M. Bray,

Shoe Fastening,

No. 47,513. Patented May 2, 1865.

Fig. 2.

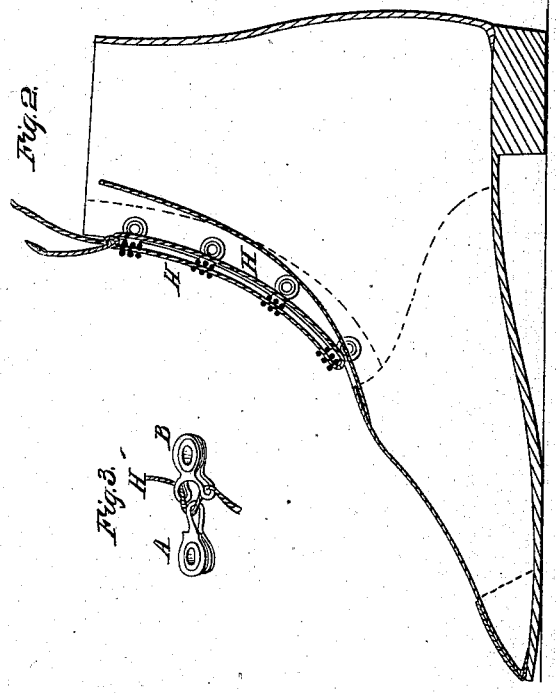
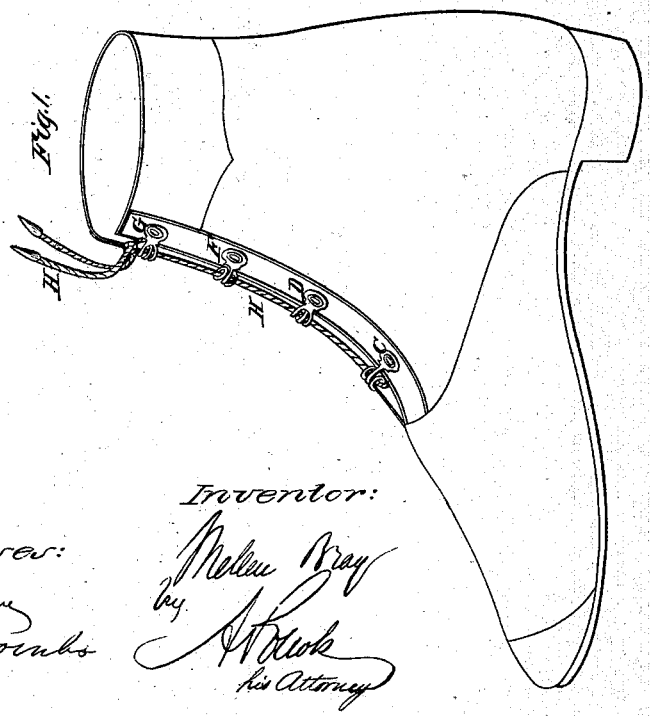


Fig. 3.

Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

MELLEN BRAY, OF BOSTON, MASSACHUSETTS.

IMPROVED SHOE-LACING.

Specification forming part of Letters Patent No. **47,513**, dated May 2, 1865.

To all whom it may concern:

Be it known that I, MELLEN BRAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Lacing; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a shoe with my improved lacing applied; Fig. 2, a sectional elevation of the same, and Fig. 3 a detail in perspective of the interlocking staples with the cord or string running through them.

The object of this invention is a contrivance whereby the lacing of shoes or gaiters may be effected with little trouble expeditiously and efficiently, and so as to give the laced shoe an appearance of neatness; and it consists in the employment of staples arranged in opposite pairs, each pair overlapping or interlocking in combination with a cord, string, or wire, or other such flexible or non-flexible locking device.

To enable others to make and use this my invention, I shall now proceed to describe the manner in which the same is or may be carried into effect.

I use two kinds of staples. The one, A, is the single staple, which is composed of brass wire bent into a loop, the ends or shanks of which terminate in flat annular washers. The other, B, is the double staple, which is composed of two parallel brass wires converging and united at their ends, which are formed, respectively, into a flat annular washer and bent to form a double loop. These loops whether single or double, are thus at right angles to the washers. These staples are arranged in a line parallel with the edge of the two parts to be laced in opposite pairs—*i. e.*, a single-looped staple being directly opposite a double-looped staple, and they are fastened to the shoe in the manner as follows:

The line along which the staples are to be fastened is determined by the size of the loops, which are designed to stand out or project from the edge of the parts to be laced, and the centers of the annular washers, which are lapped over and under the leather or other material of which the laced part is made, are located on the said line. Holes are then punched, and the staples applied as described, and secured by means of eyelets or otherwise. When the staples are thus fastened, the single loop on the staple on the one side will enter the space between the two loops of the staple opposite, and I prefer to alternate this relation by placing along the same line single-looped and double-looped staples alternatingly. A string or cord, H, is then run through the interlocking staples, as shown in the drawings. Before pulling on the shoe the parts to be laced are drawn apart, the string yielding and more or less undulating between the staples, as shown in Fig. 3, without, however, becoming disengaged therefrom; but when the shoe is put on, it is only necessary to pull on the string, when it will assume a straight line from the lowermost to the uppermost pair, where, by means of slip-knot, it is tied with the other end of the string, which is brought up in rear of the staples.

This invention is susceptible of many modifications without departure from the principle thereof, but I have shown it reduced to a most practical form, in which it answers the purpose well.

Among the modifications which may be suggested are the employment of single-looped staples in opposite pairs, yet so that the loops on the one side lap over or come in juxtaposition with those on the other side, or the emplyment of double-looped staples, only when the two loops of the one interlock with the two of its mate.

In lieu of a limber string, a stiff or flexible wire or other like instrument may be used, which, instead of being laced, may be shoved in through the loops of the staples after the shoe is put on.

Again, the method of fastening by means of eyelets may be substituted by riveting, and the second annular washer may for a cheaper article be dispensed with.

Other modifications may be adopted yet maintain the principle of my invention.

Having thus described my invention and

the manner in which the same is or may be carried into effect, I claim—

The employment of staples arranged in opposite pairs, each pair overlapping or interlocking in combination with a cord, string, or wire or other such flexible or non-flexible locking device.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

MELLEN BRAY.

Witnesses:
A. POLLOK,
JOSEPH GAVETT.