

(No Model.)

D. F. DALTON

SHOE CLASP.

No. 345,622.

Patented July 13, 1886.

Fig. 1.

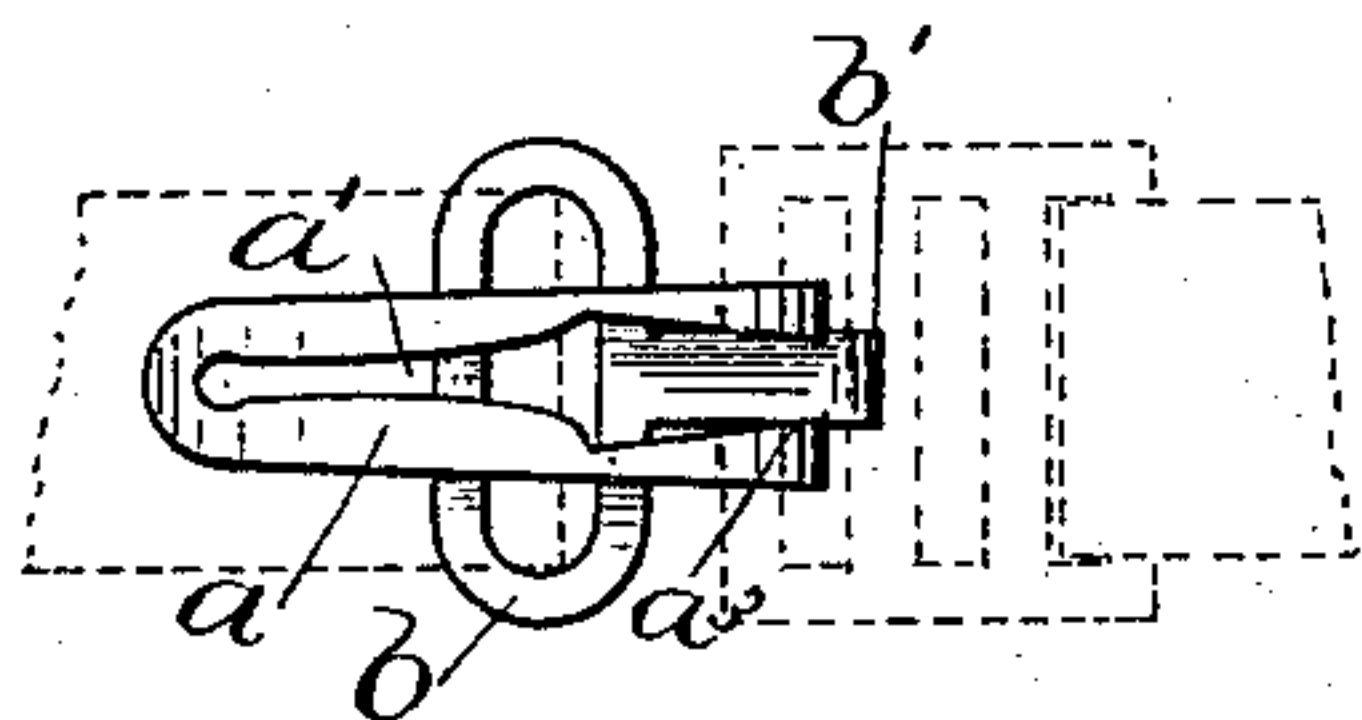


Fig. 2.

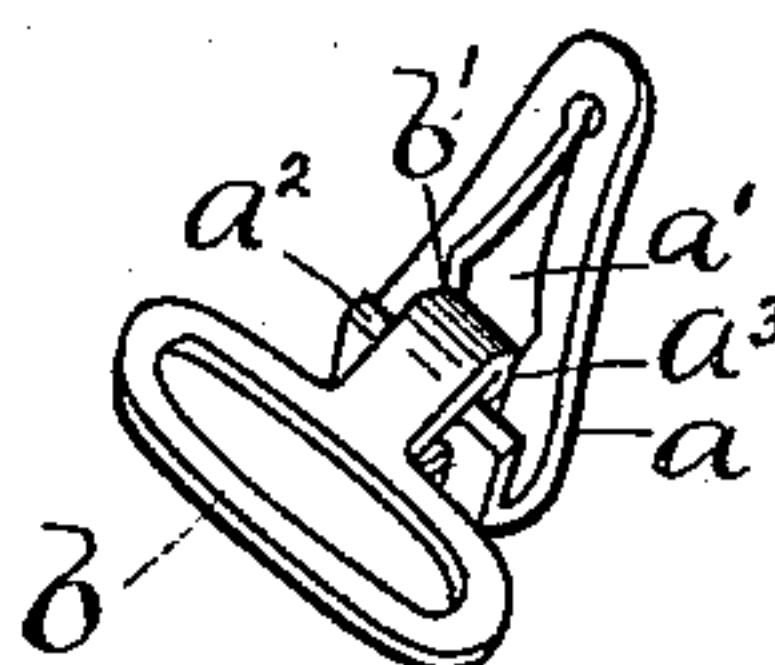


Fig. 3.

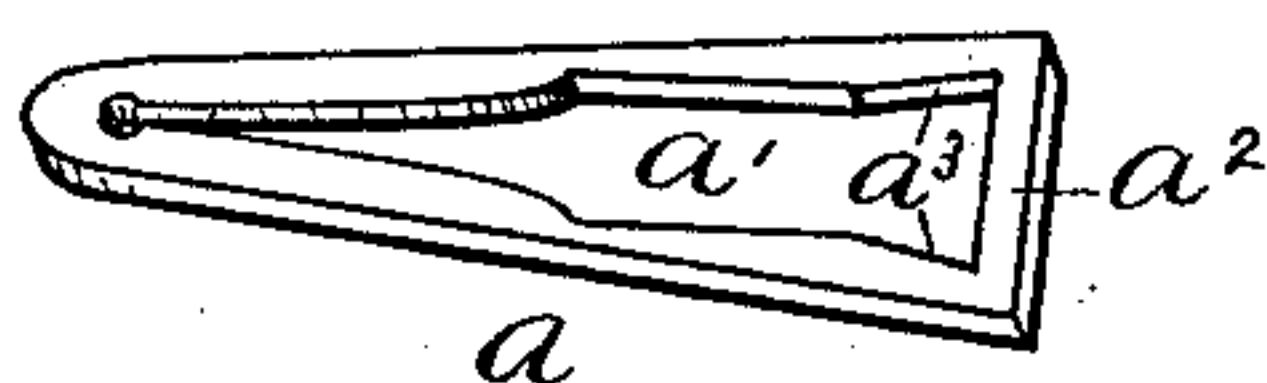


Fig. 5.

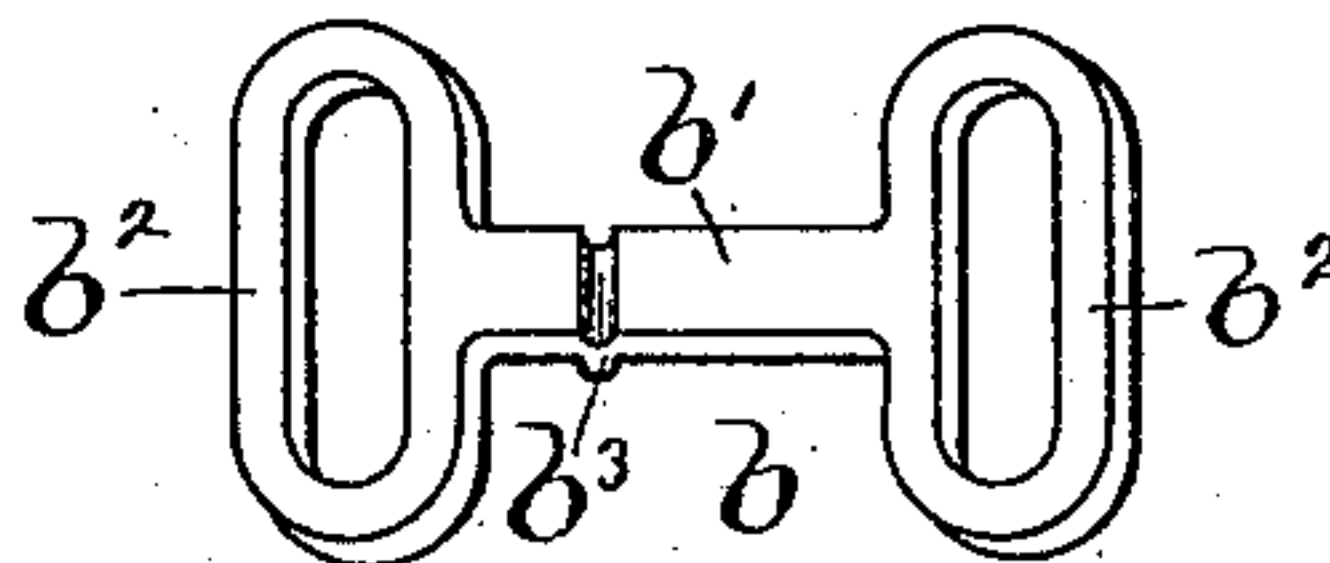


Fig. 4.

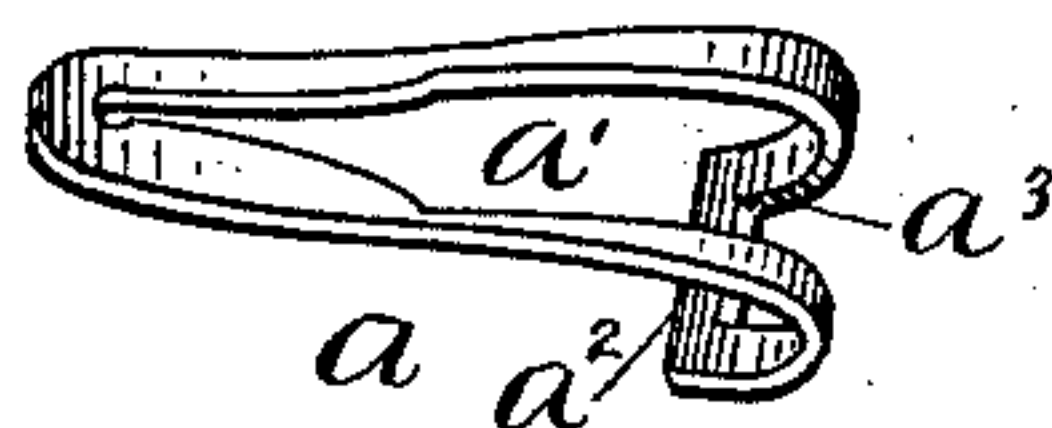
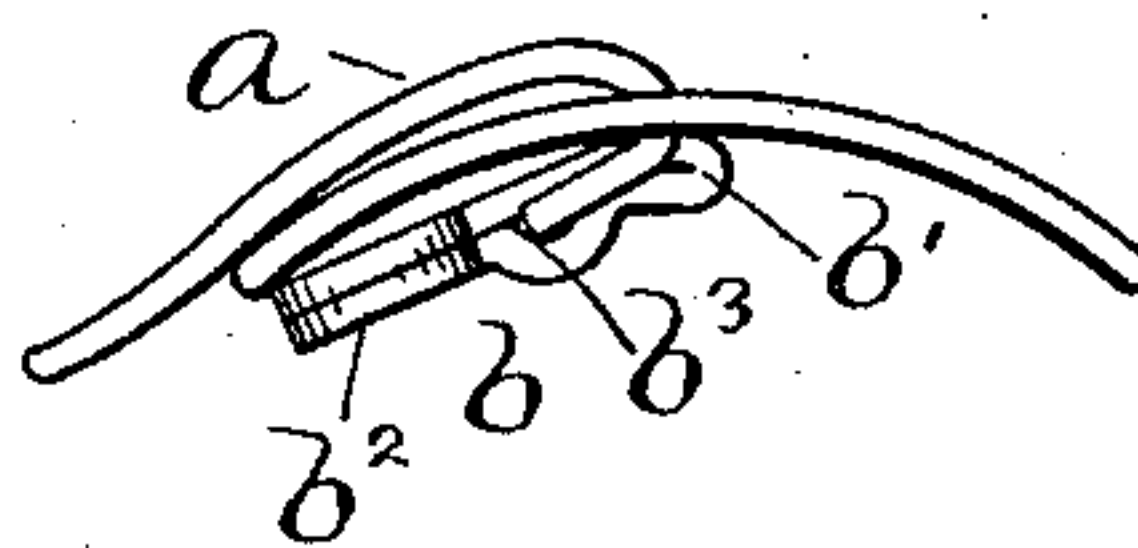


Fig. 6.



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UNITED STATES PATENT OFFICE.

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SHOE-CLASP.

SPECIFICATION forming part of Letters Patent No. 345,622, dated July 13, 1886.

Application filed January 12, 1885. Serial No. 152,625. (No model.)

To all whom it may concern:

Be it known that I, DAN F. DALTON, of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Shoe-Clasps, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is a plan view of my improved buckle, showing also a catch-plate and straps in dotted outline. Fig. 2 is a perspective view of my improved buckle, shown with the tongue raised. Fig. 3 is a view of the tongue-blank before bending. Fig. 4 is a perspective view of the tongue-blank as bent to hook shape. Fig. 5 is a view of the tongue-plate blank before it is bent to final shape. Fig. 6 is a side view of the clasp and catch-plate.

The improvement forming the subject-matter of these Letters Patent relates to the class of buckles or clasps that are commonly used on overshoes of the kind called "arctics;" and it consists in certain details in the construction of the tongue and tongue-plate, by which advantages in cheapness of construction and in utility are gained.

In the accompanying drawings, the letter *a* denotes the tongue of a clasp, and *b* the tongue-plate, to which the tongue is pivoted. The tongue *a* is made comparatively long and narrow, and with a central opening, *a'*, along its length, the cross-bar *a''*, at the base of the tongue, forming the pivot on which the tongue swings. It may be struck from sheet metal into a flat blank, as shown in Fig. 3, and then bent to the hook form common in this class, and as shown in Fig. 4, or it may be bent out of wire into the proper shape for use, (shown in the latter figure,) the main object of this frame-like construction of the tongue being to impart to its sides a certain elasticity that gives to the tongue a function as a spring that aids in holding it open and closed. The sides of the opening in the tongue bear cam-surfaces *a'''*, located at or near the center of its bent part, and the shortest distance between the highest faces of these cams is less than the width of the narrow part *b'* of the cross-bar of the tongue-plate, between the folded parts of which the tongue is so held as to form a pivot, on which it turns.

As the tongue swings in opening and closing, its side bars pass on each side of the narrow part *b'* of the tongue-plate *b*, and the cams strike the edges and tend to spread the tongue widthwise. The sides and ends of the tongue form a continuous frame, and each side, held by the cross-piece at the point and by the bar at the end that forms the pivot, forms a spring that may be made of any desired degree of stiffness or resiliency, depending on the material and sectional area of the sides, and it is essential to the successful operation of this tongue that its frame-work shall be continuous and without break or opening, except in the center, as described. When made of wire, the ends must be soldered or otherwise securely fastened together.

The tongue-plate *b* is made from a blank struck from a sheet of metal into the extended form shown in Fig. 5, the loops *b''* being joined by a narrow straight part, *b'*, and across the latter a socket, *b'''*, is made for the tongue-bar.

To put the tongue and plate together one of the wide ends of the plate-blank is slipped through the central opening of the bent tongue, is then turned so that the pivot-bar of the tongue rests in the socket *b'''*, and the plate is then doubled back upon itself, the fold coming in the narrow part between the ends. By this means the parts are firmly connected, and in shape for use.

This clasp has but two pieces, is cheaply and quickly made as to each part, and is as readily assembled, providing a clasp that has a tongue that is held closed against any chance of accidental displacement.

I am aware of the patent granted to Hammond & King, March 31, 1885, No. 314,669, but my clasp differs from that shown in said patent, in that the tongue-plate is provided with the narrow part *b'* extending from the loops beyond the socket *b'''*, this narrow part *b'* being engaged by the cam-surfaces *a'''* of the tongue.

I claim as my improvement—

1. In a buckle or clasp, an open center tongue of hook shape, having a continuous frame with a pivot-bar and yielding side parts, and inward-facing cam-surfaces in the bent part of the tongue, in combination with

the base-plate having a projection, substantially as described, forming a bearing for the pivot-bar, and extending beyond such socket, so that its sides co-operate with the cam-sur-
5 faces on the tongue, all substantially as described.

2. In a buckle or clasp, an open center-tongue having a continuous frame of hook shape with the pivot-bar and yielding side
10 parts, and inward-facing cam-surfaces in the bent part of the tongue, in combination with the base-plate having the loops b^2 and connecting narrow part b' with pivot-socket b^3 , this narrow part, when the plate is folded
15 back upon itself, extending beyond the bend of the tongue, all substantially as described.

3. As an improved article of manufacture adapted for use as the tongue-plate of a clasp, the blank b , having the integral open loops b^2

on each end, the single narrow part b' connecting the loops, and a pivot-socket, b^3 , formed in the substance of the narrowed portion, all substantially as described.

4. In combination with a tongue-plate, b , with loops b^2 , and the narrow part b' , having
25 between its folds the socket b^3 for the pivot-bar of the tongue, the frame-like tongue a of hook shape, with continuous pivot-bar a^2 and open center a' , with the intumed cam-surfaces
30 a^3 in the bent part of the tongue that co-operates with the sides of the narrow part b' of the tongue-plate, in opening and closing the tongue, all substantially as described.

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Witnesses:

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