R. HALE & J. B. JOHNSTON.

Device for Bending Horseshoe-Bars.

No. 160,590. Patented March 9, 1875.

FIG. I.

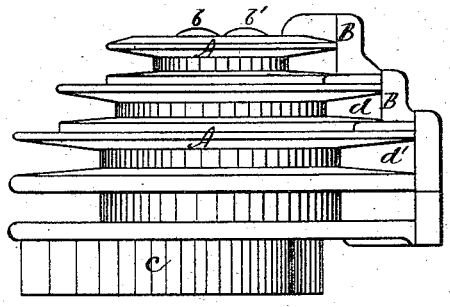


FIG. II.

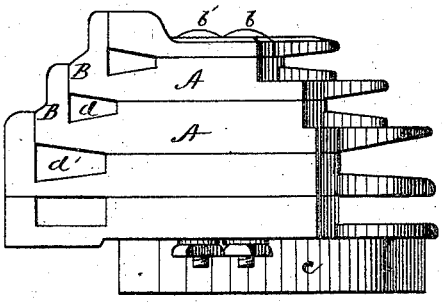


FIG. III.

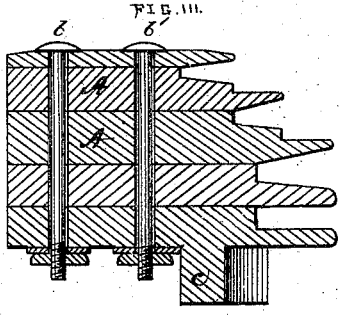
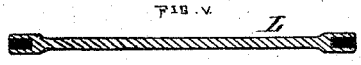


FIG. IV.

FIG. V.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ROBERT HALE, OF MINNEAPOLIS, MINNESOTA, AND JAMES B. JOHNSTON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DEVICES FOR BENDING HORSESHOE-BARS.

Specification forming part of Letters Patent No. **160,590**, dated March 9, 1875; application filed February 23, 1875.

To all whom it may concern:

Be it known that we, ROBERT HALE, of Minneapolis, Minnesota, and JAMES B. JOHNSTON, of Chicago, Illinois, have invented certain new and useful Improvements in Machines for Forming Horseshoes; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view. Fig. 2 is a rear view. Fig. 3 is a longitudinal section.

The object of our invention is to produce a cheap and easily-made machine for forming horseshoes out of blanks which are grooved for the nail-holes; and it consists in the combination of devices, as hereinafter specified.

In order to enable others skilled in the art to make and use our invention, we will proceed to describe the exact manner in which we have carried it out.

In the said drawings, A A′ represent plates, which are of the different sizes and forms to suit the shoes intended to be shaped on them. B B are lugs or fasteners, which are placed on the side of the plates A A′, and hold the blank of iron to be shaped into a shoe firmly while it is being bent into form. The openings *d d′* are formed between the plates A and lugs B. These openings are of different sizes to correspond with the blanks to be used. Into one of these openings is to be placed the end of the blank of iron, which has been previously grooved for the nail-holes and properly heated, the rear end of the blank being pushed through until it is flush or even with the end of the plate A. The lever L, which has openings in its ends to suit the size of the blank, is then slipped on the opposite end of the blank, and by means of this lever the operator then bends the blank around the plate, during which operation the end of the blank nearest the lugs is given its proper form. The partially-finished shoe is then removed from the plate, and the nail-holes are punched in the side which is thus formed. The partially-finished shoe is again heated, and the end which is not formed is inserted in the opening *d*, the lever L slipped over the opposite end, and the operation of bending repeated.

Different-sized shoes may be formed by inserting in the openings *d d′* bars of different size, and thus effect a saving of time and labor.

The plates A A′ are fastened firmly together by the bolts *b b′*, or by any other convenient method.

On the base or bottom plate is fastened the ledge *c*, by which the machine can be securely fastened in a vise while it is being used.

It will be readily seen from the above description that by using this machine, horseshoes can be rapidly and easily made, effecting a great saving of time, labor, and fuel.

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

The combination of the plates A, provided with the lugs B and ledge *c*, with the lever L, substantially as and for the purpose set forth.

ROBERT HALE.
JAMES B. JOHNSTON.

Witnesses:
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