A. W. DE HAVEN,
CLOSURE FOR SHOES.
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Witnesses

Anna W. De Haven

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Attorneys
To all whom it may concern:

Be it known that I, ANNA WILSON DE HAVEN, a citizen of the United States, residing at Bridgeton, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Closure for Shoes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in closures for shoes.

One object of the invention is to provide a closure adapted to be applied to the edges of the shoe lacing opening whereby the latter may be quickly and easily closed and fastened.

Another object is to provide a shoe closure and fastening mechanism which will be simple, strong and durable in construction, efficient in operation and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a perspective view of my improved shoe closure; Fig. 2 is a plan view of one side of the closure partly in section showing the lace operating devices thereof in operative position for closing the shoe; Fig. 3 is a similar view showing the lace operating devices in inoperative position; Fig. 4 is a detail cross sectional view through one side or member of the closure and the adjacent edge of the shoe upper.

My improved closure comprises two sides or members 1 each of which consists of a flat strip of leather or other suitable fabric 2 which may be of any suitable width and is of sufficient length to extend from the lower to the upper end of the lacing opening of the shoe. On the upper sides of the strips 2 adjacent to their outer edges are arranged a series of releasing studs 3 which are adapted to be engaged with the lacing openings of the shoe whereby said studs are secured in operative engagement with the shoe.

On the inner edges of the strips 2 are secured holding tubes 5 of any suitable material on the inner edges of which are formed attaching flanges 6 which are adapted to be engaged with the opposite sides of the strips and to be riveted or otherwise rigidly secured thereto. The flanges 6 are preferably scalloped or otherwise ornamented on their outer edges as shown. In the adjacent outer sides of the tubes 5 are formed longitudinally disposed slots 7 and on the upper ends of the outer flanges of the tubes are formed fastening studs 8.

Arranged in the tubes 5 are lace operating devices comprising a series of short spiral springs 9 which are connected together by integrally formed laterally projecting lace receiving loops 10 which project through and slidably engage the slots 7 formed in the outer sides of the tubes. The lower ends of the spring lace operating devices are secured in the lower ends of the tube 5 by rivets 11 and on the upper ends of the spring members are formed stud engaging hooks 12, said hooks being preferably formed from a continuation of the upper lace receiving loops 10 and are adapted to be engaged with the fastening studs 8 when the springs are stretched and drawn up to the upper end of the device as shown in Figs. 1 and 2 of the drawing. The hooks are provided with operating loops or handles 13 which are preferably bent from the wire forming the hooks as shown.

Secured to the lower lace receiving loops 10 are the lower ends of two lacing cords 14, said cords being laced back and forth from the loops of one tube or side of the closure to the loops of the other side and have their upper ends secured to the opposite upper loops as clearly shown in Fig. 1 of the drawing. By thus arranging the lacing cords 14 the opposite sides or members of the closure will be drawn together when the spring lace operating devices are stretched or drawn to the upper end of the tubes and when thus drawn up and the hooks 12 engaged with the studs 8 the members 1 will be securely fastened thus providing an efficient and reliable closure for the shoes which may be quickly brought to a closed and fastened position and which may be instantly released for opening the shoe. In releasing the fastening or closure the hooks 12 are disengaged from the studs 8 and when released the springs will quickly retract to the position shown in Fig. 3 of the
drawing thus carrying the lacing cords to the lower portion of the lacing opening thereby permitting the shoes to be removed.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A shoe closure comprising flexible strips adapted to be secured to the lacing eyelets of the shoe, spring holding tubes secured to the inner edges of the strips, lacing cords operatively arranged in said tubes, lacing cords operatively connected to said springs and adapted to be thereby moved to operative and inoperative positions, and means whereby said springs are fastened to hold said lacing cords in an operative position for closing the shoe.

2. A closure for shoes comprising flexible strips, spring holding tubes secured to said strips, said tubes having in their outer side edges longitudinal slots, a series of cord operating springs arranged in said tubes and secured thereto at their lower ends, a series of cord receiving loops arranged between and connecting said springs, said loops being slidably engaged with and projecting through the slots in said tubes, fastening devices formed on the upper ends of said springs whereby the latter are held in an expanded position when stretched to the upper end of the tubes, lacing cords secured at their lower ends to the lower loops of said springs, said cords being laced back and forth through the intermediate loops and secured at their upper ends to the upper loops whereby said springs are stretched to the upper end of the tubes, the cords will be operated to draw parts of the closure together and whereby when said fastenings are released the springs will retract and draw said cords to an inoperative position.

3. A shoe closure comprising spring holding tubes having on their inner sides attaching flanges, means to secure the flanges to the shoe, said tubes having in their outer sides longitudinal slots, fastening studs arranged on the upper ends of said outer flanges of the tubes, spring lace operating members slidably mounted in said tubes, said springs being connected by a series of cord receiving loops adapted to project through and work in the slots of the tubes, hooks formed on the upper ends of said spring members and adapted to be engaged with the fastening studs on said flanges whereby the spring members are held in an operative position, operating loops formed on said hooks and lacing cords secured at their lower ends to the lower loops of said spring members and having a laced engagement with the intermediate loops and secured at their upper ends to the upper loops whereby when the spring members are stretched upwardly, said cords will draw the members of the closure together.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses,

Anne Wilson De Haven.

Witnesses:

Bertha Leona Gould.
Sadie E. Wright.