

A. B. FELT.
Piping Attachment for Sewing-Machines.
No. 223,329. Patented Jan. 6, 1880.

Fig. 1.

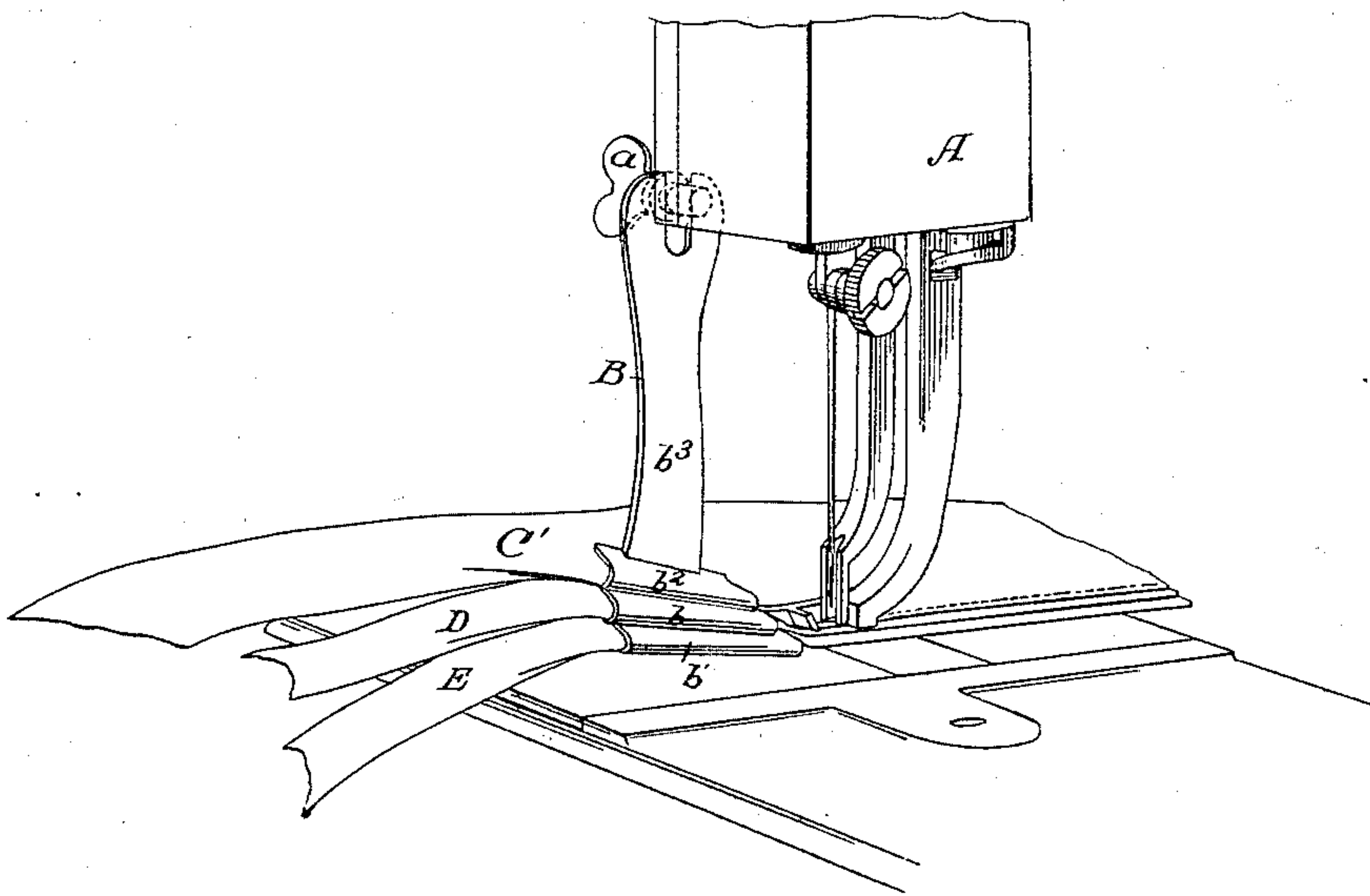


Fig. 2.

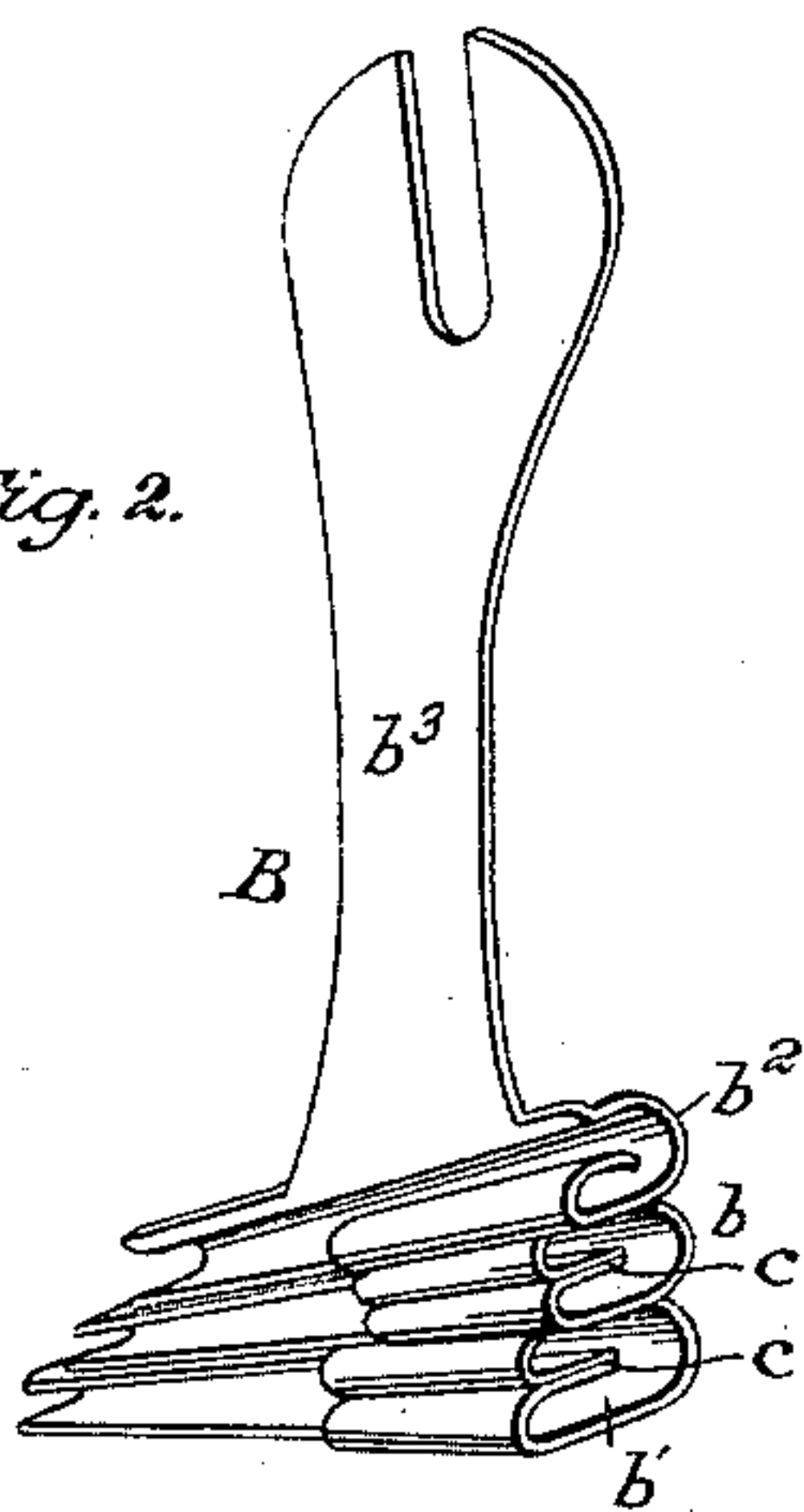


Fig. 3.

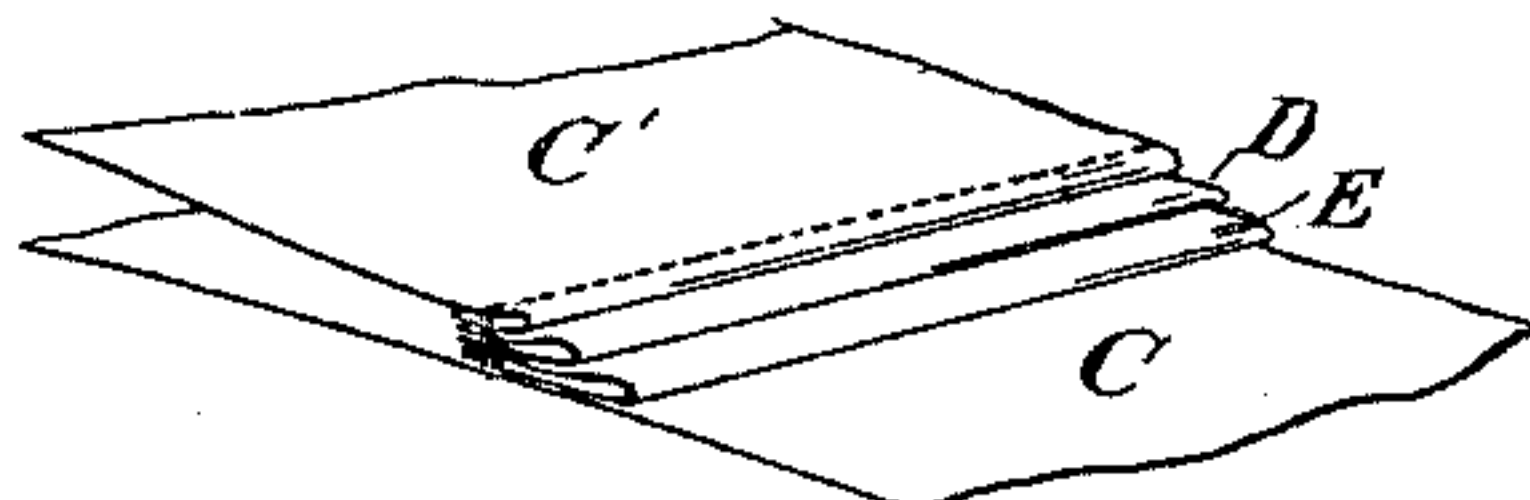


Fig. 4.

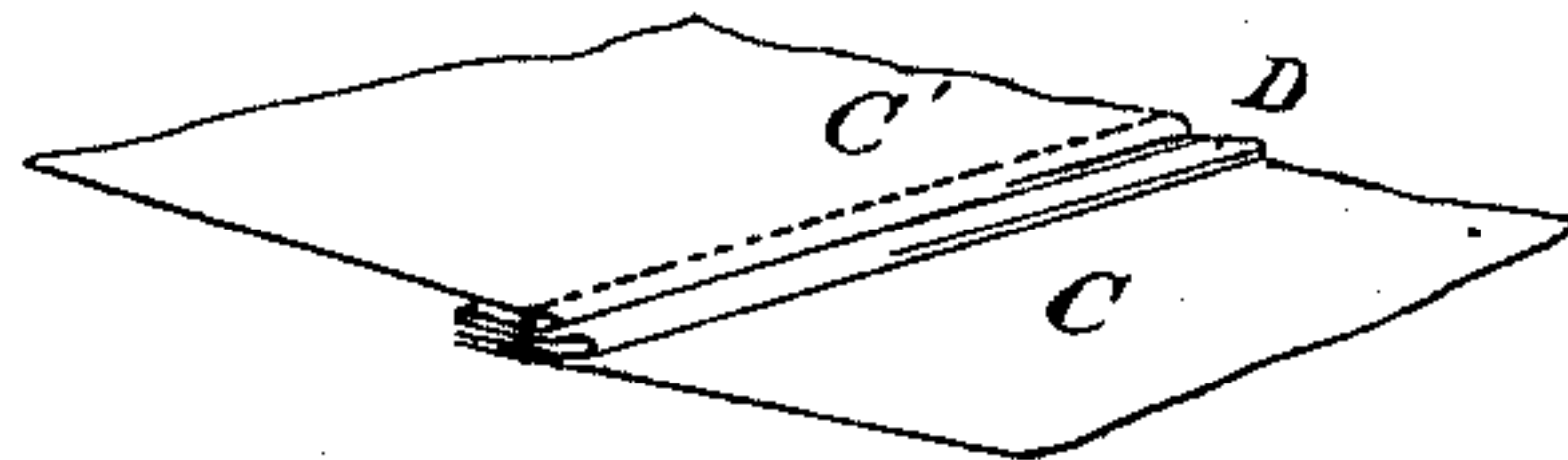
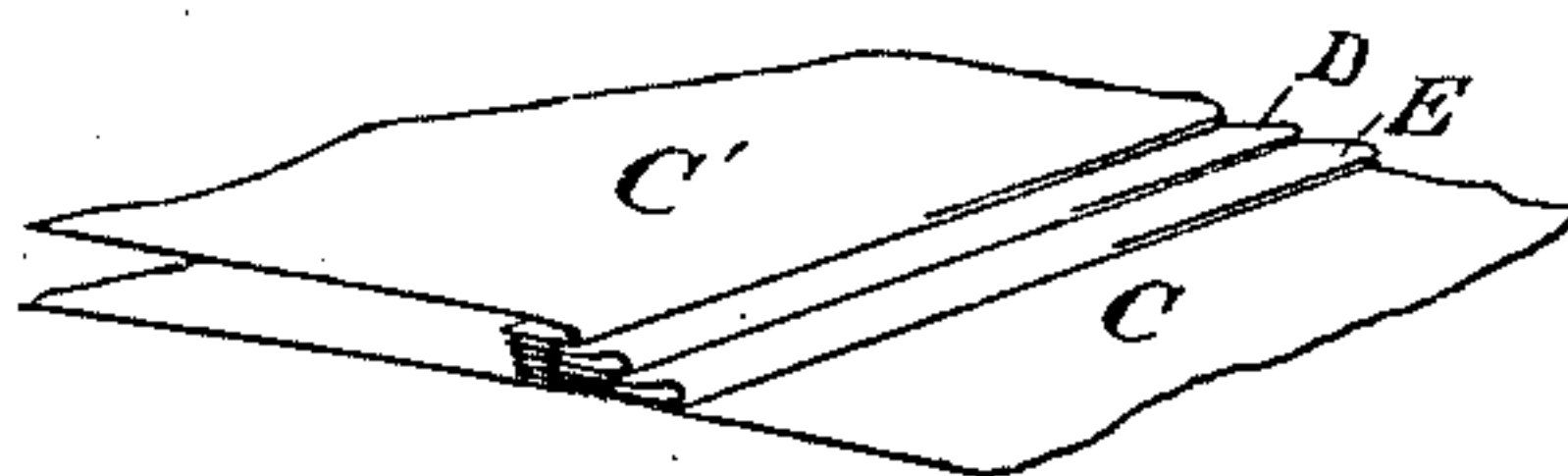


Fig. 5.



Attest:

E. A. Rick
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UNITED STATES PATENT OFFICE.

ALVIN B. FELT, OF PHILADELPHIA, PENNSYLVANIA.

PIPING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 223,329, dated January 6, 1880.

Application filed August 15, 1879.

To all whom it may concern :

Be it known that I, ALVIN B. FELT, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Piping Attachments for Sewing-Machines, which improvement is fully set forth in the following specification.

In the manufacture of dress-trimmings, cushions, and other articles, one or more folded strips are often sewed on at the edges of the material or at the seams. In dress-trimmings these strips are called "piping," or "pipings," when referring to them severally. Ordinarily the strips are folded by hand, and the pipings are basted in, and the whole then stitched by a sewing-machine. When it is desired that the stitches should not be visible the material is folded back upon itself after the seam is sewed; otherwise the edge is simply turned under and basted.

It is the fashion now to give the effect of two or more pipings, which is furnished either by two or more strips or by one or more strips, and the fold made by turning under the edge of the material. The piping is applied to the edge of the trimming, and also at the junction of it with the sleeve or other part of the garment, generally at some distance from the edge of the latter.

This invention relates to attachments for sewing-machines for automatically folding and guiding to be stitched such strips or piping, so as to perform the work indicated.

It consists in the combination, with means for securing the same in position, of two or more strip folders and guides arranged in vertical series; secondly, in the strip folders or guides, two or more in number, of unequal width, arranged in vertical series, in combination with means of attachment; and, thirdly, in the combination, in a sewing-machine attachment, with strip folding and guiding means, of a hemmer permanently connected therewith in a vertical series.

By the term "strip folder and guide" is meant a device which incloses both edges of the folded strip, and is used in contradistinction to a hemmer, which incloses one edge only. In operation with several layers of fabric this is important, as no care is required to keep the strip in position in the folder and guide. Here-

tofore such a device has been made; but it is used singly, and is otherwise different from my improved attachment.

The following description will enable those skilled in the art to which it appertains to make and use my said invention, reference being had to the drawings, in which—

Figure 1 shows a combined hemmer and folder, adapted for use with two pipings, in position on the machine, the finished work being represented, and also the manner of feeding the strips to form the pipings. Fig. 2 is a separate view of the attachment shown in Fig. 1, and Figs. 3, 4, and 5 views of different work which can be made therewith.

The same letters refer to like parts where they occur on all the figures.

A represents the head of what is known as a "Davis" sewing-machine. In this machine the feed takes place above the cloth and while the needle is depressed. In this way the proper feeding of all the strips is effected and all unevenness prevented, and for this reason, therefore, my attachment is shown in connection therewith.

B is the attachment, consisting of the folders and guides b b' , hemmer b^2 , and attaching strip or plate b^3 . It is held in position by a set-nut, a , a slot in the plate b^3 permitting adjustment to be made. C is the cloth to which the trimming C' is to be applied, and D E the pipings.

The folders and guides are constructed substantially alike. At the end at which the piping-strips enter they are enlarged, and are there divided into two parts by the inwardly-bent edges c , which, however, extend only partly across the openings. At the opposite end the upper and lower walls are brought closer together to contract the opening. The inwardly-bent edges extend longitudinally only a part of the length of the folder and guide.

The strips D E are folded around the edges c , and are guided by the sides of the folder to the needle in the proper position. The lower folder and guide, b' , is therefore made somewhat larger than the upper folder and guide, b , and allowed to project, as shown, upon the side opposite the edges c .

The hemmer b^2 is of any ordinary or suitable

ble construction, as shown. The plate b^3 extends from what may be called the "straight" side of the folders, as shown, so that it serves as a work-guide, as hereinafter explained.

5 The operation will be readily understood.

Referring to Fig. 1, the pipings D E are passed through the folders and guides $b b'$, which are properly adjusted, and the edge of the trimming-strip C' , usually cut bias, is placed in the hemmer. The different strips and pieces are, of course, all brought under the needle. The machine being set in motion, the whole is stitched together, the pipings are folded and applied, and the edge of the strip C' hemmed under as the work is fed forward.

15 In order at the same time to sew the strip C' and the pipings D E to another piece of fabric, the latter is passed under the attachment and presser-foot and needle. The work thus produced is illustrated in Fig. 3, C being the fabric.

When it is desired to introduce a single piping, as shown in Fig. 4, all that is necessary is to omit one of the strips D E.

25 If it is desired that the stitches should be hidden in the finished work, the strip C' is fed face downward on the opposite side of the plate b^3 to that shown in Fig. 2, the hemmer not being used. In this case the plate b^3 guides the edge of the strip C' . One or two pipings may be introduced. With two work is produced such as shown in Fig. 5.

35 It is obvious that when one piping only is to be stitched in, the attachment could be made with one folder and guide only, and the hemmer could be dispensed with, the attaching-plate being secured to the upper folder. The attachment shown, however, exhibits my invention in its most complete form, as all kinds of work, as described, may be made therewith.

45 When more than two pipings are desired, additional folders, similar to those described, but gradually increasing in width, are placed below them in the same vertical series.

I have described the attachment as secured to the head of the machine. This is preferred, as it leaves the table entirely free; but when this is not required it could be constructed to be secured to the table.

Although I have shown the attachment applied to a Davis machine, yet it is equally applicable to other machines, except so far as difficulty may be experienced with the feed.

My invention is capable, generally, of use with all kinds of flexible material whenever it is required to stitch in folded strips similar to piping. Besides the manufacture of trimmings or cushions, as before indicated, it could be employed to introduce a welt of leather into the side seams of boots, and for many other purposes.

Having thus fully described my said invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. In an attachment for sewing-machines, the combination of two or more strip folders and guides, arranged in a vertical series, with means for securing the same in position, substantially as described.

2. In a sewing-machine attachment, the combination of two or more strip folders and guides of unequal width, arranged in a vertical series, with means for securing the same in position on the machine, substantially as described.

3. The combination, in a strip folding and guiding attachment for sewing-machines, of a hemmer with the strip folding and guiding means, the said hemmer being permanently connected therewith in a vertical series, substantially as described.

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

ALVIN B. FELT.

Witnesses:

E. A. DICK,

DANIEL CLARKE.