E. N. HUMPHREY.

BUCKLE.

APPLICATION FILED NOV. 1, 1909.

954,395. **Patented Apr. 5, 1910.**

Fig. 1.

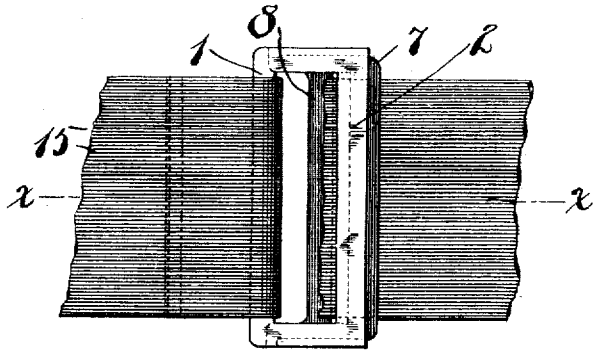


Fig. 4.

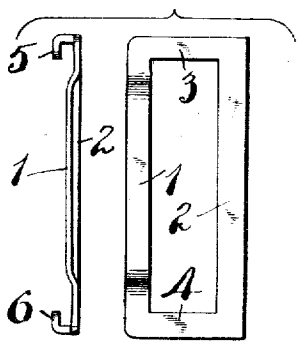


Fig. 3.

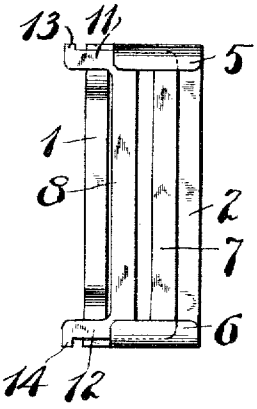


Fig. 5.

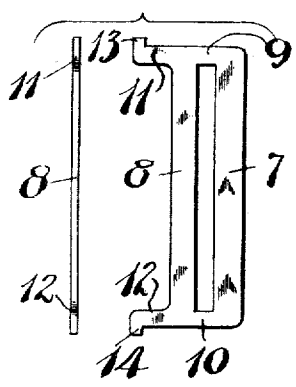
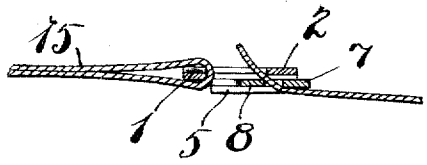


Fig. 2.



Witnesses:
Fred'k. Dannenfelser
Chas. A. Peard

Inventor
E. N. HUMPHREY.
By his Attorneys
Bartlett Brownell & Mitchell.

UNITED STATES PATENT OFFICE.

ERNEST N. HUMPHREY, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO TRAUT & HINE MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BUCKLE.

954,395. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed November 1, 1909. Serial No. 525,643.

To all whom it may concern:

Be it known that I, ERNEST N. HUMPHREY, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Buckles, of which the following is a full, clear, and exact description.

My invention relates to an improved buckle of the friction slide type.

The object of the invention is to simplify the construction without sacrifice to strength and durability.

An important incident to the simplifying of the structure is a very substantial saving in cost of manufacture.

In the drawings, Figure 1 is a front elevation of the buckle, as it would appear in use on a belt or strap, the free end of the strap being broken away close to the buckle. Fig. 2 is a sectional view on the line *x*—*x*. Fig. 3 is a rear elevation of the buckle. Fig. 4 illustrates an edge and front view of one of the details. Fig. 5 illustrates an edge and front view of another detail.

The buckle is made of two parts only, both sheet metal, each part being very easily produced by means of suitable dies. One part, which I will call a frame, is illustrated in Fig. 4. This frame is in its preferable form of rectangular outline, and comprises the two end bars 1—2 and the two side bars 3—4. The extreme side edges of the frame blank are folded back as at 5—6 to provide guideways for the slide later referred to. The end bar 1 is preferably provided with a hump or bend, as shown, intermediate its ends, for the purpose hereinafter described.

The second member of the buckle is what I will term a slide. This slide operates as a clutch and is illustrated in detail in Fig. 5. It will be seen to comprise the two end bars 7—8 connected by side bars 9—10. This clutch slide has rearwardly projecting arms 11—12, while the outer ends of said arms have laterally directed ears 13—14. The width of the clutch slide (not including the ears 13—14) is such as to fit between the folds 5—6, which, as stated, furnish guideways for the slide whereby the same may move to and fro on the frame when assembled therewith.

To assemble the parts, the front end of the clutch slide is introduced into the guideways of the frame, the humped portion of the bar 1 being depressed to permit said clutch slide to be slid into place. The clutch slide is then advanced until the slide bar 8 stands in advance of the frame bar 1. Upon permitting said bar 1 to assume its normal position, the humped portion thereof rises to the rear of the clutch slide and holds the same against withdrawal, accidental or unintentional. The clutch slide cannot be pushed entirely through the guideways in the frame, because the ears 13—14 will engage the rear edges of the folds 5 and 6, as will be clearly seen upon reference to the drawings. When the parts are thus assembled, the belt 15 is applied, one end of the belt being secured to the bar 1 of the frame. The free end of the belt (whenever it is desired to connect it), is passed through the clutch slide (between bars 7 and 8) and through the frame (between bars 1 and 2), said parts being held so that the openings therein will register. Tension applied upon the belt will now move the clutch slide in such a direction that the bar 8 will coact with the bar 2 of the frame in clutching that part of the belt 15 between said bars so as to prevent slippage. This clutching position of the parts is illustrated in Figs. 1 and 2. To release the belt, it is merely necessary to push back the clutch slide.

It should be understood that the bar 1 need not necessarily be humped to hold the clutch slide in place, since when the fabric of the belt 15 is attached to said bar 1 the fabric will stand in the rear of said clutch slide so as to prevent its displacement. It is, however, preferable to provide said hump, because in marketing the buckles (minus the belt) the parts might otherwise become accidentally detached, involving unnecessary labor on the part of the purchaser in assembling.

It will be observed that all of the parts may be very quickly produced by simple die processes and assembled without the aid of any tools whatever.

It will be seen that the clutch slide is perfectly flat in its preferred form, and that said slide moves so close to the frame that a secure clutch action is produced upon the belt without the necessity of employing any serrated or toothed edges which tend to abrade and unduly wear the belt.

It will also be observed that the over-all width of the slide and frame may correspond, clearance for the ears 13—14 being provided by cutting back the guide-ways 5—6 on the frame, as best seen in Fig. 3.

What I claim is:

In a buckle, a frame comprising two end bars spaced apart, one of said bars being arranged to carry one end of a belt, two side bars connecting said end bars, the extreme sides of said frame being folded over to form a guide-way for a clutch slide, a clutch slide comprising two end bars, two side bars connecting said end bars, said clutch slide being arranged to slide in said guide-way, a projection at each side edge of said clutch slide arranged to engage adjacent parts of the frame to prevent said slide from being pulled out of said frame in one direction, and a hump on that bar of the frame arranged to receive the belt end, said hump operating to prevent said slide from being pulled out of said frame in an opposite direction.

ERNEST N. HUMPHREY

Witnesses:

IDA M. HUNZIKER,

M. E. GARRETT.