

No. 607,813.

Patented July 19, 1898.

H. O. WHYMAN.
LACE HOLDER.

(Application filed June 23, 1897.)

(No Model.)

Fig. 1.

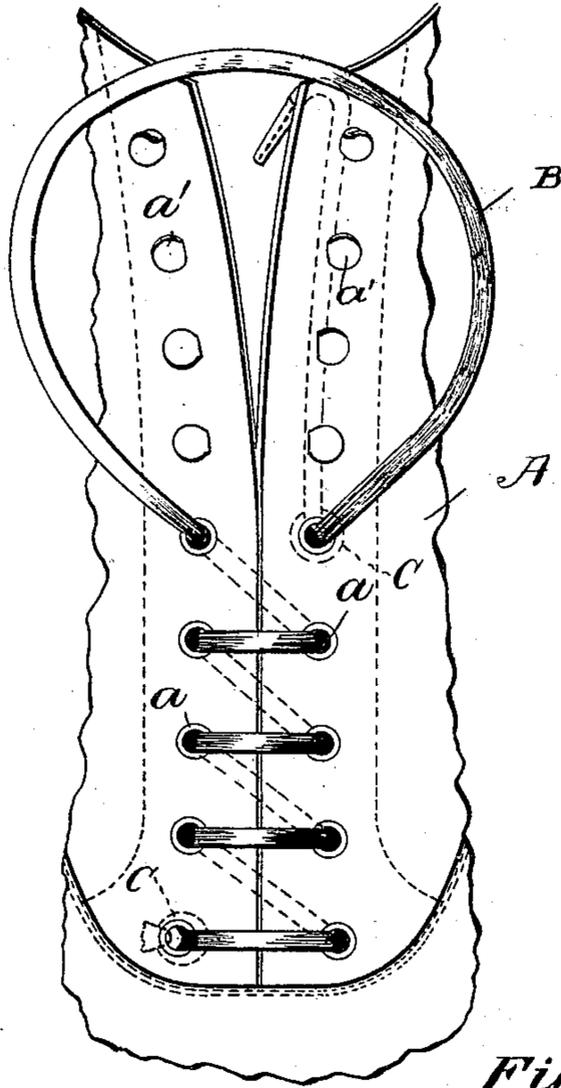


Fig. 2.

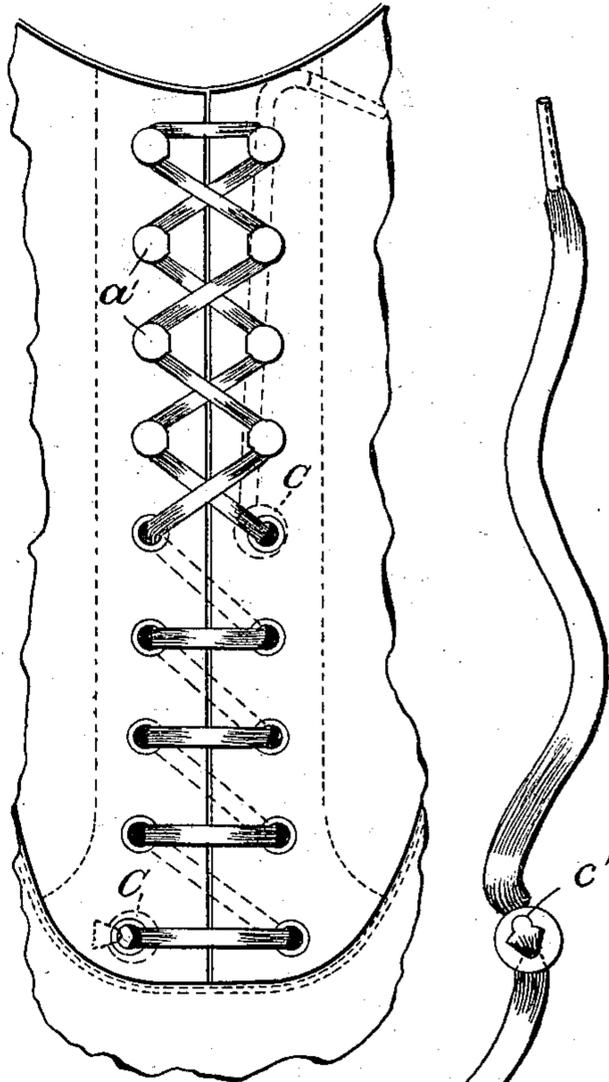


Fig. 3.

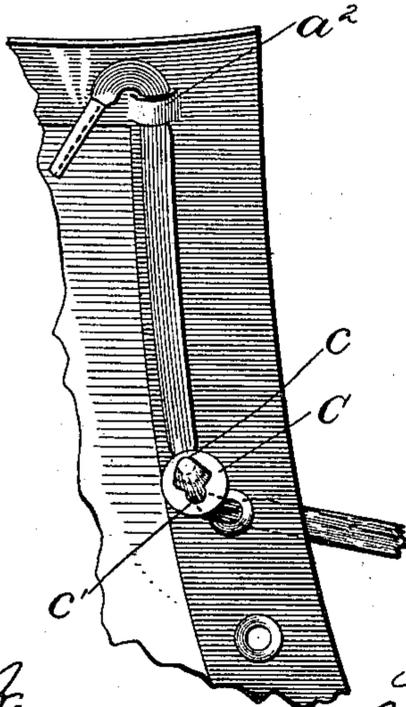


Fig. 4.

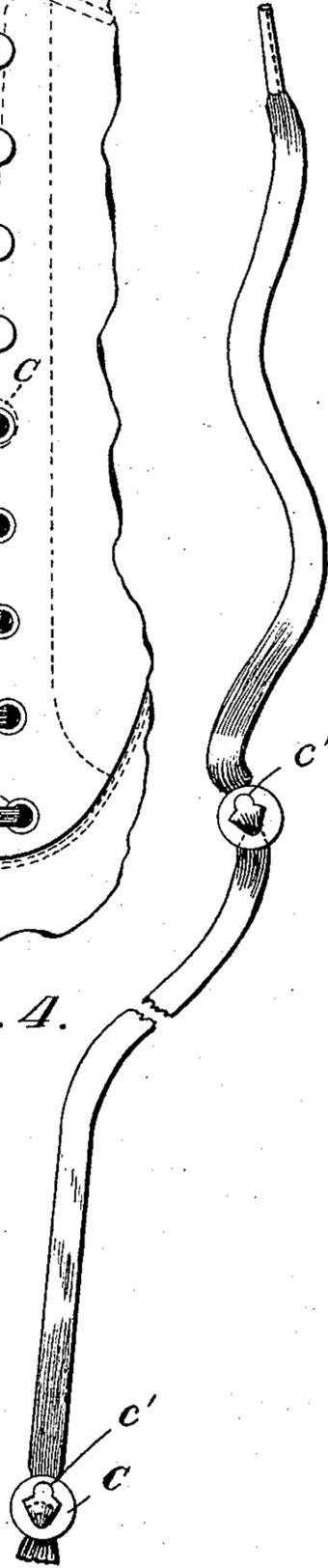
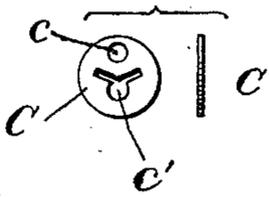


Fig. 5.



WITNESSES

Chas. D. Duwall
Chas. E. Riordan

INVENTOR

H. O. Whyman
By Julian D. Dowell
Attorney

UNITED STATES PATENT OFFICE.

HORATIO O. WHYMAN, OF NORFOLK, NEBRASKA, ASSIGNOR TO THE
WHYMAN PATENT SHOE LACE COMPANY, OF AURORA, ILLINOIS.

LACE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 607,813, dated July 19, 1898.

Application filed June 23, 1897. Serial No. 641,940. (No model.)

To all whom it may concern:

Be it known that I, HORATIO O. WHYMAN, a citizen of the United States, residing at Norfolk, in the county of Madison and State of Nebraska, have invented certain new and useful Improvements in Lace-Holders; and I do hereby 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 devices for securing the lacings of wearing-apparel, but more particularly to boot and shoe lacings. It is especially designed for use in connection with the method of and means for lacing shoes and other wearing-apparel described and claimed in my Patent No. 570,585, dated November 3, 1896.

The invention will first be described with reference to the accompanying drawings, which form a part of this specification, and then pointed out in the claims at the end of this description.

In the drawings, in which similar letters of reference are used to denote corresponding parts in different views, Figure 1 is a perspective fragmentary view of the vamp of a shoe, showing the lace with a loop formed therein for engaging the hooks after the manner of lacing a shoe, as described and shown in my aforesaid patent, and having my improved lace-holding device or clamp applied thereto, as shown in dotted lines. Fig. 2 represents a similar view of that portion of the shoe shown in Fig. 1, with the edges of the vamp secured together by tightening the looped portion of the lace about the hooks. Fig. 3 is a detail fragmentary view of a portion of a shoe-vamp or other article, showing a portion of the string or lace with one of my improved lace-holding clamps arranged thereon. Fig. 4 illustrates a lace or string having two of the clamps arranged thereon, and Fig. 5 is a detail view showing a front and an edge view of my improved lace-holding device.

In my aforesaid patent I have shown and described a boot or shoe having a series of eyelets arranged along the contiguous edges of the vamp thereof and a series of hooks ar-

ranged along said edges above said eyelets, as is usual, and provided with a frictional securing device or clamp on the vamp, together with a lacing having a loop of sufficient length to engage with said series of hooks in the usual manner of cross-lacing a shoe and leave a slack, and having a portion extending from one leg of said loop through an upper eyelet and thence through other eyelets in the usual manner of overlacing, and having a portion extending from the other leg of said loop from an opposite upper eyelet, whereby when the shoe is applied to the foot the loop may be made to engage the series of hooks by passing alternately from hook to hook on opposite sides of the vamp and may be tightened about the hooks and held taut by drawing upon the latter portion of the lacing and by its engagement with said securing device.

My present invention is especially designed to provide an improved clamp or lace-holding device for use in lacing shoes and wearing-apparel in the manner described and shown in my aforesaid patent, though the invention may be used, of course, in connection with other lacings for wearing-apparel and wherever such a device may be employed.

In the drawings, A may denote the vamp of a shoe or other article having two members the two edges of which are adapted to be secured together, said edges being provided with eyelets *a* and hooks *a'* above said eyelets, as shown, the eyelets and hooks being arranged in the usual manner to receive and engage the string or lace.

B denotes a shoe string or lace which in the form shown is provided at one end with one of my improved clamps or lace-holding devices C, and the lace is then passed through a lower eyelet from the inside, thence across and through the opposite eyelet, thence diagonally across to and out through the next upper eyelet, thence across and through the opposite eyelet, and so on to the last eyelet through which it may be desired to pass the lace, whereupon a loop of sufficient length is formed to engage the series of hooks in the manner shown in Fig. 2 and leave a little slack, and thereupon the end of the lace is passed into

and through the upper eyelet opposite the one through which the opposite leg of the loop is passed and along the inside of the article or vamp to a loop or frictional securing device a^2 , which serves to hold the end of the string in the desired position to be caught and pulled for tightening the loop about the hooks after being properly engaged therewith. Thus arranged the disk-holding device C on the lower or engaged end of the lace will occupy a flatwise position on the inside of the article or vamp and hold the end of the lace at that point, and when the loop has been properly engaged with the hooks and the free end of the lace pulled through the frictional or other suitable engaging device a^2 , so as to tighten the loop about the hooks, the lace will be held taut without other securing means and may be readily disengaged by drawing out the free end of the lace from the upper eyelet, so as to provide enough slack in the looped portion to permit its disengagement.

I will now proceed to specifically describe the lace-holding device C, which constitutes my present invention and which is particularly adapted for use in connection with a lacing applied as hereinbefore described and as illustrated more fully in my aforesaid patent.

The device C consists, preferably, of a disk or circular plate of thin metal or other suitable material having an eccentrically-arranged eye or perforation c and an approximately trefoil-shaped opening c' there-through, said opening being so arranged with relation to said eye that it occupies a position between but slightly separated from the divergent portions of the trefoil opening. The latter, however, may have the form of an approximately V-shaped opening formed by two divergent slots which cut into each other at their converging ends, the said slots being arranged at an obtuse angle to each other without the opening or perforation at the junction of the diagonal slots, though the trefoil shape is preferred as best adapted to permit the insertion of the string.

In the use of the expression "intersecting slots" herein it is not understood that the term necessarily implies that the slots shall cross each other, but the requirement is met by two slots meeting or cutting into each other at an obtuse angle. The described construction adapts the device to be easily adjusted and secured at any desired point along the lace and insures its retention at a given point without liability to slip or slide along the lace by reason of any pull or draft upon the latter, and the greater the pull the more secure the fastening.

With the device thus constructed the string is first passed through the trefoil or diagonally-slotted opening c' and then through the perforation c , and when drawn tight the friction will be sufficient to prevent further movement; but by drawing the engaged portion

of the lace so as to provide a loose portion between the two openings in the disk the latter may be moved along and secured at any desired point on the lace. The lace holder or clamp is thus adapted to be easily adjusted along the length of the lace or string and secured thereon at any desired point without liability to slip, and owing to the fact that the lace is spread out over the surface of the clamp between the trefoil or approximately V shaped opening and the single aperture arranged in the space between the converging lines of said opening the desired binding effect to insure a firm hold, due to the extent of the engaging surface, is secured without liability to injure and wear away the edges of the lace in adjusting it by contact thereof with sharp edges or angles of tightly-fitting openings or openings having a wedging action.

I thus provide a very efficient, simple, and inexpensive frictional securing device or lace-holding clamp for use with lacings of the character described in my aforesaid patent and one that may be easily applied and readily removed. By arranging one of said devices on the lace B under the upper eyelet between the latter and the free end b of the lace, as shown in dotted lines in Figs. 1 and 2 and in full lines in Fig. 3, the said device will hold the lace at that point, so as to provide a loop of the desired length without liability of slipping and lengthening the loop when the latter is being engaged with the hooks, and more or less slack may be provided by moving the disk along the lace.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A lace-holding device consisting of a plate or disk having an approximately V-shaped opening therein and an aperture adjacent to said opening arranged in the space between the converging lines of the opening, whereby the device is adapted to be readily adjusted and fixed at any desired point along the length of the lace.

2. A lace-holder comprising a plate having diagonally-arranged slots therein which cut into each other at their converging ends, and an eye therethrough arranged in the space within the converging lines of said slots, substantially as described.

3. A lace-holder consisting of a disk having an eccentrically-arranged perforation or eye therein, and an approximately trefoil-shaped opening adjacent to said eye, substantially as described.

4. In combination with the lace-holder consisting of a plate having diagonally-arranged slots therein which cut into each other at their converging ends, and an eye therethrough arranged in the space within the converging lines of said slots, a lace or string passing through said eye and slots, whereby the holder may be made fast at any desired point upon

the string by tightening the latter in engagement with said eye and slots, substantially as described.

5 A lace-holding device consisting of a plate or disk having an orifice therethrough, a second orifice slightly separated from the former, and divergent slots extending from the latter orifice; said first-mentioned orifice being arranged directly over the point where

said slots meet or cut into each other, in the space between the converging lines thereof, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HORATIO O. WHYMAN.

Witnesses:

CHAS. E. RIORDON,

WM. B. CROWELL.