

C. MORIGGL.

PERFORATING OR PRICKING APPARATUS FOR EMBROIDERY MACHINES.

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938,884.

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Fig. 2

Fig. 1

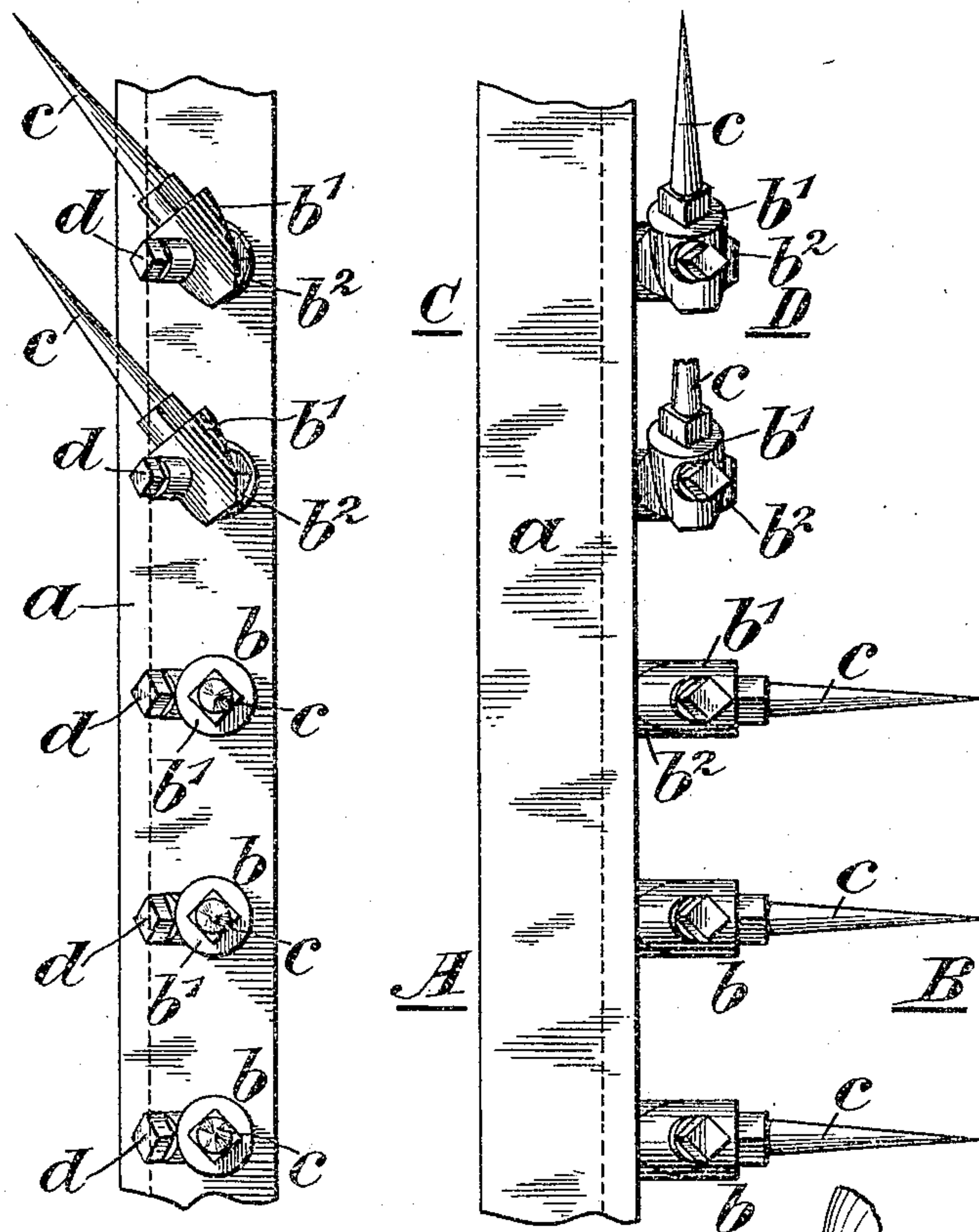


Fig. 4

Fig. 3

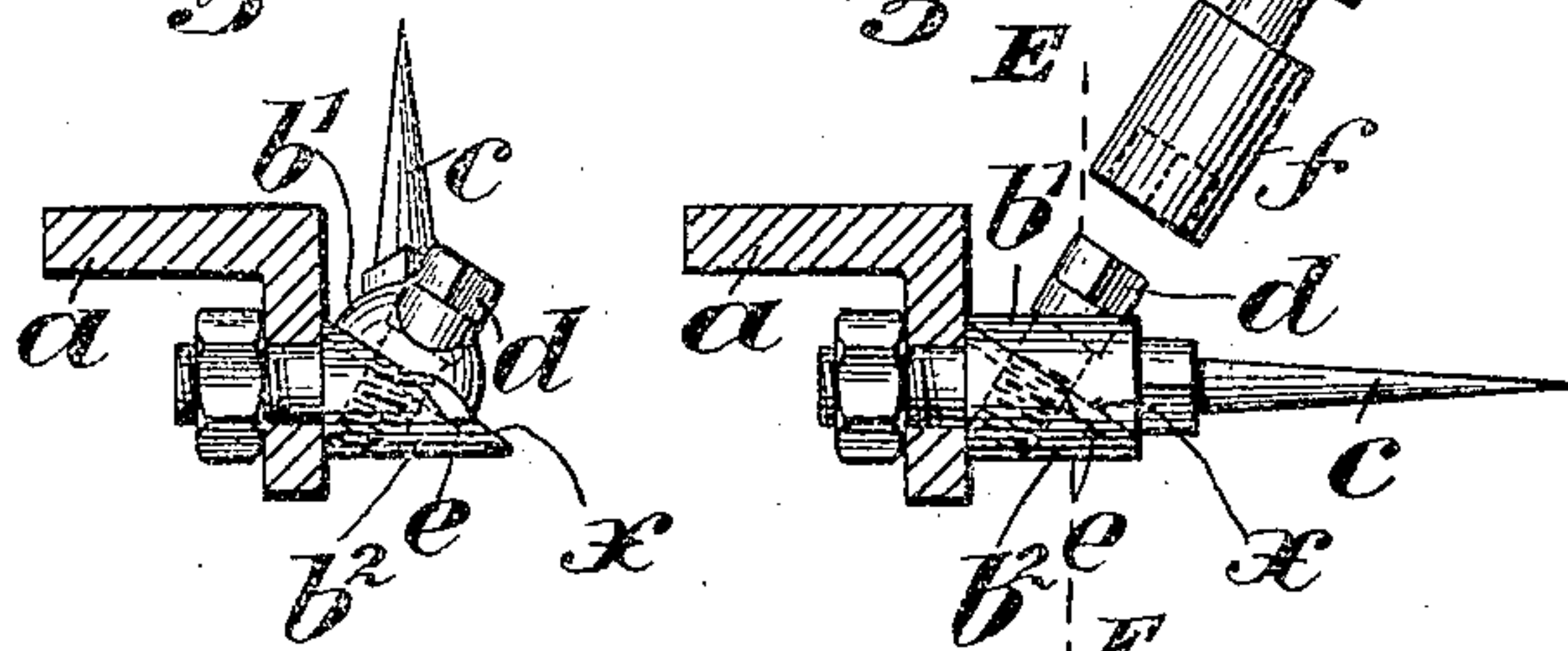
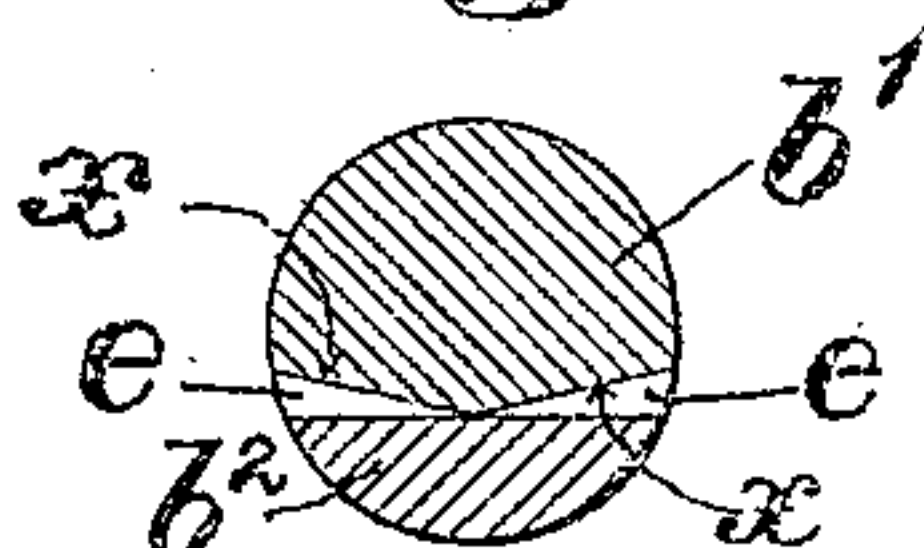


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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PERFORATING OR PRICKING APPARATUS FOR EMBROIDERY-MACHINES.

938,884.

Specification of Letters Patent.

Patented Nov. 2, 1909.

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*To all whom it may concern:*

Be it known that I, CARL MORIGGL, a subject of the Emperor of Austria-Hungary, residing at Romanshorne-strasse 35, Arbon, Switzerland, have invented certain new and useful Improvements in Perforating or Pricking Apparatus for Embroidery-Machines; 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.

As is well known, it frequently happens in machine embroidery that during the perforating or pricking of the material the relationship of the various perforations or prickers has to be changed; this change is effected by turning down out of action say one of every two perforators or prickers or two of every three. In such machines as heretofore usually constructed those perforators or prickers which have been capable of being turned down have however the disadvantage that when in their normal or working position they do not permit of being worked in all directions as they always give in the direction in which they are capable of being turned down, the construction being such that they cannot be sufficiently secured against movement in such direction.

Now the object of this invention is to provide a perforating or pricking apparatus for embroidery machines which shall not possess the disadvantage mentioned.

The accompanying drawing illustrates by way of example a constructional form of apparatus embodying this invention.

Figure 1 of such drawings is a partial plan of the apparatus; Fig. 2 a partial front view; Fig. 3 a section corresponding to the line A—B of Fig. 1; Fig. 4 a section corresponding to the line C—D of Fig. 1, and Fig. 5 is a cross section on line E—F of Fig. 3.

The apparatus shown comprises a pricker bar *a* to the front of which are attached the pricking heads *b* which carry the spikes *c* forming the prickers. Each head *b* is divided on a line *x* lying obliquely to the axis of the corresponding spike, *c*, into an upper head portion *b*<sup>1</sup> and a lower head portion *b*<sup>2</sup>. The part *b*<sup>1</sup> carries the spike *c* and is

capable of being rotated about a screw *d* that extends at right angles to the plane *x* of the division line. By means of the screw *d* the part *b*<sup>1</sup> can be pressed against the part *b*<sup>2</sup>. The surfaces *x* of the heads where divided are of flat wedge or V-shape in cross section, as shown in Fig. 5, so as to prevent the two portions of the heads from being rotated relatively to each other when pressed against each other. The upper side of the part *b*<sup>2</sup> has formed in it two transverse grooves *e*, in which the wedge shaped under part of the head part *b*<sup>1</sup> lies when the prickers are turned down, so as to hold the turned down prickers securely in position when the screws *d* are tightened.

*f* is a key which serves for slackening and tightening up the screws *d* and for this purpose its suitably shaped lower portion is adapted to be placed over the heads of the screws *d*.

The drawing shows three prickers in the operative position and two in the turned down or inoperative position. When the screws *d* are tightened up the prickers are securely held in the operative position as already set forth, by the fact that the juxtaposed surfaces *x* of the part where divided are of flat wedge shape. The points of the prickers thus secured in the operative position can be set in any direction by simply bending them. To turn a pricker down into an inoperative position the screw *d* corresponding thereto is slackened by means of the key *f*, until the pricker together with the head portion *b*<sup>1</sup> corresponding to it can be rotated through an angle of 90° into the position shown in the upper part of Fig. 1. In this position the wedge-shaped inner part of the part *b*<sup>1</sup> lies in the grooves *e* of the part *b*<sup>2</sup> and can be securely held in place by tightening up the screw *d*.

For a perforating apparatus perforators will obviously be substituted for prickers.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:

1. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a pivot connecting said parts positioned at right angles to the division line of the head, said



abutting faces interlocking at certain relative positions of the parts.

2. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a pivot connecting said parts positioned at right angles to the division line of the head, one of said faces having a grooved surface and the other a ribbed surface adapted to interlock.

3. A pricker or perforator for embroidery machines comprising a head formed of two parts having abutting faces formed obliquely to the longitudinal axis of the head, one of said parts having a spike end, a screw connecting said parts mounted therein at right angles to the abutting faces, said faces being provided respectively with grooves and a rib adapted to interlock when the spike is moved into its operative and inoperative positions.

4. In an embroidery machine, the combination with a pricker-bar, of a pricker head having a base portion fixed on the bar and a top portion having a spike end, said portions having abutting faces formed obliquely to the longitudinal axis of the head,

a screw connecting said portions extending through the top portion at right angles to the oblique face thereof and working in screw-threads formed in the base portion, said faces having locking elements adapted to interlock when the top portion is moved into its operative and inoperative positions.

5. In an embroidery machine, the combination with a pricker-bar, of a pricker head having a base portion fixed on the bar and a top portion having a spiked end, said portions having abutting faces formed obliquely to the longitudinal axis of the head, a screw connecting said portions extending through the top portion at right angles to the oblique face thereof and working in screw-threads formed in the base portion, the face of said base portion being V-shaped in cross section and provided with transverse grooves and the face of the top portion having a longitudinal rib, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

CARL MORIGGL.

Witnesses:

CARL ZUBLER,

C. I. BROWN.