Jan. 30, 1945. M. ZOLA 2,368,283

BUCKLE CONSTRUCTION

Filed April 3, 1942

FIG. 1

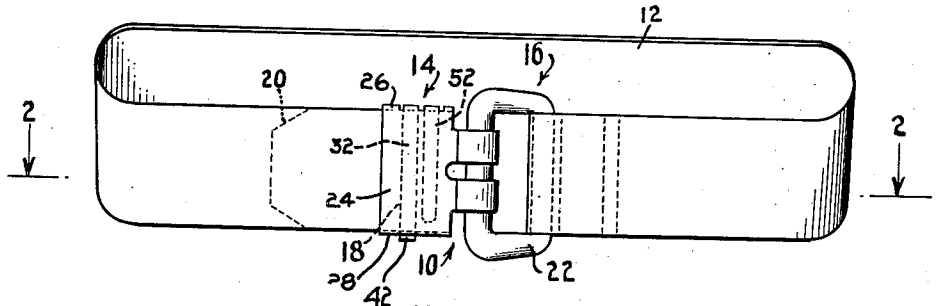


FIG. 2

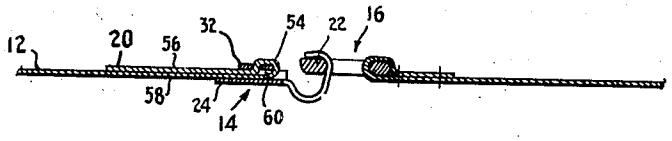


FIG. 3

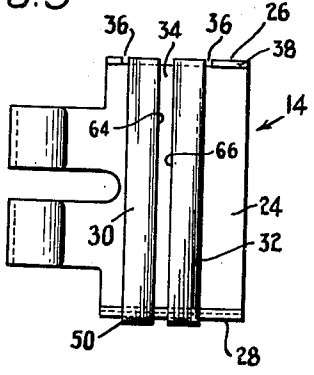


FIG. 4

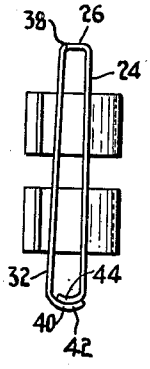
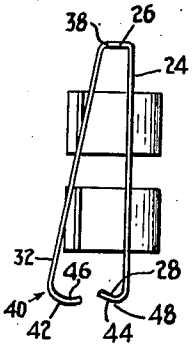
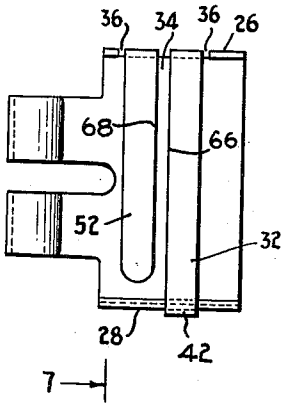


FIG. 5



7 — 7

FIG. 6



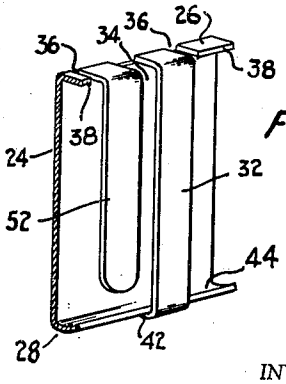


FIG. 7

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BUCKLE CONSTRUCTION

Morris Zola, New York, N. Y.

Application April 3, 1942, Serial No. 437,584

3 Claims. (Cl. 24—265)

This invention relates to buckle construction.

The invention will be described with particularity in relation to fastening a buckle to a belt. However, it is intended to be understood that the invention may have application in other connections, and for that reason the specific description herein is not intended in any way to limit the scope of application of the invention.

It is an object of the invention to provide a simple construction whereby a belt end may be anchored in relation to a buckle or similar construction by a simple assembly operation performed by relatively unskilled labor.

It is an object of the invention to provide a construction for use in anchoring a belt end with relation to a buckle or similar construction, wherein the anchoring construction is capable of manufacture by simple operations such as stamping or the like.

It is an object of the invention to provide a construction for use in anchoring a belt end with relation to a buckle or similar construction, wherein the relation of the elements of the construction is such that the belt end may be assembled with the anchoring construction practically by a single movement of the hand.

Other objects of this invention will be set forth hereinafter, or will be apparent from the description and the drawing, in which are illustrated embodiments of apparatus exemplifying the invention.

The invention, however, is not intended to be restricted to any particular construction, or any particular arrangement of parts, or any particular application of any such construction or arrangement of parts, or any specific method of operation, or any of various details thereof, even where specifically shown and described herein, as the same may be modified in various particulars, or may be applied in many varied relations, without departing from the spirit and scope of the claimed invention, practical constructions embodying certain details of the invention being illustrated and described, but only for the purpose of complying with the requirements of the statutes for the disclosure of an operative embodiment, but without attempting to disclose all of the various forms and modifications in which the invention might be embodied.

On the drawing, in which the same reference characters refer to the same parts throughout, and in which the exemplifying embodiments appear:

Fig. 1 is an elevational view of a belt having a buckle construction associated therewith, and embodying features of the invention;

Fig. 2 is a transverse, cross-sectional view, substantially on the line 2—2 of Fig. 1;

Fig. 3 is a plan view to enlarged scale of a portion of the buckle construction shown in Figs. 1 and 2, and embodying features of the invention;

Fig. 4 is an end elevational view of the structure shown in Fig. 3;

Fig. 5 is a view similar to Fig. 4, with the fingers shown open;

Fig. 6 is a view similar to Fig. 3, of a modified construction; and

Fig. 7 is a view in perspective, of the structure shown in Fig. 6, broken away along the line 7—7 of Fig. 6.

On the drawing, the invention is illustrated in conjunction with a buckle 10 for a belt 12. The buckle may be considered as consisting of portions 14 and 16, wherein portion 14 is constructed, at section 18, to receive and retain an end 20 of belt 12, while the buckle elements 22 illustrated in conjunction with portions 14 and 16 are not specifically described since they do not specifically enter into the invention.

Portion 14 may be designed to be formed by a simple operation of stamping from sheet metal. By such operation, a flat panel 24 may be defined; the panel may have edge flanges 26 and 28 integrally bent from the same metal at the edges of panel 24, and positioned to extend substantially parallel to each other, and substantially at right angles to the plane of panel 24.

In the construction shown in Fig. 3, a finger 30 may be formed to extend from flange 26, finger 30 being in turn substantially at right angles to flange 26, to extend substantially parallel to panel 24 and away from flange 26 towards flange 28. Such finger may thus be substantially integral with flange 26. A finger 32 may be formed in the same manner, and, in the stamping operation, substantially at the same time. Fingers 30 and 32 may be spaced, as will appear hereinafter, a distance such that the thickness of the material of belt 12 would not be passed easily through the slot or space 34 between the immediately adjacent fingers 30 and 32.

The metal from which portion 14 is formed preferably is of high resilience. In order to insure great elastic response for the operation of the fingers, slits or cuts 36 may be formed in flange 26 so that, in effect, finger 32 is L-shaped, and is anchored at panel 24 rather than at edge 38 of flange 26. End 40 of finger 32 may be bent

or otherwise formed to produce a prong **42** which, when finger **32** is flexed to move toward panel **24**, will come over rounded edge **44** of flange **28**, and then move into position so that its own rounded face **46** will engage over and seat upon outside face **48** of flange **28**.

In Fig. 3, finger **30** is shown as being substantially of the same construction as finger **32**, that is, long enough to extend from flange **26** to flange **28**, and having a prong **50** for engagement over flange **28**. In Fig. 6, however, a finger **52** takes the position of finger **30**. Finger **52**, shorter than finger **30**, is too short completely to span from flange **26** to flange **28**.

In the structure of Fig. 3, and as shown in Figs. 2 and 5, prongs **42** and **50** are released from engagement over flange **28**, and their fingers **30** and **32** are raised above the level of flange **28**. The operator takes belt **12** and folds its end **20** into a loop **54**. That loop **54** is now manipulated so that both layers **56** and **58** are positioned beneath finger **32**, but finger **30** enters opening **60** of loop **54**, between layers **56** and **58**. The belt material is moved so that, in position, an edge of end **20** is in abutment with the inner face of flange **26**. Fingers **30** and **32** now are both pushed down so that their respective prongs engage over flange **28**. It will be noted that a thickness of belt material is now caught between edges **64** and **66** of fingers **30** and **32**, the edges defining slot **34**. Finger **32** further clamps both layers **56** and **58** down against panel **24**, and between flanges **26** and **28**.

In Fig. 6, where finger **52** is associated with a finger **32**, both layers **56** and **58** are slipped under finger **32**, as before, and finger **52** enters opening **60** of loop **54**. However, only finger **32** is snapped into engagement with flange **28**. Thus, the anchorage of belt end **20** is derived from clamping the double thickness of the belt material against panel **24**, and between flanges **26** and **28**, and by engagement of layer **56** between edges **66** and **68** of fingers **32** and **52**, respectively, and by the same squeezing action. The belt material, in either construction, may be manipulated into the assembled position by a simple, non-tiring movement of the hands of the operator, and the assembly is made tight without the requirement for any special tools or skill.

In connection with the structure shown in Fig. 6, finger **52** may bend down into the space between flanges **26** and **28**. Thus a substantially compact structure of the assembly results. In Fig. 3, the fingers separate just sufficiently in the assembly operation that the thickness of a layer may be slipped between edges **64** and **66**, but when fingers **30** and **32** are moved into position to be anchored upon flange **28**, the layer will be squeezed between edges **64** and **66**. Also, the structure is such that finger **32** normally will, upon release from engagement with flange **28**, tend to move upwardly beyond the position of finger **32**. This is also true in connection with fingers **32** and **52**, where finger **32** will tend to move beyond finger **52**, to permit the greater thickness of the two layers of belt material to be positioned beneath finger **32** before it is moved into engagement with flange **28**.

Many other changes could be effected in the particular apparatus designed, and in methods of operation and use set forth, and in specific details thereof, without substantially departing from the invention intended to be defined in the claims, the specific description being merely of exemplifying embodiments in accordance with the statutes.

What is claimed as new and useful is:

1. In a buckle for detachably connecting the ends of a belt member together, including a detachable connecting means, and a section having means for securing one end of the belt member to the buckle member; the securing means comprising a plate providing a base for the section, and a pair of prongs integral with the plate at one edge of the plate and extending over the plate towards its opposite edge, one of the prongs receiving and retaining the looped end of the belt member, and the other prong providing means for clamping the superposed layers forming the looped end of the belt to the plate, and said other prong overlying said opposite edge and provided at its free end with means releasably engaging and locking the free end of said other prong to the edge of the plate.

2. In a buckle for detachably connecting the ends of a belt member together, including a detachable connecting means, and a section having means for securing one end of the belt member to the buckle member; the securing means comprising a plate providing a base for the section, and a pair of prongs integral with the plate at one edge of the plate and extending over the plate towards its opposite edge, one of the prongs being shorter than the distance from edge-to-edge of the plate and receiving and retaining the looped end of the belt member, and the other prong providing means for clamping the superposed layers forming the looped end of the belt to the plate, and said other prong overlying said opposite edge and provided at its free end with means releasably engaging and locking the free end of said other prong to the edge of the plate.

3. In a buckle for detachably connecting the ends of a belt member together, including a detachable connecting means, and a section having means for securing one end of the belt member to the buckle member; the securing means comprising a plate providing a base for the section, and a pair of prongs integral with the plate at one edge of the plate and extending over the plate towards its opposite edge, one of the prongs receiving and retaining the looped end of the belt member, and the other prong providing means for clamping the superposed layers forming the looped end of the belt to the plate, and said prongs overlying said opposite edge and provided at their free ends with means releasably engaging and locking the free ends of said prongs to the edge of the plate.

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