

H. LEVY.

Machine for Bending Horseshoes.

No. 164,649.

Patented June 22, 1875.

Fig. 1.

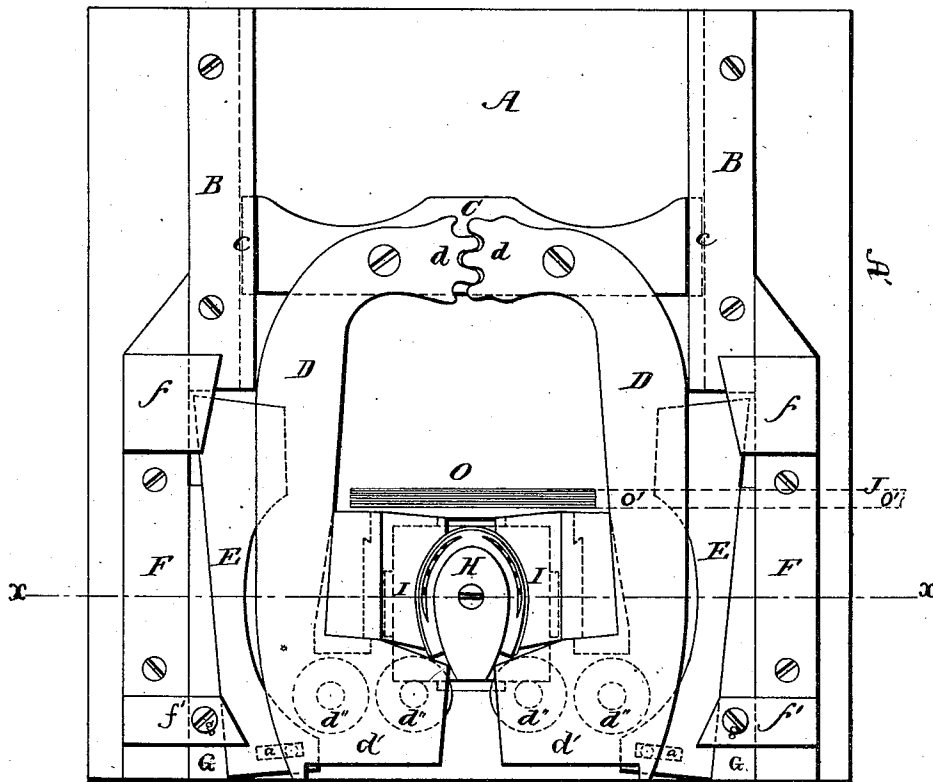
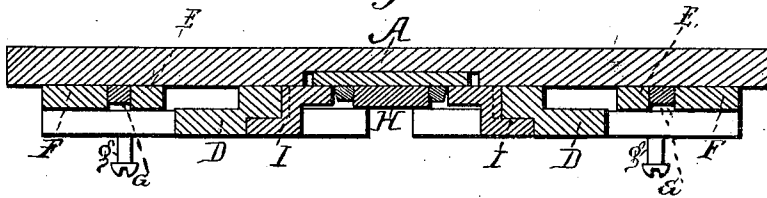


Fig. 2.



Witnesses.

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HARRISON LEVY, OF MILESBURG, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR BENDING HORSESHOES.

Specification forming part of Letters Patent No. 164,649, dated June 22, 1875; application filed February 15, 1875.

To all whom it may concern:

Be it known that I, HARRISON LEVY, of Milesburg, in the county of Centre and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoe-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to an improvement in horseshoe-machines; and consists in an improved construction and arrangement of the devices for bending the bar around the former or die, and clamping and holding it while being swaged and punched.

In the drawings herewith presented, Figure 1 represents a plan of the bed of a horseshoe-machine constructed with my improvement, the parts which belong in front being omitted. Fig. 2 is a vertical section taken on the line *x* *x* in Fig. 1.

A is the bed of the machine. This bed is arranged vertically, A' indicating the top. B B are guides fastened to the bed. The inner edges of these guides are undercut to receive tongues *c c* on the ends of a transverse bar, C, and allow said bar to play back and forth in the direction of the length of the bed. D D are the crimpers, one end of each being pivoted to the bar C, and bent inward, terminating in toothed curves *d d*, which mesh together. The other ends *d' d'* of the crimpers project inward, and in the under side of each are journaled two vertical wheels or rollers, *d'' d''*. E E are adjustable guides arranged upon the bed A at the ends of the stationary guides B B. The ends of the guides E E project under brackets *f f f' f'*, by which they are held from rising. These brackets are fixed to strips or bars F F screwed to the bed of the machine. Between the bars or strips F F and the guides E E are arranged wedges G G, which rest behind the brackets *f' f'*, and are secured in any desired position by clamp-screws *g g* passing through said brackets. Behind the outer ends of the adjustable guides E E slots *a a* (shown in dotted lines) are cut through the bed A, and through these slots pass clamp-screws

from the rear of the bed and into the adjustable guides. These screws are for holding the guides firmly against the bed at their inner edges, and the slots allow different adjustments. H is the die, around which the horseshoe is formed. It is firmly secured to the bed A, but may be replaced by a die of different shape. I I are concave jaws, which close firmly around the bar of iron after it has been bent around the die H. These jaws I I are firmly secured to the crimpers D D, just inside of the inward-projecting ends of the said crimpers, and in proper position to clamp around the die and bent bar immediately after the rollers or wheels *d'' d''* pass off of said bar after having bent it in the shape of a horseshoe around the die.

The object of the jaws I I is to hold the shoe firmly while it is being swaged, and while the nail-holes are being punched, and thus prevent the shoe from being forced out of shape by the swaging, and from having a ragged edge formed thereon by the bulging of the metal at the edges of the shoe as the punches pass through in forming the nail-holes.

The bar of iron which is intended to be formed into a horseshoe is dropped in the path of the crimpers through an opening in the guides at the top of the machine, said opening being made through the parts, as indicated by dotted lines *o' o'* in the drawing, and the position of the bar being shown by the lined space O.

Having now fully described my improvement, and sufficiently referred to the invention upon which they are based, I claim and desire to secure by Letters Patent—

In a horseshoe-machine, the combination, as herein described and shown, of the cross-bar C, pivoted arms D D, provided with teeth at *d*, and carrying-rollers *d'' d''*, removable dies I I, die H, and adjustable guides E E, said parts being constructed for joint operation, as set forth.

In testimony that I claim the foregoing as my own invention I affix hereto my signature in presence of two witnesses.

HARRISON LEVY.

Witnesses:

JOHN S. PROUDFOOT,
THOMAS M. HALL.