No. 638,725. Patented Dec. 12, 1899.

A. O. KOONTZ & J. H. SHANK.

FASTENER FOR SHOES, GLOVES, &c.

(Application filed Mar. 8, 1898.)

(No Model.)

Fig. 1

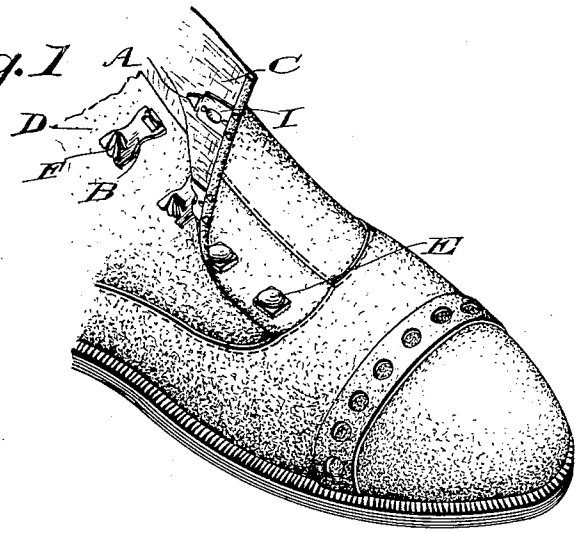


Fig. 2

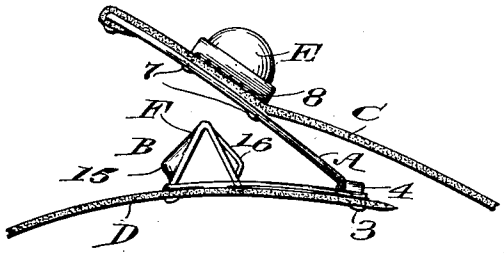


Fig. 3

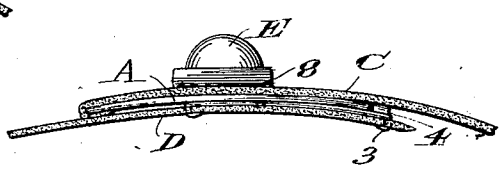


Fig. 4

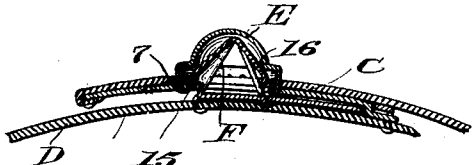


Fig. 5

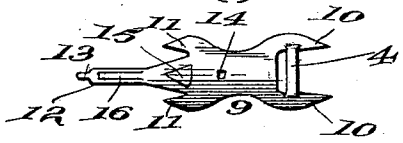
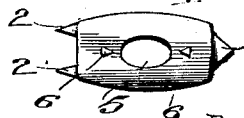


Fig. 6



Witnesses:-
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AUGUSTUS O. KOONTZ AND JOHN H. SHANK, OF SOUTH BEND, INDIANA.

FASTENER FOR SHOES, GLOVES, &c.

SPECIFICATION forming part of Letters Patent No. 638,725, dated December 12, 1899.

Application filed March 3, 1898. Serial No. 673,078. (No model.)

To all whom it may concern:

Be it known that we, AUGUSTUS O. KOONTZ and JOHN H. SHANK, citizens of the United States, and residents of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Fasteners for Shoes, Gloves, &c., of which the following is a specification.

The object of our invention is to provide an improved fastener which may be readily applied to the overlapping edges of the material to be fastened and which will snugly and smoothly draw and secure the said edges, which may be manipulated quickly by the sense of touch only, and which will be light, strong, and neat in appearance, to avoid the use of buttonholes and expose to view only a cap, which may be made in imitation of a stud or button.

Our invention consists, essentially, in at least two parts, one of which parts comprises a plate provided with a fixed stud-abutment and a fulcrum-stop secured to the lap and a lever-plate secured to the inner side of the outer lap of the material and adapted to engage at its inner end with the fulcrum-stop and to engage and interlock with the said stud-abutment in a suitable manner; and our invention further consists in certain constructions and special features hereinafter particularly described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the front portion of a shoe, showing the fastener applied thereto, with the upper lap partly unfastened and folded open. Fig. 2 is a transverse section through the lapping edges of the material to be fastened, showing in elevation the lever-section engaged at its inner end with the fulcrum-stop of the stud-section and with the outer end of the lever-section raised and disengaged from the stud of the other section; Fig. 3, a similar view of said parts with the lever-section folded down upon and secured to the inner or stud section; Fig. 4, a longitudinal section of the parts shown in Fig. 3; Fig. 5, a plan view of the metal plate or blank from which the stud-section is formed; and Fig. 6, a similar view of the metal plate or blank from which the lever-section of the fastener is formed, to which the outer clasp, cap, or button is attached.

The upper or lever section A is formed of a metal plate or blank I (shown in detail in Fig. 6) and has two spurs 2 2 at its outer end to pass through and fasten to the edges of the upper flap C of the glove, shoe, or like article and a single spur 3 at its inner end to engage with the fulcrum-stop 4 of the base-section B of the fastener, which is secured to the lower flap D of the article, the section A being also provided with a middle aperture 5 to receive the fixed stud-abutment of the section B and also with small perforations 6 6 at each end thereof to receive spurs 7 7, formed upon the inner edges and corresponding ends of a clasp-cap E, which pass through the material of the upper flap C and are clenched inwardly against the inner face of the said plate I, thus to secure the said plate at the outer end by the spurs 2 2 and at the middle thereof by the spurs 7 7, the inner end of said plate projecting freely therefrom to engage with the fulcrum-stop 4 of the base-section B when the said sections are to be interlocked at the edges or the article secured thereto is to be drawn together. The periphery of the cap E has a serrated or notched inwardly-turned rim-flange 8, which takes hold of the outer grain or surface of the leather or other material and insures a close and unshifting connection. The outer end of the plate I is preferably secured to the material, preferably leather, near the edge thereof, with the spurs 2 2 placed outwardly and clenched thereon and the said plate then turned beneath the said material and secured to the inner side thereof by the spurs 7 7 of the cap E, thus providing a turned or hemmed edge, which may be sewed down outside of the plate in a suitable manner, the material forming an end abutment and a binding for the plate.

The base-section B of the fastener is formed of a blank plate 9, having a body portion provided at its four corners with spurs 10 10 and 11 11, the inner spurs 10 being connected by a raised cross-bar, which provides a fulcrum-stop 4 for engagement with a correspondingly-depressed spur 3 of the lever-section A of the fastener, and the outer spurs 11 being disposed upon each side of the base of a tongue 12, having sides tapering from the said base inwardly to the middle thereof and then made parallel to near the end thereof, the latter

comprising a spur 13, which is secured to the middle part of the body by bending the tongue first at the base and then at the middle transversely, the said spur being then passed through a perforation 14, formed near the middle of the said plate, as shown in Figs. 2 and 4, thus forming an angular stud-abutment F to project upwardly from the outer end of the said base-plate for engagement with the clasp-cap of the lever-section. The abutment F is made secure to the cap E preferably by means of a nose 15, pressed into the metal of the base-plate at the triangular base of the tongue 12, which projects outwardly when finished from the said base-plate, and a latch-tongue 16, cut parallel with the corresponding sides and outer end of the tongue 12 is bent to project inwardly at the base of the abutment formed by said tongue, the free end of the latch-tongue 16 being rounded and turned inwardly to spring in and out, as a latch, and engage with the inner edge of the cap E when the latter is pressed down upon it, thus drawing the nose 15 upon the opposite side of the abutment within the cup-shaped rim of the cap E and holding the outer end of the lever-plate, together with the edge of the material to be fastened, closely down upon the inner fold of said material, forming a snugly-fitting lap which will not wrinkle or buckle at the edge, the lever-plate being preferably elastic and having sufficient curve or bow to hug closely at its outer end to the under fold when the fastener-sections are brought and held together. The plates are secured at intervals, the base-plate being held by the spurs 10 10 and 11 11, passed through the material and clenched, or in any other suitable or preferred manner, as by stitching, and the lever-plate being similarly held by the spurs, rivets, staples, or stitches in any preferred manner. The edge of the material of the upper fold may be bound or hemmed, as above described, or both hemmed and bound and stitched, or scalloped or stitched in any of the well-known ways, the fastener offering no obstruction and not interfering in any way with the usual requirement of a button-fastening device.

The stud-abutment F may be formed upon the base-plate in any suitable manner to engage with the cap E—as, for instance, it may be a simple stud, button, or projection having a neck or depression upon its side only to engage with the inner edge of the cap, as the leather fitting snugly on the foot or wrist when drawn together by the plates exerts sufficient tension to hold the stud of the base securely in engagement with the cap, the strain being in a longitudinal direction upon the plates, the latter being detachable only by means of force applied at right angles, or nearly so, to the line of stress. The spring latch-tongue serves to hold the stud or abutment nose in engagement with the cap of the lever even should the leather become wet or stretched so loose as to permit the perforations of the lever-plate to move forward or from under the nose of the base-plate.

The operation both of buckling and unbuckling is quickly performed, the sense of touch alone enabling the interlocking parts to be brought together. When the sections are to be connected, the outer end of the lever-section A is held between the finger and thumb, and the depressed spur 3 upon the inner end thereof is brought opposite the raised cross-bar or fulcrum-stop 4 of the base, and the outer end of the lever-section is then pressed down upon the base until the cap E engages with the nose and latch of the abutment upon the outer end of the base, thus drawing the material of the upper fold squarely and evenly over the material of the lower fold with any required force, determined alone by the position of the fastener-plates relatively thereto, such position being readily changed at any time to suit the comfort of the wearer and also insuring a neatly-fitting article of apparel. When the lever-plate is forced down upon the abutment, the nose projection will pull the free end or fulcrum-spur partly out from under the fulcrum-bar until the point of the nose is past the elasticity of the material.

The spring of the lever-plate may be reset at any time should it become misshaped from use or should the material become warped or wrinkled at its edges and require to be set up closer against the material of the under fold. The unclasping is effected by pulling the upper lap away from the lower in a direction perpendicular to the latter, one pulling movement being sufficient to unclasp a number of the fasteners. A very little practice enables the wearer to clasp and unclasp a series of these fasteners quickly, the operation being governed by sense of feeling alone.

The article of apparel to which the fastener is attached will have nothing to wear, tear, or become loosened and will retain its neat appearance until completely worn out.

We claim as our invention and desire to secure by Letters Patent—

1. A fastener for articles of apparel comprising a base-plate having a fulcrum-stop at one end and a tongue at the other end bent to form a V-shaped catch and secured to a perforation at the middle part of said plate and a lever-plate having a free end to engage the stop and a cup to engage with said catch, substantially as described.

2. A fastener for articles of apparel comprising a base-plate having a V-shaped abutment, one side thereof having a projecting stop and the other side having a spring-tongue, and a cap-plate adapted to fit over and engage said abutment substantially as described.

3. A base-plate for shoe or other fasteners comprising a body having a fulcrum-stop at one end and a tongue at the opposite end thereof bent in V shape over upon the body and secured thereto and a spring-latch cut

from said tongue to press outwardly at the lower free end thereof, substantially as described.

4. A fastener for articles of apparel made of leather or like material comprising a base-plate having a fulcrum-stop at the inner end thereof, and a catch projection at the outer end thereof, and a lever-plate having an inner free end, a middle portion provided with means for engaging the catch of the base-plate and having an outwardly-projecting end provided with spurs, and secured to the outer edge of the upper fold by passing the spurs through the material near the edge thereof and the lever-plate then turned under and secured to the inner side of the material, thus providing a turned edge for the material and an end abutment for the plate, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

AUGUSTUS O. KOONTZ.
JOHN H. SHANK.

Witnesses:
WM. H. ROWE,
GEO. L. GOETZ.