

J. E. Otto,

Shoe Fastener.

No. 105482.

Patented July 19, 1870.

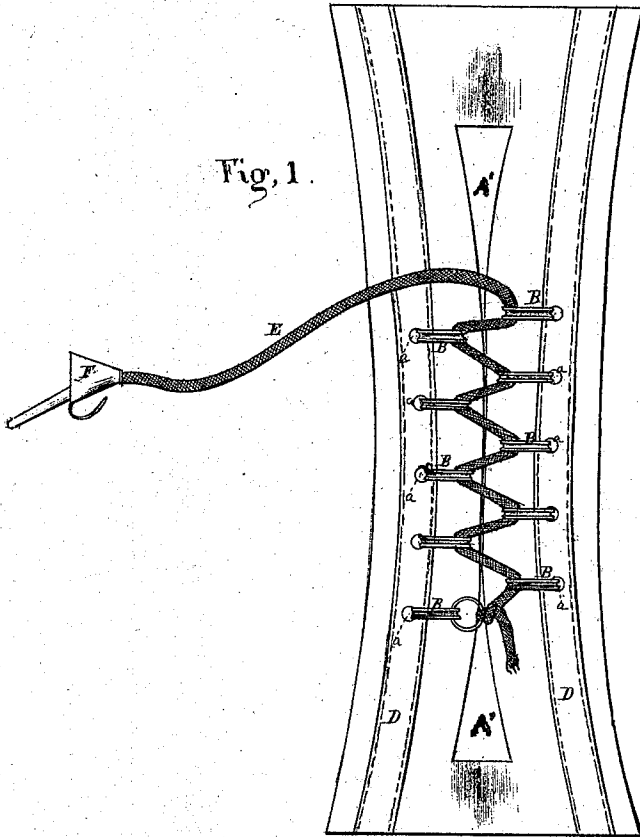


Fig. 2.



Fig. 3.



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Witnesses.

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JULIUS E. OTTO, OF ELMORE, OHIO.

Letters Patent No. 105,482, dated July 19, 1870.

IMPROVEMENT IN SHOE-FASTENERS.

The Schedule referred to in these Letters Patent and making part of the same

Be it known that I, JULIUS E. OTTO, of Elmore, in the county of Ottawa and State of Ohio, have invented certain new and useful Improvements in Lace-Hooks, of which the following is a specification.

Description of Drawing.

Figure 1 is a view of the lace in its practical application.

Figure 2, a view of the hook detached.

Figure 3, a detached transverse section of the holder.

Like letters of reference refer to like parts in the different views.

Nature and Object of the Invention.

This invention relates to a means for lacing boots, shoes, &c., without the use of a double string and eyelets, substituting therefor an arrangement of hooks.

It also relates to a device for securing the end of the string when the boot is laced up, as herein more fully set forth.

General Description.

Fig. 1 represents the side or section of a shoe, gaiter, or boot, which may be made separately and then attached to the boot, or the side thereof may be formed in like manner at the time of its manufacture.

In the section A is cut an oblong opening, A', the sides of which are drawn together in the middle around the ankle, as indicated, leaving the upper and lower part of the leg entire, without an open side, as in the ordinary side-laced gaiter.

The upper part of the leg is made sufficiently large to admit the foot, and, at the point where the foot turns to enter the foot of the boot, the opening A' will allow the leg to be so expanded as to admit an easy entrance of the foot to its place in the lower part of the shoe or boot, which is provided with a tongue, in the usual way, to cover any opening in the lacing.

If preferred, the opening A' may be of the usual form of that of an ordinary gaiter, to which the lacing may be applied as follows:

B is a series of hooks.

A detached view of one such hook is shown in fig. 2, in which it will be seen that one end thereof is provided with a cross-bar, C.

Said bar is offset from the back of the hook equal to about the width of the bow of the same, the purpose of which will presently be shown.

The above-described hook is attached to the boot or other article for lacing by inserting the bar in a

hole, *a*, so that the back of the hook shall be outward, as shown in fig. 1.

The hook is prevented from becoming detached by the strip of leather D, under which the bar is secured by sewing said strip to the boot. This, however, is not necessary, unless the material is of a thin character.

The usual manner of lacing boots and shoes is by a double string threaded in eyelet-holes.

The objection to this method of lacing is, that it takes much time to thread the strings in the holes for lacing, and which have to be withdrawn from them for the purpose of unlacing. Also, in consequence of the strain exerted upon the eyelets, they soon come out, thereby causing the shoe to look unsightly and the holes liable to break out.

To avoid these objections, I use the hooks above described, to the lower end of which one end of the shoe-string E is tied, either by a ring or directly to the hook.

A single string only is used, which is then slipped into the hooks alternately from side to side of the opening, as shown.

This being done, the slack of the string is then taken up by drawing upon the string, thereby closing up the opening of the shoe, as shown in fig. 1.

By this means much less time is spent in lacing the shoe, as one string only is used, which is more quickly caught under the hooks, than is required in the ordinary way, viz., by the use of two strings, threaded in eyelet-holes.

By giving to the cross-bar the offset referred to, the hook receives more freedom to move, so that the string can be more readily caught on them, as the point of the hook is not pressed close down upon the leather, which it would be were it not for the offset.

The string, when laced up, is secured thus by the fastener, which consists of a funnel-shaped shell, F, fig. 1, a detached view of which is shown in fig. 3.

In said shell is fitted and pivoted a disk, G, so that it will vibrate on its axial diameter.

The string is passed through the shell from the smaller end, and between the edge of the disk and side of the shell, as shown in the transverse section, fig. 3.

It will be obvious that the string can be pulled inwardly, as the edge of the disk will move forward away from the side of the shell, but cannot be pulled outwardly, as the string will draw the edge of the disk down against the side of the shell, thereby clamping the string and preventing it from being pulled out.

By this device only one string is secured from being

unlaced from the hooks, which will, therefore, remain tight while the shoe is laced up.

This kind of lacing described may be used on boots with a side opening of the usual kind, or that of a rectangular opening, as before mentioned.

Claim.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The conical shell F and vibrating disk G, arranged, in relation to the lacing, substantially as and for the purpose set forth.

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Witnesses:

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