C. A. BREWER.

BUCKLE.

APPLICATION FILED FEB. 12, 1912.

1,069,758. **Patented Aug. 12, 1913.**

Fig. 1

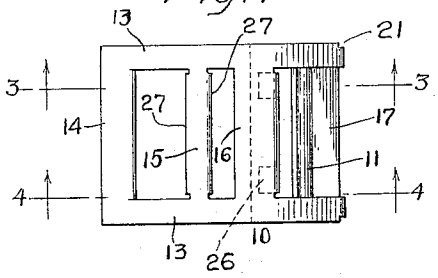


Fig. 2

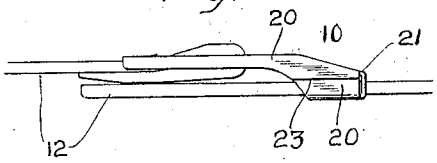


Fig. 3

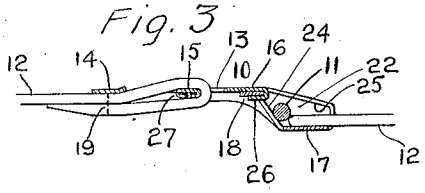


Fig. 4

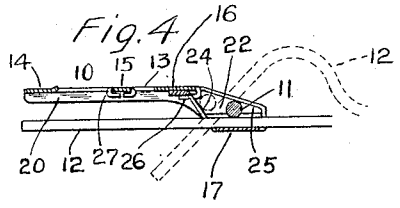


Fig. 5

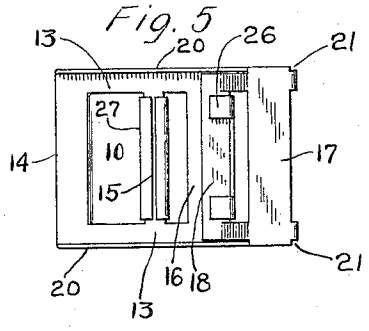


Fig. 6

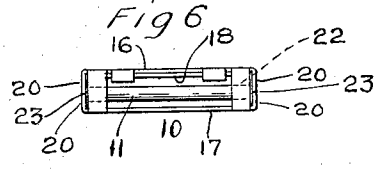


Fig. 8

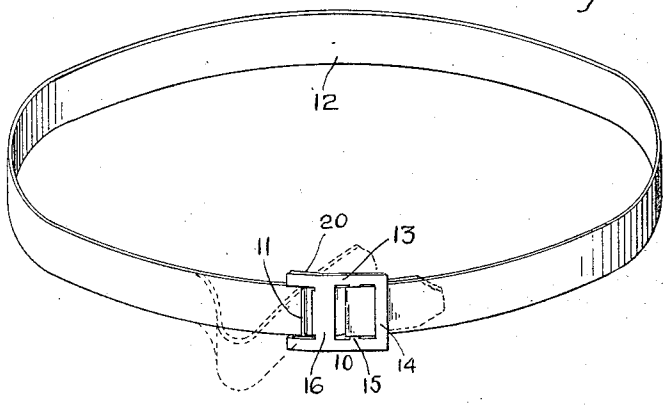
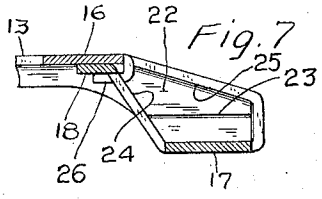


Fig. 7



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UNITED STATES PATENT OFFICE.

CHARLES A. BREWER, OF NOROTON HEIGHTS, CONNECTICUT, ASSIGNOR TO BREWER BELT AND BUCKLE COMPANY, INC., A CORPORATION OF NEW YORK.

BUCKLE.

1,069,758. Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed February 12, 1912. Serial No. 677,068.

To all whom it may concern:

Be it known that I, CHARLES A. BREWER, a citizen of the United States, residing at Noroton Heights, county of Fairfield, State of Connecticut, have invented an Improvement in Buckles, of which the following is a specification.

This invention relates to the class of buckles illustrated and described in Letters Patent of the United States, Number 824,276, granted to me June 26, 1906, and has for its object to still further perfect the invention for general use and more especially to adapt it for use as a belt buckle.

With these ends in view I have devised the novel buckle which I will now describe, referring to the accompanying drawing forming a part of this specification and using reference characters to indicate the several parts:

Figure 1 is a plan view of my novel buckle detached; Fig. 2 a side elevation as in use upon a belt, the belt being fastened; Fig. 3 a section on the line 3—3 in Fig. 1, looking in the direction of the arrows, the belt appearing in edge view at the beginning of the operation of fastening; Fig. 4 a section on the line 4—4 in Fig. 1, looking in the direction of the arrows, showing in full lines the fastened position of the belt and in dotted lines the operation of unfastening; Fig. 5 an inverted plan view; Fig. 6 an elevation as seen from the right in Figs. 1, 2, 3 and 4; Fig. 7 a sectional view on an enlarged scale, showing the construction of the socket end of the buckle; and Fig. 8 is a perspective of a belt with my novel buckle applied thereto and illustrating the operation of fastening and unfastening the belt.

10 denotes the body of my novel buckle, 11 the roller and 12 a belt to which the buckle is applied. The body is blanked out in a single piece from sheet metal and comprises essentially side pieces 13 and cross pieces 14, 15, 16, 17 and 18. One end of the belt is passed around cross piece 15 and secured by stitching as at 19, the line of stitching being wholly covered by cross piece 14, thus improving the appearance of the belt.

20 denotes flanges upon the side pieces which form a finish for the body of the buckle and impart to it strength and rigidity. These flanges are broken away as at 21, at which point the side pieces are bent inwardly and then rearwardly and outwardly to form sockets 22 which receive the ends of the roller. The end walls of the sockets are formed by the flanges which meet, as at 23, and the bottom of the sockets is formed by cross piece 17. Beyond the sockets the flanges are removed. The upper walls of the sockets incline inwardly from cross piece 16 to the end of the body forming what may be termed working inclines 25 against which the roller bears in use, as will be more fully explained. Between cross pieces 17 and 18 the side pieces form other inclines indicated by 24, the function of which will presently be explained. Inclines 24 terminate in cross piece 18 which in the assembled position lies in contact with cross piece 16 and between the flanges (see Figs. 3 and 4) in which position it is securely retained by lugs 26 formed integral with cross piece 16, which are closed tightly around cross piece 18 locking the cross pieces together and making the body and sockets perfectly rigid. Lugs 26 have an additional function in that they prevent the possibility of the roller becoming set in the angles of the sockets when raised by the belt, as indicated by dotted lines in Fig. 4. In order to add strength to the buckle and also to prevent cutting of the leather of the belt, I preferably utilize a portion of the metal cut out between cross piece 15 and cross pieces 14 and 16 and turn it under cross piece 15 forming rolled edges 27, as clearly shown in the drawing.

The operation is as follows: In fastening a belt, the operator passes the free end of the belt over cross piece 17 and under the roller (see Figs. 3 and 6). The effect is to push the roller toward the left, as seen in Fig. 3, and up inclines 24, thus permitting the belt to pass inward freely. After the free end of the belt has been pushed inward under the roller as far as may be required to suit the comfort and convenience of the wearer, the belt is released and is then naturally expanded by the breathing of the wearer. This acts to draw the free end of the belt backward slightly and causes the roller to travel backward in the sockets until it wedges between working inclines 25 and the belt, as shown in full lines in Fig. 4. This clamps the belt tightly between the roller and cross piece 17 which forms the bottom of the sockets. To unfasten the belt,

the wearer picks up the free end of the belt outside the buckle and raises it, as shown in dotted lines in Figs. 4 and 8. This throws the roller forward into the wider portions of the sockets and tilts the portion of the belt within the buckle in the opening between cross pieces 17 and 18, which leaves that end of the belt free and permits it to be withdrawn. The possibility of the roller wedging in the opposite or upper angle of the sockets either in fastening or unfastening the belt is prevented by lugs 26 which project into the angle. The roller does not require to be touched by the operator but is moved forward by the lifting of the belt in unfastening and its action in fastening is automatic; that is, it is drawn backward by the free end of the belt until it wedges between the working inclines and the belt and clamps the belt betweeen itself and cross piece 17.

Having thus described my invention I claim:

1. A buckle of the character described comprising a body provided with side pieces and cross pieces, said side pieces being inwardly inclined from one of said cross pieces to one end of said body and having inwardly and outwardly extending portions at said incline to form a socket with closed sides and open front, the inner wall of said socket being formed by a second cross piece, a roller mounted in said socket, and stops for the roller at the forward and rear ends of said socket, and means for preventing wedging of the roller in said socket.

2. A buckle of the character described comprising a body provided with side pieces and cross pieces, said side pieces being inwardly inclined from one of said cross pieces to one end of said body and having inwardly and outwardly extended portions at said incline to form a socket with closed sides and open front, the forward end of said socket being provided with flanges forming front stops, the inner wall of said socket being formed by a second cross piece spaced from and parallel with the first cross piece, a roller mounted in said socket, said side pieces being extended rearwardly at an angle from the second cross piece to the first mentioned cross piece to form stops for the roller at the rear end of the socket.

3. A buckle of the character described comprising a body provided with side pieces and cross pieces, said side pieces being inwardly inclined from one of said cross pieces to one end of said body and having inwardly and outwardly extended portions at said incline to form a socket with closed sides and open front, the inner wall of said socket being formed by a second cross piece, a roller mounted in said socket, said side pieces being extended rearwardly at an angle from the last mentioned cross piece to the first mentioned cross piece to form stops for the roller at the rear end of the socket, and means for preventing the roller from wedging in the angle formed by the rear stops.

4. A buckle of the character described comprising a body provided with side pieces and cross pieces, said side pieces being inwardly inclined from one of said cross pieces to one end of said body and having inwardly and outwardly extended portions at said incline to form a socket with closed sides and open front, the inner wall of said socket being formed by a second cross piece, a roller mounted in said socket, said side pieces being extended from the last mentioned cross piece to the first mentioned cross piece, and carrying a third cross piece which contacts with the inner face of the first mentioned cross piece, whereby stops for the roller are provided at the rear end of said socket, one of said contacting cross pieces being provided with retaining lugs bent over the edge of the abutting cross piece, and serving to prevent wedging of the roller at the contiguous end of the socket.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. BREWER.

Witnesses:

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JOSEPH J. LINXWEILER.