

BUCKLE.

983,448.

Patented Feb. 7, 1911.

Inventor
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UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, HERBERT A. JOHNSON, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Buckles, of which the following is a full, clear, and exact description.

My invention relates to improvements in tongueless buckles, so-called, the object of the invention being to simplify the construction and to decrease the cost of manufacture without sacrifice of the attractiveness, strength and durability of the article itself.

In the drawings Figure 1 is a plan view of the buckle as employed with a strap and in the act of holding both ends of the same. Fig. 2 is a longitudinal section of the parts as shown in Fig. 1. Fig. 3 is a view of the under side of the buckle frame without the strap clutch in place. Fig. 4 is a view similar to Fig. 3, with said strap clutch in place. Fig. 5 illustrates in plan and edge views the strap clutch detached.

1 represents the buckle frame, the same being preferably made of sheet metal having turned-down flanges along its edges, certain of said flanges being indicated at 2-2. The flanged portions extend rearwardly to produce not only a strengthening reinforcement, thereby permitting the use of comparatively light metal without danger of bending, but also to give the buckle a solid appearance and smooth finish when viewed from in front.

3 is a cross bar between the ends of the buckle frame.

4 is a slot or passage through which the adjustable end of the strap 5 is to be passed. It is in this slot 4 that the strap is gripped. The gripping member or clutch is shown in detail in Fig. 5 and in this particular instance comprises the slide plate 6 having a slot 6^a therein, one edge 6^b of which is turned up to give an effective clamping action, and that part 7 of the plate in front of the slot 6^a being preferably struck down somewhat for the purpose hereinafter described.

8-8 are ears which may be integrally formed with the frame 1, and are arranged to be bent back to form retaining pockets for the forward end of the slide 6.

9 is another ear formed preferably in-

tegrally with the cross bar 3 and arranged to be bent forwardly and down over the rear of the slide plate 6, said ears 8 and 9, however, being sufficiently free to permit the slide to reciprocate to and fro and yet overstanding the same sufficiently to prevent accidental displacement or disengagement. The sides of the slide plate 6 are guided between the outer flanges 2-2, while the end flange prevents said slide from being pulled out of place at the end of the buckle. By reason of the recess formed by the flanges 2-2 in the construction of the frame at the back thereof, the clutch slide 6 is completely housed therein. Furthermore, the material at each end of the slot 4 is struck back to form flanges 2^a-2^a, whose edges are flush with the rear of the cross-bar 3. These flanges 2-2^a operate as tracks to support the clutch slide 6, and likewise also act as a means to prevent injury to the strap as it is being drawn through the slots 4 and 6^a, said flanges presenting broad, flat surfaces to the edges of the strap instead of relatively thin, sharp edges.

To operate the buckle in connection with the belt, it will be understood that one end of the belt is anchored to the rear bar 10 of the buckle frame. The free end is passed up through the slot 6^a in the clutch slide and the slot 4 in the frame. When sufficient tension has been given to the belt and the same is released, the drag of the free end of the belt will be against the bar 7 of the clutch and in a direction to pull the clutch toward the adjacent end of the buckle frame, so that the upturned edge 6^b of the clutch will tightly clamp said buckle against the said adjacent end of the frame, thereby preventing accidental slipping. The striking down or depression of the bar 7 of the clutch, together with the upturned edge 6^b, causes a more abrupt bend of the strap at 5^a (Fig. 2) and holds the same more securely against slipping. I am aware that this type of buckle, broadly speaking, and this method of operation, are old and well understood. It should therefore be understood that this invention relates more particularly to the construction of the buckle itself.

It will be seen that the simplest mechanical operation may be resorted to in forming the single frame and clutch retaining lugs, a single stamping process only being required. In the original forming of the parts,

it is obvious that the ears 8—8—9 may be cut out and turned up at the same time, the ear 9 in Fig. 3 being shown as turned up, since in that view the clutch slide has not yet been inserted. As soon as the clutch slide is inserted, the ear 9 may be easily and quickly turned down to securely hold the slide in place.

What I claim is:

10 1. In a buckle of the character described, a sheet metal frame, the inner edges of said frame being flanged rearwardly, the outer edges of said frame being also flanged rearwardly and to a greater extent than said inner flange to form therewith a channel at
15 the rear of the frame, a cross-bar extending from side to side of said frame intermediate the length thereof, a slide having a slot therein, said slide being supported upon part of
20 the inside flanged portion of the frame and guided between parts of the outside flanged portion of the frame, and means on the frame and on the cross bar to hold said slide upon and between said flanges respectively
25 said means also limiting the scope of sliding movement of said slide.

2. In a buckle of the character described, a sheet metal frame, the inner edges of said frame being flanged rearwardly, the outer
30 edges of said frame being also flanged rearwardly and to a greater extent than said inner flange to form therewith a channel at the rear of the frame, a cross-bar extending from side to side of said frame intermediate
35 the length thereof, a slide having a slot therein, said slide being supported upon part

of the inside flanged portion of the frame and guided between parts of the outside flanged portion of the frame, and means on the frame and on the cross bar to hold said slide upon and between said flanges respectively, said means including lugs formed integrally on the end of said frame and on the cross bar at the rear of the slide.

3. In a buckle of the character described, 45 a sheet metal frame having rearwardly extending flanges forming a recess at the rear side of said frame, said frame having an intermediate cross bar forming a transverse strap-receiving slot with one of the end bars 50 of the frame, a clutch slide located in said recess and having a bearing on said cross bar, the material of the frame being flanged rearwardly at the opposite ends of said slot to form extended bearings for said slide substantially flush with the rear of said cross bar and to present a smooth finish to the edges of a strap passing through said slot, said clutch slide having a slot adapted to register with said frame slot, the rear edge 60 of said clutch slot being adapted to cooperate with one of the frame end bars to clamp the strap, the opposite edge of said clutch slot arranged to be engaged by the strap to draw the clutch slide into clamping position and to deflect the strap to prevent slipping of the latter. 65

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Witnesses:

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