower part of the rule down to touch the first dot made on line 4, draw a straight line from back of neck to line 6, turn the rule around, place the point of bust-form on the line just drawn to line 6, carry the rule down to touch the first dot on line 4, and continue the back-line from line 6 to line 4 for the center back-seam. Now place the straight edge of the rule on the line just drawn to line 4, carry the rule down to the intersection of lines 3 and 9, and continue the back-line from line 4 to line 9. Now take the curves for the back-form on the square rule, place figure 2 or 3 on line 6 at the dot for width of back and back arm-sceye, carry the lower part of the rule down to the dot on line 4 for width of back, and draw the curve for the back-form from line 6 to line 4. Now place the straight edge of the rule on the line just drawn to line 4, carry the rule down to the dot on line 9 for the width of back at bottom, and continue the line from line 4 to line 9. To get the lower waist-lines on the back and side back-form, measure below line 4 on the center back-line to "1" on the scale; also, below line 4 on the back-line of form to "1" on the scale, and draw straight lines across from the intersection of lines 1 and 4 to the dots just made, as seen on the finished diagram. These lower waist-lines in the back are only used in extremely long waists. After finishing the draft for the waist measure the size of bust, length of back, width of chest and back, under arm, shoulder, and waist, and if the drafting has been exact the measures will correspond with those taken. Should the waist-measure of the draft be more than the measure calls for, take the difference from the under-arm seams. If it measures less, add the required amount there. Care must be taken that the waist-line of the pattern (which is line 4) runs straight with the thread of the goods, and two and one-half inches should be allowed for the hem on the front. No allowance for seams is made in drafting. Hence three-fourths of an inch for seams should be allowed everywhere, except in the neck and arm-sceye, where nothing is allowed.

After learning how to use the system the drafting can always be done on the lining,

which saves much time. In drafting the squares for the back, when drafting on the lining, one inch more should be allowed than the length of the scale used between lines 1 and 3 to allow for the seams at the bottom of the side back-form and back.

Peparatory to drafting the sleeves the following measurements are taken in inches: length from shoulder to elbow, from elbow to wrist, arm-sceye, largest part of arm, elbow, and wrist.

The three lines of figures, from 9 to 13, at the top of the form II, running lengthwise on the inside line, the center line, and the outside line, give the length from the shoulder to the elbow. The figures on the inside line at the bottom of the form give the length from elbow to wrist. The numbers around the top of the form give the size of arm-sceye for both upper and under measures, the next the largest part of arm, the next the size of elbow, across the bottom of the form the wrist.

The under part of the sleeve should always be drafted first, as that gives the correct length of back-seam. To draft the sleeve, proceed as follows: Place the sleeve-form on the paper or lining, with the inside line of the form next to you. Draw the inside line of the sleeve from the number above on the inside line, which gives the length from the shoulder to the elbow, which is the first measure taken. Draw the line down along the inside line of the form to the number below on the line, which gives the length from the elbow to the wrist, which is the second measure. This gives you the full length of sleeve required. Now, without removing the form and being very careful not to let it slip, come up on the center line to the number which gives the length from shoulder to elbow again for the length on the back line of sleeve. Then come down from the number which gives the size of the arm-sceye at the top of the form down the line of perforations till you reach the line of holes directly opposite the length and dot. This gives the size of arm-sceye and length of sleeve above. Then dot at the number indicating the size of the largest part of the arm, also at the number indicating the size of elbow, and also at the number indicating size of wrist in the line of holes directly opposite the length of sleeve on the inside line. Now remove the form, draw the back line of sleeve by the back of sleeve-form, placing the elbow of the form at the elbow-dot and drawing the line up to the dot just made above for size and length, also from the elbow down to the dot below for full length. Draw the curve at the top by reversing the form and placing figure 12 of the top form on the inside line and draw the curve to the outside line, which finishes the under part of the sleeve.

To draft the upper half of the sleeve, place the form on the material the same as before. Draw the inside line the same as before to the length required. Draw the back line the same as before, only using the figures on the



back line of the form to get the length and size of the arm-sceye and dot the same as before. Now to get the size of the arm, elbow, and hand use the numbers indicating the size  
 5 your measure calls for between the center line and back line. Draft the back line of the upper by placing the form the same as before. Draft the first half of the top curve from the inside line by placing the form  
 10 along the inside line with the top point of the form touching the upper end of the line, and draw from the line up to the number indicating the size of arm-sceye and stop. Then reverse the form, turning the face down,  
 15 place the highest round of the form touching the curve just drawn, and continue the line on around to the back line.

Allow one-half inch for seams on both upper and under parts of the sleeve, as no seams  
 20 are allowed for when the measure is taken.

What I claim as new, and desire to secure by Letters Patent, is—

1. A series of measuring-strips *G* for use in cutting garments, said strips being of different lengths, and each having a length  
 25 equal to or slightly exceeding one-fourth of a designated bust-measure, and each provided with an arbitrary scale marked thereon and serving to divide the strip into parts irregular  
 30 in length with relation to each other, the proportion between the length of any specified part and the strip upon which it is designated being the same throughout the series, substantially as shown and described.

35 2. The rule *I* for use in cutting garments,

having the straight edges *m* and *m'* at right angles to each other, and the curved approximately hypotenusal edge *m<sup>2</sup>*, each edge provided with a measuring-scale throughout its length, substantially as shown and described. 40

3. The curved rule *K* for use in the cutting of garments, having for its outlines the varying curves *l*, *l'*, and *l<sup>2</sup>* and angle *h*, forming one edge, and the curve *l<sup>3</sup>*, angle *E*, and partly straight and partly curved edge *l<sup>4</sup>*, forming  
 45 the opposite edge, substantially as shown and described.

4. The curved rule *K* for use in the cutting of garments, having for its outlines the curves *l*, *l'*, *l<sup>2</sup>*, and *l<sup>3</sup>*, angles *h* and *E*, and partly  
 50 straight and partly curved edge *l<sup>4</sup>*, and provided with perforations for the back neck-form within the compass of the curve *l'*, and with perforations for the front neck-form about midway of the compass of the curve *l<sup>2</sup>*,  
 55 substantially as described.

5. The sleeve-form *H* for use in the cutting of garments, provided at the wrist end with the scale *s*, at the elbow with a transverse line of numbered perforations, above the elbow  
 60 with a second line of transverse perforations, and above the latter with the scales *q*, *o*, and *p*, the scales *s*, *o*, and *p* having perforations at the line-intersections, substantially as shown and described.

JENNIE WALKIE.

In presence of—

J. W. DYRENFORTH,

M. J. BOWERS.