(No Model.)

# S. FLORSHEIM.

## LACING STUD.

No. 345,494. Patented July 13, 1886.

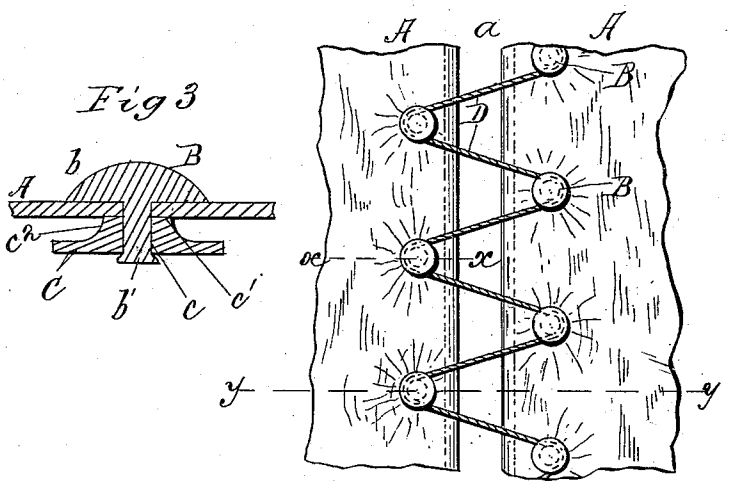



Fig 1




Fig 3

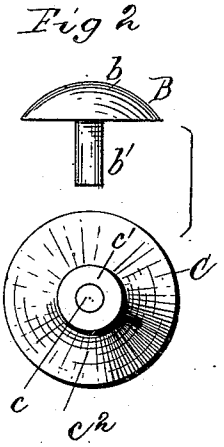



Fig 2

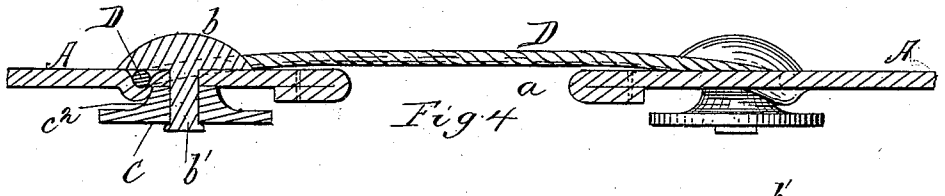



Fig 4

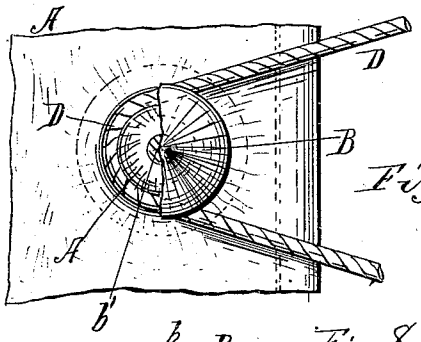



Fig 5

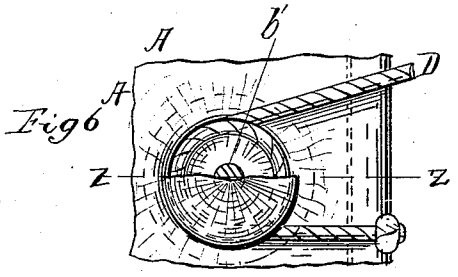



Fig 6

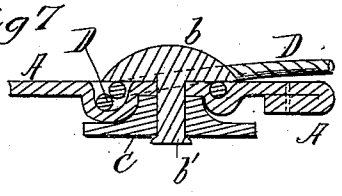



Fig 7

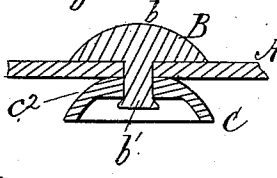



Fig 8

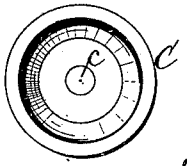



Fig 9

Witnesses
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# UNITED STATES PATENT OFFICE.

SIMON FLORSHEIM, OF CHICAGO, ILLINOIS.

## LACING-STUD.

SPECIFICATION forming part of Letters Patent No. 345,494, dated July 13, 1886.

Application filed August 1, 1885. Serial No. 173,276. (No model.)

*To all whom it may concern:*

Be it known that I, SIMON FLORSHEIM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Lacing-Studs, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a portion of a glove or shoe embodying my improvement; Fig. 2, a detail view of stud and washer detached; Fig. 3, a sectional view taken on the line *x x* of Fig. 1; Fig. 4, a sectional view taken on the line *y y* of Fig. 1; Fig. 5, a plan view of one of the studs with the lacing-cord applied thereto, a portion of the head of the stud being broken away to show the construction; Fig. 6, a similar view showing the lacing-cord passed entirely around the stud; Fig. 7, a sectional view taken on the line *z z* of Fig. 6; and Figs. 8 and 9 are detail views of a modified form of my invention. Figs. 2 to 9, inclusive, are on an enlarged scale with respect to Fig. 1, but on the same scale with respect to each other.

Like letters refer to like parts in all the figures of the drawings.

My invention relates to lacing-studs for gloves, shoes, or other like articles, its object being to provide a lacing-stud whereby the glove or other article may be rapidly laced or closed and the lacing-cord securely held in position, while at the same time there will be no projecting parts to catch upon the clothing and destroy the same; and to these ends my invention consists in certain novel features which I will now proceed to describe, and then specifically point out in the claims.

In the drawings I have shown my invention applied to a glove or shoe, in which A represents the body portion of the glove, and *a* the usual slit therein, which is opened to allow the glove to be drawn upon the hand and closed to fasten the same. Along the edges of this slit is arranged a series of my improved lacing-studs. These studs are composed of the stud proper, B, having a head, *b*, and stem or shank *b'*, and the washer C, provided with an aperture, *c*, through which the stem *b'* passes. The under side of the head *b* is flattened, as shown in the several figures of the drawings, and the upper surface of the washer C, which is of a diameter considerably less than that of the head, is also flattened, as shown at *c'*. The washer C increases in diameter toward its lower part, thus forming an inclined surface, $c^2$, which may be curved inward, as shown in Figs. 2 to 7, inclusive, of the drawings, or outward in the reverse direction, as shown in Figs. 8 and 9 of the drawings, or this surface may be a straight bevel, if desired.

In the application of my improvement, the stem *b'* of the stud proper, B, is passed through the material until the flat under surface of the head rests upon the same. The washer C is then applied to the stem, which passes through the hole *c* therein, its projecting end being headed down, as shown in the several figures, thus securely riveting the entire stud to the material, which latter is clamped between the flat surface *c'* of the washer and the flat under surface of the head *b* of the stud proper, B. The lacing-cord D will be slipped under the edge of the head *b*, which will be deflected, as shown more particularly in Fig. 4 of the drawings, to allow for the passage of the cord. Any strain brought upon the cord while in this position will serve to draw the cord tightly underneath the head, where it will be clamped between the under side of the head and the material A in the manner shown in Fig. 4 of the drawings. The material rises, however, outside of the cord flush with the under surface of the head, so as to prevent the edge of the head from catching on any portion of the garment of the wearer, such as lace or the like. The inclined surface $c^2$ of the washer serves to aid in the wedging action of the material, acting as a backing to the same in an obvious manner.

It will be seen from the above description that by passing the lacing-cord under the heads of the several studs on the edge of the slit *a*, the said edges may be readily drawn together. The end of the cord may then be fastened by making a complete turn of the same around the stud in the manner shown in Figs. 6 and 7 of the drawings, when no amount of pulling upon the cord will loosen it, but will simply serve to tighten the cord upon the stud.

It will be seen that my improved lacing-stud provides a means of lacing having all the advantages of the ordinary projecting hook,

while, unlike this latter, there is no projecting portion to catch upon the garments of the wearer, since the head of the stud always lies flat upon the surfrce of the material, even when the lacing-cord is in position. In addition to this the lacing-cord may be readily fastened at any point by simply giving it a turn around the stud, when it will be held securely in the manner hereinbefore described.

I am aware of Letters Patent No. 277,558, granted to William F. Foster, May 15, 1883, which shows a lacing-stud adapted to hold the lacing-cord by means of the friction between the under face of the head of the stud and the surface of the glove fabric, and I do not wish to be understood as claiming this feature, broadly. In this construction, however, the washer is not provided with the inclined surface hereinbefore described to give the wedging action set forth, nor is the washer provided with a plain upper surface to clamp the fabric firmly against the head and prevent the stud from getting loose.

I am also aware of Letters Patent No. 311,391, granted to John H. Vantassel, January 27, 1885, which shows a fastening for the end of a lacing-cord consisting of concavo-convex disk under which the cord is caught, and a spring washer on the under side of the glove fabric.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lacing-stud, the combination, with the stud proper having a head resting upon the material and a stem extending through the same, of a washer mounted on the said stem to clamp the material against the head, and provided with an inclined surface extending from its upper edge outward to its lower edge, substantially as and for the purposes specified.

2. The combination, with the stud proper, B, consisting of the head $b$ and stem $b'$, of the washer C, having hole $c$, flat surface $c'$, and inclined surface $c^2$, substantially as and for the purposes specified.

SIMON FLORSHEIM.

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