Z. BAUER.

Apparatus for Laying Out Coat-Patterns.

No. 163,911. Patented June 1, 1875.

Fig. 1.

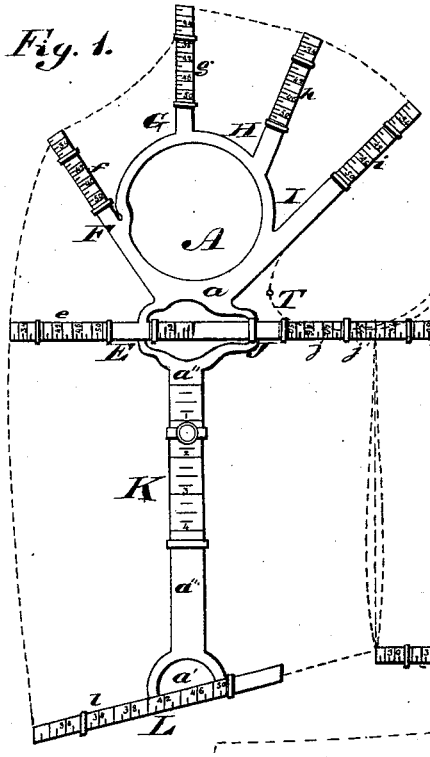


Fig. 2.

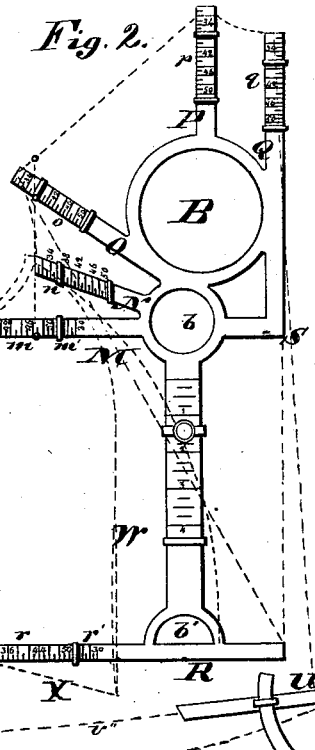


Fig. 3.

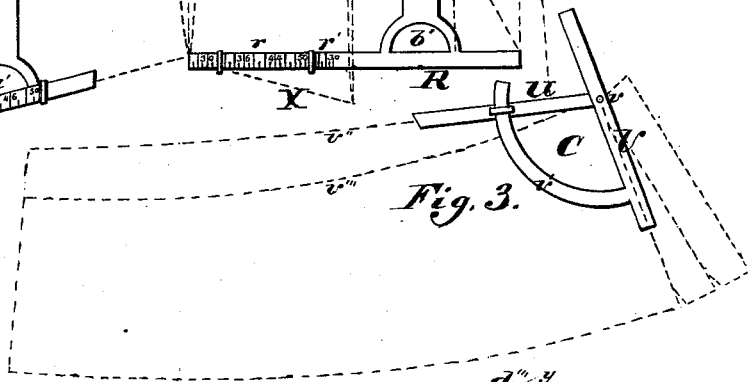
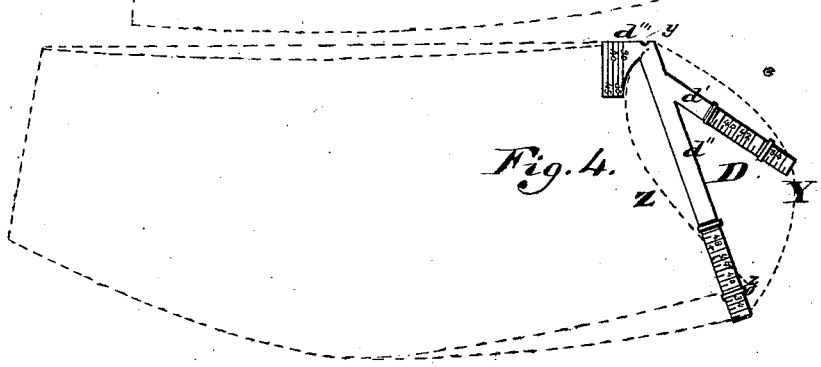


Fig. 4.



WITNESSES

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ZACHAEUS BAUER, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN APPARATUS FOR LAYING OUT COAT-PATTERNS.

Specification forming part of Letters Patent No. **163,911**, dated June 1, 1875; application filed March 24, 1875.

To all whom it may concern:

Be it known that I, ZACHAEUS BAUER, of St. Louis, Missouri, have invented a new and useful Improvement in Devices for Laying Out Coats, of which the following is a full, clear, and exact description, reference being had to the annexed drawing making part of this specification, where—

Figure 1 shows that part of the invention used in laying out the front of the coat; Fig. 2, that part used in laying out the back of the coat; Fig. 3, that part used in laying out the skirt; and Fig. 4, that part used in laying out the sleeve.

The dotted lines indicate the outlines of the various portions of the pattern.

Like letters refer to like parts.

To provide means for readily and accurately laying out coats, and which can be used by persons but little skilled in tailoring, is the aim of my invention.

The device is composed of two parts, mainly, A and B, shown, respectively, in Figs. 1 and 2, and which, respectively, are used in laying out the front and in laying out the back of the garment. There are also two other parts, C and D, shown, respectively, in Figs. 3 and 4, and employed, respectively, in laying out the skirt and in laying out the sleeve. Each of the parts A and B, considered generally, is further composed of an upper and lower part sliding vertically upon each other, and designated, respectively, *a* and *a'* and *b* and *b'*. The upper part *a* is constructed as follows: The arm E extends in the direction of the breast measurement; the arm F in the direction of the neck in front; the arm G in the direction of the shoulder-point of the neck; the arm H in the direction of the top of the shoulder; the arm I in the direction of the shoulder-point, and the arm J in the direction opposite to that of the arm E.

The relative positions of the several arms named are accurately determined by a reference to the drawing.

The upper and lower parts *a* and *a'* of the part A are adjusted vertically to each other at K by sliding the part *a''* upon *a'''*, and fastening them at the desired point. The lower frame *a'* is provided with an arm, L, arranged in the line of the slope of the waist from the side of the body to its front, and as shown in Fig. 1. The upper part *b* of the part B is provided with five projecting arms, M, N, O, P, and Q. The lines of their projections are, respectively, as follows: The arm M in the line of the breast measurement; the arm N in the direction of the arm-hole; the arm O in the direction of the shoulder-point; the arm P in the direction of the shoulder-point of the neck; the arm Q in the direction of the center of the back of the neck. The positions and lengths of these last-named arms are also correctly indicated by the drawing annexed. The upper and lower portions *b* and *b'* of the part B slide upon each other in manner similar to the parts of the frame A. The lower portion *b'* is provided with an arm, R, projecting in a line parallel to that of the arm M. All of the arms of both parts of the device are provided with extension-slides, lettered, respectively, *e f g h i j l m n o p q r*, and which are graduated, as shown in the drawing, and which can be moved out on their respective arms to any desired points.

The operation of the invention is as follows: Six measurements of the person are taken: First, from the center of the back of the neck straight down to the breast-line; second, from the same point to the line of the waist; third, from the same initial point, down over the shoulder, to the front of the arm at the breast-line; fourth, the full length of the garment, according to its style; fifth, from the center of the back to the arm, thence to the elbow, and then the full length of the arm; sixth, the breast and waist measurements in the ordinary way. The slides of all of the arms of both parts of the device (saving those relating to the waist) are then set out to the number on the scale corresponding to the breast measurement. The positions of the slides of the arms P and Q of the part B are then tested and corrected by laying off the extent of the first measurement above named upon the device—that is, from the point S toward the end of the slide of the arm Q, and adjusting the slide accordingly. The position of the slide of the arm P is then corrected by that of the arm Q. The slides of the remaining arms of the part *b* are not altered. The parts *b* and *b'* are then opened out according to the second

measurement above named. The parts *a* and *a'* of the part A are similarly opened out. Then, by means of the third measurement above named, adjust the position of the slide of the arm G relating to the position of the shoulder-point of the neck. In making this adjustment, first measure on the part *b* the distance from the end of the slide *q* to the end of the slide *p*, deduct this from said third measurement, and lay the remainder off from the point T (or position of the front muscle of the arm) toward the end of the slide *g*, adjusting the latter accordingly. The remaining slides of the frame *a* are not moved. If a very accurate measure is desired, the position of the slide *n* (or the one relating to the end of the arm) is corrected by the fifth measurement above named. The slides on the arms L and R are then set out to the size of the waist.

To lay out the skirt, the part C, Fig. 3, is used. This part consists of an arm, U, pivoted to an arm, V, at *v*, and capable of being set at any needed angle thereto, by sliding the arm U upon the circle *v'*. To adjust this device C, its arm U is laid on the line W of Fig 2, then incline arm U according to the dotted line X, Fig. 2. Then take the arm U, as the base to work from, it representing the top of the skirt, and as shown in Fig. 3. The line of the arm V will be that of the side of the skirt at the back. The part C can be set differently according to the style of the skirt—if flat, on the line *v''*, as shown; if full, on the line *v'''* below. In determining the position of the line X above named a distance of one inch is laid off from below the arm R in the direction of the line W when extended. From the lower end of this measurement the line X is drawn to the upper end of the slide *r*.

To lay out the sleeve, the part D, Fig. 4, is used. This consists of two arms, *d'* and *d''*, joined to each other at the angle shown, and each provided with extension-slides. The part D is also furnished with a projection, *d'''*, which is graduated, as shown. Taking this projection as a base, as shown, the slides on the arms *d' d''* are set out according to the breast measurement above named. The curved dotted line Y is then drawn from the nick *y* to the center of the end of the slide of the arm *d'*, and thence to the center of the end of the slide of the arm *d''*. This is for the upper side of the sleeve. For the under side, draw another curve, Z, crossing the graduation on the projection *d'''*, according to the breast measurement above named, and terminating at a point, *z*, one inch inside the end of the line of the upper side of the sleeve and above the arm *d''*.

For a sack-coat, measure as before. Set out all the slides of the part B according to the breast measurement. The slides on the arms relating to the breast and waist measurements are not used. Underneath these slides, however, there are graduations *m'* and *r'*, which are employed, and in accordance with the breast measurement. They indicate the distance from the center of the back to the side, giving the size of the back. The outer part *j'* of the arm J is also set out according to the breast measurement, and afterward the inner slide *j* of the same arm is similarly set out.

By reducing the proportions of the device uniformly, it can be used for laying out boys' clothing. The bodies of ladies' dresses can be laid out by the present device.

Having described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The hereinbefore-described device for laying out coat-patterns, consisting of the parts A, B, and D, combined and arranged to operate substantially as described.

2. The herein-described devices, consisting of the part A, having the frames *a* and *a'*, and the arms E, F, G, H, I, J, and L, and the slides *e*, *f*, *g*, *h*, *i*, *j*, and *l*, and the part B, having the frames *b* and *b'*, the arms M, N, O, P, Q, and R, and the slides *m*, *n*, *o*, *p*, *q*, and *r*, all combined and arranged to operate substantially as shown and described.

3. The part D, as and for the purpose set forth.

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Witnesses:
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