

E. MAYNZ.
 Setting-Instrument for Attaching Lacing-Hooks.
 No. 217,018. Patented July 1, 1879.

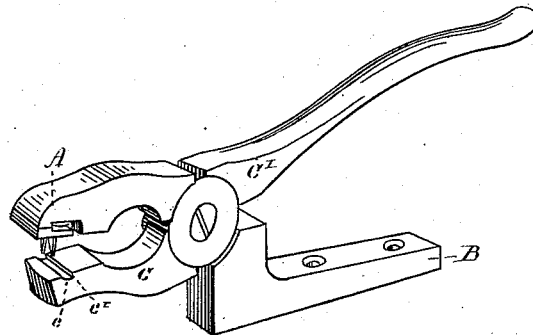


Fig. 1.

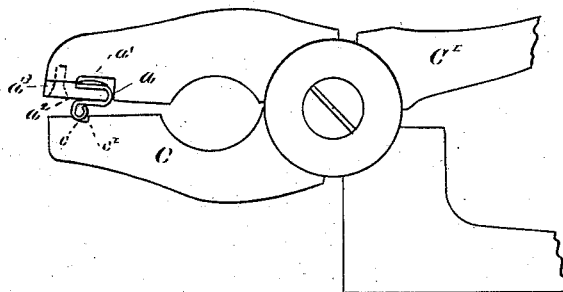


Fig. 2.



Fig. 3.



Fig. 4.

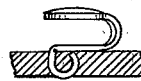


Fig. 5.

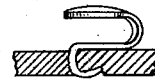


Fig. 6.

WITNESSES.

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IMPROVEMENT IN SETTING-INSTRUMENTS FOR ATTACHING LACING-HOOKS.

Specification forming part of Letters Patent No. **217,018**, dated July 1, 1879; application filed May 8, 1879.

To all whom it may concern:

Be it known that I, EDWARD MAYNZ, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented an Improvement in Setting-Instruments for Attaching Lacing-Hooks, &c., to Shoes and other Wearing Apparel, of which the following is a specification.

Reference is made to the accompanying drawings in explaining the nature of the invention.

Figure 1 is a perspective of my invention. Fig. 2 is a side elevation thereof. Figs. 3 and 5 represent the operation of my invention. Figs. 4 and 6 illustrate the necessity for the shoulder in the clinching-die, hereinafter described.

The upper jaw, A, may be provided with a handle or a support, B, like that shown in Fig. 1, adapted to be fastened to any suitable bed, in which last-named case, of course, it would be stationary. It is furnished with the recess *a*, which opens from the face of the jaw at right angle thereto, and which opens into the recess *a'*, at right angle to the first-named recess, and substantially parallel with the face of the jaw. This recess is preferably formed in the face of the jaw to the shape shown in Fig. 2, and the face-plate *a''* attached to the end of the jaw by the screws *a'''*. The lower jaw, C, is provided with a handle, C', and has formed upon its face a die, *c*, which extends entirely across the face from side to side, and is inclined from the front of the jaw downwardly and inwardly to the shoulder *c'*, instead of being of a regular concave shape, as shown in the patents mentioned.

In operation, the head of the lacing-hook is inserted within the head-receiving recess, substantially in the manner shown in Fig. 2. The jaws are then closed, and the contact of the prongs with the inclined surface of the die bends the same until they contact with the shoulder *c'*, when they are suddenly turned upward, thereby effecting a very thorough clinching of the prongs in the material to which the hook is fastened. If it were not for the shoulder, the prongs, instead of describing the

upward curve shown, would assume the curve shown in Figs. 4 and 6, and consequently the end would not be so securely clinched within the material, but would lie along the under surface thereof.

Of course I may use this construction of hook-holder, jaw, and clinching-die in connection with any suitable power for operating the same, either by moving the upper jaw in relation to the lower, or the lower in relation to the upper, or both.

The advantages of this construction are, that the hook can be inserted into the hook-receiving recess from either side of the punch, and does not require any adjustment thereafter in order to secure the proper position of the prongs in relation to the die, that it clinches the prongs in the material, and it is very cheap, easily repaired, and operates in a very effective manner.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a setting-instrument for attaching lacing-hooks to shoes and other wearing-apparel, the upper jaw, A, provided with the hook-receiving recess *a a'*, extending from the face of the jaw and across the same, in the manner indicated, and the lower jaw, C, having the die *c*, extending across the same, provided with the clinching-shoulder *c'*, all constructed and arranged to operate, in relation to each other, substantially as described, and for the purposes set forth.

2. In a setting-instrument for attaching lacing-hooks to shoes or other wearing-apparel, the upper stationary jaw, A, provided with the projection B, for fastening it to a bed, and provided with a recess for holding the lacing-hook, with the movable lower jaw, C, provided with the clinching-die *c c'* and handle C', all constructed and arranged to operate substantially as described.

EDWD. MAYNZ.

Witnesses:

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