W. E. CRAM.

LACING FASTENER.

APPLICATION FILED MAR. 23, 1910.

987,556. Patented Mar. 21, 1911.

Fig. 1.

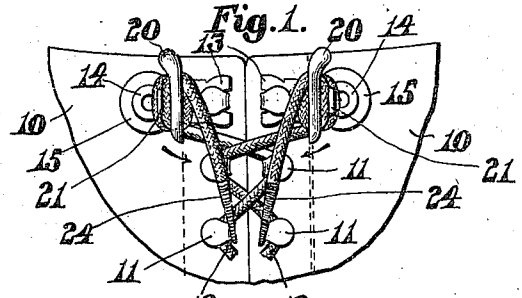



Fig. 2.

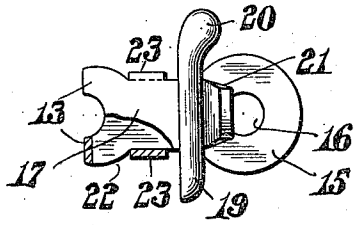



Fig. 3.

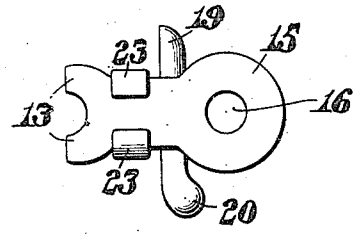



Fig. 4.

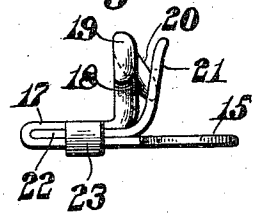



Fig. 5.

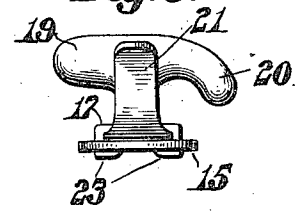
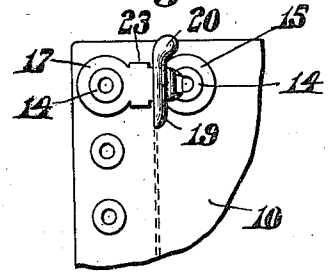



Fig. 6.

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# UNITED STATES PATENT OFFICE.

WILLIAM E. CRAM, OF EASTFORD, CONNECTICUT.

## LACING-FASTENER.

987,556. Specification of Letters Patent. Patented Mar. 21, 1911.

Application filed March 23, 1910. Serial No. 551,188.

*To all whom it may concern:*

Be it known that I, WILLIAM E. CRAM, a citizen of the United States of America, and a resident of Eastford, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Lacing-Fasteners, of which the following is a specification.

This invention relates to shoe lace fasteners and has for its object the provision of a device which is adapted to secure the end or ends of the shoe lacings instead of tying the ends together in a knot as is usually practiced.

The invention consists in certain novel features of construction and arrangement of parts which will be readily understood by reference to the description of the drawings and to the claims hereinafter given.

Of the drawings: Figure 1 represents a front view of a portion of the upper of a shoe having secured thereto lacing fastening devices embodying the features of the present invention. Fig. 2 represents a front elevation, partly in section, of a device embodying the features of the invention. Fig. 3 represents a rear elevation of the same. Fig. 4 represents a side elevation of said fastening device. Fig. 5 represents an end elevation of the same, and Fig. 6 represents a modified form of said device applied to a portion of the shoe upper.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a portion of a shoe upper to which is secured a plurality of lacing studs 11. The two edges of the shoe upper are secured together in the position indicated in Fig. 1 by means of a lacing 12 co-acting with said lacing studs 11 in the usual manner.

The lacing fastener is provided at one end with the forked arms 13 which are adapted to straddle the upper lacing studs, said lacing fastener being secured in position by means of a rivet 14 passing through the upper 10. This lacing fastener is composed of a plate the body portion 15 of which is provided with an eyelet hole 16 while a portion of said plate is bent over as indicated at 17 parallel to said body portion 15 and terminates in a T-shaped projection 18 extending outwardly from said base plate substantially midway between the ends of said body portion 15. One arm 19 of said T-shaped projection is substantially at right angles with the shank thereof while the opposite arm 20 extends downwardly toward said body portion 15.

Between the body portion 15 and the bent-over portion 17 of the base plate is interposed one end of a spring member 21, the inner ends of which are provided with the lateral extensions 22 forming shoulders which engage with the clips 23 formed upon the bent-over portion 11 and bent down around the under face of the body portion 15 to lock said bent-over portion 17, said spring member 21 and body portion 15 together. It is obvious that the shoulders 22 prevent the end displacement of the spring 21.

The end of each lacing near the top of the upper is passed around first the spring 21, then around the shank of the projection 18, then between said shank and the spring 21 and underneath the curved hook member 20. Any tendency for the lacing to loosen will cause a movement in the direction of the arrows on Fig. 1 and such movement of the lacing will tend to force the spring 21 into more firm contact with that portion of the lacing 12 between the shank of the projection 18 and said spring, causing such a binding thereon as to prevent the ends 24 from slipping. It is obvious that if one of the lacings 12 should break the hold upon the other lacing is sufficient to retain the two edges of the upper in contact.

The construction of the fastener is very simple and at the same time is very efficient in its operation inasmuch as it secures a positive binding action upon the lacing which is increased whenever any strain is brought to bear upon the lacing tending to disconnect it from the fastening device. By its use upon a pair of shoes the lacings may be quickly adjusted and secured so that accidental unlacing will be prevented effectually.

The construction shown in the drawings is adapted to be applied to shoes in use or after their manufacture, as the forked ends 13 may be readily adjusted to one of the upper lacing hooks and secured in position by means of any ordinary rivet 14. When, however, the device is applied to the shoe in the course of manufacture both ends of the base plate are provided with eyelet holes 16

by which the base portion may be secured to the upper by means of the rivet 14 as indicated in Fig. 6 of the drawings.

It is believed the many advantages of the construction herein shown and described will be fully understood without further description.

Having thus described my invention, I claim:

1. A shoe lace fastener, consisting of a base plate having at one end arms adapted to straddle a lacing hook and at the opposite end means whereby it may be secured to a shoe upper; a T-shaped projection extending from the outer face of said base plate; and a spring secured to said base plate and extending outwardly opposite the shank of said projection.

2. A shoe lace fastener, consisting of a base portion formed of a plate bent over on itself and having formed on the end of one member thereof an outwardly extending projection with lateral arms; and a spring interposed between the two parallel parts of said base portion and secured thereto with its outer end extending outwardly opposite said projection.

3. A shoe lace fastener, consisting of a base portion formed of a plate bent over on itself and having formed integral therewith clips by which said bent-over portions are secured together and having formed on its outer end an enlarged outwardly extending projection with lateral arms; and a spring secured to said base portion and extending outwardly opposite said projection.

Signed by me at 4 Post Office Sq., Boston, Mass., this 22d day of March, 1910.

WILLIAM E. CRAM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."