(No Model.) 2 Sheets—Sheet 1.

A. E. McCLURE.

BUCKLE.

No. 519,545. Patented May 8, 1894.

Fig. 1.

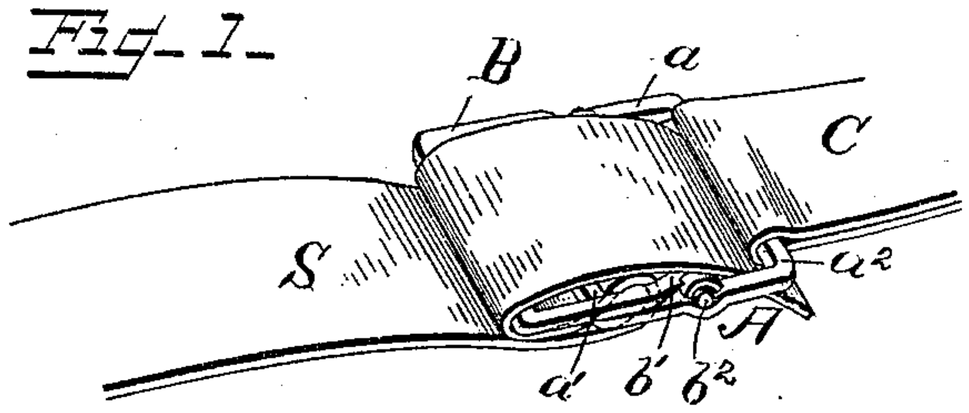


Fig. 2.

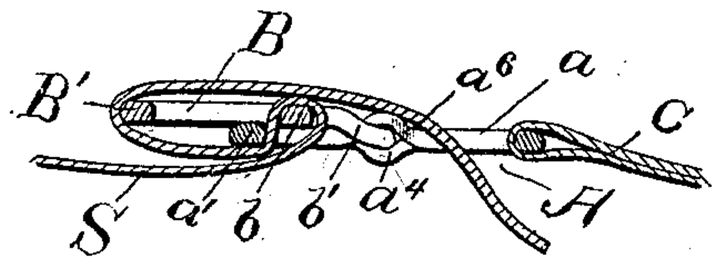


Fig. 3.

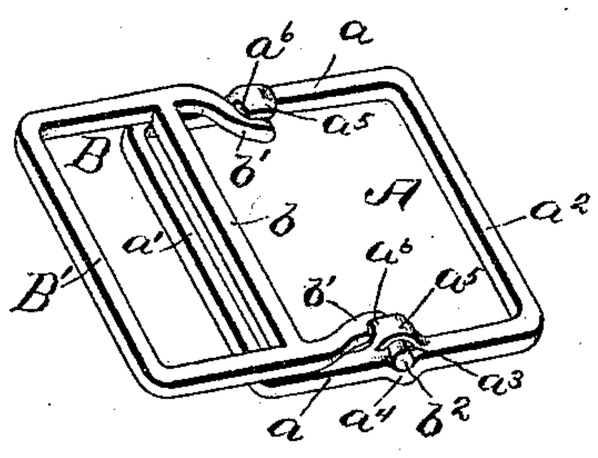


Fig. 4.

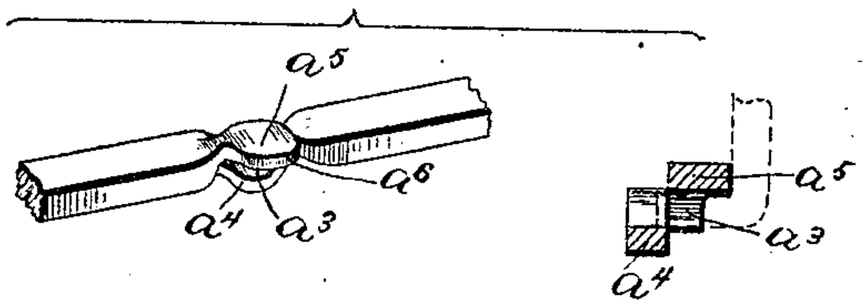


Fig. 5.

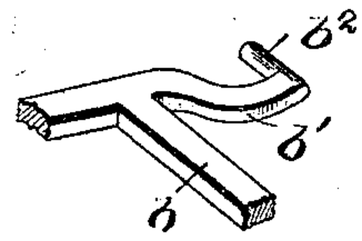


Fig. 6.

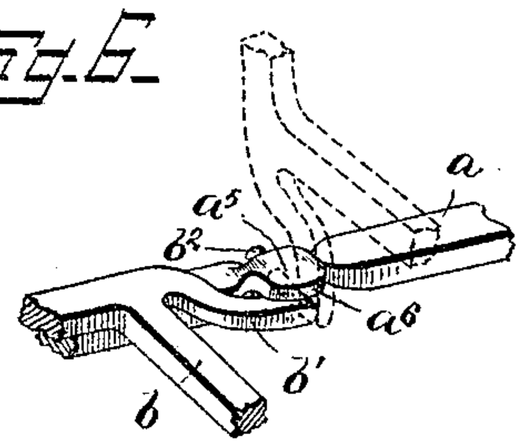
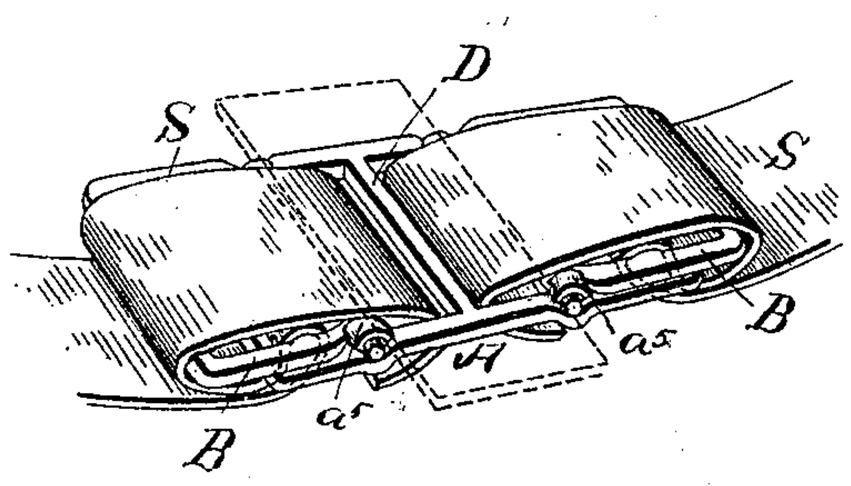


Fig. 7.



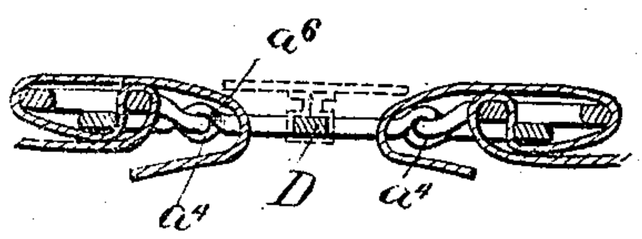


Fig. 8.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 9.

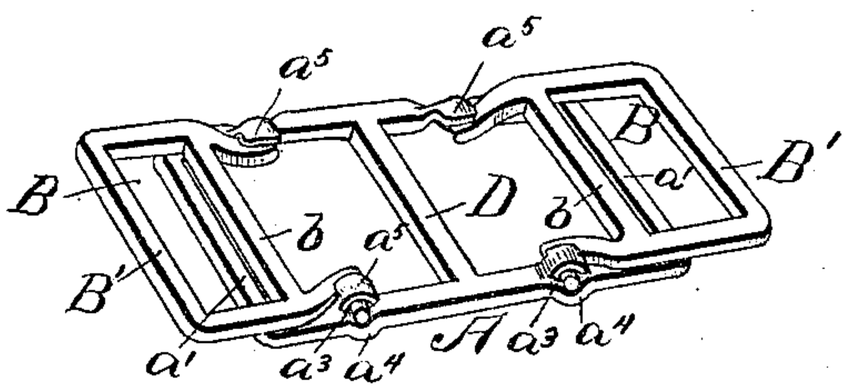


Fig. 10.

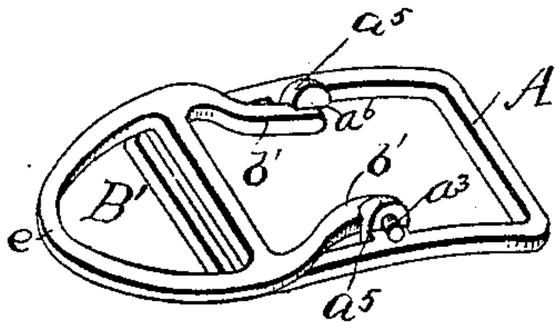


Fig. 11.

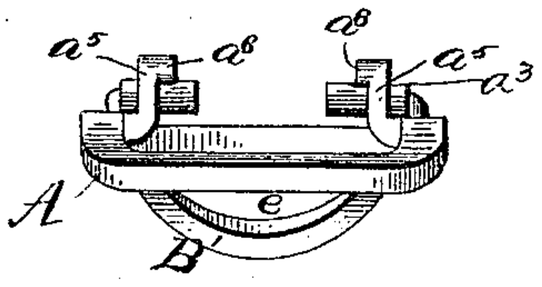


Fig. 12.

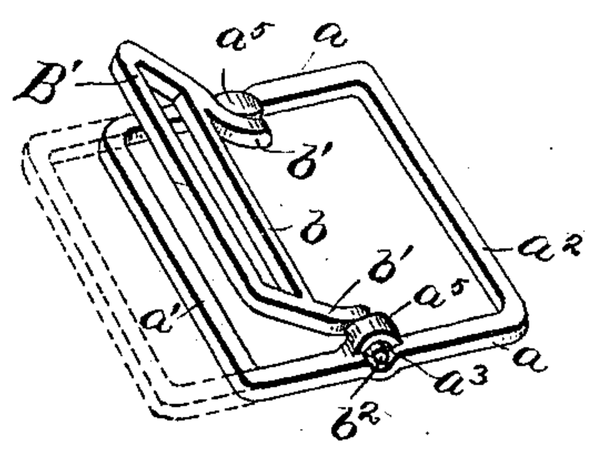
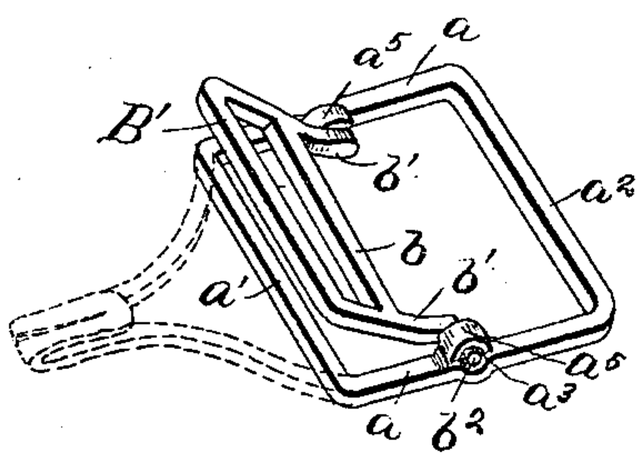


Fig. 13.



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BUCKLE.

SPECIFICATION forming part of Letters Patent No. 519,545, dated May 8, 1894.

Application filed July 11, 1893. Serial No. 480,178. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. McCLURE, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented certain new and useful Improvements in Buckles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of buckles in which retaining teeth or tongues are dispensed with and which embody a base plate having an opening or bar and carrying an upper member or plate pivotally mounted upon the base plate and provided with a cross bar operating in conjunction with the opening or bar of the base plate.

The object of my invention is to provide a simple and improved buckle of the above described class, which will possess advantages in point of extreme simplicity and inexpensiveness in construction, ease and facility in operation, durability, effectiveness, and general efficiency, and in which accidental disengagement of the strap or band from secured position in the buckle is obviated.

In the drawings:—Figure 1 is a perspective view of an improved buckle embodying my invention, the strap being shown in secured position. Fig. 2 is a central longitudinal sectional view, through Fig. 1. Fig. 3 is a perspective view of the buckle. Figs. 4, 5, and 6, are detail views illustrating the construction and operation of the pivotal locking connection between the upper pivoted link and the main link. Fig. 7 is a perspective view illustrating a double form of my improved buckle, showing the band in position. Fig. 8 is a central sectional view, taken through Fig. 7. Fig. 9 is a perspective view of the double form of buckle. Fig. 10 is a perspective view illustrating a modification or variation in the contour of the upper link and the lugs forming the pivotal locking connection for the same. Fig. 11 is a detail rear view of the construction shown in Fig. 10. Fig. 12 is a detail perspective view of my improved buckle, showing (in dotted lines) a loop extending from the front end of the main link. Fig. 13 is a corresponding view, showing (in dotted lines) a hook extending from the front end of the under link.

Corresponding parts in all the figures are denoted by the same letters of reference.

Referring to the drawings, A designates the main or under link, which is of open or skeleton form, preferably rectangular in contour, comprising the side bars $a\ a$, the front bar a' and the rear bar a^2.

B designates the upper pivoted link or member, which is also of open or skeleton form and comprises a cross bar, b, adapted to operate in conjunction with the front cross bar a' of the under link. The link B also embodies an outer projecting portion B′ forming a free lifting end and rearwardly projecting arms, $b'\ b'$, extending from the cross bar b and having outwardly turned ends, b^2, forming gudgeons or pivots by which the upper link is pivotally mounted upon the under link. The rearwardly projecting arms $b'\ b'$ are spring arms capable of spring movement substantially as hereinafter set forth.

In the side bars $a\ a$ of the under link, preferably at about the center of the same, are formed bearing eyes, $a^3\ a^3$, adapted to receive the ends or gudgeons b^2. These eyes are preferably formed by bending down the outer portion of the side bars, as shown at a^4, and turning up the inner portion of the side bars to form inwardly projecting lugs, $a^5\ a^5$, having shoulders or recesses, a^6 at their front and rear sides. The bearing ends of the spring arms b' are sprung into the eyes a^3 and the arms normally rest under one of the recesses or shoulders a^6, the upper link is thus locked in position. When the upper link is lifted, the spring arms b' ride over the shoulder a^6 and are sprung inwardly by contact with the side of the projecting lug a^5, from which position the upper plate can be automatically sprung down into locked position. The form of pivotal spring connection between the upper link and under link as above described provides a flat joint presenting no material outward projection, and the inwardly projecting lugs a^5 are formed inside the under

link, by which arrangement economy in metal is effected. A securing strap or band, as shown at C, may be engaged with the rear bars a^2 of the under link, to secure the buckle in position.

The operation and advantages of my invention will be readily understood. The free end of the strap or band, S, to be secured by the buckle, is passed upwardly through the main link A in rear of the cross bar b of the upper link, thence over the cross bar b and downwardly in rear of the front cross bar a' of the main link, in which position it will bind securely the cross bars b and a' and be secured in position by its own tension. After the free end of the strap S is secured in the buckle, it can be carried upwardly over the front projecting portion B′ of the upper link, then across the face of the upper link, and then passed downwardly through the main link A, so that only the face or front of the strap is exposed to view, this arrangement being clearly illustrated in Figs. 1 and 2. It will be noted that the rearwardly projecting spring arms b' are preferably bent or curved downwardly to the plane of the eyes or openings a^3, the latter being at about the center of the vertical diameter of the side bars a a, whereby a flat compact buckle is produced.

My improved buckle may be made in double form especially adapted for belts or the like, as illustrated in Figs. 7, 8 and 9 of the drawings. In this double form the securing strap C is dispensed with, and the under or main link is extended to a suitable width and provided with pivotal locking connections for two upper links, which latter project respectively in opposite directions. The free ends of the band or strap S forming a belt may thus be secured by their respective upper links at both sides the buckle, and all sewing or permanent attachment of the band or strap to the buckle is thus entirely obviated. In this double construction, the under link may be braced, if desired, by a central cross bar, D, and a face plate or suitable design, as indicated in dotted lines in Figs. 7 and 8, may be secured to the buckle.

In Figs. 10 and 11, I have illustrated a modification or slight variation in construction, in which the projecting portion B′ of the upper link is rounded, as shown at e, and the locking pivotal connection is formed by two upwardly projecting lugs, a^5 a^5 struck up from the inner portion of the main link and having their inner faces provided with the shoulder or recess a^6. In this construction, the rearwardly projecting spring arms b' are not turned or bent downwardly, inasmuch as the eyes or bearings for the same are on a plane above the top surface of the under link. The construction embodied in this modification is especially strong and durable, but does not provide as flat and compact a buckle as that above described.

I do not wish to be understood as limiting myself to the exact detail construction and arrangement of parts as herein shown and specified, as it is manifest numerous variations in the detail features and construction may be made without departing from the spirit and scope of my invention. I therefore reserve the right to all such variations or modifications in construction as properly fall within the terms and scope of the following claims.

In Figs. 12 and 13 I have shown in dotted lines a loop and hook extending from the front end of the main link, either of which constructions may under some circumstances be employed to adapt the buckle for use or attachment in connection with suspenders.

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

1. An improved buckle, comprising the under link or member having the cross-bar a' and provided with bearing eyes or openings in rear of said cross-bar and with locking devices adjacent to said bearings, and the upper link or member having the cross-bar b operating in conjunction with the cross-bar a' and provided with spring arms projecting rearwardly from said cross-bar b, mounted in said bearings, and engaging the locking devices, substantially as set forth.

2. The herein described improved buckle, comprising the under link or member, A, provided with the bearing eyes or openings, a^3, and the projecting lugs, a^5, having the shoulders or recesses, a^6; and the upper link or member, B, having the cross-bar, b, and the projecting spring arms, b', provided with the gudgeons or ends entering the openings a^3 and bearing against the recessed or shouldered lugs, substantially as and for the purpose set forth.

3. The herein described improved buckle, comprising the under link or member A having the side bars a provided with the eyes or openings a^3 formed by the downwardly bent portions a^4 and the projecting lugs a^5 formed with recesses or shoulders a^6, and the upper link or member B having the projecting portion B′ forming a free lifting end and provided with the cross bar b and the rearwardly projecting spring arms b' having the ends or gudgeons b^2 entering the openings a^3 and engaging the recessed and shouldered lugs; substantially as and for the purpose set forth.

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

ALBERT E. McCLURE.

Witnesses:
R. H. Moses,
R. F. Harris.