

(No Model.)

F. R. TATE.
BUCKLE.

No. 474,198.

Patented May 3, 1892.

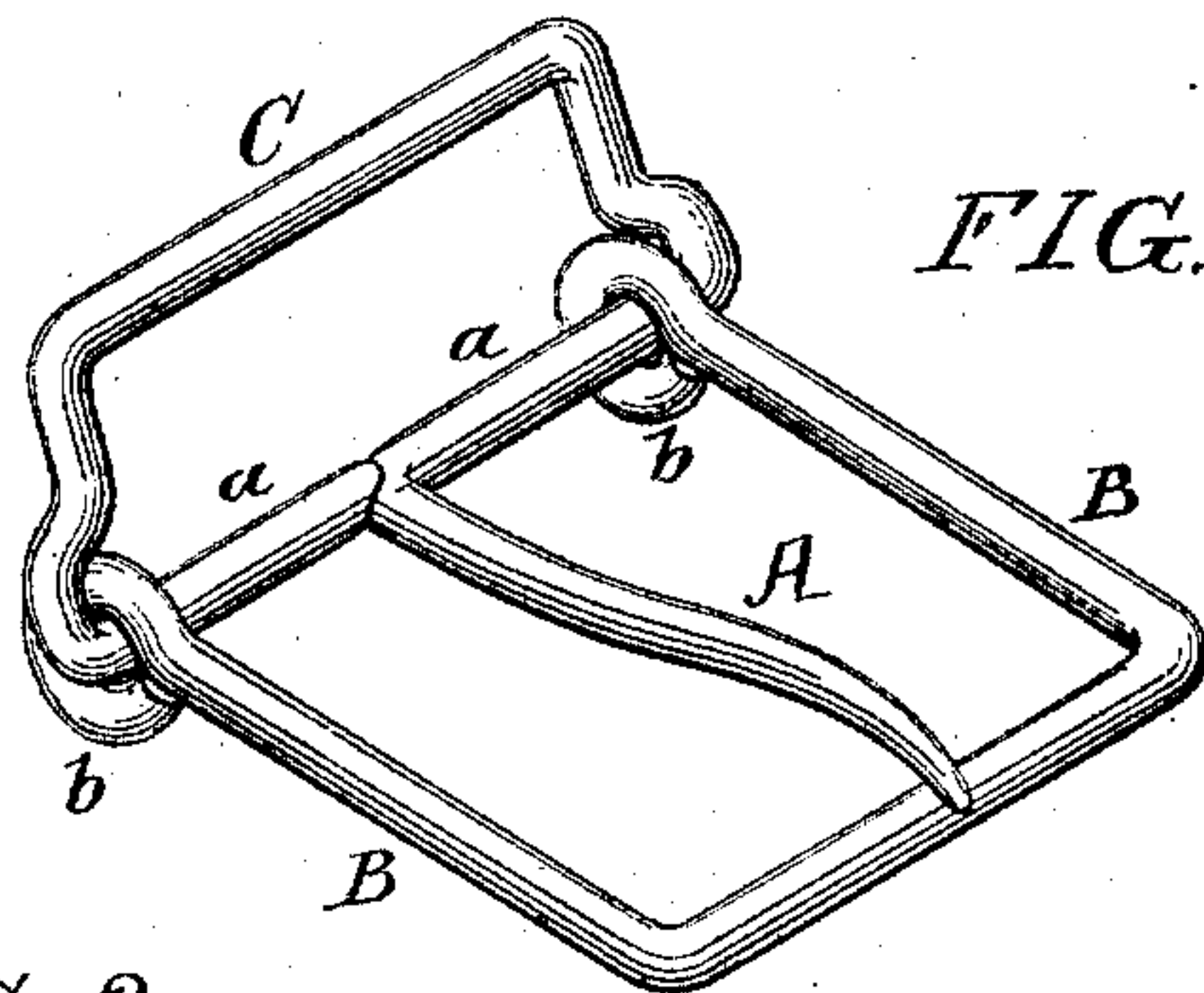


FIG. 1.

FIG. 2.

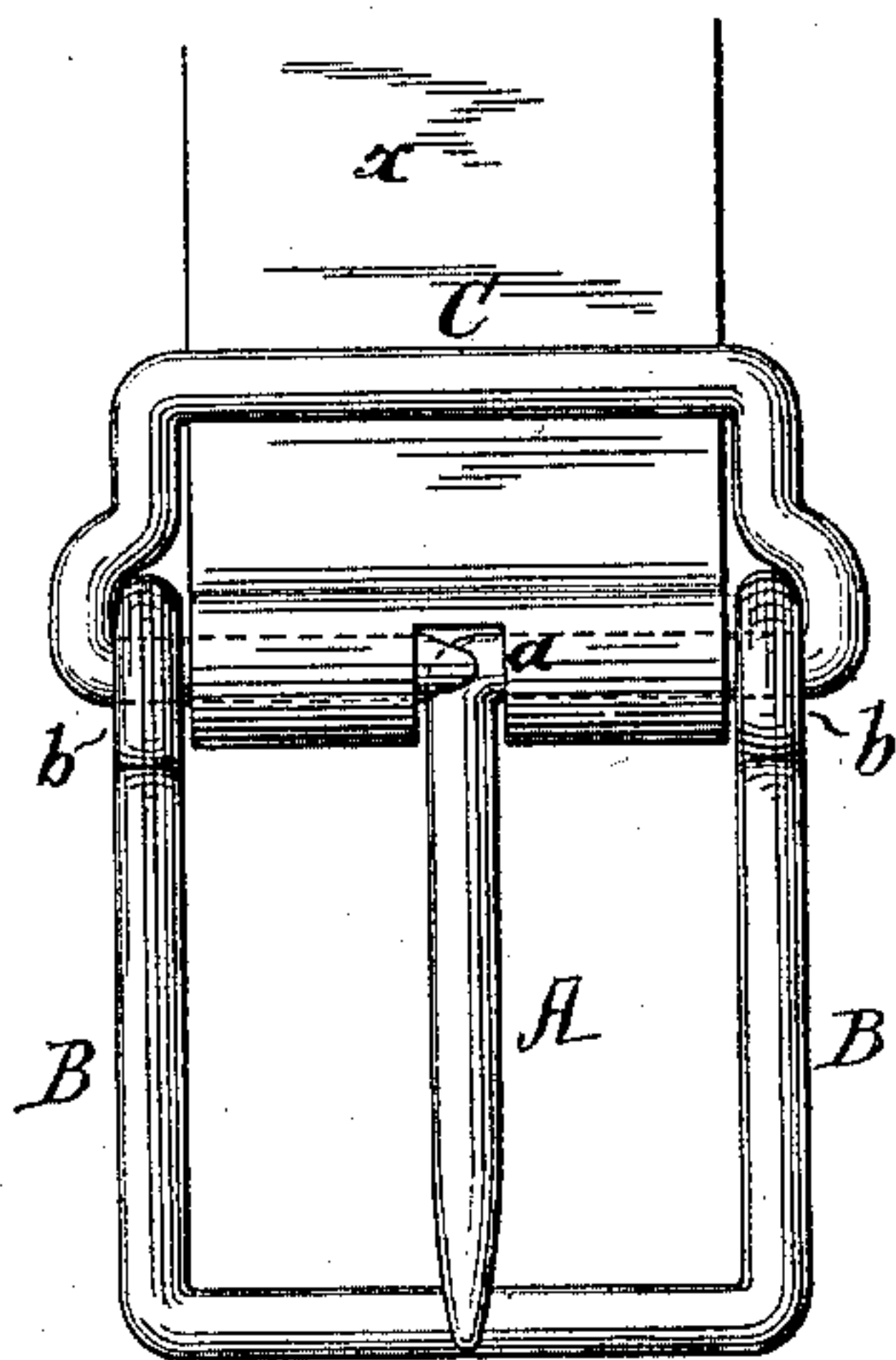


FIG. 5.

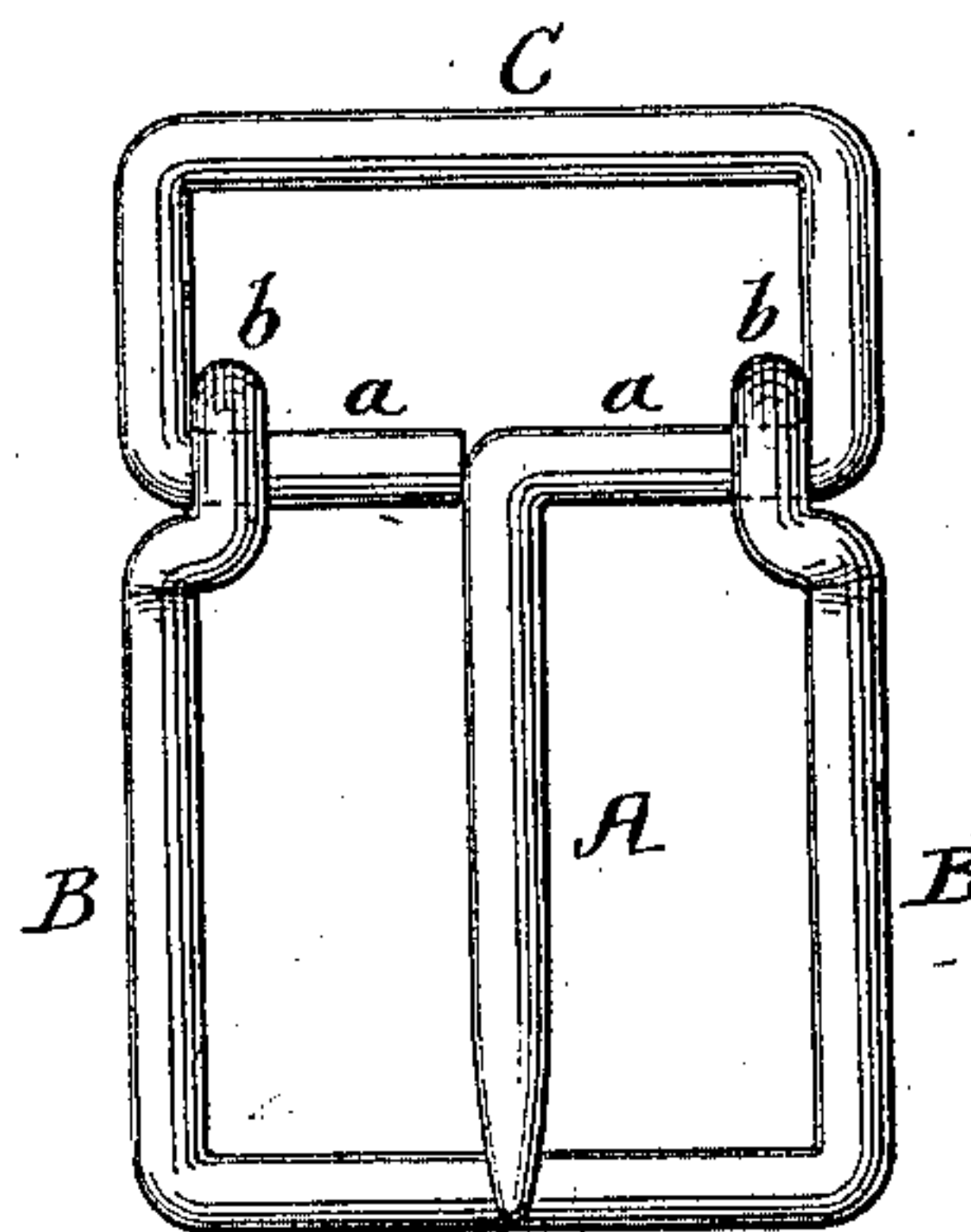


FIG. 3.

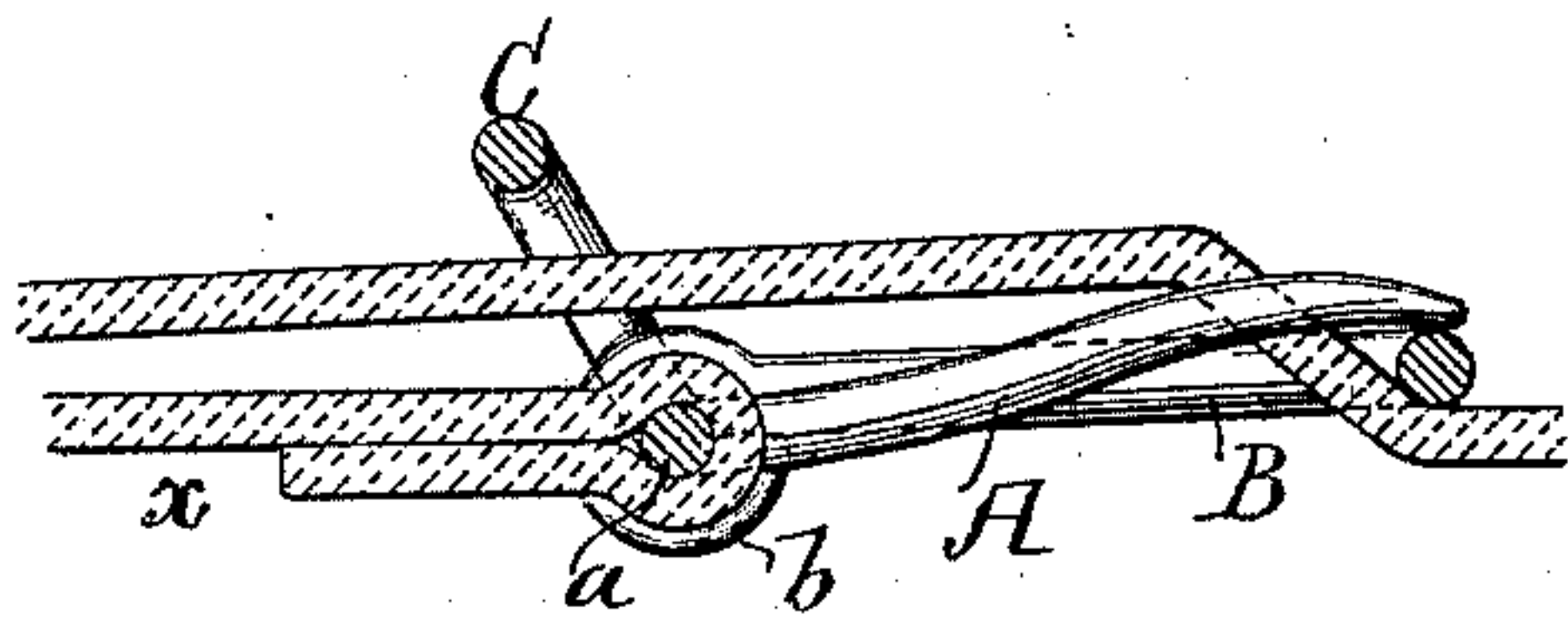
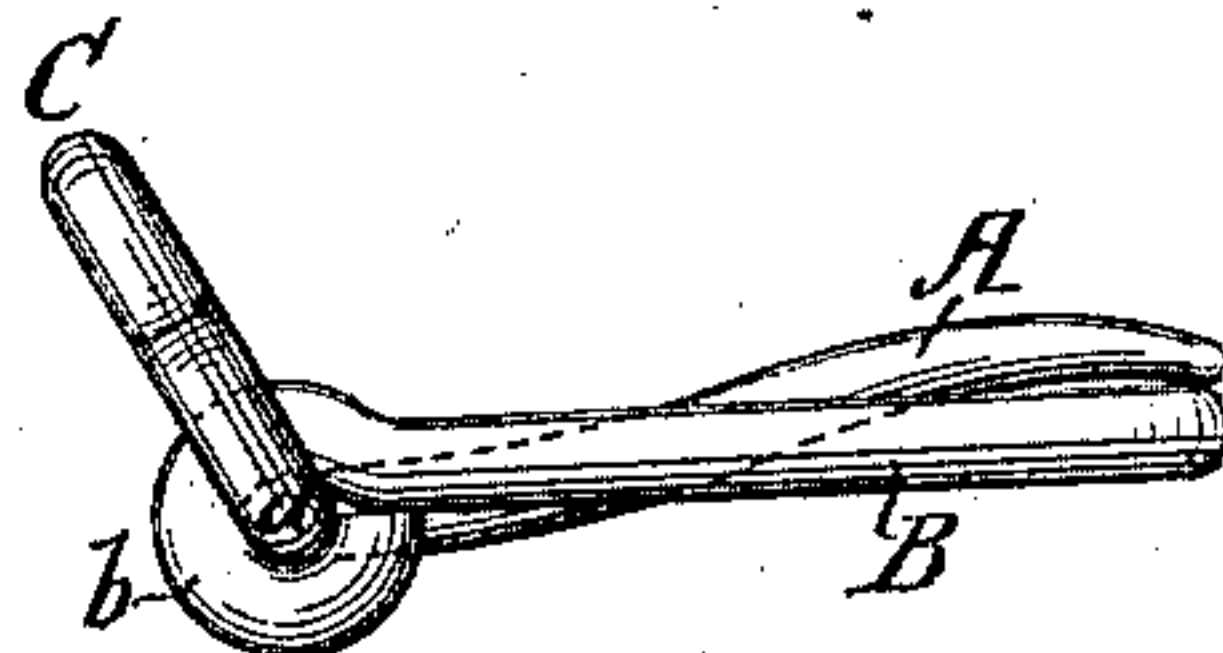


FIG. 4.



Witnesses:
Hamilton D. Turner.
William D. Soumerai.

Inventor:
Frank R. Tate
by his Attorneys,
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UNITED STATES PATENT OFFICE.

FRANK R. TATE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
JAMES L. BLAIR, OF SAME PLACE.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 474,198, dated May 3, 1892.

Application filed April 8, 1889. Serial No. 306,339. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. TATE, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain Improvements in Buckles, of which the following is a specification.

My invention consists of certain improvements in or modifications of the buckle forming the subject of Benjamin S. Wash's patent, No. 335,490, dated February 2, 1886, the main object of my invention being to so modify the construction of said patented buckle that it can be more readily and cheaply manufactured, a further object being to obviate the necessity of cutting away the opposite edges of the strap where the same is applied to the tongue-bar of the buckle. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is an exaggerated perspective view of a buckle constructed in accordance with my invention. Fig. 2 is a plan view of the buckle, showing the same applied to a strap. Fig. 3 is a sectional view of the buckle, showing both straps. Fig. 4 is a side view of the buckle, and Fig. 5 is a plan view of a modified form of the buckle.

The buckle described in the aforementioned patent of B. S. Wash consisted of a front portion or bow having at its inner ends laterally-inset portions forming bearings for the tongue-bar of the buckle, the ends of said tongue-bar extending beyond said inset portions of the bow and being secured by means of side extensions to a yoke or cross-bar running above the tongue-bar, and at such an angle in respect to the tongue that when the latter was in engagement with the front portion of the bow the yoke projected above said bow and served not only as a keeper for the free end of the strap, but also as a lever, by depressing which the tongue could be raised, so as to facilitate the release of the strap therefrom.

Although the principle of the Wash buckle is a good one, a serious objection to said buckle was found to be the expense of manufacturing the same, the bow, and also the yoke, tongue, and tongue-bar being expensive malleable castings, portions of which were,

owing to their small size, liable to be defective, and hence apt to be broken in assembling and securing the parts in their proper relation to each other.

In manufacturing the buckle on a commercial scale I found that material changes in its construction were necessary in order to simplify and cheapen such manufacture. I therefore make the bow B of the buckle in the form of a simple loop of wire, the ends of which are bent so as to form the eyes or bearings *b* for the tongue-bar *a*, the tongue A, its bar, and the combined operating-yoke and strap-retainer C being formed of another piece of wire. One end of this wire forms the tongue, the wire being then bent at right angles to the tongue, so as to pass through one of the pivot-eyes of the bow, and being then bent to form the yoke C, a final bend permitting the other end portion of the wire to pass through the opposite eye of the bow and form the other half of the tongue-bar, the end of the wire abutting against the base of the tongue and being preferably secured thereto, an operation which is readily effected by the tinning operation to which the wire is subjected after it is bent into form. When the pieces of wire forming the blanks for the tongue, tongue-bar, and yoke are cut in succession from a continuous length of wire, an extremely snug fit of the inner end of the wire against the base of the tongue is permitted, owing to the fact that said end is nicked or has a V-shaped recess formed in it by reason of the pointing of the end of the tongue of the succeeding blank cut from the bar, so that the inner end of the wire not only abuts against, but overlaps the base of the tongue. By this means the tongue is firmly braced and lateral deflection of the same is effectually prevented. The pivot-eyes *b* on the wire bow are formed in the same plane as the side bars of the bow, instead of being inset, as in the patented buckle, the side bars of the yoke C being laterally offset for the reception of the eyes *b*. The full width of the bow at its inner is thus available for the reception of the fixed end of the strap *x*, which is secured to the tongue-bar, as shown in Fig. 2, whereas the inset ends of the bow in the patented buckle necessitated the cutting away of the strap at each edge for

the reception of said inset portions. The advantages of my improved buckle, as regards simplicity and cheapness of manufacture, may, however, be attained if this feature of the invention is not adopted. For instance, in Fig. 4 I have shown a buckle in which the inner ends of the bow are laterally bent, so that the side arms of the yoke C are throughout in the same plane as the side arms of the bow.

As my improved buckle is formed wholly of wire, the cost of the same is reduced to the minimum, owing to the low cost of the material and the facility with which it can be worked into the different forms, the buckle being formed complete in one machine, as the only operation required in fitting the two parts together is the closing of the eyes *b* around the tongue-bar *a*.

Having described my invention, I claim and desire to secure by Letters Patent—

1. The combination, in a buckle, of the bow consisting of a wire loop having its ends bent to form pivot-eyes, with a structure comprising the tongue, tongue-bar, and operating-yoke extending upward therefrom, said structure consisting of a single piece of wire forming, first, the tongue, then a portion of the tongue-bar, then the upwardly-extending operating-yoke, and, finally, the remaining portion of the tongue-bar, the wire at the inner end of the latter abutting against the base of the tongue, substantially as specified.

2. The combination, in a buckle, of the bow consisting of a wire loop having its ends bent to form pivot-eyes, with a structure comprising the tongue, tongue-bar, and operating-yoke extending upward therefrom, said structure consisting of a single piece of wire form-

ing, first, the tongue, then a portion of the tongue-bar, then the upwardly-extending operating-yoke, and, finally, the remaining portion of the tongue-bar, the wire at the inner end of the latter being nicked, so as to abut against and overlap the top and bottom of the tongue at the base of the same, substantially as specified.

3. The combination, in a buckle, of the bow consisting of a wire loop having its ends bent to form pivot-eyes in the same plane as the sides of the bow, with a structure consisting of a single piece of wire bent to form the tongue, tongue-bar, and operating-yoke extending upward from said bar, the yoke having offset side portions for receiving the eyes of the bow and the end of the wire forming part of the tongue-bar abutting against the base of the tongue, substantially as specified.

4. The combination, in a buckle, of the bow consisting of a wire loop having its ends bent to form pivot-eyes in the same plane as the sides of the bow, with a structure consisting of a single piece of wire bent to form a tongue, tongue-bar, and operating-yoke extending upward from said bar, the yoke having offset side portions for receiving the eyes of the bow and the end of the wire forming part of the tongue-bar abutting against the base of the tongue and being notched, so as to overlap said base, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK R. TATE.

Witnesses:

WILLIAM D. CONNER,
HARRY SMITH.