No. 711,479. Patented Oct. 21, 1902.

E. J. CURRAN.

METHOD OF DRAFTING GARMENT PATTERNS.

(Application filed Apr. 12, 1900.)

(No Model.) 3 Sheets—Sheet 1.

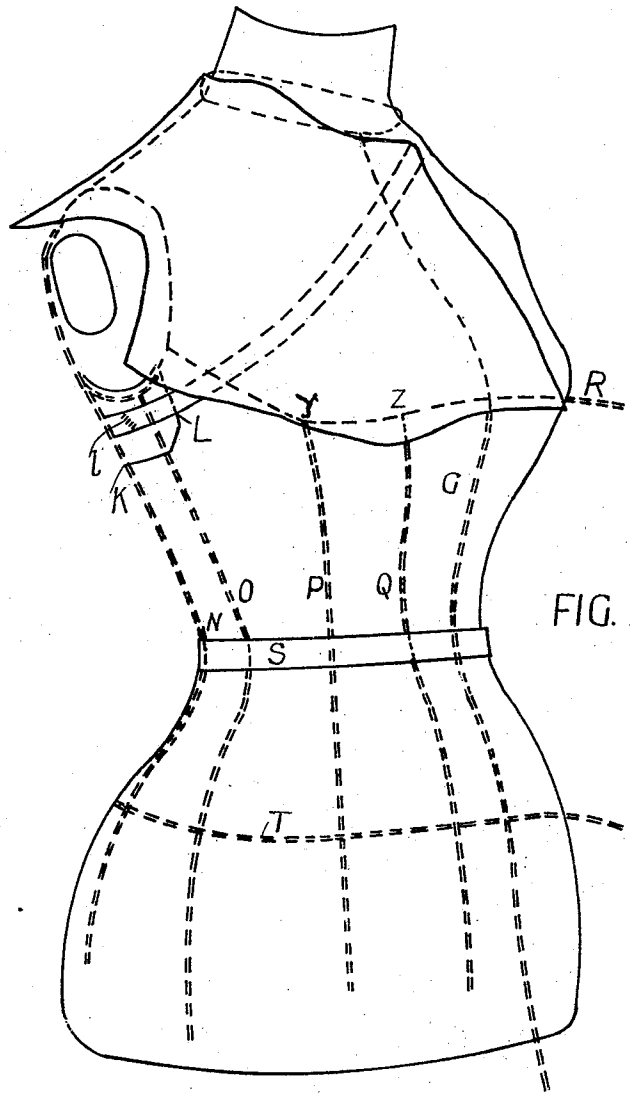


FIG. 1

Witnesses
W. Lee Helms.
Chas. A. Howell

Inventor
Edward J. Curran
By Julian C. Dowell
his Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.)

3 Sheets—Sheet 2.

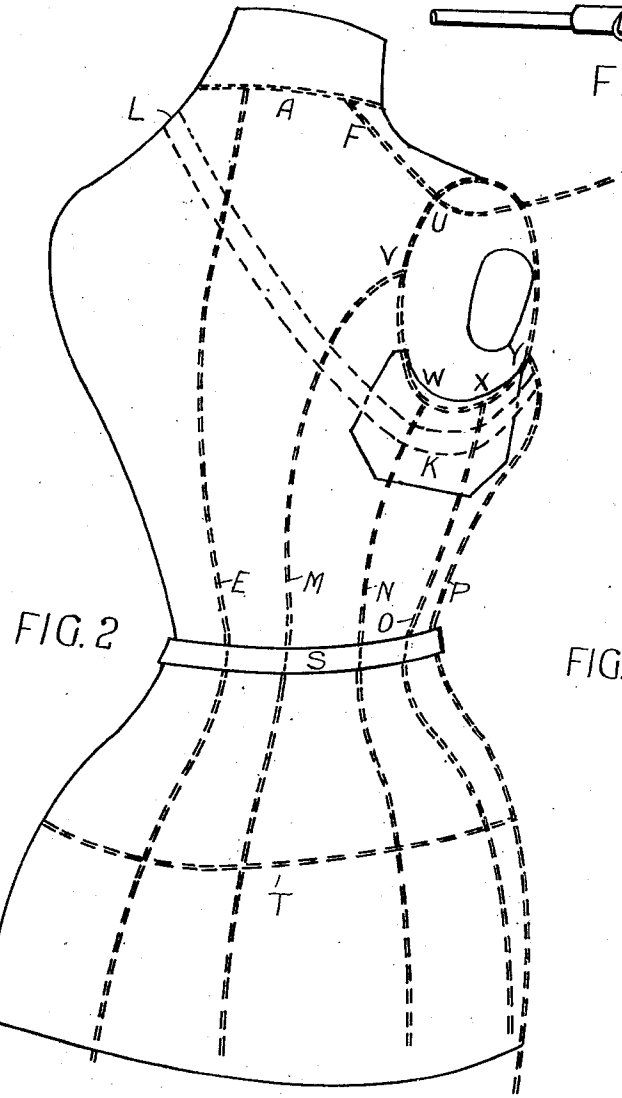


FIG. 2

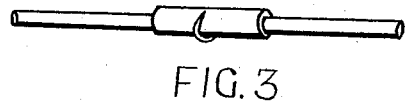


FIG. 3

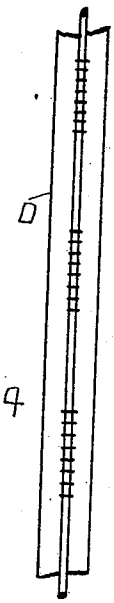


FIG. 4

Witnesses
W. Lee Helms
Osgood H. Darrell

Inventor
Edward J. Curran
By Julian C. Dowell
his Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 711,479. Patented Oct. 21, 1902.

E. J. CURRAN.

METHOD OF DRAFTING GARMENT PATTERNS.

(Application filed Apr. 12, 1900.)

(No Model.) 3 Sheets—Sheet 3.

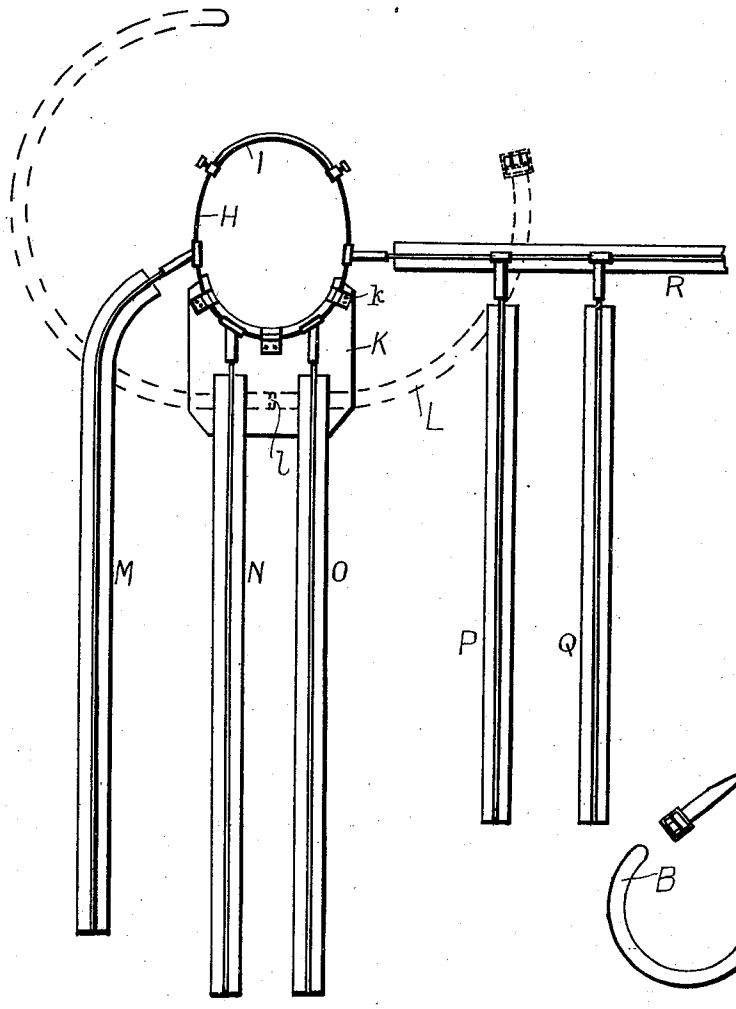


FIG. 5

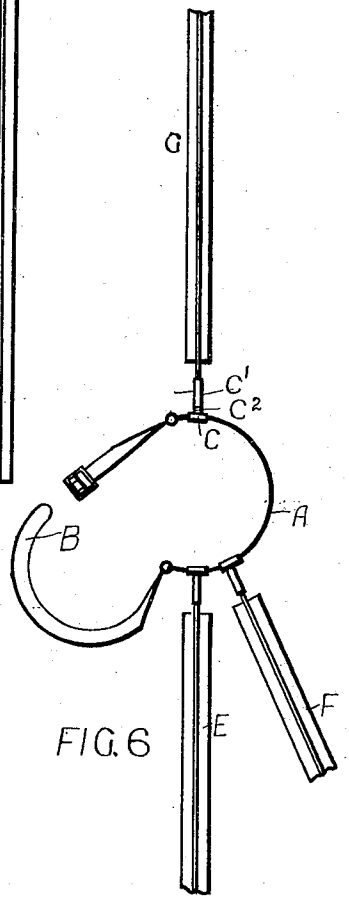


FIG. 6

Witnesses
W. Lee Helms.
Wood & Donnell

Inventor
Edward J. Curran
By Julian A. Donnell
his Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD J. CURRAN, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

METHOD OF DRAFTING GARMENT-PATTERNS.

SPECIFICATION forming part of Letters Patent No. 711,479, dated October 21, 1902.

Application filed April 12, 1900. Serial No. 12,582. (No model.)

To all whom it may concern:

Be it known that I, EDWARD JAMES CURRAN, a subject of the Queen of Great Britain and Ireland, residing at the city of Sydney, in the Colony of New South Wales, Australia, have invented a new and useful invention entitled Improvements in Methods of Drafting Garment-Patterns, of which the following is a specification.

This invention relates to an improved method of drafting garment-patterns.

It consists in a method whereby the curves and model of the figure are outlined by flexible wires set upon the figure, which wires are used to mark lines forming the patterns for various parts of the garment on prepared paper by the agency of an electrical current passed through said paper from said wires to a contact-piece handled by the operator, the current making a chemical change in the constituents of the paper and altering its color where the current passes. When the pattern is so obtained, the cloth or stuff is cut by it in the usual way.

By means of this invention it is possible to obtain patterns for any class of garment; but it is especially useful for obtaining patterns for ladies' habits. The specific habiliments to which it is applied as shown in the annexed drawings are set forth for illustrative purposes only and do not indicate any limitation of adaptation.

Referring to the annexed drawings, Figure 1 represents a three-quarter front view of a lay figure upon which a pattern is being marked according to my invention; Fig. 2, a three-quarter back view of the same lay figure having the wires laid in place thereon ready to receive the pattern-sheet; Fig. 3, an enlarged detail view illustrating a circular pin used for fastening wires not forming part of the harness to the clothing of the person whose measurements are being taken; Fig. 4, a plan showing method of mounting the flexible wires on silk elastic webbing; Fig. 5, a plan showing "harness" of flexible wires connected with shoulder-band; Fig. 6, a similar view including wires connected with the neckband.

The neckband consists of a wire carried on a piece of silk elastic webbing A, whose rear ends are connected by a strap and buckle B. On this neckband there are three carriers C. These each consist of a sliding part *c* and a stem *c'*, connected to the sliding part by a pin c^2. This stem *c'* is adapted to hold the end of a flexible wire which is secured in it by means of a binding-screw. These wires must not be formed of springy metal. They are made of fuse metal, or they may be made of lead silver-plated. Each wire is mounted on silk elastic webbing D, as shown in Fig. 4, to which it is sewed at short intervals. The neckband carries three metallic wires—E for the center of the back, F for the shoulder, and G for the center of the front. The shoulder-band consists of two loops H and I, of which the latter is tubular and provided with pinching-pins J. The size of the armhole or scye is regulated by moving the ends of the loop H into or out of the tubular part I, securing the same when set by the pins J.

K is a tag loosely fastened by loop-pieces *k* to the band H. To this tag K the sash L is sewed at *l*. This sash is used for the purpose of holding the wires close in to the figure, as indicated in Fig. 1.

The several wires M, N, O, and R are connected to the band H by sliding pieces C, similar to those used on the neckband, and the wires P and Q are similarly connected to the wire R. M, N, and O are for marking side seams and P and Q for marking front darts. The wire R is set from the armhole across the most prominent part of the bust.

S is a belt, and T a marking-wire set to mark the lower edge of the pattern. This wire T may be pinched or fastened to the dress or to the tapes D, on which the other marking-wires are fastened. I prefer, however, to use for this fastening the circular pins, as shown in Fig. 3. It will be observed that additional marking-wires may be provided readily if other seams should be required in the back of the garment. A second wire corresponding with M may be readily fitted, and if more front darts are required other wires corresponding with P and Q may be added.

The two systems of wires radiating, respectively, from the neckband and the shoulder-band and the lower wire T are all placed in contact with one another, so as to make a complete electric circuit. As shown in Fig. 2, the shoulder-wire F from the neckband is

drawn under the shoulder-band I, thus making an electrical connection with all the wires radiating from H. The wire T simply lies over and in contact with all the wires depending from the neck and shoulder bands. The wires are kept in to the model of the figure by the sash L, the belt S, and the wire T. It is found that the wires retain their place against the clothing very readily when mounted on silk elastic webbing.

The mode of operation is as follows: The harness of wires being set on the figure, as shown in Figs. 1 and 2, the fitter adjusts the positions of the connections C so as to place the meeting-points of the seams in the correct positions. A certain amount of experience and judgment is necessary in fixing the correct positions of the points U, V, W, X, Y, and Z and also the proper positions of the several seams and parts around the neck, waist, and hips of the figure. When the harness of wires has been properly adjusted, one wire of the system is connected to one pole of a battery, to the other pole of which is connected by flexible wires a metallic hand-roller. A sheet of prepared paper is now laid over the figure, as indicated in Fig. 1, in which the molding of the upper portion of the front half of the body is illustrated. The paper is of an absorbent character and is kept slightly damp and saturated with any substance which will change its color permanently when an electric current is passed through it. Such a sheet of paper is laid on the figure over the wires and the hand-roller before mentioned passed over the same, so as to facilitate the passage of a current from the underlying wires through the paper to the roller. In this way the positions of the wires are represented on the sheets of paper, which are subsequently cut to form patterns, which are then used in the usual way. The pieces forming the part of the habit extend from the neck to the skirt. There is not a cross-seam at the wire R. The patterns of the parts above and below the wire R are, however, marked separately and finally pasted together and the cloth cut from the compound pattern so made. The proper set of each of the pieces at the breast is thus insured.

The wire T is not usually mounted on webbing, as the other wires. It is fixed to the clothing by the circular pins, one of which is illustrated in Fig. 3.

There may be substituted for the wires described metallic braiding or other electrical conductor adapted to be laid upon the figure in the manner described.

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

1. The hereinbefore-described improvement in the art of drafting garment-patterns which consists in electrochemically marking on pattern material placed on the figure to be fitted, the outlines of the portions of the figure which are to be covered by the single pieces of the garment.

2. The hereinbefore-described improvement in the art of drafting garment-patterns which consists in electrochemically marking on pattern material by passing an electrical current to a chemically-prepared pattern material upon the figure to be fitted and along the intended lines of garment-seams.

3. The hereinbefore-described improvement in the art of drafting patterns for garments which consists in passing an electric current along chemically-prepared pattern material on lines corresponding to the contour-lines of the human form and then severing the material on such lines.

4. The hereinbefore-described improvement in the art of drafting garment-patterns which consists in passing an electric current along chemically-prepared pattern material along the seam-lines of the figure to be fitted.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD J. CURRAN.

Witnesses:
C. G. HEPBURN,
W. J. DAVIS.