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SUSPENDER SLIDE

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Fig. 1.

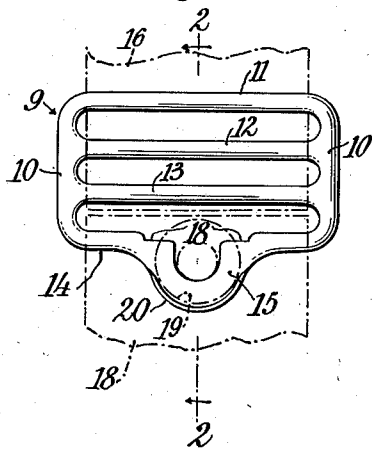


Fig. 2.

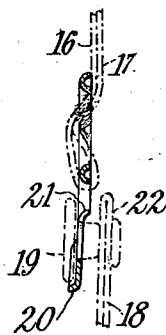
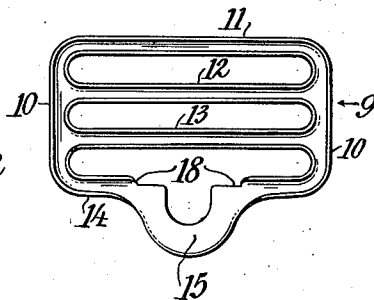


Fig. 3.



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SUSPENDER SLIDE

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3 Claims. (Cl. 24-73)

This invention relates to improvements in fasteners or buckles of the type commonly used on overall garments and other similar articles of wearing apparel.

In general, such a buckle comprises a pair of spaced side members, parallel cross-connecting bars disposed one above another to form slots through which the shoulder strap of an overall garment, for example, may be threaded, and a lowermost cross-connecting bar having a loop portion formed therein, which latter is adapted to engage a button on the bib portion of the overall. This arrangement provides for the adjustment of the effective length of the shoulder strap, and the removable engagement of the shoulder strap to the overall bib portion in a well known manner.

In the past it has been the general practice to stamp the buckles from sheet metal, and to roll the edges rearwardly so that each of the various aforementioned elements is of substantially U-shaped cross-section. The rolling of the edges results in a stiffening of the various parts, and at the same time it provides generally smooth contours for the front faces of the various members. However, as can readily be understood, the rear face of each of the members presents two sharp, somewhat rough edges. Since the buckle is moved along the strap only at rare intervals, the rough character of the cross-connecting bars is of little importance. However, each time the button-attaching loop portion is engaged with a button on the bib, the rough rear edge of the loop tends to sink into the material of the bib and to cut or chafe the latter. Further, when the strap is engaged with the button, the attaching loop portion is perfectly free to move; that is, it may turn, or move up and down in the throat of the loop, or move backward and forward along the shank of the button, in order to adjust itself to the various physical movements of the body of the wearer. Thus, each movement of the wearer tends to move the button-attaching loop; and since the rough edge of the latter is, or may be, in contact with the bib portion, it is evident that that portion of the bib immediately surrounding the button will soon become badly chafed and consequently weakened.

The present invention proposes to avoid the foregoing difficulties by rolling the outer marginal edge of the button-attaching loop forwardly, all other parts of the buckle being made just as has heretofore been done. In this manner it is proposed to reduce the chafing of the bib portion

without in any way detracting from the other desirable characteristics of stamped buckles.

Other objects and various features of the invention making for economy in manufacture and effectiveness in use will be more apparent from the following description when read in connection with the accompanying drawing, in which:—

Figure 1 is a front view of a buckle embodying the present invention, the strap to which it is attached and the button with which it is to be engaged being represented in broken lines.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a rear view of the buckle of Figs. 1 and 2.

Considering the drawing, the buckle 9 comprises a pair of spaced side members 10 which are interconnected by a plurality of integrally formed cross-connecting bars 11, 12, 13 and 14, the latter being disposed one above another as viewed in the drawing. The first three bars, namely, 11, 12 and 13, are substantially straight and parallel so as to form a plurality of intervening slots; whereas, the lowermost or end bar 14 carries a depending button-attaching loop 15 having an upwardly-directed open throat portion.

Preferably, such buckles are formed by stamping them from sheet metal. In order to increase the strength of the various members and improve the general appearance, as hereinbefore mentioned, the marginal edges are rolled backwardly so that the side members, and each of the cross-bars, is of substantially U-shaped cross-sectional form. Thus, the front face of the buckle presents a generally smooth rounded appearance, whereas the rear face of the various members presents two relatively sharp rough edges. This method of construction results in a very inexpensive product and one which is much lighter than the cast buckles which preceded them.

The buckle may be engaged with the shoulder strap 16 of an overall garment, for example, by passing an end 17 thereof behind the bar 11, in front of the bars 12 and 13, then reversely behind the bar 13, in front of the bar 12, and finally behind the bar 11, in such fashion that the strap is looped over the cross-bar 13, with both parts thereof directed upwardly, and with both parts thereof frictionally engaged with the various cross-bars. It is of course evident that this frictional engagement between the strap and the buckle permits the latter to be adjusted along the strap to any desired point whereby the effective length of the strap may be varied to meet

the individual requirement of any particular user.

It will be noted that the bar 14 is disposed relatively close to the adjacent bar 13, and that the entrance to the throat portion is widened as at 18.

In order to attach the buckle 9 to the button 19 on the bib portion, it is necessary to tilt the upper part of the button rearwardly to such an angle that it may pass edgewise through the widened throat of the attaching loop. In tilting the button rearwardly, the bib portion will be brought into contact with the lower edge of the attaching loop; and if this latter is constructed as has heretofore been the practice, its rough rear edge will dig into the material of the bib and tend to cut the latter. Furthermore, when the button and the loop are engaged, the latter is perfectly free to turn about the shank of the former and to have some limited movement upward and downward in the throat portion of the loop. Consequently, each movement of the wearer of the garment tends to cause a relative movement between the button-attaching loop and the bib portion; and this almost constant relative movement soon wears out the material of the bib portion, as can readily be understood. Now, in order to avoid this chafing and wearing, it is proposed, in practicing the present invention, to roll the outer marginal edge 20 of the button-attaching loop forwardly, as can best be seen in Figs. 1 and 2. When this is done it will be apparent that the rear face of the attaching loop will have a smooth rounded contour such as to reduce to a minimum the wear of the underlying bib portion 18. The remaining parts of the buckle are made in exactly the same manner as has heretofore been the practice, wherefore all of the desirable features of prior buckles are retained and the disadvantages thereof are avoided.

Since certain changes may be made in the construction of the buckle without departing from the true scope of the invention, it is intended that the foregoing shall be construed in a descriptive rather than in a limiting sense.

What I claim is:

1. A sheet metal buckle comprising a strap-attaching element, a button-engaging loop element, and connecting elements integrating the loop and strap engaging elements, all of said elements having marginal portions rolled out of the general plane of the buckle to stiffen its structure, the stiffening marginal part of the button-engaging loop being rolled in a direction opposite to that of the stiffening parts of the remainder of the buckle.

2. A buckle, as defined by claim 1, of which the stiffening marginal portions of the attaching loop are rolled forwardly so as to leave its rear surfaces smooth, and the corresponding portions of all elements of the structure other than the button-engaging loop are rolled rearwardly, thus giving such elements smooth, convex front faces.

3. A slide buckle comprising a pair of spaced side members and a plurality of cross-connecting bars disposed one above another, including a lower bar having an attaching loop formed therein which is adapted to be engaged with a button carried by another article, all of said members being formed integrally from a piece of sheet metal, the side members and cross-bars having their marginal edge portions rolled rearwardly so that each of them is of substantially U-shaped cross-sectional form, and the attaching loop having its outer marginal edge rolled forwardly so that the rear face of the loop presents a smooth contour to the button-carrying article when the loop and button are engaged.

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