

No. 711,746.

Patented Oct. 21, 1902.

J. L. THOMSON.
CLASP OR BUCKLE.

(Application filed Feb. 18, 1902.)

(No Model.)

Fig. 3.

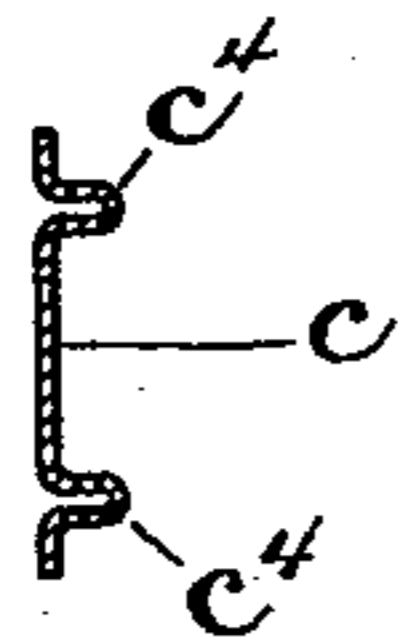


Fig. 1.

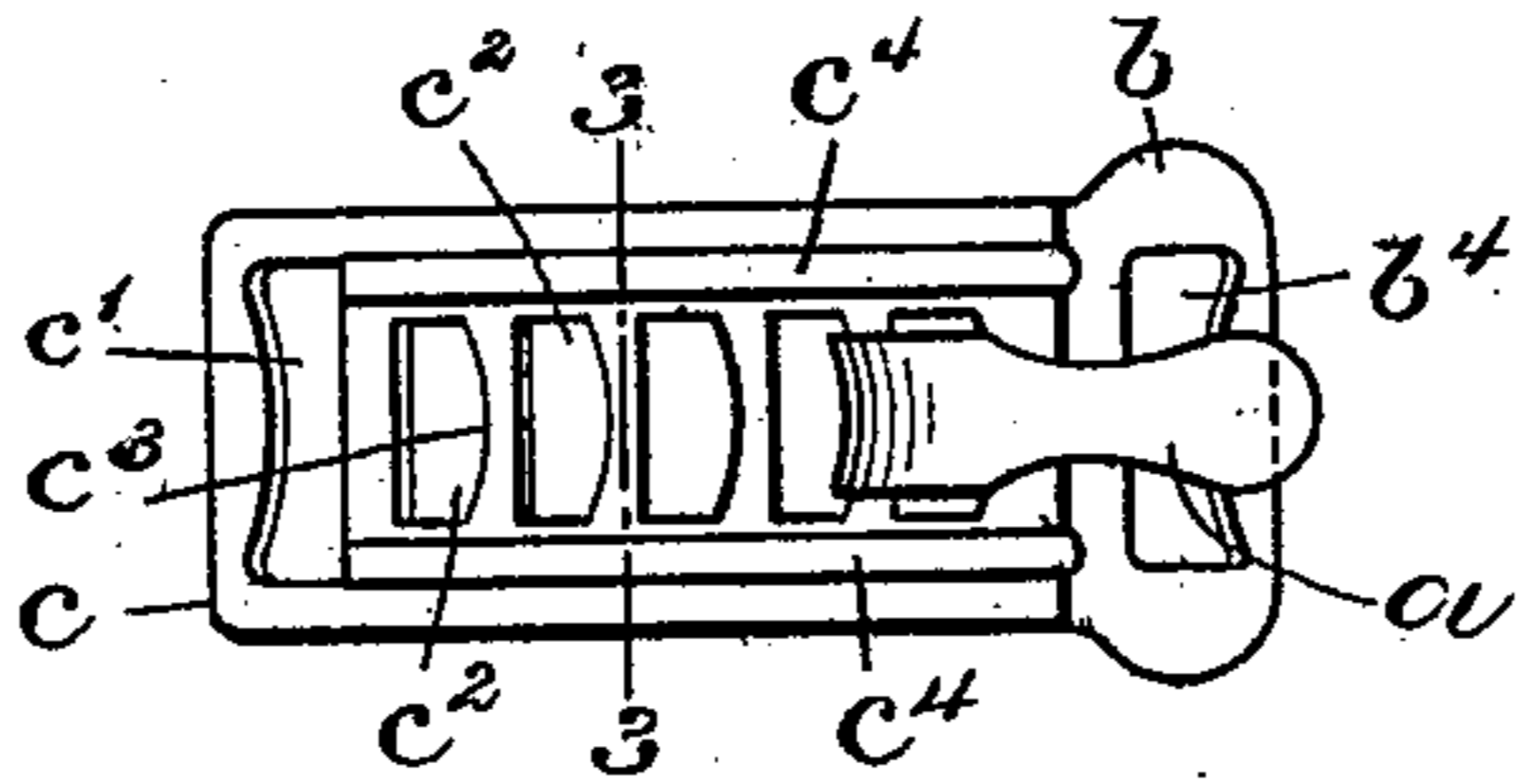


Fig. 2.

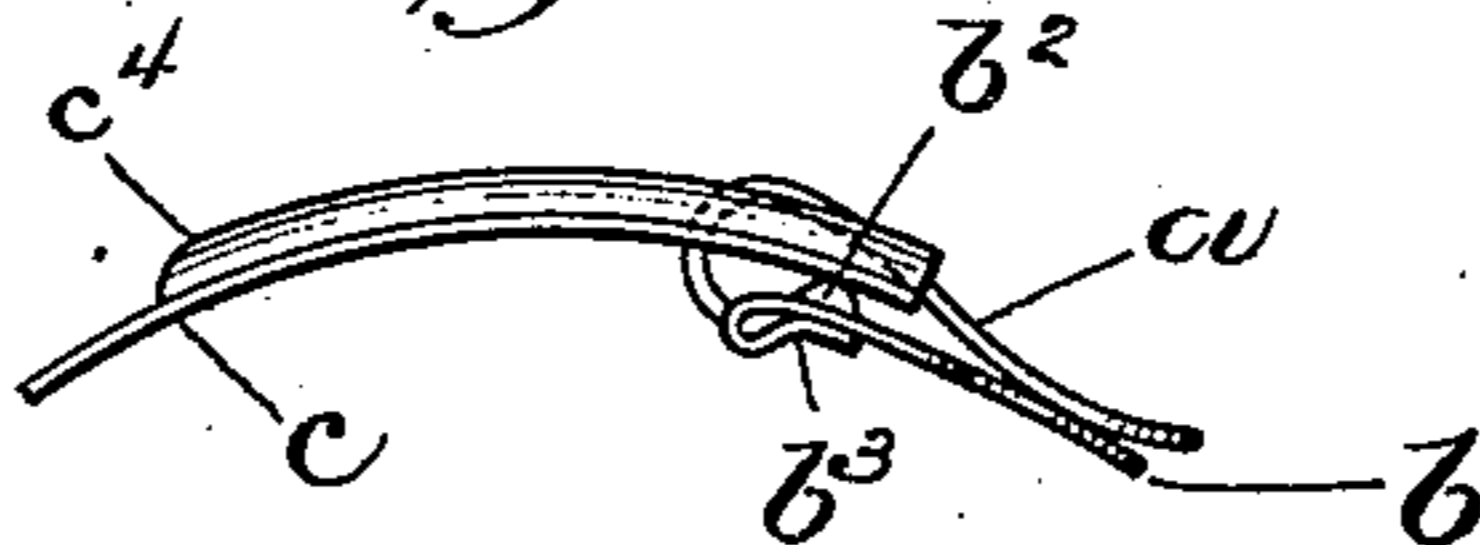


Fig. 6.

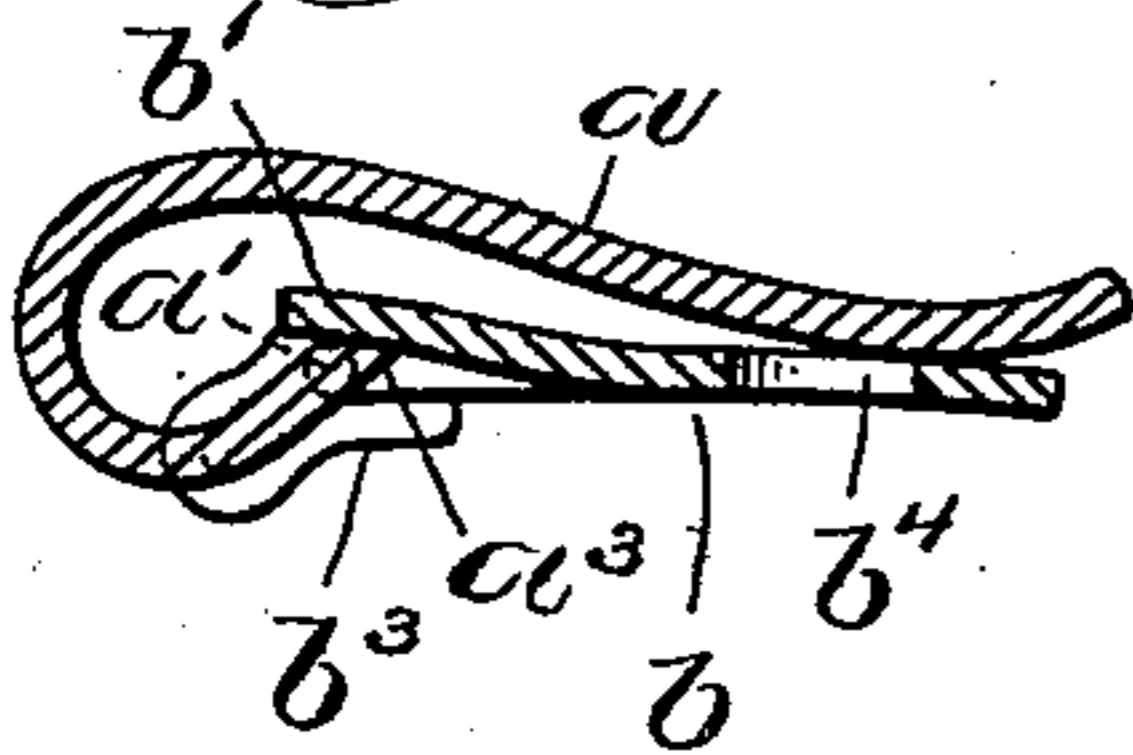


Fig. 4.

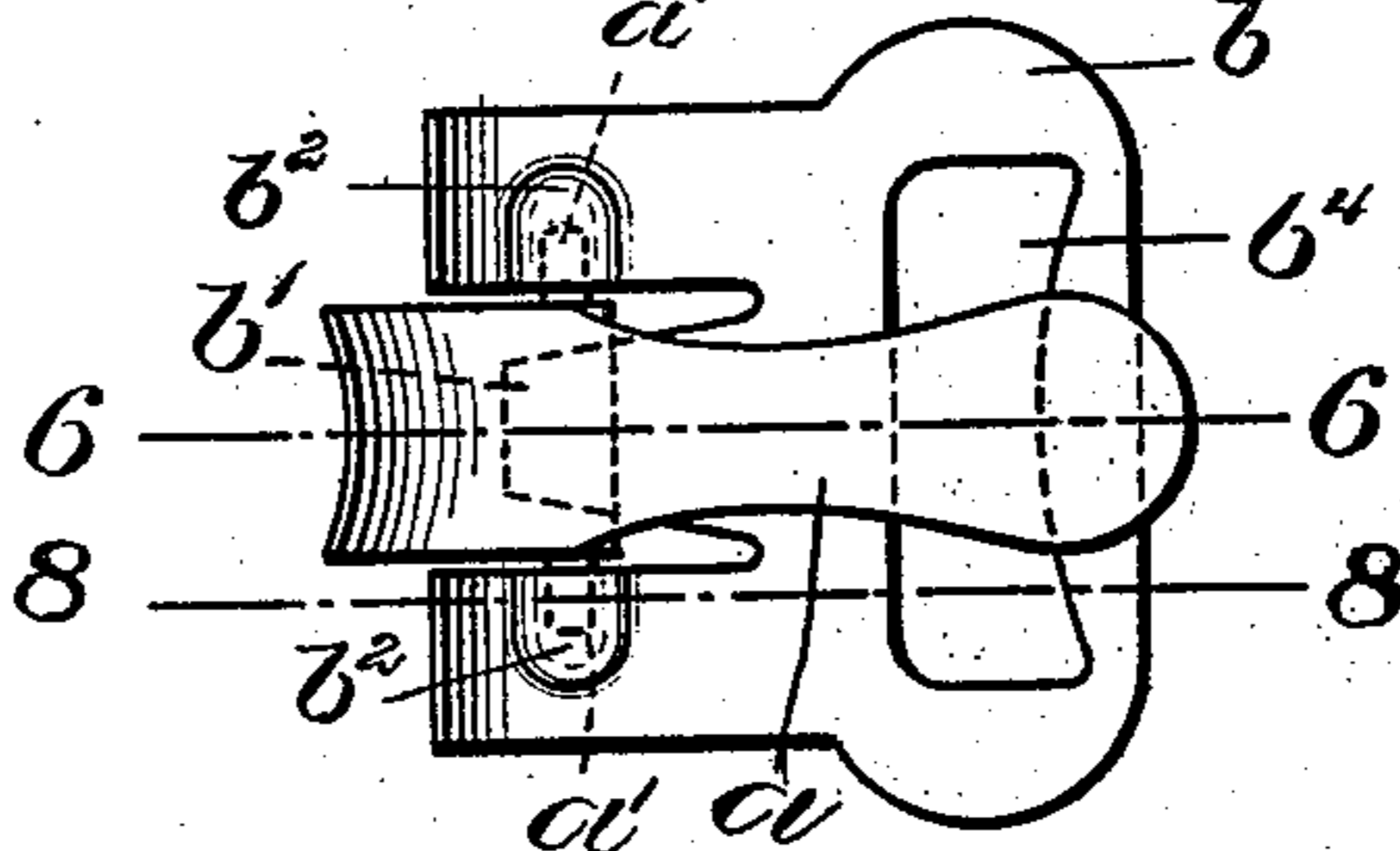


Fig. 5.

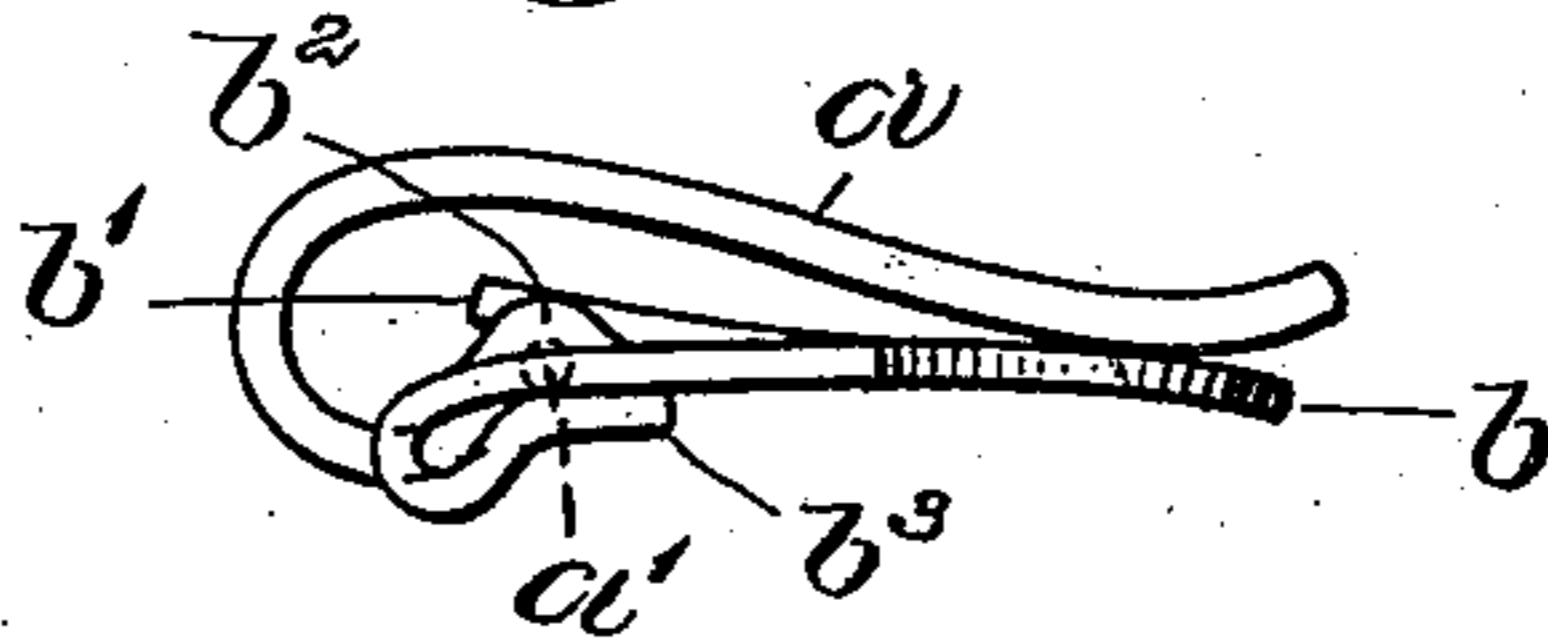


Fig. 8.

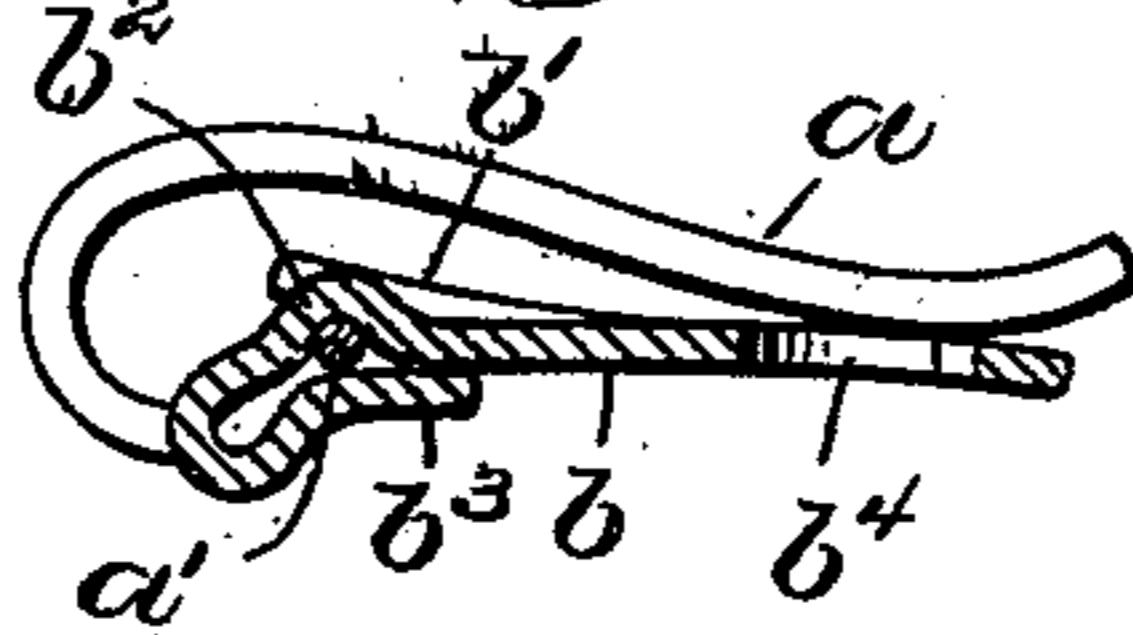


Fig. 10.

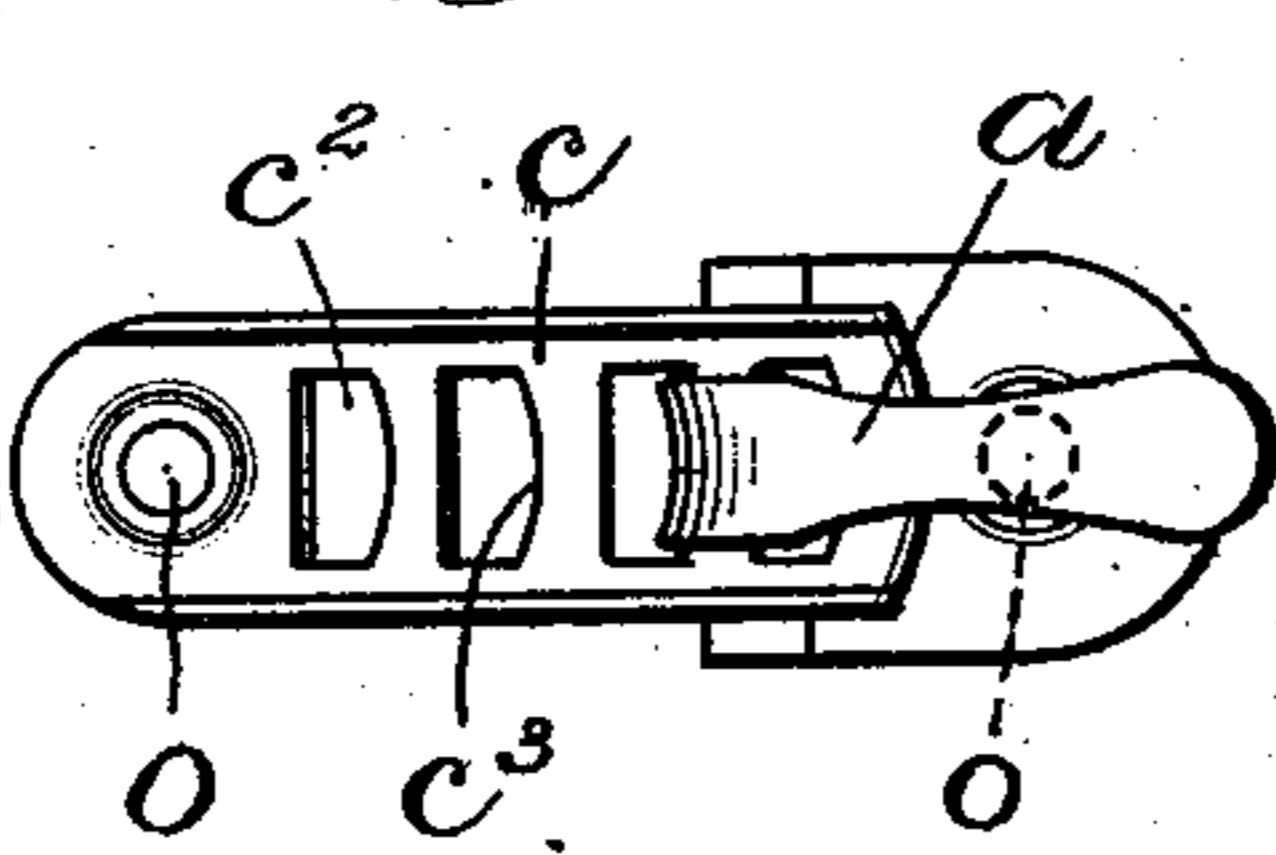
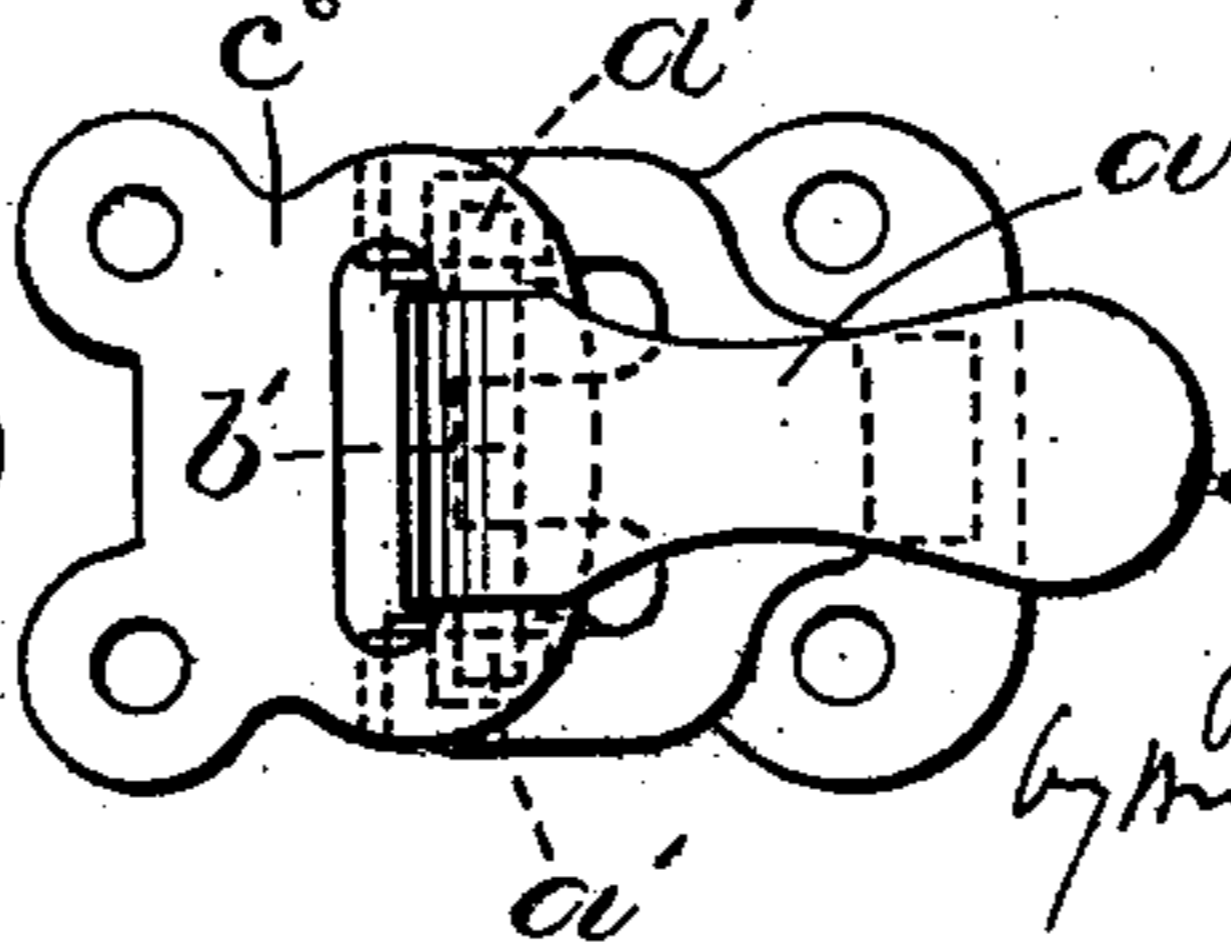


Fig. 11.



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JUDSON L. THOMSON, OF CLAYTON, NEW YORK.

CLASP OR BUCKLE.

SPECIFICATION forming part of Letters Patent No. 711,746, dated October 21, 1902.

Application filed February 18, 1902. Serial No. 94,616. (No model.)

To all whom it may concern:

Be it known that I, JUDSON L. THOMSON, of Clayton, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Clasps or Buckles, of which the following is a specification.

This invention relates to clasps or buckles, such as are used for fastening arctic overshoes, leather shoes, and for other purposes; and it has for its object to provide an improved clasp or buckle of this character which shall be more efficient, durable, and generally desirable than those now in use.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of a clasp or buckle embodying my invention. Fig. 2 represents an edge view of the same. Fig. 3 represents a section on line 3 3 of Fig. 1. Fig. 4 represents an enlarged plan view of the lever member of the clasp detached from the socket or slot member. Fig. 5 represents an edge view of of the member shown in Fig. 4. Fig. 6 represents a section on line 6 6 of Fig. 4. Fig. 7 represents a section on line 6 6, showing the lever raised to release the other member of the clasp. Fig. 8 represents a section on line 8 8 of Fig. 4. Fig. 9 represents a view similar to Figs. 6 and 7, showing the lever in an intermediate position. Figs. 10 and 11 represent top plan views of other forms of clasp embodying my invention.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents the lever of a lever clasp or fastener, the same being of the curved form shown in the drawings and having two outwardly-projecting pintles or trunnions *a'* *a'* at its inner end portion.

b represents the fulcrum plate or holder for the lever *a*, said plate being adapted for engagement with a strap on an overshoe or other article and having sockets to receive the pintles *a'*, and a spring *b'*, which controls the lever *a* in the manner hereinafter described. The sockets for the pintles *a'* are preferably formed by outwardly-projecting bosses *b²*, formed on the plate *b* and the end portions *b³* of said plate, said portions being bent under the bosses *b²*, so that the bosses form the

upper sides, and the end portions *b³* the lower sides, of the sockets, as clearly shown in Fig. 8. The lever *a* is provided at its inner end portion with substantially flat seats *a³* and *a⁴*. Said seats meet at the extreme inner end of the lever and diverge therefrom toward opposite sides of the axial line of the pintles *a'*. The relative arrangement of the seats *a³* and *a⁴*, the pintles, the sockets for the pintles, and the controlling-spring *b'* is such that when the lever is in its holding position (shown in Figs. 1, 2, 4, 5, 6, and 8) the spring *b* will rest squarely upon the seat *a⁴*, as shown in Fig. 6, and when the lever is in its releasing position (shown in Fig. 7) the said spring will bear squarely upon the seat *a³*. The pintles *a'* are not elongated in cross-section or in a direction at right angles to their axes, as is usually the case in clasps of this character, the pintles being preferably circular in cross-section, or substantially so, the form of the pintles in cross-section being such that the rotation of the pintles will not have a displacing or cam-like action.

It will be seen that the seats *a³* and *a⁴*, arranged as described on the inner end of the lever, enable the force of the spring *b* to be effectively applied in holding the lever in its closed position, as shown in Fig. 6, and in its open position, as shown in Fig. 7, the spring bearing on the apex formed by the intersection of the seats *a³* and *a⁴* and forcing the lever to its closed position as soon as said apex is at the right of the axial line of the pintles and forcing the lever to its open position as soon as the said apex is at the left of the axial line. The buckle is therefore much more effectively controlled by the spring than heretofore, so that it is less liable to be accidentally raised from its closed position by contact with external objects than in any buckle or clasp of this character hitherto made so far as I am aware. The described action of the spring on the lever will be made clear by reference to Fig. 9, which shows the lever in a position intermediate of the two positions shown in Figs. 6 and 7. It will be seen from Fig. 9 that a slight movement of the lever to the right will cause the spring to act in the direction required to force the lever to the closed position, (shown in Fig. 6,) while a slight movement of the lever to the left will cause

the spring to throw the lever to the position shown in Fig. 7.

c represents the socket or slot member of the clasp, the same being adapted at one end by means of a slot *c'* or any other suitable means for attachment to a strap and provided with a plurality of slots *c²*, adapted to receive and engage the lever *a*, as usual. My invention so far as it relates to the member *c* comprises the following improvements: The first of said improvements consists in the curved form of the edges *c³* of the slots *c²*. This form enables the lever *a* to have a continuous bearing on the corresponding edges of the slots *c³*, whether the member *c* and the plate *b* are in alinement or not. It often happens that the plate *b* and member *c* swing relatively to each other, so that they are out of alinement. When this happens, if the slots *c²* have straight sides bearing upon the lever, only one corner of the lever engages the member *c* and a diagonal strain results, which causes the cutting or rapid wearing of the straps engaged with the slot *c'* of the member *c* and the slot *b⁴* of the plate *b*. I find that by curving the edges *c³*, as shown, this difficulty is overcome. I prefer to correspondingly curve the outer edges of the slots *c'* and *b⁴*, as I find that this curvature contributes to the result last described. The other improvement relating to the member *c* consists in the formation of longitudinal ribs *c⁴*, which extend parallel with the edges of the member *c* and project outwardly therefrom, the slots *c³* being between said ribs. The ribs *c⁴* are of such height that their crown portions are practically flush with the outer portion of the lever *a* when the latter is closed, as shown in Fig. 2, so that the ribs, which present rounded outer surfaces, prevent wear or injury to the trousers or other garments by contact

with the edges of the lever and also by contact with the edges of the plate or member *c*.

In Fig. 10 I show my invention embodied in a clasp suitable for leather boots and shoes, the parts *b* and *c* having orifices *o o* to receive attaching-rivets. In Fig. 11 the invention is shown embodied in a clasp for use on horse-blankets and other articles made from textile fabric, the lever *a* being engaged with a plate or member *c⁶*, having a single slot. In this form the lever *a* is of the same construction as in the other forms shown; but its holder-plate and the member *c⁶* are provided with two holes, whereby the said plate and member *a⁶* may be attached to the fabric by rivets or other suitable means.

I claim—

A lever clasp or buckle comprising the slotted member which is curved longitudinally and is substantially flat in cross-section, and has transverse slots with curved lever-supporting edges, said curved edges being substantially parallel with each other, and the lever-holding plate or member having a hinged lever formed to enter either of said slots and bear against the curved edge thereof, the said lever being curved in cross-section at the point where it bears on said curved edge, the curved edges of the slots and the transversely-curved portion of the lever keeping the parts of the clasp in alinement when under strain, and preventing a cutting action on the straps which connect the said parts to an overshoe.

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

JUDSON L. THOMSON.

Witnesses:

C. F. BROWN,
A. D. HARRISON.