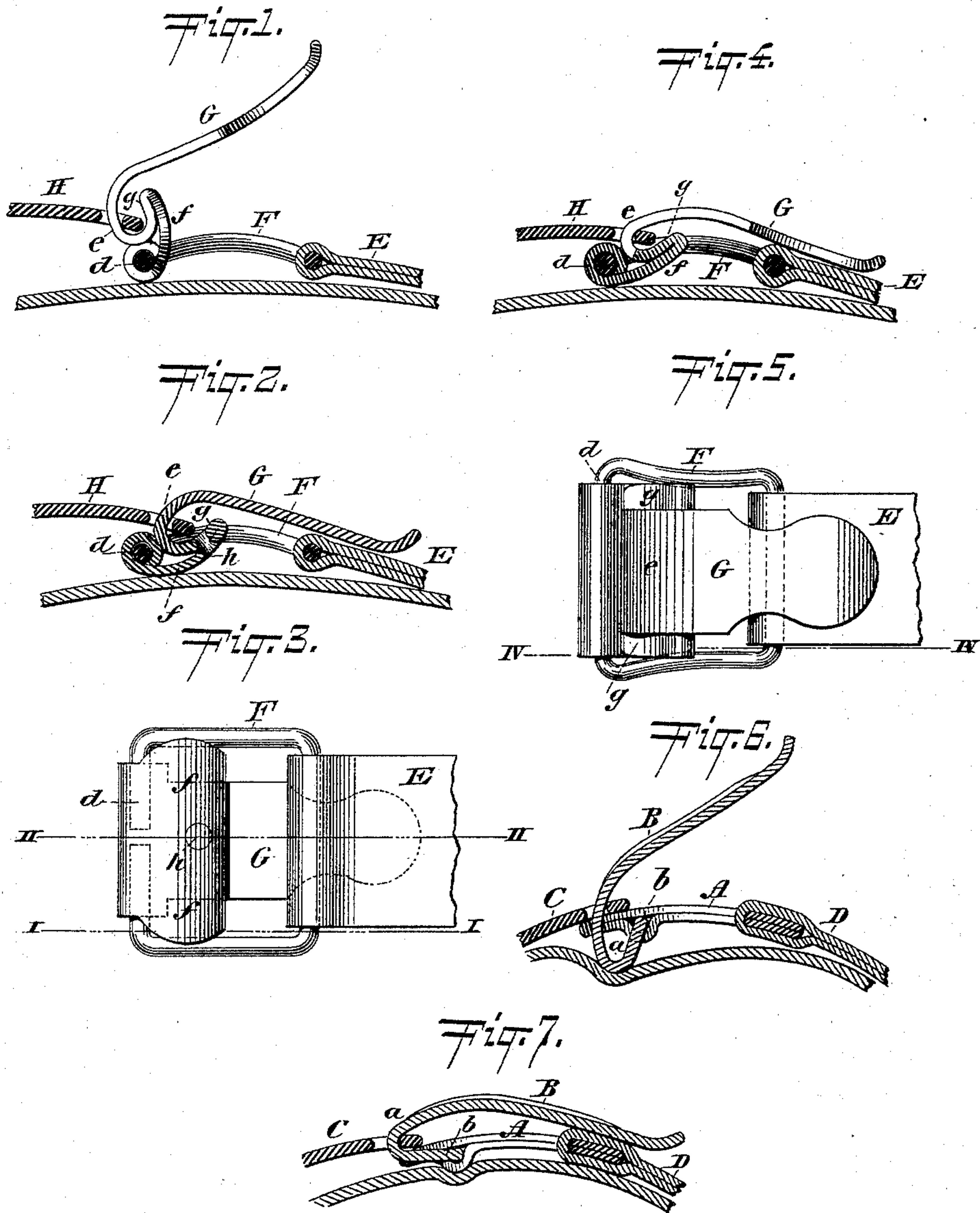


(No Model.)

A. D. FIELD.  
SHOE FASTENING.

No. 483,144.

Patented Sept. 27, 1892.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ALBERT D. FIELD, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE METAL GOODS MANUFACTURING COMPANY, OF SAME PLACE.

## SHOE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 483,144, dated September 27, 1892.

Application filed December 8, 1891. Serial No. 414,403. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT D. FIELD, a resident of Bridgeport, Fairfield county, Connecticut, have invented an Improved Buckle for Shoes and other Purposes, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof, wherein—

Figure 1 represents a longitudinal section of my improved buckle, showing it partly opened, the line I I, Fig. 3, indicating the plane of section. Fig. 2 is a similar section of the same, showing the buckle closed, the line II II, Fig. 3, indicating the plane of section. Fig. 3 is a bottom view of the buckle. Fig. 4 is a longitudinal section on the line IV IV of Fig. 5 of a modification of the invention, and Fig. 5 is a top view of said modification. Fig. 6 is a longitudinal section in the partially-opened position, and Fig. 7 a longitudinal section in the closed position, of buckles of the kind heretofore in use over which my invention is intended to be an improvement.

This invention relates to a new construction of drawing-loop and lever for buckles such as are used on shoes and for analogous purposes; and it consists more particularly in so arranging the parts that the pivot of the lever which has the drawing-loop is on the outer side of the loop when the parts are in the closed position.

In order to make my invention more thoroughly understood, I will first describe the ordinary buckle over which mine is intended to be an improvement, and which ordinary buckle as heretofore made is represented in Figs. 6 and 7. These ordinary buckles consist of a buckle-frame A, and a lever B, having a drawing-loop *a*, said lever being pivoted at *b* in the frame A, and the lever passing, also, through a drawing plate or strap C. When these parts of the ordinary buckle arrangement are closed, as in Fig. 7, it will be seen that the pivot *b* is on the inner side of the loop *a*, and that for opening the buckle or shoe the lever must be turned into the position indicated in Fig. 6, which causes the loop portion *a* to dig into the foot. Moreover, it will be perceived from a comparison of Figs. 6 and 7 that the construction of le-

ver, and loop there shown will not serve to draw the part C toward the strap D, that carries the buckle-frame A, but that, on the contrary, the action of the lever B is simply that of a locking not of a pulling lever, so that the shoe-buckle will be closed by this old arrangement; but the shoe will not be drawn more tightly over the foot than it is before the buckle is applied, at any rate not to any appreciable extent. As contrasted with this old arrangement thus represented in Figs. 6 and 7, my invention mainly consists in so shaping the lever that its pivot will normally—that is, in the closed position of the buckle—be outside of and directly under the drawing-loop. This is very clearly represented in Figs. 1 to 5, inclusive, in which figures the letter E represents the strap or device to which the buckle-frame F is secured, said buckle-frame being pivoted at *d* to the lever G, said lever G passing through the other strap or piece H, which by this buckle arrangement is to be connected with and drawn toward the strap or device E.

In constructing my improved device I so shape the lever G that it forms a drawing-loop *e*, which in the opened position of parts will be above and on the outside of the pivot *d*, as in Fig. 1, while in the closed position of parts the pivot *d* will be directly below and outside of the loop *e*. What I mean by saying that it will be on the “outside of the loop” is that the loop *e* in the closed position of the parts will be nearer to the part E, that carries the buckle, than the pivot *d* will be to said part E, which is precisely the reverse of what takes place in the ordinary construction, which is represented in Figs. 6 and 7. The best form of lever which I have devised for this purpose is that shown in the drawings—that is to say, the lever, being made of sheet metal or stout wire, is first formed into an eye placed around the pivot *d*, then formed into a short length *f*, against which one member *g* of the loop *e* is placed, and then the loop *e* is formed, and finally continued into the handle proper or lever G. It may in many cases be desirable to connect the bends *f* and *g* of this lever by a rivet *h*, as in Figs. 2 and 3.

From what has already been described it



will follow that when the lever G in the opened position, as in Fig. 1, is moved down toward the closed position, Fig. 2, it will draw the part H toward the part E in its effort to bring the loop *e* from its position above and in front of the pivot *d* to its final position above and behind the pivot *d*, and hence this lever G, constructed as described, will form an active instrumentality for drawing the parts E H toward one another. It will also be perceived from these figures that in this operation nothing projects from the lever or from any part of the structure that will dig into the foot, as did the part *a* in Fig. 6 of the drawings in the old construction there indicated, and that therefore the operation of my improved buckle is in all instances painless when used on a shoe, draws the parts tightly toward one another, moves them definitely asunder when opened, and is consequently free from all the principal objections that had heretofore been urged against existing contrivances.

The pivot *d* may be formed by the buckle-frame F, as indicated in Fig. 3, or it may be formed on the body of the lever G, so as to enter proper sockets in the buckle-frame, or may be of other suitable kind or construction.

For the purpose of making this a self-locking buckle I have only to make the doubled portion *fg* slightly wider than the normal width of the wire buckle-frame F, so that this doubled portion in passing wholly or partly through the buckle-frame may slightly spread the same and snap under it. This is indicated in Fig. 3, which shows this widened portion of the lever to be beneath the buckle-frame, Fig. 3 being a bottom view, and is also indicated in Fig. 5. For the purpose of bringing about these relations of parts the sides

of the buckle-frame may be slightly indented, as in Fig. 5; but any other catch or contrivance may be applied to the buckle-frame, so that the part *fg*, which passes through it when in the locking position, will snap under the buckle-frame itself or under something extending from it to render a spontaneous opening of the buckle impossible.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of the buckle-frame F with the lever G, pivoted thereto, the said lever forming an eye around the pivot *d* and having the double folds *fg* and drawing-loop *e*, the loop *e* being upon and slightly behind the eye around the pivot, substantially as herein shown and described.

2. The lever G, constructed to form an eye around the pivot *d*, the folds *fg*, and loop *e*, combined with the buckle-frame F, having pivot *d*, and with a spring contact between the buckle-frame and the folds *fg*, said folds *fg* being adapted to pass through and under said buckle-frame F, substantially as herein shown and described.

3. The combination of the buckle-frame F and the lever G, pivoted thereto, said lever carrying the drawing-loop *e*, said drawing-loop being between the extremities of the buckle-frame when the parts are in the closed position, the portion of the lever G which in the closed position passes through and under the buckle-frame being slightly wider than said buckle-frame to form a snap-lock, substantially as and for the purpose herein shown and described.

ALBERT D. FIELD.

Witnesses:

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