April 22, 1941. E. E. HILLS 2,239,324

LACING DEVICE

Filed Dec. 26, 1939

Fig. 1.

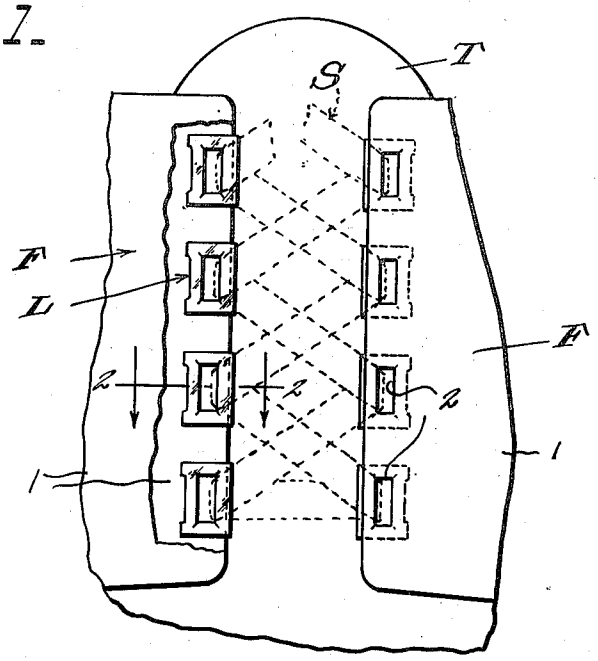


Fig. 3.

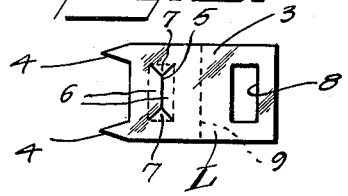


Fig. 2.

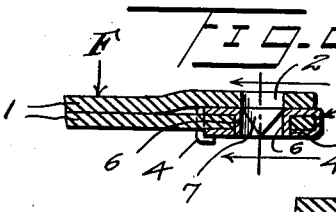


Fig. 4.

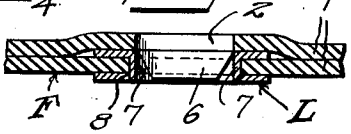


Fig. 5.

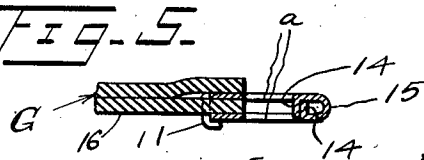
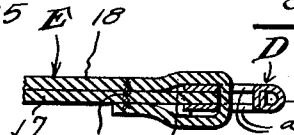


Fig. 7.



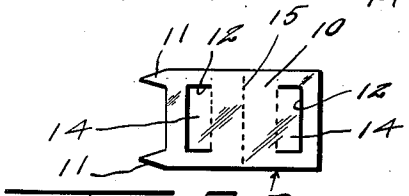
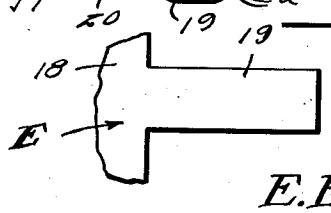


Fig. 6.

Fig. 8.



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UNITED STATES PATENT OFFICE

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LACING DEVICE

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Application December 26, 1939, Serial No. 310,985

2 Claims. (Cl. 24—141)

This invention relates to lacing devices and more particularly to an eyelet for use in connection with shoes or other articles of wear.

It is an object of the invention to provide a lacing device of a character particularly adapted for use in connection with a flat type of lace.

It is also an object of the invention to provide a lacing device particularly adapted for use in connection with shoes and wherein the devices are of a character especially designed for use in connection with a flat lace and to give a corsage effect to the shoe.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved lacing device whereby certain important advantages are attained and the article rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:

Figure 1 is a fragmentary view in front elevation of the upper of a shoe showing lacing devices applied thereto constructed in accordance with an embodiment of my invention, a flat shoe lace being diagrammatically indicated by broken lines;

Figure 2 is an enlarged fragmentary sectional view taken substantially on the line 2—2 of Figure 1;

Figure 3 is a view in plan of a blank from which the lacing device as illustrated in Figures 1 and 2 is formed;

Figure 4 is a fragmentary sectional view taken substantially on the line 4—4 of Figure 2;

Figure 5 is a fragmentary sectional view illustrating a lacing device constructed in accordance with another embodiment of my invention;

Figure 6 is a view in plan of a blank from which is formed the lacing device as illustrated in Figure 5;

Figure 7 is a detailed sectional view illustrating a further means for holding a lacing device in position;

Figure 8 is a fragmentary view in plan of a layer or lamination of a shoe flap provided with a holding tongue.

As illustrated in Figures 1 to 4, F denotes the conventional front flaps comprised in the construction of a shoe upper and which flaps coact in a well known manner with a tongue T. As herein disclosed, each of the flaps F comprises two overlying layers or laminations 1 of leather or other desired material. The lacing devices L are directly attached to the under layer or lamination 1 and in a manner whereby the outer or upper layer or lamination 1 substantially conceals said lacing devices.

Each of the flaps F along its outer free marginal portion is provided therethrough with a desired number of longitudinally disposed slots 2 through which a shoe lace S, as indicated by broken lines in Figure 1, is adapted to be threaded. This lace S may be of any material desired and also of any color preferred. The lace is also preferably of a flat type and if desired such lace S may be of rubber or other elastic material. When the lace is of rubber or other elastic material, after the same has been properly threaded through the openings 2 it may have its free end portions tied together so that the shoe may be applied or removed without unlacing.

Associated with each of the openings 2 is a lacing device L which is stamped out from sheet metal or kindred material to initially provide a blank as illustrated in Figure 3. The blank comprises a body portion 3 rectangular in form and of desired dimensions and said blank at one end is formed to provide the outstanding prongs 4 immediately adjacent to the opposite side edges of the body 3.

The end portion of the body 3 of the blank provided with the prongs 4 is cut on the lines 5 to provide transversely disposed elongated flaps 6 and the relatively short longitudinally disposed flaps 7.

The opposite end portion of the body 3 is provided with a transversely disposed elongated slot 8 of a length equal to the length of the flaps 6 hereinbefore referred to.

In applying the lacing device L the body 3 is folded back upon itself at substantially its longitudinal center, as indicated at 9 by the broken line in Figure 3. The marginal portion of the lower or bottom lamination 1 of a flap is tightly clamped between these returned end portions of the body 3 as is clearly illustrated in Figures 2 and 4 of the drawing with the opening 8 in register from below with an opening 2 through the inner layer or lamination 1 of the flap and with the flaps 6 and 7 of the body 3 directly above said opening 2 through the lower or bottom lamination 1. The prongs 4 are then clinched through the lower or bottom lamination 1 and over upon the under portion of the body 3 as clearly illus-

trated in the drawing. The flaps 6 and 7 are also forced inwardly of the opening 2 of the bottom or inner lamination 1 in close contact with the edges of said opening 2 whereby said edges of the bottom or inner lamination 1 are effectively protected against undue wear.

While each of the flaps F is herein disclosed as comprising two layers or laminations 1, it is believed to be understood that such flap can constitute a single layer or lamination or can embody more than two of such layers or laminations.

In the arrangement as illustrated in the accompanying drawing, the upper or top layer or lamination 1 serves to substantially conceal the applied lacing devices L.

In the invention as illustrated in Figures 1 to 4 inclusive, it is to be noted that the outer marginal portion of each of the applied lacing devices L is substantially flush with the adjacent outer margin of the associated flap F. However, in the embodiment of the invention as illustrated in Figures 5 and 6 the applied lacing device D extends a material distance beyond the outer or free end of a flap G. The lacing device D is also stamped out of a single sheet of metal or kindred material and comprises a rectangular body 10 of desired dimensions and provided at one end and at opposite sides thereof with the outwardly disposed prongs 11. The body 10 adjacent to each end thereof is cut on the lines 12 to provide the elongated and transversely disposed flaps 14.

The body 10 is folded at substantially its longitudinal center on a transversely disposed line, as indicated at 15 in Figure 6, to have the opposite end portions of the body 10 overlie with the marginal portion of a lamination 16 of the flap G clamped therebetween. The flaps 14 of the body are then forced inwardly in overlying relation as illustrated in Figure 5. This folding of the flaps 14 results in the provision of an elongated slot *a* in the lacing device through which the shoe lace may readily thread. As illustrated in Figure 5, the outer marginal portion of the flap G is substantially flush with the inner marginal portion of the opening *a* and the folded flaps 14 are along the longitudinal margin of the opening or slot *a* remote from the flap G.

As is also illustrated in Figure 5, the prongs 11 are pressed through the flap G and clinched over the underlying portion of the body 10.

In the embodiment of the invention as illustrated in Figures 7 and 8, the lacing device D is shown secured to the lower or under layer or lamination 17 of a shoe flap E. The upper layer or lamination 18 of this flap E at its outer or free margin is formed to provide an elongated tongue 19 which threads downwardly through the opening *a* of the device D and is returned to underlie the bottom lamination 17. This underlying portion of the tongue 19 is stitched, as at 20, or otherwise secured to the flap E. This tongue 19 is of a width substantially equal to the length of the opening *a* and serves to provide a guard along the inner side of the opening.

From the foregoing description it is thought to be obvious that a lacing device constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and employed, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

1. In combination with the flap of a shoe upper having a slot in the outer end portion thereof, a lacing device for said slot comprising a body returned at substantially its longitudinal center to have its opposite end portions overlying and between which overlying portions of the body the outer end portion of the upper flap is received, a clinching prong carried by one of the returned portions of the body passing through the flap and coacting with the second returned portion of the body to hold the device to the flap, the returned portions of the body having openings registering with the associated slot through the flap.

2. In combination with the flap of a shoe upper having a slot in the outer end portion thereof, a lacing device for said slot comprising a body returned at substantially its longitudinal center to have its opposite end portions overlying and between which overlying portions of the body the outer end portion of the upper flap is received, a clinching prong carried by one of the returned portions of the body passing through the flap and coacting with the second returned portion of the body to hold the device to the flap, the returned portions of the body having openings registering with the associated slot through the flap, one of the returned portions of the body having protecting flanges at the marginal portions of the opening in said end portion of the body and extending within the slot of the flap.

ERNEST E. HILLS.