(No Model.)

H. R. WILLIAMS.

MACHINE FOR ROLLING HORSESHOE BLANKS.

No. 489,061. Patented Jan. 3, 1893.

Fig. 1.

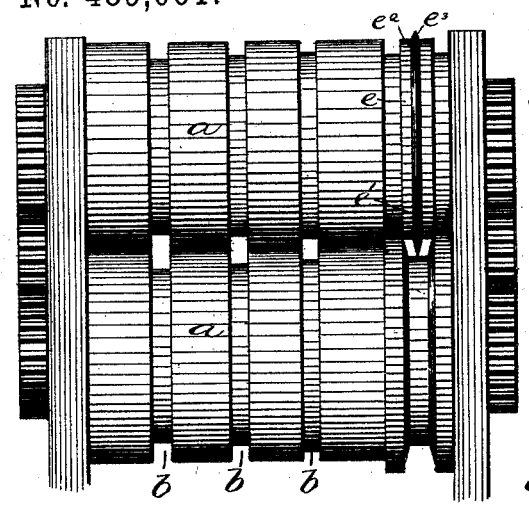
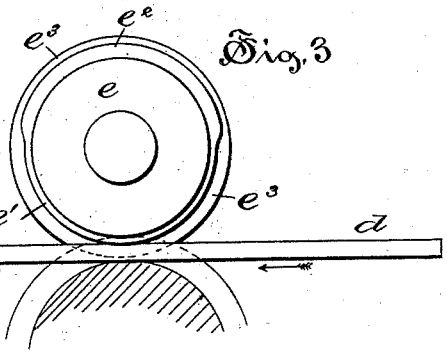


Fig. 3.



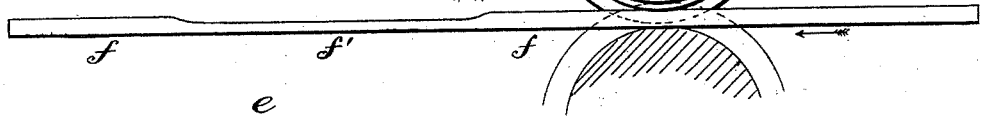


Fig. 4.

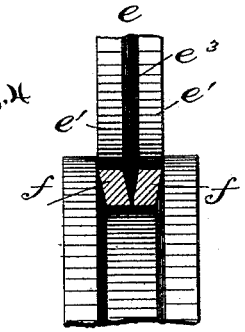


Fig. 2.

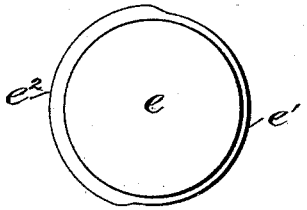
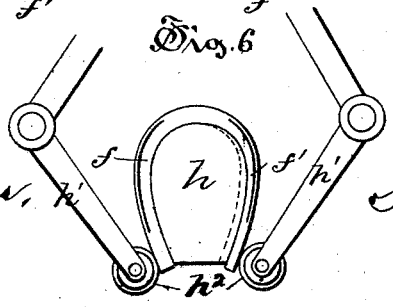


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR ROLLING HORSESHOE-BLANKS.

SPECIFICATION forming part of Letters Patent No. 489,061, dated January 3, 1893.

Application filed February 16, 1891. Serial No. 381,555. (No model.)

To all whom it may concern:

Be it known that I, HARRY R. WILLIAMS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Horseshoes, of which the following is a full, clear, and exact specification.

The invention relates to machines for forming right and left side weight horse shoes, that is, shoes having one leg wider and consequently heavier than the others.

The object of the invention is to provide means whereby such side weight shoes may be rapidly and cheaply formed in large quantities, a number of blanks from which the shoes are formed being rolled to shape at a single heat of the metal.

In the accompanying drawings—Figure 1, is a side elevation of a pair of blank drawing rolls; Fig. 2, is a side view of the drawing roll at the last pass; Fig. 3, is a side view of the roll at the last pass forming and splitting the blanks; Fig. 4, is an enlarged edge veiw of the rolls showing the blanks in section; Fig. 5, shows side views of the billet and bar before, and the blanks after passing through the rolls. Fig. 6, is a plan view of the finished shoe bent around an anvil, or former h of a bending machine, h' h^2.

In the drawings the letter a indicates a pair of metal drawing rolls of ordinary construction geared together and mounted upon any suitable frame. The rolls are provided with a suitable number of the usual grooves b through which the metal, iron or steel, is passed and reduced from a billet c to a bar d of any desirable length. The periphery of the pressure or drawing roll e at the last pass is preferably equal to the length of a single blank for a shoe, and about half of the periphery e' is formed on a circle having one radius, and little less than half e^2 is formed on a circle having a longer radius to give a greater squeeze to the metal during a portion of each revolution of the rolls, so that the bar is rolled with alternately wide f, and narrow f', portions, as shown in Fig. 5, each portion being twice the length of the wide and narrow legs of a single shoe, but the narrow sections f', are somewhat the shorter as the narrow leg of a shoe is usually the shorter. The pressure roll e at the last pass is divided at the center by a rotary splitting cutter e^3 which will divide the blanks along the middle as the metal passes between the rolls forming the wide legs of two blanks or the narrow legs of two blanks, simultaneously, as shown in Fig. 4.

Having thus described my invention, I claim as new:

In a machine for making right and left side weight horse shoe blanks, a pair of rolls, one of which is provided with a peripheral groove, while the other is provided with peripheral flanges, one portion of each of which is formed on a circle having one radius and the other portion formed on a circle having a different radius, and the annular splitting cutter intermediate the said flanges, and projecting beyond the peripheries thereof, substantially as described.

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