

(Model.)

E. H. CRAIGE.

3 Sheets—Sheet. 1.

BINDER FOR SEWING MACHINES.

No. 446,843.

Patented Feb. 17, 1891.

FIG. 1.

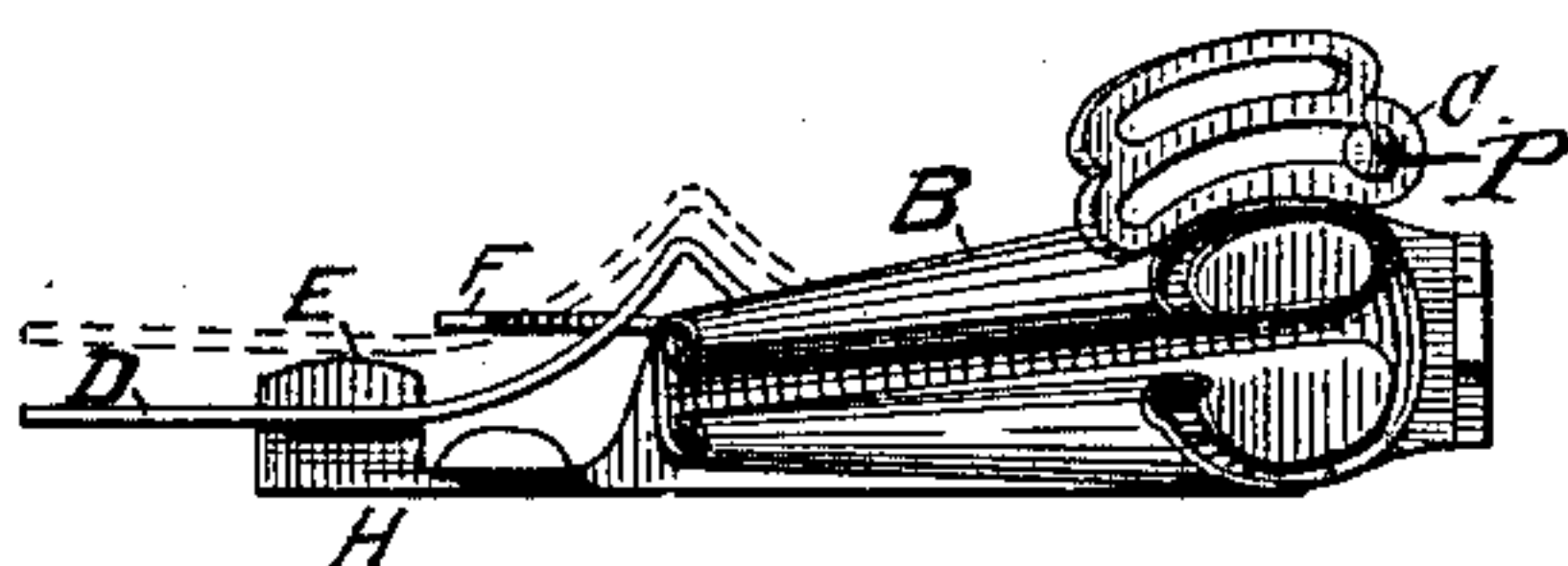


FIG. 2.

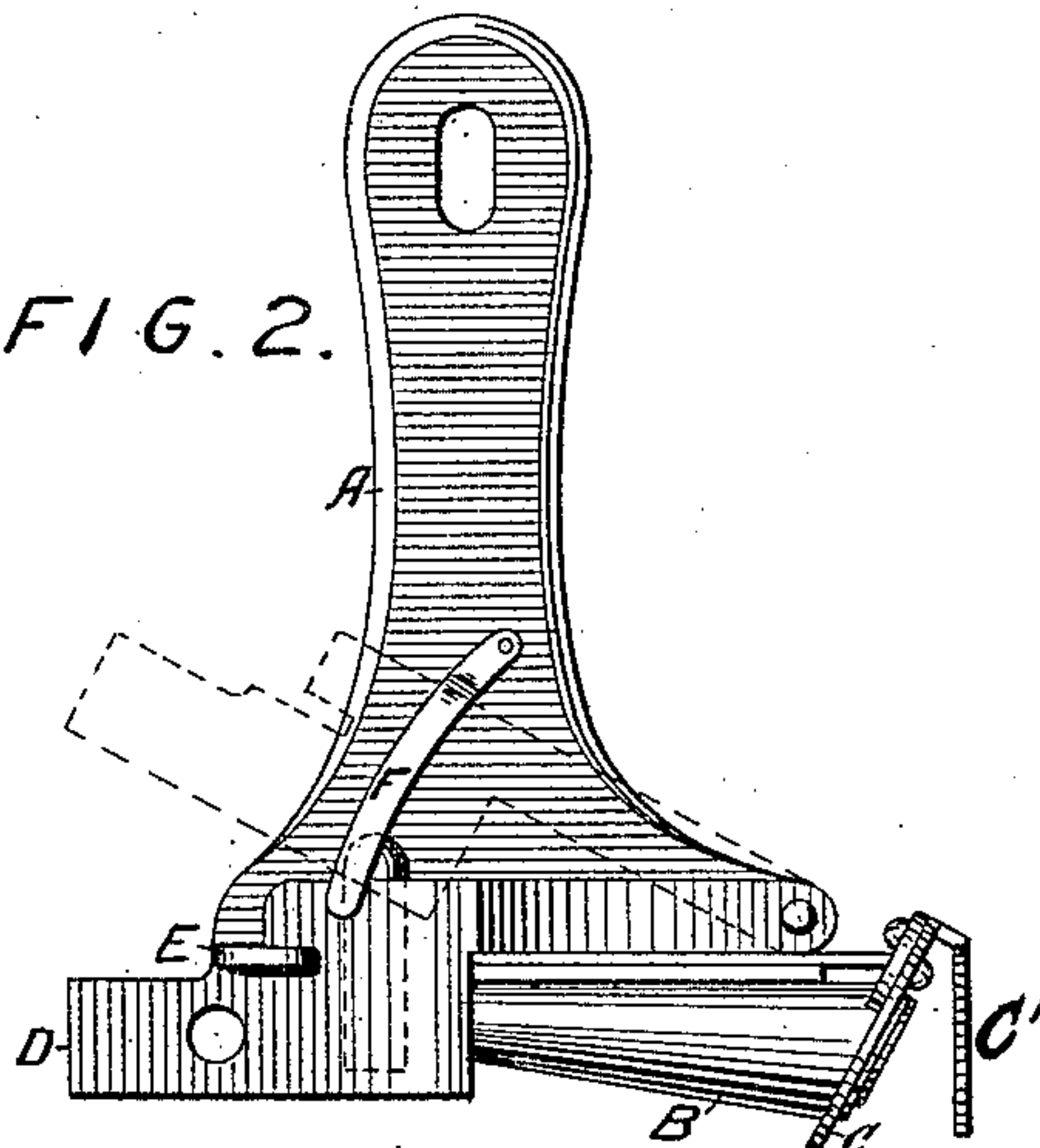


FIG. 3.

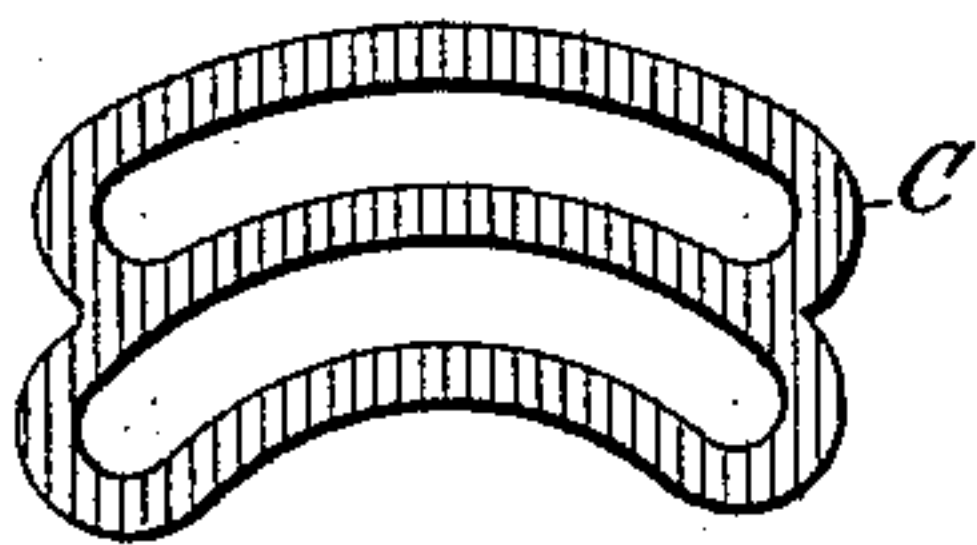
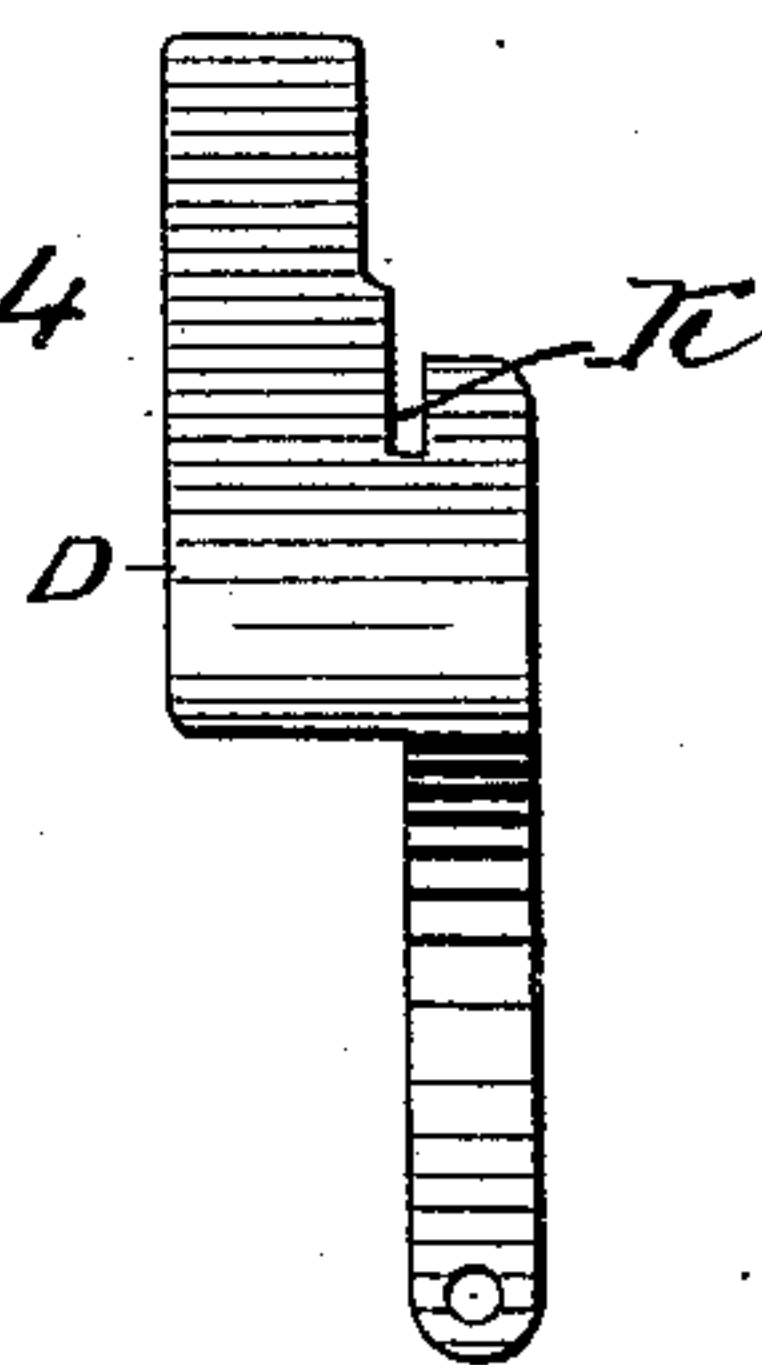


FIG. 4.



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(Model.)

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3 Sheets—Sheet 2.

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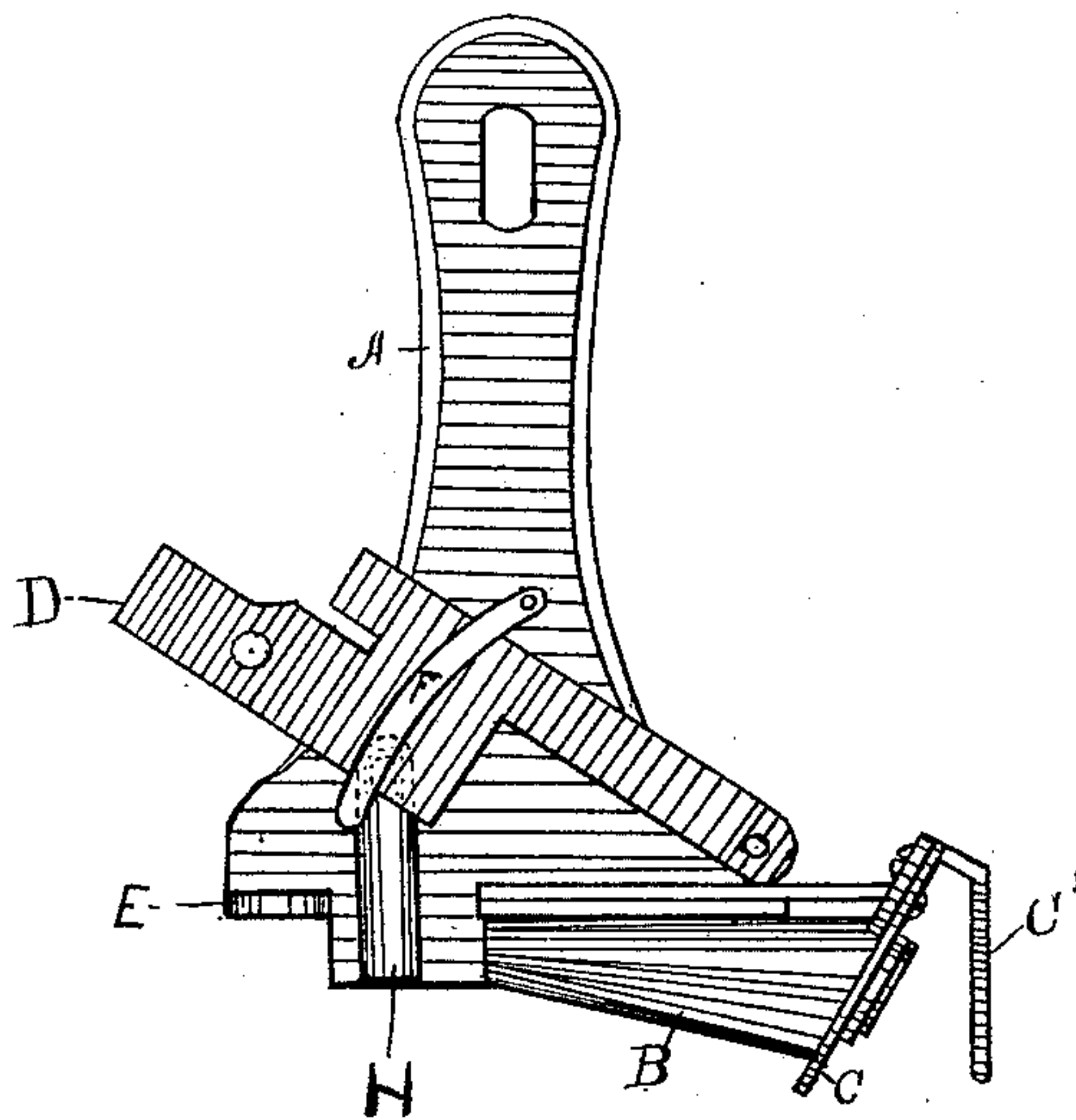


Fig. 5.

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(Model.)

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3 Sheets—Sheet 3.

BINDER FOR SEWING MACHINES.

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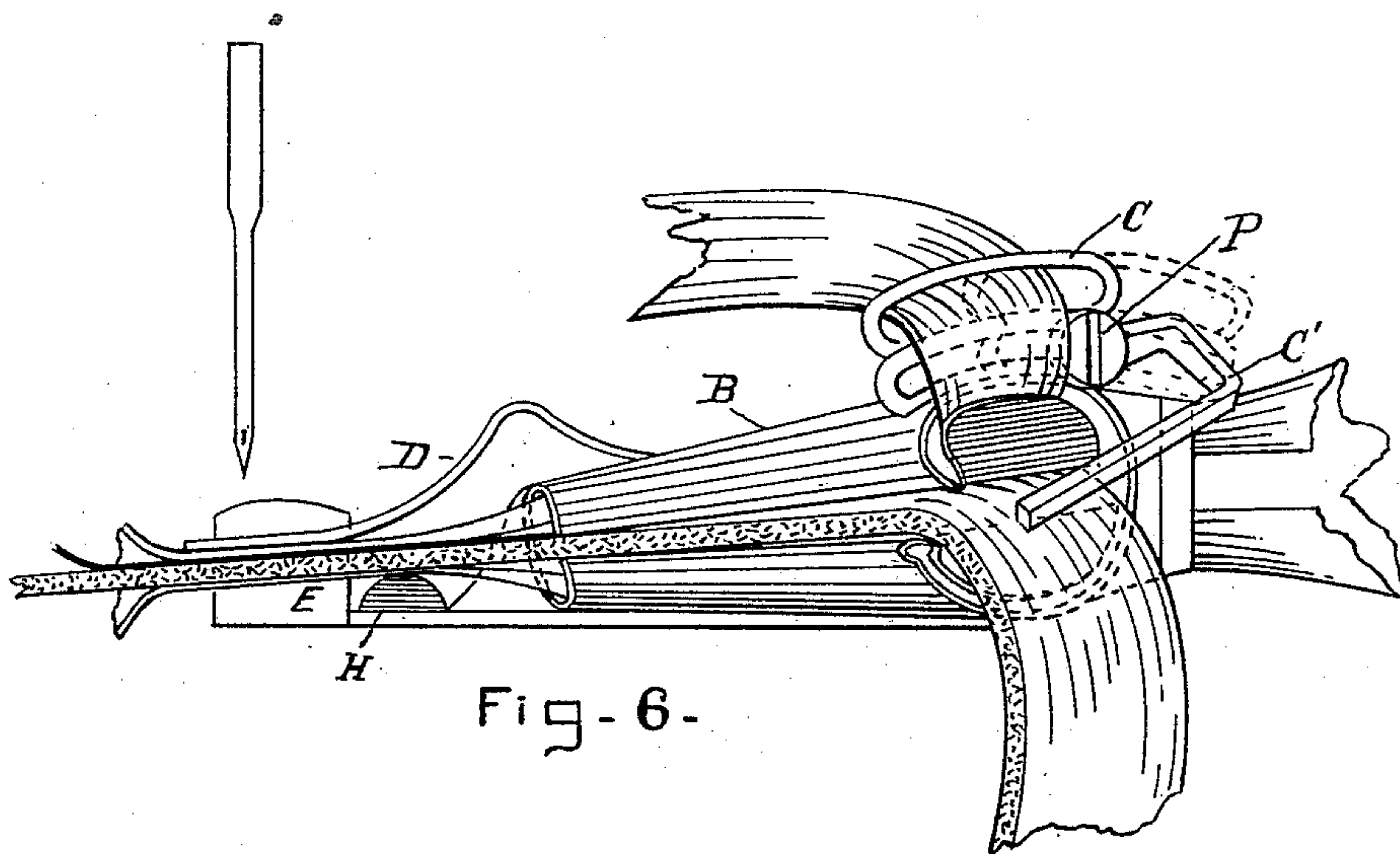


Fig. 6.

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UNITED STATES PATENT OFFICE.

EDWARD H. CRAIGE, OF BROOKLYN, NEW YORK.

BINDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 446,843, dated February 17, 1891.

Application filed August 13, 1880. Serial No. 15,277. (Model.)

To all whom it may concern:

Be it known that I, EDWARD H. CRAIGE, a resident of the city of Brooklyn, county of Kings, in the State of New York, have invented certain new and useful Improvements in Binder-Guides for Sewing-Machines; and I do hereby declare that the following specification, taken in connection with the drawings which form a part thereof, is a full, clear, and exact description of the same.

My invention relates to binding-guides for sewing-machines; and it consists in the combination, with a scroll-binding guide, of a supplemental or crescent-shaped guide, a spring presser or smoother, and a guard or arm serving to hold said presser or smoother in position, and in other details of construction, as will be hereinafter more fully described.

The object of my invention is to secure a greater degree of accuracy in the guiding and folding of the fabric and in delivering it under the needle, and to combine in one instrument the means of accomplishing a number of different results.

The instrument is designed as a binder of the class termed "raw edge," turning under the edges of the strip used for binding; also for the more common purpose of binding, using a braid or tape which is stitched onto the article to be bound without turning in the edges; also, as a hemmer, turning the hem either on top or underneath; also, as a guide for putting on trimming either by itself or in combination with the hemming and binding operations, and in various operations and in various positions relative to the hem and bindings.

The improvements are threefold: first, in the arrangement of a crescent-shaped guide in advance of the scroll-folding channel; second, in the arrangement in the combination of the smoothing and presser foot, and, third, of a projection or elevation on the base-plate adapted to guide the fabric on its delivery from the binder in a manner and for the purpose as will hereinafter be set forth.

Referring to the drawings, Figure 1 represents the front in perspective of my improved binder, showing its scroll channel-way, the crescent-shaped guide, and the presser or smoother. Fig. 2 is a top view of the same. Fig. 3 represents the face of the crescent-shaped guide detached from the other parts

shown in Fig. 1. Fig. 4 represents the spring-piece represented at D in Fig. 1 of the drawings detached from the binder proper. Fig. 5 represents a top view with the presser thrown out of position, and Fig. 6 represents the attachment with strips in position to be operated upon.

The plate which forms the base for holding the various parts which form the attachment is represented in the drawings at A. The scroll part which forms the channel-way is represented at B, secured to the base-plate A.

A guide by which the operator is enabled to conduct a strip of fabric or braid, &c., to any desired part of the channel-way is represented in the drawings at C as vertically arranged, and at the right of the folding device of the attachment. This guide is provided with a crescent-shaped opening, which partially folds or turns in a direction in the reverse of the fold formed by the binder proper. Said guide C is also provided with an arm C', which extends in front of the openings in the guide C, as more clearly shown in Fig. 6, adapted to serve as a tension, and also as a smoother to the goods passing through the guide C, as follows, the goods being adapted to be passed over and around said arm C' and back over and then through said guide C into the guide B. Said arm C' is used, however, only when a great degree of tension is required.

D represents an elastic smoother or presser, formed of thin metal, suitably secured to the frame or base-plate A in such a manner as to admit of being swung out of position when not desired for use. Its position for operation is shown in Figs. 1 and 2, while Fig. 2 shows by its dotted line the position of the presser or smoother swung out of operation. A small guard or arm horizontally arranged above the holding-plate is represented at F, which arm extends over and serves as a protection to the said presser or smoother D, when the latter is raised from its proper position and moved to the right, as shown by dotted lines in Fig. 2 of the drawings. This arm bears with an elastic pressure upon said presser and tends to prevent undue bending or lifting of the same while in operation or when lifted or moved out of operative position.

E represents an upturned edge of base-

plate A, presenting a vertical wall or face, against which the edge of the fabric or fold moves while passing through the attachment toward the needle, and II represents a second
 5 elevation or projection located on the base-plate A at that part which extends forward beneath the presser or smoother D, which forms a support for the fold while passing through the reduced end of the binder, so as
 10 to present both the upper and lower part of the fold to the needle in line and together about central with the center of the reduced end. Otherwise it would have the tendency to allow the lower part of the fold to move
 15 upon a level and the upper part to be drawn upon in a downward direction and below the center of the scroll or channel-way, thereby causing a drag upon the upper fold. The said elevation H in the instance shown is
 20 formed by a piece of metal being secured on said base-plate A, although it is obvious that the same might be formed by bending upward a part of the base-plate.

K represents a slot formed upon or within
 25 the presser or smoother D, which serves to lock and retain the said presser or smoother in position when straddled over upright E while in operation.

P represents the adjusting-screw which
 30 holds the crescent-shaped guide in position, connecting the same with the frame or base of the attachment proper, as shown in Figs. 1, 2, and 5 of the drawings.

In guiding the strip for the ordinary double-
 35 fold binding, in practice the operation of my improved device is the same as in those of a similar character in general use.

For putting on plain binding or braid, the strip passes through the crescent-shaped guide
 40 and into the scroll-guiding part of the attachment, the crescent-shaped guide serving to direct the strip into the scroll or channel-way centrally, preventing the same from moving irregularly from one side to the other, as is
 45 usual when such guide is not employed.

For guiding braid or other trimming to be stitched upon fabric in connection with the operation of binding or hemming, the crescent-
 50 guide may be adjusted to any desired position suitable to direct such braid or trimming to a certain point or position upon the fabric while being stitched. For instance, in applying braid of a width, say, about one-eighth
 55 of an inch upon the upper part of the article to be bound, when folded in position in the guide and channel, I loose the adjusting-screw and move the crescent-shaped guide C and readjust it so that its lower corner will guide
 60 the braid upon the top or upper side of the strip or article to be bound at any desired point, which guide may be readjusted so as to direct the braid more upon the opposite or under side. The spring presser or smoother is employed more particularly for smoothing
 55 the fold in its movement toward the needle. When desirable, for the purpose of maintaining more freedom in the placing of the arti-

cle to be operated upon under the needle, I lift and remove the presser or smoother out of its normal position to the right, as shown
 70 in Fig. 2 of the drawings, the guard F serving, as before stated, to secure or maintain the presser within its confines to prevent undue bending should the material contact with
 75 it in operating.

I would remark that the form of the crescent-shaped guide C is such that when placed to one side of the entrance to the scroll or channel-way the strip forming the bending
 80 or the braid is kept to the side of the entrance to which it is directed in such a manner as to form or serve as a "tension," smoothing the strip before it is refolded and enters the channel and fed to the needle, and at the
 85 same time the operator is enabled to watch the edge of the article being bound and keep it close within the fold so formed to cover it, which is very important. The method of applying this attachment upon sewing-machines
 90 is substantially the same as other like binders and hemmers.

I do not wish to be understood as claiming as my invention a binding attachment, broadly; neither do I claim a hemming device, *per se*; neither do I claim, broadly, an
 95 attachment for hemming provided with a spring-presser; neither a slotted guide, for such are not new; but

What I do claim as new and novel is—

1. A binding attachment for sewing-ma-
 100 chines, consisting of a scroll channel-way, a crescent-shaped guide located outside of the channel-way in the said scroll-binder, and a spring-presser pivoted to the attaching-plate, and a guard or arm overhanging and engag-
 105 ing with said presser, substantially as and for the purpose set forth.

2. A binding attachment for sewing-machines, consisting of an attaching-plate, a double scroll-guideway, an adjustable cres-
 110 cent-shaped guide located outside of the channel-way, as described, with which the double scroll-guide is provided, a spring-presser, an arm F, and an elevation for guiding the lower strip above the cloth-plate of the sewing-ma-
 115 chine, substantially as set forth.

3. An attachment for sewing-machines adapted to hem and bind, consisting of an attaching-plate, a double scroll-guide, an ad-
 120 justable crescent-shaped guide located outside of the line of the channel-way with which the latter is provided, a slitted spring-presser hinged to said plate, an overhanging guard or arm, and a vertically-arranged projecting device serving to maintain said presser in
 125 operative position, substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto subscribed my name in presence of two subscribing witnesses.

EDWARD H. CRAIGE.

Witnesses:

JOHN DANE, Jr.,
 JOSEPH M. CRANE.