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J. G. TOMPKINS

1,995,439

BUCKLE

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Fig. 1

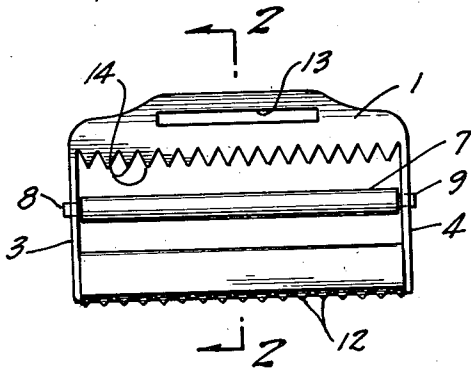


Fig. 2 Fig. 3

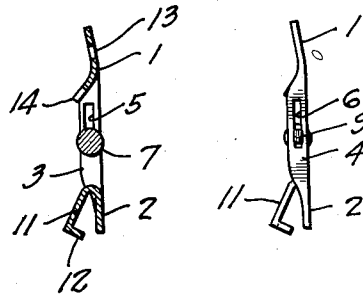


Fig. 4

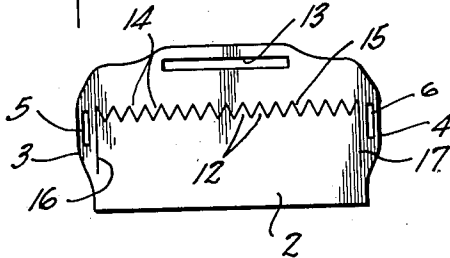


Fig. 5

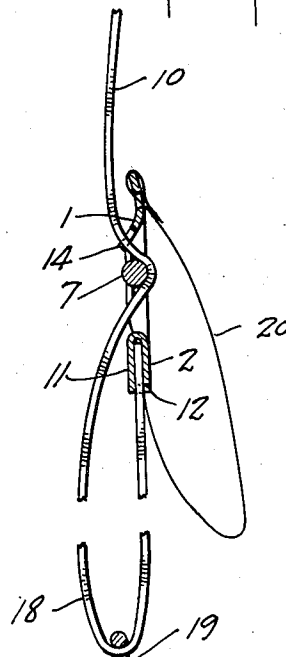
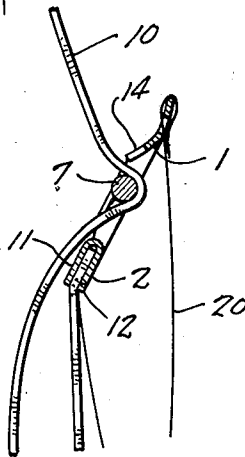


Fig. 6



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BUCKLE

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5 Claims. (Cl. 24—194)

This invention relates to a buckle for adjusting a flexible web or belt. Such buckles are in common use for example for hose supporters and suspenders.

It is one of the objects of this invention to provide a buckle of this character of simple and inexpensive construction.

It is another object of the invention to provide a buckle for forming a loop of elastic or flexible webbing, in which the adjustment of the loop length is greatly facilitated.

My invention possesses many other advantages, and has other objects which may be made more easily apparent from a consideration of one embodiment of my invention. For this purpose I have shown a form in the drawing accompanying and forming part of the present specification. I shall now proceed to describe this form in detail, which illustrates the general principles of my invention; but it is to be understood that this detailed description is not to be taken in a limiting sense, since the scope of my invention is best defined by the appended claims.

Referring to the drawing:

Figure 1 is a front elevation of a buckle incorporating the invention;

Fig. 2 is a sectional view, taken along plane 2—2 of Fig. 1;

Fig. 3 is a side elevation thereof;

Fig. 4 is a development of the buckle, showing how it may be stamped from a piece of sheet metal;

Fig. 5 is a sectional view showing the buckle in use in connection with an elastic or flexible web; and

Fig. 6 is a view similar to Fig. 5, but showing the loop in the process of adjustment.

The buckle comprises a rectangular frame having an upper cross bar 1, a lower cross bar 2, and sides 3 and 4. The sides 3 and 4 are slotted, as shown at 5 and 6, for the accommodation of the reduced ends 8 and 9 of an intermediate bar 7. The reduced ends 8 and 9 can slide or roll in slots 5 and 6, but preferably these ends are rectangular in section, whereby sliding alone is permitted, to adjust the position of bar 7.

The flexible or elastic web 10 with which the buckle is used, can be fastened at one end to the bar 2, as for example, by pinching that end between bar 2 and an integrally formed serrated or toothed fastener bar 11. In Figs. 1, 2, and 3, this fastener bar and bar 2 are shown as spread apart to permit the entry of the end of web 10 between them. The serrations 12 are formed to extend at right angles to the main body of

bar 11. When bar 11 is flattened against the end of the webbing 10 to grip it, as indicated in Figs. 5 and 6, the serrations 12 pass through the webbing and preferably beneath the lower edge of bar 2.

Before proceeding with the manner of use of the buckle, it is considered advisable to describe in detail how it may be fashioned from a sheet of material. This can be most readily explained in connection with Fig. 4. The sides 3 and 4 are here shown in the same plane as bars 1 and 2, prior to any bending operation. Slots 5 and 6, as well as a slot 13, are punched in the sheet.

The opening of the buckle between bars 1 and 2 is formed by first severing the sheet of material adjacent its upper edge by a sawtooth cut 15 to form the interengaging serrations 12 and 14. The cut 15 is extended downwardly at each end, as indicated at 16, 17, so as to make it possible to form the serrated fastener bar 11 by bending the severed portion defined by lines 16, 15 and 17 downwardly. This operation also forms the space between bars 1 and 2. The sides 3, 4 are bent at right angles to form the complete frame. As shown most clearly in Fig. 2, the bar 1 is bent slightly to make it convex from the front.

One manner in which the buckle may be used is illustrated in Figs. 5 and 6. As heretofore stated, one end of the elastic or flexible web 10 can be fastened between bars 2 and 11. A loop 18 is formed, which can pass through a hose supporter or trouser supporter or the like, such as illustrated at 19. The upper end of the loop is passed around the roller 7, and thence under the serrated edge of bar 1, which bites into the web 10 and holds it firmly in adjustment. The upper end of web 10 can be fastened to any appropriate support, as for example a girdle or the like, if the web be used as a woman's hose supporter.

Since the roller bar 7 is free to move transversely of the frame, it adjusts itself to any thickness of the web 10. Furthermore, adjustment of the web loop 18 is rendered easy, and the entire buckle and web assembly is thin. A ribbon loop 20 can extend between slot 13 and the bar 2 to provide a means for ready adjustment. Thus to adjust the length of loop 18, the loop 20 is pulled downwardly, to tilt the buckle away from the top portion of web 10. This position is indicated in Fig. 6. The serrations 14 are thus freed from the web 10, and the web is free to slide either way on the roller bar 7. As soon as desired adjustment is made the loop 20 can be released, and the serrations 14 reengage the web 10.

I claim:

1. In a buckle structure, a frame having top and bottom bars as well as bent up sides, an intermediate bar slidably supported at its opposite ends in said sides, and a loop of flexible material permanently attached to the top and bottom bars. 5
2. In a buckle structure, an open frame formed of sheet material, said frame structure having sides, a lower bar and a serrated clamping bar bent over the lower bar, as well as an upper serrated bar, an intermediate roller bar slidably mounted in the sides, and a loop for adjusting the buckle, having one end clamped between the clamping bar and the lower bar, and its other end permanently attached to the upper bar. 10
3. The method of forming a buckle frame from a piece of sheet metal, which comprises: cutting a severing line to form interengaging serrations, adjacent one side of the piece, bending the severed portion downwardly to form a clamping bar, cutting a slot at each side of the piece and in a position at right angles to the bar, and bending 15

up the sides to form a support for an intermediate bar.

4. The method of forming a buckle frame from a piece of sheet metal, which comprises: cutting a severing line near one edge of the piece, to form an upper bar, said line being continued downwardly adjacent each side of the piece, bending said severed portion downwardly to form a lower bar structure, and bending up the sides to form a support for an intermediate bar. 5

5. The method of forming a buckle frame from a piece of sheet metal, which comprises: cutting a severing line near one edge of the piece, to form an upper bar, said line being continued downwardly adjacent each side of the piece, bending said severed portion downwardly to form a lower bar structure, cutting a slot at each side of the piece in a position at right angles to the bar, and bending up the sides to form a support for an intermediate bar. 10 15

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