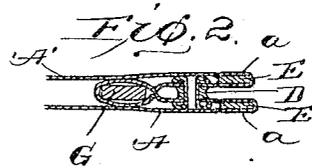
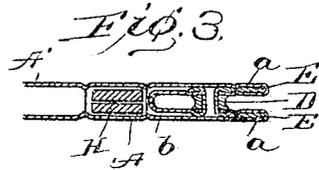
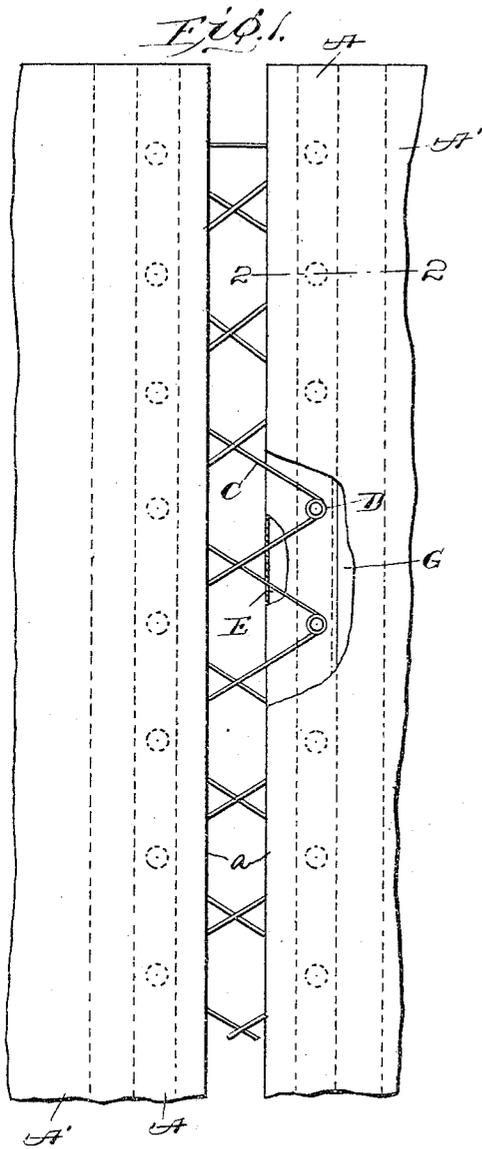


No. 787,894.

PATENTED APR. 25, 1905.

A. R. COLTON.
INVISIBLE LACING.

APPLICATION FILED JULY 2, 1903. RENEWED SEPT. 30, 1904.



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UNITED STATES PATENT OFFICE.

ALBERT R. COLTON, OF NEWARK, NEW JERSEY.

INVISIBLE LACING.

SPECIFICATION forming part of Letters Patent No. 787,894, dated April 25, 1905.

Application filed July 2, 1903. Renewed September 30, 1904. Serial No. 226,693.

To all whom it may concern:

Be it known that I, ALBERT R. COLTON, of Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Invisible Lacing; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in garment-fasteners such as employ a lacing-cord, and particularly to that class wherein the lacing-cord passes in between double flaps or flaps of the garment, so as to be invisible when the edges of the garment are drawn together, and so as to be itself protected, and so as to protect the over and under lying garments.

The objects of the invention are to provide an improved structure applicable for securing the edges of garments—such as corsets, placket-holes of skirts, leggings, shoes, &c.—in which the thickness of the edges of the garment will not be materially increased and at the same time the said edges will be held straight and the strains evenly distributed, so as to prevent puckering or distortion without formation of projections on the inner or outer sides, such as would discommode the wearer or show on either side.

A further object of the invention is to provide a structure which is simple and easy to manufacture either as a part of a garment or as an attachment to be applied to garments after being completed save for the fastening means.

With the above objects in view the invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described, and pointed out particularly in the appended claims.

Referring to the accompanying drawings, Figure 1 is an elevation of a lacing embodying the present improvements. Fig. 2 is a cross-section on the line 2 2, Fig. 1. Fig. 3 is a view corresponding to Fig. 2, but showing a modified arrangement of the stiffeners.

Like letters of reference in the several figures indicate the same parts.

The letter A indicates the fabric, which may

be a portion of the garment, but is preferably of somewhat heavier material and adapted to be secured by sewing along the edges of the garment or portion of the garment to be drawn together and secured by lacing. Two or more pieces of fabric A may be employed secured together by lines of stitching, if so desired; but the preferred construction is as shown, wherein a single piece of fabric is folded to form two edge flaps or pockets *a* and one central inwardly-extending flap or pocket *b*. The rollers, studs, or eyelets D, around which the lacing C passes, are secured in the inwardly-extending pocket *b* or in and between the fabric forming the inner sides of the flaps *a* and in such manner that they are held by these portions of the fabric while the fabric forming the outer sides of the flaps *a* passes over the ends of the said rollers, studs, or eyelets, so as to effectually inclose and conceal the same from view. The fabric forming the outer faces of the flaps *a* is extended back from the lacing, as at A', and may be united to the garment by lines of stitching, or, as before stated, may be a portion of the garment itself.

The flaps *a* constitute pockets for the reception of edge-stiffeners E for keeping the meeting edges of the garment true and straight, such stiffeners being held in place by sewing or otherwise.

To distribute the strains of the lacing from the rollers, studs, or eyelets evenly to the fabric, and thereby prevent puckering or distortion due to such strains and leave the structure flexible to conform to the personal lines of the wearer or the garment to which the device is applied, a stiffener is secured in the fabric in rear of the line of rollers, studs, or eyelets and preferably in the same plane therewith, as shown at G in Figs. 1 and 2, where the stiffener is secured in the rear portion of the pocket *b*. This rear stiffener may, however, be secured between the outside portions of the fabric instead of within the pocket *b*—for instance, as shown at H in Fig. 3—and it is obvious that a thick stiffener or two or more stiffeners may be superposed to give a thickness approximately corresponding to the thickness of that part of the structure containing the rollers, studs, or eyelets,

whereby the formation of projections by the eyelets or lacing is prevented.

With the foregoing arrangement it will be seen that the thickness may be reduced to a minimum and at the same time all the advantages of an invisible lacing secured without causing the garment to pull or pucker or to form projections which will discommode the wearer or be visible through even the thinnest overlying garment.

By the formation of pockets along the edge and in rear of the lacing, rollers, studs, or eyelets the manufacture of the structure is simplified, and the structure is well adapted for use on garments to which this class of lacing has not heretofore been well adapted.

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

1. In a structure such as described the fabric formed into two edge flaps for the admission of the lacing between them, studs around which the lacing passes secured at the ends to the portions of the fabric forming the inner sides of said flaps and between the portions of the fabric forming the outer sides of said flaps so as to be concealed thereby, and a strain-distributing stiffener secured in the fabric on the inner side of the said studs; substantially as described.

2. In a structure such as described, the fabric formed into two edge flaps for the admission of the lacing between them, studs around which the lacing passes secured at the ends to the portions of the fabric forming the inner sides of the flaps and between the portions of the fabric forming the outer sides of the flaps so as to be concealed thereby, and a strain-distributing stiffener secured between the sides of the fabric in rear of and in the plane of the studs, said stiffeners giving a thickness to the structure corresponding to the thickness through the studs to prevent the formation of projections by the studs or lacing; substantially as described.

3. In a structure such as described, the fabric formed into two edge flaps between which the lacing passes, studs around which the lacing passes having their ends secured to the portions of the fabric forming the inner sides of the edge flaps and underlying and concealed by the portions of the fabric forming the outer sides of the said flaps and a stiffener held in one of the flaps in proximity to, but independent of the studs to stiffen the edge of the flap; substantially as described.

ALBERT R. COLTON.

Witnesses:

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