

1,029,834.

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UNITED STATES PATENT OFFICE.

WILLIAM UTECH, OF SANFORD, FLORIDA.

HARNESS-BUCKLE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM UTECH, citizen of the United States, residing at Sanford, in the county of Orange and State of Florida, have invented certain new and useful Improvements in Harness-Buckles, of which the following is a specification.

This invention relates to harness buckles or connectors and has for its object the provision of a comparatively simple and thoroughly efficient device of this character, capable of being adjusted longitudinally of a trace and by means of which the trace may be readily attached to or detached from the hames of harness without the employment of the usual hame straps, tug hooks or permanent attaching buckles.

A further object is to provide a buckle or connector, the construction of which is such that the trace will lie perfectly straight and flat when in use, thus permitting a direct pull on the trace without liability of twisting or buckling the latter or tearing or otherwise cutting said trace.

A still further object of the invention is generally to improve this class of devices, so as to increase their utility, durability and efficiency, as well as to reduce the cost of manufacture.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a harness buckle or connector constructed in accordance with my invention, showing the same attached to a hame, the latter being indicated in dotted lines; Fig. 2 is a side elevation of the buckle or connector; Fig. 3 is a similar view, showing the movable clamping member in position on the pins and ready to be forced downwardly and locked in position; Fig. 4 is a longitudinal sectional view taken on the line 4—4 of Fig. 2; Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 2; Fig. 6 is a perspective view, showing the clamping elements comprising the buckle or connector detached.

Corresponding and like parts are referred

to in the following description and indicated in all the views of the drawing by the same reference characters.

The improved buckle or connector forming the subject matter of the present invention is principally designed for connecting traces to the hames of harness, and by way of illustration is shown applied to a portion of a harness in which 5 designates the hames and 6 the trace.

The device comprises co-acting clamping members 7 and 8, preferably in the form of metallic plates having flat inner faces for contact with the trace 6, one of said members being longer than the other and having its outer end terminating in a hook 9 for engagement with the usual staple or loop 10 on the hame, as shown. Secured to or formed integral with the clamping member 7 or plate 7, are spaced laterally extending pins 11 adapted to pass through the tongue receiving openings 12 in the trace 6, the walls of the central pin 13 being smooth and unobstructed and the walls of the terminal pins 11 being provided with oppositely disposed notches 14 defining terminal heads 15. The clamping member 8 is movable transversely of the stationary member 7 and is provided with a central transverse locking slot 16, preferably substantially oval in shape, as shown, and adapted to receive the pin 13, there being transverse key-hole slots 17 formed in the plate 8 on opposite sides of the locking slot 16 for the reception of the terminal pins 11. The central pin 13 is preferably shorter than the terminal pins 11 so that when the clamping member 8 is positioned over said pins, the upper end of the pin 13 will lie substantially flush with the outer face of the member 8. Pivottally mounted at 18 on the outer face of the clamping member 8, is a spring locking member 19, preferably comprising a flat resilient plate having its free end provided with a laterally extending pin or lug 20 adapted to fit within the locking slot 16 and abut against the central pin 13, so as to prevent movement of one clamping member relative to the other, and thus securely lock said clamping members in engagement with the trace 6.

It will here be noted that the construction and arrangement of the connector is such that the strain or pull exerted on the trace will be uniformly distributed on all of the pins and thus effectually prevent cutting

or tearing of the trace. It will also be noted that by reason of the construction of the buckle or connector, the trace will lie perfectly straight and flat throughout its entire length when in use so that a direct pull may be had on the trace without liability of the latter twisting or buckling.

In applying the buckle or connector to a trace, the pins on the plate 7 are extended through the tongue receiving openings 12 in the trace, after which the plate 8 is positioned on the other side of the trace with the heads 15 of the terminal pins seated in the enlarged ends of the key-hole slots 17, the plate 8 being subsequently pressed downwardly so as to cause the necks 21 of the pins 11 to enter the contracted portions of the key-hole slots and the pin 13 to bear against the rear wall of the locking slot 16. The locking member 19 is then swung upwardly which causes the pin or lug 20 to enter the slot 16 and bear against the adjacent pin 13, thus locking the terminal pins within the key-hole slots and effectually preventing accidental separation of the clamping members.

In order to release the buckle or connector, it is merely necessary to elevate the free end of the locking member 19 so as to disengage the pin or lug 20 from the locking slot 16, and then exert an upward pressure on the plate 8 so as to cause the heads 15 to register with the enlarged ends of the key-hole slots and, in which position, the plate 8 may be readily removed, and the plate 7 adjusted longitudinally of the trace or entirely detached therefrom, if desired.

It will here be noted that the pin or lug 20 of the locking member, by engagement with the central pin 13, not only serves to prevent movement of one clamping member with respect to the other, but by reason of the fact that the body portion or plate 19 of the locking member extends over that portion of the slot 16 beneath the pin 13, said plate serves to prevent the entrance of dust and dirt to the parts.

While the buckle is principally designed for connecting the traces of harness to the harness thereof, it will of course be understood that the buckles may be used on other portions of harness or wherever a device of this character is found desirable or applicable. It will also be understood that the clamping members of the buckle or con-

necter may be made in different lengths, and said buckle provided with any desired number of pins, without departing from the spirit of the invention.

Having thus described the invention, 60 what is claimed as new is:

1. A buckle including co-acting clamping members, one of which is provided with a locking slot and another slot having a contracted portion, pins projecting from the 65 other member, one of said pins fitting within the locking slot and another pin being provided with means for engagement with the walls of the contracted portion of the overlying slot, and a locking device adapted 70 to enter the locking slot and abut against the side of the adjacent pin for clamping said members in engagement with a strap.

2. A buckle including co-acting clamping members, one of which is provided with 75 spaced key-hole slots and an intermediate locking slot, pins projecting laterally from one of said members, some of the pins being provided with reduced necks for engagement with the contracted portions of the 80 overlying key-hole slots in the other member, and a locking device carried by the slotted member and having a lug fitting within the locking slot and abutting against the side of the adjacent pin for clamping 85 said members in engagement with a strap.

3. A buckle including co-acting clamping members, one of which is provided with spaced transversely disposed key-hole slots and an intermediate transverse locking slot, 90 pins projecting from one of the members, some of which are provided with reduced necks for engagement with the contracted portions of the overlying key-hole slots, one of the pins being shorter than the others 95 and having its outer face disposed substantially flush with the outer face of the slotted member when said members are assembled, and a locking device pivotally mounted on the slotted member and having a lug fitting 100 within the locking slot and bearing against the side of the short pin for clamping said members in engagement with a strap.

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

WILLIAM UTECH. [L. s.]

Witnesses:

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