Mar. 20, 1923

1,448,993

C. J. DAHLGREN

BUCKLE

Filed Feb. 19, 1921

Fig. 1.

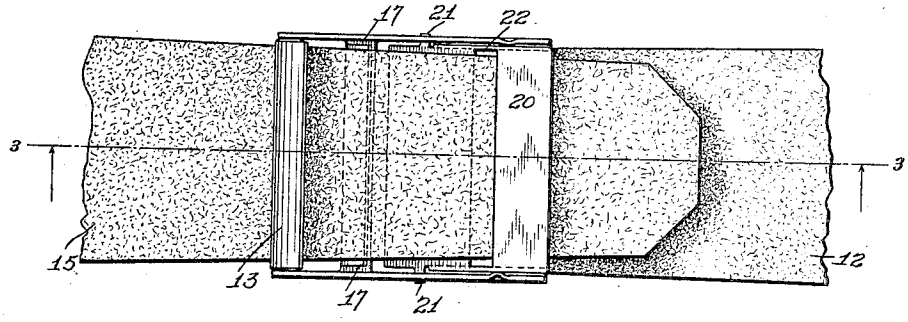


Fig. 3.

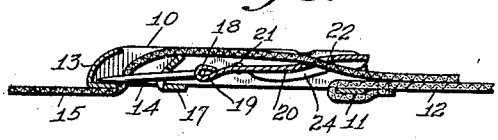


Fig. 2.

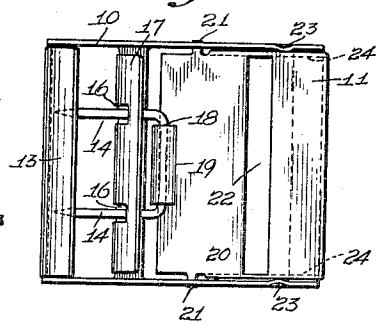


Fig. 4.

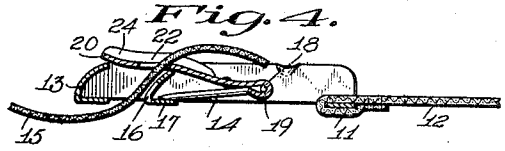


Fig. 5.

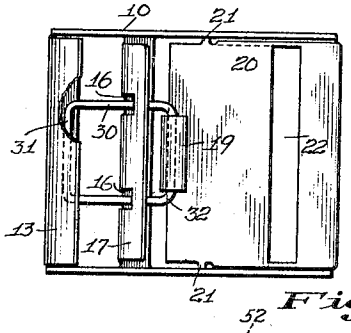


Fig. 6.

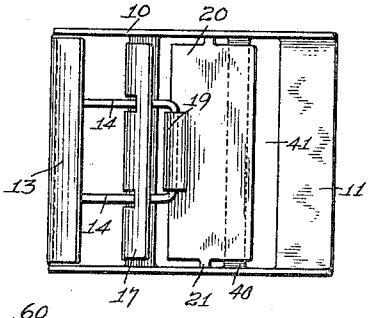
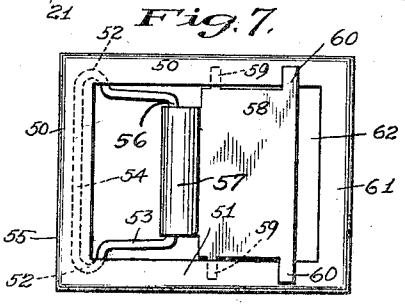


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES J. DAHLGREN, OF EAST ORANGE, NEW JERSEY.

BUCKLE.

Application filed February 19, 1921. Serial No. 446,345.

To all whom it may concern:

Be it known that I, CHARLES J. DAHLGREN, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented a new and Improved Buckle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved buckle more especially designed for use on trousers and other garments and arranged to insure a positive hold on a strap or the like and without having the points of the tongue projecting to become liable to tear overlying clothes or injuring the fingers of the user.

Another object is to permit the user to readily open and close the buckle.

With these and other objects in view, the invention consists of certain novel features of construction, as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an enlarged plan view of the improved buckle as applied;

Figure 2 is a similar view of the improved buckle.

Figure 3 is a sectional side elevation of the improved buckle as applied, the section being on the line 3—3 of Figure 1;

Figure 4 is a similar view of the same with the parts in releasing position;

Figure 5 is an enlarged plan view of a modified form of the improved buckle, part being shown broken out;

Figure 6 is a similar view of another modified form of the improved buckle; and

Figure 7 is a similar view of another modified form of the improved buckle.

The improved buckle illustrated in Figures 1, 2, 3 and 4, consists essentially of a frame 10, preferably made rectangular and having its rear end 11 arranged for connection with a fixed strap 12. The front end 13 of the frame 10 is provided at its inner face with a recess adapted to receive the pointed ends of a two-pronged tongue 14 adapted to penetrate the strap 15 to be fastened in place, as plainly shown in Figures 1 and 3. The prongs of the tongue 14 extend through guide openings 16 formed in a crossbar 17 integral with the sides of the frame 10, and the said crossbar 17 is recessed at its rear edge to form a support for the pointed ends of the prongs of the tongue 14 at the time the tongue is in withdrawn position, as shown in Figure 4. The rear end 18 of the tongue 14 is pivotally connected with an eye 19 of a lever 20 having trunnions or alined pivots 21 mounted to turn in the sides of the frame 10.

When the lever 20 is in an approximately horizontal closed position, as shown in Figures 1, 2 and 3, then the tongue 14 is projected forward and pushed through the strap 15 inserted in the frame 10 from underneath between the front end 13 and the crossbar 17. Thus the strap 15 is securely fastened in place and without danger of the tongue 14 becoming accidentally detached, as the pointed end of the said tongue rests on the bottom of the recess in the forward end 13 of the frame 10. The rear portion of the lever 20 is provided with a transverse opening 22 for the passage of the free end of the strap 15 to hold the said free end in place and in overlying relation with the fixed strap 12, as plainly shown in Figures 1 and 3. When it is desired to disconnect the buckle from the strap 15 it is only necessary for the operator to take hold of the outer end of the strap 15 and pull the same outward thus imparting an upward and a forward swinging movement to the lever 20 whereby the tongue 14 is withdrawn from the strap 15 thereby releasing the same, as will be readily understood by reference to Figure 4. It will be noticed by reference to Figure 4 that when the lever 20 is in forward position the opening 22 is forward of the crossbar 17 and in register with the opening between the front end 13 and the said crossbar to allow of conveniently pulling the strap 15 out of the buckle. It will further be noticed that the tongue 14 when in either of its two positions, as shown in Figure 3, has its point completely lying within the opening of the frame 10 and hence is not liable to injure the fingers while manipulating the buckle to open or close the same. In order to hold the lever 20 in normal closed position, the sides of the frame 10 are preferably provided with inwardly extending dents 23 adapted to snap over the top of the lever 20 on swinging the latter downward when closing the

buckle as above explained. In order to strengthen the lever 20 the sides thereof are provided with struck-up flanges 24.

The construction of the buckle illustrated in Figure 5, is practically the same as the one above mentioned except that instead of a tongue with pointed prongs use is made of a tongue 30 of rectangular shape and having its front end 31 adapted to clamp the strap 15 in position in the recess in the front end 13 of the frame. The rear end 32 of the tongue 30 is pivotally connected with the eye 19 of the lever 20, the same as above described relative to the tongue 14.

In the modified form shown in Figure 6, the lever 20 is made comparatively short and without the opening 22, and in this case an additional crossbar 40 is provided intermediate an opening 41 for the passage of the strap 15 after the lever is swung into closed position. Otherwise, the construction is the same as above described, it being, however, understood that either the tongue 14 or the tongue 30 may be connected with the lever 20.

In the modified form shown in Figure 7, the frame 50 is provided at its sides 51 with guideways for the curved sides 52 of the tongue 53 to slide in instead of using the crossbar 17 for the purpose. The front end 54 of the tongue 53 is adapted to clamp the strap 15 in the recessed front end 55 of the buckle frame 50 the same as above described relative to the tongue 30 and the front end 13. The rear end 56 of the tongue 53 is pivotally connected with an eye 57 of a lever 58 having trunnions 59 journaled in the sides 51 of the buckle frame 50. The rear end of the lever 58 is provided at the sides with lugs 60 adapted to rest on the top of the sides 51 at the time the lever is swung into closed position. It will be noticed that the rear edge of this lever is spaced a distance from the rear end 61 of the buckle frame 50 to provide a passage 62 for the end of the strap 15 after the latter has been fastened in position on the buckle.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A buckle comprising a frame having a recess in the inner edge of its forward end forming a tongue guard and provided with a recessed and apertured cross-bar intermediate of its ends, the aperture of the cross bar forming a tongue guide, and the recess a tongue guard and support, a lever pivoted intermediate of the ends of the frame and provided at one end with an opening for the passage of a strap, and a tongue pivoted to the other end of the lever and slidable in the aperture of the cross-bar and adapted when in withdrawn position to lie in the recess of said bar, whereby the point of the tongue will be prevented from injuring the fingers while manipulating the buckle to open or close the same.

2. A buckle comprising a frame having a recess at the inner edge of its forward end, an angular cross bar intermediate the ends of the frame and apertured at the junction of its members, the said cross bar forming a tongue guide, guard and support, a tongue mounted to slide in the cross bar and adapted to penetrate the material and pass into the said recess, and a lever pivoted intermediate of its ends on the frame and pivotally connected at its forward end with the rear end of the tongue in rear of the said crossbar.

3. A buckle, comprising a frame having a recess at the inner edge of its forward end, and projections on the inner faces of its side members, an angular crossbar rigidly connected with the sides of the said frame intermediate the ends thereof, and provided with two openings at the junction of its members, the said crossbar forming a tongue guide guard and support, a tongue mounted to slide in the said guide and provided with two prongs adapted to penetrate the material and pass into the said recess, and a lever fulcrumed intermediate of its ends on the sides of the said frame and pivotally connected at its forward end with the rear end of the said tongue in the rear of the said crossbar, the top of the lever being engaged by the projections of the frame when in closed position and the free rear end of the said lever being provided with an opening for the passage of the material.

4. A buckle, comprising a frame having a cross bar at its rear end, an angular cross bar at its front end forming a recess extending the length thereof and a cross bar spaced a short distance from the front cross bar having two members standing at an acute angle to each other and provided with two openings at the junction of its members, a plate-like lever pivoted in the frame in rear of the last named cross bar and provided with a slot adjacent one end and an eye at the other end, and a tongue having two prongs and pivotally mounted in the eye of the lever.

CHARLES J. DAHLGREN.