(No Model.)

W. T. TIMMERMAN.

SHOE LACE FASTENER.

No. 490,997. Patented Jan. 31, 1893.

Fig. 1.

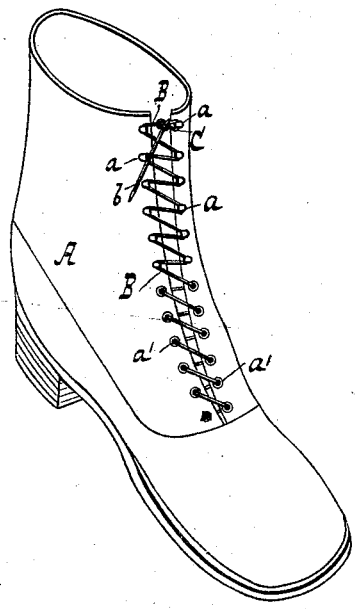

Fig. 2.

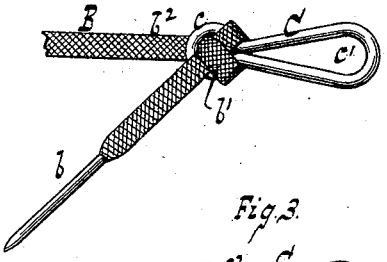

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM T. TIMMERMAN, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOHN W. ALEXANDER, OF SAME PLACE.

SHOE-LACE FASTENER.

SPECIFICATION forming part of Letters Patent No. 490,997, dated January 31, 1893.

Application filed November 3, 1892. Serial No. 450,861. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. TIMMERMAN, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Fasteners for Shoes, of which the following is a specification.

This invention relates to an improved fastener for shoes, the peculiar and novel construction of which is pointed out in the following specification and claim and illustrated in the accompanying drawings in which

Figure 1 represents a perspective view of a shoe provided with my fastener. Fig. 2 is a face view of the upper end of the fastener on a larger scale than the previous figure. Fig. 3 is a face view of a double eyed loop which forms part of my fastener.

In the drawings the letter A designates a shoe which may be of the usual or any desired construction and the lacing flaps of which are provided for a certain distance with lacing hooks *a*.

In my improvement I employ but a single shoe lace B which is drawn through the eyelet holes *a'* in the shoe and prevented from slipping through the first one of these eyelet holes by a knot formed at its lower end or by any suitable stop attached to said end. The upper end of the shoe lace B is drawn through the eye *c* of a double eyed endless loop C and after the shoe lace has been carried back and forth over the lacing hooks *a* and drawn up tight the double eyed loop C is adjusted on the shoe lace and secured to the same in such a position that when its eye *c'* is made to engage the last lacing hook, the shoe lace will retain the shoe firmly on the foot. In order to adjust the double eyed loop C in the required position on the shoe lace I draw the latter through the eye *c* and secure it in position by forming a suitable knot.

By referring to Fig. 3 of the drawings it will be seen that the loop C is formed with a round eye *c*, a closed oblong eye *c'* in the form of a prolate ellipse, and contacting shoulders c^2 at the junction of the two eyes. The oblong eye is so proportioned that it cannot be made to engage a lacing hook of the size generally used for shoes except by turning into an oblique position and that it cannot become disengaged from said hook except by turning it to an oblique position which it cannot assume as long as it bears flat upon the shoe and since it will do so as long as the shoe lace is exposed to a strain, the loop is not liable to become disengaged when the shoe lace is in the position shown in Fig. 1. Furthermore by forming the loop C with two eyes *c c'* and shoulders c^2 the operation of adjusting the loop on the shoe lace and of securing the shoe lace in the loop without disturbing the position of said loop is materially facilitated. To effect these purposes the free end *b* of the shoe lace is passed through the eye *c* from the bottom up, the loop C is adjusted in the required position in relation to the last lacing hook, the eye *c* is firmly pressed upon the strand b^2 of the shoe lace and then the free end is carried down under the eye *c'*, then passed over the eye *c* and under the strand *b'* (Fig. 2) while the eye *c* is firmly retained on the strand b^2 until the end *b'* has been drawn out so as to complete the knot shown in Fig. 2.

When the lace of a boot or shoe is tied there is considerable strain at the top portion of the ankle and therefore it is essential with any fastening device employed that the fastener should possess the requisite strength to resist excessive strain. This is accomplished in a very simple and economical manner by constructing the fastener of an endless loop, which loop is readily made from a strip of wire of suitable thickness properly bent into shape and having its ends welded or similarly secured together in a permanent manner. By this particular construction the loop cannot separate at any point and therefore the fastener can be of wire of very small diameter compared with a fastener wherein the ends of the wire are disconnected, or the ends of the wire are bent into eyes to engage the lace.

What I claim as new and desire to secure by Letters Patent is:

A shoe-lace fastener, consisting of an endless wire loop C having the closed oblong eye *c'* in the form of a prolate ellipse, the closed eye *c* and formed integral with a pair of shoul-

ders c^2 located between the two eyes and bearing in close contact against each other, the oblong eye serving to engage one of the lacing hooks of a boot or shoe and the other eye to engage the shoe-lace, substantially as described.

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

WILLIAM T. TIMMERMAN.

Witnesses:
WM. C. HAUFF,
E. F. KASTENHUBER.