

(No Model.)

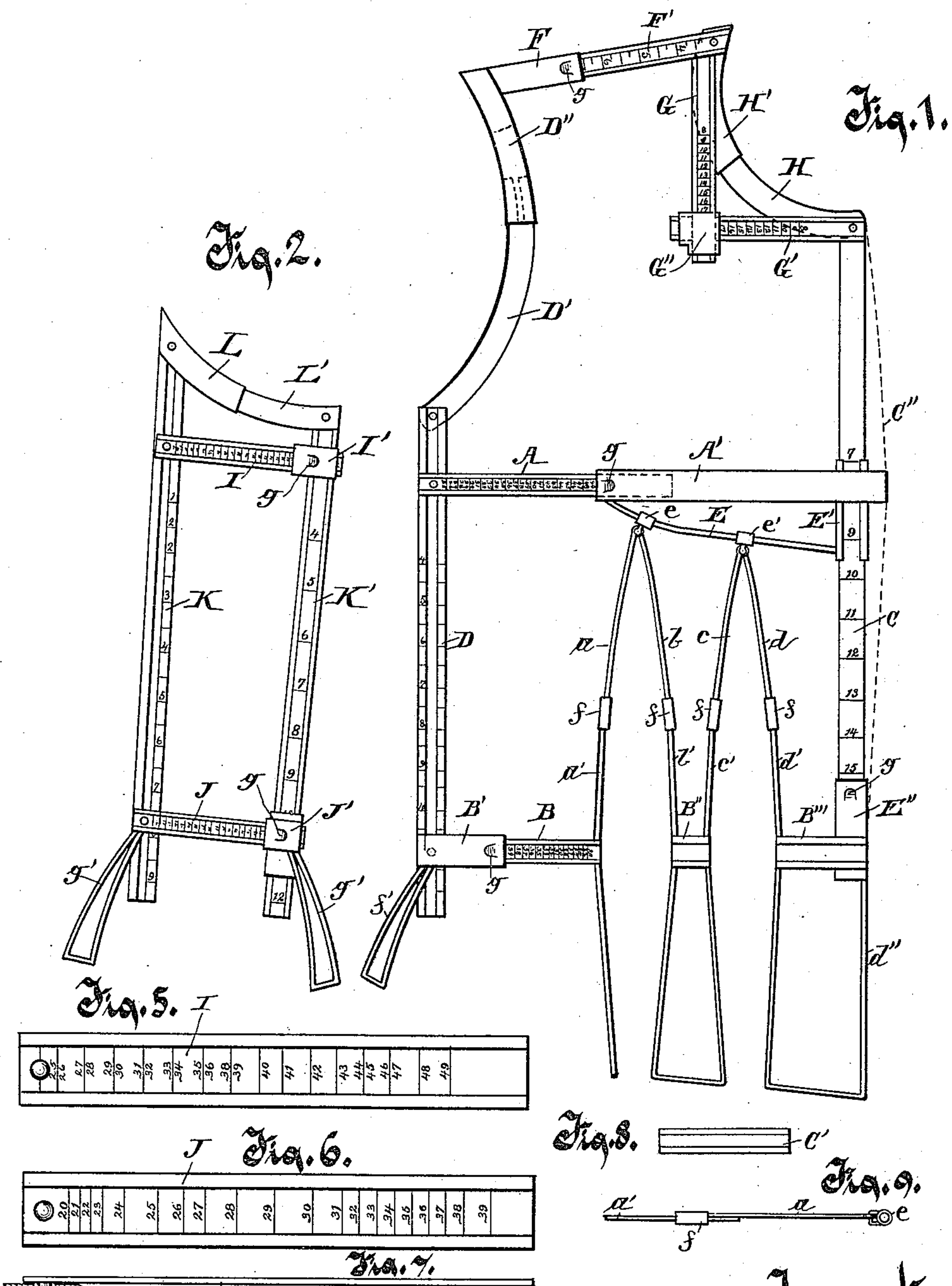
2 Sheets—Sheet 1.

M. LENNART.

ADJUSTABLE PATTERN FOR DRAFTING GARMENTS.

No. 441,369.

Patented Nov. 25, 1890.



Witnesses.  
A. H. Kuehn.  
Arthur Koenitzer

Inventor.  
Magdalena Lennart  
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

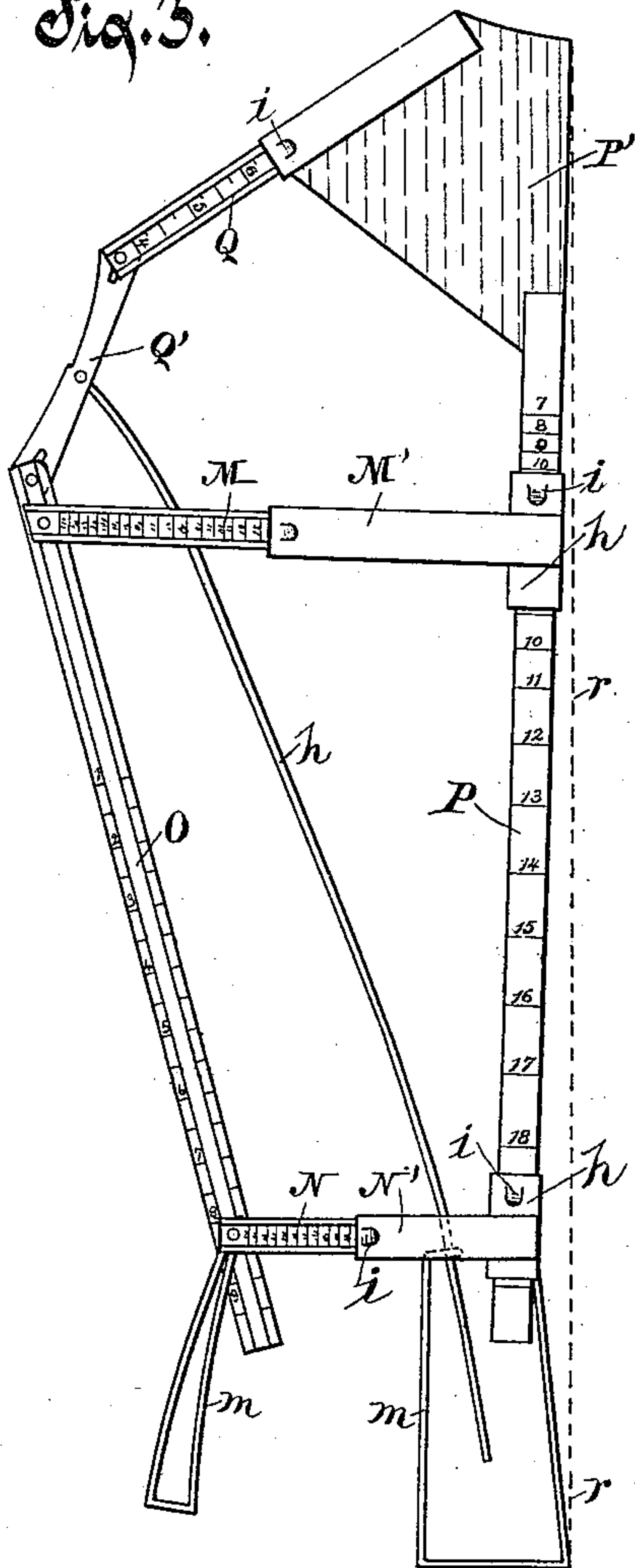


Fig. 4.

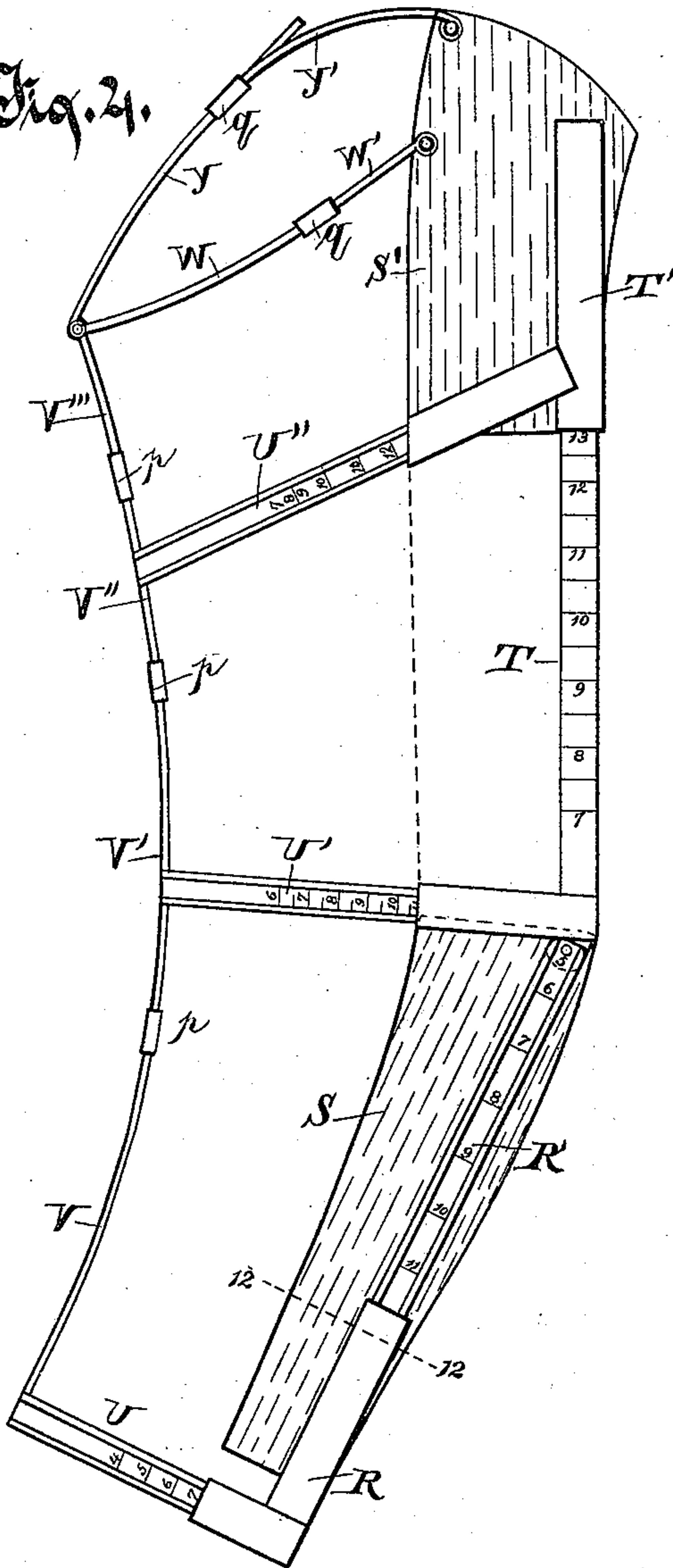


Fig. 10.

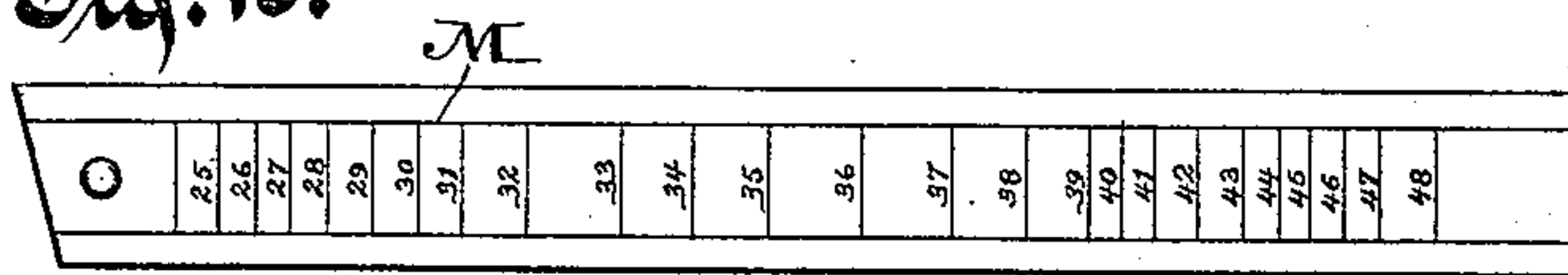
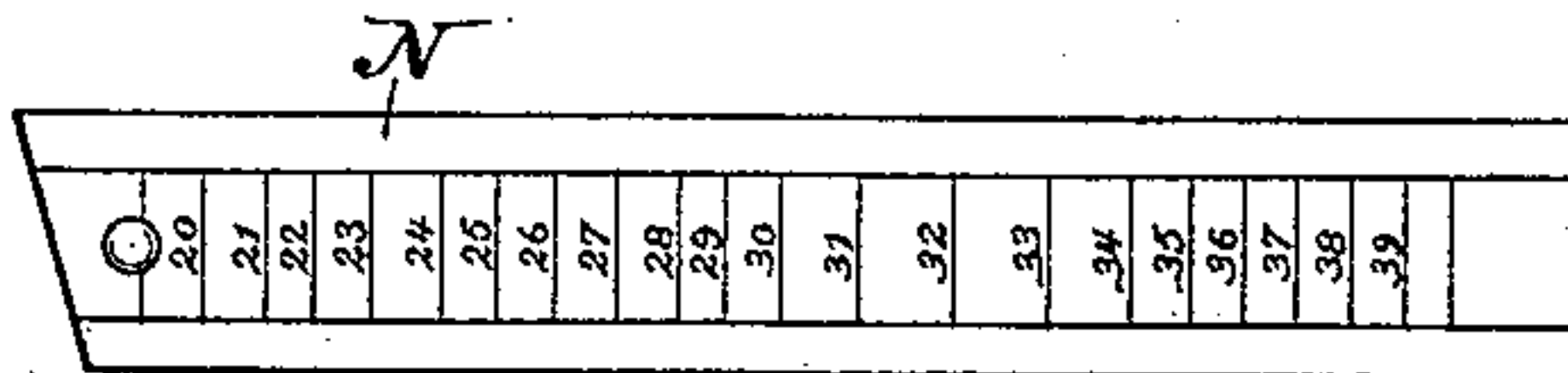


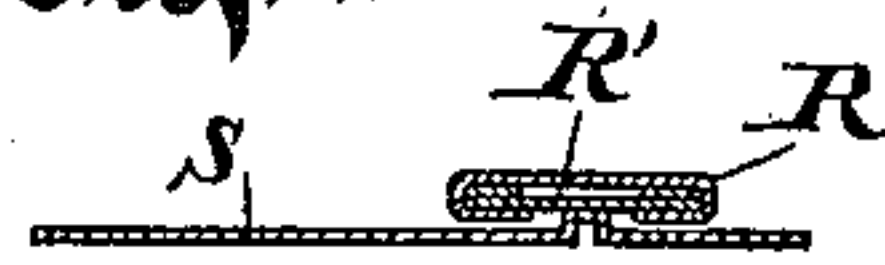
Fig. 11.



Witnesses.

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Fig. 12.



Inventor.

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# UNITED STATES PATENT OFFICE.

MAGDELENA LENNART, OF MILWAUKEE, WISCONSIN.

## ADJUSTABLE PATTERN FOR DRAFTING GARMENTS.

SPECIFICATION forming part of Letters Patent No. 441,369, dated November 25, 1890.

Application filed August 23, 1890. Serial No. 362,852. (No model.)

*To all whom it may concern:*

Be it known that I, MAGDELENA LENNART, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Adjustable Patterns for Drafting Dress Waists and Sleeves, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to certain features of the device which have been improved, and which will be hereinafter specifically claimed.

In the drawings, Figure 1 is the pattern for the front of the waist of a dress. Fig. 2 is the pattern for the side of the waist. Fig. 3 is the pattern for the back of the waist. Fig. 4 is the pattern for the sleeve. Figs. 5 and 6 are enlarged plan views of the upper and lower cross-bars, respectively, of the pattern for the side of the waist. Fig. 7 is an edge view of the part shown in Fig. 6, with a cross-section of the rear bar of the pattern for the side, showing the movable connection of the cross-bar with the upper bar. Fig. 8 is a removable slide to be used in connection with the lower cross-bar of the pattern for the front of the waist. Fig. 9 is a side view of a portion of one of the dart-rods. Figs. 10 and 11 are plan views of the upper and lower graduated bars of the pattern for the back. Fig. 12 is a transverse section of a portion of the pattern for the sleeve on line 12 12 of Fig. 4.

My improved device is preferably constructed principally of metal, the several bars and plates being conveniently made of tin and the several rods of wire. The graduated scales may be formed by stamping them in the metal, or may be printed on paper and pasted on the metal bars. Preferably the scales are stamped in the metal bars.

The drawings, Figs. 1, 2, 3, and 4, in this application are made to a scale one-third the size of the actual pattern.

In the pattern for the front of the waist the top cross-bar, consisting of the bars A and A', and the lower cross-bar, consisting of the parts B, B', B'', and B''', are connected to and made to slide on the front and rear vertical bars C and D, respectively. For this purpose the cross-bars A and B' are each provided with a headed stud, the head of which is received

movably in a partially-covered channel therefor in the bar D, and the cross-bars A' and B''' are each secured rigidly to a sleeve or clasp, which partially surrounds the bar C and slides thereon. The parts A and B of the cross-bars are constructed to telescope into the parts A' and B', respectively. The removable slide C', Fig. 8, is adapted to slide in the parts B'' and B''' of the lower cross-bar and to connect them together, particularly when the two parts are brought close to each other. The part A' of the cross-bar projects a little way in front of the bar C, and a dotted line C'', drawn from the top to the bottom of the bar C and curved outwardly to the end of the part A', indicates the line or direction in which the cloth is to be cut with reference to the pattern. A rod E, fastened rigidly at its rear end to the part A', is secured at its front end rigidly to the slide E', which is rigid to the part A'. Dart-rods *a a'*, *b b'*, *c c'*, and *d d'* are hinged in pairs, respectively, to the sleeves *e e'* loose on the rod E. The parts *a'*, *b'*, *c'*, and *d'* are respectively secured rigidly to parts of the lower cross-bar of the front pattern and are also respectively arranged to telescope in sleeves *f f f f*, fixed on the ends of the parts *a b c d*. These several dart-rods project below the lower or waist cross-bar sufficiently far to be a guide for cutting the waist of a dress to its extreme lower edge. The parts *b' c'* are secured rigidly to the part B'' of the cross-bar and are preferably connected together at their lower end. The part *d'* is secured medially rigidly to the part B''' of the waist cross-bar, and at its lower end is bent toward the front and again bent upwardly and at its upper end is secured to the slide E', which is secured rigidly to the part B'''. The front portion *d''* of the rod forms a line extending outwardly continuously with the front line of the front bar C. These dart-rods are somewhat curved and are arranged in pairs curving centrally from each other in each part, which central curve is adapted to be lessened or entirely omitted by adjustment of the pattern. A rod *f'*, constructed of wire, formed, preferably, into an angular loop, has its upper extremities secured rigidly to the part B' of the cross-bar. The rear edge of



this rod  $f'$  is slightly curved and extends downwardly and outwardly and is adapted to serve as a pattern for cutting that part of the rear edge of the front piece of the waist of the dress that extends below the waist or below the lower cross-bar. A curved bar, consisting of the parts  $D'$  and  $D''$ , is hinged at its lower end to the bar  $D$  and in the pattern forms a part of the arm hole or scye. The two parts  $D'$  and  $D''$  are arranged to telescope or slide one on the other through a sleeve fixed to the one and permitting the other to slide therein. A top bar, formed of the parts  $F$  and  $F'$ , is arranged at an angle to the upper or bust bar  $A A'$ , and the part  $F$  is secured rigidly to the part  $D''$ , while the part  $F'$  is secured rigidly to a vertical bar  $G$ . A horizontal bar  $G'$  is secured rigidly to the front bar  $C$ , and the free ends of the two bars  $G$  and  $G'$  cross each other, movably sliding in a sleeve-guide  $G''$ . A curved bar in two parts  $H$  and  $H'$ , the outer ends of which are pivoted to the front ends of the bars  $F'$  and  $G'$ , respectively, telescope one within the other medially, and form the adjustable pattern for the neck at the front and side of the dress. The bars  $A$ ,  $B$ ,  $C$ ,  $D$ ,  $F'$ ,  $G$ , and  $G'$  are severally graduated and provided with a scale indicated by figures, as shown in the drawings.

In the pattern for the side of the waist shown in Fig. 2 the upper and lower cross-bars  $I$  and  $J$  are each secured by a headed stud in the rear bar  $K$ , the heads of which studs are received and slide in a partially-covered channel therefor in the bar  $K$ , and at their front ends the bars  $I$  and  $J$  are received and slide in the clasps or sleeve-guides  $I'$  and  $J'$ , respectively, which guides partially surround and slide on the front bar  $K'$ . Little tongues partially cut from the guides  $I'$  and  $J'$  are bent inwardly and are elastic, forming springs  $g g$ , which bear yieldingly against the bars  $I$  and  $J$ . A curved bar consisting of the parts  $L$  and  $L'$ , which parts at their outer ends are pivoted, respectively, to the top ends of the bars  $K$  and  $K'$ , are constructed to telescope medially one in the other, and are adapted to form a portion of the pattern of the arm hole or scye. The bars  $K$ ,  $K'$ ,  $I$ , and  $J$  are graduated and have a scale indicated thereon by figures, as shown in the drawings. Two rods  $g' g'$ , preferably formed in angular loops, have their upper extremities secured rigidly to the bar  $J$  and guide  $J'$ , respectively, and project downwardly and outwardly therefrom, their lateral outer line being curved slightly, which rods so constructed and arranged are adapted to serve for a pattern for cutting the lower portion of the side of the waist of the dress.

In the pattern for the back the upper and lower cross-bars, consisting of the parts  $M$  and  $M'$  and  $N$  and  $N'$ , respectively, are connected movably to the bars  $O$  and  $P$ , the parts  $M$  and  $N$  being connected to the front bar  $O$  by headed studs, which slide in a channel there-

for in the bar  $O$ , while the parts  $M'$  and  $N'$  are respectively secured rigidly to guide-sleeves  $h h$ , which partially surround and slide on the bar  $P$ . The parts  $M$  and  $M'$  and  $N$  and  $N'$  at their inner ends telescope on each other in pairs, as shown. A plate  $P'$ , having a rear edge in a continuous line with the rear edge of the bar  $P$ , is secured rigidly to the bar  $P$  at its top end. A bar  $Q$ , located obliquely to the bar  $P$ , slides endwise in a sleeve formed on the front oblique edge of the plate  $P'$ , and a bar  $Q'$  is pivoted at one end to the otherwise free end of the bar  $Q$  and at the other end to the top of the bar  $O$ . A slight amount of lost motion is provided for by providing slots in the bar  $Q'$  at its respective ends, in which the pivots connecting it to the adjoining bars are inserted. The bar  $Q'$  is slightly curved on its outer edge and forms a portion of the pattern for the armhole or scye. The top edge of the plate  $P'$  is also cut in a curved form, thereby adapting it for cutting that portion of the neck of the dress thereby. Small tongues are cut in the parts  $M'$  and  $N'$  in the guides  $h h$  and in the plate  $P'$ , which are turned inwardly and form springs  $i i$ , bearing against the bars sliding beneath them. A curved rod  $k$  is hinged at its upper end to the bar  $Q'$ , its lower end passing movably through a loop formed on the bar  $N'$  at a little distance from the bar  $P$ , which loop is formed by turning the upper end of the rod  $m$  into a loop form. Two guide-rods  $m$  and  $n$ , forming angled loops, have their extremities secured, respectively, to the parts  $N'$  and  $N$  of the lower cross-bar. These loops project downwardly below the other portions of the pattern, and their outer lateral edges are inclined outwardly downwardly, forming the pattern for cutting the lower portion of the rear part of the dress-waist. The bars  $O$ ,  $P$ ,  $M$ ,  $N$ , and  $Q$  are graduated and provided with a scale in numbers, as shown in the drawings. The dotted line  $r r$  is at right angles to the lower bar formed of the parts  $N$  and  $N'$ , which indicates a line or belt passing directly about the person at the waist. The bar  $P$  is arranged at a slight angle to the vertical line  $r r$ , so as to adapt it to serve for a pattern which shall be quite correct without having to revise the cloth cut thereby after it is marked by the pattern.

In the sleeve-pattern shown in Fig. 4 the upper arm of the right, angled bar  $R$  is constructed to slide endwise on the bar  $R'$ , which is rigid on the plate  $S$ , which at its upper end is hinged to the bar  $T$ . The bar  $T$ , connected to the plate  $S$  at an oblique angle to the general direction of the bar  $R'$ , slides at its upper end freely in a guide  $T'$ , fixed on a plate  $S'$ . Cross-bars  $U$ ,  $U'$ , and  $U''$  at one end slide freely endwise, respectively, in ways therefor in the bar  $R$ , the plate  $S$ , and the plate  $S'$ . A curved rod, consisting of the parts  $V$ ,  $V'$ ,  $V''$ , and  $V'''$ , is secured at one end rigidly to the end of bar  $U$  and at the other end is hinged by a common joint to the ends of the two curved rods, each formed in two parts,  $W$



and W' and Y and Y'. The rod, consisting of the parts V, V', V'', and V''', forms the inner edge or line of the sleeve pattern, and the various parts of the rod are adapted to slide on each other through sleeves *p p p* therefor. The cross-bars U' and U'' are respectively fixed to the parts V' and V'' of the rod. The rods formed of the parts W and W' and Y and Y' are hinged at a distance apart on the plate S', and the two parts of each rod are adapted to slide on each other through sleeves *q q* therefor. The outer edges of the plates S and S' are respectively curved properly to form a pattern for the outer edge of the sleeve. These two plates are so arranged as to be made adjustable toward and from each other, whereby a long or short sleeve is provided for, and the inner rod, formed of various parts V, V', V'', and V''', is arranged to be adjusted toward and from the plates S and S', whereby a narrower or wider sleeve is provided for; also, the lower portion of the sleeve may be lengthened or shortened by sliding the bars R and U with the rod V toward or from the end of the plate S. The bars R', T, U, U', and U'' are graduated, having a scale indicated by figures thereon, as shown in the drawings.

The plates S and S' in the sleeve-pattern are formed and adapted for cutting the two parts of a sleeve, the upper and larger part of the sleeve being cut along the outer edge of the plates S and S', and the under or narrow part of the sleeve being cut along the inner edge of the plates and along the direction of the dotted line, forming the continuation of their inner edges in connection with the rod V, as the other edge or line of the pattern in both cases.

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

1. In a pattern for drafting a dress-waist, the combination, in the pattern for drafting the front part of the waist, of front and rear graduated bars C and D, connected together by graduated and adjustable cross-bars, and curved adjustable bar D' D'', graduated and adjustable bar F F', graduated bars G and G', sleeve G'', in which bars G and G' cross each other movably and adjustably, and curved adjustable bars H and H', all arranged substantially as described.

2. In a pattern for drafting the front part of a dress-waist, the combination, with front and rear and graduated bars C and D, of graduated and adjustable cross-bars formed in parts A and A' and B, B', B'', and B''', and dart-rods hinged at their upper ends in pairs on blocks sliding on a transverse rod E, which dart-rods extend from the rod E near the upper or bust cross-bars to a considerable distance below the lower or waist cross-bar, the rods being curved in pairs from and toward each other, and being so affixed to the waist-cross-bar that the space between the rods of each pair of dart-rods is unobstructed by the waist cross-bar or otherwise from the top of

the rods to their lower extremities below the waist cross-bar, the rods being adjustable medially on themselves above the lower or waist cross-bar, to which they are rigidly secured, substantially as described.

3. In a pattern for drafting the side of a waist of a dress, the combination, with the rigid integral graduated front and rear bars K' and K, of the graduated cross-bars I I' and J J', formed in two parts adjustable medially on each other, and at their ends connected adjustably to the bars K' and K, and the curved bar L L', formed in two parts adjustable medially on each other and hinged at their ends to the bars K' and K, and the rods g' g', secured rigidly to the bars J and J', and extending downwardly and outwardly therefrom, substantially as described.

4. In a dress-waist pattern, consisting of a front, a side, and a back pattern formed separately, the combination of downwardly and outwardly projecting front and rear rods connected rigidly to the lower or waist cross-bars of the back and side patterns, of a downwardly-projecting front rod, a downwardly and rearwardly projecting rear rod, and downwardly-projecting dart-rods secured rigidly to the lower or waist bar of the front pattern, all of which waist-bars are adjustable vertically on the side bars of their respective patterns, and all said downwardly-projecting rods, being rigidly affixed to their respective parts of the waist cross-bars, are constantly in the same relative positions thereto, substantially as described.

5. In a pattern for the back of the waist of a dress, the combination of the rear integral bar P, neck-plate P', rigid to the bar P, front bar O, bar Q, adjustable on plate P', curved bar Q', hinged to bars O and Q, respectively, bust and waist cross-bars formed in two parts M M' and N N', respectively, and adjustable on each other and secured adjustably at their outer ends to the bars O and P, respectively, and integral swinging rod k, hinged at its upper end to the curved bar Q' medially and near its lower end passing movably through a guide on the cross-bar N', substantially as described.

6. In a pattern for the front of a dress-waist, the combination, with the side bars C and D, of a bust cross-bar formed in two parts A and A', arranged to telescope medially on each other, the front part A' being connected adjustably vertically to the bar C and having a portion thereof which projects in front of the bar C, the extremity of the projection being at a fixed and constant distance from the bar C, substantially as described.

7. In a dress-sleeve pattern, the combination, with plate S, having graduated bar R' fixed thereon, bar R, adjustable on bar R', graduated bar T, hinged to plate S, and plate S', having a bar T' fixed thereon in which bar T is adjustable, of graduated cross-bar U, adjustable in bar R, curved transverse rods Y Y' and W W', each formed in two



parts, sliding on each other medially and severally hinged at their inner ends at a distance apart to the plate S', curved sectional rod V, V', V'', and V''', the several sections sliding  
5 on each adjoining section, the rod at one end being fixed to the bar U and at the other end being hinged to the rods W and Y, and graduated cross-bars U' and U'', respectively fixed at one end to the medial sections V' and V''

and at the other end being adjustable in plates to S and S', substantially as described.

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

MAGDELENA LENNART.

Witnesses:

C. T. BENEDICT,

C. H. KEENEY.