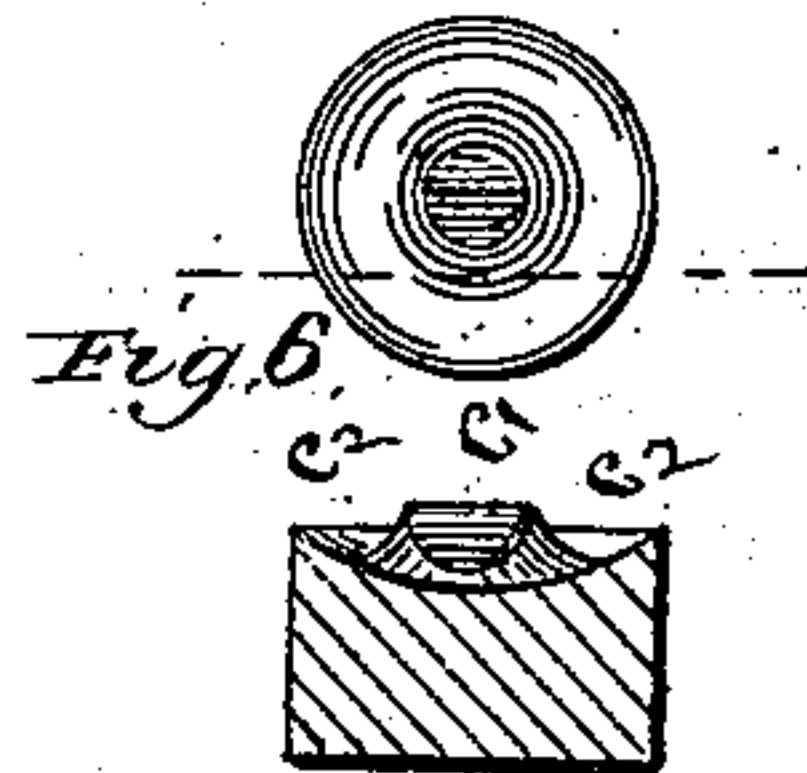
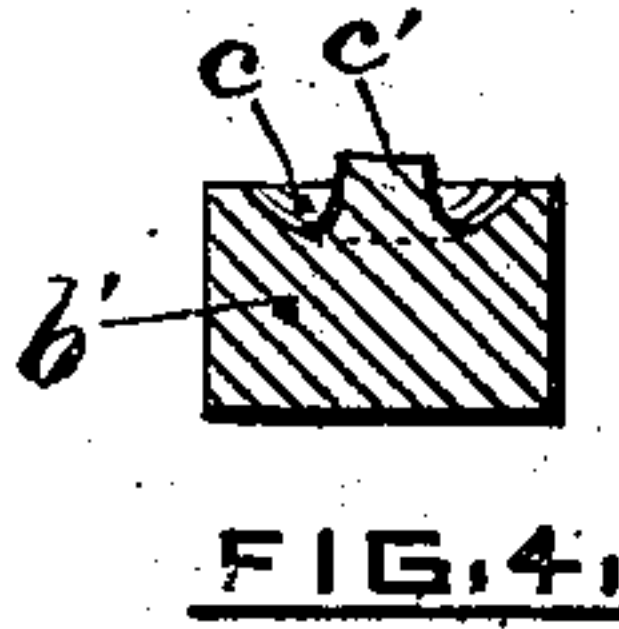
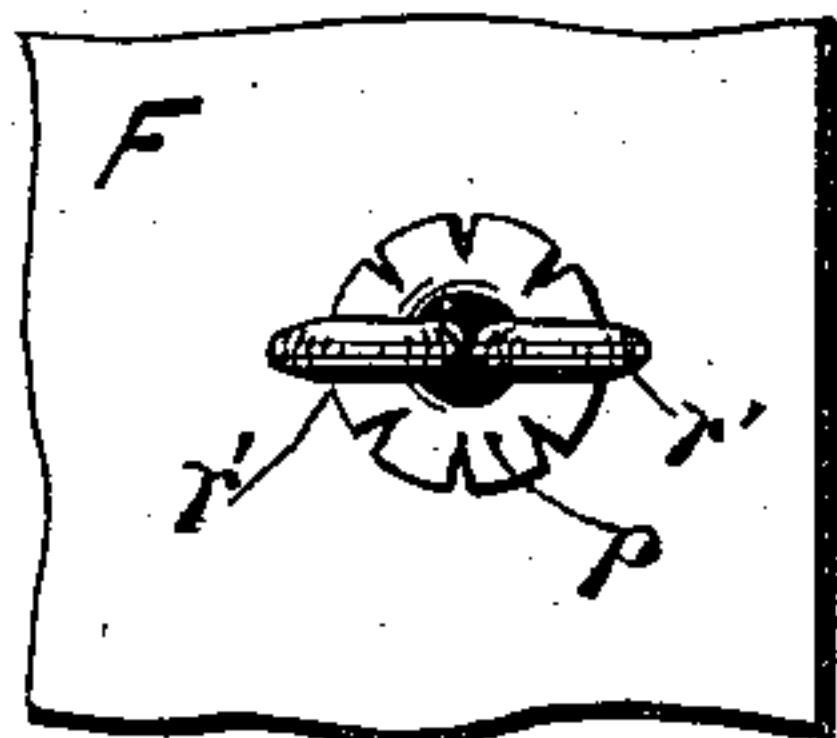
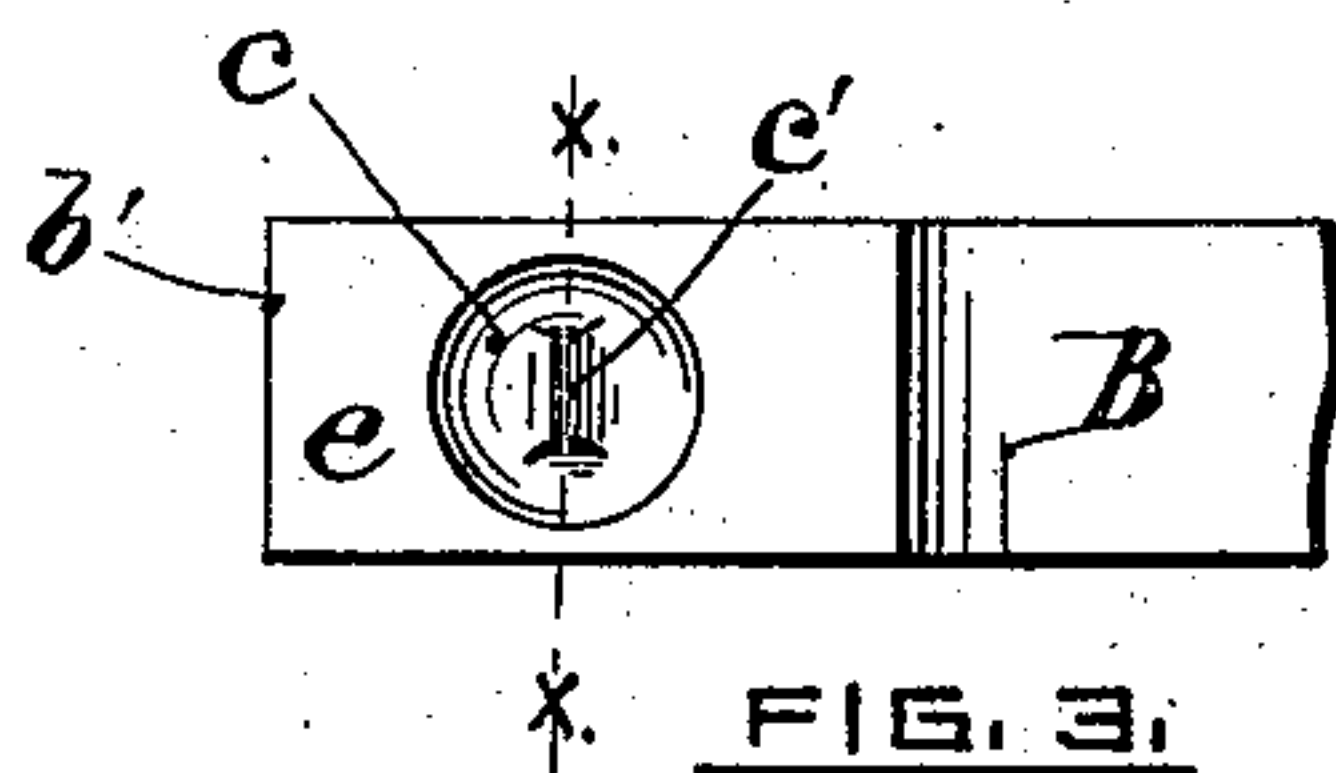
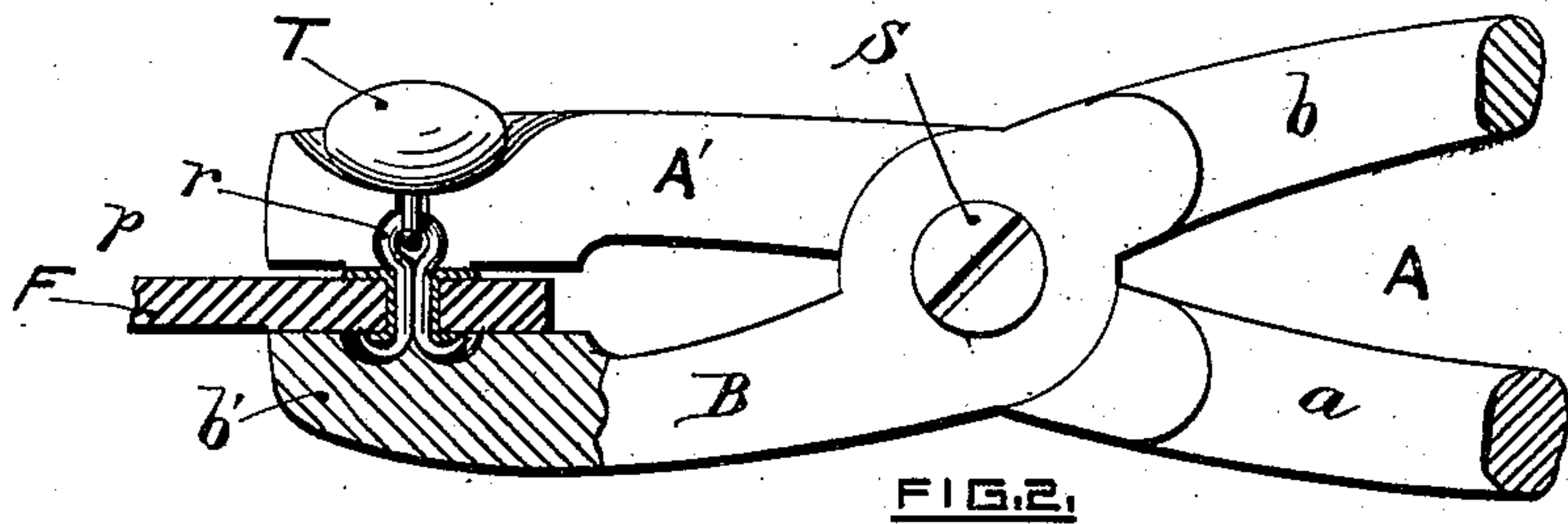
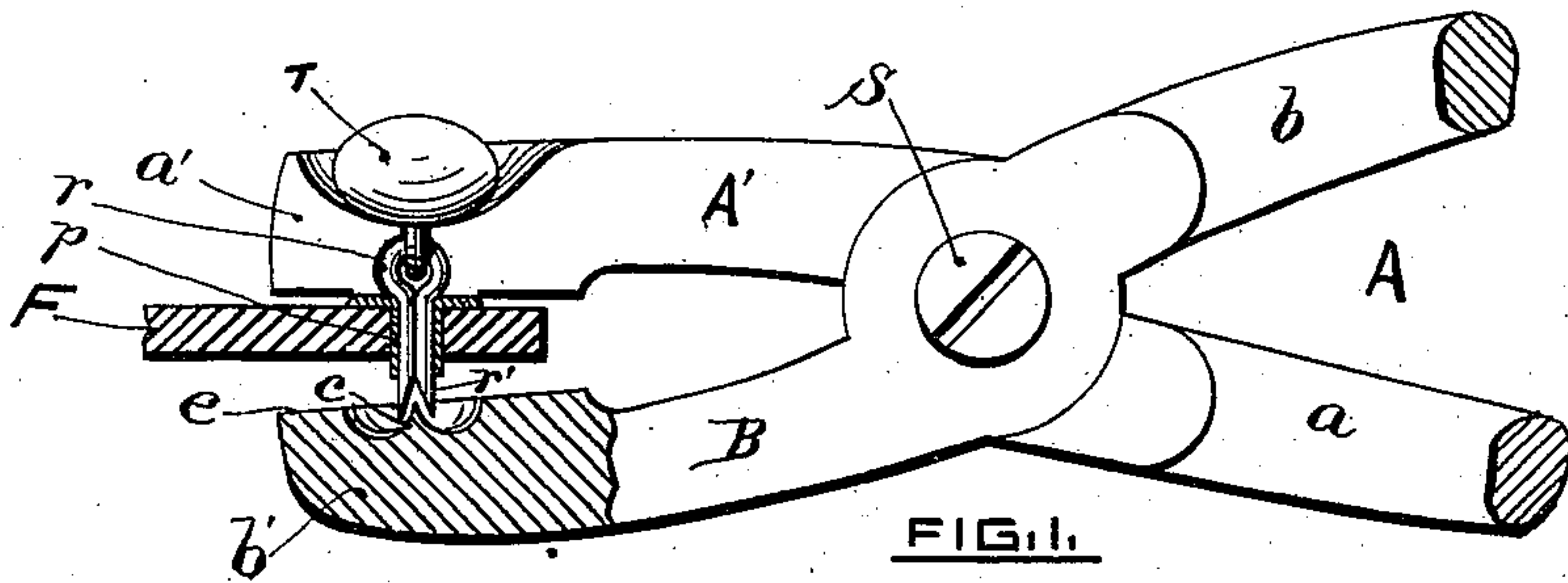


(No Model.)

W. HALKYARD.
BUTTON SETTING INSTRUMENT.

No. 309,847.

Patented Dec. 30. 1884.



WITNESSES.

FIG. 5.

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UNITED STATES PATENT OFFICE.

WILLIAM HALKYARD, OF PROVIDENCE, RHODE ISLAND.

BUTTON-SETTING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 309,847, dated December 30, 1884.

Application filed January 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HALKYARD, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Button-Setting Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in button-setting instruments; and it consists in the construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claims.

In the annexed sheet of drawings, Figure 1 represents in elevation a hand button-setting instrument, so called, showing its lower jaw in section and ready to deflect and clinch the eyelet and prongs, the button, &c., being retained in the upper jaw. Fig. 2 represents a view of the same showing the fastener clinched. Fig. 3 represents a top view of the end portion of the lower jaw, showing the die formed therein. Fig. 4 represents a cross-section on line *xx* of Fig. 3. Fig. 5 represents enlarged a bottom view of the fastener when attached to the fabric.

In Fig. 6 two views of the lower-jaw die or deflector proper are shown. The upper view shows a top plan of the deflector, and the lower view is a section taken on the dotted lines of said plan view, showing the larger part thereof.

The following is a description of my invention and the manner of its operation.

A in the drawings represents a button-setting instrument, consisting of jaws or members A' B, terminating, respectively, in elongations *a b*, beyond the pivot *s*, adapted to form handles for manipulating the same. The outer end of the upper jaw at *a'* is adapted to receive, as common, a button, T, with its headed staple *r* depending therefrom. The prongs of said staple are adapted to be inserted within the eyelet *p*, and both then forced or passed through the fabric F, all as fully shown in Fig. 1. With light or thin fabrics, however,

I am enabled to force the fastener through the goods by means of said instrument; but when the fastener is to be attached to heavy material or leather it is necessary to first perforate or puncture the same for the insertion of said eyelet. Near the end *b'* of the lower jaw, B, is formed the concave circular die *c*, provided with the wedge-shaped central splitting projection, *c'*, which extends partially across the face of the die. Said wedge portion *c'* may project above the face *c* of the jaw, if desired; and, also, it may extend longitudinally with the jaw instead of transversely therewith, as shown, without departing from the spirit of my invention.

I attach importance to the fact that in my invention the lower jaw, B, is provided with a double-concave die, *c*, which is divided by a wedge-shaped splitting projection, *c'*, conforming in shape to the ends of the fastener when the same is in a closed position, whereby when the recessed upper jaw, A', having the button and its fastener seated therein, is brought in contact with the lower jaw, B, the ends and body of said fastener are forced open and curved by means of the splitting-wedge *c'* and double concave *c*, whereby the ends of the fastener penetrate and secure the material to the button. The ends of the deflecting-wedge *c'' c''*, Fig. 6, taper outward, so as to deflect the portions of the eyelet coming in contact therewith. An annular groove encircles the wedge portion of the die. The deflecting part of my invention may be formed in the upper face of the lower jaw, or it may be formed in the face of an anvil and secured to said lower jaw. The fastener *r p*, being in the position shown in Fig. 1, may be easily deflected outward and the prongs clinched into the stock, as shown in Fig. 2. The lower ends of said prongs or staple are beveled (*r'*) so as to straddle the wedge in the lower jaw when brought into contact therewith. When the jaws are drawn together, the wedge deflects the prongs in diametrically-opposite directions, first turning them outward. A further pressure serves to deflect them upward by means of the annular groove encircling the wedge, whereby the ends of said prongs are forced into the stock. Simultaneous with this operation that portion of the eyelet projecting through the stock is deflected by means of

the wedge and annular groove first outward and then upward against the stock, whereby the parts are firmly united.

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

10 The button-attaching instrument herein shown and described, consisting of two jaws or members, one of which is adapted to receive a button and pronged fastener and eyelet, the other jaw being provided with a face having a wedge-shaped deflector with taper-

ing ends and an annular groove encircling said deflector, whereby the ends of the pronged fastener may be deflected outward in opposite directions and turned up into the stock and the eyelet flanged, substantially as set forth. 15

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM HALKYARD.

Witnesses:

HENRY A. CHURCH,
WM. R. DUTEMPLE.