Jan. 12, 1932. R. J. HODGE 1,840,626

SLIDE BUCKLE

Filed Dec. 26, 1930

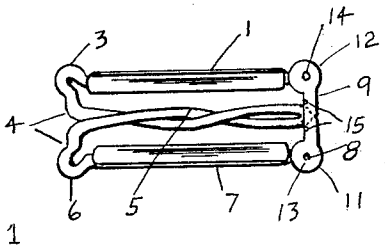


FIG 1

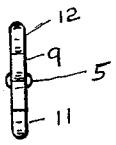


FIG 2

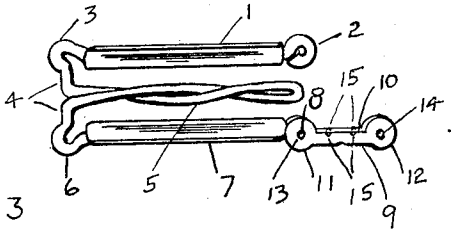


FIG 3

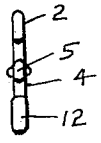


FIG 4

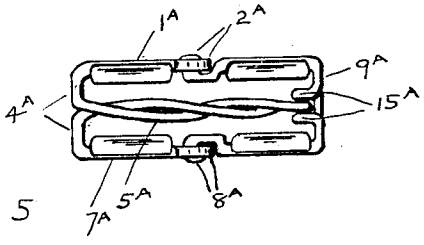


FIG 5

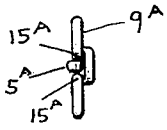


FIG 6

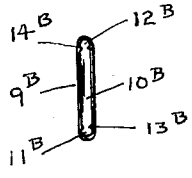


FIG 7

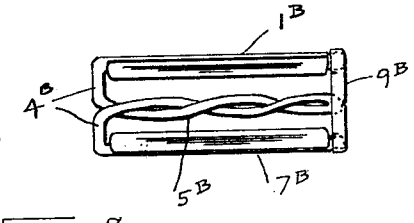


FIG 8

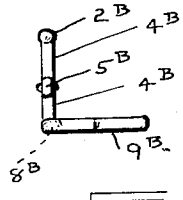


FIG 9

INVENTOR

ROBERT J HODGE

George A. Elwell

ATTY

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UNITED STATES PATENT OFFICE

ROBERT J. HODGE, OF WEST HAVEN, CONNECTICUT, ASSIGNOR TO THE AMERICAN BUCKLE COMPANY, OF WEST HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT

SLIDE BUCKLE

Application filed December 26, 1930. Serial No. 504,791.

This invention relates to slide buckles having an upper bar, a lower bar and a side structure providing and supporting an intermediate bar structure in substantial parallel relation to the upper and lower bars. Such structure is old in the art, but the novelty of this invention resides in providing means for the removal or swinging away of the other side structure for the purpose of freely exposing the longitudinal approach to said intermediate bar structure in order that a looped strap, held in the plane of the intermediate bar structure, may be passed along said plane and onto said intermediate bar structure with the same effect, with regard to the mounting of the slide buckle upon the strap, as if the strap had been threaded into the slide buckle from the rear and between the upper bar and intermediate bar structure, around the intermediate bar structure and again into the slide buckle but from the front and between the intermediate bar structure and the lower bar of an ordinary slide buckle.

The objects therefore of this invention are to provide a slide buckle adapted for an easy and rapid mounting upon a strap; to provide a slide buckle the mounting of which upon a strap dispenses with the usual threading process; and to provide a slide buckle in which the longitudinal approach to the intermediate bar structure may be so exposed that a looped strap held in the plane of such structure may be moved along said plane onto said structure. With these and other objects in view, the invention consists not only of the particular form of structure herein pointed out and illustrated in the drawing, but also includes such other forms of structure as may hereinafter appear within the scope of the invention as claimed.

The character of the invention may be best understood by the reference to one illustrative device embodying the novel features of the improvement illustrated by the accompanying drawings in which the Figure 1 is an upright elevation of the device; the Figure 2 is an upright side elevation thereof; the Figure 3 is an upright elevation of the device, but with a side structure swung away from the extremity of the intermediate bar structure; and the Figure 4 is an upright side elevation of the device as previously illustrated in Figure 3; the Figures 5 and 6 being upright front and side elevations of a modified device, while the Figures 8 and 9 are upright front and side elevations of a further modified device, the Figure 9 illustrating a side structure swung away from the intermediate bar structure, and the Figure 7 illustrating a detail of the second modification.

The buckle may be made of wire with a sheet-metal member, or may be made wholly of wire, but, as illustrated, the preferred form of the device is provided with a sheet-metal member. The wire portion of the device is so formed that there are provided an upper bar 1 having at its free extremity an eye 2 and at its bent end a loop 3 symmetrically corresponding in contour with the eye 2, the bend being downwardly directed to provide the upper portion of the side structure 4 from which the wire is bent in substantially parallel relation with the upper bar 1 to extend across the slide buckle and then looped back upon itself and returned to the side structure 4 and thereby providing the intermediate bar structure 5. The wire is then bent downwardly again to complete the side structure 4 and the loop 6 is there formed to balance the symmetrical contour, and from thence the wire is bent to extend again in parallel relation with the upper bar 1 to provide the lower bar 7, the free extremity of which is provided with an eye 8. The two strands of the intermediate bar structure 5 are relatively twisted to relatively secure the two portions of the side structure 4 and also to strengthen the intermediate bar structure 5. The upper and lower bars 1 and 7 may be flattened in the plane of the slide buckle if desired. The side structure 9 is made of sheet-metal cut and channel formed to provide the channel 10 and the wall enlargements 11 and 12 at either extremity, the enlargement 11 being adapted to receive the eye 8 for pivotal securement thereto by means of inwardly directed bosses 13 provided by the walls of the enlargement 11 and

extending into the center of the eye 8, one of which bosses 13 is illustrated by the Figures 1 and 3. The enlargement 12 is provided with similar, but slightly indented, bosses 14 so that, as the side structure 9 is swung to permit the enlargement 12 to receive the eye 2, the bosses 14 will snap into the center of the eye 2, the channel 10 adjacent its middle portion receiving the free end of the intermediate bar structure 5. If desired, indentations 15 may be struck into the side walls of the channel 10 to support the enclosed free end of the intermediate bar structure 5.

In mounting the device upon a strap the side structure 9 is swung open as best illustrated by the Figure 3. A looped strap is then passed onto the intermediate bar structure. The side structure 9 is then swung to a closed position as best illustrated by the Figure 1, the bosses 14 snapping into the center of the eye 2 and thus securing the pivotal side structure 9 against unintentional opening; for the pulling strain of the strap adjacent the slide buckle being exerted upon the device in a direction at right angles to the necessary releasing movement of the pivotal side structure 9.

The Figures 5 and 6 illustrate a modified form of device in which the side structure 9A includes a portion of both upper and lower bar sections having the pivotal connections 2A and 8A, and the side structure 9A being provided with the supports 15A for the intermediate bar structure 5A. With the exception of the above-stated modifications this modified form may be identical with that of the preferred form. In mounting this modified form of slide buckle upon a strap the side structure 9A is swung open to freely expose the extremity of the intermediate bar structure 5A over which a looped strap may be as readily passed as in the preferred form. The side structure 9A is then closed, the extremity of the intermediate bar structure fitting friction tight between the supports 15A to provide securement of the pivotal side structure 9A against unintentional opening, the pulling strain of a strap adjacent the slide buckle being exerted upon either side of the pivotal connections 2A and 8A thus distributing such strain throughout the entire width of the device.

The Figures 7, 8 and 9, refer to a second modification of the preferred form of the device. This form of modification is identical with the preferred form, the only difference being that in the place of the eyes 2 and 8 the modification provides spherical enlargements 2B and 8B upon the extremities of the upper and lower bars 1B and 7B, and a side structure 9B, as illustrated by the Figure 7, is made of sheet-metal in channel form with closed extremities adapted to provide enclosing sockets 13B for the permanent retention of the enlargement 8B, and the separable retention of the enlargement 2B adapted to snap therein. In mounting this modified form of slide buckle upon a strap the side structure 9B is released at the ball and socket connection at 2B and swung out of the plane of the slide buckle, as illustrated by the Figure 9, the intermediate bar structure 5B thus being longitudinally exposed in readiness to receive a looped strap. The side structure 9B being swung to the position illustrated by the Figure 8, the socket of the side structure 9B is snapped over the enlargement 2B. The strain upon the device occasioned by a taut strap running therethrough is, as in the preferred form, at right angles to the necessary releasing movement of the side structure 9B.

I claim:

1. A slide buckle comprising a piece of wire bent to form a frame including an upper bar, a lower bar, and a side structure providing and supporting an intermediate bar structure formed of a middle section of the wire looped back upon itself to provide a second strand of wire in the intermediate bar structure, both strands being relatively twisted; a sheet-metal member of channel form providing the other side structure; and releasable and movable connections between the extremities of the lower and upper bars and the sheet-metal member thus adapted to enclose and support the extremity of the intermediate bar structure.

2. A slide buckle comprising a piece of wire bent to form a frame including an upper bar, a lower bar, and a side structure providing and supporting an intermediate bar structure formed by a middle section of said wire looped back upon itself to provide said intermediate bar structure with two strands of wire integrally connected at one end and means provided by said strands to relatively secure them at the other end, a channeled formed member providing the other side structure, and connecting means provided by the extremities of the upper and lower bars and by both ends of the channeled formed member to movably secure one end of the member to one bar extremity and to removably secure the other end of the member to the other bar extremity.

ROBERT J. HODGE.