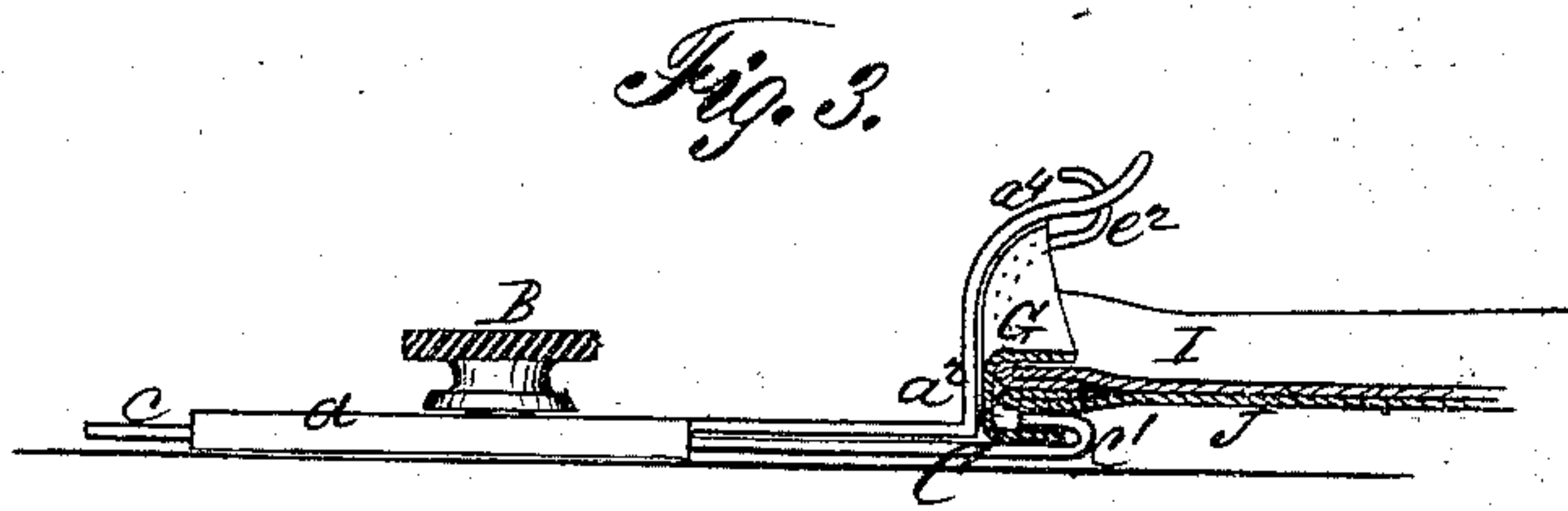
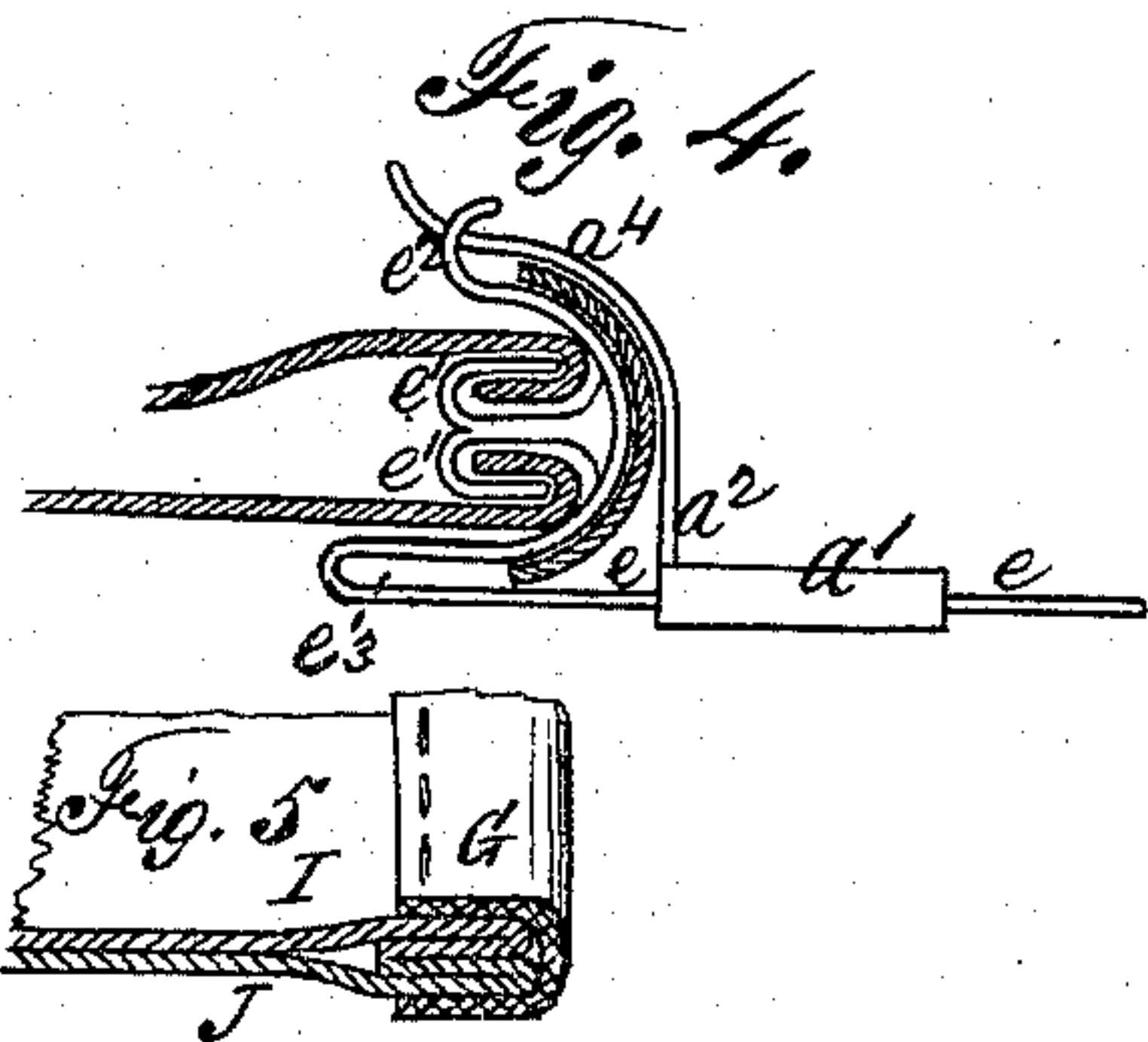
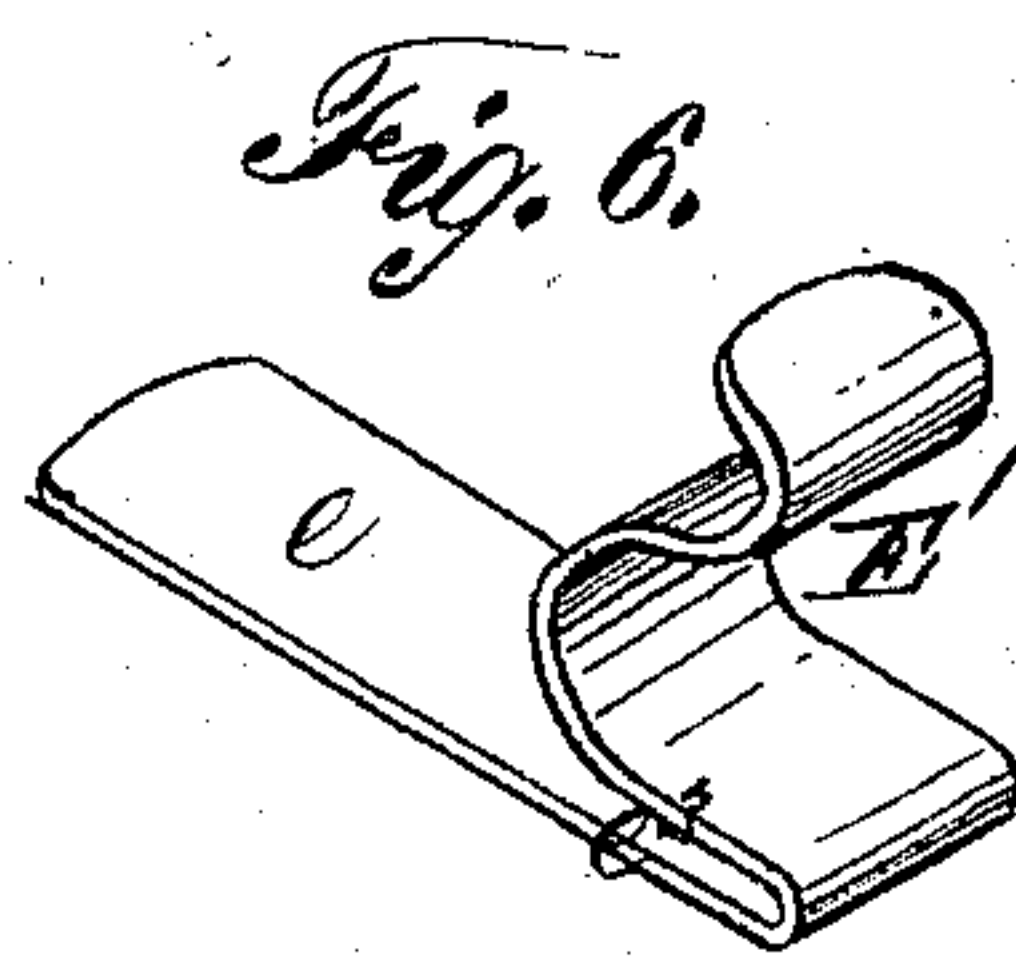
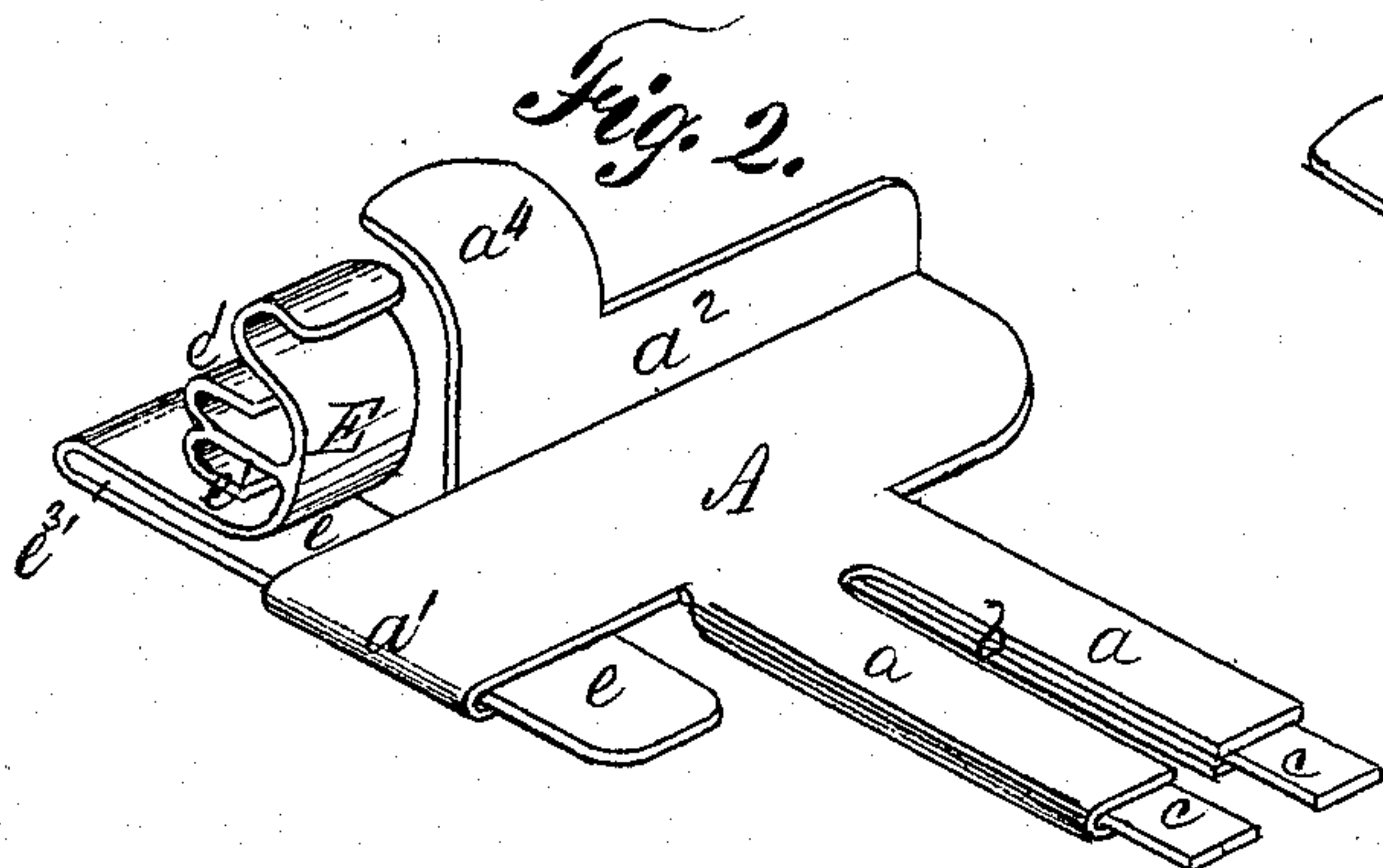
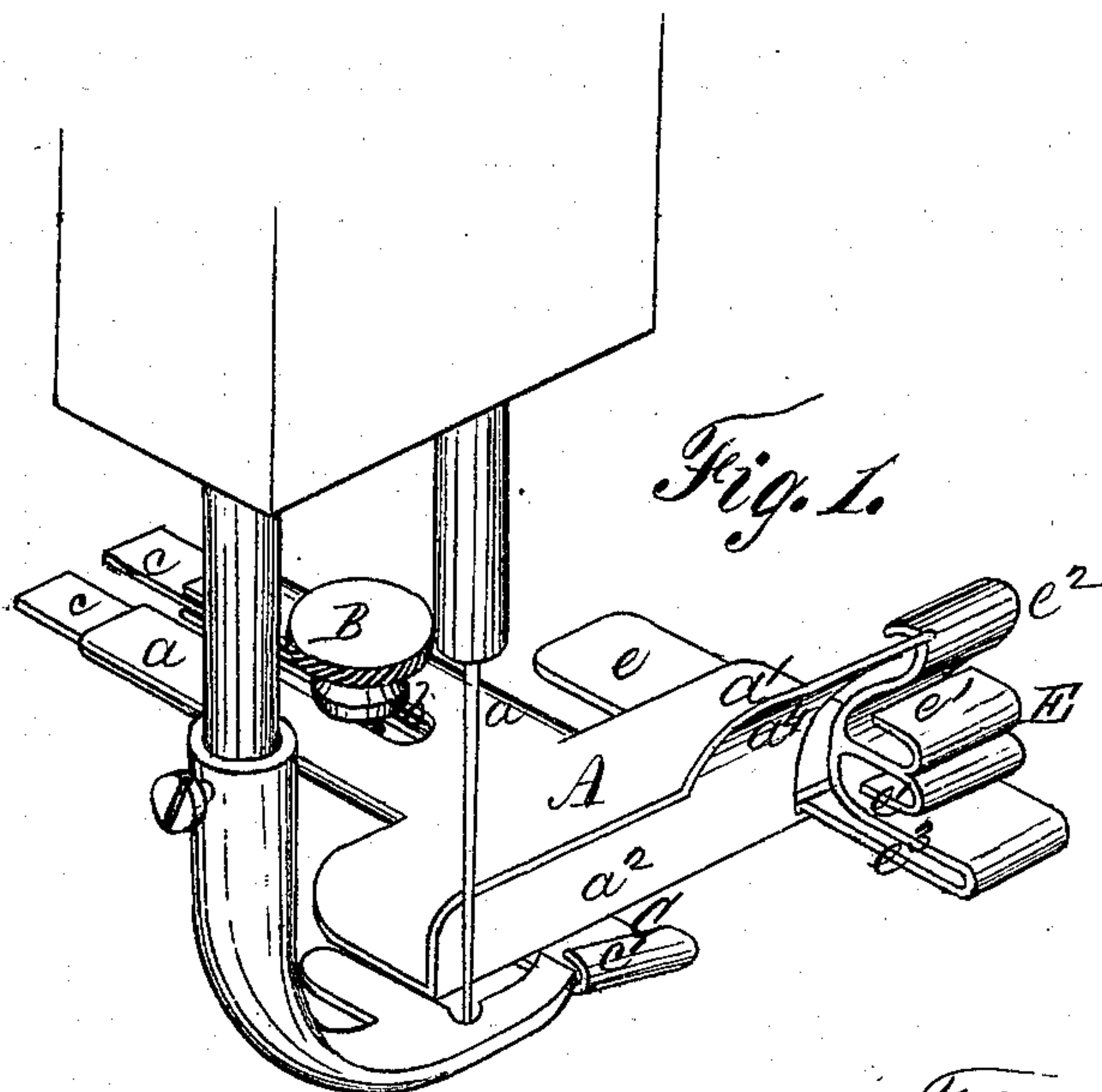


GEORGE E. DOLTON.

Improvement in Hemming and Binding Attachment for Sewing-Machines.

No. 127,158.

Patented May 28, 1872.



WITNESSES.

Jacob Vatter
Aug. Ehrhard

INVENTOR.

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UNITED STATES PATENT OFFICE.

GEORGE E. DOLTON, OF MONEE, ILLINOIS.

IMPROVEMENT IN HEMMING AND BINDING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 127,158, dated May 28, 1872; antedated May 18, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, GEORGE E. DOLTON, of Monee, in the county of Will and State of Illinois, have invented a certain new and useful Combined Duplex Hemmer and Binder for Sewing-Machines, of which the following is a description:

Nature of Invention.

This invention relates to sewing-machine attachments; and consists in the combination and arrangement of my duplex hemmer with a binder, substantially as hereinafter described.

General Description.

In the drawing, Figure 1 is a perspective view of my arrangement in use; Fig. 2, a perspective view of the device from the rear; Fig. 3, an end elevation of the end next the presser-foot, in Fig. 1, showing the cloth and binding in section; Fig. 4, a detached end elevation of the duplex-folder and binding-guide; Fig. 5, a sectional view of a piece of the goods after having been folded and bound by my device; Fig. 6, a perspective view of the guide substituted for the duplex-folder when it is desired to bind only.

A is the base-piece, secured to the cloth-plate or table of the machine by a thumb-screw, B, passing through the slot *b* between the arms *a a*, and screwing into the cloth-plate, the slot *b* allowing the adjustment of the device with relation to the presser-foot, needle, &c. The arms *a a* are bent over or otherwise formed, so as to receive and form ways or guides for the arms *c c* of the binding-guide C, which projects forward preferably under the base-piece A, beyond the latter, and is provided with a guide, *c'*, through which the under edge of the binding passes on its way to the needle, as hereinafter described. A socket, *a*¹, of suitable form, is also provided, into which the bearing *e* of the folder E or guide E' is inserted. The folder E is an invention of mine claimed elsewhere, and in this case consists of the folding arms *e*¹ *e*¹, guide *e*², and slot *e*³, provided with the tongue or bearing *e*, before mentioned. A guide, *a*², projects from the front of the base-piece A, and is curved forward the whole or a portion of its length, as at *a*⁴. E' is a simple

guide, substituted for the folder E when it is desired to bind without hemming.

The operation is as follows: The base-piece A having been secured to the cloth-plate or table, by means of the thumb-screw B, in the proper relative position to the presser-foot and needle, the folder E is then adjusted in its socket *a*¹, so as to leave just the necessary space (as shown in Figs. 1, 2, 3, and 4) between its outer convex surface and the inner concave surface of the guide *a*² *a*⁴ for the binding G to pass freely between, but without allowing it any play or the necessity of its bending transversely in its progress. The guide C is next adjusted to the proper distance from the guide *a*², so that it will receive and guide the under edge of the binding G, (as shown in Fig. 3.) I design to use a combined presser-foot and edge-stitching guide in connection with the device, so that the upper edge of the binding will be controlled and guided by it similar to the way in which the guide C controls the lower edge. All things being ready, the edges of the two pieces of cloth, I J, to be united and bound, are passed through the arms *e*¹ *e*¹ of the folder E, which fold the edges or selvage inward together and between the cloth, producing the duplex hem, while at the same time the binding G is fed in between the outer convex surface of the folder E and the inner concave surface of the guide *a*² *a*⁴, by which means it is bent and guided around the hem, the under edge passing through the guide C, as before stated, while the upper edge passes under the edge-guide or presser-foot. The hem and binding being thus folded into place and prepared for the action of the needle, upon reaching the latter the several parts are securely sewed together. The guide C controls the extent to which the binding laps over the hem on either side, by being adjusted to or from the guiding surface *a*², and prevents its escaping or varying in position on its way to the needle. By having several folders of different form, the width, number of folds, &c., of the hem may be varied at pleasure by simply removing the one in use and substituting another adapted to give the desired result. Where it is desired to bind only, the folder is removed and a plain guide, E', is substituted, when the construction and operation of the device is

substantially the same as that patented by me July 4, A. D. 1871, and numbered 116,570.

The advantages of thus combining and arranging a duplex hemmer and a binder in one attachment for sewing-machines are obvious. The cost of two separate attachments is avoided, and convenience and economy of space attained. Heretofore the hem has first been formed and sewed together, and then the binding applied and sewed on, necessitating the passing of the goods under the needle at least twice, and consuming much time and effort; whereas, by my invention the duplex hem is formed and the binding folded over it in the proper manner automatically, and at a single operation, and the whole is securely sewed by passing the cloth under the needle once—a result which I believe myself to be the first to attain. The facility with which it can be converted into a simple binder, or the form of the hem varied, &c., by simply changing the guide or folder, is another example of its merits. Its simplicity and ease of adjustment allow

the action to be controlled with the greatest delicacy. The economy of time and labor, and the convenience and perfection attained, indorse the invention as of importance and value.

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

1. The combination, in a sewing-machine attachment, of a duplex hemmer and binder, arranged so as to form the hems and fold the binding over said hems at one operation, for the purpose described.

2. The folder E, formed as shown at e^3 , and provided with the folding arms $e^1 e^1$, and guide e^2 , when all constructed as described and shown, and combined with the base-piece A.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE E. DOLTON.

Witnesses:

AUG. EHRHARDT,
JACOB VATTER.