

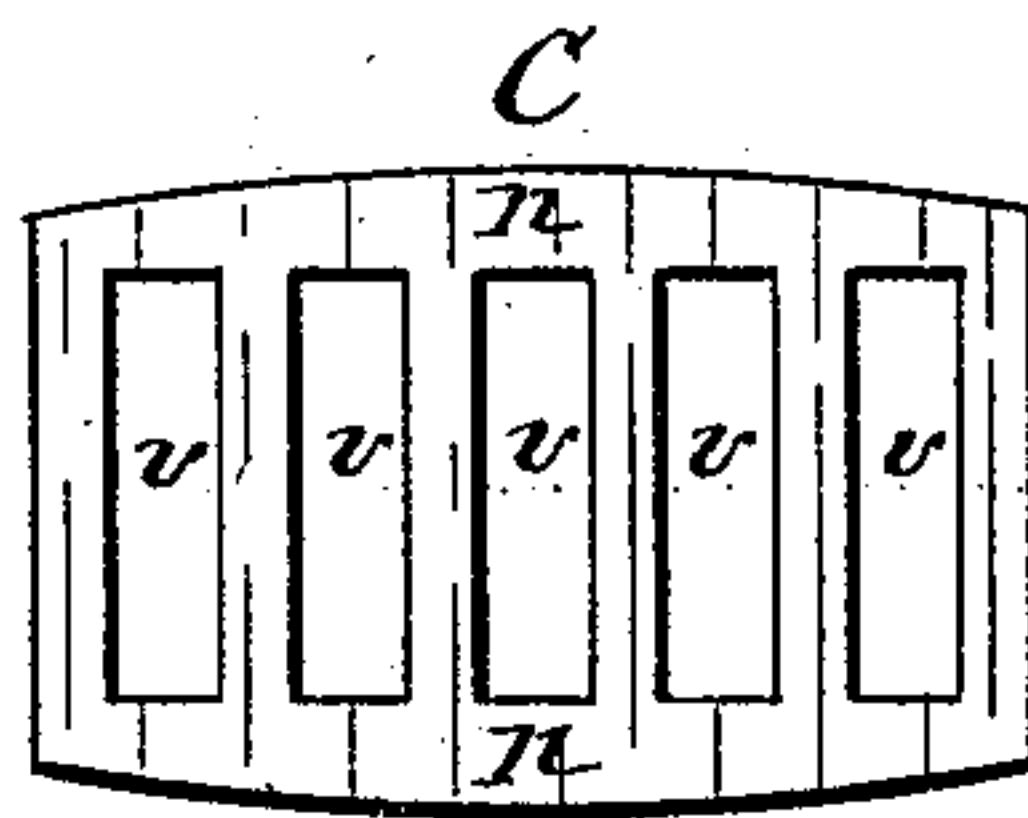
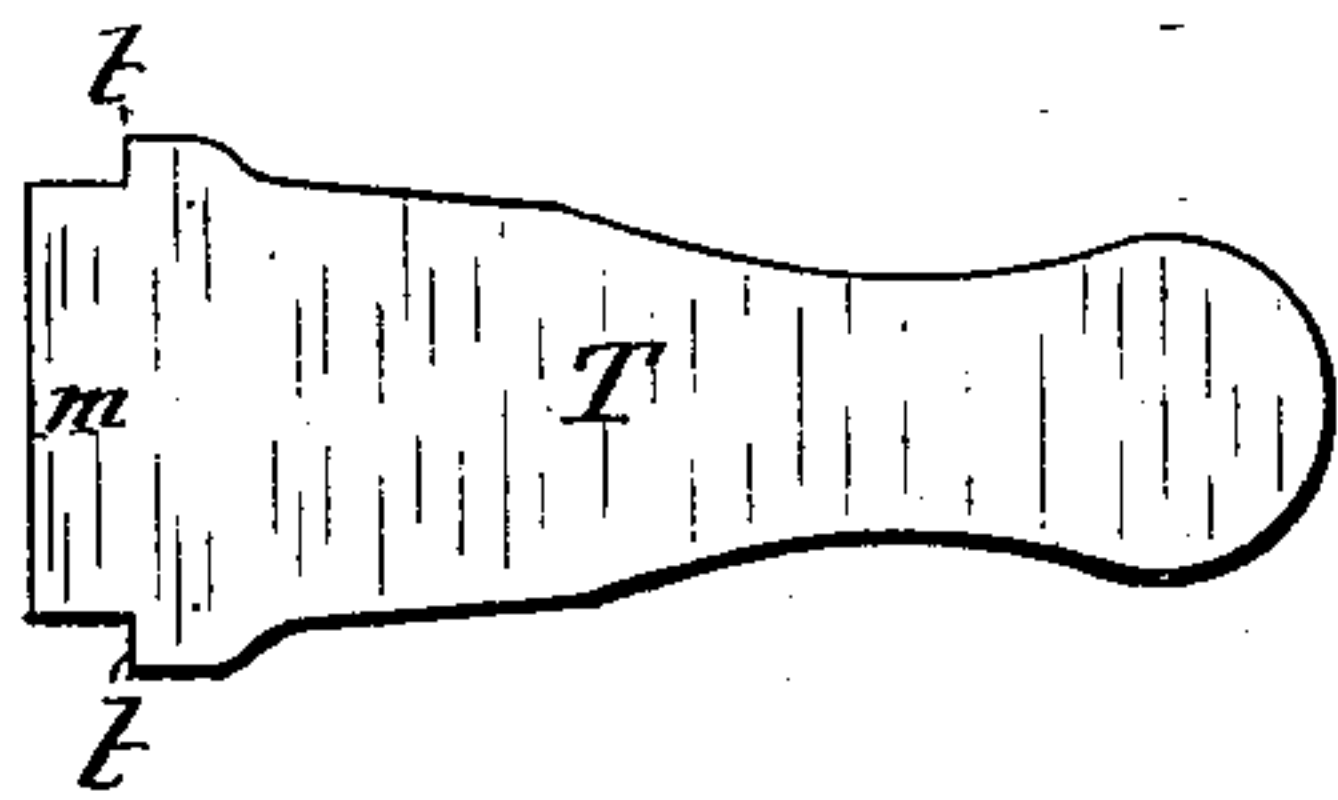
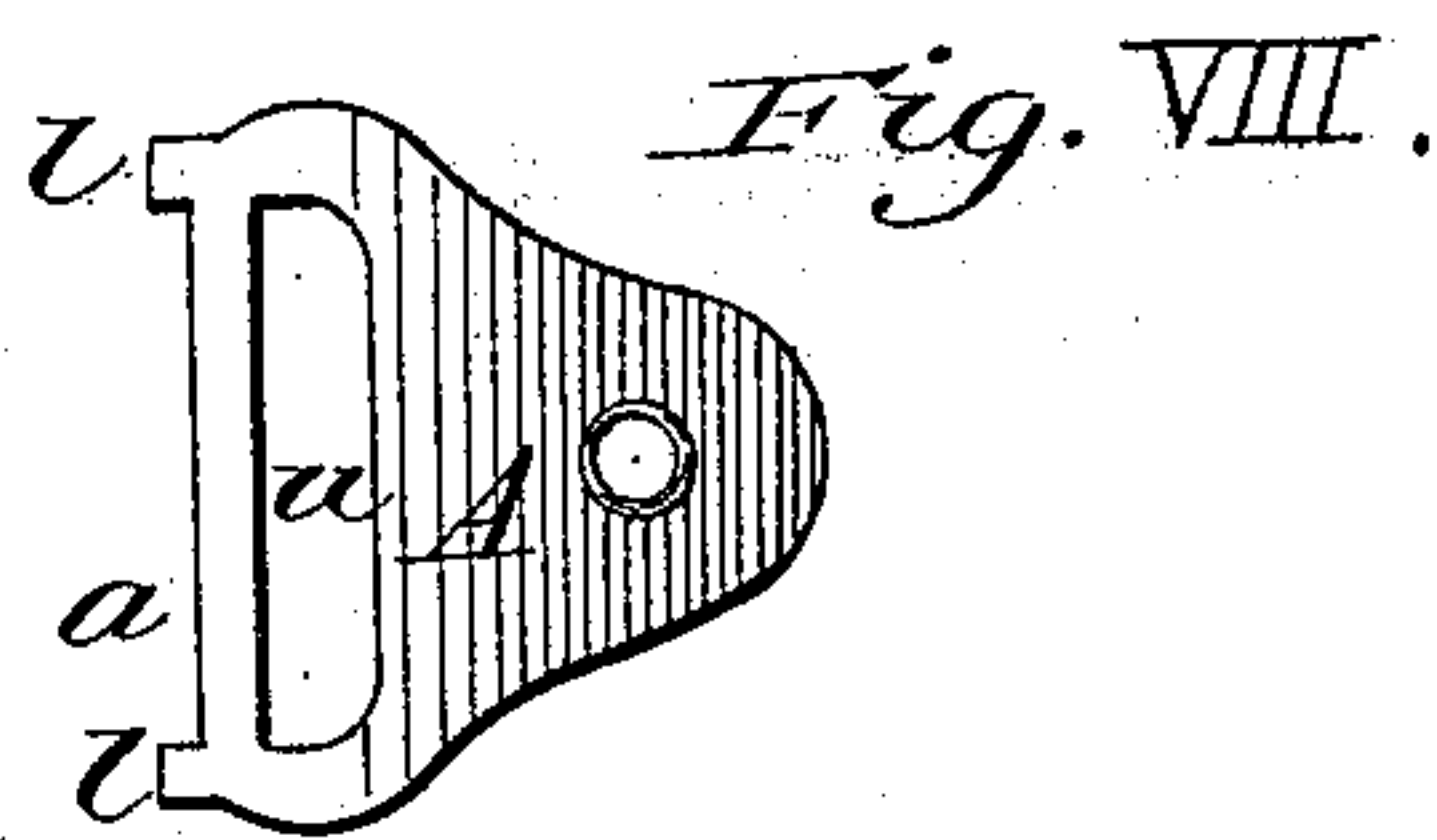
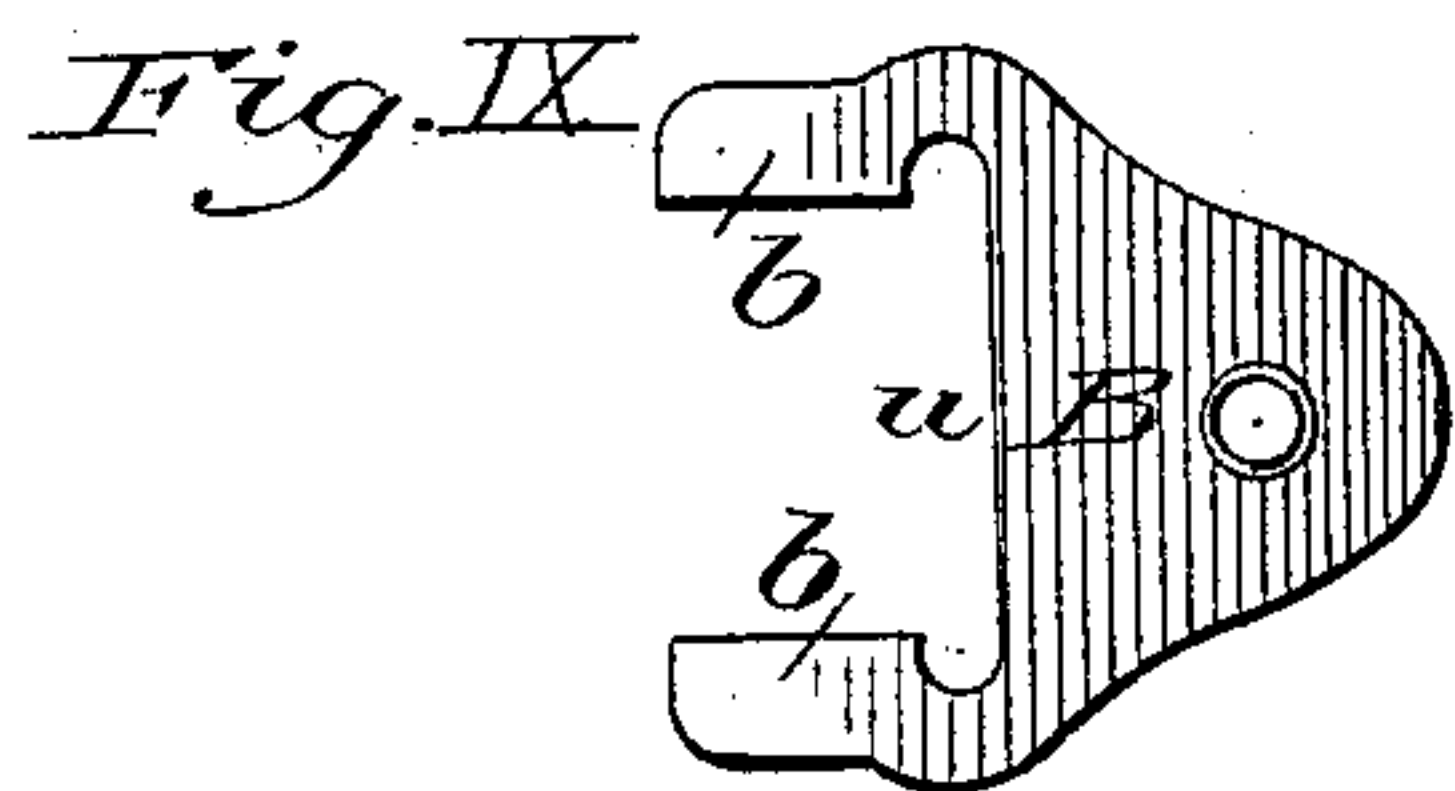
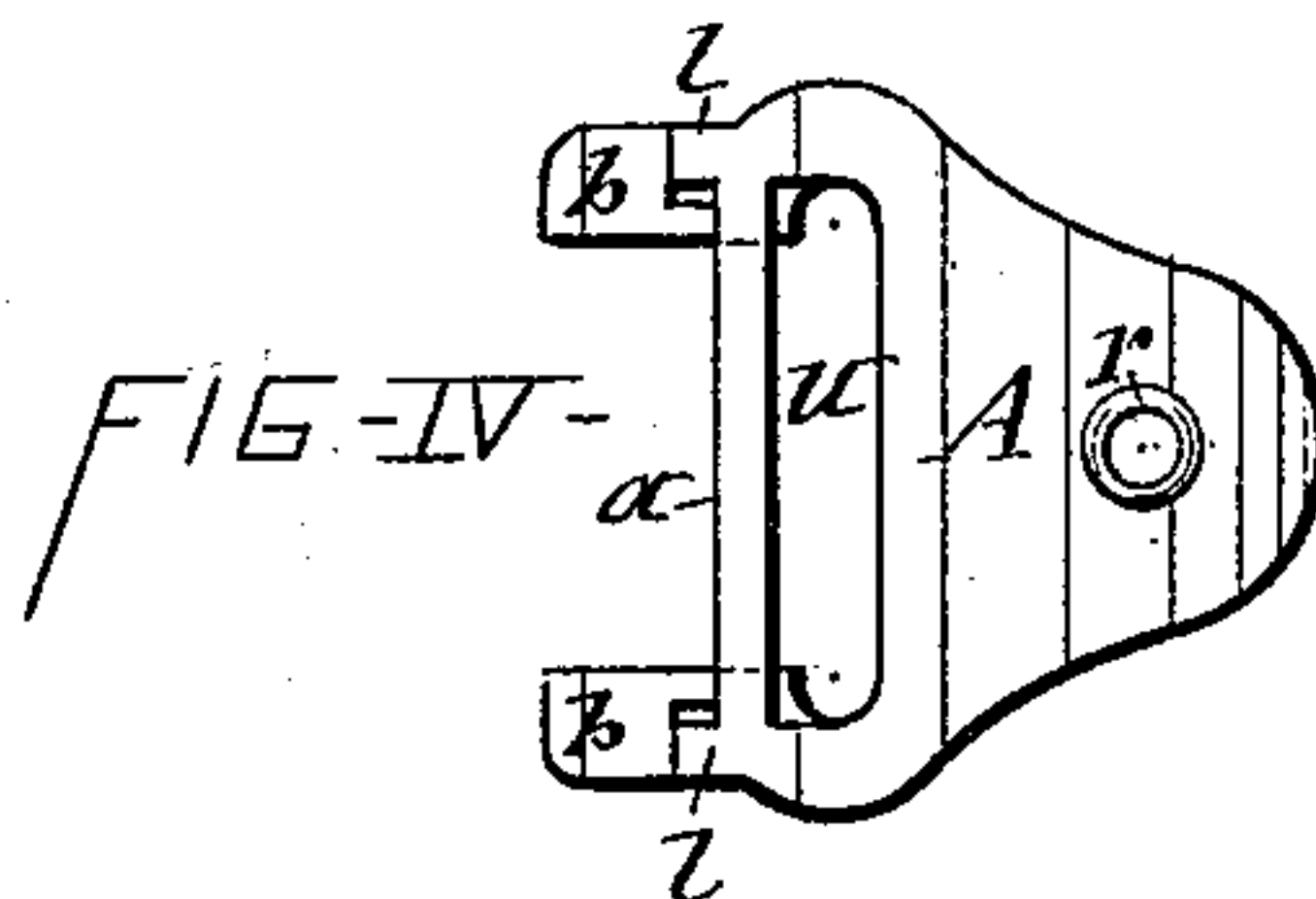
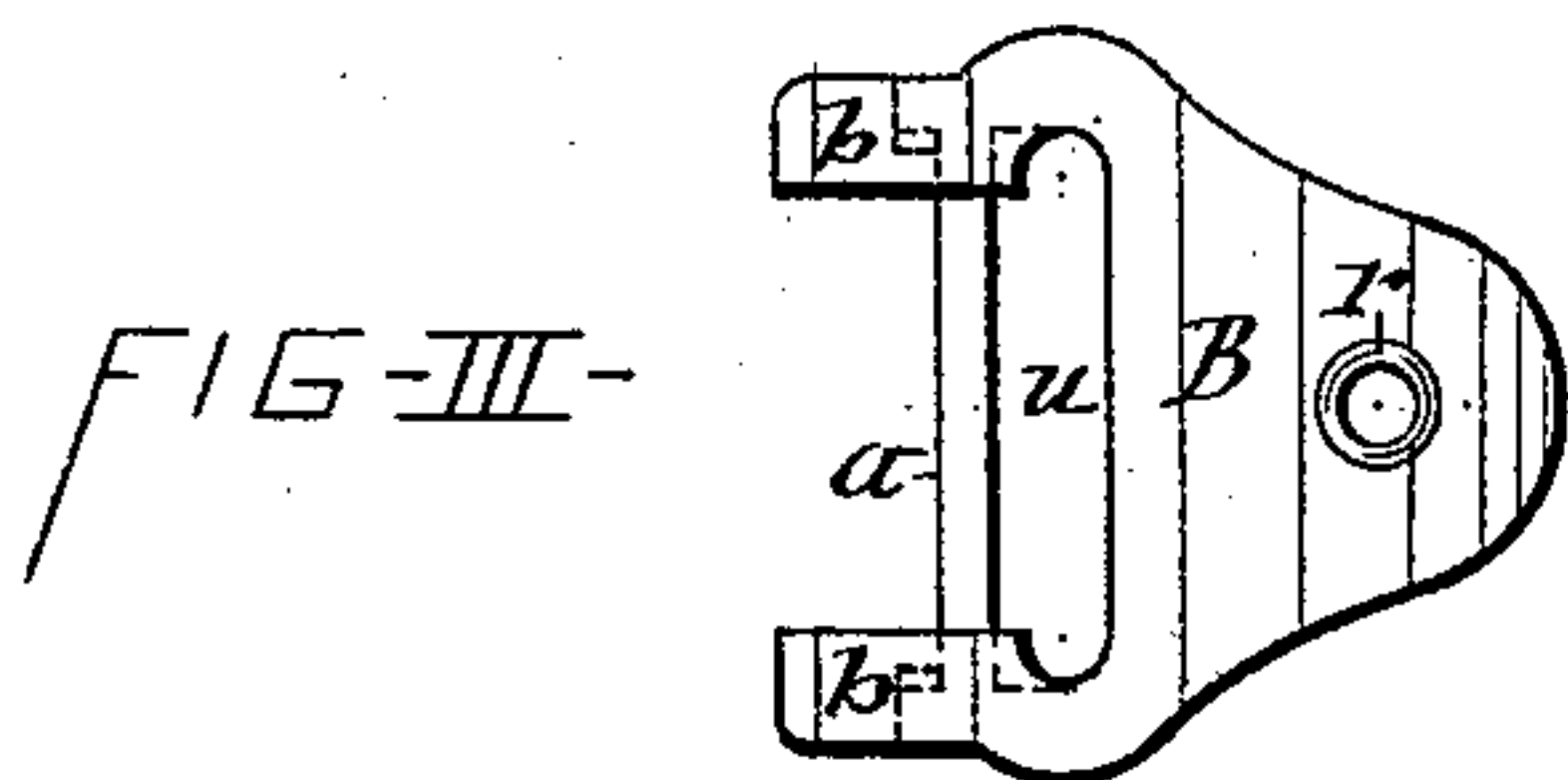
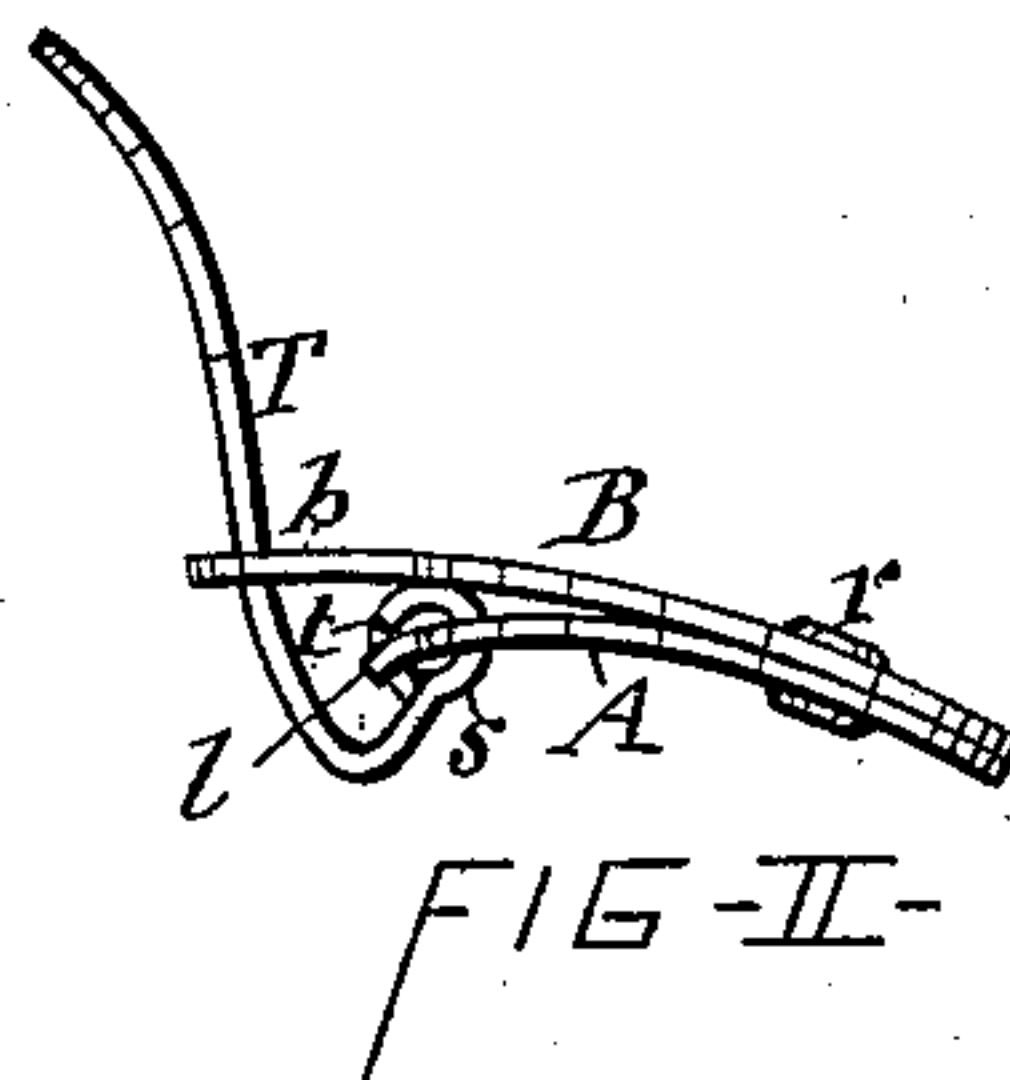
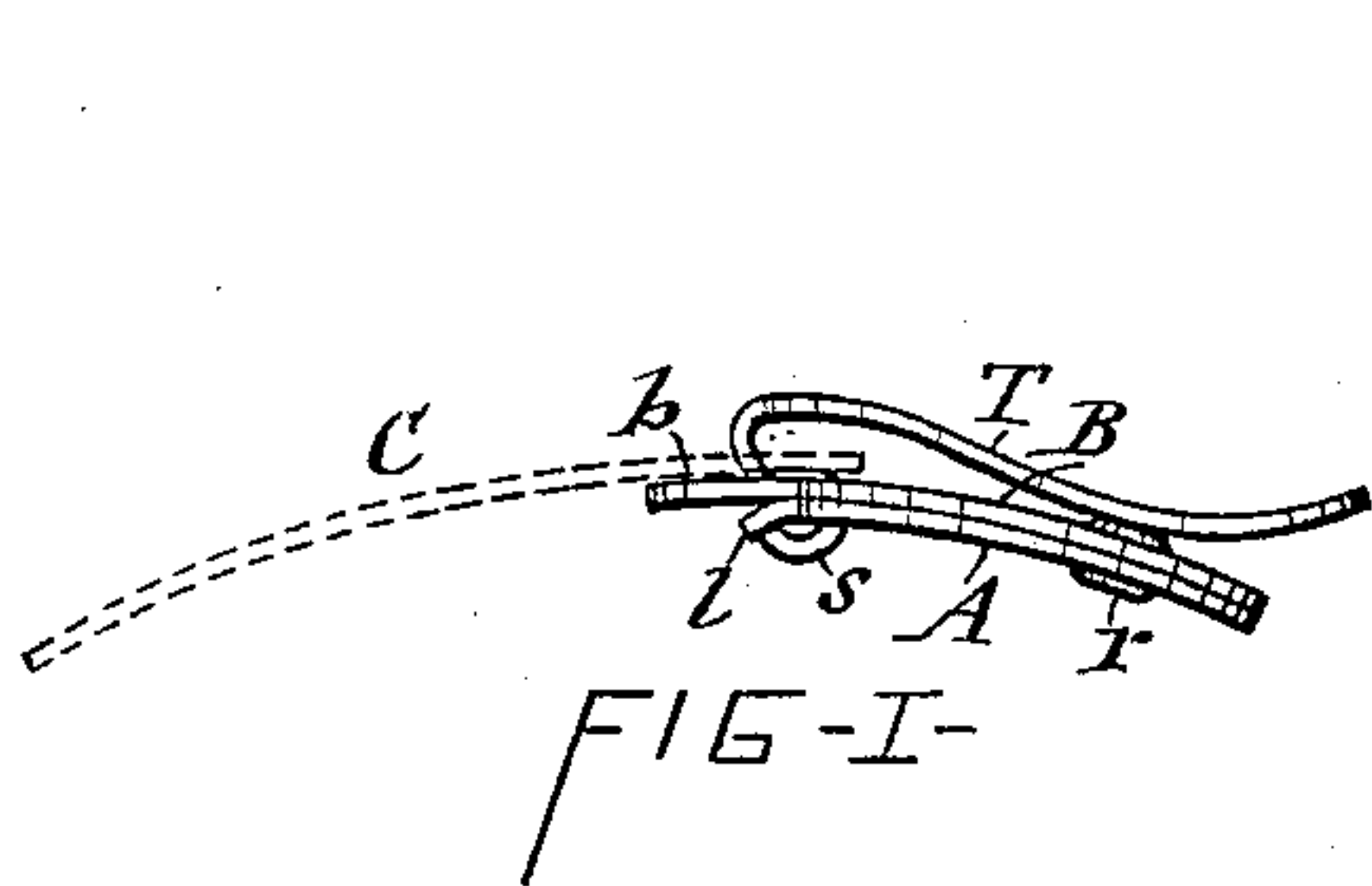
(No Model.)

J. J. UNBEHEND.

SPRING CLASP.

No. 326,353.

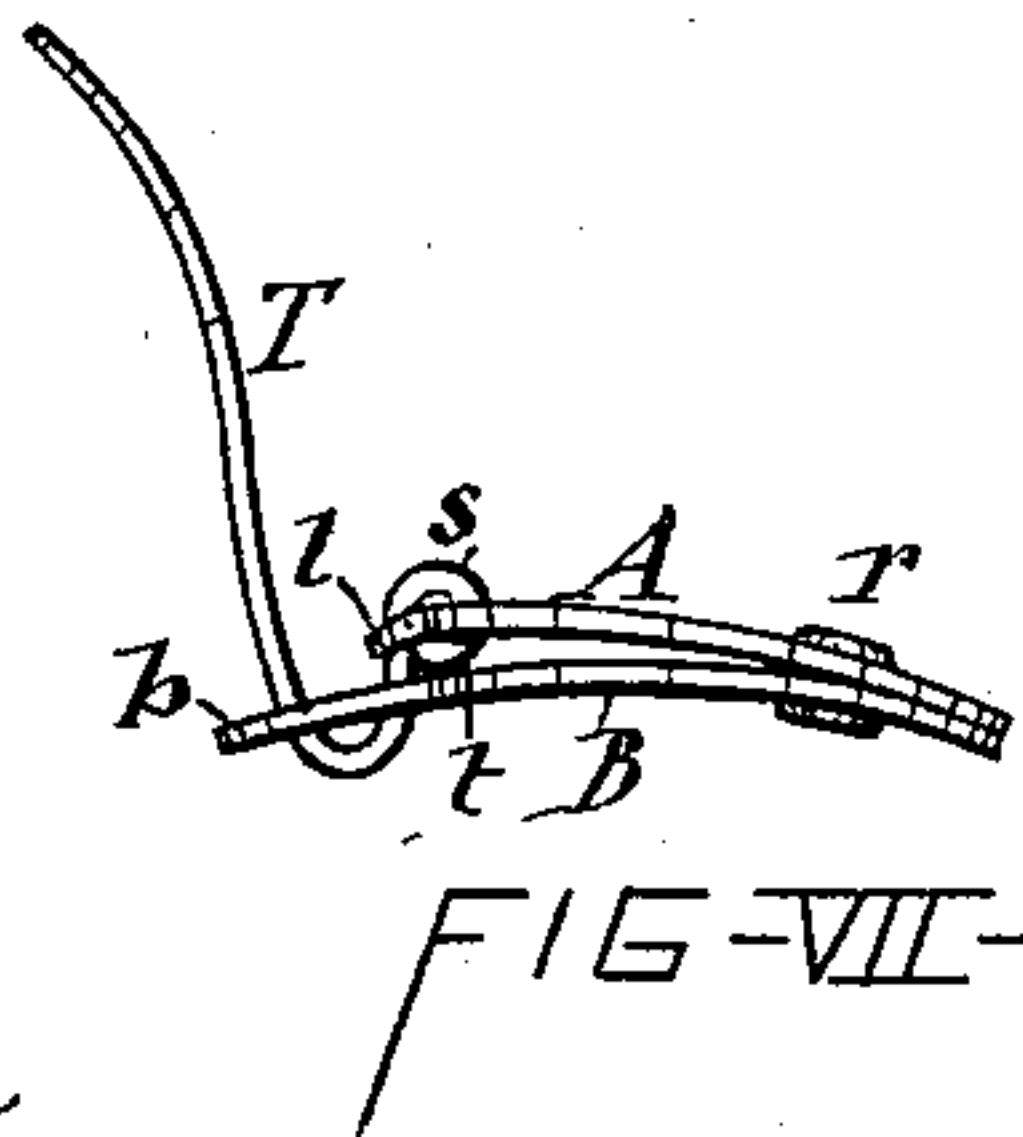
Patented Sept. 15, 1885.



WITNESSES=

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per H. L. Lass & Co.  
his Atty

# UNITED STATES PATENT OFFICE.

JACOB J. UNBEHEND, OF SYRACUSE, NEW YORK.

## SPRING-CLASP.

SPECIFICATION forming part of Letters Patent No. 326,353, dated September 15, 1885.

Application filed April 24, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB J. UNBEHEND, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Spring-Clasps, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of clasps in which a tongue hinged to one plate interlocks with a slotted plate; and it has more particular reference to the species of clasps in which two plates lying one upon the other are connected together at one end, and the tongue is hinged on the opposite end of one of said plates, and is provided with a cam by which it bears on the other plate, and in swinging the tongue back and forth on its hinge it pries the two plates apart, and thereby imparts spring action to the tongue.

The invention consists, first, in a novel construction and combination of the component parts of the clasp, which allows nearly or quite the entire length of the spring-plate to lie closely upon the plate on which the tongue is hinged when the clasp is closed, so as to render the clasp more compact, and also prevent the japan from entering between said plates, and thus guard against clogging thereof, and which also properly limits the movement of the tongue toward its open position; and the invention consists, secondly, in a novel, simple, and effective means for re-enforcing the slotted plate and compensating for the removal of material by the slots thereof, all as hereinafter more fully described, and specifically set forth in the claims.

The invention is fully illustrated in the annexed drawings, wherein Figures I and II are side views of my improved clasp, showing the same in its closed and open positions respectively. Figs. III and IV are plan views of opposite sides of the plates which carry the tongue. Fig. V is a plan view of the blank from which the tongue is formed. Fig. VI is a plan view of the re-enforced slotted plate. Fig. VII is a side view of the clasp embodying modifications of my invention; and Figs. VIII and IX are detached plan views of the tongue-carrying plate and tongue-actuating spring-plate.

Similar letters of reference indicate corresponding parts.

C represents the slotted plate, which is to be secured at one end to the strap or quarter of the shoe or other article; and T is the tongue, which is hinged to a plate attached to the other strap or quarter, and interlocks with the slotted plate in drawing the said straps or quarters together and fastening the same.

A represents the tongue-carrying plate, which is provided with a pintle, *a*, at its forward end—i.e., the end adjacent to the slotted plate C—and has back of said pintle a transverse slot, *u*, for the reception of the strap, to which it is to be attached in the usual and well-known manner. The front of the plate A is provided with forward extensions *l l* at the ends of the pintle *a*, for the purpose hereinafter explained.

B is a flexible plate secured to the rear end of the plate A, either by an eyelet, *r*, as shown, or by any other suitable and well-known means, by which it is held normally close upon the plate A. This plate B is provided with a slot, *u*, corresponding to that of the plate A, and made for the same purpose, and at the ends of said slot the plate B is formed with forward extensions *b b*, projecting beyond the extensions *l l* of the plate A and made wider, so that the space between the longitudinal edges of the extensions *b b* shall be narrower than the length of the pintle *a*.

The two plates A and B are formed of the same uniform and parallel planes from end to end, with the exception, possibly, of a slight downward bend of the extremities of the extensions *l l* of the plate A. Said plates are thus enabled to lie contiguously one upon the other throughout their length, thereby guarding against the clogging of said plates, incident to the entrance of japan between them during the process of japanning the clasp.

The tongue T is formed of a blank (shown in Fig. V of the drawings) consisting of a piece of sheet metal, formed at one end with notches forming a rectangular end portion, *m*, and abrupt offsets *t t*, back of the portion *m*, and a short distance back of these offsets the width of the blank is reduced, first, to the width of the end portion, *m*, and thence to proper shape



to allow it to easily enter one of the slots, *v*, of the plate C. That portion of the blank which has the offsets *t t* is of a width equal to the length of the pintle *a* of the plate A, and said portion, together with the rectangular end portion, is rolled up into the shape of the sleeve *s* and made to embrace the pintle *a*, said sleeve having portions of its ends cut away by the notches at opposite edges of the end portion, *m*, aforesaid. These cut-away portions of the sleeve allow the plate B to lie closely upon the plate A when the clasp is closed, as represented in Fig. I of the drawings.

In raising the tongue and throwing it into its open position, as illustrated in Fig. II of the drawings, the wider portion of the sleeve, back of the offsets *t t*, is carried around and caused to impinge the extensions *b b* of the plate B, and thereby pry the two plates A and B apart, the resistance of said plates imparting the spring action to the tongue. As the tongue arrives at its proper open position the offsets *t t* on the ends of the sleeve *s* collide with the top of the extensions *l l* of the plate A, and thus serve as stops which arrest the farther movement of the tongue, and thus sustain the same in proper position for entering the slot *v* of the plate C.

In swinging the tongue back into its closed position the slotted plate C is drawn over onto the plate B, and during this operation the extensions *b b* of the plate B bear against the under side of the side bars of the slotted plate C, while the tongue moves between said extensions. The slotted plate is thus guided so as to prevent the extensions *b b* from entering the slots *v v*, and thus interfering with the movement of the slotted plate toward the plate B. The extensions *b b* also serve to steady the tongue T during its aforesaid movement, so as to obviate the danger of the wider portion of the sleeve slipping from under the extensions *b b*.

When the clasp is closed, the offsets *t t* of the sleeve *s* are underneath the rear portion of the extensions *b b* of the plate B, and the pressure of this plate on said offsets serves to hold the tongue down in its closed position.

I do not limit myself specifically to the relative positions of the plates A and B, as it is obvious that the plate B may be arranged under the plate A, as represented in Fig. VII of the drawings, in which case the wider portion of the sleeve is to be formed on the end of the blank, which is rolled up into the shape of the sleeve *s*.

In order to strengthen the plate C and compensate for the weakening thereof, incident to the removal of material by the slots *v v*, I gradually widen the side bars, *n n*, of said plate from the ends of the center thereof, the plate being thus re-enforced between the slots, as well as across the ends of the slots, as illustrated in Fig. VI of the drawings.

Having described my invention, what I claim

as new, and desire to secure by Letters Patent, is—

1. The combination of the plate A, formed of a uniform plane from end to end, and provided with the pintle *a* and the plate B, of a corresponding uniform plane from end to end, and lying contiguous to the plate A and provided with the extensions *b b*, the tongue T, having the sleeve *s*, embracing the pintle, and portions of the ends of the sleeve cut away to allow the superincumbent plate to lie closely upon the other plate, from end to end thereof, when the clasp is closed, substantially as set forth.

2. The combination of the plates A and B, of the same uniform planes, connected together at one end, and the pintle *a* on one of said plates, the tongue T, having the sleeve *s*, embracing the pintle, and formed with the stops *t t* on the ends of the sleeve to limit the movement of the tongue toward its open position, substantially as and for the purpose set forth.

3. The combination of the plate A, provided with the pintle *a* and extensions *l l*, and formed of uniform plane throughout, the plate B, provided with the extensions *b b*, and formed of a corresponding uniform plane, and the tongue T, having the sleeve *s*, embracing the pintle, and provided with stops *t t*, arranged to collide with the extensions *l l* and arrest the movement of the tongue when in its open position, substantially in the manner described and shown.

4. The combination of the plate A, provided at its forward end with the pintle *a*, and formed of a uniform plane throughout, the plate B, of a corresponding uniform plane, attached to the opposite end of the plate A, and provided with the forward extensions *b b*, having the space between their longitudinal edges narrower than the length of the pintle, and the tongue T, having the sleeve *s*, embracing the pintle, a portion of said sleeve extending the length of the pintle and the remainder of the sleeve and adjacent portions of the tongue being narrowed to correspond to the space between the extensions *b b*, whereby the tongue is sustained laterally in its movements and the two plates are allowed to lie closely one upon the other when the clasp is closed, substantially as described and shown.

5. In combination with the clasp, the slotted plate C, re-enforced by gradual increase of the width of the said bars *n n* from the ends to the center thereof, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 21st day of April, 1885.

JACOB J. UNBEHEND. [L. s.]

Witnesses:

FREDERICK H. GIBBS,  
C. BENDIXON.