July 27, 1954 W. J. MORSE 2,684,513

BUCKLE

Filed Jan. 30, 1952

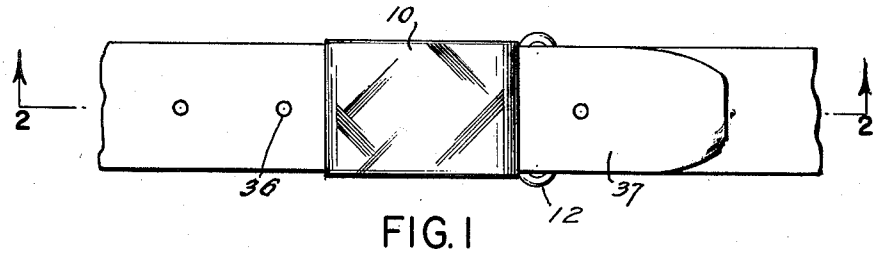


FIG. 1

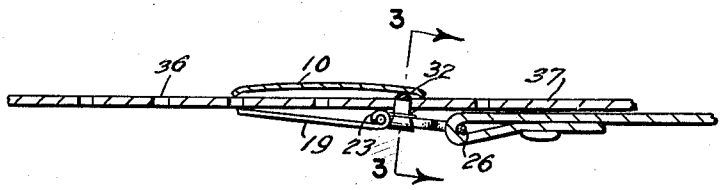


FIG. 2

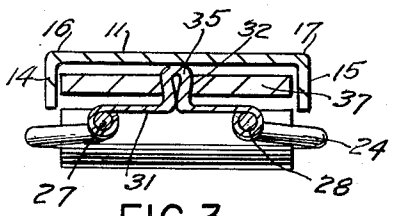


FIG. 3

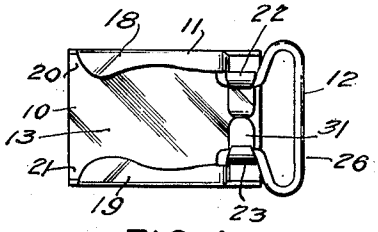


FIG. 4

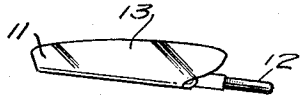


FIG. 5

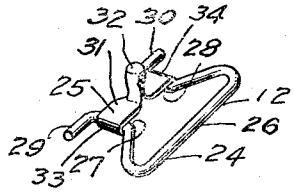


FIG. 6

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BUCKLE

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2 Claims. (Cl. 24—180)

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The present invention relates to buckle constructions, and has particular reference to a buckle construction for use with men's leather belts.

The principal object of the invention is to provide a buckle with a positive lock for holding a belt to a fixed adjusted length.

Another object of the invention is to provide a buckle comprising a front piece and an all wire lock lever.

A further object of the invention is to provide a buckle including a front piece made from thin stamped metal which mounts a rotatable lock lever for gripping a belt.

Still another object of the invention is to provide a buckle with a fixed element which takes the force of pull of the belt.

An additional object of the invention is to provide a buckle in which the front piece is not subjected to stress when the belt has been adjusted in place.

Another object of the invention is to provide a buckle in which the belt is locked in adjusted position by a vertical upstanding pin inserted within a selected belt hole.

Still another object of the invention is to provide a buckle having a ball top vertical upstanding pin for slide seating in a selected belt opening.

With the above and other objects and advantageous features in view, the invention consists of a novel arrangement of parts more fully described in the detailed description following in conjunction with the accompanying drawings, and more specifically defined in the claims appended thereto.

In the drawings,

Fig. 1 is a plan view of the buckle mounted on a belt, the belt being partially cut away;

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

Fig. 3 is a sectional enlarged view on the line 3—3 of Fig. 2;

Fig. 4 is a bottom view of the buckle showing the front frame and its attached lock lever;

Fig. 5 is a side view of Fig. 4; and

Fig. 6 is a perspective view of the lock lever.

The belt buckles now in use are generally of two types, one type having a clamp lever and the other type having a hinged tongue. The clamp lever type utilizes a stamped metal frame to which the lever is pivoted, the lever being of stamped metal and having a cam face for pressing a belt end against the inner surface of the frame to frictionally hold the belt end in adjusted position. This construction requires a

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heavy frame, and a massive clamp lever, thus necessitating large amounts of presently scarce metal, and having the further disadvantage that wear on the clamp lever cam face, on the belt material and on the frame permits a slipping of the belt parts.

It has been found desirable to provide a belt buckle which uses a relatively small amount of metal, and which has a frame made of thin stamped metal and a lever made of wire stock and having a vertical upstanding pin for positively gripping a belt end. To this end I have devised a novel buckle construction in which the frame is made of light metal, as it is not subjected to stress, and the lever is made from wire stock and shaped to provide a cross bar for permanently mounting one end of a belt, two parallel bars for supporting a vertical upstanding gripping pin member, and two axles for rotatably mounting the lever on the frame.

Referring to the drawings, the buckle 10 includes a frame 11, and a lever 12. The frame has a slightly arcuate top 13 which may have an emblem or an insigne mounted thereon, the frame being of thin metal. Two flanges 14, 15, depend vertically from the sides 16, 17 of the top 13, and have two inwardly turned flat strips 18, 19, which are parallel to the top 13 to form channels 20, 21 for receiving and keeping the belt aligned in the frame. Each strip has its end rolled to provide axle bearings 22, 23, which are in horizontal alignment and which are positioned underneath the top 13.

The lever 12 is shaped from wound wire and has a frame base 24, and a belt lock element 25. The base includes a cross bar 26 for mounting one end of a belt, two spaced parallel bars 27, 28, for mounting the lock element, and two axles 29, 30 extending outwardly from the spaced bars for insertion within the bearings 22, 23. The lock element 25 includes a cross strip 31 and an upstanding lock pin 32 which is centrally located on the cross strip, the lock element being preferably formed from half round wire. The lock element is secured to the spaced bars 27, 28 by forming the ends 33, 34, of the cross strip 31 as rolls therearound. The vertical pin 32 includes a ball top 35 for easy insertion of the pin within spaced perforated holes 36 which are central to align with the lock pin, see Fig. 3, at the free end of a belt 37, see Fig. 1, for gripping the free end in length adjusted position, the other end being secured to the cross bar 26.

Applicant's novel construction thus provides a belt buckle which facilitates correct length ad-

justment, and which locks the free end of the belt in fixed position without danger of slipping. Due to the vertical positioning of the upstanding lock pin, any outward pressure against the belt, as is the case when the stomach is distended slightly, slides the pin into the nearest hole within the free end of the belt, the ball top facilitating this slidable insertion. Once the belt has been locked in adjusted position, it remains set and cannot slip because the pull of the belt is in a horizontal plane against the fixed lock pin, which has its upper end closely adjacent to the bottom surface of the top. Since the lock pin takes all the force of the belt pull, the frame may be constructed of light thin metal, plastic, or other suitable material, since it is not under stress and its only functions are to provide mountings for the lever and guide channels for the belt to keep the belt holes in alignment with the vertical axis of the lock pin. The resulting saving of metal is increased by the applicant's novel construction of an all wire stock lever, as both the belt lever and the lock element are made of wire stock, the lock element being made of half round bent wire, although the lever may be stamped out of sheet stock, if desired. The use of wire stock for the lever provides cylindrical axles for mounting the lever onto the front piece which are freely rotatable and are, in effect, automatic roller bearings.

The novel buckle construction thus utilizes an inexpensive buckle which has light, readily assembled parts, and has the additional advantage that a positive belt lock is provided.

Although I have described a specific constructional embodiment of my invention, it is obvious that changes in the size, shape and arrangement of parts, and of their materials, may be made to meet different requirements, without departing from the spirit or the scope of the invention as defined in the appended claims.

I claim:

1. In a buckle for belts with spaced perforations and having a frame with a top, depending sides, and inturned flanges, said flanges having aligned axle receiving bearings at one end thereof, a lever having a base and a belt lock element, said base being formed of wire stock and including a cross bar, bends at the ends of the cross bar providing a belt receiving loop, spaced parallel mounting bars extending from the bends, and outwardly extending axles extending from the spaced parallel mounting bars, and said belt lock element having a cross strip, an upstanding lock pin, and rolled ends locked around said spaced bars.

2. In a buckle for belts with spaced perforations and having a frame with a top, depending sides, and inturned flanges, said flanges having aligned axle receiving bearings at one end thereof, a lever having a base and a belt lock element, said base being formed of wire stock and including a cross bar, bends at the ends of the cross bar providing a belt receiving loop, spaced parallel mounting bars extending from the bends, and outwardly extending axles extending from the spaced parallel mounting bars, and said belt lock element having a cross strip, an upstanding lock pin, and rolled ends locked around said spaced bars, said belt lock element being formed of half-round wire stock.

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