Sept. 15, 1953 M. F. GREEN 2,651,825

TENSION DEVICE FOR BELTS

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Fig. 1.

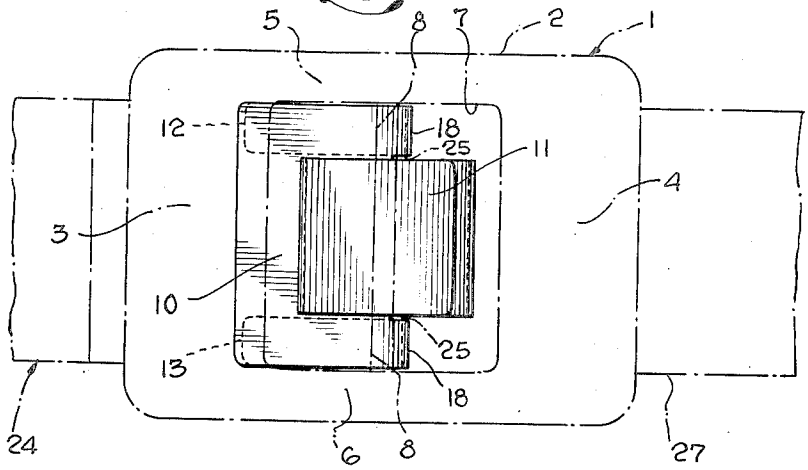



Fig. 2.

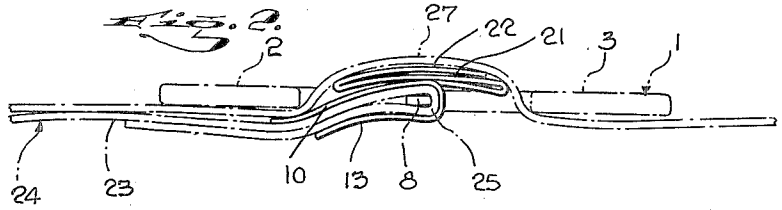



Fig. 3.

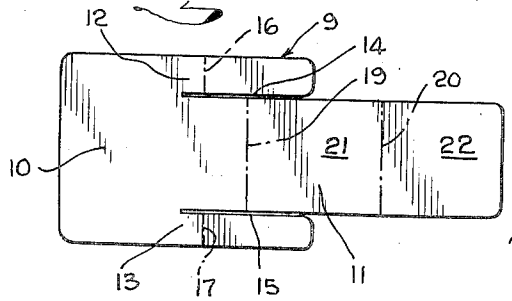



Fig. 4.

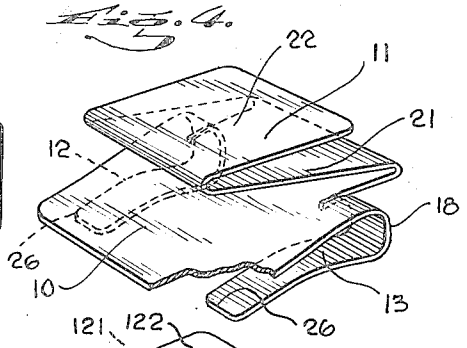
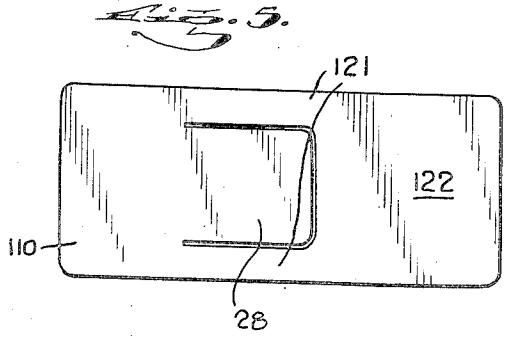



Fig. 5.



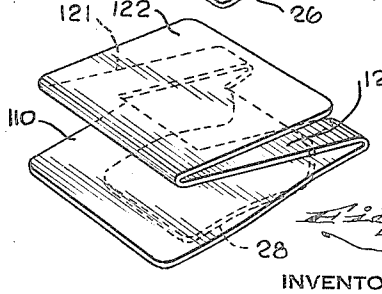




Fig. 6.

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## TENSION DEVICE FOR BELTS

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4 Claims. (Cl. 24—163)

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This invention relates to tension devices in general and more especially to tension devices for the buckles of belts for ladies' coats, dresses and the like.

Heretofore it has been found in practice that with the conventional buckle today used with ladies' coats, dresses and the like, in general characterized by a frame having a single cross bar across the frame to receive the captured end of the belt where the free end of the belt is merely threaded between the frame and the captured end of the belt secured to the cross bar, the belt will not stay in place with the ordinary body movements of the wearer. A deep breath or a slight twist of the trunk of the wearer, and the free end of the belt generally slips relative to the captured end of the belt.

With the foregoing difficulty in mind, it is an object of the present invention to provide a tensioning device for these popular belt buckles which can with facility be attached to the captured end of the belt and then cooperate with the free end of the belt securely to anchor the belt in place for ordinary wear and use.

It is still another object of the present invention to provide a tensioning device which can be made of one piece, either of a metal stamping, a plastic molding or the like to reduce the cost of production to a minimum.

It is still another object of the present invention to produce a tensioning device of this kind which will find more or less universal use with different sizes of belt buckles so that the wearer may transfer the tensioning device from one garment to another irrespective of a difference in size or conformation of the frame or the cross bar of the belt buckle.

These and other features, capabilities and advantages of the invention will appear from the subjoined detailed description of specific embodiments thereof illustrated in the accompanying drawings, in which

Fig. 1 is a plan view of one embodiment of the tensioning device shown in full lines, and the belt buckle and belt ends in dash and dot lines.

Fig. 2 is an edge view of the same.

Fig. 3 is a plan view of a blank, on a smaller scale, of the tensioning device before being bent into final form.

Fig. 4 is a perspective on the scale of Figs. 1 and 2, showing the tensioning device in final form but before being attached to a belt buckle.

Fig. 5 is a plan view of the blank of a second embodiment on the scale of Fig. 3.

Fig. 6 is a perspective of the embodiment shown in Fig. 5 on the scale of Fig. 4, showing this type of tensioning device in final form but before being attached to a belt buckle.

In the embodiment shown in Figs. 1 and 2 a conventional buckle 1 is shown in dash and dot

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lines having an open frame 2 including the wide transversely extending end cross pieces 3, 4, and the comparatively narrow side pieces 5, 6, in the present instance forming a substantially rectangular opening 7 between them, with an intermediate cross bar 8 extending from substantially the middle of the one side piece 5 to substantially the middle of the other side piece 6.

The tensioning device constituting the present invention consists, see Fig. 3, of a blank 9 having a wide belt engaging main plate portion 10 to form a jaw member, with an elongated intermediate portion 11 and two short portions 12, 13 separated from the intermediate portion 11 by the incisions or slots 14, 15, respectively. If the blank is stamped out of metal, the same is then bent into the form shown in Fig. 4 by bending the narrow extensions 12, 13 to form another jaw member down and back under the plate portion 10 substantially along the lines 16, 17 but preferably forming enlarged loops 18 as shown in Fig. 4 to continue into the other jaw members formed by the extensions 12 and 13 for the purpose hereinafter to be described. The intermediate portion 11, on the other hand, is bent along the two lines, first substantially along line 19 back over the top of the plate portion 10 for a short distance and then substantially along the line 20 again forwardly over the top of itself to form the yieldable substantially V-shaped plate portions 21 and 22 as shown in Fig. 4 in which case the portion 21 constitutes the intermediate web and the portion 22 the yieldable plate portion.

When so formed the tensioning device is now ready to be removably attached to the conventional buckle 1. Ordinarily the captured end 23 of the belt 24 shown in dash and dot lines in Figs. 1 and 2 is attached to the cross bar 8 by being looped over the cross bar and then bent back under and upon itself and sewn or otherwise secured to the belt 24 proper. The tension device 9 now may be secured in place by slipping the main plate portion 10 and extensions or tongues 12, 13 over the looped portion 25 of the captured end 23 of the belt 24 until the intermediate webs or loops 18 rest snugly against the loop portion 25 of the captured end 23. The free ends 26 of the tongues 12 and 13 are bent intimately to clamp the folded-over captured end 23 of the belt 24 between the plate portion 10 and the free ends 26. Thereupon the free end 27 of the belt 24 is threaded through the buckle by being passed first under the cross piece 4, then over the yieldable plate portion 22 of the tensioning device 9, and then under the cross piece 3 and over the captured end 23 of the belt 24 as shown in Fig. 2.

Obviously the tensioning device 9 after having been bent into the shape shown in Fig. 4 if composed of spring steel is preferably hardened

by heating to a red heat and quenching or subjected to any other conventional treatment to increase its springiness.

The embodiment shown in Figs. 5 and 6 differs from the embodiment shown in Figs. 3 and 4 primarily in that the gripping tongues or extensions 12, 13 forming one of the jaw members are replaced by a single tongue 28 to form one of the jaw members. The tongue 28 constituting one of the jaw members in this embodiment cooperates with the main plate portion 110 constituting the other jaw member to grip the belt covered cross bar 8 of the embodiment shown in Figs. 1 and 2 with the intermediate web 21 replaced by the portions 121 constituting the intermediate web of this embodiment and the yieldable plate portion 22 replaced by the yieldable plate portion 122. The embodiment shown in Figs. 5 and 6 just as well as the embodiment shown in Figs. 3 and 4, may be stamped out of a single piece of metal. On the other hand, without departing from the general spirit of the invention, it is of course obvious that either of these embodiments could be molded from a plastic material. When composed of metal, all sharp corners are preferably removed to protect the garment against undue wear and also to protect the fingers of the user from being injured, and similarly when composed of plastic material, care should be exercised, when molding, that not only smooth preferably glossy surfaces are produced, but also that all corners are definitely rounded as shown.

It is obvious that various changes and modifications may be made to the details of construction without departing from the general spirit of the invention as set forth in the appended claims.

I claim:

1. In a tensioning device for a belt buckle having an open frame including two side bars, two end cross pieces, and an intermediate cross bar extending between the said side bars and adapted to receive the captured end of a belt secured around the cross bar: the combination of a one-piece unit having an intermediate web, a yieldable plate portion and a pair of resilient jaw members, the jaw members extending from said intermediate web for yieldably gripping the belt-covered cross bar against accidental removal, but enabling intentional removal, of the device, from the belt covered cross bar between said jaw members, and the yieldable plate portion extending outwardly from said intermediate web back over one of said jaw members to engage the free end of the belt threaded under the two end cross pieces and over the belt covered cross bar and thereby yieldingly press the free end of the belt against the said end cross pieces, with the jaw members and intermediate web extending in one direction and the yieldable plate portion extending in the opposite direction.

2. In a tensioning device for a belt buckle having an open frame including two side bars, two end cross pieces, and an intermediate cross bar extending between the said side bars and adapted to receive the captured end of a belt secured around the cross bar: the combination of a one-piece metal stamping having an intermediate web and a pair of resilient jaw members extending therefrom for yieldably gripping the belt-covered cross bar against accidental removal, but enabling intentional removal, of the device, from the belt covered cross bar between said jaw members, a main plate portion forming one of said jaw members and tongues extending along the sides of the bottom of said main plate portion forming the other of said jaw members, and a yieldable plate portion extending outwardly from said intermediate web back over said one of said jaw members to engage the free end of the belt threaded under the two end cross pieces and over the belt covered cross bar and thereby yieldingly press the free end of the belt against the said end cross pieces, with the jaw members and intermediate web extending in one direction and the yieldable plate portion extending in the opposite direction.

3. In a tensioning device for a belt buckle having an open frame including two side bars, two end cross pieces, and an intermediate cross bar extending between the said side bars and adapted to receive the captured end of a belt secured around the cross bar: the combination of a one-piece metal stamping having an intermediate web and a pair of resilient jaw members extending therefrom for yieldably gripping the belt-covered cross bar against accidental removal, but enabling intentional removal, of the device, from the belt covered cross bar between said jaw members, a main plate portion forming one of said jaw members and a tongue extending back along the bottom of said main plate portion intermediate the sides to form the other of said jaw members, and a yieldable plate portion extending outwardly from said intermediate web back over said one of said jaw members to engage the free end of the belt threaded under the two end cross pieces and over the captured end of the belt and thereby yieldingly press the free end of the belt against the said end cross pieces, with the jaw members and intermediate web extending in one direction and the yieldable plate portion extending in the opposite direction.

4. The combination of a belt buckle having an open frame including side bars, two end cross pieces and an intermediate cross bar between the side bars, a belt having one end constituting the captured end secured around said cross bar, and a one-piece tensioning device having an intermediate web, a yieldable plate portion and a pair of resilient jaw members, the jaw members extending from said intermediate web for yieldably gripping said belt-covered cross bar against accidental removal, but enabling intentional removal, of the tensioning device, from said belt-covered cross bar between said jaw members, and the yieldable plate portion extending outwardly from said intermediate web back over one of said jaw members to engage the free end of the belt threaded under the two end cross pieces and over the belt-covered cross bar and thereby yieldingly press the free end of the belt against the said end cross pieces, with said jaw members and intermediate web extending in one direction and the yieldable plate portion extending in the opposite direction.

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