

D. A. SUTHERLAND.

MANUFACTURE OF BOOTS AND SHOES.

No. 176,094.

Patented April 11, 1876.

Fig. 1.

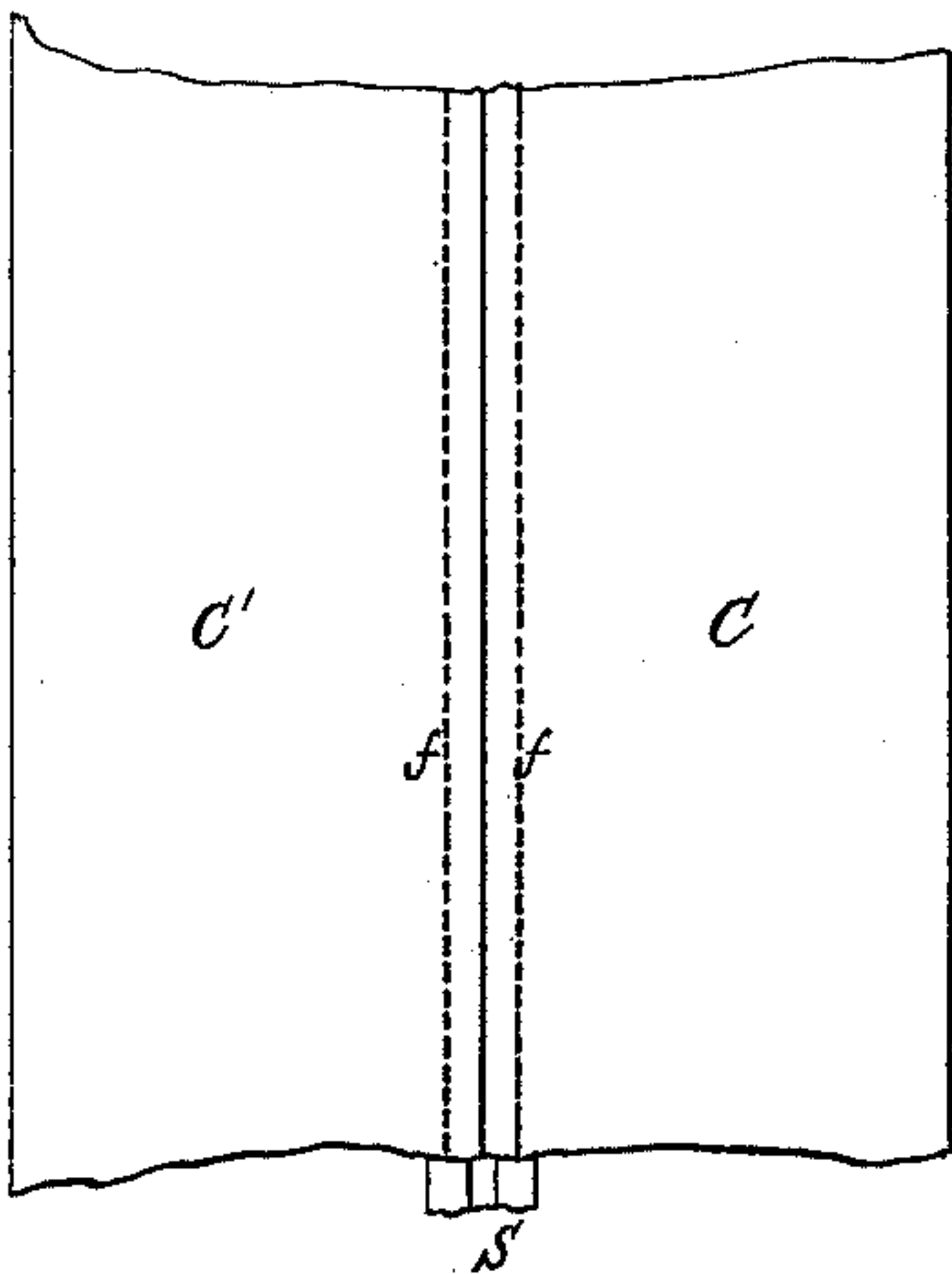


Fig. 2.

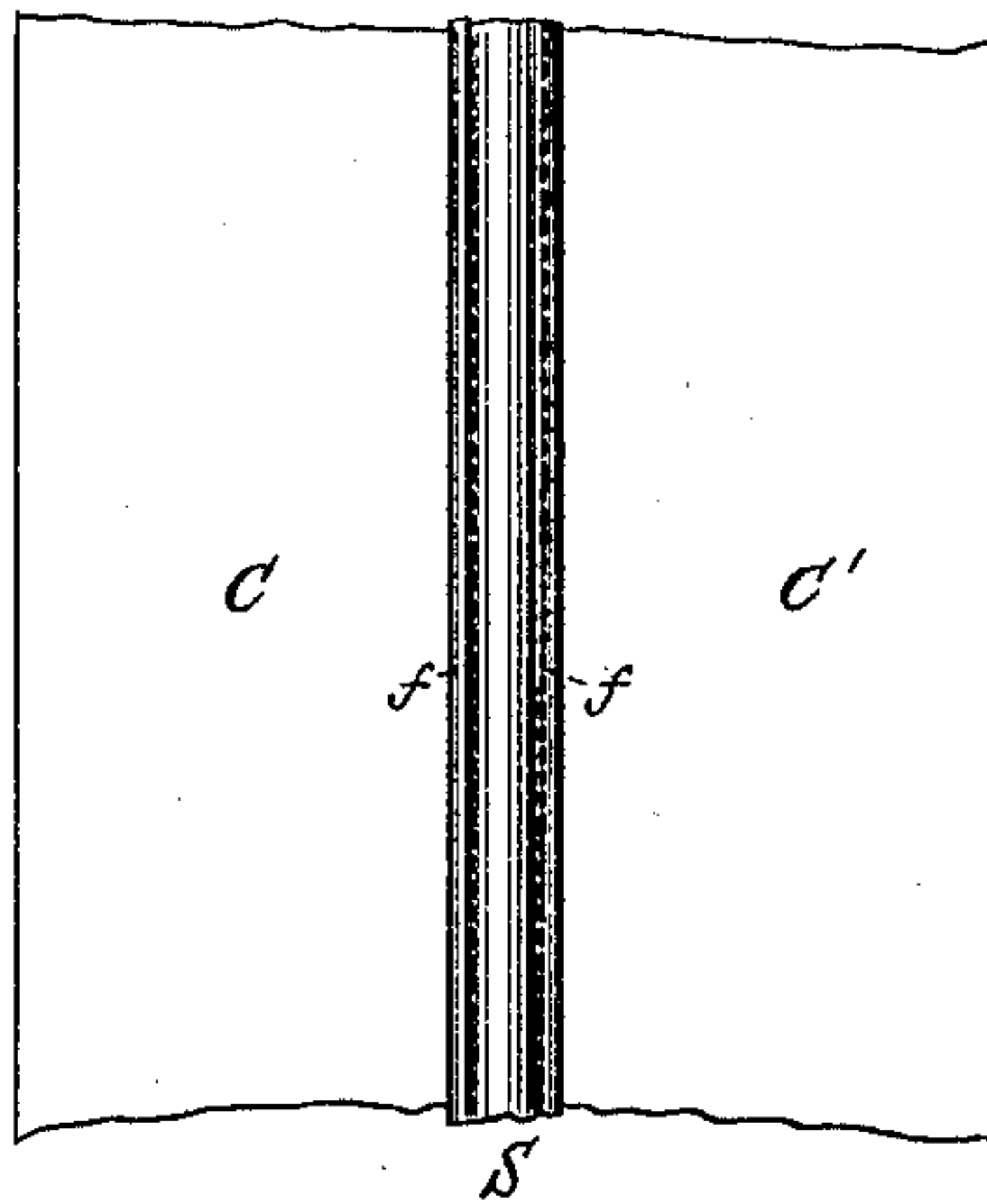


Fig. 3.

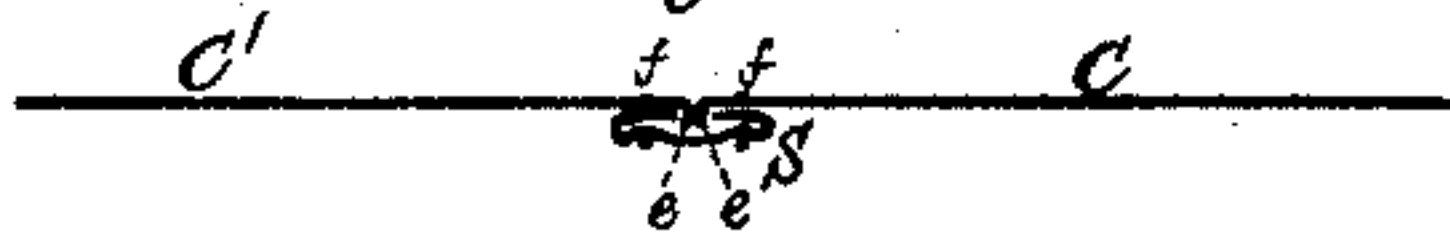


Fig. 4.

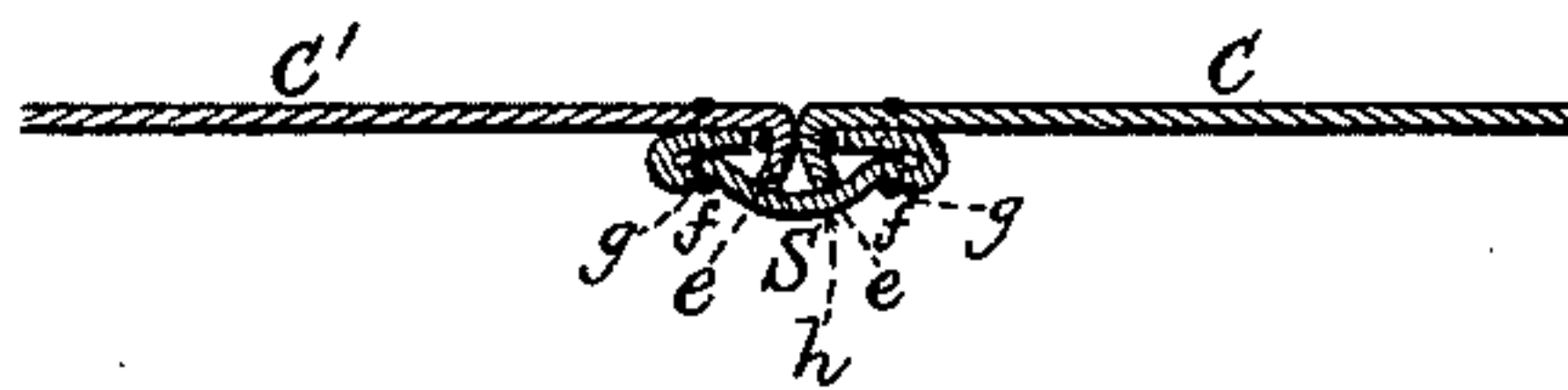


Fig. 5.

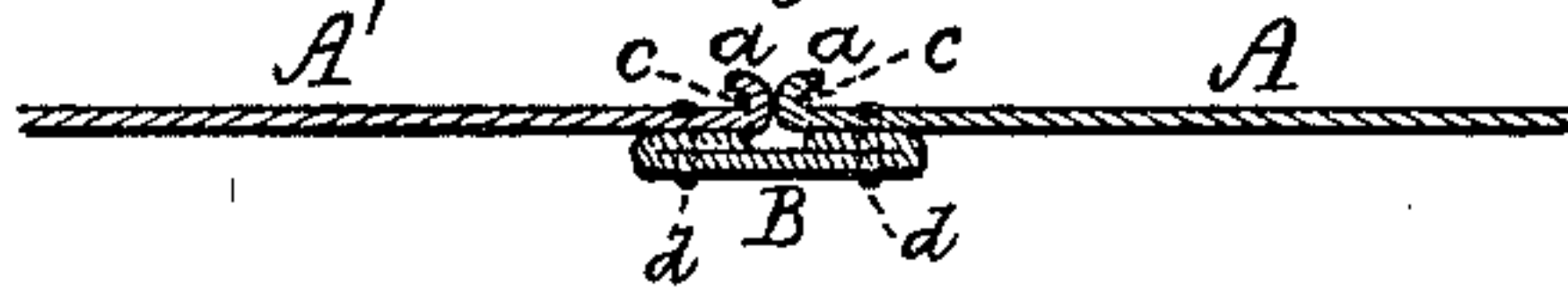


Fig. 6.



Witnesses.

S. W. Piper.  
L. M. Miller.

Daniel A. Sutherland.

by his attorney.

R. H. Eddy

# UNITED STATES PATENT OFFICE.

DANIEL A. SUTHERLAND, OF LYNN, MASSACHUSETTS, ASSIGNOR TO  
HIMSELF AND JOSEPH N. SMITH, OF SAME PLACE.

## IMPROVEMENT IN THE MANUFACTURE OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **176,094**, dated April 11, 1876; application filed  
February 7, 1876.

*To all whom it may concern:*

Be it known that I, DANIEL A. SUTHERLAND, of Lynn, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Stay-Seaming Boot or Shoe Uppers; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a rear view, Fig. 2 a front view, and Fig. 3 a transverse section, of a lady's boot upper stay-seamed in accordance with my invention. Fig. 4 is a transverse section, on an enlarged scale, of my improved stay-seam.

In the common method of making a stay-seam the pieces of leather are first laid one upon the other, and sewed together near their next adjacent edges, when the seam is to be formed, the edges being subsequently turned in, as shown in Fig. 5, in which *a a* denote such edges; *A A'*, the two pieces, and *B* the band or stay covering the seam on the outer side, and running along throughout such seam. The stitching of the pieces *A A'* is shown at *c*, those connecting the stay to said pieces being represented at *d d*.

In wearing a boot or shoe so made the parts *a a* of the seam, by projecting inward, become more or less uncomfortable or injurious to the wearer. Furthermore, the rows of stitching *d d*, by being subjected to continual friction or rubbing of the dress of the wearer of the shoe, soon become worn, so as to rip or give way and loosen the connection of the stay with the upper. This latter difficulty has been a source of great annoyance, not only to the manufacturers, but the sellers and users of ladies' boots, stay-seamed.

In stay-seaming I lay together edge to edge the two inner surfaces of the pieces *C C'* to be connected, and in this state stitch one of such pieces to the other. In this way, when they are opened apart, the narrow parts projecting beyond the line of stitching will be on the outer sides of the two pieces, instead of being on their inner sides, as heretofore. These

parts (shown at *e e* in Figs. 3 and 4) I next cover by the stay *S*, which I sew to both the pieces *C C'* by rows *f f* of stitches running parallel to each other and the edges of the stay. Where the rows *f f* of stitches are to be in the stay I form it with grooves *g g*, to receive such stitches and embed them below the external outer contiguous parts of the outer surface of the stay. The stay will be bent laterally around or over the projecting parts *e e*, so as to form between the rows of stitches an intermediate safety-fillet, *h*, which will serve also as a protector of the rows of stitching from contact with and wear by the dress of a person while wearing the shoe or boot.

For use with a common sewing-machine, without a folder to fold and groove a strip of leather for conversion of it into a stay, I form the stay in transverse section, as shown in Fig. 6, the grooves being shown at *g g* as each bounded by two fillets, *i i*.

From the above it will be seen that, by having the parts *e e* of the two pieces *C C'* on the outer side of the shoe, and covered by the stay, I not only have a smooth seam on the inner side of the back of the upper, but I use such parts *e e* as means of crowning or filleting the stay, in order to render it protective of the stitching.

I do not claim the seam portions *e e*, arranged on the outer sides of the pieces *C C'*, and covered by a stay without any grooves or fillets, as described, for protection of the sewing.

I therefore claim as my invention—

The seam portions *e e*, arranged on the outer side of the pieces *C C'*, and covered with the stay *S*, sewed to both of said parts *C C'*, said stay being provided with the grooves *g* and fillets *h i*, and the edges of the stay being folded, as shown, for the reception of the seam portions *e e*, all in the manner described.

DANIEL A. SUTHERLAND.

Witnesses:

R. H. EDDY,  
J. R. SNOW.