No. 844,540. PATENTED FEB. 19, 1907.

E. H. ROY & J. A. BURTON.

BUCKLE.

APPLICATION FILED FEB. 7, 1906.

Fig. 1.

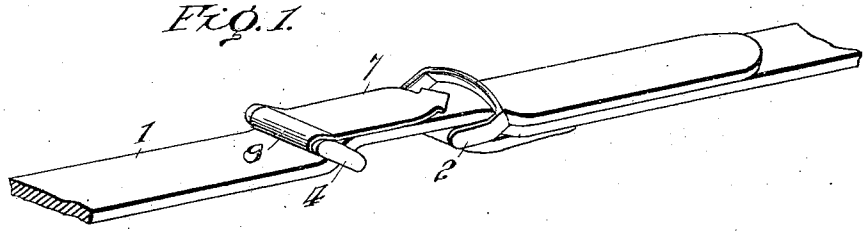


Fig. 2.

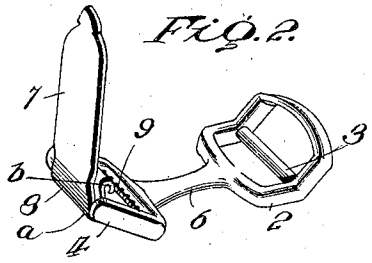


Fig. 3.

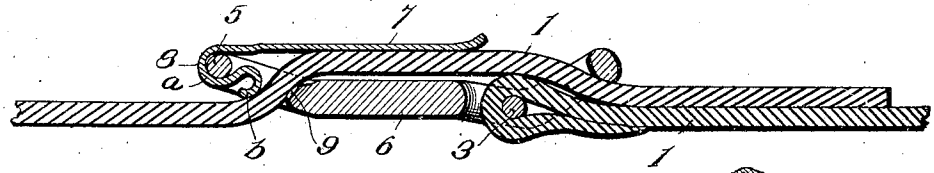


Fig. 4.

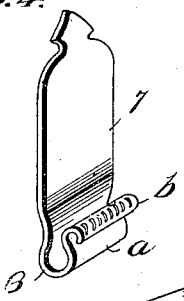


Fig. 5.

Witnesses

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BUCKLE.

No. 844,540. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed February 7, 1906. Serial No. 299,995.

To all whom it may concern:

Be it known that we, EDWARD H. ROY and JOSEPH A. BURTON, citizens of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Buckles, of which the following is a specification.

This invention comprises a novel form of buckle designed for use in connection with strap parts, such as package-straps, harness connections, or in similar capacity.

The intent of the invention is to produce an article of extreme simplicity and cheapness, so far as manufacture thereof is concerned, and one which may be readily manipulated to accommodate strap parts of different thicknesses in the actual use thereof.

For a full description 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 comprising the invention applied. Fig. 2 is a perspective view of the buckle alone. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail perspective view of the clamping-lever. Fig. 5 is a perspective view of a modification.

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.

In illustrating the adaptation of the invention in the drawings the buckle is applied to an ordinary package-strap 1, and said buckle in its preferred form consists of a frame comprising an end loop 2, having an intermediate cross-bar 3, and a U-shaped end member 4, having an end cross-bar 5 connecting its sides, the two members 2 and 4 being connected by a longitudinal connecting portion 6 of the frame. When the frame of the buckle is as above described, it is designed that one end of the strap 1 be looped about the cross-bar 3 and secured thereto. The outer end of the loop 2, as well as the sides of the member 4, preferably project up from the plane of the body of the buckle-frame at an obtuse angle, and pivoted to the cross-bar 5 is a clamping-lever 7, which is of a peculiar form and which comprises the essential feature of this invention. The clamping-lever 7 is preferably made of a sheet-metal plate, and the outer end thereof forms a handle, by which it may be manipulated. The other end of the lever 7 is bent to form a strap-engaging member 8, which may be described to be of somewhat S shape in cross-section. In other words, the engaging member 8 consists of a loop portion *a* and an engaging portion *b*. The loop portion *a* is folded or looped about the cross-bar 5, so as to establish a pivotal connection between the lever and the frame of the buckle, while the engaging portion 5 is spaced from the inner end of the U-shaped member 4, so as to permit the strap part to be passed between the engaging member 8 and the portion of said member 4.

The construction of the engaging member 8 is especially advantageous, as the material from which the lever is made is such that the elements of the member 8 are adapted for a certain amount of spring movement with regard to the engagement thereof with the strap part. Thus as the lever 7 is forced downwardly toward the top or upper side of the buckle-frame a strap part passed between the engaging member 8 and the inner portion of the member 4 will be engaged by the portion *b* of the member 8, and the frictional engagement above mentioned will be such as to effectively prevent slipping of the strap in an obvious manner. The portion *b* of the member 8, however, by reason of the flexibility of the metal from which the lever is made, has a certain amount of spring movement toward and from the loop portion *a* of the lever. Further, if the clamping action of the lever is very great the portion *b* of the member 8, as well as the loop portion *a*, may move toward the body of the lever, so as to secure a double spring action to readily accommodate quite a variance in the degree of thickness of the strap parts which may be introduced into the space between the member 8 and the innermost portion of the member 4. Said innermost portion of the member 4 is transversely toothed or serrated, as shown at 9, to form a roughened surface, by which the clamping action of the lever 7 is facilitated so far as the positive engagement with the strap is concerned. The outer or engaging side of the portion *b* of the member 8 is also preferably slightly roughened, so as to more effectively grip the strap part. It will be noted in the sectional view Fig. 3 that the cross-bar 5 is slightly elongated in cross-section, and this form of this member is such that as the lever 7 is forced

downwardly toward the top of the buckle the sides of the loop portion *a* of the member 8 must separate by spring movement at a certain point in the travel of said lever. This is due to the peculiar form of the cross-bar, which necessitates a positive pressure on the lever before the latter may be thrown downwardly or forced backwardly in operating the same. The above feature of construction is of advantage, in that upward movement of the lever 7 is resisted, and there is absolutely no likelihood of such movement happening accidentally.

A modification of the invention is shown in Fig. 5, in which the buckle is designed particularly to be applied to a buggy-top for holding the back and side curtains in place. This is a double construction of the buckle, involving the use of two clamping-levers 10, which are preferably made of sheet metal, somewhat similar to the lever 7, before described, except that they are formed with longitudinal side flanges 11. The levers 10 in this instance are pivoted to pintles or cross-bars 12, supported in ears 13, which project upwardly from opposite ends of the frame 14 of the article. The frame 14 preferably consists of a piece of sheet metal, preferably formed as above described, and the outer ends of the levers 10 are pivoted, said levers being adapted to be manipulated by grasping the inner ends thereof. The ends of two strap parts, such as indicated at 15, may be received between the frame 14 of the buckle and the engaging members 16 of the levers 10 and effectively clamped. The buckle shown in Fig. 5 is not illustrated as it would be applied, as it embodies the same principle, as set forth with regard to the preferred form of the invention as described.

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

1. In a buckle, the combination of a frame, a cross-bar connecting side portions of said frame, and a clamp-lever consisting of a plate having an end thereof bent into S shape to form a loop portion receiving the cross-bar aforesaid to establish pivotal connection between the lever and the frame, said loop portion being provided with a curved extension constituting the terminal of the S-shaped portion and a spring strap-engaging member to coact with the frame as specified.

2. In a buckle, the combination of a frame, and a clamping-lever consisting of a spring-plate bent at one end to form a spring engaging member consisting of a loop having pivotal connection with the frame and having a curved extension constituting a strap-engaging portion to coact with the frame as specified, the loop and extended portion thereof being adapted for spring movement toward the body of the lever to accommodate various thicknesses of strap parts connected with the buckle thereby.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD H. ROY.
JOSEPH A. BURTON.

Witnesses:
FELIX E. TANNER,
VOLNEY JAMES.