Sept. 1, 1931. L. J. FRIEDHEIM 1,820,969

BUCKLE

Filed April 15, 1929

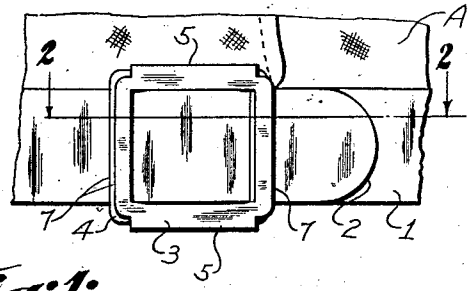


Fig. 1.

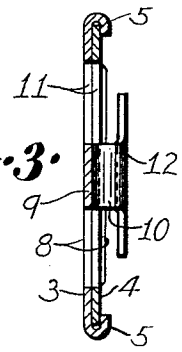


Fig. 3.

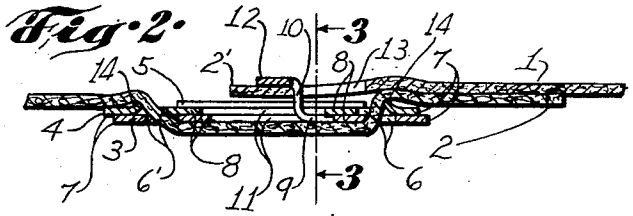


Fig. 2.

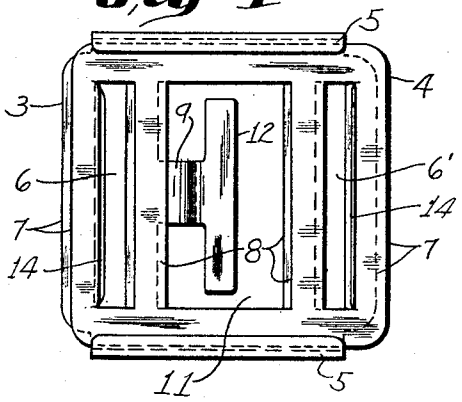


Fig. 4.

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UNITED STATES PATENT OFFICE

LEON J. FRIEDHEIM, OF ST. LOUIS, MISSOURI

BUCKLE

Application filed April 15, 1929. Serial No. 355,205.

This invention relates generally to fastening devices and, more particularly, to a certain new and useful improvement in fastening devices of the type commonly known as buckles.

My invention has for its objects the provision of a buckle especially adapted for belts, straps, and the like, which comprises few, conveniently manipulated parts, which may be cheaply manufactured, which dispenses with teeth or other such more or less material-ruining gripping means for holding the buckle to the material, and which is efficient in the performance of its intended functions, and the improvement specifically of the buckle illustrated and described in Letters Patent No. 1,698,398, issued to me under date of January 8, 1929.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts herein shown and described and pointed out in the claims.

In the accompanying drawings,

Figure 1 is a plan view of a fragment of a garment equipped with a buckle embodying my invention;

Figure 2 is a slightly enlarged longitudinal sectional view taken approximately on the line 2—2, Figure 1.

Figure 3 is a cross-sectional view of the buckle taken approximately on the line 3—3, Figure 2; and

Figure 4 is a plan view of the buckle as seen from the rear or under side.

Referring now more in detail and by reference characters to the drawings, which illustrate a preferred embodiment of my invention, A designates a garment of any suitable type, such as knickers for sport wear, the lower end of each leg of which has a transversely-split flexible band or strap 1 therearound adapted for adjustment so as to tightly encircle the wearer's knee, the free ends of the strap being indicated, as at 2, 2′.

For adjustably fastening the strap-ends 2, 2′, together, I provide the present buckle B, which comprises a pair of flat plates 3 and 4, termed the front and rear members, respectively, inasmuch as the front member is seen as superimposed on the rear member when in position upon the garment.

The plates 3, 4, are disposed in flatwise abutting relation for slidable movement longitudinally the one upon the other, and in order to prevent lateral movement therebetween, the opposite end, or, as seen in Figures 1, 3, and 4, the top and bottom, edges of one of the plates is provided with flanges 5 adapted to overlie and slidably engage the top and bottom edges of the other plate.

The plates 3 and 4 are approximately of the same length, substantially rectangular in shape, and each provided adjacent their opposite longitudinal ends with transversely disposed parallel slots 6, 6′, formed by pairs of suitably spaced outer and inner cross-bars 7, 8, respectively. Integrally formed with or conjoined to one of the inner cross-bars 8 of the front plate 3, is a preferably T hook, the shank 9 of which projects in the plane and longitudinally of the plate towards the opposite inner cross-bar 8 of the plate. The shank 9 is then bent laterally to provide the neck 10 of the hook, which extends rearwardly of the buckle through the center and wider openings 11, 11, formed in the plates 3, 4, intermediate their respective pairs of inner cross-bars 8, to a point somewhat beyond the plane of the rear plate 4. Conjoined to the free end of the neck 10, is the T-head or bill 12 of the hook, which is also presented towards the opposite inner cross-bars 8 of the plates 3, 4, the bill or head 12 extending substantially parallel with, but in a plane spaced transversely from the plane of, the plates, as best seen in Figure 2 and 3, for convenient engagement with one of the strap-ends, as 2′, which latter is provided with a suitable button-hole 13 for the purpose. I might add that the neck 10 of the hook also provides a stop for limiting relative movement longitudinally of the plates in both directions.

In order to secure the buckle on the other free end 2 of the band 1, the slots 6, 6′, of the one plate are brought into registry with the slots 6, 6′, of the other plate, when the strap-end 2 is threaded therethrough. Upon a slight pull of one of the plates in either direction, the plates will clamp or grip the mate-

rial of the strap tightly in place and without the use of pivots, teeth, or the like, gripping-engagement between the buckle and the strap-end 2 being increased by the opposed flanges 14 extending obliquely and rearwardly from the inner edge of the outer cross-bars 7 of the rear plate 4, as best seen in Figure 2.

It is obvious that after the buckle is adjusted to the desired position to make the band 1 of the proper tightness, the opposite end 2′ of the strap or band 1 may be unclasped and reclasped as often as desired without moving the parts out of their correct, adjusted relationship, the hook being wholly, as will be noted, concealed from outer view when the buckle is in use or normally, as I may say.

Thus I have provided a buckle which is simple in form and construction and extremely efficient and desirable for the purposes named, and which may be manipulated and adjusted with extreme ease and convenience.

It is to be understood that various modifications may be made in my new buckle without departing from the spirit of my invention; hence I do not wish to be understood as limiting myself to the exact form, construction, arrangement, and combination of parts herein shown and described, or uses mentioned, except as limited by the claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a buckle, a pair of plates each provided with spaced pairs of inner and outer slot-forming cross-bars, the slots between said pairs of bars being approximately of equal dimension, said plates being loosely disposed in flatwise abutting relation and adapted at said slots for threaded engagement with a strap, the one plate having engagement with the other for relative slidable movement longitudinally the one with respect to the other and each of said plates having an opening intermediate their respective pair of inner cross-bars, and a hook projecting from one of the inner cross-bars of one of said plates, the bill of the hook being presented rearwardly of the plates through said openings and toward the opposite inner cross-bar of said one plate and disposed in a plane spaced transversely from the plane of the plates.

2. A buckle including a plate comprising spaced pairs of inner and outer slot-forming cross-bars and adapted at said slots for threaded engagement with a strap, and a T-shaped hook whose shank projects from one of said inner cross-bars and whose bill is presented toward the opposite inner cross-bar and extends transversely of the plate intermediate said inner cross-bars in a plane offset laterally from and approximately parallel with the plane of the plate for securing engagement with a co-operating strap.

3. A buckle including a plate comprising spaced pairs of inner and outer slot-forming cross-bars and adapted at said slots for threaded engagement with a strap, and a T-shaped hook comprising a shank, a neck, and a bill, the shank projecting longitudinally approximately in the plane of the plate from one inner cross-bar towards the other, the neck extending laterally of the plate to beyond the plane thereof, and the bill extending transversely of the plate intermediate said inner cross-bars in a plane offset laterally from and approximately parallel with the plane of the plate for securing engagement with a co-operating strap.

4. A buckle including a plate comprising spaced pairs of inner and outer slot-forming cross-bars, the slots between said pairs of cross-bars being approximately of equal dimensions and the plate being adapted at said slots for threaded engagement with a strap, and a T-shaped hook comprising a shank, a neck, and a bill, the shank projecting longitudinally approximately in the plane of the plate from one inner cross-bar towards the other, the neck extending laterally of the plate to beyond the plane thereof, and the bill being presented toward the opposite inner cross-bar and extending transversely of the plate intermediate said inner cross-bars in a plane offset laterally from and approximately parallel with the plane of the plate for securing engagement with a co-operating strap.

In testimony whereof, I have signed my name to this specification.

LEON J. FRIEDHEIM.