C. WILCOX.

BUCKLE.

APPLICATION FILED JULY 21, 1916.

1,224,252. Patented May 1, 1917.

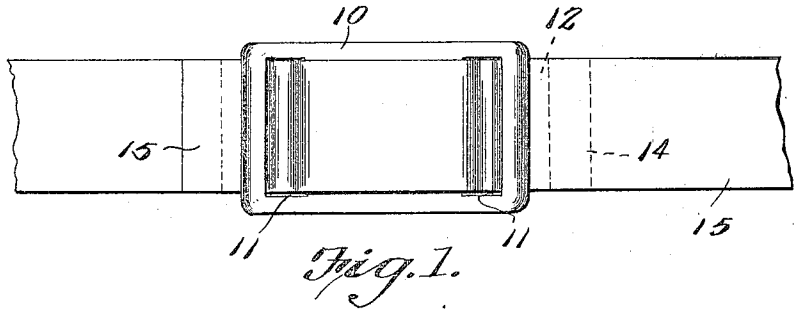


Fig. 1.

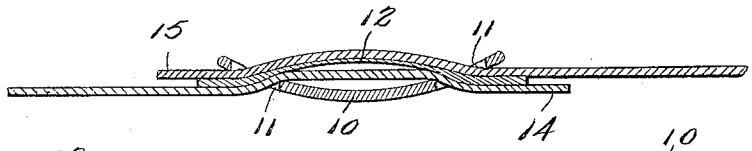


Fig. 2.



Fig. 5.

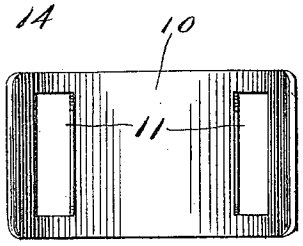


Fig. 4.

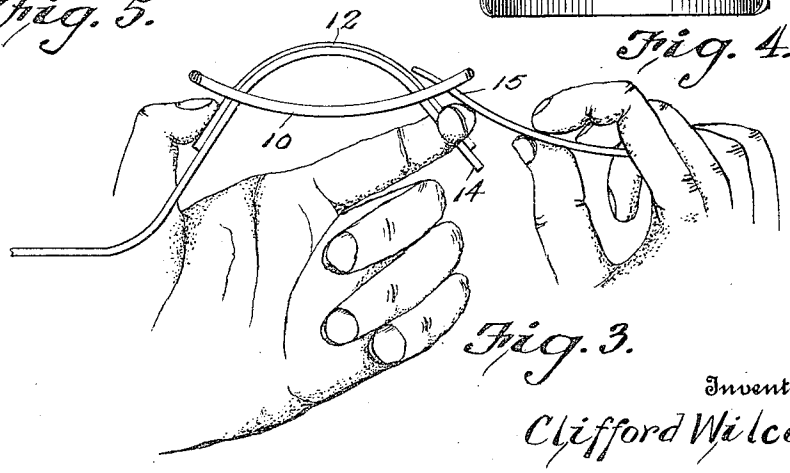


Fig. 3.

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UNITED STATES PATENT OFFICE.

CLIFFORD WILCOX, OF BELDEN, NEBRASKA.

BUCKLE.

1,224,252. Specification of Letters Patent. Patented May 1, 1917.

Application filed July 21, 1916. Serial No. 110,516.

To all whom it may concern:

Be it known that I, CLIFFORD WILCOX, a citizen of the United States, residing at Belden, in the county of Cedar and State of Nebraska, have invented certain new and useful Improvements in Buckles, of which the following is a specification.

The invention has for an object to give a buckle by which straps may be readily clasped and secured without the use of tongues, and without requiring apertures in the straps. It is a further important object to enable the formation of the buckle part from simple blanks adapted to be produced at a low cost from stock materials readily available.

It is an important object to give a device of this character which can be readily manipulated for introduction of straps therein, or for their removal, while yet assuring an unusually firm securement of the strap when engaged.

It is an object to give a device which will effect the clamping of a strap with a force proportionate to the strain upon the strap and in a manner calculated to damage the strap to a minimum extent.

It is a further important aim to give a buckle in which one clamping device is adapted to secure two strap ends, and which may be used as a buckle upon a trunk strap or the like, without requiring the strap to be fixed or sewed or otherwise specially fastened to the buckle.

Additional objects, advantages and features of invention will appear from the construction, arrangement and combination of the parts as hereinafter set forth and shown in the drawings.

Figure 1 is a plan view of the buckle having a strap engaged therethrough,

Fig. 2 is a longitudinal sectional view centrally of Fig. 1.

Fig. 3 is an elevational view of the device illustrating the manner in which a strap is introduced into the buckle.

Fig. 4 is a plan view of the blank for the buckle frame,

Fig. 5 is a similar view of the clamping plate.

There is illustrated a buckle comprising a rectangular frame 10 stamped integrally from a blank of sheet metal of sufficient thickness to give it the necessary rigidity, and of oblong form. The plate has formed therein adjacent each end transverse slots 11, the dimensions of which are sufficient to allow the ready insertion of two strap ends and one end of the clamping plate 12 through each with space to spare when inserted parts are disposed at right angles to the plate around the aperture. The distance between the slots 11 may be varied, but is preferably about three times the width of the slot longitudinally of the frame. The frame 10 is curved longitudinally to a slight extent, although this is not essential.

Coöperating with the frame there is a clamp plate 12 comprising a small strip of resilient metal, thinned or cut away sufficiently at its middle portion to make it quite flexible, while its end portions are either thickened or left broad enough to have sufficient rigidity for the action to be described. The plate 12 as shown is of a length somewhat greater than that of the frame 10 in order to permit its ready manipulation. As illustrated, this plate has been rolled at its central portion to thin it considerably, and is also slightly cut away at each side at its central part, as shown at 13 in Fig. 5. The plate 12 tends to lie straight and planiform, and to emplace it, it is flexed, and its end portions inserted through respective slots 11 of the frame 10 from the concave side of the frame. Under tendency to straighten out, its outer end portions press upwardly against the outer edges of the slots 11, causing its inner portion to bear downwardly upon the inner edges of the slots. The edges of the slots are cut square, as illustrated, although this is not essential.

In use, the frame 10 and the clamping plate being assembled as described, the ends of the clamping plate are grasped between the thumb and forefinger of one hand at the convex side of the frame 10, and the plate 12 flexed sufficiently to leave an opening inwardly of the plate 12 adjacent the inner edges of the slot 11. As the plate 12 is flexed, the weight of the frame 10 will cause it to move downwardly, presenting the necessary openings. While the parts are so held, with one hand, the strap end 14 to pass beneath the plate 12 is inserted and adjusted as desired, after which the plate 12 is flexed further, until suitable openings are presented between the plate 12 and the outer edges of the slot 11, and through these openings the strap end 15 is threaded, as shown in Fig. 3, and adjusted as far through the buckle as desired, for the purposes in view.

Upon subjection of the strap ends to opposed draft stresses, the binding action of the plate 12 when released will be supplemented by reason of the lower strap bearing outwardly on one end of the straps at that end of the frame, any slipping of the other strap at the opposite end of the buckle will cause downward pressure upon the central part of the plate 12, straightening it out further, and causing further binding action at both ends of the buckle, and effectively preventing any actual releasing action of the buckle. It will be understood that the straps might slip at their inner parts under a slight stretching of the material of the strap.

What is claimed:

A buckle comprising a rectangular frame having spaced openings therethrough, and a resilient flexible plate having its extremities inserted through respective openings, the sides of said opening being so spaced and located as to require the plate to be flexed for insertion of its ends in the frame.

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

CLIFFORD WILCOX.

Witnesses:
A. M. SMITH,
JOSEPH F. HORAK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."