J. F. CARPMILL.

BUCKLE.

APPLICATION FILED JAN. 12, 1921.

1,376,919. Patented May 3, 1921.

Fig. 1.

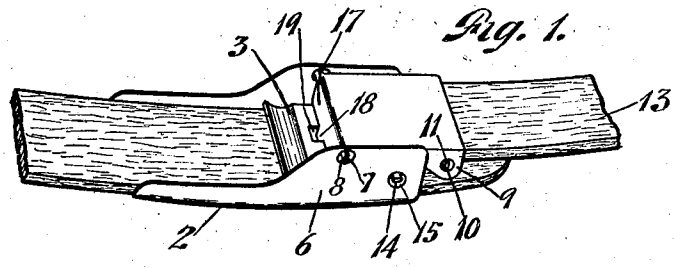



Fig. 2.

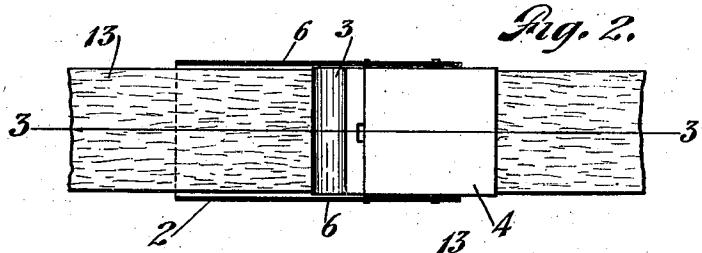



Fig. 3.

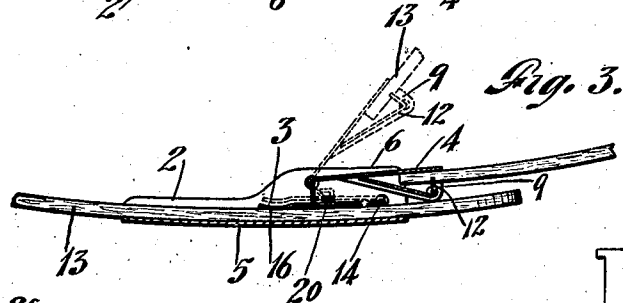



Fig. 6.

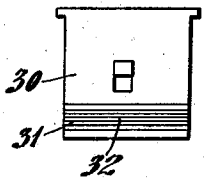



Fig. 5.

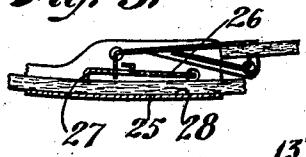



Fig. 4.

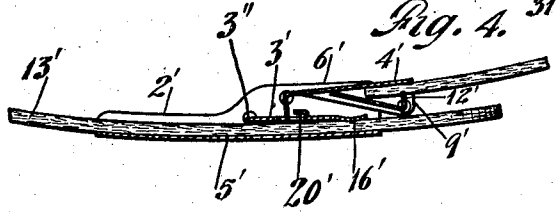
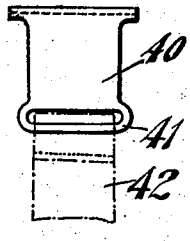



Fig. 7.




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# UNITED STATES PATENT OFFICE.

JOHN F. CARPMILL, OF NEW BRITAIN, CONNECTICUT.

## BUCKLE.

1,376,919. Specification of Letters Patent. Patented May 3, 1921.

Application filed January 12, 1921. Serial No. 436,782.

*To all whom it may concern:*

Be it known that I, JOHN F. CARPMILL, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Buckles, of which the following is a specification.

This invention relates to buckles. A buckle involving the invention may be used in many different fields. It may be employed with utility for holding a strap or webbing in closed position when associated for instance with a belt, for holding school books or in harness. From this it will be clear that I am not restricted to the use of the buckle in any particular field. I have a number of objects in view among the principal of them being the provision of a buckle which can be inexpensively produced, which is strong and thus serviceable, and which effectually holds a strap, band or webbing in closed condition but which may be quickly and easily released. The device comprises other features of novelty and advantage which with the foregoing will be set forth at length in the following description wherein I will describe in detail several of the many forms of embodiment of the invention which I have selected for illustration in the drawings accompanying and forming part of the present specification. Clearly I am not restricted to this showing. I may depart therefrom in a number of respects within the scope of the invention defined by the claims following said description.

Referring to said drawings:

Figure 1 is a perspective view of a buckle involving my invention showing the same associated with a belt, and portions of which however are only shown.

Fig. 2 is a top plan view of the same.

Fig. 3 is a longitudinal section on the line 3—3 of Fig. 2.

Fig. 4 is a view corresponding to Fig. 3 of a slight modification.

Fig. 5 is a sectional detail of a modification.

Fig. 6 is a top plan view of another modification.

Fig. 7 is a top plan view of another modification.

Like characters refer to like parts throughout the several views.

Desirably the buckle involves in its make-up a body member, a locker and a terminal member such as designated in a general way respectively by 2, 3 and 4. The body member 2 comprises a bottom as 5 having co-extensive therewith at opposite sides thereof, the parallel flanges 6 both of which may as shown be on a longitudinal and comparatively slight curve, the forward portion of the side flanges 6 being deeper than at the rear portion thereof and for approximately half the length of the respective flanges to thus provide bearing portions to support when necessary the locker 3 and the terminal member 4. The body member thus far described is usually of sheet metal although it may be cast or formed in any other preferred manner, and its outer surface or what is shown for instance in Fig. 3 as the under surface of the bottom 5 may be engraved or otherwise finished.

The terminal member 4 may as shown have at its inner end the studs or extensions 7 adapted to enter transversely alined holes or perforations 8 in the deep portions of the side flanges 6 as probably shown best in Fig. 1. The studs fit the holes somewhat freely and are generally integral with the terminal member 4 although this may not be necessary in all cases, for as will be understood the invention involves certain broad relations. The outer portion of the terminal member 4 is provided with parallel lips or cheeks 9 having as shown holes or perforations 10 near the outer corners and in register with each other transversely. These holes are as shown intended to receive the studs 11 which extend outwardly from the practically angular detent 12. The detent in question involves two branches at right angles to each other, the studs 11 extending therefrom practically at the junction of the branches. The short or inner branch of the detent is toothed as is common to enter the adjacent end portion of the web 13 the lateral edges of which are against the lips or cheeks 9. When the detent 12 is closed as shown particularly by full lines in Fig. 3, the web 13 will be securely connected with the terminal member 4.

The locker shown is denoted by 3 and is moved to locking and releasing positions through the agency of the terminal member

4. Like the other parts it is of sheet metal and pivotally mounted. As shown in Figs. 1, 2 and 3 the locker is mounted at its back while the opposite is the case in one of the slight modifications which is mounted at its inner end portion.

In the form of the device shown in said Figs. 1, 2 and 3 the locker has at its forward end the laterally extending studs or pins 14 which project through the transversely registering holes or perforations 15 in the side flanges 6 and thus provide a swinging or pivotal mount for the locker, the pivots or studs 14 however being nearer the bottom 5 than the pivots or studs 7 although this is not an essential point. The locker 3 at its free end is rounded or bulged as at 16, this rounded or bulged portion being adapted to press the free end part of the web 13 against the bottom 5 of the body member 2 as shown for instance by full lines in Fig. 3. The terminal member 4 is shown as having at its inner end the transverse flange or lip 17 at approximately right angles thereto which is shown as having practically centrally of the lower edge thereof, the lug 18 adapted to enter the slot 19 of the locker 3. The back wall of the slot 19 has an angular lug or hook 20.

In Fig. 3 the dotted lines show the buckle as in the open position, so that the free end of the belt or web 13 can be slipped through the space between the locker 3 and bottom 5, the opposite end of the belt being connected as I have already set forth to the terminal member 3. It will be clear that when this terminal member is pressed down or in from the dotted or open position in Fig. 3 toward the full line or closed position as shown by the full lines in the view, the flange 17 acts on the locker 4 and causes the latter, to impinge or bind the web or belt 13 firmly and securely against the bottom 5. The action applied to the terminal member 4 in order to hold the belt, may be obtained in various ways. In the case of a belt intended for body wear, it would be brought about by the pressure of the user. To free the belt the terminal member 4 will be swung from the full line to the dotted line position in Fig. 3 and at this time the lug 18 will engage under the free branch of the angular lug 20 so as to lift the inner or forward portion of the locker 3 clear of the belt to free the same from the clamping effect of said locker.

I have noted the fact that the locker 3 at its free end is rounded or bulged as at 16, this locker being pivotally mounted as at 14. By reason of the construction the locker between its center of motion and free end portion is permitted to yield or is resilient in order to give a little spring tension on a belt of leather or other such substance. This is an important feature in that the locker can obtain a proper hold upon the belt.

In Fig. 4 the construction is very much like that in Figs. 1, 2 and 3. In point of fact the only difference really is that the locker 3′ is pivotally mounted at 3″ at its rear edge between the side flanges 6′.

In Fig. 5 I show another modification. In this construction the body of the buckle is denoted by 25 and it is just like the body 2 or 2′. Between its side flanges is pivotally mounted the locker 26 which functions against the belt. This locker has at its inner end the depending flange or lip 27 which binds the belt against the bottom 28 of the body 25.

In Fig. 6 I show a further modification. This view illustrates a locker 30 which functions like the lockers 3, 3′ and 26. Its free portion has a bulge 31 furnished with longitudinal lips 32 by which a grip can be had upon the belt in certain cases, although a plain bulge or cam portion as 3 and 16′ already described functions properly.

In Fig. 7 the modification there shown is in the terminal member. The only difference between this terminal member denoted by 40 and the other hereinbefore described, is the way the web 42 is connected therewith. In this construction said terminal member 40 has at its free or outer end a loop 41 through which the web 42 may be passed and held in place by stitching.

What I claim is:

1. A buckle comprising a body having a bottom and side flanges, a terminal member pivotally mounted between the side flanges and to which a web may be connected, a locker pivoted between said flanges, the terminal member having a depending flange furnished with a lug and the locker having a slot to receive the lug whereby upon lifting of the terminal member the lug will act to lift the locker, the flanges of the terminal member acting against the locker when the terminal member is swung down to set the locker into engagement with the web under the locker.

2. A buckle comprising a body having a bottom and side flanges, a terminal member pivotally mounted between the side flanges and to which a web may be connected, a locker pivoted between said flanges, the terminal member having a depending flange furnished with a lug and the locker having a slot to receive the lug whereby upon lifting of the terminal member the lug will act to lift the locker, the flange of the terminal member acting against the locker when the terminal member is swung down to set the locker into engagement with the web under the locker, the locker being resilient between its center of motion and its free end.

3. A buckle comprising a body having a

bottom and side flanges, a terminal member pivotally mounted between the side flanges and to which a web may be connected, and a locker pivoted between the side flanges and between the first mentioned pivot and the bottom of the body, the terminal member having means to positively move the locker into web-clamping position, the terminal member being also connected with the locker to positively move it into web-releasing position.

In testimony whereof I affix my signature.

JOHN F. CARPMILL.

Witnesses:

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HEATH SUTHERLAND.