

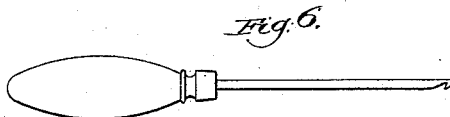
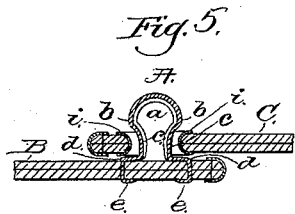
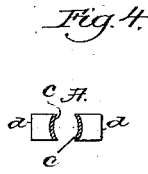
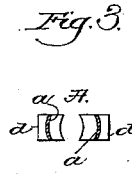
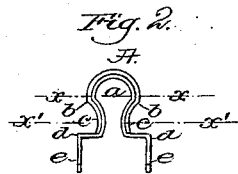
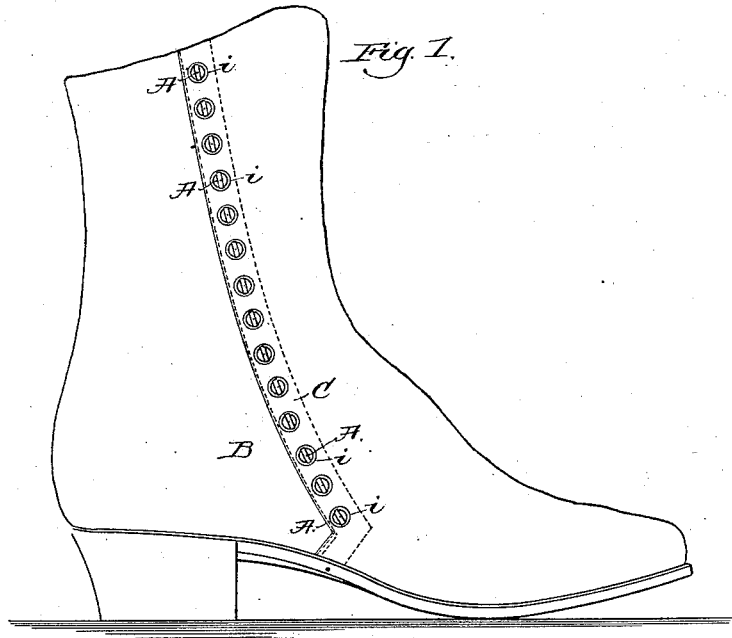
(No Model.)

I. J. SAUNDERS.

SPRING BUTTON OR FASTENER FOR BOOTS, SHOES, &c.

No. 303,669.

Patented Aug. 19, 1884.



Witnesses.
B. J. Taylor
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UNITED STATES PATENT OFFICE.

IRA J. SAUNDERS, OF UNION CITY, MICHIGAN.

SPRING BUTTON OR FASTENER FOR BOOTS, SHOES, &c.

SPECIFICATION forming part of Letters Patent No. 303,669, dated August 19, 1884.

Application filed June 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, IRA J. SAUNDERS, of Union City, county of Branch, State of Michigan, have invented an Improvement in Spring Buttons or Fasteners for Shoes and other Articles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention embodies an improvement in the spring-button or fastener for shoes, &c., which is shown and described in Letters Patent No. 282,571, granted to me August 7, 1883. The fastener referred to in the said
15 patent has two prongs, which are inserted into one part of the article to be held together by the fastener; but the prongs of the fastener are so inserted in the material as to place the axis of the eye of the fastener at
20 right angles to the line of strain thereon, which is objectionable, for in so doing the strain is thrown almost entirely upon one-half of the fastener, which sometimes results in pulling one prong out of the leather or other material,
25 or in bending the body of the fastener over out of its proper position. So, also, in the fastener referred to but one side of the head or loop is provided with a catch or locking-projection to keep the eyelet down upon
30 the neck of the fastener, and consequently it sometimes happened that the eyelet slipped up over the top of the fastener, especially if the shoe fitted the foot loosely, and the material of the shoe was rather stiff.

35 The object of this present invention is to overcome the defects alluded to, and provide a stronger and more serviceable spring button or fastener, one of which shall permit the disengagement therefrom, when desired, of
40 the eyeleted or overlapping flap secured to a part of a boot, shoe, or other article, but which shall hold the said parts in proper engagement against any strain thereon customarily experienced when in use.

45 My invention consists, essentially, of a spring button or fastener constructed from a blank cut from a thin ribbon or strip of flattened metal, the blank being doubled or bent to form
50 a head or loop, and contracted to form a round nearly-closed neck and locking-projections above it on each side of the head or loop,

the metal below the neck being then bent outwardly and downward, to form the shoulders or rests and the prongs or clinching-points, the part of the strip entering into the head or loop being concaved at its inner side
55 to strengthen the same, substantially as will be hereinafter fully described, and particularly pointed out in the claims.

Figure 1 shows in side elevation the inner side of a shoe, having my improved spring
60 buttons or fasteners applied thereto; Fig. 2, a side elevation of one of my spring buttons or fasteners on a larger scale; Figs. 3 and 4, sections thereof in the line *xx* and *x'x'*; Fig. 5,
65 a sectional detail of one of my improved spring buttons or fasteners, shown as attached to material, and an eyelet secured in a second piece of material and engaged with the said
spring button or fastener; and Fig. 6 a plan
70 of a hook which may be advantageously used to draw or pull the spring buttons or fasteners through the eyelets in the overlapping eyeleted flap.

The spring button or fastener A is preferably formed from a blank cut from a narrow
75 thin strip or flattened ribbon of metal, the said blank being doubled or bent upon itself at or about its middle to form a loop-like head, *a*, and contracted at *c* to form a round neck, leaving
80 above it projections *b* at each side, below which may catch the eyelet *i*, to be referred to, and thereafter the remaining portions of the arms of the said blank are bent outwardly
85 and then downwardly to form the shoulders or rests *d* and the prongs or clinching ends *e*, all as clearly shown in Figs. 2 and 5. In the
formation of the spring button or fastener the narrow flattened blank or that portion thereof
90 entering into the loop or head and neck is bent between its edges into concavo-convex form, as shown in the section, Figs. 3 and 4, thus greatly strengthening the spring button
or fastener and presenting a convex surface
95 for the action of the eyelet. The prongs *e* of the spring button or fastener are forced through the material or leather of the part B of the shoe or other article with which the spring
button or fastener is to be used, and clinched
100 on the under or inner side thereof by means of any suitable tool or instrument adapted for the purpose, the said spring buttons or fast-

eners being each secured along the edge of the part B, with the axis of the eye in the loop or head in line with the line of strain on the spring button or fastener and at right angles to the line of the gap in the shoe or other article which is to be closed by the said spring button or fastener and eyelet, the latter being set in the eyelet or overlapping flap C of the shoe or other article. The eyelets *i* correspond in number with the spring buttons or fasteners, and they are arranged to engage with the heads of the said spring buttons or fasteners, to thus secure the eyelet-flap to the part B, it overlapping the latter and closing the opening between the parts B C.

In use the spring buttons or fasteners A are set with relation to the gap to be closed by them in the shoe or other article, as in Fig. 1, wherein it will be seen that the axis of the eyes of the spring buttons or fasteners are in the line of the strain of the eyelets thereon, and that each arm or side of the spring button or fastener is subjected to like strain. This arrangement prevents any of the eyelets of the connecting-flap C from becoming accidentally disengaged from the spring buttons or fasteners. Such disposition of the eye of the spring button or fastener also permits a hook, such as shown in Fig. 4, to be advantageously used to pull the same up through the eyelets, and force the latter down on the shoulders of the spring buttons or fasteners, the space between the edge of the head *a* of the spring button or fastener and the eyelet being of sufficient size to permit the end of the hook to be readily inserted diagonally down through the eyelet into the eye of the fastener or spring-button.

To unfasten the shoe or other article, the corner of the overlapping piece or flap containing the eyelets will be grasped between

the thumb and finger, and the flap will be lifted or pulled from the first spring button or fastener and each succeeding spring button or fastener, as when ripping a seam.

The metal of which the spring button or fastener is composed is sufficiently light, and the eye of the head thereof is sufficiently large, to slightly contract under the strain of the eyelets thereon as the latter are forced down over the spring button or fastener, the latter at such times closing together at the neck of the spring button or fastener, the stock being sufficiently flexible or yielding to permit such contraction of the neck.

I claim—

1. A shoe or other article provided along or near one edge with a row of eyelets, and along an opposed edge thereof with a series of metallic spring buttons or fasteners, bent to form heads or loops *a*, and contracted to form necks and locking-projections, and having rests *d* and prongs *e*, the said spring buttons or fasteners being attached to the material, substantially as described.

2. The herein-described spring button or fastener, consisting, essentially, of a narrow flattened metal blank bent about midway of its length to form a head or loop with an eye, and having each arm or side bent to form locking-projections, and brought together below the said projections to form a neck and shoulders or rests, and downwardly-projecting prongs or clinching ends, all substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IRA J. SAUNDERS.

Witnesses:

G. W. GREGORY,
B. J. NOYES.