H. L. CONGER.

FASTENING DEVICE FOR SHOES.

APPLICATION FILED DEC. 8, 1921.

1,408,563. Patented Mar. 7, 1922.

Fig. 1.

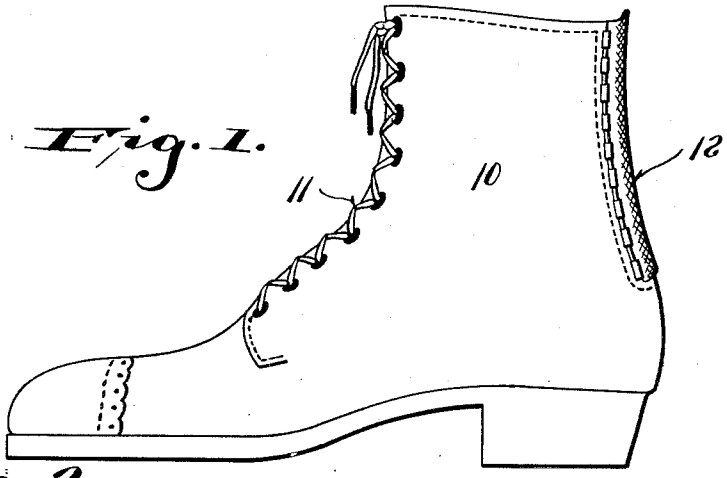


Fig. 2.

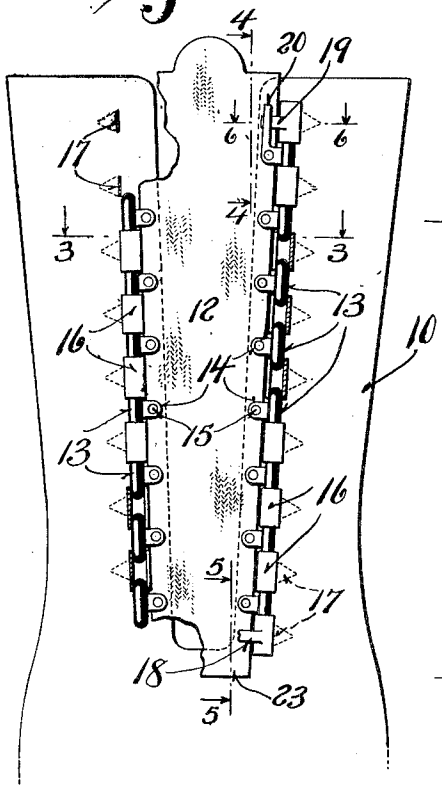


Fig. 3.

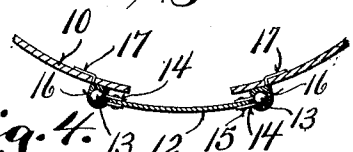


Fig. 4.

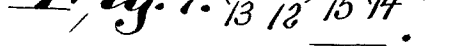
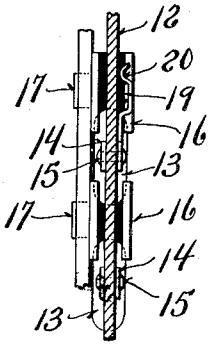


Fig. 5.



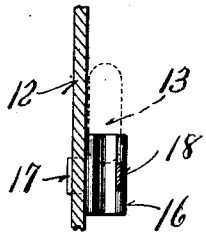
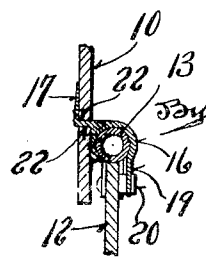


Fig. 6.



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HERBERT LEFFINGWELL CONGER, OF LOS ANGELES, CALIFORNIA.

FASTENING DEVICE FOR SHOES.

1,408,563. Specification of Letters Patent. Patented Mar. 7, 1922.

Application filed December 8, 1921. Serial No. 520,903.

To all whom it may concern:

Be it known that I, HERBERT LEFFINGWELL CONGER, a citizen of the United States, and resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in a Fastening Device for Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to fastening devices for shoes. The operation of the ordinary shoe lace is defective in several particulars. It requires time to thread the lace through eyes and to arrange the proper distribution of the tension of the lace upon the ankle, and oftentimes after it has been fixed in position, it is found necessary to adjust it again in order to fit the shoe more properly about the ankle.

The invention comprises the combination of the common means of adjustably connecting the front edges of a shoe upper with another instrument located in the back of the shoe and readily slipped into and out of place to affix the shoe to the ankle or permit its removal therefrom.

An object of the shoe lace in the front of the shoe permits of the nice adjustment of tension along the front of the foot that results from the ordinary shoe lace after it has been sometime placed in position.

In the invention, the shoe lace, after once being properly adjusted, remains there substantially permanently without being detached from day to day. When the shoe is put on, a tongue in the back is drawn upwardly and cooperates with guides to draw the shoe upper close in to the ankle. The tongue is merely drawn down to permit removal of the shoe. The horizontal dimensions of the tongue are not varied, and when the lace has been once properly placed in position, the shoe will always fit the ankle and be securely positioned thereon by the drawing upwardly of the tongue.

An important object of the tongue structure is the provision of flexibility. This is acquired by providing a number of guides cooperating with travelers affixed to the tongue so that there is no long vertical inflexible member.

An important feature of the device is the distribution of tension along the back of the shoe so that the tongue and cooperating parts do not tear the shoe upper in course of time.

Additional objects are strength and durability of the structure, ease of manufacture and positiveness of operation. After the tongue is secured in position, there is no tendency for it to be torn or distorted.

Other objects and advantages will be apparent as the description proceeds.

Reference is had to the accompanying drawings, in which—

Figure 1 is a side elevation showing the shoe lace and tongue.

Figure 2 is a rear elevation of the shoe showing the tongue in proper operative position.

Figure 3 is a cross section on line 3—3 of Figure 2, and

Figures 4, 5 and 6 are enlarged cross sections on the lines 4—4, 5—5, and 6—6, respectively, of Figure 2.

Shoe upper 10 is provided with shoe lace 11 connecting the front of the uppers. If desired, buttons may be substituted for the shoe lace. A tongue 12 has travelers 13 secured to it by lugs 14 integral with the travelers and receiving pins 15 therein through the tongue and the lugs. These travelers 13 extend along both sides of tongue 12 and are shaped similarly to a capsule. Tongue 12 tapers gradually downward. Guides 16 are secured to shoe upper 10 by L-shaped extensions 17 which terminate in a point on the inner side of the upper.

Guides 16 are spaced slightly from the edges 17 of the uppers and extend in rows down the back of the shoe, terminating adjacent the top of the counter. The lowermost guide is provided with a strap 18 extending across to the corresponding lowermost guide and spaced from the shoe upper to permit free play of tongue 12. The topmost guide is provided with an arm 19 adapted to cooperate with a fastener 20 which is spaced from the tongue to permit entry of arm 19 but secured thereto by pin 15 and provided with an inwardly directed deformation 21 which operates to prevent the escape of arm 19 from fastener 20.

It will be noted that guide 16 is cutaway adjacent the tongue. This structure is apparent particularly in Figure 4. The structure of guides 16 is such as to permit free movement of travelers 13 therein, and

the capsule like formation of travelers 13 is adapted especially to cooperate with the particular guides as the blunted ends decrease friction and minimize tendency for the traveler to catch in a guide.

An examination of Figure 2 shows that when the travelers are in position in the guides, an articulated structure results which is especially flexible and adapted to conform to the contours of the ankle. The manner of affixation of guide 16 to the shoe top is shown especially in Figure 6, and it is seen that arms 17 lie close to the shoe upper and present a flattened face towards the foot of the wearer and that the L-like form of the arm permits the exertion of stress in a direction towards the tongue. The guides 16, it is apparent, will be maintained securely in position, the pressure of the leather at points 22 operating to make the guide secure.

When the shoe is for the first time placed on the foot of the wearer, the tongue is drawn up to the position shown in Figure 2 and the lace 11 is adjusted properly along the front of the shoe. This adjustment of the lace is substantially permanent. When it is desired to remove the shoe, the lower end 23 of the tongue is drawn downward. This withdraws travelers 13 from guides 16, the pressure exerted by the hand being sufficient to withdraw the fastener 20 from arm 19. At all times subsequent the shoe is placed on the foot with the shoe lace in its original adjusted position, and the tongue is drawn upwardly. As the topmost travelers 13 advance, they will be received in succeeding guides 16, the upper being drawn in gradually to the ankle. The operation at this point is similar to the tensioning action of a shoe lace which draws the lower portion of a shoe close to the ankle and progresses gradually upwardly. The tongue is in position when arm 19 is engaged by fastener 20. The taper of tongue 12 facilitates its being drawn downwardly.

It is apparent that the shoe lace may be adjusted, if so desired, and that it need not be retained permanently in the position that it first assumes.

While a preferred embodiment of the invention has been illustrated and described, it is to be understood that the present invention is not confined to such specific embodiment, but may be otherwise embodied within the spirit of the invention and the scope of the following claim, and it will further be understood that a substantial range of equivalence is contemplated.

I claim:

In a shoe upper having an elongated vertical opening in the rear thereof, a vertically reciprocable tongue therein tapering downwardly, a series of capsule shaped travelers on each of the vertical edges of said tongue, a lug rigid with each of said travelers and secured to said tongue, a series of guides along the edges of said upper at said opening, each of said guides having an elongated channel for the reception of said travelers and lateral openings to permit the free movement of said lugs, an arm on a topmost guide, a fastener on a topmost traveler cooperating with said arm when said tongue is in said elevated position to retain said traveler in elevated position, said upper having also an elongated front opening, and a shoe lace for closing said opening.

In testimony that I claim the foregoing I have hereunto set my hand at Los Angeles, in the county of Los Angeles and State of California.

HERBERT LEFFINGWELL CONGER.