(No Model.)

## C. GOLDTHWAIT. SHOE LACE.

No. 492,793.

Patented Mar. 7, 1893.

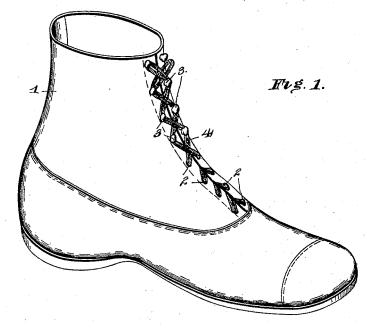


Fig. 2.



Fig. 3.

Commendation Signers, Bynnis Afférmeys, Calmow theo.

## UNITED STATES PATENT OFFICE.

CHARLES GOLDTHWAIT, OF WEYMOUTH, MASSACHUSETTS.

## SHOE-LACE.

SPECIFICATION forming part of Letters Patent No. 492,793, dated March 7, 1893.

Application filed October 14, 1892. Serial No. 448,879. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GOLDTHWAIT, a citizen of the United States, residing at Weymouth, in the county of Norfolk and State of Massachusetts, have invented a new and useful Shoe-Lace, of which the following is a specification.

My invention relates to improvements in shoe laces for boots and shoes, the objects in view being to provide a lace adapted to be employed in connection with the ordinary lacing-stud of boots and shoes, and so formed as to obviate the necessity of tying or knotting the ends of the lace, and adapt the same to readily fasten over such studs.

With these objects in view, the invention consists in a lace having loops at its ends, said lace approximating the length necessary for passing through all the eyelets and around the studs of the shoe and terminating opposite, and adapted to engage, the last studs of the series.

Referring to the drawings—Figure 1 is a perspective view of a shoe of ordinary construction and employing a lace embodying my invention. Fig. 2 is a detail of the lace. Fig. 3 is a detail of a modified construction of lace.

Like numerals of reference indicate like parts in all the figures of the drawings.

o 1 designates an ordinary shoe having the usual open front or slit whose opposite edges are provided with the eyelets 2, and the series of opposite studs 3.

In constructing my lace I prefer to form 35 the same as best shown in Fig. 2, namely, in one continuous piece so that the same is double.

4 designates the lace constructed as described, and the same is passed through the 40 eyelets and around the studs of the shoe in the same manner as a single lace is usually passed.

In order to facilitate the passage of the lace through the eyelets I prefer to engage the ends of the loops thus formed with wire pins 5. These pins 5 are simply short pieces of wire bent upon themselves so as to form an eye 6 for engaging the lace, and beyond the lace the terminals of the said wire cross each 50 other or meet to form a penetrating point.

The wires are detachable, and after serving their function of introducing the lace through the eyelets of the shoe may be removed and are of no further use.

The lace is made of such length as to adapt 55 it to pass through all the eyelets of the shoe, around the several studs, and terminate opposite the last stud, and over these last studs the loops 6 which are thus formed are introduced. It will thus be seen that I obviate the 60 necessity of tying the lace, and in fact the same may be secured in position by one hand of the operator. After having once been in position there is no danger of any untying or accidental disconnection with the studs by the 65

As shown in Fig. 3 the loops at the ends of the lace may be formed in many ways, as in this instance referred to, instead of forming the lace continuous and thus producing loops 70 at its ends, the lace may be made single, and have its ends doubled and connected to form loops. After the loops have been engaged over the studs by pulling the lace immediately below the studs, the loops are secure, 75 being drawn tightly within the same.

Having described my invention, what I claim is—

1. The herein-described shoe-lace, consisting of a body-portion formed wholly of soft 80 pliable material and terminating in lacing-stude engaging flexible loops and tags connected with the loops, substantially as specified.

2. The herein-described shoe-lace, the same 85 consisting of the body-portion formed wholly of soft pliable material and the removable tags formed of short pieces of wire bent to form loops for engaging those of the lace, and having their terminals meeting to form enter- 90 ing points, the loops of the lace being adapted to removably engage the lacing-stude of shoes, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 95 the presence of two witnesses.

CHARLES GOLDTHWAIT.

Witnesses:

James H. Flint, Napoleon B. Furnald.