

No. 659,297.

Patented Oct. 9, 1900.

I. P. FOX.  
CLASP FOR BINDING STRAPS.

(Application filed Jan. 18, 1900.)

(No Model.)

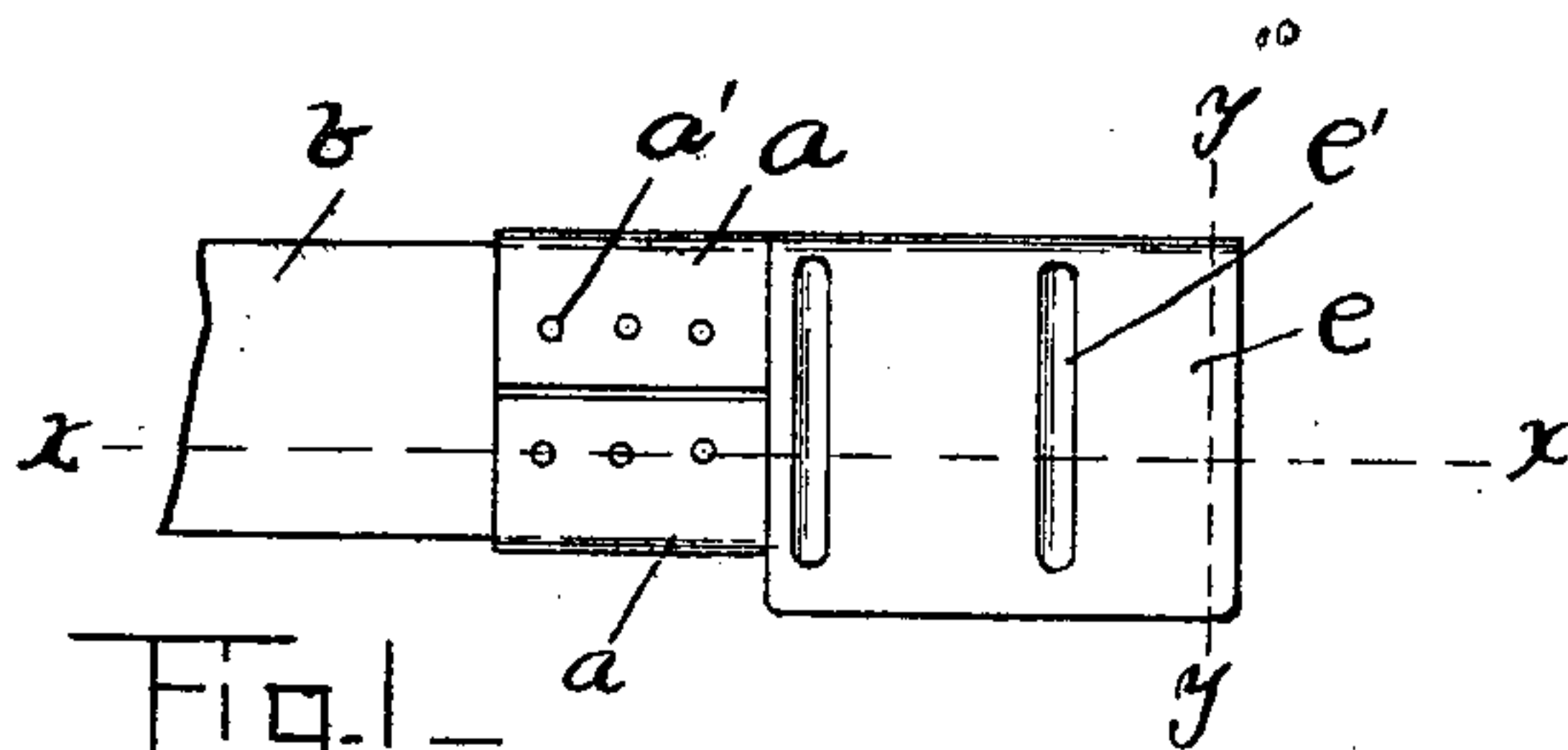


Fig. 1 -

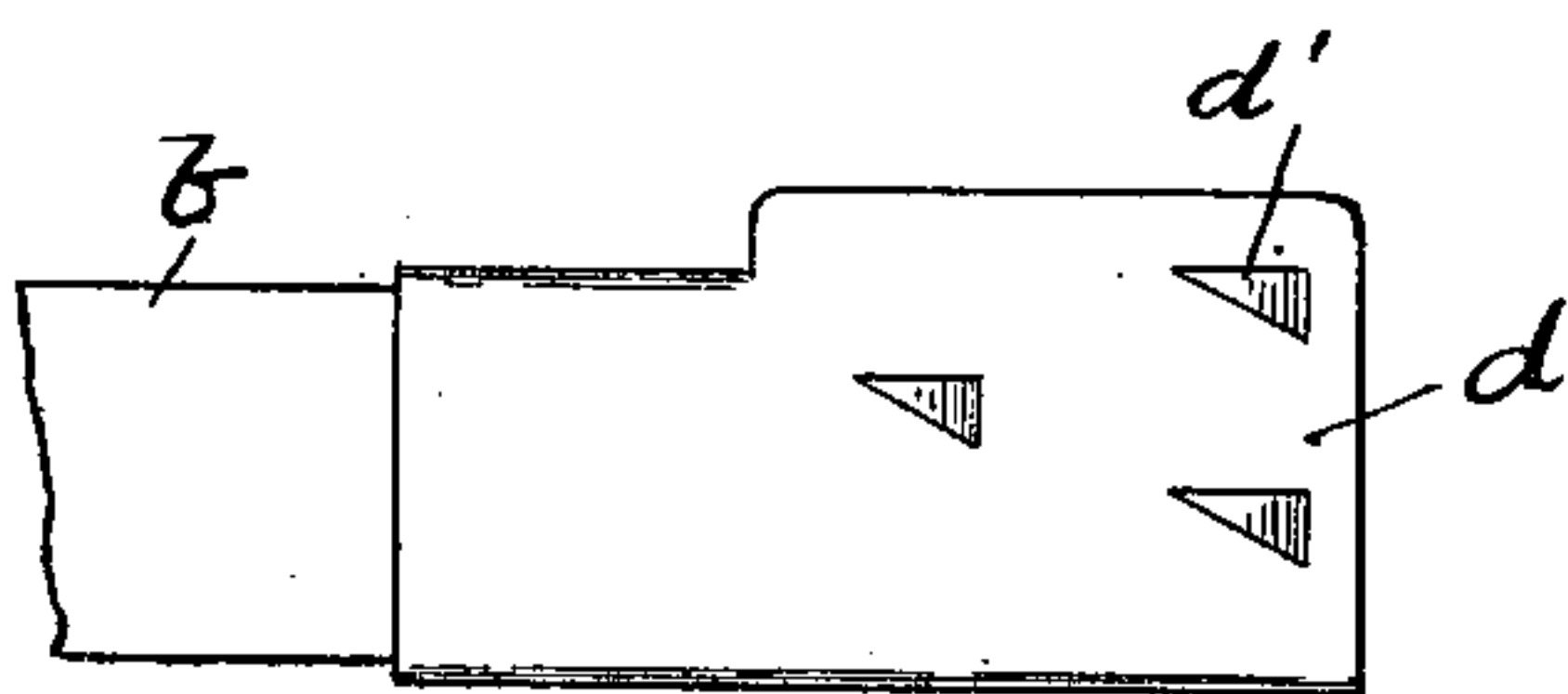


Fig. 2 -

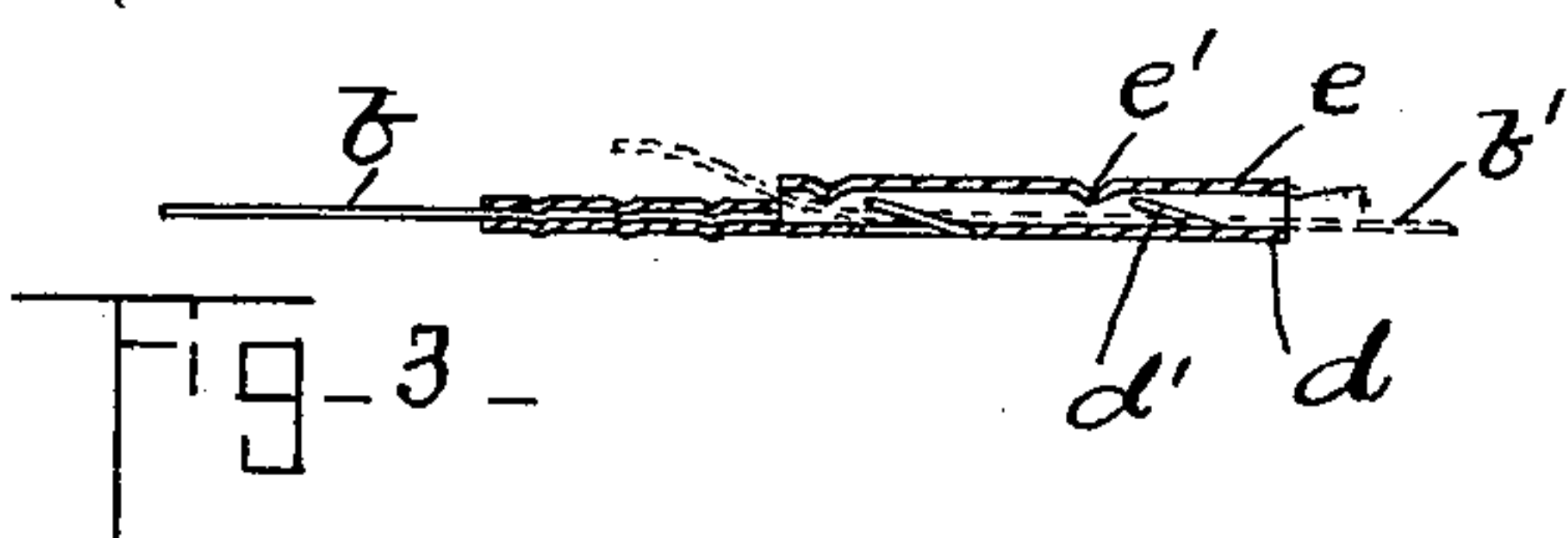


Fig. 3 -

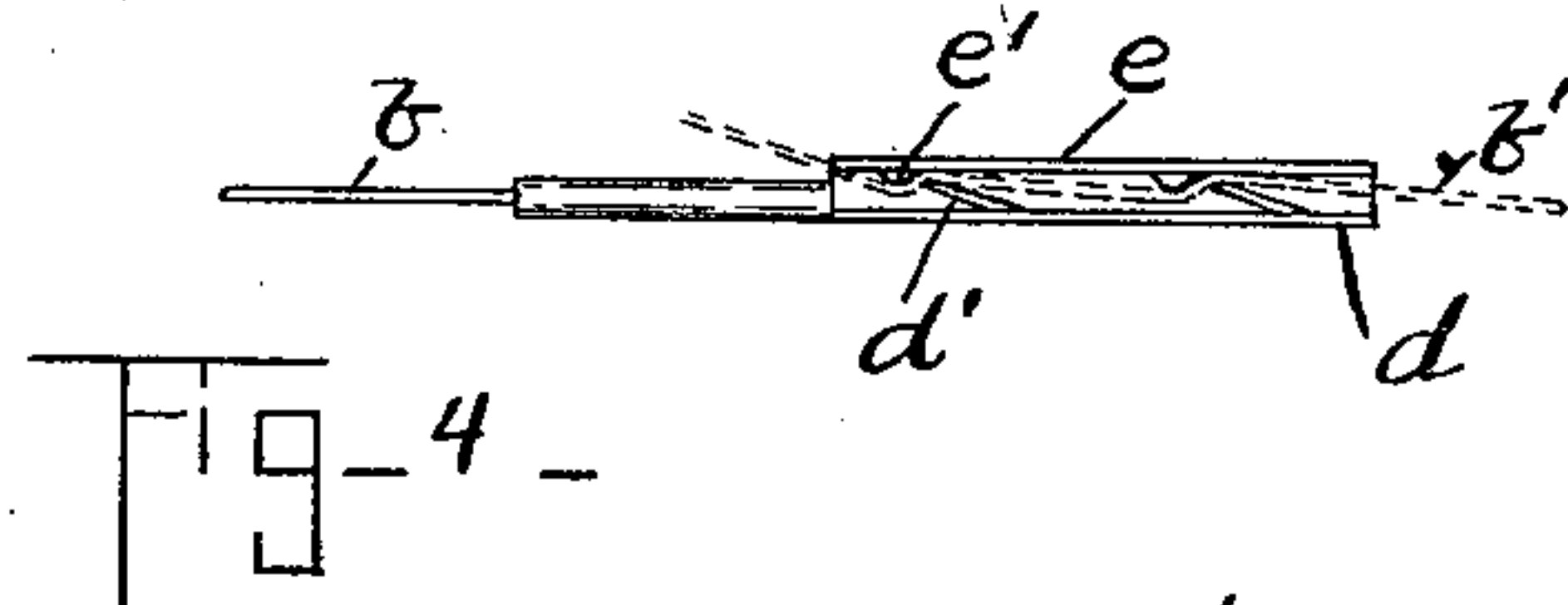


Fig. 4 -

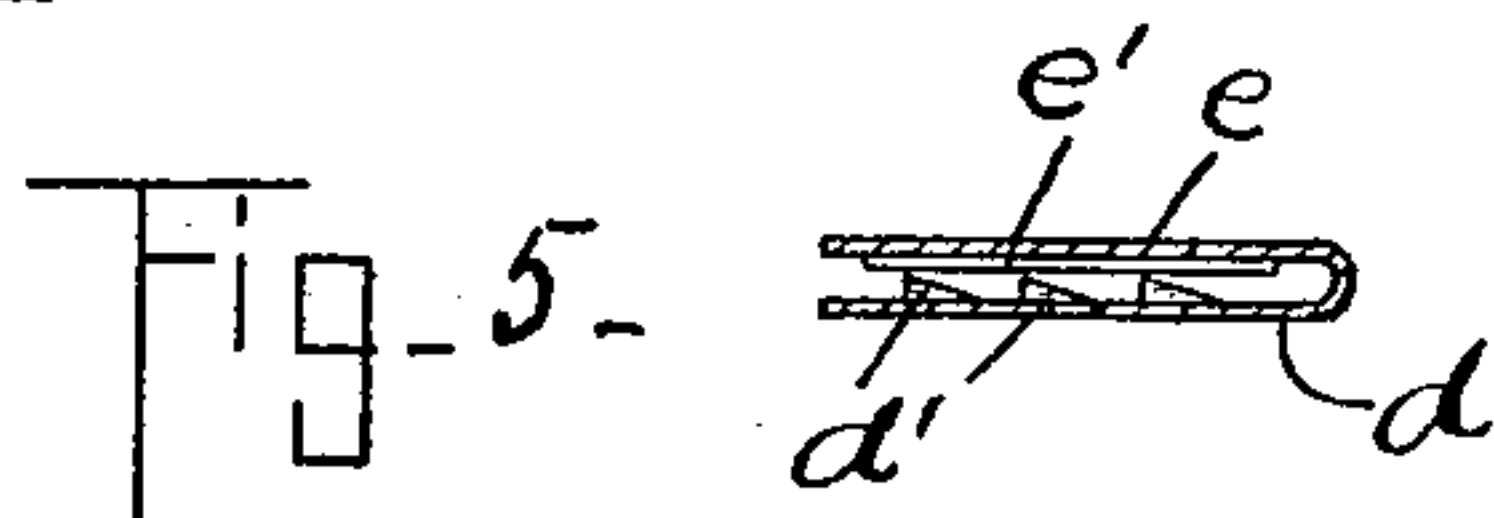


Fig. 5 -

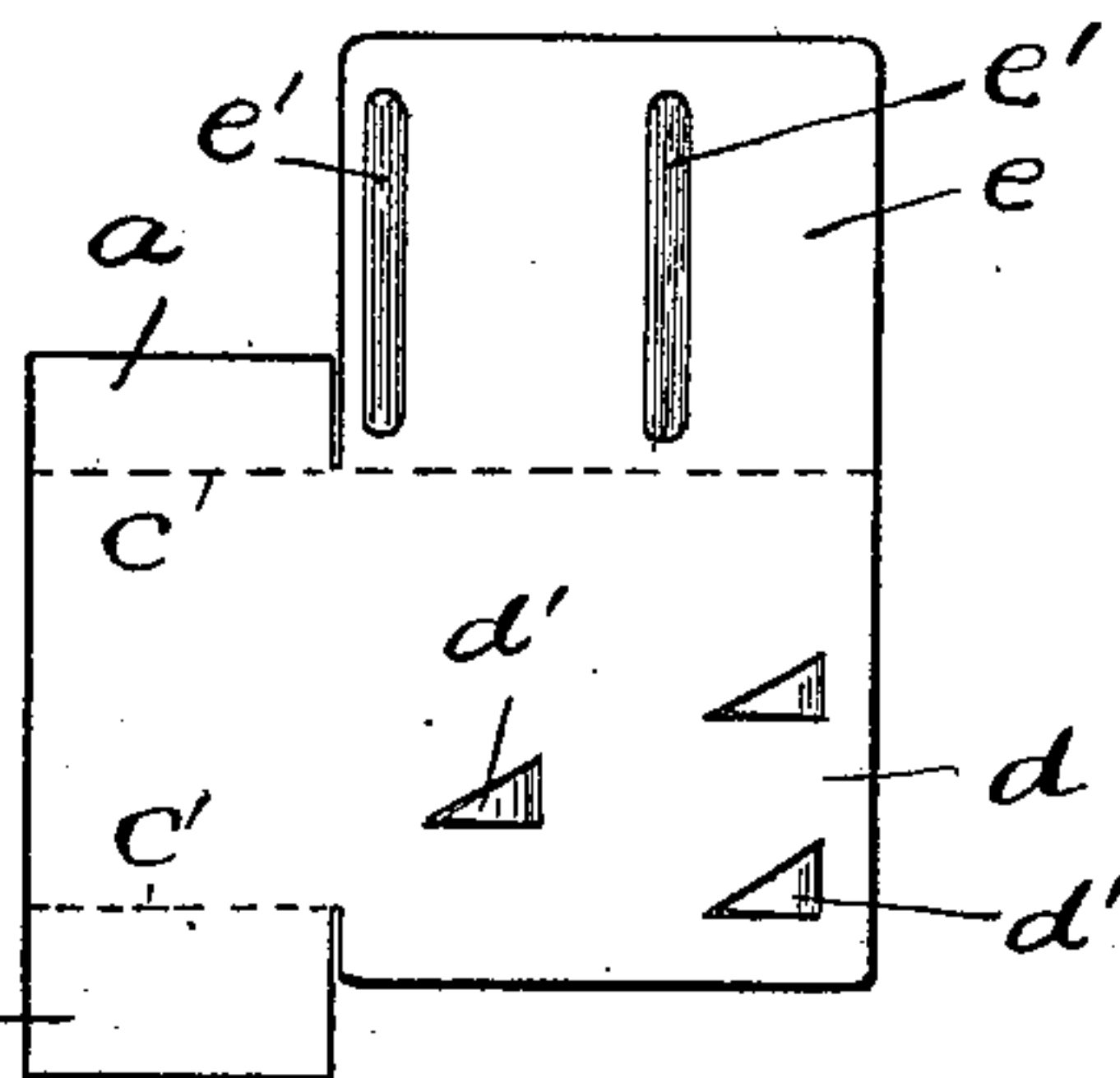


Fig. 6 -

Witnesses:

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# UNITED STATES PATENT OFFICE.

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## CLASP FOR BINDING-STRAPS.

SPECIFICATION forming part of Letters Patent No. 659,297, dated October 9, 1900.

Application filed January 18, 1900. Serial No. 1,849. (No model.)

*To all whom it may concern:*

Be it known that I, IRVING P. FOX, of Lexington, county of Middlesex, and State of Massachusetts, have invented an Improvement in Clasps for Binding-Straps, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to clasps adapted to be permanently attached to one end of a binding-strap and to receive and hold the other end of said strap whenever it is brought into engagement with it, such a device being especially applicable for use as a wrapper or file for papers and the like.

The invention has for its object to improve and simplify the construction of the clasp, whereby it may be easily operated to effectively and securely hold the free end of the binding-strap when brought into engagement with it and which provides for the easy disengagement of said strap whenever the same is properly manipulated.

The invention consists, essentially, in a clasp composed of a spring-metal plate folded upon itself, so as to present an under part and an upper part disposed with a suitable space between them, having an entrance along one side and both ends, whereby the free end of the strap may be easily introduced or removed, said under part having one or more pointed prongs extending into the space between said parts and projecting toward the back end of the clasp and said upper part having one or more transverse ribs on its under side, which occupy positions just back of the points of the prongs, so that whenever a strap is introduced and said upper part depressed the ribs will impinge upon the strap and hold it firmly over the points of the prongs in order that the strap may be drawn slightly and the points caused to penetrate the strap. The said ribs also prevent the prongs from being depressed whenever the upper part is depressed by bearing upon the under part just back of the points of said prongs.

Figure 1 shows in plan view a clasp embodying this invention permanently connected to one end of a binding-strap. Fig. 2 is an under side view of the clasp shown in

Fig. 1. Fig. 3 is a longitudinal section of the clasp shown in Fig. 1, taken on the dotted line  $xx$ , the free end of the binding-strap being engaged by said clasp. Fig. 4 is an edge view of the clasp shown in Fig. 1. Fig. 5 is a transverse vertical section of the clasp shown in Fig. 1, taken on the dotted line  $yy$ . Fig. 6 shows a spring-metal plate of which the clasp is composed, the same being laid out flat.

The clasp, which forms the essential feature of this invention, is composed of a spring-metal plate A, (see Fig. 6,) folded and formed as will be described.

The clasp is provided at one end, and which I call the "back" end, with overturned portions  $a a$ , adapted to bear upon and engage the binding-strap  $b$ , said overturned portions having upon their under sides projections  $a'$ , which are produced by indenting the plate and which penetrate the binding-strap, and thereby enable the clasp to be permanently connected to said binding-strap. The overturned portions  $a a$  are formed by folding the spring-metal plate A on the lines  $c$  and  $c'$ . (See Fig. 6.) The spring-metal plate is also folded upon itself along the line  $c$ , Fig. 6, to present an under part  $d$  and an upper part  $e$ , and said parts  $d$  and  $e$  are normally held a short distance apart by the spring action of the material of which the plate is composed, so as to present between said parts  $d$  and  $e$  a suitable space to receive the free end of the binding-strap. The space, it will be observed, has an entrance along one side and both ends. The under part  $d$  has one or more pointed prongs  $d'$ , formed by cutting the same from the plate, and said pointed prongs  $d'$  extend upward or inward more or less into the space between the two parts  $d$  and  $e$  of the clasp, as shown in Figs. 3 and 4, and said pointed prongs  $d'$  also project in a direction toward the back end of the clasp. There may be as many of these pointed prongs provided as desired. Each pointed prong  $d'$  is formed with one side or edge disposed substantially parallel to the edge of the part  $d$  and with its opposite side or edge at an angle thereto, as shown, and by thus forming the prongs it will be seen that they will have a tendency to draw the binding-strap inward or toward the folded edge of the clasp when penetrating it. The upper



part *e* is formed with one or more ribs *e'* on its under side, extending transversely across it, or nearly so, and said ribs are herein shown as formed by indenting the material, as best shown in Fig. 3. The transverse ribs *e'* are located just back of the points of the prongs *d'*, so that when said upper part *e* is depressed they will occupy a position just back of or in juxtaposition to said points. The ribs *e'* are caused to project a sufficient distance, so that when the upper part *e* is depressed they will strike the lower part *d*, and thereby prevent depressing the prongs *d'*.

The free end of the binding-strap *b'* will be drawn into the space between the upper and under parts *e* and *d*, and the upper part *e* will then be depressed, causing said strap to overlies the points of the prongs *d'*, and while the upper part is thus held depressed the strap will be drawn slightly lengthwise and the prongs thereby caused to penetrate the strap. Pressure upon the upper part *e* will then be relieved, and the strap will remain in engagement with the prongs.

Whenever it is desired to disengage the strap, the free end may be grasped and drawn in the opposite way, when the strap will at once disengage the prongs.

I claim—

1. The binding-strap *a* having a clasp permanently attached to one end of it comprising a spring-metal plate folded upon itself to present an under part *d* and an upper part *e* disposed with a space between them for the

strap and having an entrance along one side and both ends, said under part having one or more pointed prongs extending into the space between said parts which project toward the back end of the plate, and the upper part having on its under side one or more transverse ribs disposed at points back of the points of the prongs, substantially as described.

2. The binding-strap *a* having a clasp permanently attached to one end of it comprising a spring-metal plate folded upon itself to present an under part *d* and an upper part *e* disposed with a space between them for the strap and having an entrance along one side and both ends, said under part *d* having one or more pointed prongs *d'* extending into the space between said parts which project toward the back end of the plate, and which are formed with the outer edge disposed substantially parallel to the edge of the part *d* and with the inner edge at an angle thereto, and the upper part *e* having on its under side one or more transverse ribs *e'* disposed at points back of the points of the prongs *d'*, substantially as described.

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

IRVING P. FOX.

Witnesses:

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