

No. 862,959.

PATENTED AUG. 13, 1907.

T. BEAN.  
CROSS LINE BUCKLE.  
APPLICATION FILED SEPT. 24, 1906.

Fig. 1.

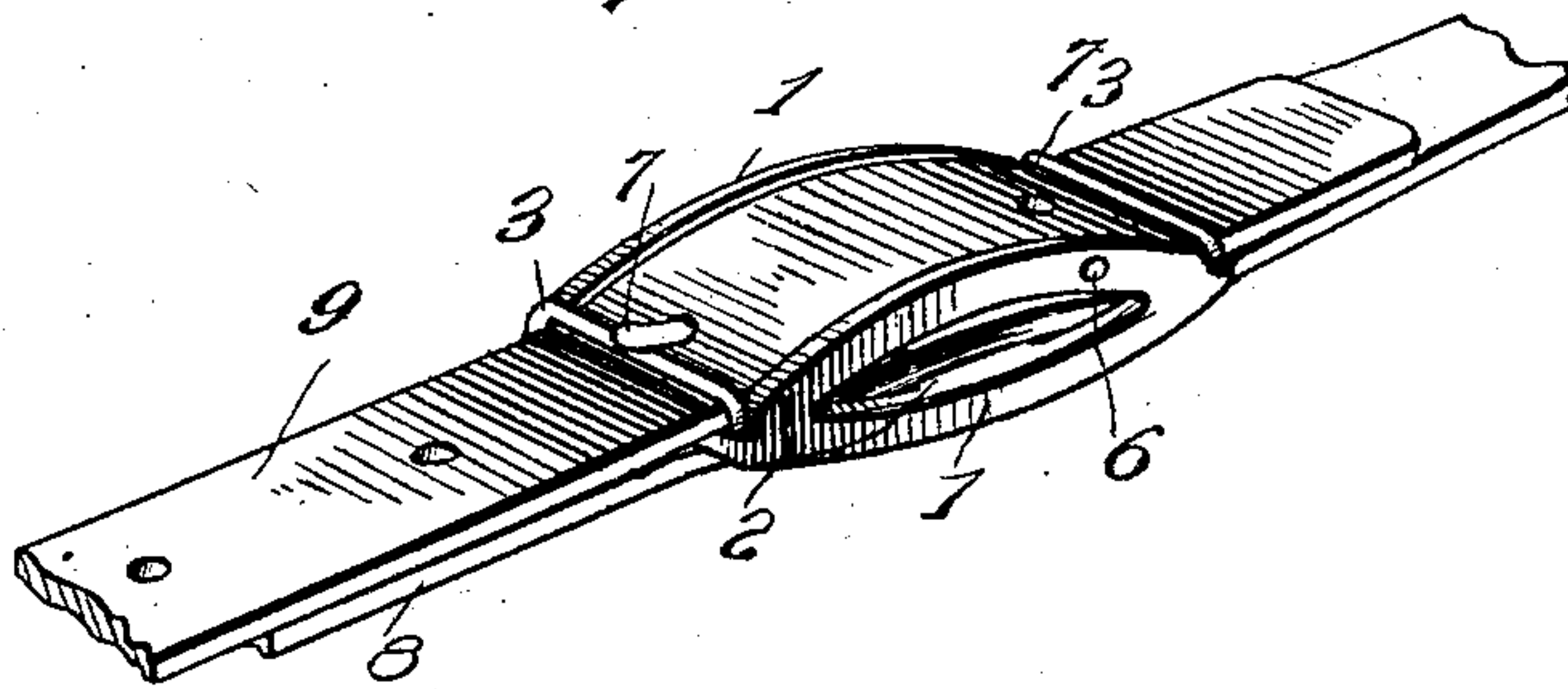


Fig. 2.

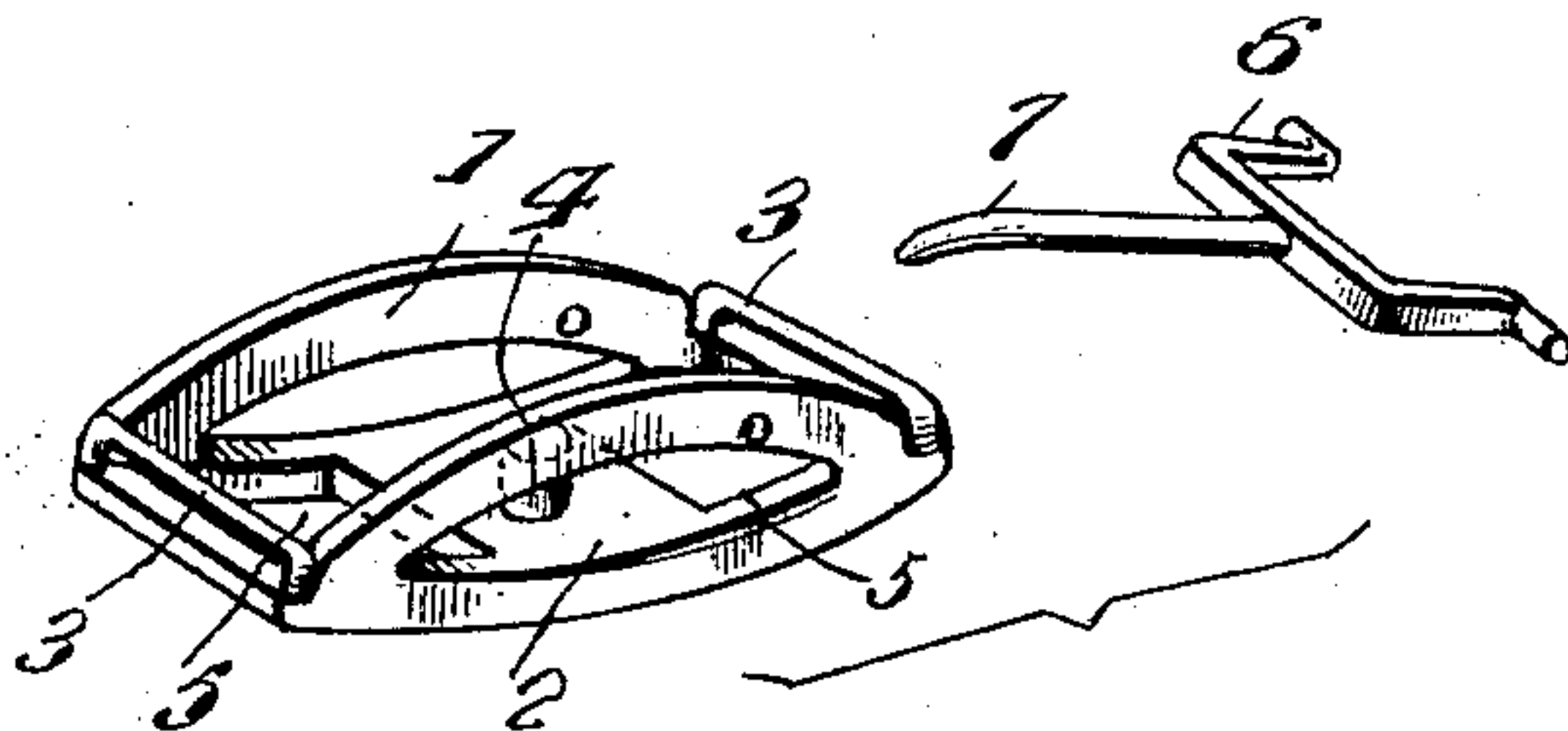
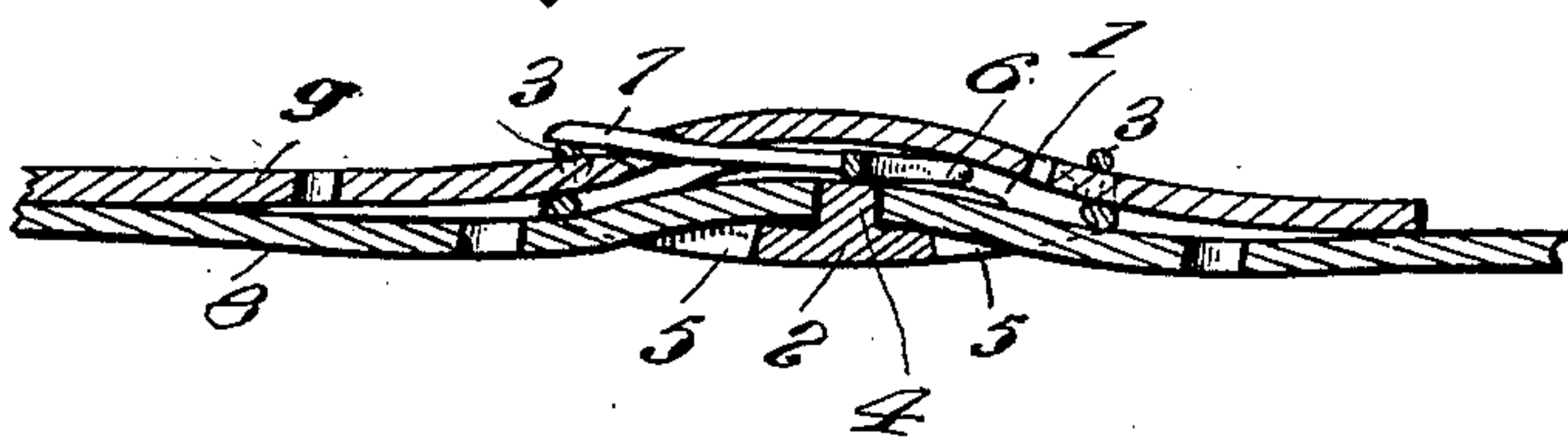


Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

THOMAS BEAN, OF GETZ, VIRGINIA.

## CROSS-LINE BUCKLE.

No. 862,959.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed September 24, 1906. Serial No. 335,938.

To all whom it may concern:

Be it known that I, THOMAS BEAN, a citizen of the United States, residing at Getz, in the county of Shenandoah and State of Virginia, have invented certain new and useful Improvements in Cross-Line Buckles, of which the following is a specification.

This invention relates to that type of buckles designed particularly for connecting the cross lines of harness reins but useful in various ways to attach strap parts together for convenient detachment or relative adjustment thereof.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a buckle embodying the invention in use for connecting cross lines. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a view of the buckle detached from the strap parts.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the invention, a buckle comprising the same consists mainly of a frame composed of the sides 1, the bottom 2 and the end loops 3. The frame is preferably of integral formation and the bottom 2 thereof is formed with an upwardly projecting rigid tongue or stud 4. The bottom 2 of the frame of the buckle is formed with openings 5 near opposite ends thereof and adjacent to the loops 3.

Mounted in the sides 1 of the frame is a tongue carrying cross bar 6 which is of somewhat arch form, having lateral journals which are mounted in bearings in the sides of the frame. The buckle tongue 7 is integrally formed preferably with the cross bar 6 and the outer extremity of this tongue is adapted to rest upon the upper portion of one of the loops 3 when the tongue is in operative position. The journals of the cross bar 6 establish a pivotal connection between this cross bar and its tongue 7, and the sides of the buckle frame and the point of connection of the bar 6 with the frame, is at one side of a vertical plane including the rigid tongue or stud 4. The purpose of the relative arrangement of the stud 4 with regard to the point of connection of the cross bar 6 with the sides 1, is to cause the intermediate or central portion of the bar 6 to occupy a position just above and virtually in contact with the upper end of the stud 4, when the tongue 7 is in operative position in engagement with a strap part attached to the buckle.

In its adaptation as illustrated, the long line 8 of the harness reins will be passed through the buckle frame through the openings 5 and will extend over the bottom portion 2 of said frame, the stud 4 engag-

ing an opening, a plurality of which will be provided in the length of the line 8 for adjusting purposes. A short line 9, however, will be passed through one of the end loops 3 and will be engaged by the tongue 7 after which said short line will be passed with its free end through the other of the end loops 3. The normal tension on the short line 9 therefore, is such as to hold the tongue 7 down upon one of the end loops 3, as shown in Fig. 2, and this arrangement normally causes the cross bar 6 to assume a position in contact with the upper end of the stud 4 and prevent likelihood of displacement of the long line 8 from the stud 4. To detach or adjust the long line it is necessary to first detach the short line 9, and raise the tongue 7 to move the cross bar 6 away from the stud 4, whereupon the long line may be detached from the stud and adjusted as desired.

The operation and advantages of the invention will be obvious from the foregoing.

Having thus described the invention, what is claimed as new is:

1. In a cross line buckle, the combination of a frame, a rigid tongue projecting from the frame, and a tongue carrying cross bar having a tongue projecting therefrom and movable toward and from the rigid tongue first mentioned, for the purpose specified.

2. In a cross line buckle, the combination of a frame from the bottom portion of which projects upwardly a stud or rigid tongue adapted to engage a strap part, and a tongue carrying cross bar movably mounted on the frame and arranged to engage the stud or rigid tongue for the purpose specified.

3. In a cross line buckle, the combination of a frame from the bottom portion of which projects upwardly a stud or rigid tongue adapted to engage a strap part, and a tongue carrying cross bar having a suitable strap engaging tongue mounted thereon and of arch form so as to be moved into and out of engagement with the rigid tongue or stud as mentioned.

4. In combination, a buckle comprising a frame embodying sides, and from the bottom portion of which projects upwardly a stud or rigid tongue, a strap part passing through the frame and engaged by said stud or rigid tongue, a tongue carrying cross bar having a suitable tongue projecting therefrom and pivotally mounted in the sides of the frame, whereby the same may be moved toward and from the stud or rigid tongue, and a strap part engaged with the tongue of the pivoted cross bar.

5. In a cross line buckle, the combination of a frame embodying a bottom portion having an upwardly projecting stud or rigid tongue, a cross bar of arch form having the sides thereof provided with lateral journals mounted in bearings in the sides of the frame, and a tongue projecting from said cross bar, the cross bar being movable so that the intermediate portion thereof will cooperate with the stud or rigid tongue to prevent displacement of a strap part therefrom.

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

THOMAS BEAN. [L. S.]

Witnesses:

C. L. GETZ,  
G. E. PENCE.