J. J. REIMER.

Dies for Finishing Horseshoes.

No. 205,978. Patented July 16, 1878.

Fig. 1.

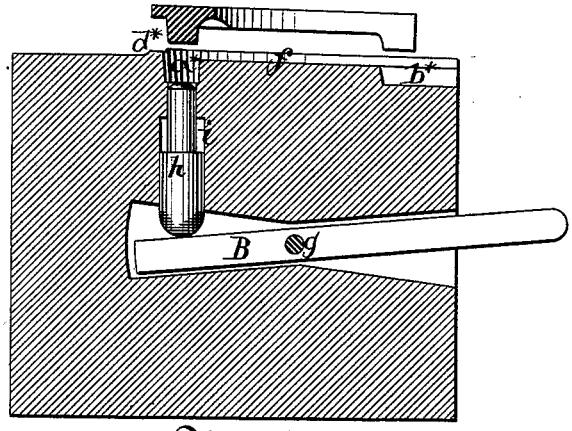


Fig. 2.

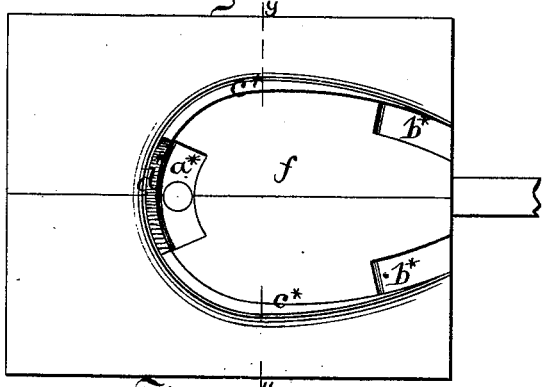


Fig. 4.

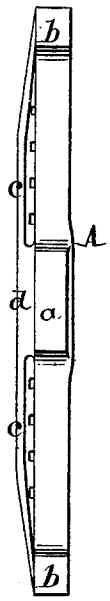


Fig. 5.

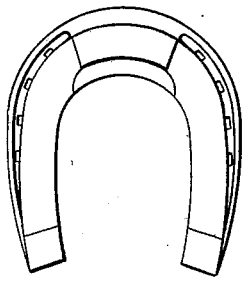
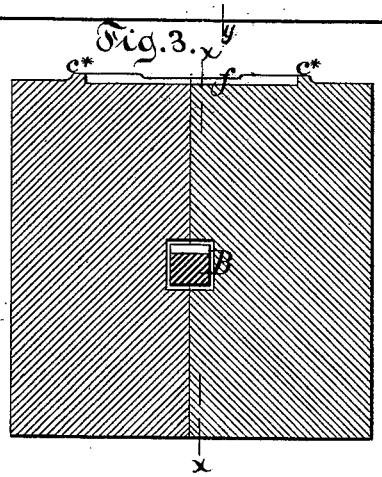


Fig. 3.



Witnesses.

Chas. Wahlers.

J. Hermann Wahlers

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UNITED STATES PATENT OFFICE.

JOHN J. REIMER, OF HOBOKEN, NEW JERSEY.

IMPROVEMENT IN DIES FOR FINISHING HORSESHOES.

Specification forming part of Letters Patent No. **205,978**, dated July 16, 1878; application filed June 20, 1878.

To all whom it may concern:

Be it known that I, JOHN JACOB REIMER, of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Dies for Finishing Horseshoes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section of my die in the plane *x x*, Fig. 3. Fig. 2 is a plan or top view of the same. Fig. 3 is a transverse vertical section in the plane *y y*, Fig. 2. Fig. 4 is an inverted plan of the blank before it is bent. Fig. 5 is a similar view of the blank after it has been bent and before it has been finished in my die.

Similar letters indicate corresponding parts.

This invention relates to an improvement in machine-made horseshoes provided with solid toe and heel calks, and with a ledge in front of the toe-calk for the formation of a toe-clip without diminishing the body of the toe-calk, such horseshoes being described in the patent granted to Jacob Russell, January 15, 1878, No. 199,228.

My invention consists in a die or shoe plate provided with cavities for finishing the toe and heel calks, with a depression for finishing the body of the shoe, and with a raised rim extending round said depression and fitting into the nail-hole creases of the blank, whereby the blow of the drop-hammer is prevented from depressing the sides of the shoe and the level surface of the shoe is preserved. At the same time the ledge in front of the toe-calk is elongated, so that the subsequent formation of the toe-clip is facilitated.

The invention consists, further, in the combination, with the cavity for finishing the toe-calk, of a tappet-lever for throwing the finished horseshoe out of the die.

In carrying out my invention, I prepare a blank, A, in the form shown in Fig. 4. In this blank the letter *a* designates a projection for the formation of the toe-calk. The letters *b b* are projections for the formation of the heel-calks. *c c* are the nail-hole creases, and *d* is the ledge in front of the toe-calk. This blank is bent to the form shown in Fig. 5, and it is then placed on my die. As shown in Figs. 1 and 2, this die is provided with a cavity, *a**, for finishing the toe-calk, with two cavities, *b* b**, for finishing the heel-calks, and with a depression, *f*, for receiving the body of the horseshoe. From the edge of this depression rises a rim. This raised rim is depressed in front, the depressed portion being about the length of the toe-calk of one of the blanks, the ledge in front of which toe-calk is flattened and somewhat extended between this depressed portion and the drop-hammer, while the side portions of said raised rim enter the nail-hole creases, and preserve its form under the action of the hammer. After the bent blank has been adjusted on the die in the proper position it is exposed to the action of a drop-hammer, and by the sides *c** of the raised rim the sides of the horseshoe are retained in a level position, while by the front portion *d** of said raised rim the ledge *d* in front of the calk is extended. At the same time the projections *a b b* of the blank are driven, respectively, into the cavities *a* b* b** of the die, and the calks are brought into the required form. The toe-calk, in being driven into the cavity *a**, however, is liable to stick therein very tight, and much time is lost in forcing the finished horseshoes out of the die. This difficulty I have avoided by combining with my die a tappet-lever, B, which has its fulcrum on a pivot, *g*, and from the inner end of which extends a pin, *h*, through a hole, *i*, issuing into the cavity *a**.

The outer end of the lever B extends beyond the front side of the die, and a blow with a hammer on this projecting end of the lever is sufficient to throw a finished horseshoe out of the die.

If desired, this operation may be facilitated by placing suitable springs beneath the cavities *b* b** for the heel-calks.

By my die much time is saved in the operation of finishing the horseshoes, and the level surface of the horseshoes is preserved.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, in a die for finishing horse-

shoes, of cavities a^* b^* b^* for the heel and toe calks, a depression, *f*, for the body of the horseshoe, and a raised rim, c^* d^* c^*, the side portions c^* of which enter the nail-hole creases, and the depressed front portion d^* supports the ledge *d* of the blank, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 18th day of June, 1878.

JOHN JACOB REIMER. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.