(No Model.)

P. MULLANE.

BUCKLE.

No. 510,358. Patented Dec. 5, 1893.

Fig. 1.

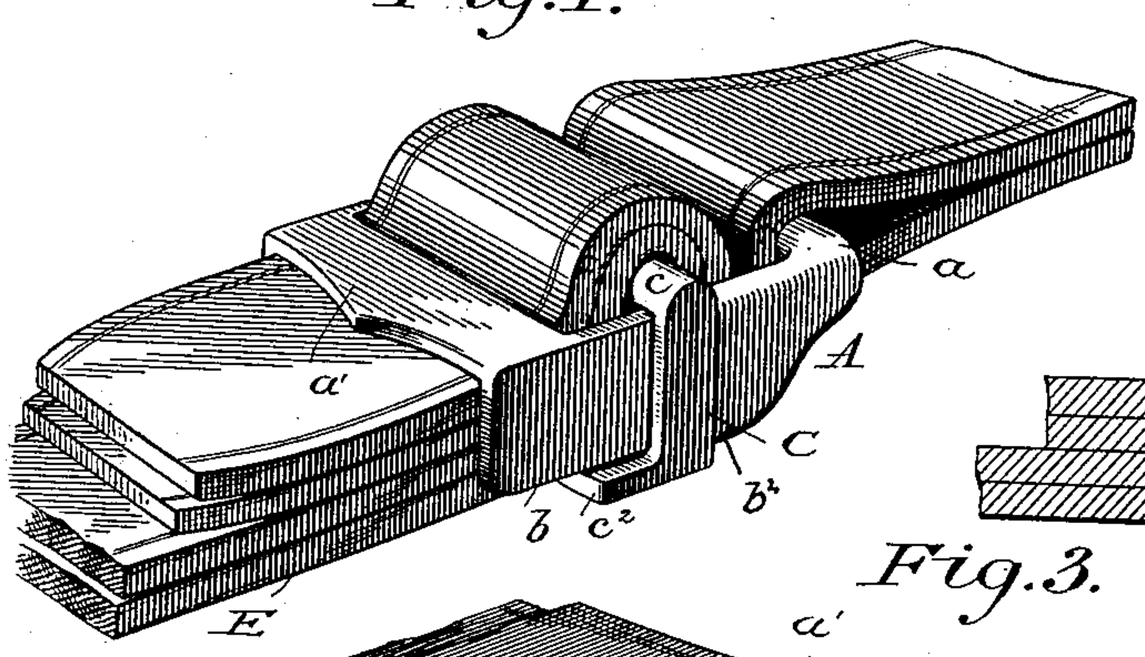


Fig. 2.

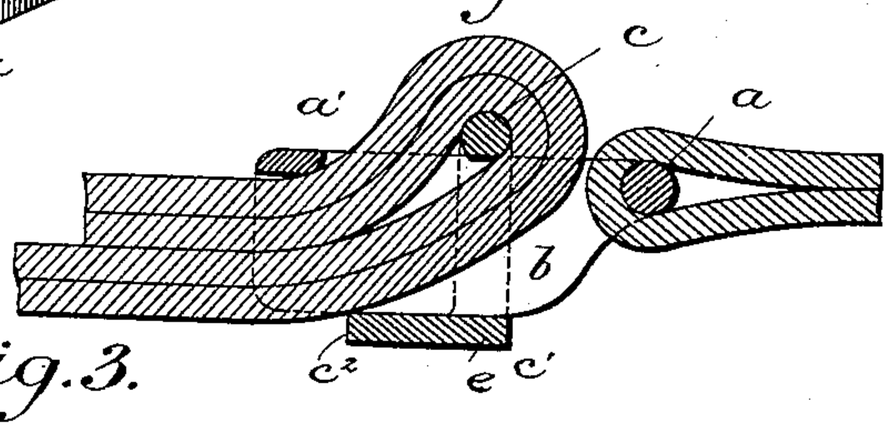


Fig. 3.

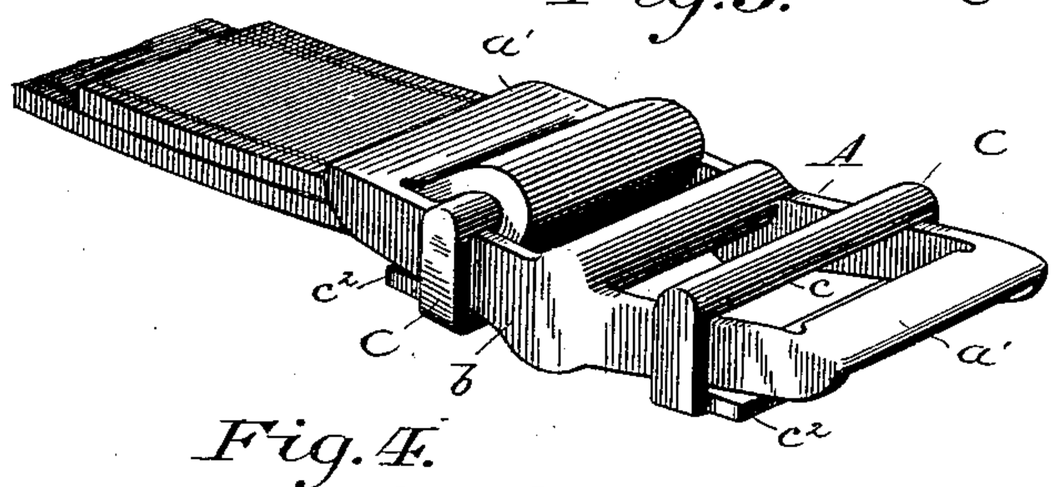


Fig. 4.

Fig. 5.

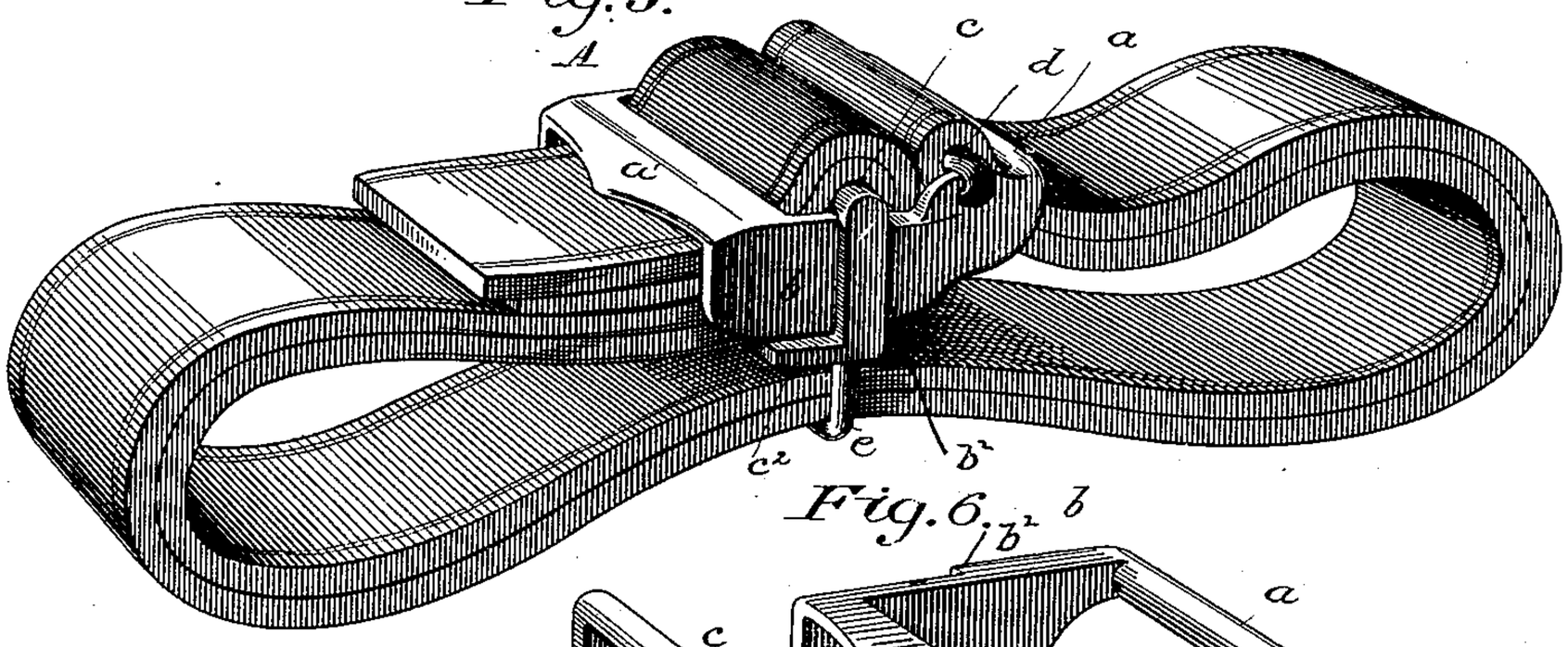
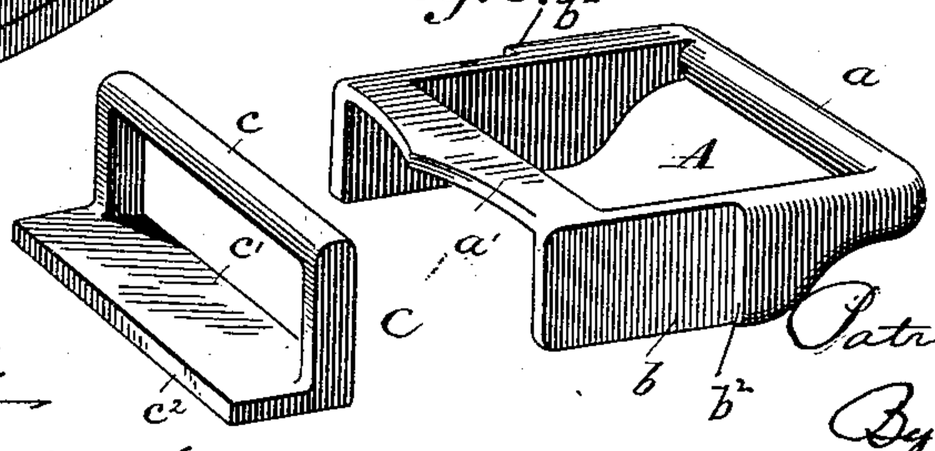


Fig. 6.



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PATRICK MULLANE, OF MOLINE, ILLINOIS.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 510,358, dated December 5, 1893.

Application filed October 27, 1892. Serial No. 450,127. (No model.)

To all whom it may concern:

Be it known that I, PATRICK MULLANE, of Moline, county of Rock Island, and State of Illinois, have invented a new and useful Improvement in Buckles, of which the following is a specification.

My invention relates to devices for securing and holding the ends of straps, and particularly to that class of fastening devices known as tongueless buckles, in which the strap is doubled upon itself and secured and held by a clamping action when under strain, the object being to provide a simple and efficient means for securing a strap without the necessity of weakening the same by perforating it for the insertion of a holding tongue.

In the accompanying drawings, which illustrate several forms of my invention,—Figure 1 is a perspective view of my buckle in its simplest form. Fig. 2 is a longitudinal section, showing the manner of applying and fastening the strap. Fig. 3 is a perspective view of a double buckle adapted to hold two straps. Fig. 4 is a view of a combined buckle and snap-hook. Fig. 5 is a view of a buckle adapted to be used with a double strap, and provided with a transverse tongue to permit of its ready and convenient attachment to, and detachment from, a doubled strap. Fig. 6 is a perspective view showing the parts of the buckle separated.

A, designates a rectangular metal frame comprising front and rear cross-bars a, a', and side bars b, b. The front bar a may be a plain bar, as represented in Fig. 1, for the attachment of a strap thereto as shown in Fig. 2, or it may be provided with a snap-hook, as represented in Fig. 4, or with other means for attaching it to a ring or staple. The side bars b, b, are parallel to each other and of a width adapted to the thickness of the strap or straps with which the buckle is to be used. The side bars are formed on their outer sides at suitable points in their length with shoulders b^2 which form stops to limit the forward movement of the auxiliary or clamping frame.

C, designates a second rectangular frame of a size to adapt it to be slipped over the frame A, as represented in the drawings, and to slide freely back and forth thereon, the forward movement being limited by the shoulders b^2.

The upper bar c, of the frame C, has the strap passed around it, and in order to prevent undue wear or abrasion of the strap it is preferably rounded so as to present a smooth surface. The lower bar c' is formed with a backwardly projecting lip c^2 which sustains the body of the strap in fixed relation to the cross-bar a', of frame A, and acts, when the frame C, is drawn back, as a clamping jaw to press the strap against the under side of the bar a'. The cross bar a' is preferably located at the upper edge of the rectangular frame, so that the two side bars are in effect separated below this cross bar. This construction affords ample space for the folded end of the strap and the body portion which extend between the lip c^2 on the frame C and the cross bar a'. It is obvious however, that the cross bar a' could be so formed that it would extend the entire width of the side bars from their upper to their lower edges. This change would in no manner affect the operation of the parts, the only difference being that the frame C would occupy a position nearer to the opposite end of the rectangular frame, to admit of the passage of the strap and its folded end between the cross bar a' and lip c^2.

The form of buckle illustrated in Fig. 5 is adapted to be conveniently attached to and detached from a doubled strap. The frame A, in this case is somewhat elongated, and at the front end it is provided with a transverse tongue d hinged to one of the side bars and extending across so as to be supported at its free end by the opposite bar. The doubled strap is passed up through the front end of the frame, and the tongue is passed through the same.

In some cases when the strap is returned back past the buckle it is desirable to support and sustain it at this point; in such case a loop or staple e, is attached to the under side of the frame C, and the return strap is passed therethrough.

The buckle, constructed as shown and described, is applied and used as follows: The end of the strap E, is passed under the rear cross-bar a' of the frame A, through the frame C, up and around upper bar c, and back under the bar a' between the latter and the body of the strap, as shown in Fig. 2. Strain or draft applied to the strap draws the frame C, back onthe frame A, whereby the turned

back end of the strap is clamped between the underlying body portion thereof and the bar a'. It will readily be understood that the stronger the pull the tighter the end of the strap will be clamped and held, so that it can by no possibility be drawn out. At the same time the lip c, which projects back under the strap sustains the latter and presses it upward against the turned back end, thereby producing an additional clamping action against the under side of the bar a'.

It is obvious that the form and proportions of the buckle may be varied without departing from my invention, and I therefore claim the right to make such changes and alterations as fall within the range of mechanical skill, and within the scope of the invention shown and described.

Having thus described my invention, what I claim is—

1. In a buckle of the character described the combination with the main rectangular frame A having flat side bars formed with shoulders or offsets b^2 on its outer sides, of the transverse clamping frame C, embracing the main frame and having plain upper and lower cross-bars c, c'.

2. The combination of the main rectangular frame A having flat side bars and shoulders or stops b^2, with the transverse auxiliary frame C embracing the main frame and capable of sliding back and forth thereon, one of the transverse bars of said auxiliary frame having the backwardly extending lip c^2.

3. In a buckle of the character described the main frame A having flat side bars b, b, united at their upper edges by the transverse bar a', and separated below said transverse bar, in combination with the embracing transverse frame C adapted to slide back and forth on the main frame and having on its lower bar the backwardly projecting lip c^2.

4. In a buckle the main frame A, having near its front end the transverse tongue d, hinged to one of the side bars and the transverse frame C, mounted on and embracing the frame A, and movable thereon in a longitudinal direction, with plain and straight upper and lower bars extending across the open space between the end bars of the main frame.

5. In a buckle the combination of the rectangular frame A, having one of its end bars adapted for the attachment of a strap or chain, and the transverse frame C, embracing the same and movable thereon in a longitudinal direction, and having the loop or staple e, substantially as shown and described.

In testimony whereof I hereunto set my hand, this 5th day of October, 1892, in the presence of two attesting witnesses.

PATRICK MULLANE.

Witnesses:

CHAS. J. DUNN,

RICHARD A. DUNN.