

(No Model.)

3 Sheets—Sheet 1.

S. BISCEGLIA.
TROUSERS PATTERN.

No. 455,503.

Patented July 7, 1891.

Fig. 1.

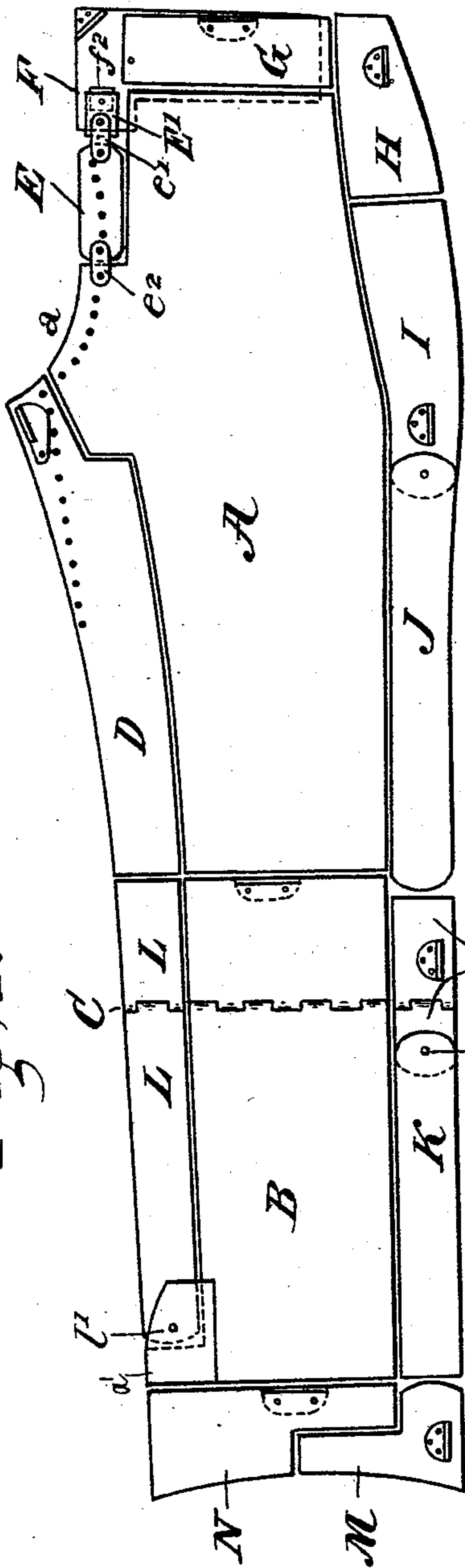
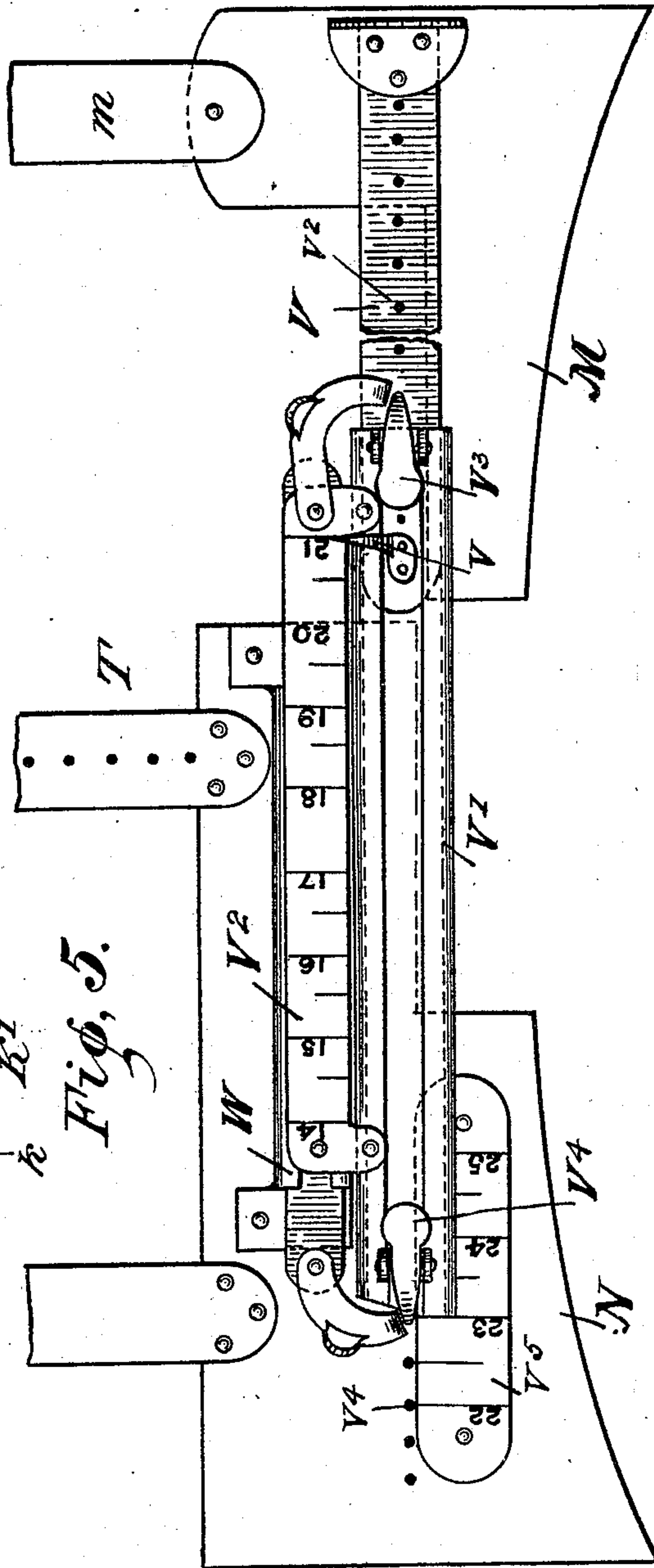


Fig. 5.



Witnesses
Luigi Pizzini

Inventor
By his Attorneys
Salvatore Bisceglia
Burton & Burton

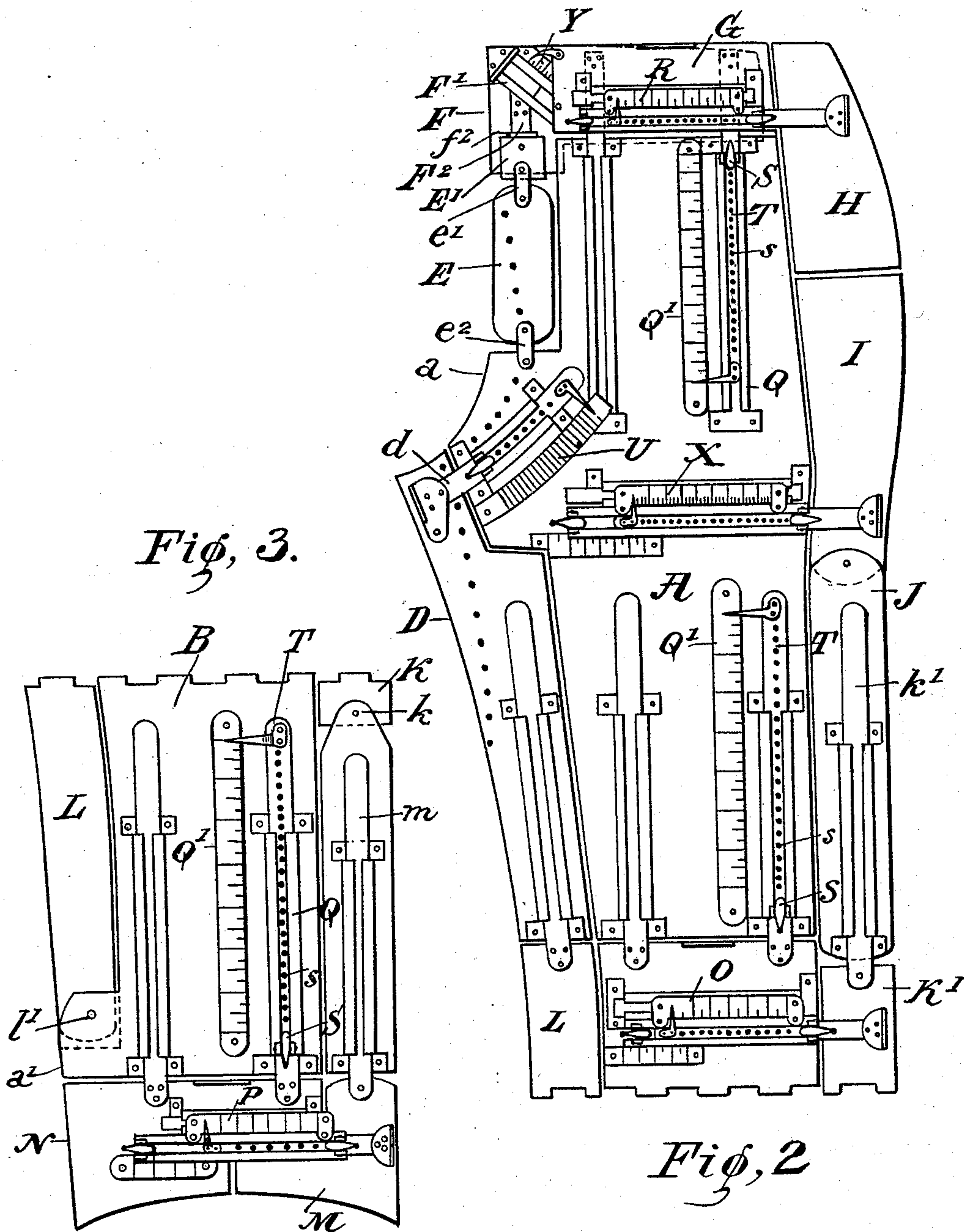
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Witnesses
Benjamin Burton
Luigi Spizziri

Inventor
Salvatore Bisceglia
By *Benjamin Burton* Attorneys

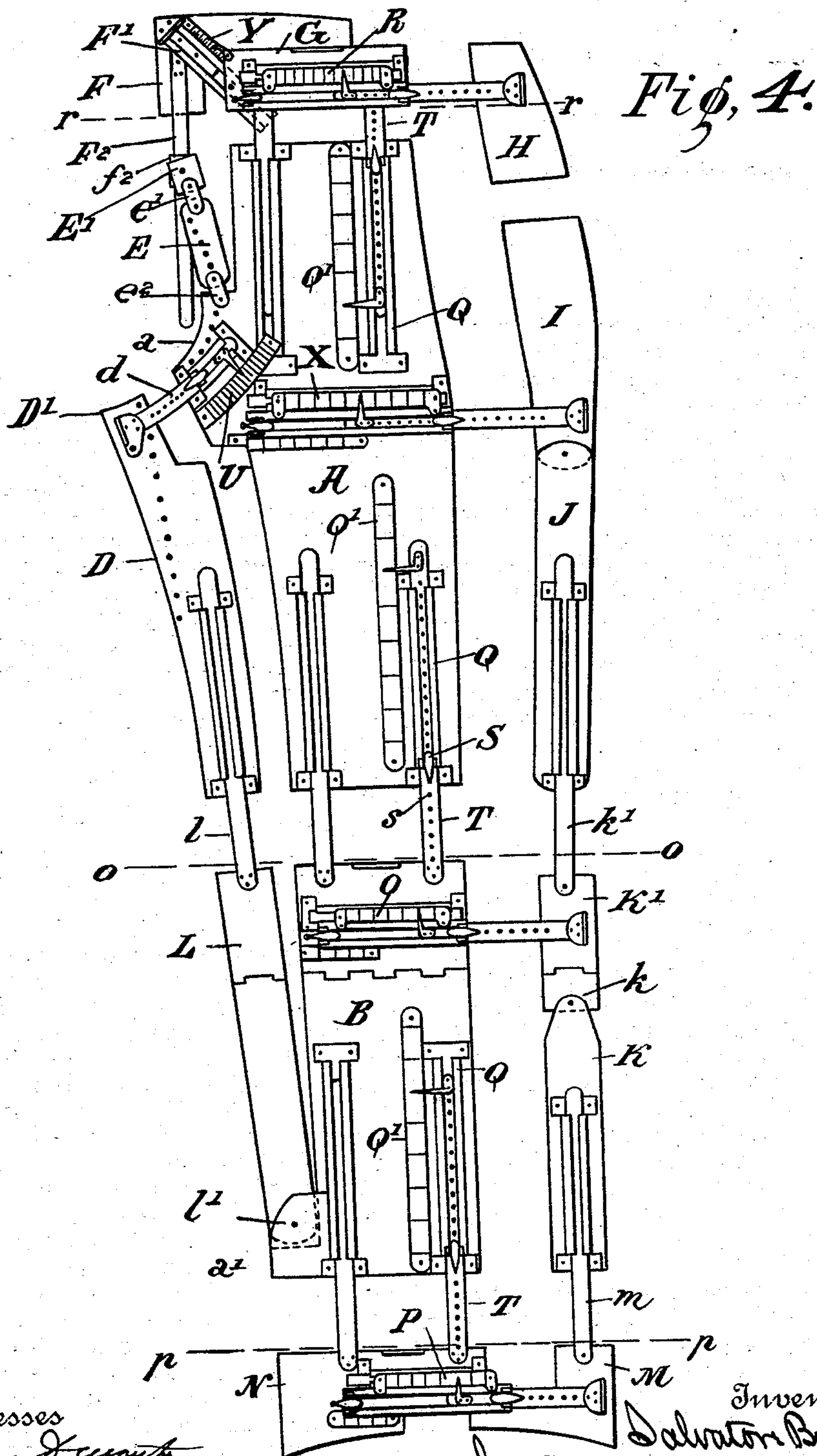
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3 Sheets—Sheet 3.

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Witnesses
Heard & Smith
Luigi Spizzirri

Inventor
Salvatore Bisceglia
By his Attorneys
Barton & Barton

UNITED STATES PATENT OFFICE.

SALVATORE BISCEGLIA, OF CHICAGO, ILLINOIS.

TROUSERS-PATTERN.

SPECIFICATION forming part of Letters Patent No. 455,503, dated July 7, 1891.

Application filed March 5, 1891. Serial No. 383,816. (No model.)

To all whom it may concern:

Be it known that I, SALVATORE BISCEGLIA, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Trousers-Patterns, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

10 This invention relates to adjustable patterns for tailors' use, designed to be adjusted according to measurements taken in the customary manner upon the person to be fitted, the pattern when adjusted to be used as a
15 guide for the cutter, thereby dispensing with the necessity of a high degree of skill in working from such measurements.

The drawings illustrate a pattern for the front piece, and details of this invention relate only to that piece, but its more generic features are applicable to patterns for both pieces.

25 In the drawings, Figure 1 is a plan of the pattern as subdivided for purposes of adjustment, but with the adjusting devices removed to show the divisions with less confusion, but showing a hinge-joint where said pattern is adapted to be folded. Fig. 2 is a plan with all details of the adjusting devices of the
30 portion above the hinge. Fig. 3 is a similar detail of the portion below the hinge. Both these figures show the pattern at minimum adjustment. Fig. 4 is a plan of the pattern partially extended. Fig. 5 is a detail plan of the double or telescoping connection and scale
35 which is used in the lateral adjustments on account of the insufficiency of the minimum width to accommodate the scale necessary to indicate the maximum width.

40 A and B are central or body sections of the pattern, the section B being divided and joined together at the hinge C, at which line also the lateral or marginal sections K and L, herein-after described, are divided and hinged for
45 convenience of folding the pattern when not in use.

50 The body or central sections A and B of the pattern include none of the marginal outline, except the short portion *a* of the curve of the junction-seam line, and not including either extremity of that curve and

the portion *a'* near the bottom of the inner-seam line. The marginal outline, except the portions *a* and *a'*, forms the outer edges of the marginal sections D E F G H I J on three
55 sides of the section A above the knee-line, and the sections K and K' on the rear side and L on the forward side of the section B below the knee-line, and the sections M and N forming the bottom outline below the ankle-line. 60
The pattern is extensible for length at three principal places—above the ankle-line, above the knee-line, and below the waist-line—and is made laterally extensible at these several
65 lines, so that by the proper longitudinal extension the sliding connections which permit the transverse extension and the scales which pertain to them, respectively, may be properly located at the lines to which the dimension which they indicate, respectively, pertain. 70
Thus, R being the scale for the waist measurement, the pattern is divided transversely just below that scale at the line *r r*, and O being the scale for the knee measurement, the pattern is divided a little above
75 that scale at the line *o o*, and P being the scale for the ankle or bottom measurement, the pattern is divided transversely at the line *p p* above that scale. The several sections adjacent at the divisional lines are connected
80 together by stems fastened to one section and sliding in guideways on the other to cause them to be adjusted in the proper direction away from the adjacent section—that is to say, the body-sections A and B being the basis
85 of adjustment, the marginal sections have stems which slide on said body-sections as the marginal sections are adjusted toward and from the body, and in like manner the two body-sections are provided one with
90 stems T and the other with guide-bearings Q for such stems, whereby they may be adjusted apart, and with scales Q' to denote the total length produced by such extension. Spring-catches S are provided to engage with apertures *s* or equivalent devices on the stems to secure the sections in position as adjusted. 95
The scales in the several instances are secured parallel to the guide-bearings of the stems, and said stems are provided with index-fingers which move along the scales, respectively, to denote the degree of extension. With the 100

exception of the waist-corner section H, the marginal sections on each side are connected to each other either directly, as in the case of the sections I and J and the sections K and K', or by means of the stem of one of the adjacent sections sliding on the other section, as in the case of the stem k' of the section K', sliding on the section J, and the stem l of the section L, sliding on the section D, and the stem m of the section M, sliding on the section K. In most instances these connections of adjacent marginal sections to each other, both when they are connected by means of their stems and when they are directly connected, are pivotal, so that the marginal sections which form the outline are like links of a chain. The purpose of this is that the adjustment of any one of these sections laterally from the body at any point at which it is necessary to adjust it shall not carry its end adjacent to the next section out of continuous line with that adjacent section, so that although the adjacent section may itself be adjusted laterally at a suitable point the marginal outlines of the two sections may blend in a continuous line at their new positions. In most instances, however, two adjacent or consecutive sections of the marginal series are not provided with lateral adjustments, but only the alternate sections are so provided, so that the intermediate section, being pivotally connected to both sections thus adjusted, serves as the means of blending the outlines of the two sections, which are thus positively adjusted. Instances of this construction may be noticed at the outer-seam line. Commencing at the bottom, the section M is adjustable laterally away from the section N. The next section K has no independent adjustment, but is pivotally connected by means of the stem m to the section M, (said stem being longitudinally adjustable but laterally rigidly fixed with the section K,) and at the other end is pivotally connected at k with the section K', this section K' being laterally adjustable for the knee measurement on the body-section B. The next marginal section J again has a pivotal connection by means of the stem k' with the section K' and directly at the other end with the section I, said section I having a positive lateral adjustment with respect to the body A. Thus the extremities M and I and the middle section K' have positive adjustments to fix the three lateral dimensions at the ankle or bottom, at the knee, and at the hip. The waist-corner section H has also a positive lateral adjustment, and might have an intermediate or link section connecting it to the section I, but for the fact that the distance is so short that it is not necessary to provide a blending section between I and H, said sections being at the minimum adjustment immediately contiguous and at the maximum adjustment so separated that the proper outline between them is practically a straight line, requiring no marginal guide to

obtain the right conformation. Another instance of the linking together of alternate rigidly-adjustable sections by intermediate blending section is seen at the junction-seam curve when the marginal section, defined by the outline edge a of the body A, is further defined by the sections E and F. Here, however, the link connection is somewhat more complex than on the outer-seam line, because the section F not only has the upper terminal portion of the junction-seam line, but also the inner terminal portion of the upper end or waistband line—that is, has the upper front corner—and must therefore be adjusted not only laterally for width, but vertically for length, resulting in a diagonal adjustment, which is obtained by means of a second guide-stem F' and indicated by the scale Y, and in order that in this diagonal adjustment, wherein it moves both laterally and vertically, it may carry the upper end of the linked section E laterally a proper distance, it has the vertical stem F^2 , which slides in a swiveled guide f^2 , pivoted to the section E', which is connected by the link e' to the section E, which in turn is connected by the link e^2 to the body-section A. The reason for applying the short links e' and e^2 , instead of pivoting the section E directly to the body A and to the section E', or, as might be done, to the guide f^2 , is that the change of curvature of this upper curve of the inner-seam line in differently-proportioned garments is so great that the edge must be as flexible as possible in order to adapt it to indicate the curvature properly through all the necessary variations; but the links e and e' and the sections E' are so short that the change of position of the section E, which may be made at a given position of the sections F and A, is only such as will permit said section E to be thrown into the natural sweeping curve, which will connect the edges of F and A without abrupt changes of direction, and such adjustment will be made naturally in tracing the outline.

In the minimum adjustment of the pattern it will be observed that the section E' is covered by and lies upon the section F, so that it does not form any part of the outline, and only in case the section F is adjusted diagonally upward and forward does this section E' assist in forming the outline by helping to fill the gap which is thus created between the sections E and F.

Another instance of link connection not strictly conforming to the rule above laid down, that alternate sections are positively adjustable and alternate sections serve to blend the outlines, but nevertheless following the same general method, is seen in the inner-seam line, the section D having at its upper end the curved stem d , by which it is laterally adjustable at that end relatively to the body-section A, and the section L having the rigid stem which slides in a guideway in the section D in longitudinal adjustment, whereby the sections D and L are rigid with

each other as to lateral movement; the section L being pivoted at its lower end to the body-section B, so that the greater portion of the inner-seam line is adjustable by swinging on a pivot at the lower end, carrying the upper end or corner D' laterally; but it will be observed that in such pivotal adjustment, since the stem D is not curved in an arc about the pivot I', but, on the contrary, is curved approximately in the direction of curvature of the junction-seam line, such adjustment of necessity varies the length and compensation occurs automatically at the sliding connection between the stem I of the section L and the section D. The lateral adjustment of the corner D' is indicated on the scale U.

The range of lateral or roundabout dimensions in garments for different persons is so great that the lateral adjustment of the marginal sections from the minimum to the maximum size necessary cannot conveniently be indicated on a scale of a length which the body portion of the pattern can contain—that is, the difference between the minimum and maximum dimensions at the knee, for example, is greater than the width which can be conveniently given to the body B at the point where the knee dimension must be indicated by the scale, so that in order to adapt the pattern to be adjusted from minimum to maximum sizes a double scale must be provided, or virtually a telescoping stem with a scale corresponding to each section of the same. Such device is represented in detail in Fig. 5, the instance selected for illustration being the scale at the bottom or below the ankle-line, where the sections M and N are connected and relatively adjustable. Description of this double scale and telescoping stem will suffice for similar constructions of the scales and stems at the knee-line, where the scale is lettered O; at the hip-line, where it is lettered X, and at the waist-line, where it is lettered R.

V is the primary stem of the section M, which slides in a guideway V' on the section N, V² being the scale fixed to such guideway, along which the index-finger v moves as the stem V slides in the guideway. The guideway V is not permanently fixed to the section N, but is itself adapted to slide thereon in a proper guideway W, said guideway W being fixed rigidly to the section N.

V³ is a spring-catch pivoted on the guideway V' and engaging the apertures v² in the stem V to secure it in position with respect to the guideway V', and V⁴ is a similar spring-catch secured to the inner end of the guideway V' and engaging the apertures v⁴ in the section N. V⁵ is a scale on the section N adjacent to the path of the inner end of the guideway V' as the latter slides in the guideway W.

The operation of this double scale and stem may now be understood. When the sections are to be adjusted from minimum adjustment to a larger size, the spring-catch V⁴ will be engaged in the extreme notch v⁴ in the section

N, the guideway V' and the scale V², which is fixed to it, being at their innermost position. The section M being drawn out, the stem V, sliding in the guideway V', will give the necessary adjustment up to the limit of the scale V², which, as indicated, is twenty-one. When this limit is reached, the finger v stops against the bearing of the catch V³, and further movement of the section M away from the section N can only be accomplished by sliding the guideway V', which now moves as a continuation of the stem V, and the spring-catch V⁴ being released for that purpose a further extension is indicated on the scale V⁵, the end of the guideway V' serving as the index-point, said scale being numbered after the highest number on the scale V². The measurements which are indicated by the scales R and X are body measurements, which in the garment are made up of four parts—two fronts and two backs—while the knee and ankle measurements are limb measurements, each made up of only two parts—one front and one back—and the longitudinal measurements indicated by the longitudinal scales are made up each of one part only. Accordingly the unit of the longitudinal scales is one inch or other standard unit. The unit of the scales O and P, corresponding to limb measurement, is half of the unit of the longitudinal scales, or half an inch, and the unit of the body-measurement scales is one-fourth that of the longitudinal scales, or a quarter of an inch. The unit of measurement of the oblique scales, as the junction-seam-curve scale U, is such relatively to the unit of the scale X measurement as experience indicates, the ordinals of its several degrees corresponding to the ordinals of the scale X, its purpose being to indicate an adjustment of the point D', corresponding to hip measurement. In practice its unit is about one-third that of the scale X. The unit of the scale Y for the adjustment of the section F is such that the lateral change of the section F for each unit of said scale is equal to a unit of the scale R—that is to say, a quarter of an inch. The section F, whose adjustment is indicated by the scale Y, is provided with this adjustment to correspond to extra abdominal measurement, on which account said adjustment is forward, differing from the regular adjustment for waist measurement, which is made by moving outward the outer-seam line, and for each unit of adjustment of the section F, as indicated on the scale Y, half a unit will be deducted from the adjustment to be made of the section H, as indicated on the scale R, the other half being deducted from the corresponding measurement of the rear piece of the garment, so that the waist measurement will be correctly observed, while at the same time the garment will be fitted to the exceptional form which produced such measurement.

For the purpose of the combination of the upper forward corner-section with the section which has the portion a of the junction-seam

edge it is not material whether the section A, which has that edge *a*, is what is termed the "body-section" or not—that is, it is not material whether or not the edge *a* is upon a section with respect of which the opposite marginal outline-sections are adjusted.

I claim—

1. In a garment-pattern, in combination with two sections, each having a portion of the outline edge, each being adjustable independently of the other in an invariable direction, sections of such pattern having intermediate portions of the outline edge extending between the said two relatively adjustable sections to complete the outline between them and pivotally connected to each other and to said relatively adjustable sections, whereby said linked sections are adapted to define a curved portion of the outline edge variably, according to the relative adjustment of said two adjustable sections, substantially as set forth.

2. In combination with the body, marginal outline-sections pivotally connected to each other in longitudinal order, alternate ones of such marginal sections being provided with stems guided transversely on the body, whereby said alternate stemmed sections are adjustable toward and from the body, and the other alternate marginal sections are carried with them and blend their outlines, substantially as set forth.

3. In combination with the body, marginal

outline-sections having stems, guideways for such stems, the body being provided with guideways for said guideways, whereby the immediate guideways for the stems constitute extensions for said stems, substantially as set forth.

4. In combination with the body, the marginal outline-sections, the body having transverse guideways and graduated scales adjacent to such guideways, respectively, guideways which slide in the first guideways, and graduated scales carried by said sliding guideways, the marginal sections having stems which slide in said sliding guideways, substantially as set forth.

5. In a trousers-pattern, the section A, having the junction-seam edge *a*, the upper forward corner-section adjustable relatively to the section A diagonally with respect to said corner, said corner-section having a vertical stem combined with a series of marginal outline-sections linked together and at the lower end linked to the section A and at the upper end having sliding pivotal connection with said vertical stem, substantially as set forth.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, this 28th day of February, 1891.

SALVATORE BISCEGLIA.

Witnesses:

OSCAR DURANTU,
LUIGI SPIZZIRRI.