R. S. AVELSGARD.

BUCKLE.

APPLICATION FILED NOV. 18, 1912.

1,084,057. Patented Jan. 13, 1914.

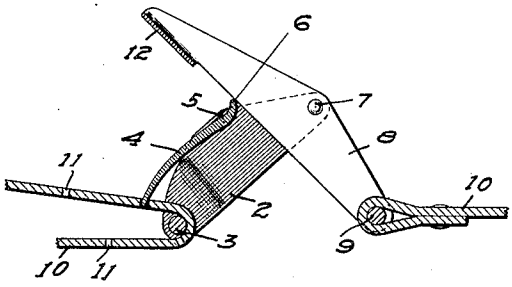


FIG. 1.

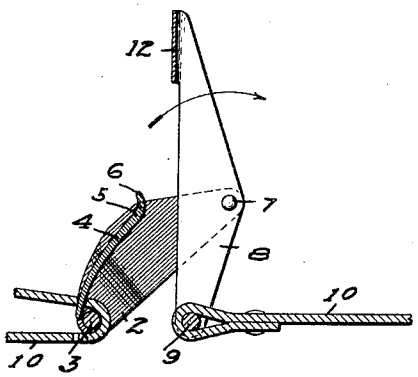


FIG. 2.

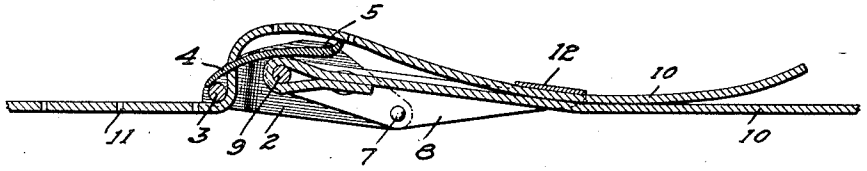


FIG. 3.

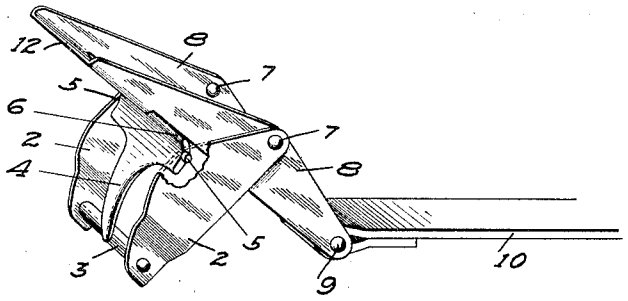


FIG. 4.

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BUCKLE.

1,084,057. Specification of Letters Patent. Patented Jan. 13, 1914.

Application filed November 18, 1912. Serial No. 732,003.

To all whom it may concern:

Be it known that I, RICHARD S. AVELSGARD, a citizen of the United States, residing at Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Buckles, of which the following is a specification.

My invention relates to buckles adapted for general use but particularly suitable for the straps connecting the forward portion of an automobile top with the frame of the car, where it is desirable to place the straps under extreme tension to draw and hold the top as rigidly as possible.

A further object is to provide a buckle having means to facilitate the insertion of the tongue into the strap and the release of the tension on the strap.

Other objects of the invention will appear from the following detailed description.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification, Figure 1 is a sectional view illustrating the engagement of the lever device with the tongue to force it through the hole in the strap, Fig. 2 is a similar view, showing the movement of the lever in increasing the tension on the strap, Fig. 3 is a view showing the strap under tension with its free end in position to trip the tension increasing lever, Fig. 4 is a perspective view showing the strap withdrawn from the buckle and the tension lever bearing on the tongue.

In the drawing, 2 represents a frame having a cross bar 3 at one end.

4 is a tongue pivoted at 5 in the side bars of the frame 2 and provided with a cam edge 6 formed on the cross bar of the tongue, preferably near its pivots. A tension lever is pivoted at 7 at the opposite end of the frame 2 from the cross bar 3, preferably, and consists of side bars 8 having a cross bar 9 between them at one end. To this cross bar 9 the strap 10 is secured in the usual manner. This strap is of ordinary construction and is provided with the usual holes or perforations 11. I also provide a cross bar 12 between the side bars 8, preferably at the opposite end thereof from the cross bar 9. The distance between the cross bar 3 and the pivots 7 is greater than the distance between the pivots 7 and the cross bar 9, and consequently the tension lever may be swung down into alinement with the frame 2 until the bar 9 or the point of connection of the strap with the tension lever passes the center of the pivot 7, as indicated in Fig. 3. Evidently the swinging of the tension lever to this position will increase the strain or tension on the strap. Previous to this movement of the tension lever, however, the free end of the strap is passed around the cross bar 3 and under the tongue 4 and when a pull is exerted on the strap the tongue will slide over the strap surface and the tension lever will swing backwardly against the cam 6 and force the tongue through a hole in the strap. Evidently the stronger the pull on the strap the greater the pressure of the tension lever on the tongue. This will result in forcing the tongue through the strap without the necessity of using the fingers to guide it. When the strap has been drawn up to a suitable point, the tension lever is swung from the position shown in Fig. 1 around to the position shown in Fig. 3, thereby greatly increasing the tension on the strap, and drawing the cover taut, securing it firmly to the front of the car. The loose or free end of the strap is then inserted beneath the cross bar 12, where it may be utilized as a pull to trip the tension lever and throw it back to its releasing position. This utilizing of the free end of the strap to trip the tension lever I regard as an important feature of my invention, as it greatly facilitates the release of the strap and enables its free end to be easily and quickly detached from the buckle without using the fingers to trip the tension lever.

In addition to the use of the device in connection with automobile tops, it may be used on vehicle tops of various kinds and on trunks and wherever it is desirable to provide means for forcing the tongue into the strap and increasing the tension on the strap when drawn up.

I claim as my invention:—

1. A buckle comprising a frame having a cross bar, a tongue pivoted in said frame, a tension lever pivoted in said frame and adapted to bear on said tongue, the pressure of said tension lever on said tongue operating to tilt the same on its pivots, a strap attached to said tension lever and having a

free end adapted to pass around said cross bar beneath said tongue, the free end of said tongue resting on said strap, the pressure of said tension lever on said tongue when the strap is tightened forcing it through said strap.

2. A buckle comprising a frame having a cross bar, a tongue pivoted in said frame and provided with a cam edge, a tension lever pivoted in said frame and adapted to bear on said cam edge, a strap attached to said tension lever and having a free end to pass around said cross bar beneath said tongue, the drawing up of said strap operating to press said tension lever against said cam and force said tongue through a hole in said strap.

3. A buckle comprising a frame having a cross bar, a tongue pivoted in said frame, a tension lever comprising side bars and end cross bars and pivoted at a point intermediate to the ends of said side bars to said frame, a strap attached to one of the cross bars of said tension lever and having a free end to pass around the cross bar of said frame, said tension lever being adapted to swing to carry its point of connection with said strap past the center of its pivots on said frame, thereby increasing the tension on said strap, the free end of said strap being adapted to pass under the other cross bar of said tension lever and coöperate therewith to trip said lever.

In witness whereof, I have hereunto set my hand this 15 day of November, 1912.

RICHARD S. AVELSGARD.

Witnesses:
GENEVIEVE E. SORENSEN,
EDWARD A. PAUL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."