June 27, 1939. C. RIO 2,164,123

FASTENER FOR SHOELACES

Filed Nov. 21, 1938

Fig. 1.

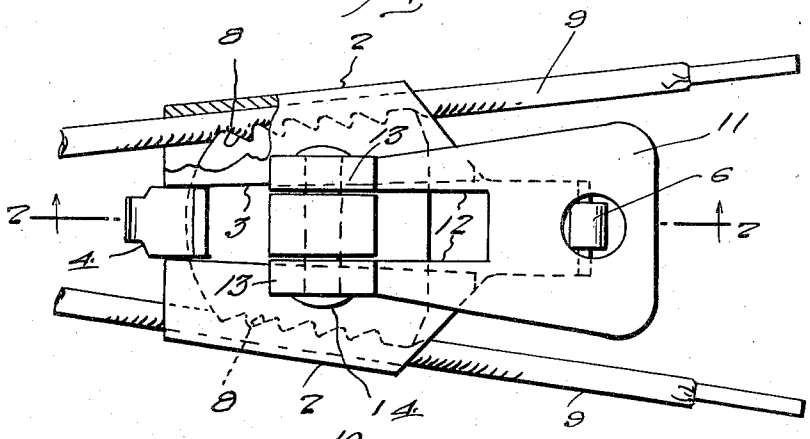


Fig. 2.

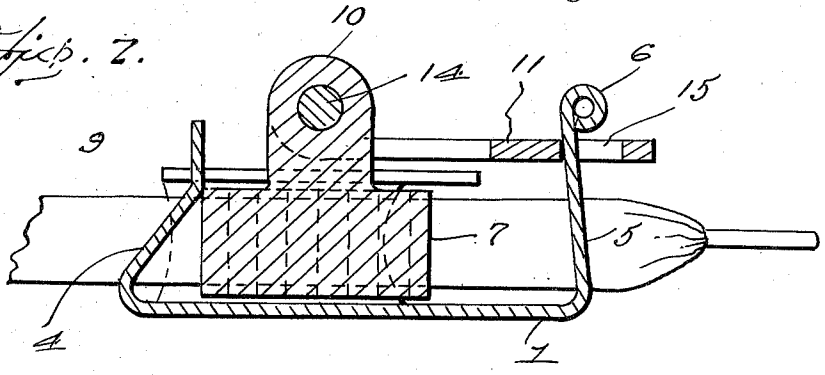


Fig. 3.

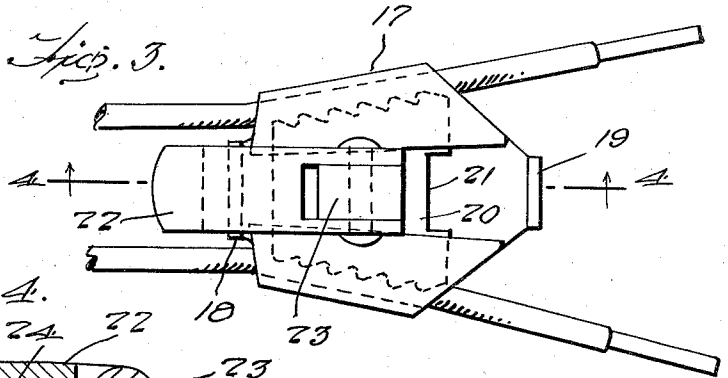
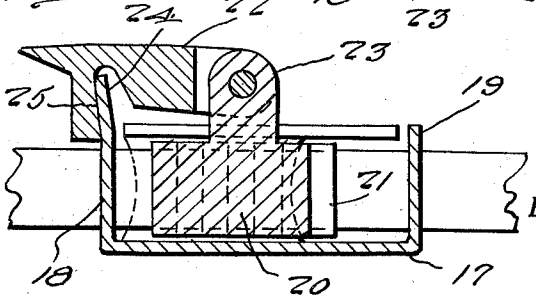


Fig. 4.



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FASTENER FOR SHOELACES

Clarence Rio, Tyler, Pa.

Application November 21, 1938, Serial No. 241,659

3 Claims. (Cl. 24—117)

My invention relates to improvements in fasteners for shoelaces and the principal object in view is to provide an inexpensive, efficient device of this character adapted for use with any size shoelace to secure the ends thereof together without tying.

Another object is to provide a device of the character and for the purpose above set forth which is light in weight, will not wear the ends of the lace, and which is easily manipulated with one hand.

Other and subordinate objects are also comprehended by my invention, all of which, together with the precise nature of my improvement will be readily understood when the succeeding description and claims are read with reference to the drawing accompanying and forming part of this specification.

In said drawing:

Figure 1 is a view in top plan of a preferred form of my invention.

Figure 2 is a view in longitudinal section taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows.

Figure 3 is a view in top plan of a modified form of the invention, and

Figure 4 is a view in longitudinal section taken on the line 4—4 of Figure 3 looking in the direction indicated by the arrows.

Referring to the drawing by numerals, in the preferred form thereof the fastener of my invention comprises an outer shell-like, open-ended clasp member 1 formed of a piece of light, strong, resilient metal having rolled side edges 2 tapering toward one end of the member and spaced apart at the top of the member to provide a central longitudinal slot 3 therein. The smaller end of the member 1 constitutes the front end thereof and has bent up therefrom an abutment tongue 4 extending upwardly into the slot 3. The rear end of the member 1 has bent up therefrom a similarly extending locking tongue 5 having an upper rolled end 6. The purpose of the tongues 4 and 5 will presently appear.

Endwise slidable, as presently described, in the member 1 is a shorter wedge-shaped clasp member 7 of flat, block-like, form having side edge serrations, or teeth, 8 adapted on the sliding movement of said member toward the smaller end of the member 1 for cooperation with the side edges 2 of the latter to clasp, or clamp, the ends 9 of a shoelace therebetween. The teeth 8 preferably extend forwardly for a purpose presently seen.

The member 7 is provided with a lug 10 upstanding from the top thereof and extending through the slot 3 of member 1, said lug fitting loosely between the sides of said slot to center the member 7 in the member 1. A manipulating and locking dog 11, of tab-like form, is pivotally mounted on said lug by means of a bifurcated front end 12 on the dog terminating in a pair of hinge eyes 13 which straddle said lug. A pivot pin 14 extending transversely through said eyes 13 and lug 10, the arrangement being such that said dog may be swung forwardly and rearwardly over the members 1 and 7. The rear end of the dog 11 is provided with an aperture 15 therein adapted under rearward swinging of said dog toward a position substantially parallel with the members 1 and 7 to fit over the end 6 of the tongue 5 and lock the member 7 in a forward position for cooperation with the side edges 2 of the member 1 in the manner already described. In said forward position of the member 7 the front end thereof engages the abutment tongue 4 and flexes the latter forwardly whereby the member 7 is tensioned to snap back from said forward position when unlocked.

In the use of the described fastener, the member 7 is unlocked, in a manner which will be clear, and slid rearwardly to the limit of such movement as determined by coaction of its rear end with the locking tongue 5. In this position of the parts the ends 9 of the lace are threaded through the member 1 from the front end thereof and between the side edges 2 of the said member and the side edges of the member 7. The fastener is then moved toward the shoe (not shown) on the ends 9 with the parts in the described position and the member 7 then slid forwardly in the member 1, by means of the dog 11, until said ends 9 are clamped against the inner side edges 2 of member 1 by the member 7, in which position of the parts, the dog 11 may be swung into the position already described for coaction with the locking tongue 5 to lock said member 7 in forward position. To unfasten the lace ends 9, it is merely necessary to release the dog 11 from the locking tongue 5, whereupon the member 7 will snap back out of the clamping position described as will be clear.

In the modified form of the invention shown in Figures 3 and 4, an outer clasp member 17 similar to member 1 is provided, with the exception that the front tongue 18 constitutes in this case a locking tongue and the rear tongue 19 coacts with the rear end of the inner member 20 to limit rearward movement of the latter. A notch 21 is provided in the rear end of the mem-

ber 20 to straddle the tongue 19 and center the member 20 in the member 17 in the rearward limit of movement of said member 20. Instead of the locking dog 11, a hook-shaped locking dog 22 is provided on the lug 23 of the member 20 to hook over the upper end of the tongue 18 when the member 20 has been slid forwardly to clamping position. Preferably the upper end of tongue 18 is forwardly inclined, as at 24, and the hook or dog 22 beveled, as at 25, for frictional engagement of these parts to prevent accidental displacement of the dog 22.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly, the invention may be further modified than as described, and right is herein reserved to such other modifications as fall within the scope of the subjoined claims.

What I claim is:

1. A fastener for the ends of shoe laces comprising an outer shell-like clamping member of wedge shape in cross section having open front and rear ends for the passage of said ends of the lace through the member and comprising rolled forwardly converging sides spaced apart to provide a central longitudinal top slot in said member, a wedge-shaped block-like inner clasp member longitudinally slidable forwardly in said outer member for cooperation with the sides of the outer member to clamp said ends of the lace between said members, and coacting devices on said members, respectively, for locking the inner member in forwardly slid position, comprising a tongue on one end of the outer member, and a dog pivoted on the inner member for manipulation to attach the same to said tongue.

2. A fastener for the ends of shoe laces comprising an outer shell-like clamping member of wedge shape in cross section having open front and rear ends for the passage of said ends of the lace through the member and comprising rolled forwardly converging sides spaced apart to provide a central longitudinal top slot in said member, a wedge-shaped block-like inner clasp member longitudinally slidable forwardly in said outer member for cooperation with the sides of the outer member to clamp said ends of the lace between said members and coacting devices on said members, respectively, for locking the inner member in forwardly slid position, comprising a tongue on one end of the outer member, and a dog pivoted on the inner member for manipulation to attach the same to said tongue, and a stop tongue on the front end of the outer member yieldingly limiting forward movement of the inner member.

3. A fastener for the ends of shoe laces comprising an outer shell-like clamping member having open front and rear ends for the passage of said ends of the lace through the member and comprising forwardly converging sides spaced apart to provide a central longitudinal top slot in said member, a block-like inner clasp member longitudinally slidable forwardly in said outer member for cooperation with the sides of the outer member to clamp said ends of the lace between said members, and coacting devices on said members, respectively, for locking the inner member in forwardly slid position, comprising a tongue on one end of the outer member, and a dog pivoted on the inner member for manipulation to attach the same to said tongue.

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