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(No Model.)

M. BRAY.  
LACING STUD.

No. 329,263.

Patented Oct. 27, 1885.



Fig. 6.



Fig. 5.



Fig. 7.



Fig. 4.

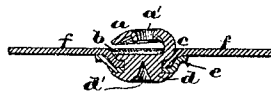


Fig. 5.



Fig. 2.



Fig. 1.

Witnesses:

Walter E. Lombard.  
William H. Parry.

Inventor:

Mellen Bray,  
by N. C. Lombard  
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## LACING-STUD.

SPECIFICATION forming part of Letters Patent No. 329,263, dated October 27, 1935.

Application filed February 14, 1885. Serial No. 155,870. (No model.)

*To all whom it may concern:*

Be it known that I, MELLEN BRAY, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Lacing-Studs for Gloves, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to lacing-studs for use upon gloves, and to the manner of applying them thereto, and is an improvement upon the invention described in Letters Patent No. 301,332, granted to me July 1, 1884; and it consists in the combination, with a lacing hook or stud, of a concavo-convex washer provided with a central aperture, to receive the shank or fastening portion of said stud when applied thereto with its concave side toward the head of the stud or hook, with its outer rim beyond the base of the stud peripherally, and inclosing and surrounding the base of the same, and pressing the material all around said base above the outer face thereof, as will be more fully described.

Figure 1 of the drawings is a plan of my improved lacing-stud. Fig. 2 is a central longitudinal section of the same. Figs. 3 and 4 are respectively a plan and a central section of the washer. Fig. 5 is a central longitudinal section of the stud and washer applied to a piece of glove-kid or other material; and Figs. 6 and 7 are respectively a side elevation and a central longitudinal section of a modified form of the stud, in which the central aperture in the outer head is dispensed with.

All of the figures are drawn to a scale several times larger than the natural size of the article, for the purpose of more clearly representing the construction of the several parts.

This stud and its washer are designed especially for use upon gloves, and consequently are of necessity much smaller than studs and hooks for use upon boots and shoes; and in order to obviate as far as possible the danger of laces and fringes catching upon the hooks, it is necessary that the space between the outer head and the inner collar should be less at a point in their peripheries opposite the neck than next to the neck; and in order

that the small stud used on gloves may be readily set without disturbing the position of the outer head relative to the base or inner collar or head, the outer head may be perforated, so that a projection of the anvil may pass through said perforation and bear directly upon the outer surface of the inner collar or head, and thus receive the blow of clinching the shank.

In the drawings, *a* is the outer head, having a convex outer surface, and provided with a central perforation, *a'*, which serves to lighten the stud, and also as a means of enabling the anvil used in setting the stud to bear directly upon the outer surface of the inner head, *b*, and sustain the shock of the clinching-blow without danger of displacing the outer head, *a*, by bending the neck *c*, which connects the heads *a* and *b* at one side in the usual manner. The shank *d* has formed therein the conical recess *d'*, which extends nearly the whole length of the shank, and is of such a diameter at its outer end as to reduce the end of the shank to an annular knife-edge, adapted to cut its own way through the material, as shown in Figs. 2 and 7. This stud is made from a single piece of wire by the process described in Letters Patent No. 256,116, granted to me April 11, 1882, and the conical recess is formed by pressure at the same time that the outer head and neck are swaged, thus saving the after operation of drilling, which is a great advantage, especially in such small studs as are desired for use on gloves. The washer *e* is made from thin sheet metal, and is pressed by suitable dies into the desired concavo-convex shape, and is provided with the central aperture, *e'*, to receive the shank *d* of the lacing-stud, said washer being applied to said stud with its concave side toward the heads of the stud, with its outer rim projecting beyond the periphery of the base-collar, with the material *f*, to which the stud is to be attached, interposed between it and the inner head or base-collar, *b*, of the stud, as shown in Fig. 5, the effect of which is to throw the material upward all around said base-collar, so that its outer surface is above the level of the outer surface of the head *b*, or, in other words, to cause the embedding or sinking of the head

b below the level of the outer surface of the material, so as to diminish the projection of the studs, and thus improve the appearance of the glove, and at the same time reduce the danger of laces and fringes catching in the lacing-hooks, and also to render the lacing-cord less liable to slip and become slack when the glove is laced, by virtue of the friction of the kid upon the cord.

10 What I claim as new, and desire to secure by Letters Patent of the United States, is—

In combination with a lacing stud or hook, a concavo-convex washer provided with a central aperture to receive the shank or fastening portion of said stud or hook, and applied

thereto with its concave side toward the head of the stud or hook, with its outer rim beyond the base of the stud peripherally, and inclosing and surrounding the same, and pressing the material all around said base above the outer face thereof, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of February, A. D. 1885.

MELLEN BRAY.

Witnesses:

N. C. LOMBARD,  
WALTER E. LOMBARD.