Oct. 18, 1955 M. V. MAHER 2,720,689

BUCKLE ATTACHMENT TO PREVENT BELT SLIPPAGE

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Fig. 1.

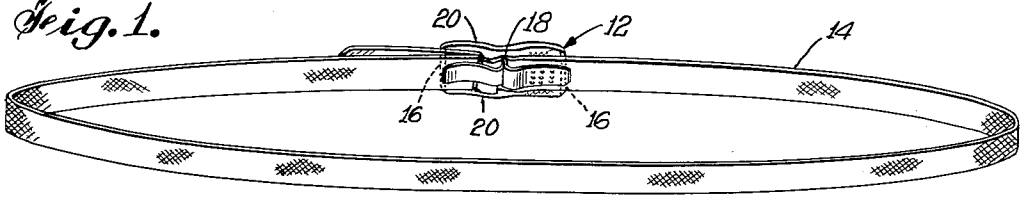


Fig. 2.

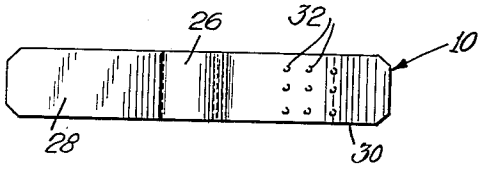


Fig. 3.

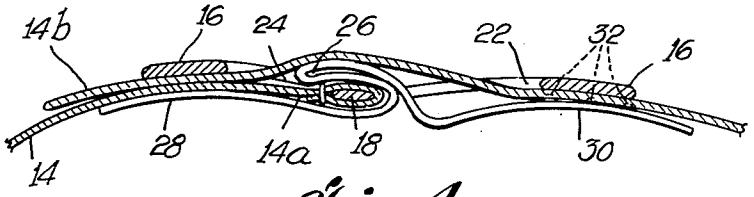


Fig. 4.

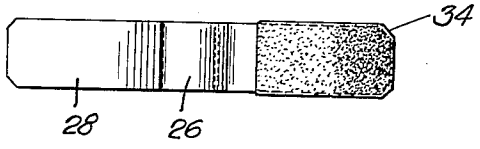
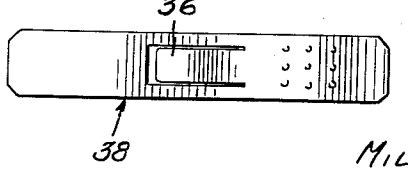


Fig. 5.



Fig. 6.



INVENTOR
MILDRED V. MAHER
BY
Samuel J. Stoll
ATTORNEY

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BUCKLE ATTACHMENT TO PREVENT BELT SLIPPAGE

Mildred V. Maher, Jamaica, N. Y.

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8 Claims. (Cl. 24—163)

This invention relates to a buckle attachment to prevent belt slippage.

Reference is here made to belt buckles which frictionally engage the belt to hold the same in any selected position. It is the type of buckle which is frequently applied to women's and children's dresses. The invention does not apply to belt buckles which are provided with a tongue for engagement with an eye or series of eyes in the belt.

The belt buckle to which the present invention relates comprises in its conventional form a frame which has two end pieces, an intermediate bar which is spaced from the two end pieces and a pair of side members which are spaced from each other and which hold the end pieces and intermediate bar in spaced relation to each other. One end of the belt is secured to the intermediate bar and the belt is then brought around the person of the wearer and the opposite end is then inserted into the space between one of the end pieces and the intermediate bar and it is then drawn around said intermediate bar and into and through the space between said intermediate bar and the other of the two end pieces. There is frictional engagement between the belt on the one hand and the end pieces and intermediate bar of the buckle on the other hand and it is this frictional engagement which is intended to prevent the belt from slipping relative to the buckle. It will be apparent from this description of the buckle construction and its relationship to the belt that such frictional engagement will not be effectual for the purpose for which it is intended.

The buckle attachment which is herein described and claimed is a spring clip which engages the intermediate bar of the buckle and which applies spring pressure to the end pieces of the buckle. Stated differently, the buckle attachment herein claimed hooks onto the intermediate bar of the buckle and it is provided with a pair of wings which tensionally bear against the two end pieces of the buckle. This attachment is applied to the buckle only after the belt is drawn therethrough. Consequently, its two wings rest not against the buckle proper but rather against the belt and the belt is thereby held in tensioned engagement between said wings and the two end pieces of the buckle.

The buckle attachment constituting the present invention may be made in various forms. For example, its hook portion which is disposed intermediate its two wings may be formed by simply bending the intermediate portion thereof to hook shape. Another possibility is to weld or rivet or otherwise secure a hook portion to the buckle attachment intermediate the wings of said attachment. Still another possibility is to strike out an intermediate portion of the buckle attachment and to bend it to hook shape.

There are other variations which the present invention contemplates, including the following. The buckle attachment herein claimed may be made of bare metal, suitably finished, as by means of a lacquer coating or a rust-resistant metal plating. If, however, bare metal is found

to provide an inadequate frictional coefficient, it may be found desirable to roughen its surface by applying thereto a rubber or plastic coating whose coefficient of friction is considerably higher than that of bare metal. Another possibility is to provide a plurality of pointed projections or the like on said belt buckle attachment for a more positive engagement with the belt. A further possibility is to make the entire attachment of spring plastics having a high frictional coefficient.

Preferred forms of this invention are shown by way of illustration in the accompanying drawing in which:

Fig. 1 is a perspective view of a belt which is in engagement with a buckle of the character above described, showing a buckle attachment made in accordance with one form of this invention mounted on said buckle and engaging the belt against said buckle to prevent the belt from slipping through said buckle.

Fig. 2 is a plan view of said buckle attachment, showing the side which engages the belt.

Fig. 3 is a side edge view thereof with the buckle in longitudinal section, showing the pointed projections which engage the belt to prevent slippage.

Fig. 4 is a view similar to that of Fig. 2 of a buckle attachment made in accordance with a second form of this invention, wherein a rubber coating is applied to provide a relatively high frictional coefficient between the buckle attachment and the belt.

Fig. 5 is a side view of a buckle attachment made in accordance with a third form of this invention, wherein the hook portion is struck out of the body of said attachment.

Fig. 6 is a plan view of said buckle attachment.

Referring now to Figs. 1, 2 and 3 of the drawing and to the first form of this invention, it will be seen that buckle attachment **10** herein claimed may be applied to a buckle **12** and a belt **14** on said buckle. As has above been indicated, this buckle has a pair of end pieces **16**, an intermediate bar **18** which is parallel to the two end pieces and maintained in spaced relation thereto, and a pair of parallel side members **20** which support the end pieces and the intermediate bar in spaced relation to each other. It will be seen that one end **14***a* of belt **14** is secured to intermediate bar **18**. When the belt is worn on the person, it is brought around the waist and then its opposite end **14***b* is inserted into and through space or opening **22** and then around intermediate bar **18** and then through space or opening **24**. These two spaces **22** and **24** are formed in the buckle between its end pieces **16** and its intermediate bar **18** and between its two side members **20**.

The buckle attachment **10** consists of the following component parts which may be and preferably are integral with each other: a hook-shaped member **26** and a pair of wings **28** and **30** respectively. Hook-shaped member **26** is adapted to hook around intermediate bar **18** of the buckle and the two wings **28** and **30** are thereby brought into position for engagement with end pieces **16** of the buckle. Actually, however, this buckle attachment never really directly touches the buckle but instead it rests against the belt on said buckle. More specifically, hook-shaped element **26** engages the inner end **14***a* of the belt which is secured to intermediate bar **18** of the buckle. Wing **30** of the buckle attachment engages the opposite end **14***b* of the belt in the area in which that end of the belt rests against the right end piece **16**. The two ends of the belt are superimposed one above the other in the area of the left end piece **16** of the buckle and wing **28** of the buckle attachment engages that portion of the inner end **14***a* of the belt which lies opposite said left end piece **16** of the buckle.

It will be seen that buckle attachment **10** is made of a strip of metal which is bent upon itself in its center

portion and bent in the general shape of a hook to form the hook-shaped portion **26** above mentioned. Its end portions are bowed to form to somewhat arcuate wings **28** and **30** also above mentioned. The exact curvature both of the hook portion and the wing portions is not critical and much depends upon the shape of the buckle to which the buckle attachment herein claimed is intended to be applied. Actually, however, a buckle attachment whose wings are moderately curved will have a virtually universal application to buckles of practically every size and shape. The metal of which this attachment is made should be resilient and spring steel or other spring metal would be well suited for the purposes of this invention. It will be understood that when the hook-shaped intermediate portion of the buckle attachment is brought into engagement with the intermediate bar of the buckle, the wings of said attachment are required to flex out of their relaxed state in order to adapt themselves positionally to the end pieces of the buckle. In other words, the wings of the attachment bear resiliently against the end pieces of the buckle when the hook of said attachment is in engagement with the intermediate bar of the buckle. When the belt is interposed between the wings of the buckle attachment and the end pieces of the buckle, the spring pressure of said wings tends to clamp the belt against the buckle and thereby tends to prevent the belt from slipping out of the buckle.

The buckle attachment thus described may be made of spring wire, rather than metal stripping, if desired. Similarly, it may be made of spring plastics or any other material which could be made to hook onto the intermediate bar of the buckle and to bear resiliently against the end pieces of the buckle.

It may be found that spring pressure alone will not adequately clamp the belt against the buckle. Of course, an excessively strong spring cannot be used because it would then be difficult to mount the buckle attachment on the buckle or to remove it therefrom. It may therefore be found desirable to add to the frictional coefficient of the buckle attachment and this may be done in several ways, two of which are shown in the drawing. Referring to Figs. 2 and 3, it will be seen that a plurality of pointed projections **32** are applied to or formed on one of the wings **30** of the buckle attachment to provide a relatively roughened or studded effect. These pointed projections tend to dig into the belt and help anchor it in place relative to the buckle. These pointed projections may be formed in wing **30** by simply pressing them into the metal of which said wing is made.

Another possibility is to apply a rubber coating **34** to said wing **30** and this may be done by simply dipping said wing into liquid rubber. Since rubber has a relatively high frictional coefficient, this will help clamp the belt and hold it against slippage. A plastic coating may be applied in place of the rubber coating and, if desired, the engaging surface of the plastic coating may be roughened or ridged or corrugated to enhance its frictional engagement with the belt.

Thus far, the invention has been discussed in relation to the embodiment which is shown in the first four figures of the drawing where it appears that the buckle attachment is made of a single piece of material which is bent intermediate its ends to form the hook-shaped member **26**. Fig. 5 and Fig. 6 show a variation of this construction where a hook-shaped member **36** is provided in the place and stead of hook-shaped member **26**. Hook-shaped member **36** may be described as a hook-shaped tongue which is struck out of the body of buckle attachment **38**. This form of the invention makes for a saving in material over the form of invention shown in the first four figures of the drawing. It is however immaterial how the hook-shaped member is provided in the center of the buckle attachment as long as it is formed there or attached there in any conventional way.

The foregoing illustrates several forms of this invention and it will be understood that these forms may be modified and other forms may be provided within the broad scope of this invention.

I claim:

1. An attachment for a belt buckle having an intermediate crossbar and a pair of end cross pieces which are spaced from the intermediate bar, one on each side thereof, and a pair of side rails to which said intermediate crossbar and said end cross pieces are all connected, said intermediate crossbar and said end cross pieces having a front side and a back side, said attachment comprising an intermediate clip member and a pair of end wings connected thereto on opposite sides thereof, the end wings occupying a substantially common plane and the clip member being offset therefrom, said clip member being engageable with the front of said intermediate bar of the buckle and said end wings being engageable with the back of the end cross pieces of said buckle, whereby the clip member prevents rearward dislodgment of the attachment from the buckle and the end wings prevent forward dislodgment of said attachment from said buckle.

2. An attachment in accordance with claim 1, wherein the clip and wings are made of spring material so that the wings will bear against the end pieces of the buckle when the clip is in engagement with the intermediate bar of the buckle.

3. An attachment in accordance with claim 1, wherein the clip member is hook-shaped for hooking engagement with the intermediate bar of the buckle.

4. An attachment in accordance with claim 1, wherein the wings are arcuate in shape, their convex sides being engageable with the end pieces of the buckle.

5. An attachment in accordance with claim 1, wherein one of the wings is provided with a plurality of pointed projections pointing in the direction of that end piece of the buckle with which said wing is engageable.

6. An attachment in accordance with claim 1, wherein one of the wings is coated with a rubber coating on that surface which is engageable with the end piece of the buckle which lies opposite said wing.

7. An attachment in accordance with claim 1, which is made of a single strip of spring metal, said strip being bent upon itself, intermediate its ends, to form a hook-shaped portion, its ends being arcuately curved to provide the wings which are engageable with the end pieces of the buckle.

8. An attachment in accordance with claim 1 which is made of a single strip of spring metal, a tongue being struck out of said strip of metal, intermediate its ends and being bent to hook shape to form the slip which is engageable with the intermediate bar of the buckle, the ends of said strip of metal being arcuately curved to provide the wings which are engageable with the end pieces of the buckle.

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