

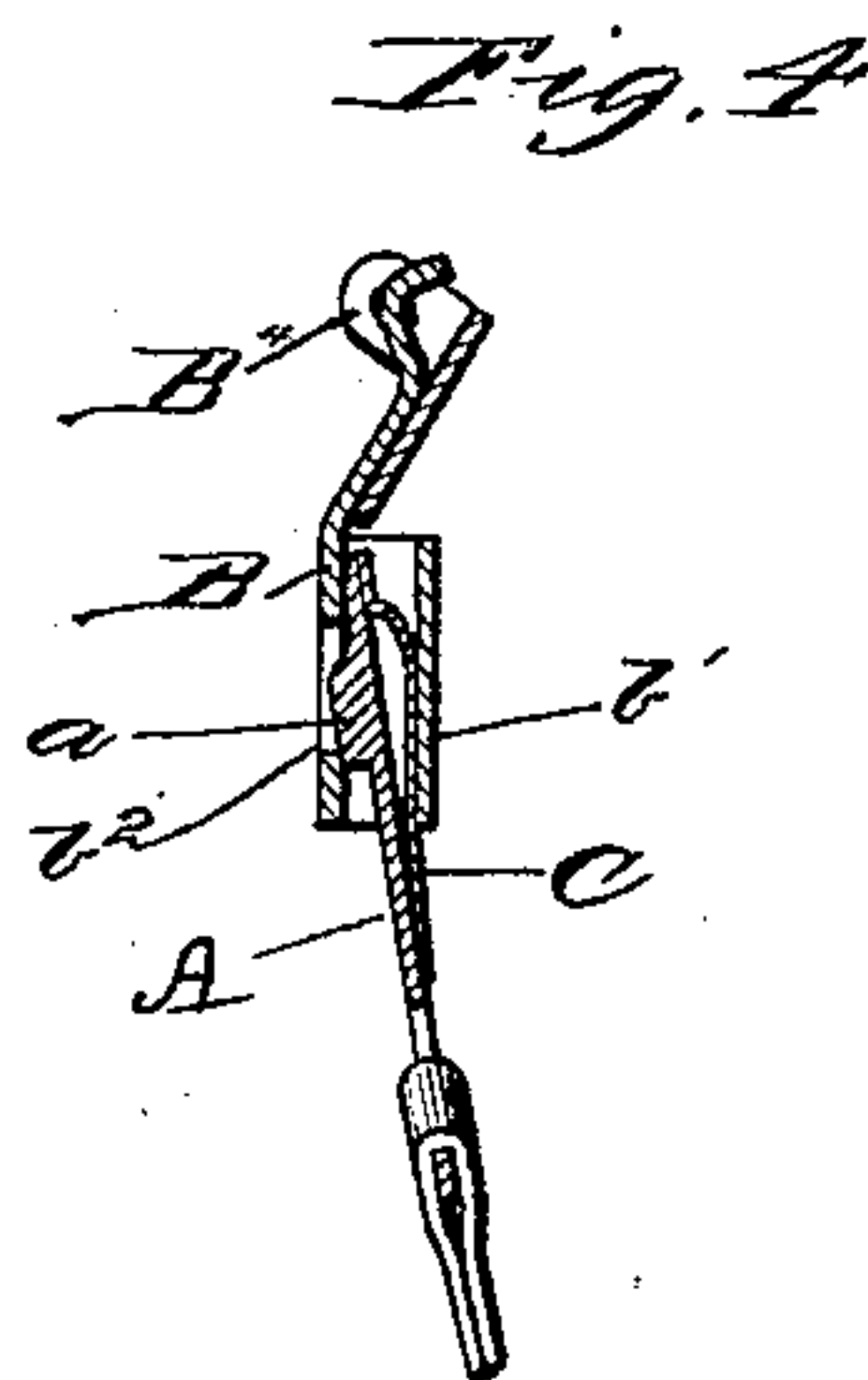
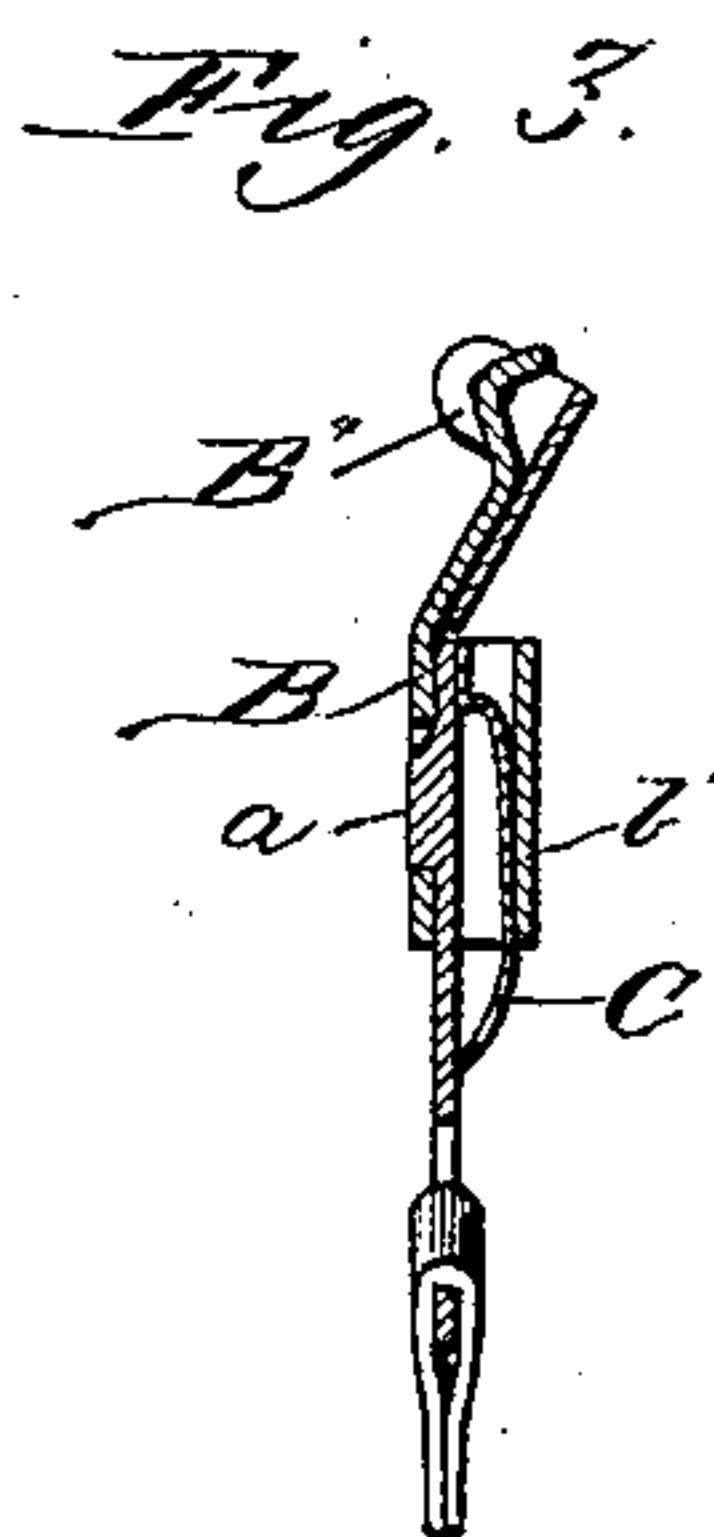
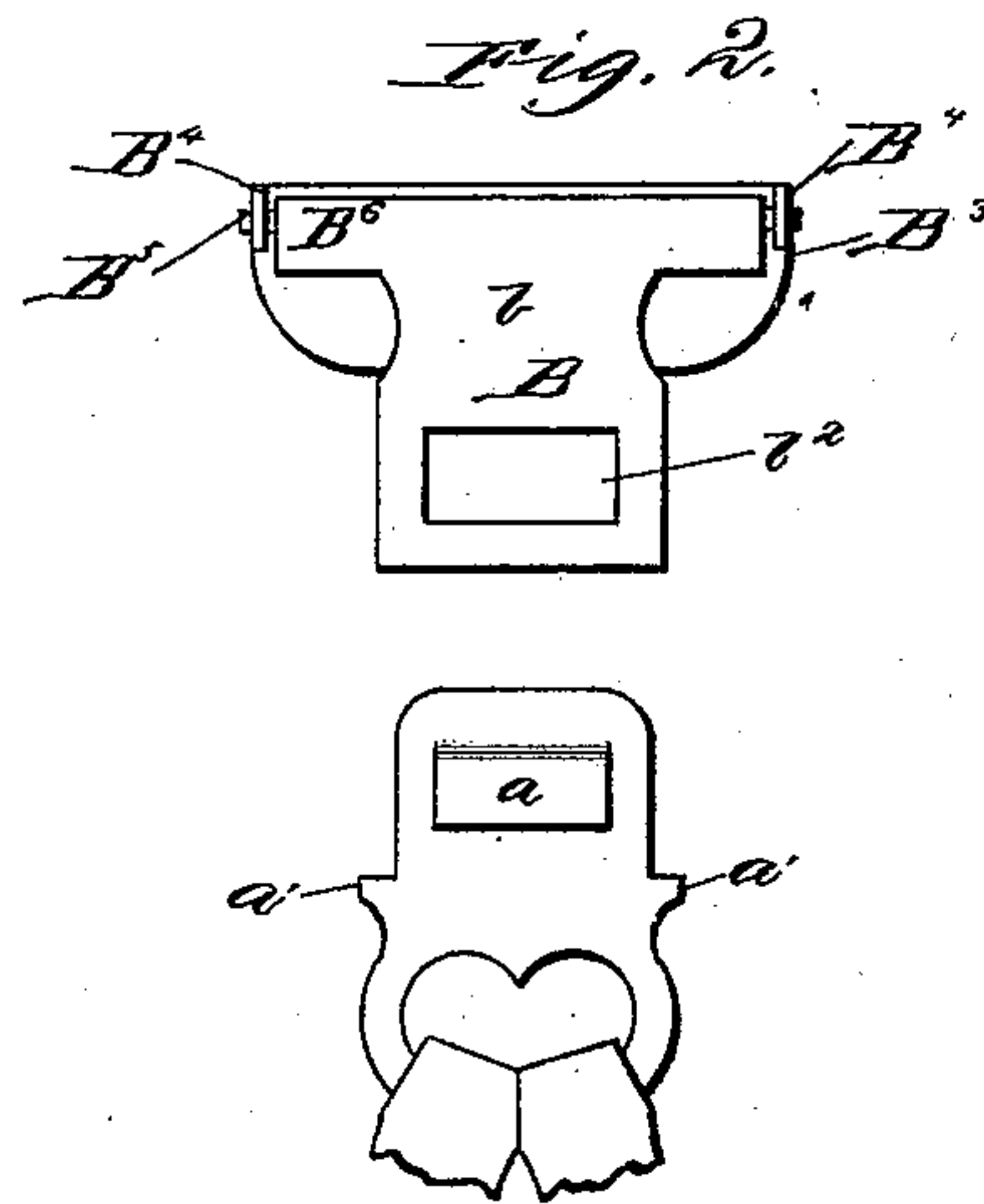
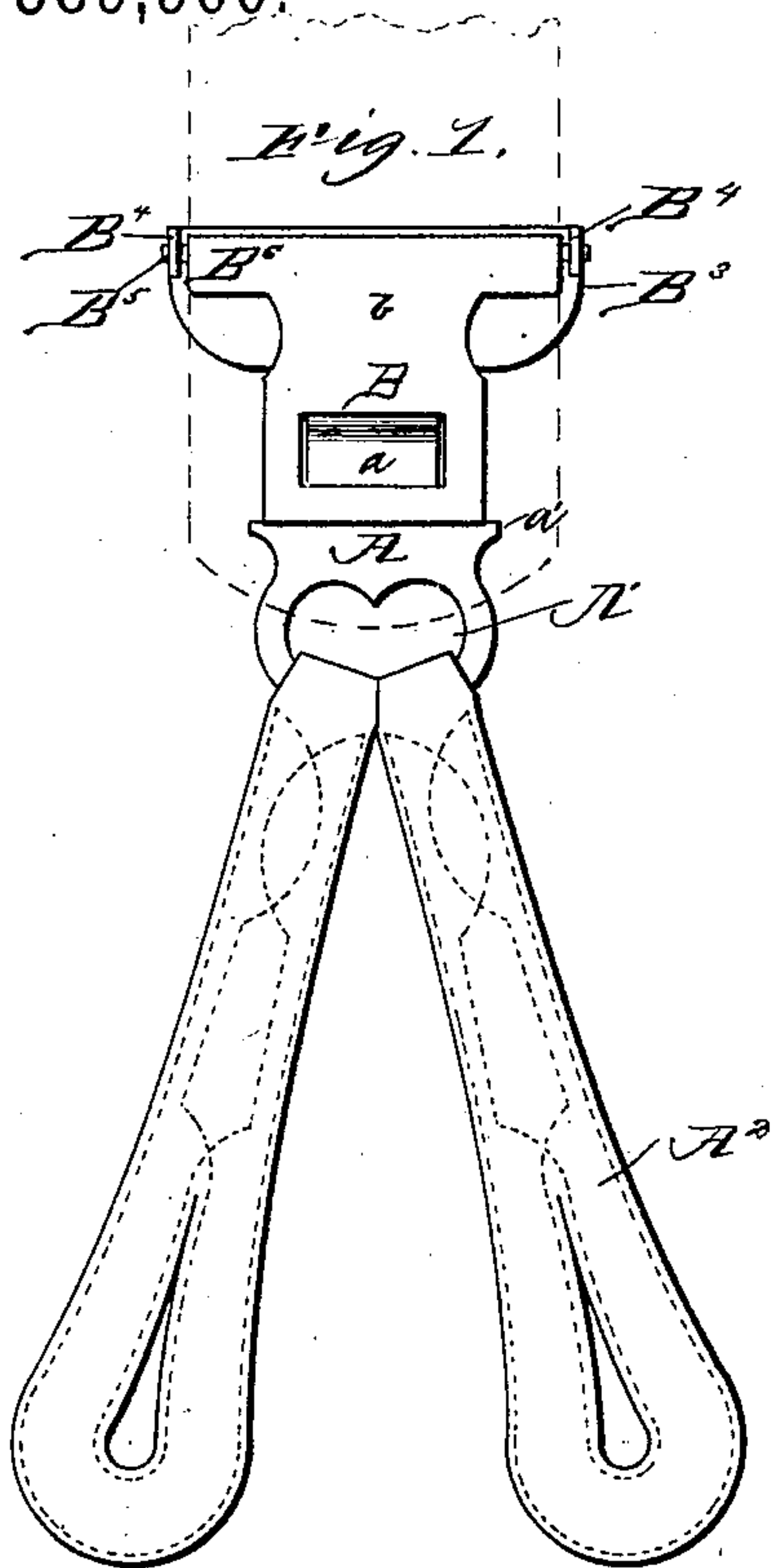
(No Model.)

P. FRANTZEN.

BUCKLE OR CLASP FOR SUSPENDERS, &c.

No. 389,960.

Patented Sept. 25, 1888.



Witnesses
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UNITED STATES PATENT OFFICE.

PAUL FRANTZEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILSON BROTHERS,
OF SAME PLACE.

BUCKLE OR CLASP FOR SUSPENDERS, &c.

SPECIFICATION forming part of Letters Patent No. 389,960, dated September 25, 1888.

Application filed June 18, 1888. Serial No. 277,399. (No model.)

To all whom it may concern:

Be it known that I, PAUL FRANTZEN, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Buckles or Clasps for Suspenders and other Articles, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has for its object to provide an improved buckle or clasp that shall be cheap, durable, and strong in construction, and the members of which can be quickly connected or disconnected, in order to enable the separable parts of the article upon which the improved buckle or clasp is employed to be readily connected or detached.

My invention is shown in the accompanying drawings as applied as a means for connecting the shoulder-straps of suspenders with their ends; but it will be readily understood that the invention is capable of a great variety of other uses without material modification.

Figure 1 is a front view of my invention as applied as a buckle or clasp for suspender-ends. Fig. 2 is a front view showing the two members of the buckle detached. Fig. 3 is a view in vertical cross-section. Fig. 4 is a view in vertical cross-section, showing the parts in position to be disconnected.

A designates the lower or male member of my improved clasp or buckle, the bottom of which is shown as provided with a loop or opening, A', to which may be connected the suspender-ends A². Upon the face of this member A is formed in any suitable or convenient manner an offset or shoulder, *a*, the upper edge, *a'*, of which is preferably beveled, while the lower edge is square, and upon the edges of the lower member, A, suitable stops, *a'*, are by preference formed, for a purpose to be presently stated. The upper or female member, B, is shown as provided at its top with a suitable clip or catch device, that engages the end of the shoulder-strap, the clip consisting of a plate, B³, having its bent ends B⁴ perforated to receive the pivot-pins B⁵, that project from the end of the cross-bar B⁶, that is formed integral with the shank *b* of the upper member, the cross-bar B⁶ having its upper edge bent inward, as shown, to coact with the clip-plate

B³ in securely holding the end of the shoulder-strap. At the base of the upper member, B, is formed a loop, *b'*, the opening of which is preferably considerably broader from front to back than the lower or male member, A, so as to receive this member and its shoulder or offset *a*, and as well also to receive a spring-plate, C, that is shown as riveted to the upper edge of the member A. The body of this spring-plate C is preferably of a somewhat curved shape and has its lower end free, so that when the lower member, A, is inserted within the loop B' of the upper member, B, the spring-plate C can be compressed and partially flattened until the shoulder or offset *a* of this lower member is opposite an eye or seat, *b*², that is formed in the upper member, B, when the force of the spring C bearing against the back of the loop will cause the shoulder or offset *a* to enter the eye *b*² of the member B. It will be observed that by forming the shoulder *a* with a beveled upper edge this member can be readily slipped into the loop of the upper member, B, and when the shoulder or offset has been forced by the spring C into the eye or seat *b*² the square lower edge of the shoulder or offset *a* will securely guard it against accidental withdrawal from the eye or seat *b*².

The shoulder or offset *a* of the member A is preferably of about the same width as the eye or seat *b*² of the member B, so that when the shoulder or offset is within the eye or seat it will securely guard against the lateral movement of the parts, and so, also, it will be seen that when the members A and B have been joined together the stops *a'* will abut against the lower edges of the loop *b'* and prevent the further upward movement of the member A.

By locating the shoulder or offset *a* in such position that its square or engaging edge is at a distance from the free end of the plate or member A, and by permitting the free end of the member A to bear against the inner side of the member B, it is obvious that a fulcrum or bearing is afforded at this free end when the member B is forced outward, and by this means a ready separation of the members can be effected when desired. It will thus be seen that the loop *b'* of the upper member serves not merely to receive the lower member, A, and guard against lateral movement, but the back portion of this loop *b'* affords a bearing

for the spring-plate C, and thus enables this plate to force the shoulder or offset a into the eye or seat b^2 . It will be readily understood, however, that the loop b' need not be a continuous loop, it being simply necessary to so far extend it as to afford a proper bearing for the spring C, although the construction shown I regard as the preferable one.

It will be readily understood that the spring C might without departure from the spirit of my invention be fastened within the loop b' of the member B, instead of being fixed to the back of the member A, although I regard the construction shown as the preferable one. In either case, however, the spring would perform the function of forcing the shoulder or offset a into engagement with the eye or seat b^2 , and when compressed would permit the parts to be disconnected.

It is obvious that my invention is applicable to a variety of uses—such, for example, as a buckle or clasp for stocking-supporters, necktie-fasteners, or the like—and it will also be seen that the members A and B can be so modified as to permit them to be readily attached to such articles.

The members of my improved buckle or clasp are preferably formed of uniform thickness, the loop b' , the shank b , and the cross-bar B^9 of the upper member being formed from a single piece of metal bent to the desired shape.

From the above description the operation of connecting and disconnecting the two members of my improved buckle or clasp will be seen to be as follows: Assuming the parts to be disconnected, it is obvious that if the lower member, A, be forced into the loop b' of the upper member the spring C will be compressed, and when the shoulder or offset a is opposite the eye or seat b^2 this spring will force the shoulder into the eye or seat of the loop, and by its pressure in outward direction will hold it there against accidental withdrawal.

When it is desired to disconnect the parts, it is only necessary to press inward the member A or press outward the member B against the force of the spring C until the shoulder or offset a is withdrawn from the eye or seat b^2 , after which the member A can be readily withdrawn from the loop b' of the member B. The preferred manner of effecting the separation of the parts, however, particularly when the buckle is applied to suspenders, is to merely insert the thumbs behind the loops b' and force them outward, in which operation the free end of the member A will bear against the inner side of the member B, and with this point as a fulcrum the spring C will be forced backward until the shoulder or offset a is withdrawn from the eye or seat b^2 .

Changes in the precise details of construction above set out will readily suggest themselves to the skilled mechanic without a departure from the spirit of the invention. Thus, for example, the relative position of the

shoulder a and eye or seat b^2 might be reversed—that is to say, the shoulder being formed upon the inner side of the member B and the eye or seat formed in the member A. I do not believe, however, that such reversal of parts would be found of advantage in practice.

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

1. A buckle or clasp one member whereof comprises a plate having a rigid shoulder or offset, a , thereon, the lower edge of said shoulder or offset being at a distance from the free end of the plate, and the opposite member whereof is provided with an eye or seat, b^2 , to receive the shoulder or offset a , and with a loop, b' , to receive the first member and afford a bearing or fulcrum for the free end of said member beyond the engaging edge of said shoulder or offset, and a spring adapted to temporarily force said shoulder or offset into said eye or seat, substantially as described.

2. A buckle or clasp comprising a member, A, having a rigid shoulder or offset, a , and comprising a member, B, formed of a single metal plate bent to form the loop b' at its back, and having an eye or seat, b^2 , in its front to receive the shoulder or offset a , and a spring, C, attached to one of said members, and located between the back of the member A and the side of the loop opposite the shank, substantially as set forth, whereby the shoulder a is held normally within the eye or seat and the member A, is held normally out of contact with the inner portion of the loop, substantially as described.

3. A buckle or clasp comprising a member, A, having a shoulder or offset, a , thereon, a member, B, having an eye or seat, b^2 , to receive said shoulder or offset, and having a loop, b' , and a spring, C, secured to the inner side of the member A and adapted to normally press the shoulder or offset a into the eye or seat b^2 , substantially as described.

4. A buckle or clasp comprising a member, A, having a shoulder or offset, a , and one or more stops, a' , and a member, B, having an eye or seat, b^2 , a loop, b' , considerably broader than the thickness of the member A, and a plate-spring, C, attached to the inner side of the member A, and adapted to force the shoulder or offset a into engagement with the eye or seat b^2 , substantially as described.

5. A buckle or clasp comprising a member, A, having a loop, a^2 , at its lower end, and having a shoulder or offset, a , and a member, B, having its upper end provided with a shank, b , carrying a suitable retaining device, and having an eye or seat, b^2 , and a loop, b' , and a suitable spring, C, substantially as described.

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Witnesses:

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