H. E. DENNETT.

Boot and Shoe Fastening.

No. 167,829. Patented Sept. 21, 1875.

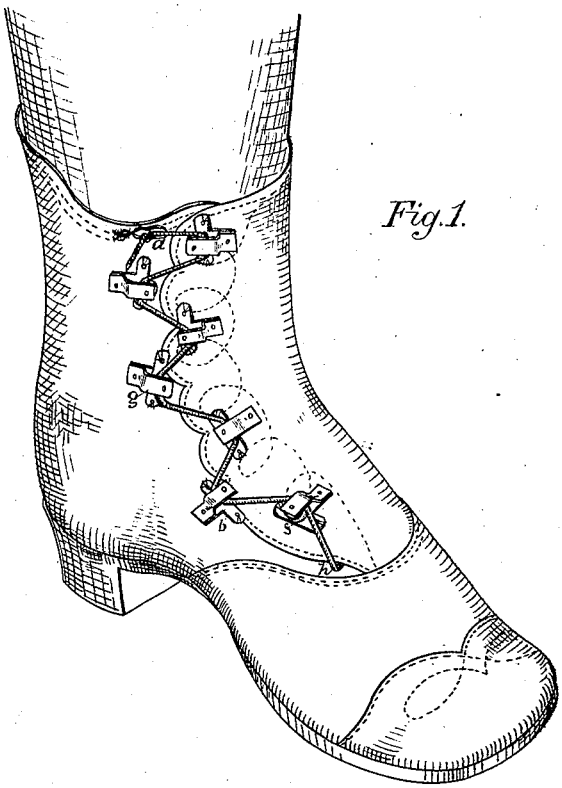


Fig. 1.

Fig. 2.

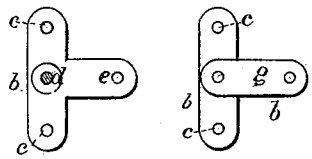


Fig. 4.

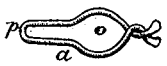
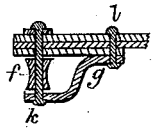


Fig. 3.



Witnesses:

M. VanCleve

E. M. Finch

Inventor:

Herbert E. Dennett

By John P. Towd

Atty

UNITED STATES PATENT OFFICE.

HERBERT E. DENNETT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BOOT AND SHOE FASTENINGS.

Specification forming part of Letters Patent No. **167,829**, dated September 21, 1875; application filed May 6, 1875.

To all whom it may concern:

Be it known that I, HERBERT E. DENNETT, of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Fastenings for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of devices used for the purpose of retaining a shoe or boot in close contact with the foot and ankle of the wearer, in which a series of pulleys on each side of the slit receives the lacing-cord; and it consists in the details of construction as will be hereinafter fully set forth and then pointed out in the claims.

In the accompanying drawings, Figure 1 shows a boot provided with fastenings having anti-friction rollers. Fig. 2 is a plan view of the fastening and of the T-shaped plate. Fig. 3 shows a section through one of the fastenings and the boot, illustrating the method of securing them together. Fig. 4 represents the hold-fast or clasp for holding the string after the boot is laced up.

The boot or shoe may be of any desired form, and requires no special construction in order to fit it for the reception of the fastenings, which are composed of a T-shaped piece of metal, *b*, provided with holes *c* near each extremity of the cross, by means of which it is secured to the shoe by sewing, the thread used passing through these holes and through the material composing the upper of the shoe. Other holes *d* and *e* are formed in the piece *b*, through which pass the rivets *k l*, which assist in securing it to the boot and connect it with the cap *g*, which serves, in connection with the rivet *k*, to keep the small sheave *f* in place, and also prevents the shoe-lacing which passes around the sheave from becoming displaced.

The method of attaching the device to the shoe will be more clearly understood from an inspection of Fig. 3 of the drawing, which shows a section of the device and of the shoe or boot to which it is attached upon an enlarged scale.

It will be seen that the rivets *k* and *l*, connecting the plates *b* and *g*, pass entirely through the washers *m n* upon the inside, thus securely holding the parts together, while, as an additional security, the plates *b* are sewed fast to the shoe, as heretofore described. This method of securing the device causes the two rigid fastenings, which are the rivets, to be in line with each other, so that they do not prevent the bending of the boot to accommodate itself to the movements of the foot and ankle of the wearer.

The hold-fast or clasp *a* is formed of a continuous piece of wire, bent to the peculiar form shown in Fig. 4, having an enlarged portion, *o*, through which the string slides freely, and a narrowed extremity, *p*, into which the string may be drawn when it is desired to hold it at any particular point. The ends of the wire of which this hold-fast is constructed are brought together, twisted, and then flattened, the extreme ends projecting diagonally and affording a ready means of attachment to the shoe or boot.

These hold-fasts may be made from sheet metal in the same manner, with the ends twisted, but the method of construction above described is preferable, as it leaves no sharp edges to cut the strings.

The operation of these devices will be understood from an inspection of Fig. 1, in which it will be seen that one end of the shoe-string is attached to the boot at *h*, and passes thence through the alternating fastenings until it reaches and passes through the hold-fast *a*. It will now be apparent that if the string is allowed to slide through the large part of the hold-fast, the shoe or boot may be opened to its greatest extent by a slight pull upon the opposite parts, as the string renders freely around the sheaves and through the fastenings; but when it is desired to tighten the lacing it is simply necessary to give the string a pull, when all the parts will come into as close juxtaposition as the foot and ankle of the wearer will allow. A slight pull to one side catches the string in the hold-fast, and the operation is completed.

I am aware that many devices have been

used for the purpose of accomplishing the object aimed at in this invention. I do not, therefore, claim the use of a sheave for the purpose of reducing the friction upon a boot-lacing, or a clasp for holding it when laced up, but the peculiar construction and arrangement of devices as will be hereafter stated.

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

1. The improvement in shoe-fastenings herein described, consisting of the plate *b*, cap *g*, sheave *f*, and rivets *k* and *l*, combined and arranged as shown, and attached to the shoe by sewing and the rivets, in the manner described.

2. A clasp for shoe-laces, composed of a continuous piece of wire, bent to form the enlargement *o* and the narrow portion *p*, and having its ends brought together and twisted to afford means for its attachment to a boot or shoe, substantially as and for the purpose specified.

In testimony that I claim the foregoing I hereunto affix my signature this 30th day of April, 1875, in the presence of two witnesses.

HERBERT E. DENNETT.

Witnesses:

SAML. W. CLIFFORD, Jr.,

CHAS. W. BARTLETT.