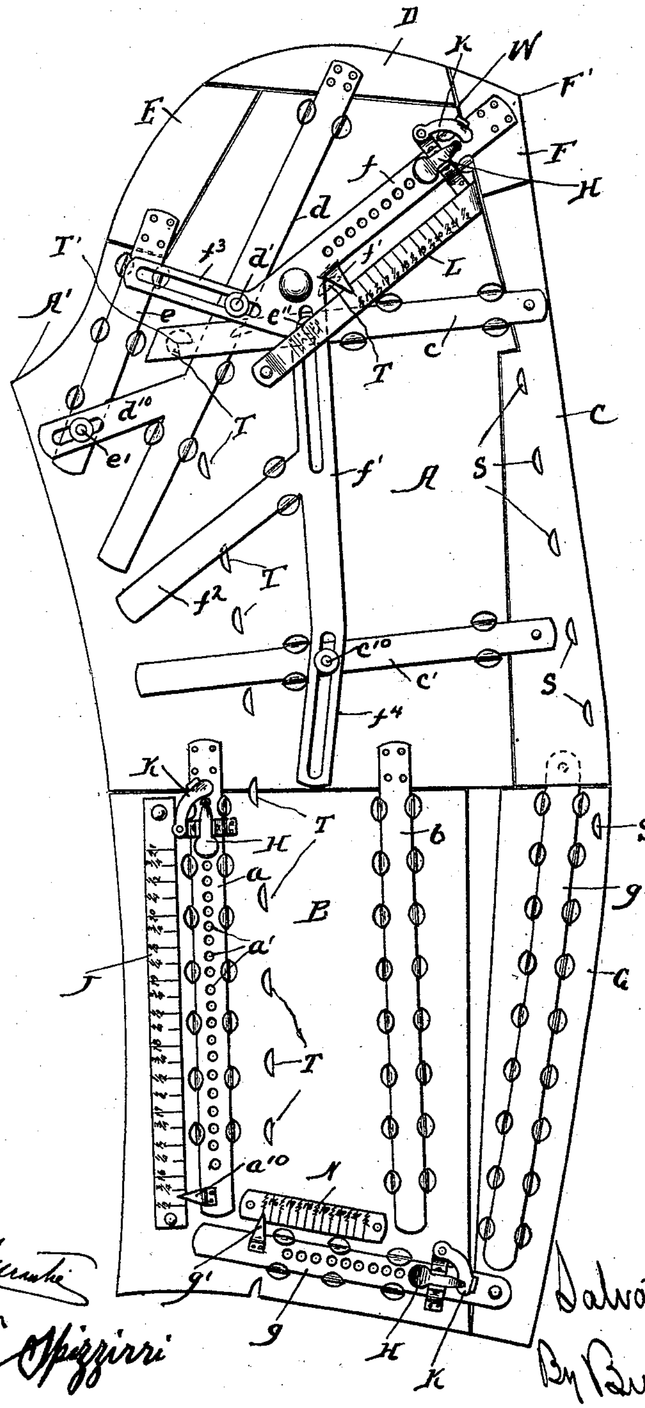
(No Model.) 2 Sheets—Sheet 1.

S. BISCEGLIA.
SLEEVE PATTERN.

No. 455,811. Patented July 14, 1891.

Fig. 1



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Salvatore Bisceglia
By Burton & Burton
Attorneys.

(No Model.) 2 Sheets—Sheet 2.

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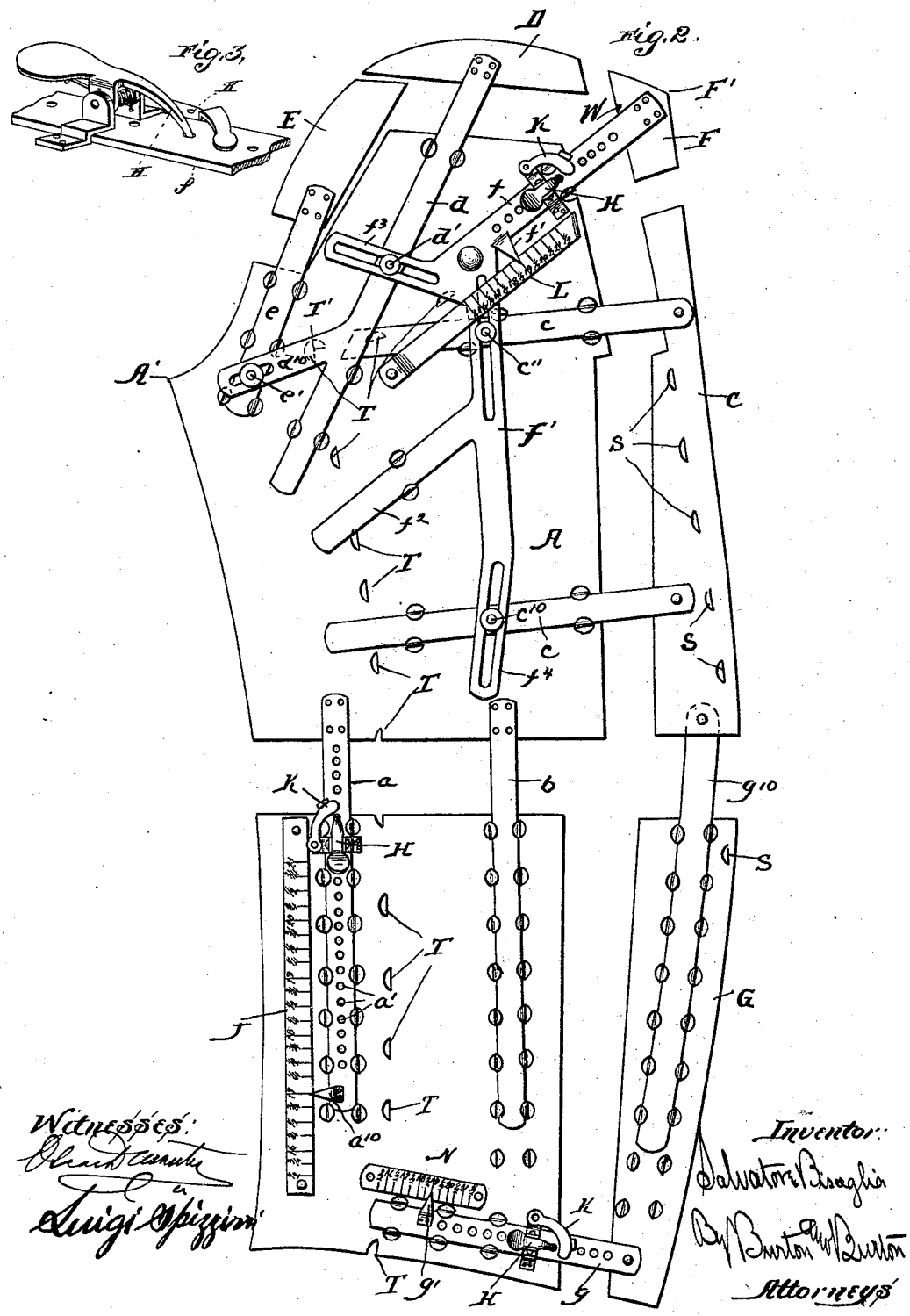

UNITED STATES PATENT OFFICE.

SALVATORE BISCEGLIA, OF CHICAGO, ILLINOIS.

SLEEVE-PATTERN.

SPECIFICATION forming part of Letters Patent No. 455,811, dated July 14, 1891.

Application filed March 5, 1891. Serial No. 383,817. (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 Adjustable Coat-Sleeve Patterns, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide a pattern for a coat-sleeve which can be adjusted to bring the outline-edges in positions to conform to any measurement which may be taken of the person to be fitted.

It consists in devices hereinafter described, and set forth in the claims, for simplifying the adjustments and rendering some of them automatically dependent upon one or two principal adjustments, so that the skill and care necessary in its use may be reduced to the minimum.

In the drawings, Figure 1 is a plan of the pattern set at its minimum. Fig. 2 is a similar plan, but with the pattern adjusted to the larger size. Fig. 3 is a detail perspective of a spring-catch and its muzzle employed to retain the several adjustable parts of the pattern in their adjusted positions.

The pattern is made up of the body A B, A being the upper arm portion and B the forearm portion of such body, together with the several outline parts C D E F G, hereinafter particularly described. The dividing-line between the upper arm and forearm parts is designed to be substantially at the elbow, the adjustment of the pattern for varying lengths being made by separating these two parts at that line, and they are connected together by stems *a b*, secured to one side of said parts and sliding in proper guides on the other in the general direction of the length of the sleeve. One of these stems is provided with a series of perforations *a'*, and upon the part in which the stem slides I mount the spring-catch H, which will enter these perforations *a'*, and a finger-piece or heel adapted to be operated by a finger to release it from engagement with the stem. These perforations correspond in distance to the unit of adjustment of the pattern for length. A scale J is secured on the piece on which the stem slides, and the stem carries a pointer a^{10}, which moves over the scale as the stem slides, the ordinals imprinted on the scale corresponding to and indicating the total length of sleeve measurement from the minimum which the pattern is designed to measure to the maximum, to which it can be extended by separation of the parts A and B, as described. In order to hold the point of the spring-catch out of engagement with the apertures of the stem while the pattern is being adjusted, I provide the muzzle K, which is a swinging lip pivoted to the body adjacent to the catch and adapted to be swung under its point to hold the latter up out of engagement with the stem, as seen at the bottom of Fig. 1. Devices similar to the spring-catch and muzzle are provided in connection with each of the adjustable parts of this pattern and similarly lettered, and need not be further described in connection with any of the other parts. When this pattern is made of metal, a convenient mode of providing the slide-bearings or guideways for the stems is that which is herein illustrated, wherein lugs are struck up out of the body of the metal in two parallel rows, bounding the proposed path of the stem and folded down toward each other over such stem. These body parts A and B have the inner seam-line as their outer edge, and the upper arm body part A thereby has the armhole-point A'; but where this curve begins to reverse and become convex outwardly it is divided, and the convex portion forms the outer edge of another outline-piece, hereinafter referred to.

In the formation of a sleeve-pattern the primary points to be fixed are the armhole-point A' and the corner junction of the shoulder-curve and the outer seam-line. The upper arm body part A having, as stated, the first of these points A', I provide means for adjusting the other point F' relatively to this first point by separating from the body the piece F, which includes this corner and a short portion of each of the edges meeting at that corner. Theoretically it is only essential to locate the corner itself; but since the angle between these two sides—to wit, the shoulder-curve and the outer seam-line—is substantially unvarying in different sizes of sleeve, it is practicable and therefore conven-

ient to make the part F carry more than merely the point or corner. This part F, I provide with a stem *f*, which extends and is adapted to slide longitudinally upon the body part A in the direction of a plane which would pass through the two points mentioned if the sleeve were in position on the wearer. This direction, however, is approximately the direction of a line connecting the two points in question in the plane-surface of the pattern. It deviates slightly from this direction, and in the drawings the division is noticeable, but cannot be defined more precisely than as above indicated. The distance between the points F′ and A′ as now located and relatively adjustable, it will be observed, will correspond to the shoulder measurement, and I provide the stem *f* with a pointer *f′*, and I mount on the body A a scale L, parallel to the path of the stem in its sliding movement, the divisions upon said scale corresponding to the shoulder measurement from the minimum which the pattern is adapted to indicate to the maximum to which it can be extended.

Having thus provided for the adjustment of the two points A′ and F′, the remainder of the outline of the shoulder-curve and the outer sleeve-line must be correspondingly adjusted, and for that purpose I separate from the body the parts C, D, and E, first C comprising as its outer edge the portion of the outer sleeve-line from the elbow-division to the part F, and the other two parts D E comprising together the remainder or convex portion of the shoulder-curve. The precise dividing-point between the parts D and E on the shoulder-curve is a matter of good judgment; but it is approximately half-way between the points F′ and A′ at the minimum adjustment. Each of the parts C, D, and E must now be adjustable and means provided for adjusting them away from the body part to bring their outline-edges in line with the edges established by the parts F and A, howsoever adjusted—that is, the concave portion of the armhole-curve which is on the part A terminating in the point A′, and the portion of the shoulder-curve which is on the part F determine the necessary positions of the parts D and E, which, with the intervals remaining between the said parts when they are adjusted, will complete the outline which will connect the said two first fixed portions of the upper curved end of the pattern, comprising the armhole-curve and the shoulder-curve, and the portion of the outer seam-line which is on the part F determines the position of the remainder of the outer seam-line down to the elbow, because the breadth of the pattern from the corner F′ to the elbow-line is increased about equally. A slight departure from this is somewhat desirable, and is provided for and hereinafter explained. In order to thus adjust the parts C, D, and E, I provide each of them with stems like the stems already described pertaining to the parts A, B, and F, said stems being respectively *d* for the part D, *e* for the part E, and *c* and *c′* for the part C, this latter part being preferably provided with two parallel stems on account of its length. The parts having but one stem have those stems rigidly attached to them respectively; but the part C having two stems, these stems being guided in parallel guideways on the body A, need not be rigidly connected to the part C, but a single rivet may be employed, giving practically a pivotal connection to that part. Advantage is incidentally taken of this circumstance for a purpose hereinafter specified. As above implied, each of these stems is provided with a slide bearing or guideway on the body part A similar to the means for guiding the stems already described.

It will be observed that of necessity the directions of movement of the outline parts C, D, and E in their respective adjustments outward diverge from the direction of the stem of the part F; or, to state the matter otherwise, said stems converge toward the line of the part F, and the range of adjustment of the several pieces is such that the said stems to an extent across each other on the body part A. In particular, the upper stem *c* of the part C and the stem *d* of the part D intersect across each other in position, which interferes with obtaining a proper guide-bearing for the stem *f* suitably distant from the first guide-bearing, which it has near the edge of the body A. In order, therefore, to get further guidance for the stem *f*, it is offset downward in the part *f′*, (which, incidentally, has also another function,) and then continued on in the portion f^2 parallel to the original portion *f*, and said portion f^2 is provided with a guide-bearing on the body A, thereby insuring continuity of direction for the movement of the part F in its adjustment. In order to simplify the adjustments of these several parts, all of which are directly related to that of the part F, I prefer to connect their sliding stems with the stem of the part F in such manner that the adjustment of the latter will automatically adjust each of the others the proper distance, and for this purpose I extend from the part F arms which cross the other stems or some of them and engage them at the point where they cross them, so that the movement of the stem F will move the stems thus crossed, and I determine the extent to which each stem thus crossed is to be moved by the angle at which the arm of the stem F crosses it, preferably making connection between said arm and the stems thus crossed by slotting the arms and causing them to engage studs on the stems which run in the slots, the direction of the slot being the effective direction of the arms and determining, as above stated, the extent of movement communicated at such connections. Examples of this construction are seen where the slotted arm f^3 of the stem *f* crosses the stem *d* of the part D and engages

the pin d' on said stem, and where the portion of the arm of the stem f crosses the stem c, being slotted and engaging the pin c^{11}, and where the slotted arm f^4 of the arm f (being an extension in appearance of the portion f'') crosses the stem c', and has the slot by which it engages the stud c^{10}. In respect to the part E, I communicate the adjusting movement to it by a secondary device of the same nature—viz., extending an arm d^{10} from the stem d across the stem e, and providing it with a slot which engages the pin e' on the stem e. This I consider merely a modification of the principle of construction stated—viz., that the stem of the part F actuates the stems of the other parts to adjust them correspondingly. By thus making the adjustment of all these parts which are connected with the upper arm body part A depend upon the adjustment of one only of said parts—to wit, the part F—I dispense with the necessity of any other scale beside the one which pertains to the part F. This corresponds to the usage of tailors in taking only one measurement for the upper part of the sleeve—to wit, the shoulder measurement—all changes in dimension in the upper part of the sleeve being strictly dependent upon that measurement. If any tailor applying this invention prefers that the width of the sleeve at the elbow should not vary equally with its width at the armpit, the pattern may readily be adapted to vary it less by merely making the slot which engages the pin c^{10} slightly oblique to the slot which engages the pin c^{11}. It will be obvious that in order to push out the part C equally at both ends these two slots should be parallel, and that by inclining one of them either way from a parallel position the stem which is actuated by the engagement of its pin in such slot will be pushed out more or less than the other, according to the direction in which the slot is so inclined, and since the connections of the stems c and c' to the piece C may, without interfering in any manner with the operation of the device, even when that piece is to be adjusted equally at both ends, be made pivotal, such variation in the extent of adjustment of its two ends does not derange the pattern, because the variation would in any event be slight relatively to the distance between the pivotal connections of the two parts c and c', and the slide-bearings of the stems cannot be so close nor exact but that the position of said stems can shift slightly in the bearings to accommodate the change of relative position of the pivots to the bearings by reason of the unequal adjustment. In the pattern, as illustrated, the lower slot is inclined toward the inner seam-line, thereby tending to make the elbow measurement vary slightly less than the armpit measurement.

Ordinarily—that is, according to more prevalent usage of tailors—the wrist measurement varies uniformly but not equally with the shoulder measurement, and to adapt the pattern to register this variation I divide the forearm portion B, cutting off the part G from the side having the outer seam-line, connecting said part G to the part C by a sliding stem, as in the similar instance before described, said stem being pivotally connected to the part C, for a reason which will hereinafter appear. I connect the lower end of the part G to the part B by a transverse stem g, which slides in suitable guideways on the part B and carries the pointer g', which moves along the graduated scale N, the divisions of which correspond to but are not equal to the divisions of the scale L, which indicate the shoulder measurement, the ratio between said divisions being the customary ratio determined by experience between the shoulder variation and the wrist variation. Corresponding ordinals are placed upon the two scales, so that the pattern may be adjusted at the wrist by setting the index-finger g' upon the scale at the same number at which the index-finger f' stands on the scale L. The inequality between the adjustment at the wrist and the adjustment which results at the elbow-line from the proper adjustment of the connections between the stems of the several parts which are adjustable upon the part A necessitates and produces a slight pivotal movement of the stem g^{10} at its connection with the part C, and it is in view of this necessity that said connection is made pivotal. If the user desires to make the wrist larger or smaller in proportion to the elbow, he can do so without departing otherwise from the general mode of use of the pattern; but the corresponding graduation of the two scales L and N and the use of the same ordinals to indicate the corresponding adjustments, respectively, is a convenience of some importance.

I adapt this pattern to be used also as a pattern for the under part of the sleeve by forming through the parts A and B in proper lines the openings T T T, through which marks may be made upon the cloth to be cut for the outline of said under half of the sleeve. It will be observed that the part A thus carries not only the armhole-point A′ for the outer half of the sleeve, but also the armhole-point T′ for the inner half, and that the adjustment of the pattern for length of the outer part of the sleeve effects its adjustment also for the under part. Similarly I provide in the parts C and G openings S S, through which the outer seam-line of the under part may be marked. This line will correspond with the outer sleeve-line of the outer part of the sleeve at the lower part below the elbow, and from the point where this is the fact of course no further openings are necessary; also, at the upper portion of the part C the line corresponds so nearly with the most convenient division-line between the part C and the part A that the part C may be cut away inward from the line of the openings S, the inner edge of said part forming the marking-line for the under half of the sleeve from

that point upward. This marking-line S S S determines the point of division between the body A and the part F, as a matter of convenience, the inner edge of the part F forming, like the inner edge of the part C, the continuation of the line S S to the upper corner—that is, the junction of the outer sleeve-line and the arm-line of said upper part of the sleeve—said corner being indicated by the notch W on the upper edge of the part F. It will be observed, therefore, that the part F carries not only the corner or junction point of the shoulder-line and outer seam-line of the outer half of the sleeve, but also the corresponding corner of the under half. The same adjustments, therefore, that properly dispose with respect to each other the corners A′ and F′ similarly dispose the corners T′ and W, and the same adjustments that properly dispose the inner and outer seam-lines of the outer part of the sleeve similarly dispose the inner and outer sleeve-lines of the under part.

I claim—

1. In a sleeve-pattern, the part A, having the armhole-point, in combination with the parts which comprise the shoulder-curve, provided with rigid stems which are guided in converging directions on the part A, substantially as set forth.

2. In a sleeve-pattern, the body part having the armhole-point and the inner seam-line, and the part F, having the corner junction of the shoulder-curve and the outer seam-line and having a stem which extends and is guided on the body in a direction agreeing approximately with that of a line connecting the armhole-point and said corner junction, combined with parts which have the remainder of the shoulder-curve and inner seam-line having stems respectively guided on the body in directions converging toward that of the stem of the part F, substantially as set forth.

3. In a sleeve-pattern, the body part having the armhole-point and inner seam-line, and the part F, having the corner junction of the shoulder-curve and the outer seam-line and having a stem which extends and is guided on the body in a direction agreeing approximately with that of a line connecting the armhole-point and said corner junction, combined with parts which have the remainder of the shoulder-curve and inner seam-line and having stems respectively guided on the body in directions converging toward that of the stem of the part F, the stem of the part F having rigid branches which extend and slide across and engage the stems of the other movable outline parts, whereby the adjustment of the part F automatically adjusts the other outline parts, substantially as set forth.

4. The relatively-adjustable pieces of the pattern, the stem of one having sliding guideways on the other and perforated, and a spring-catch to engage such perforations, combined with a muzzle K, attached to the part on which the catch is mounted and adapted to be interposed under its point to prevent its engagement with the 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 DURANTE,
LUIGI SPIZZIRRI.