March 2, 1926. 1,575,387

B. RAUTIO

SHOE FASTENER

Filed July 23, 1925

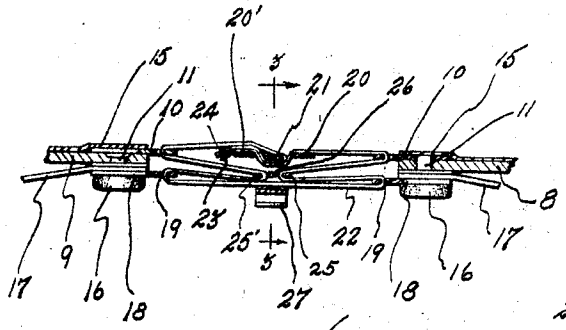


Fig. 2

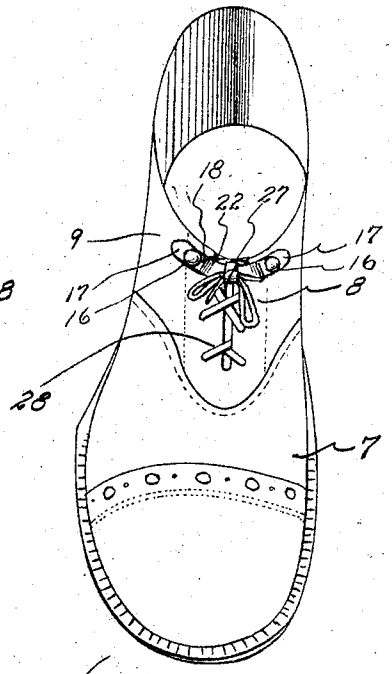


Fig. 1

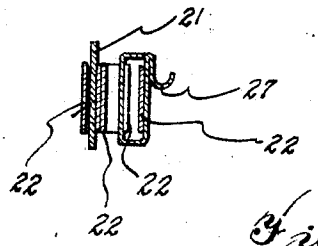


Fig. 3

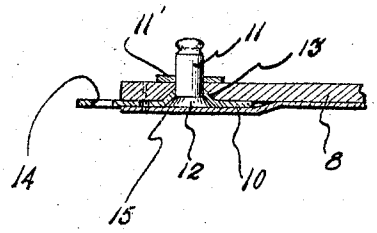


Fig. 4

INVENTOR.
BENJAMIN RAUTIO

BY

Thos. Donnell

ATTORNEY.

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UNITED STATES PATENT OFFICE.

BENJAMIN RAUTIO, OF DETROIT, MICHIGAN.

SHOE FASTENER.

Application filed July 23, 1925. Serial No. 45,490.

To all whom it may concern:

Be it known that I, BENJAMIN RAUTIO, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in a Shoe Fastener, of which the following is a specification.

My invention relates to a new and useful improvement in a shoe fastener adapted for mounting on the upper of a shoe adjacent each of the meeting edges, and has for its object the provision of a shoe fastener of this class which will be comfortable to the wearer and relieve the foot from excessive pressure.

Another object of the invention is the provision of an elastic fastener of this class which may be mounted on the meeting edges of the upper of the shoe and so arranged as to permit its permanent mounting on the shoe and so constructed as to, in addition to serving as a fastener, afford means for securing the tied ends of the shoe lace.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood from a reference to the accompanying drawings which form a part of this specification, and in which,

Fig. 1 is a perspective view of a shoe embodying the invention.

Fig. 2 is a longitudinal sectional view of the invention, showing parts in elevation.

Fig. 3 is a sectional view taken on substantially line 3—3 of Fig. 2.

Fig. 4 is a fragmentary sectional view showing the male portion of a snap fastener in elevation.

The invention is especially adapted for use with shoes, the meeting edges of the uppers of which are held in adjacent relation by means of shoe laces. When the shoe is laced tightly, particularly in the case of low-cut shoes, and the lace tied at the proper position, the upper portion of the lacing, through its pressure on the foot, causes pain and discomfort to the wearer. To relieve this painful pressure with some persons, it is necessary that the lacing be loosened so that the shoe is not securely fastened to the foot. With the present invention a fastening device is provided which will retain the shoe tightly laced at all times and eliminate the objectionable features mentioned.

In the drawings I have shown the invention applied to a low-cut shoe 7, the upper of which has portions 8 and 9 the edges of which are designed to be drawn into close relation when the shoe is tightly laced. Mounted on the upper at each of the meeting edges adjacent the upper end thereof, is a metallic plate 10. Projected through the metallic plate is a stud 11, which serves as the male portion of a snap fastener. The lower end of the stud 11 is provided with a head 12, having a beveled upper surface. As shown in Fig. 4, the plate 10 is provided with an opening for the reception of the stud 11, and the plate is provided with the inclined portion 13 adapted to embrace the beveled surface 11. The outer end of the plate 10 is provided with an eyelet 14. A lining 15 is secured on the inner side of the shoe upper, the plate and lining being suitably stitched to the upper of the shoe. A collar 11′ is pressed upon the stud 11 in a press fit so as to assist in retaining the stud 11 in its mountings in the upper 8.

A female portion of a snap fastener is provided which is adapted to co-operate with the male portion 11 in the well-known manner. Secured to and projecting outwardly from one side of the female portion 16 is a tab 17, which may be made from leather or other suitable material, so as to afford a gripping surface to disengage the female portion 16 from the male portion 11, at will. Carried on the female portion 16 is a metal plate 18, having one end projecting therefrom and provided with the eyelet 19.

A buckle is provided which comprises side portions 20 and 20′ having a centrally disposed rib 21, the structure of this buckle being quite well known.

A slip buckle having side members 25 and 25′ and a central rib 26 is provided, a hook portion 27 being formed on the outer surface of the front wall.

A strip of elastic 22 is threaded into the eyelets 19 and 14 and into engagement with the end portions 25 and 25′, as shown in Fig. 2. The end 23 of the elastic is projected rearwardly of the end portion 20 and thence forwardly of the rib 21 and again rearwardly of the end portion 20′. The end 24 is passed around the rib 21 and doubled upon itself so as to lie rearwardly of the end portion 20′. The elastic when laced in this manner on the buckle and the slip buckle is securely fastened in position,

as will be evident. However, if desired the end portion 20 may be provided on its inner edge with notches or teeth to engage the elastic and further resist its withdrawal from its laced position.

The construction is such that when the device is mounted upon a shoe as shown in Fig. 2 and the female portions 16 are snapped on the male portions 11, the elastic 22 will serve to yieldably hold the portions 8 and 9 of the upper in closely drawn relation, the proximity of the edges of these uppers being dependent upon the closeness of lacing which is effected by the elastic strip 22. The elastic serves to eliminate the use of the lace in the upper eyelet of the shoe, the lace 28 being threaded in the remaining eyelets of the shoe in the usual manner. The tied ends of the lace 28 may be secured by the forwardly projecting hook 27, or, if desired, the lace 28 may be tied upon the hook 27. It is evident that when the snap fasteners are disengaged that a separation of the portions 8 and 9 of the upper may be had sufficiently to permit a removal of the shoe.

While I have illustrated and described the preferred form of construction, I do not wish to limit myself to the precise details of structure shown in the drawings, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

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

A shoe fastener of the class described adapted for use on a shoe having a split upper provided with meeting edges, comprising a plate secured to said upper adjacent each of said edges adjacent the upper end thereof, said plate having an outwardly projecting end provided with an eyelet; a stud projected through an opening formed in said plate and through said upper; a head mounted on the base of said stud provided with a beveled surface, said plate being flared for engagement in embracing relation with said beveled surface, said stud forming a male portion of a snap fastener; a female portion of a snap fastener for cooperating with each of said studs; a gripping member mounted on each of said female portions and projecting outwardly therefrom; a plate carried by each of said female portions and provided with an eyelet; a slip buckle; a securing hook mounted on the outer surface of said slip buckle; and an elastic strip threaded into each of said eyelets and into said slip buckle; and means for fastening the ends of said elastic strip for preventing their removal from said eyelets, said elastic strip serving as a yieldable fastening for retaining the said edges in the desired relative position and for permitting upon disengagement of said female portions from said male portions the farther relative separation of said edges.

In testimony whereof, I have signed the foregoing specification.

BENJAMIN RAUTIO.