

(No Model.)

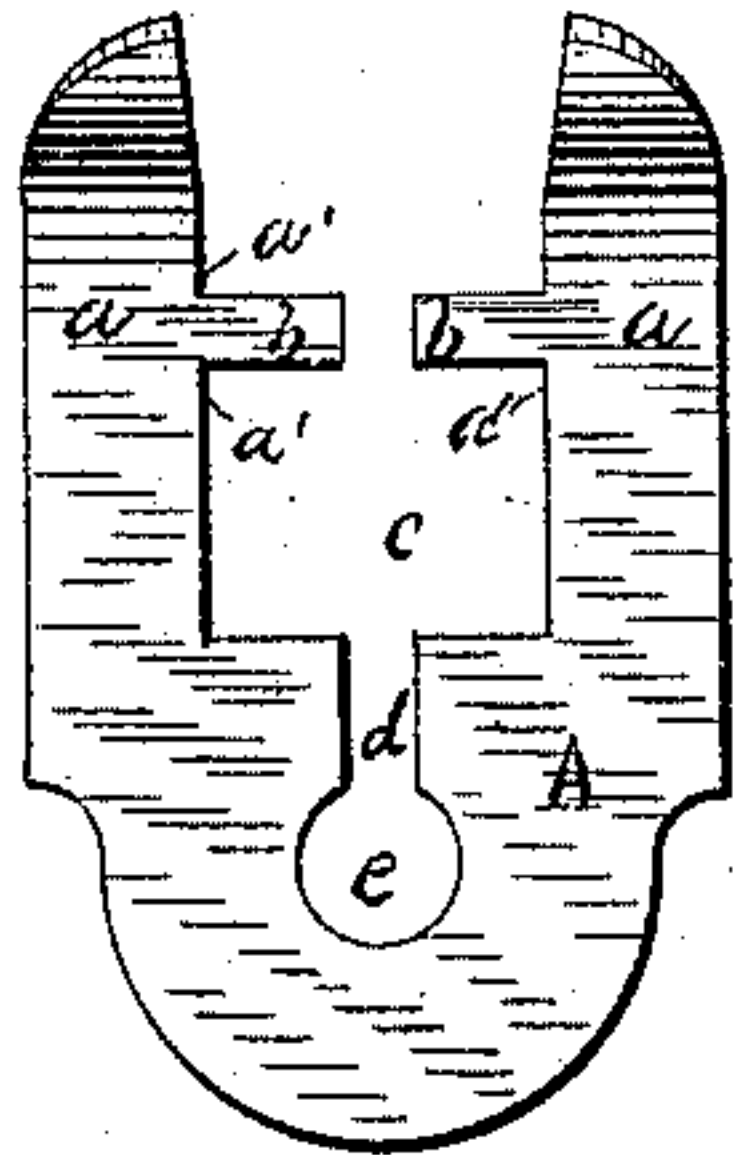
J. J. UNBEHEND.

SPRING CLASP.

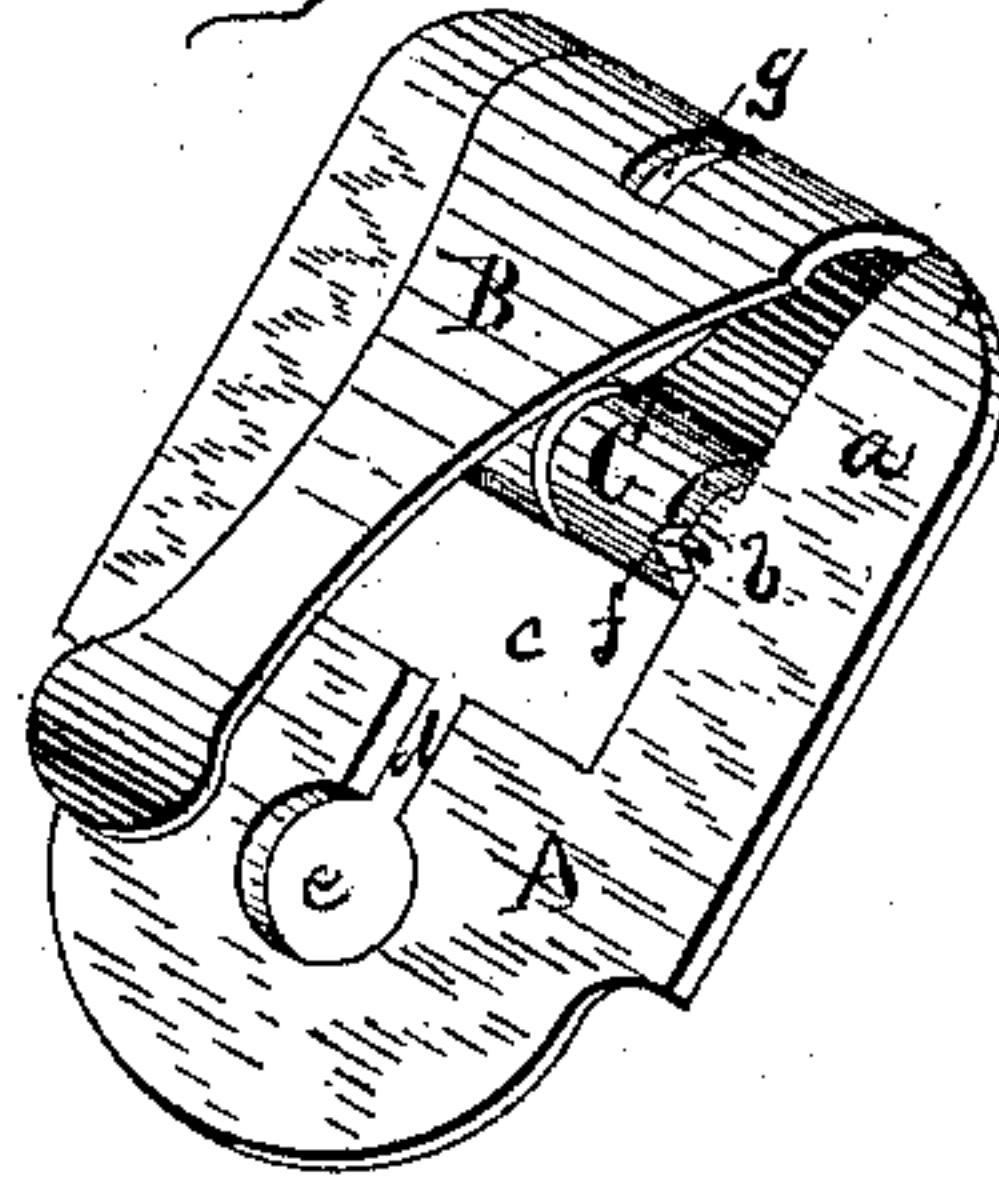
No. 368,501.

Patented Aug. 16, 1887.

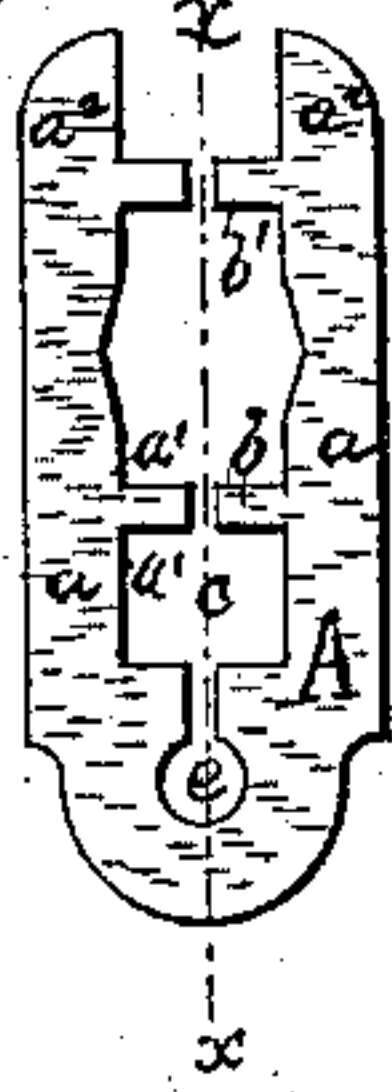
*Fig 1.*



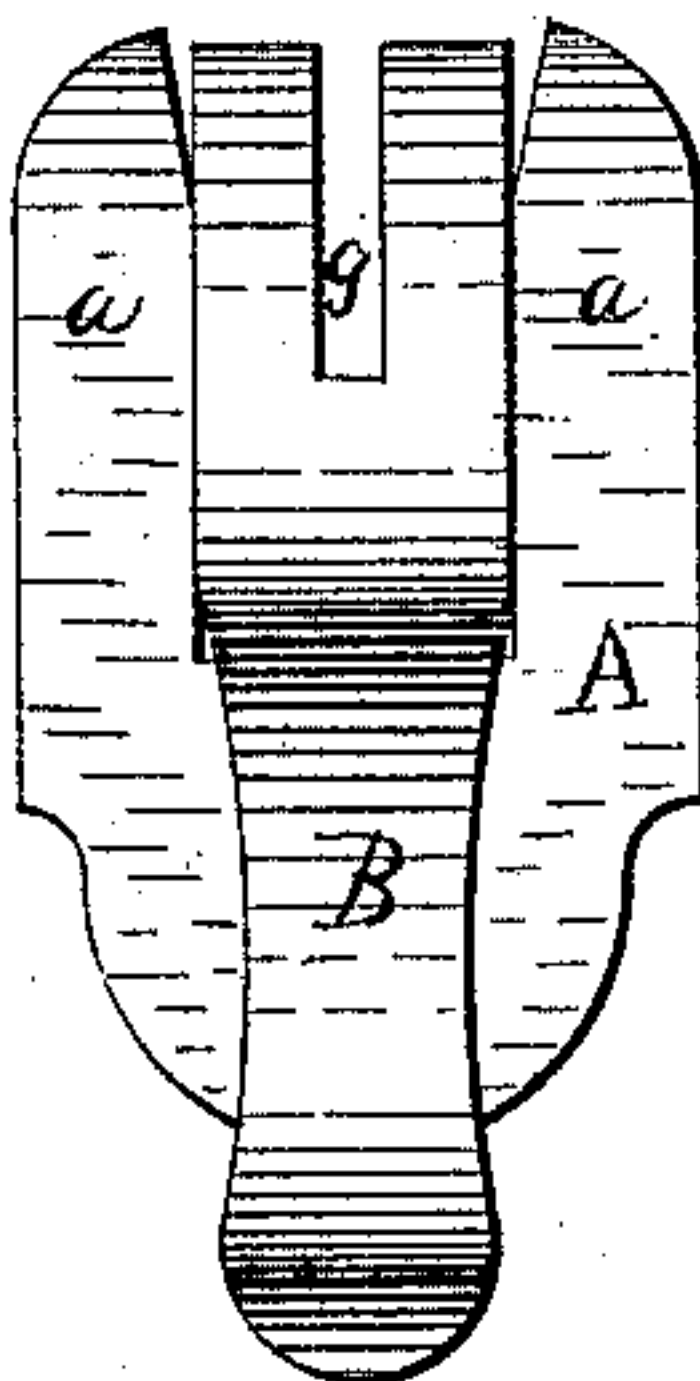
*Fig 2.*



*Fig 6.*



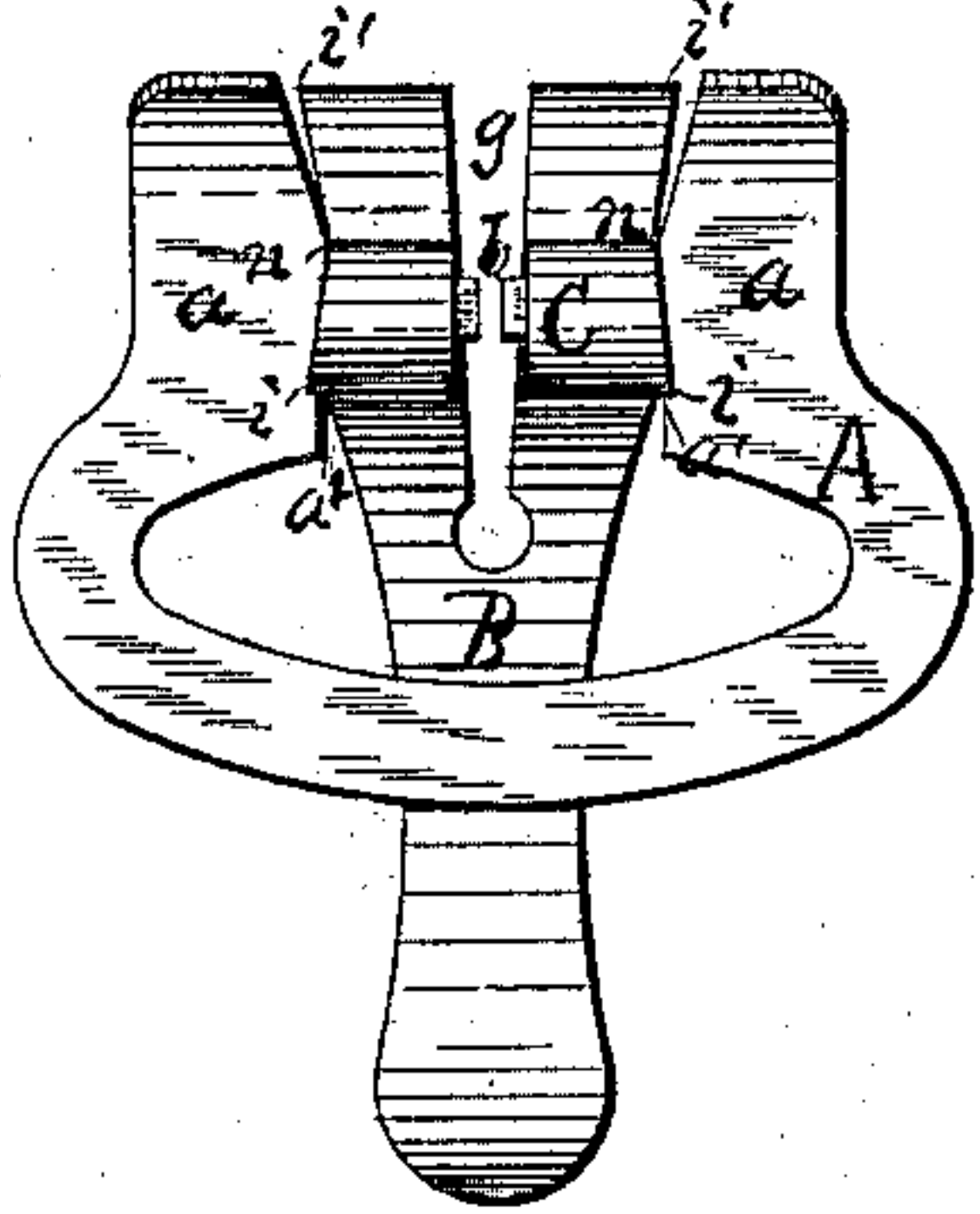
*Fig 3.*



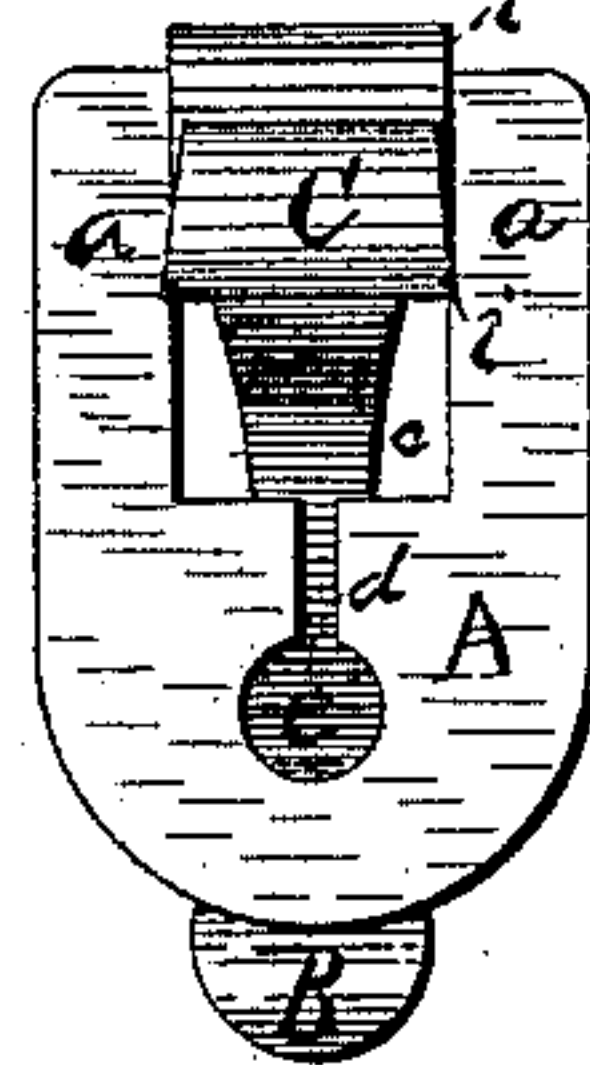
*Fig 7.*



*Fig 4.*



*Fig 5.*



WITNESSES:

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INVENTOR

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# UNITED STATES PATENT OFFICE.

JACOB J. UNBEHEND, OF SYRACUSE, NEW YORK.

## SPRING-CLASP.

SPECIFICATION forming part of Letters Patent No. 362,501, dated August 16, 1887.

Application filed January 27, 1887. Serial No. 225,620. (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.

My invention relates to improvements in spring clasp plates of the class usually applied to arctics, overshoes, and like articles, and the object is to provide a simple and effective construction of a spring plate and tongue, whereby an efficient and durable clasp can be manufactured at a minimum cost; and to this end my invention consists in a spring-clasp frame made of a single thickness of metal having forward extensions provided with straight edges and divided, a laterally-projecting pintle, an enlarged opening back of the pintle, and a slotted opening into the aperture, through which the securing devices are passed to attach the clasp-frame to the arctic.

It consists, furthermore, in the combination of the plate or frame with the tongue, and also in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In specifying my invention reference is had to the accompanying drawings, forming a part hereof, in which, like letters indicating corresponding parts in all the figures, Figure 1 is a plan view of my improved clasp-frame, illustrating the general form and construction thereof. Fig. 2 is an isometric view showing the tongue secured to the frame, partly open for the purpose of illustrating the construction and arrangement of the tongue-frame. Fig. 3 is a top plan view of the frame and tongue, showing the tongue closed. Fig. 4 is an inverted plan view of a modification in the construction of the frame. Fig. 5 is an inverted plan view showing the frame used in connection with a solid tongue. Fig. 6 illustrates a further modification in the construction of the plate, wherein the forward extensions are elongated to provide double pintles; and Fig. 7 is an edge view, partly in section, taken on line *x x*, Fig. 6, showing the elongation of the forward extensions folded back to re-enforce the pintles.

A represents my improved clasp-frame, constructed of a single thickness of spring sheet metal and provided with the forward extensions, *a a*, and the divided laterally-projecting pintle *b b*. Immediately forward and back of the pintle *b b*, I provide the extensions *a a* with the straight edges *a' a'*, for the purpose presently explained. The outer edges of the extensions *a a* are preferably curved, as shown in the drawings, for the purpose of giving the frame a finished and symmetrical appearance. The opposite extremity or end is also preferably curved for the same purpose.

Immediately back of the pintle *b b*, I provide an enlarged opening, *c*, and a slot, *d*, connecting the opening *c* with the aperture *e*, and the aperture *e* serves as an opening through which the securing devices pass for attaching the frame A to the arctic or other article upon which the clasp is used.

The opening or slot *d* is substantially in line with the opening between the divided pintle *b b*, as will appear upon reference to Fig. 6 of the drawings, line *x x* being drawn through the center of the plate and the slot *d* and the opening between the pintle *b b*.

The object of providing the slot *d* and the divided pintle is to allow the lateral expansion of the extensions *a a* of the frame, and since the frame is made of spring metal such expansion is utilized to afford the necessary spring to lock the tongue in its open and closed position, as will be presently explained.

The tongue B is provided with a sleeve, C, Fig. 2, which embraces the pintle *b b*, and the tongue B turns on the pintle *b b* as a pivot in its movement when the clasp is opened and closed.

Upon the outer edges of the tongue B, I provide the cam-points *i i'*, Figs. 4 and 5, said cams being reversely inclined and converging to the point *n*, Figs. 4 and 5, and upon the sleeve C, I provide the notches *f f*, the office of the reversely-inclined cams being to expand laterally the extensions *a a* of the frame A, and they accomplish this function by the impingement of the projecting points *i i'* of the cam-edges against the straight edges *a' a'* of the extensions *a a* of the frame, and the notches *f f* serve to lock the tongue B in its open and closed position by their engagement with the



straight edges  $a' a'$ . It will be observed that the extensions  $a a$  are provided with the straight edges  $a' a'$  upon each side of the pintle  $b b$ , and that the notches  $f f$  in the sleeve C of the tongue B are so located that when the tongue is either in its opened or closed position the notches engage the aforesaid straight edges  $a' a'$  of the extensions and securely lock the tongue in either position, as described.

In order to secure an easy-working clasp, I preferably slot the tongue B at  $g$ , Figs. 2, 3, and 4, since such construction permits the tongue to contract laterally near its pivot, and such lateral contraction relieves in a measure the pressure of the cam-edges of the tongue against the extensions  $a a$  of the frame and makes the opening and closing of the tongue somewhat easier to accomplish than where a solid tongue is employed; but a solid tongue, as illustrated in Fig. 5, when provided with the inclined cam-edges  $i i'$ , converging to the point  $n$ , makes an equally effective spring-clasp. Hence I do not restrict myself to the employment of the slotted tongue illustrated in the other views; neither do I restrict myself to the construction of the frame-plate A, illustrated in Figs. 1, 2, 3, and 5, since the frame-plate may be constructed as illustrated in Fig. 4 and used in connection with the solid tongue B, and such device affords a very simple and effective spring-clasp. The frame A may be constructed also as illustrated in Fig. 6, in which case the extensions  $a a$  are elongated and provided with two sets of divided pintles,  $b b'$ , the part  $a^2$  being folded over on the extension  $a$ , so as to bring the pintles  $b'$  over and coincident with the pintles  $b$ , thereby providing a re-enforced pintle, which will be readily understood upon reference to Figs. 6 and 7 of the drawings.

My improved spring-clasp is generally used in connection with the usual slotted plate attached to arctics and the like overshoes, and its connection therewith is so well known that it is unnecessary to describe the same herein.

The operation of my improved spring-clasp is as follows, viz: When the tongue B is sleeved onto the pintle  $b b$  the inclined cam-edges bear against the straight edges  $a' a'$  as the tongue is opened or closed, and such impingement of the edges of the tongue expands the extensions  $a a$  laterally, thus imparting the necessary spring action to the tongue, while the notches  $f f$  serve to lock the tongue in its open or closed position until sufficient pressure is applied to the free end thereof to force the notches  $f f$  out of engagement with the straight edges of the extensions, when the same may be readily closed.

The reversely-inclined cam-edges, converging to the point  $n$ , serve to expand the extensions of the plate in both movements of the tongue to open and close the same, and the slot  $d$ , opening from the enlarged opening  $c$ , permits the free expansion of the extensions, the enlarged opening  $c$  weakening the frame-plate A sufficiently for this purpose.

The forward ends of the extensions  $a a$  may be slightly curved or deflected to prevent the frame from being drawn up into the slotted plate.

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

1. The herein-described tongue-frame for spring-clasps made from a single thickness of metal, having forward extensions provided with straight edges  $a' a'$  forward and rearward of the pintles, divided laterally-projecting pintles, an enlarged opening back of the pintle, and a slot-opening in the aperture, through which the securing devices are passed to attach the clasp-frame to the arctic or article upon which it is used, substantially as and for the purpose set forth.

2. The combination of the single thick frame A, having extensions  $a a$  and straight edges  $a' a'$  forward and rearward of the pintles, the laterally-divided pintles  $b b$ , enlarged opening  $c$ , with a tongue, B, having cam-edges, substantially as and for the purpose set forth.

3. The combination of the frame A, having extensions  $a a$ , provided with straight edges  $a' a'$  forward and rearward of the pintles, with a tongue, B, having cam-edges, and the notches  $f f$ , substantially as and for the purpose set forth.

4. The combination of the frame A, having extensions  $a a$ , provided with straight edges  $a' a'$ , with a tongue, B, having reversely-inclined cams  $i i'$ , converging to a point,  $n$ , and the lock-notches  $f f$ , substantially as and for the purpose set forth.

5. The combination of the frame A, having forward extensions provided with straight edges, and a tongue, B, having reversely-inclined cams riding between the straight edges on the extensions of the frame-plate, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 25th day of January, 1887.

JACOB J. UNBEHEND.

Witnesses:

FREDERICK H. GIBBS,  
E. C. CANNON.