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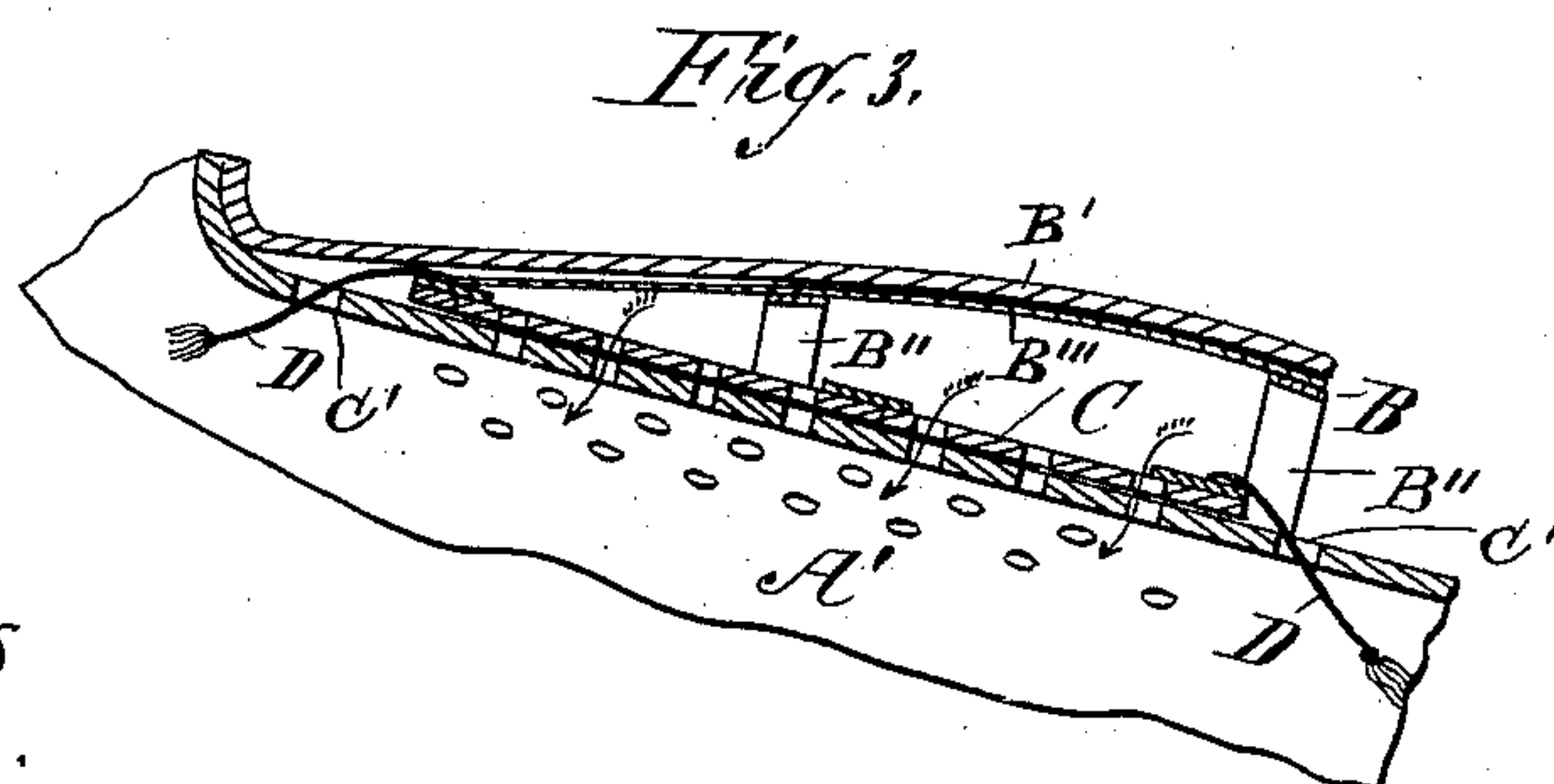
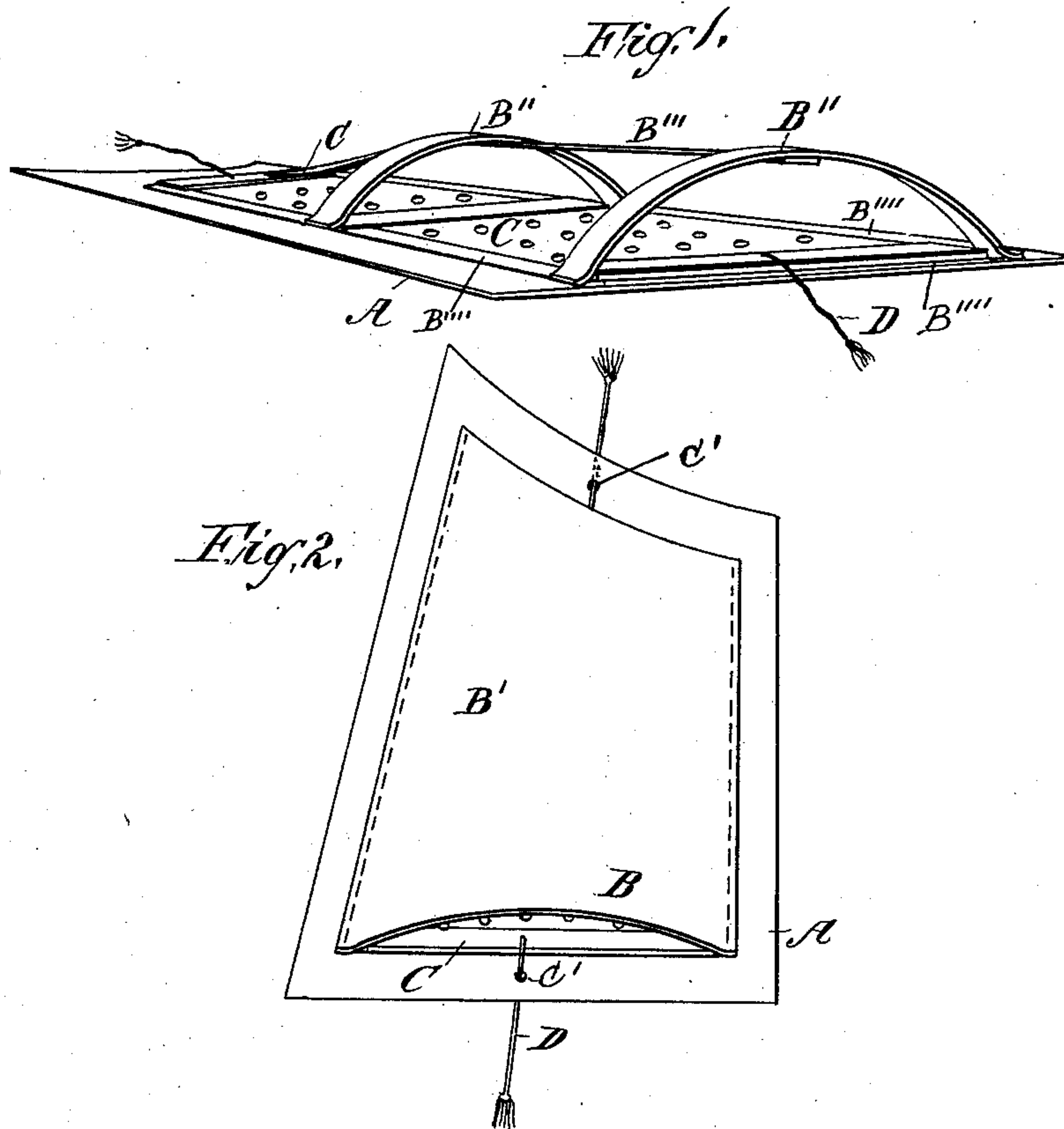
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J. J. BYERS.

SHOULDER FORM FOR GARMENTS.

No. 389,637.

Patented Sept. 18, 1888.



Witnesses  
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E. W. B. Phillips

Inventor  
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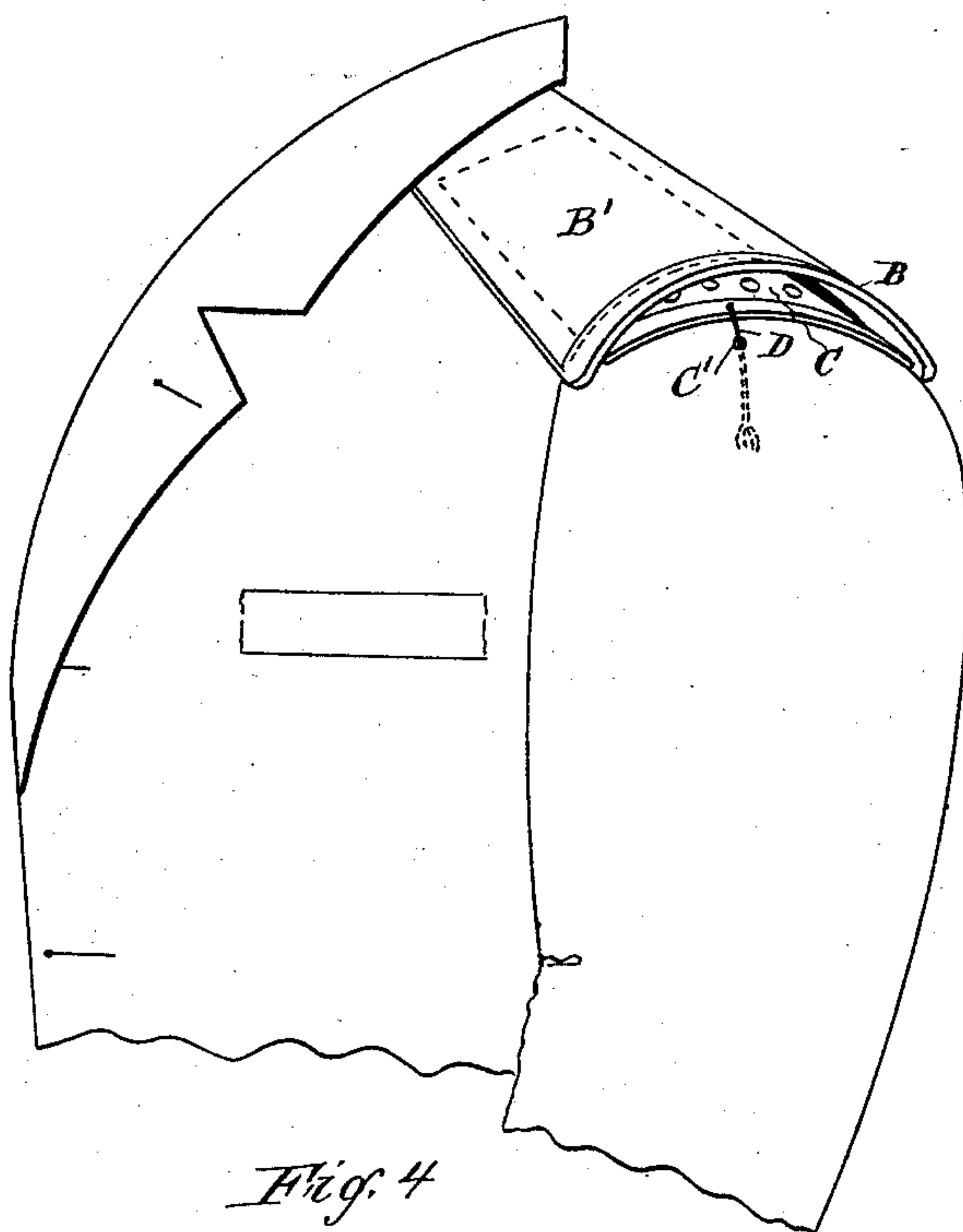
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# UNITED STATES PATENT OFFICE.

JOSEPH J. BYERS, OF BROOKLYN, NEW YORK.

## SHOULDER-FORM FOR GARMENTS.

SPECIFICATION forming part of Letters Patent No. 389,637, dated September 18, 1888.

Application filed August 19, 1887. Serial No. 247,355. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH J. BYERS, a citizen of the United States, residing in the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Shoulder-Forms for Garments, of which the following, taken in connection with the accompanying drawings, is a full, clear, and accurate description.

The object of my invention is to provide means for regulating the amount of ventilation in the shoulders of ventilated garments.

My improvement consists in means for accomplishing the above object, hereinafter described, and pointed out in the claims.

My improved shoulder-form is constructed as follows, reference being had to the drawings, in which—

Figure 1 represents a perspective view of the shoulder-form, the cover-piece being omitted; Fig. 2, a plan view of the complete shoulder-form; Fig. 3, a sectional view showing the arrangement of the slide shoulder-piece of the garment forming the base-piece of the form; Fig. 4, a view of the shoulder-form applied to the shoulder of a coat.

Similar letters of reference indicate similar parts.

A is a perforated base-piece, of linen, muslin, silk, or other material, of sufficient length to reach from the armhole of the garment to or nearly to the neck, and of width sufficient to cover the shoulder, and so cut that it will not stretch sidewise or across the shoulders. The general form of the base-piece A is that shown in Fig. 2; but it may be varied to suit the form of the shoulder of the garment in which it is to be used. Onto this base-piece A is fastened the shoulder-form proper, B, which may consist of a piece, B', of hair-cloth, buckram, crinoline, hard rubber, or any other elastic stiff material, of such size and shape that its outer width, or that at the armhole, is greater than the width of the base-piece A at the points at which it is fastened, while the width of the form B is the same as the base-piece at the points to which it is fastened at the inner portion of said base-piece A, the two pieces A and B being the same length and being fastened together at the lengthwise edges of the form B. The form B being fastened as

described, and the width, as before stated, at the outer edge of the form B being greater than the width between the points of the piece A, to which it is fastened, it necessarily follows that this outer edge of the form B will be forced to take the form of an arc of a circle, and the two pieces together will form a section of a truncated cone. The form B may be fastened at a short distance from the side edges of the piece A.

The form B may be strengthened by one or more strips, B'' B''', of whalebone, steel, hard rubber, or other elastic material, fastened either directly to the base-piece A or to base-pieces B''', of the same material, and being part of the strips themselves, which in turn are fastened to the base-piece A, the outer strip being of greater length between the points at which it is fastened than the base-piece A at the same points, other strips, if used, decreasing in such relative lengths until the strip at the inner end of the form is of the same length between the points at which it is fastened as the base-piece A at that place; or the inner strip may be dispensed with, and strips of material may be fastened to the top and sides of the arches so formed to strengthen them, if desired; or the strip may be used to keep the hair-cloth, &c., in shape and re-enforce it in strength; or other equivalent means may be used to form an elastic stiff cap or brace with an arched mouth and flat end, forming, as before described, a section of a truncated cone; or the base-piece A may be omitted entirely and the form B so constructed that its lower edges can be attached directly to the perforated lining or material A of the garment itself.

To regulate the amount of ventilation, I place upon the top of the base piece A a piece, C, having similar perforations to those in the base-piece A, so arranged as to slide back and forth on said base-piece A within the form B, so that the holes or perforations in the slide C can be made to coincide with the holes or perforations in the base-piece A; or the solid portion of said slide C can be made to cover over the perforations in the base-piece A. This slide C is provided with tapes, cords, or projections D, passing through the base-piece A, or between it and the form B, by means of



which the slide C can be moved backward or forward.

In the drawings, Fig. 4, cords D D are shown passing through holes C' in the base-piece A.

5 This shoulder-form is especially adapted for use in ventilating garments in the method patented in Letters Patent No. 346,087, for improvements in ventilated water-proof and other garments, as it will be readily seen that  
10 the epauleted cap with its stay-piece therein described can be formed by means of this shoulder-form by using the base-piece A of the shoulder-form for the perforated portion of said garment and forming the epauleted  
15 cap over the top of the form B. In use in coats or other similar garments, the perforated piece A being made part of the lining of the garment, the lining of the sleeve would be attached or sewed to the outer edge of said piece,  
20 while the cloth of the shoulder of the garment is passed over and fastened to the form B, and the upper edge of the sleeve of the garment is attached or sewed to the outer edge of the arch of the form B; and these perforations may be  
25 surrounded or covered loosely with braid, fringe, or other like material.

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

30 1. A shoulder-form for garments, compris-

ing a base-piece having ventilating-perforations, an arched form secured to the base-piece and open at the outer end, and a sliding piece on the base-piece having ventilating-perforations coinciding with the ventilating-perforations in the latter, substantially as described. 35

2. A shoulder-form for garments, comprising a base-piece having ventilating-perforations and cord-holes, an arched form secured 40 to the base-piece and open at the outer end, and a sliding piece on the base-piece, having ventilating-perforations coinciding with the ventilating-perforations of the latter and provided with pull-cords extending through the 45 cord-holes, substantially as described.

3. The combination of a garment having a perforated shoulder-piece and cord-holes C', the perforated longitudinally-sliding piece C, having end cords, D, an arched form, B, over 50 the shoulder, open at the outer end, and a covering, B', over the form, substantially as described.

In testimony whereof I have hereunto set my hand this 18th day of August, 1887.

JOSEPH J. BYERS.

In presence of—

EDWARD N. GRAY,  
R. T. VAN BOSKERCK.