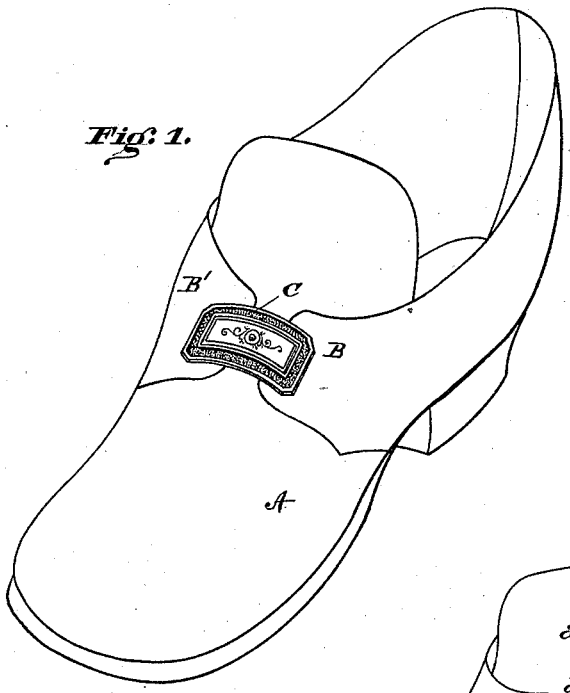
(No Model.)

A. T. PERRINE.

SHOE OR GLOVE FASTENER.

No. 383,762. Patented May 29, 1888.

Fig. 1.



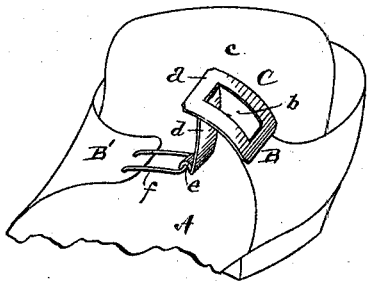


Fig. 2.

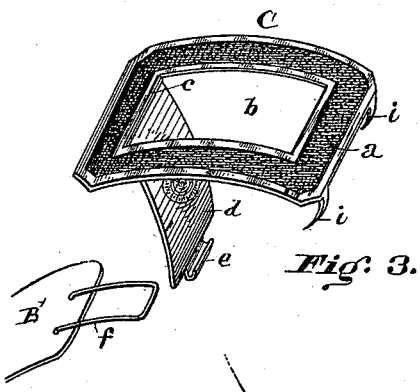


Fig. 3.

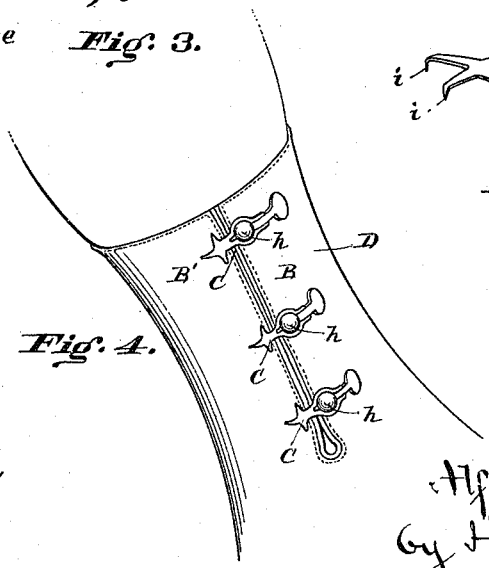


Fig. 4.

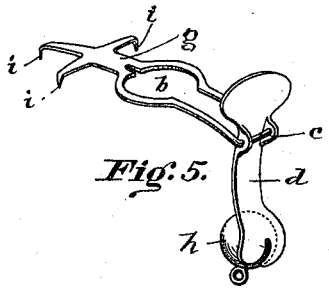


Fig. 5.

Attest.
C. W. Bogart.
C. L. Kew.

Inventor.
Alfred T. Perrine.
by Hosea & Meinell.
Attys.

UNITED STATES PATENT OFFICE.

ALFRED T. PERRINE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO ALLEN H. REEDER, OF CINCINNATI, OHIO.

SHOE OR GLOVE FASTENER.

SPECIFICATION forming part of Letters Patent No. 383,762, dated May 29, 1888.

Application filed August 26, 1887. Serial No. 247,909. (No model.)

To all whom it may concern:

Be it known that I, ALFRED T. PERRINE, a citizen of the United States, residing at Providence, Rhode Island, have invented new and useful Improvements in Shoe or Glove Fasteners, of which the following is a specification.

My invention relates to buckles or fasteners for shoes or gloves or other articles in which it is convenient or necessary to fasten quickly and securely over a comparatively unyielding surface. Its object is to provide a fastening which can be adjusted both in fastening and unfastening conveniently and without loss of time, and which at the same time will be strong and durable. It also aims to secure what has hitherto been accomplished only by the aid of a shoe or glove buttoner—that is, to furnish the necessary leverage for stretching leather or other material in order to bring the meeting edges closely together, and thus to obtain a neat and close fitting adjustment over a firm surface. These being the objects of the invention, they are secured by combining in a single mechanism the principles of ordinary fastenings together with a principle of leverage not heretofore applied in devices of this nature.

Mechanism embodying my invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a shoe with the fastener tightly adjusted. Fig. 2 is a similar view with the fastener loosened and in the position of being adjusted. Fig. 3 is a detached view of the fastener as prepared for a shoe and its eye separated from each other. Fig. 4 is a perspective view of a glove with three of my fasteners applied thereto, closed and fastened. Fig. 5 is a detached view of the fastener in the form preferred for a glove, the fastener being represented as unfastened.

Referring now more particularly to the drawings, A represents an ordinary low-cut shoe.

B B′ are leather flaps projecting forward from the rear portion of the shoe and nearly meeting over the instep, as commonly found in such shoes.

C is the fastener, which is attached to B (on the left side of the shoe) in any suitable manner, as by bent hooks *i*. The fastener C is in form a rectangular plate of metal, *a*, which may be ornamented, if desired. Through the center of the plate *a* is cut a rectangular longitudinal slot, *b*. Across this slot *b*, near the end opposite that attached to the shoe, extends a pivot-bar, *c*. (Instead of a pivot the slot *b* may be so cut or cast as to have a narrow strip extending across the slot.) Hinged upon the pivot-bar *c* is the lever-tongue *d*, one end of which is bent around the pivot *c*. To the lever-tongue *d* is securely attached a small hook, *e*, (opening upward when the fastener is adjusted.) This hook *e* is arranged to engage itself in the eye *f*, which is of any ordinary form, and is secured at any desired point upon the flap or strap B′.

The operation of the fastener is as follows: When it is desired to fasten the shoe upon the foot, the hook *e* is placed within the eye *f*, as shown in Fig. 2, and the whole fastener is then pressed downward upon the foot. The fastener and its tongue operate as a double lever, one fulcrum being at the point where the fastener is attached to the flap B, and the other being at the pivot-bar *c*. The pressure exerted by the hand in pushing down the fastener being largely increased by the leverage, sufficient force results to bring the two flaps B B′ as close together as may be desired, and thus a firm fastener is secured in an instant. The pressure of the foot after the fastener is fastened is exerted upward upon the lever-tongue *d*, and consequently holds the fastener firmly in position. To release the grasp, it is only necessary to raise the fastener by lifting the end opposite to that attached to the strap B.

The lever-tongue *d* is constructed to completely fill the slot *b* and be flush with the upper surface of the plate *a* when the fastener is adjusted, and therefore may receive ornamentation as desired.

The same form of fastener (the size being reduced) may be used for gloves; but a preferred form is shown in Figs. 4 and 5. In Fig. 4, D represents a glove, upon which are shown three of my fasteners, C C C, adjusted. The fastening C here shown substitutes a small skeleton frame, *g*, of metal, instead of the rectangular plate shown in Figs. 1, 2, and 3. This frame is attached to one side of the glove in

the same manner as previously described for the shoe-fastener. Near this end the frame *g* is curved to receive, when the fastener is adjusted, the button *h*. As a matter of convenience the button *h* is attached to the opposite side of the glove instead of the eye *f*, (shown in the device attached to shoes.) In order to engage the button *h* the lever-tongue *d* is forked at the end opposite its hinge instead of being provided with the hook, as in the shoe-fastener. In both these devices the principle of operation is precisely the same, to wit: The frame *a*, in which the lever-tongue *d* is pivoted, constitutes one arm of a "toggle-joint," of which the lever-tongue is the other. So long as the lever-tongue stands at an angle with the frame below the fulcrum-pivot the pull of the material tends to open the fastening; but when the frame is pressed down, throwing the lever-tongue at an angle above the fulcrum, the pull of the material tends to keep the fastening closed against the frame as a stop. It will be seen that the curve of the surface over which the fastener is placed aids in the desired action.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In the herein-described fastener for shoes, &c., a curved plate or frame having a rectangular opening secured by one end permanently to the meeting edge of one flap of the material to be fastened and extending thence across the meeting edge of the second flap, a lever-tongue formed to correspond with the frame-opening pivoted by one of its ends at the outer end of said opening and extending beneath and in the longitudinal direction of the opening and terminating in a depressed hook, and an eye or yoke secured to the edge of the second flap adapted to engage the hook of the lever-tongue, all combined and arranged so that upon engaging the hook in the eye and pressing the frame downward the engaging end of the lever-tongue rises into the opening of the frame, forming a flush surface with the frame-plate and covering and concealing the hook and eye, and being held in such position, with the meeting edges forced together, by the retractile strain of the material acting at an angle with the frame-plate and tongue, substantially as set forth.

2. A fastener for shoes, gloves, &c., embodying an open frame secured at one end to one meeting edge of the shoe or glove and carrying pivoted at the other end a lever terminating in a cup shaped bifurcation adapted to engage beneath a button secured to the opposite meeting edge of the article, and by throwing the lever over its center draw the edges of the material together and carry the button through the open frame into a position in which the parts of the fastening are disposed substantially in the line of strain of the material held, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

ALFRED T. PERRINE. [L. S.]

Witnesses:
CHESTER W. MERRILL,
L. M. HOSEA.