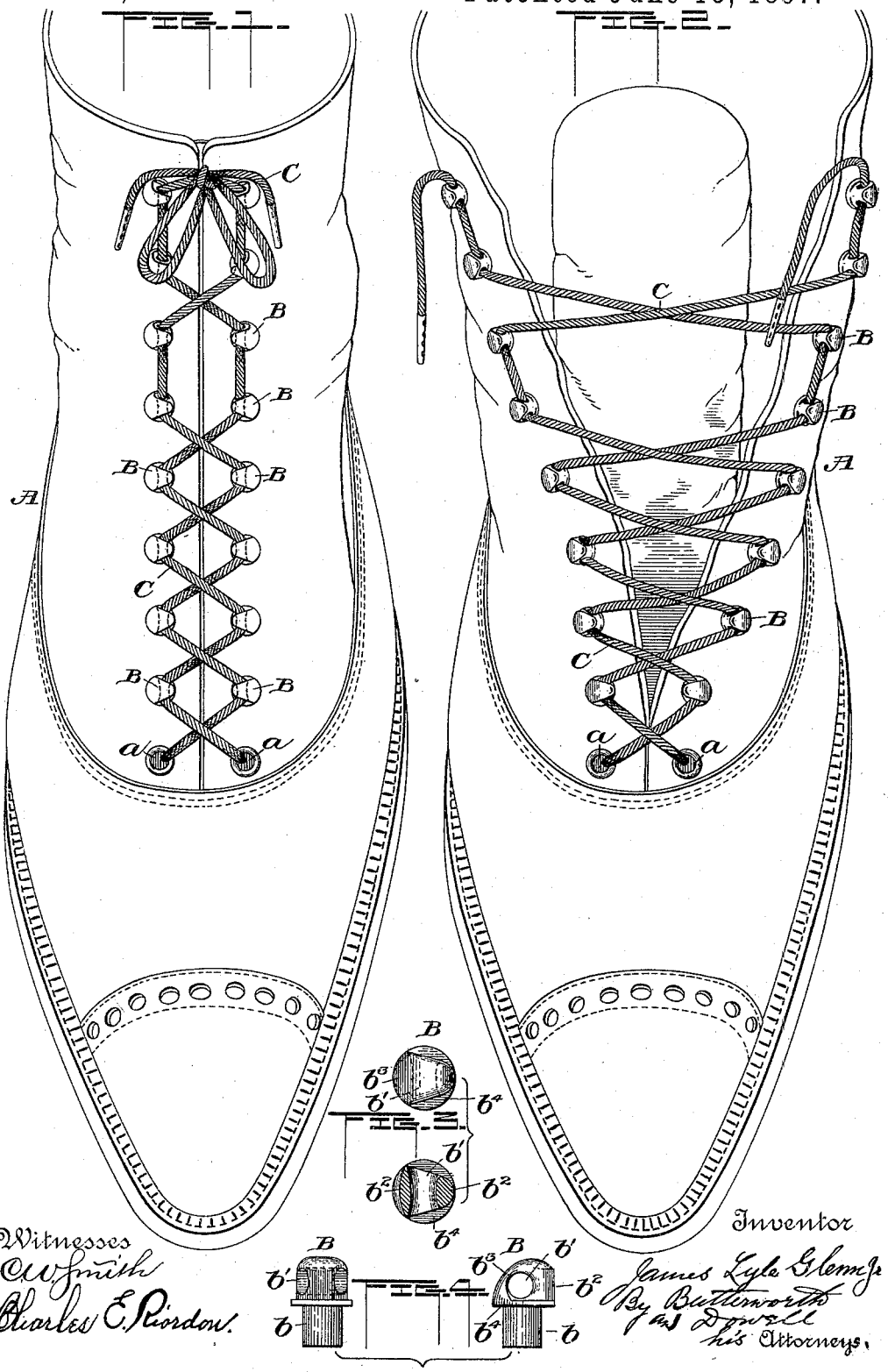
(No Model.)

J. L. GLENN, Jr.

BOOT OR SHOE LACING.

No. 584,346. Patented June 15, 1897.



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UNITED STATES PATENT OFFICE.

JAMES LYLE GLENN, JR., OF CLARKSVILLE, TENNESSEE.

BOOT OR SHOE LACING.

SPECIFICATION forming part of Letters Patent No. 584,346, dated June 15, 1897.

Application filed March 30, 1896. Serial No. 585,451. (No model.)

To all whom it may concern:

Be it known that I, JAMES LYLE GLENN, JR., a citizen of the United States, residing at Clarksville, in the county of Montgomery and State of Tennessee, have invented certain new and useful Improvements in Boot or Shoe Lacings; 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 new and improved means for lacing boots, shoes, &c., and the primary object is to provide a simple, convenient, inexpensive, and efficient contrivance for lacing and securing the upper parts or vamp of the shoe together, whereby the shoe may be put on and taken off the foot without touching the string with the hand, the pressure of the foot in entering or in being taken from the shoe causing the string to run through the eyes of the studs or eyelets, so that the shoe will readily open automatically, as it were, for the insertion or removal of the foot, and so that after the shoe has been put on the foot it may be laced uniformly from top to bottom by simply pulling the ends of the string and may give equal pressure on the foot at all points.

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

In the drawings, in which similar letters of reference are used to denote similar parts, Figure 1 represents a plan of a shoe with my improvement applied thereto, showing the contiguous edges of the vamp secured together. Fig. 2 is a similar view showing the string untied and the shoe open, so as to illustrate the operation in inserting the foot. Fig. 3 is a detail of one of the studs or eyelets detached from the shoe, showing a plan view and a horizontal section thereof; and Fig. 4 represents a front and a side elevation of one of the studs or eyelets detached.

I have illustrated the invention applied to an ordinary shoe somewhat after the manner of applying the usual lace with hooks and eyes, except the method of lacing, to which attention will be more particularly hereinafter directed. It will be understood, of course, that while the improvement is especially designed for use in lacing shoes, boots, &c., it may be applied to other analogous uses, and hence I do not desire to be limited in the application of the invention to the particular uses mentioned. The peculiar eyelet may also be used, if desired, in connection with eyelets and hooks of common form—that is, a series of my eyelets may take the place of the usual series of hooks, such as are commonly employed, or may be substituted for the usual series of eyelets in connection with the usual arrangement of hooks, such applications of the invention being obvious to those familiar with the construction and uses of such devices.

In the form shown the shoe A is provided at the lower portion of the vamp with a pair of ordinary eyelets *a a* and above the same with a series of eyelets or studs B B, constructed in accordance with my invention. These eyelets B B may be arranged, as shown, according to the usual manner of arranging the eyelets and hooks along the contiguous edges of the vamp for securing the same together by means of an ordinary shoestring. The peculiar construction of said studs or eyelets is shown more clearly in Figs. 3 and 4. The several eyelets being alike a description of one will answer for all. Each eyelet consists of an eyepiece or head which is formed or provided with a pendent (preferably hollow) stem or projection *b* for riveting or otherwise securing the same to the shoe and has an opening *b'* therethrough, arranged transversely of the axis of the stem. The general contour of the head is preferably approximately triangular in form when viewed either from above or from the sides thereof, and it has rounded surfaces both exteriorly and interiorly of the eye or opening *b'*, so as to provide an upright portion or bar b^2 of oval or rounded shape in cross-section adapted to engage and hold the string with free running movement without presenting sharp angles, and also a laterally and longitudinally rounded portion or arch b^3, which rises from the base portion b^4 of the head or eyepiece and extends upwardly and forwardly in a gentle curve and with forwardly-converging sides to its junction with the bar b^2, at which point

its inclined sides merge in the rounded bar b^2, thus providing a surface free from sharp angles both within and around the eye, so that the clothing may not catch onto the eyelet nor the string be worn by contact therewith. These eyelets being applied to the shoe-upper in the manner indicated in the drawings a string C may have its ends passed out through the ordinary eyelets *a a* at the base of the divided parts of the upper, and from this point each portion of the string may pass across diagonally to the next adjacent eyelet B, then across from eyelet to eyelet in a zigzag line until the fourth eyelet from the top is reached, when the string may pass directly to the next eyelet above on the same side, then diagonally across and through the next eyelet above on the opposite side, and then up through the last eyelet in the series, where the two ends of the string may be tied together, so that when the lace is loosened the contiguous edges of the shoe upper or vamp may be spread apart, as shown in Fig. 2, without pulling the ends of the lacing out of the eyelets and may be drawn together and secured by simply pulling the ends of the string and tying them, as shown in Fig. 1.

I thus secure a very simple and efficient fastening for boots, shoes, &c., without the objectionable features which are incident to contrivances of this same general character heretofore employed. With eyelets of the usual construction now in common use there is ordinarily so much friction between the lacing and the shoe that in order to put the shoe on the foot or to remove it therefrom it is usually necessary to pull out the separate sections or parts of the lacing and after inserting the foot to draw upon or strain the separate parts, so as to draw the contiguous parts of the vamp together, thus rendering the operation of securing and lacing a shoe a tedious and laborious task, while with hooks in combination with the usual eyelets there is great wear and tear upon the strings, caused by contact with the hooks, and in removing the shoe it is necessary to disconnect the parts of the string from the hooks and to again connect them when the shoe is replaced, and the friction between the hooks and the string is so great as to render it necessary to draw or pull with considerable force upon the different sections of the string, which is not only annoying and disagreeable, but the string is soon worn out, rendering it necessary to replace the strings with new ones after a short time. My improvement overcomes these objectionable features and provides a contrivance by which the shoe is adapted to open easily as the foot is inserted, and vice versa, and in lacing or tightening the shoe after inserting the foot the contiguous edges of the vamp may be secured together by simply drawing upon the ends of the string and tying them in the usual manner.

I am aware that eyelets for shoes have heretofore been formed with an eyepiece arranged transversely of a pendent projection or prong by which the eyelet may be fastened to the vamp of a shoe or other article with which it may be used, and hence I make no broad claim to such contrivances.

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

1. As an article of manufacture a stud or eyelet for boots, shoes, &c., consisting of an eyepiece or head having a pendent stem or shank for securing the same to the shoe; said head having an opening or eye therethrough arranged transversely of the axis of the stem, and having an upright integral rounded portion or bar at the front of said eye and an upwardly and forwardly curved portion extending in a gradual curve from the base of the head back of the eye to its junction with said bar and formed with inclined sides which converge toward and merge in said bar; the exterior surfaces of the head and the surfaces within and about said eye being rounded so as not to present sharp angles for catching onto the clothing or wearing the string, substantially as described.

2. As an article of manufacture a stud or eyelet for boots, shoes, &c., consisting of an eyepiece or head having a pendent stem or shank for securing the same to the shoe; said head being approximately triangular when viewed from above or the sides thereof and having an opening or eye therethrough arranged transversely of the axis of the stem, an upright integral rounded bar at the front of said eye, and an upwardly and forwardly curved portion extending in a gradual curve from the base of the head back of the eye to its junction with said bar and formed with inclined sides which converge toward and merge in said bar; the surfaces of the head within and about said eye being rounded so as not to present sharp angles for catching onto the clothing or wearing the string, substantially as described.

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

JAMES LYLE GLENN, JR.

Witnesses:
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