J. T. WALKER.

Device for Gaging the Cutting of Horseshoe-Blanks.

No. 210,377. Patented Nov. 26, 1878.

Fig. 1.

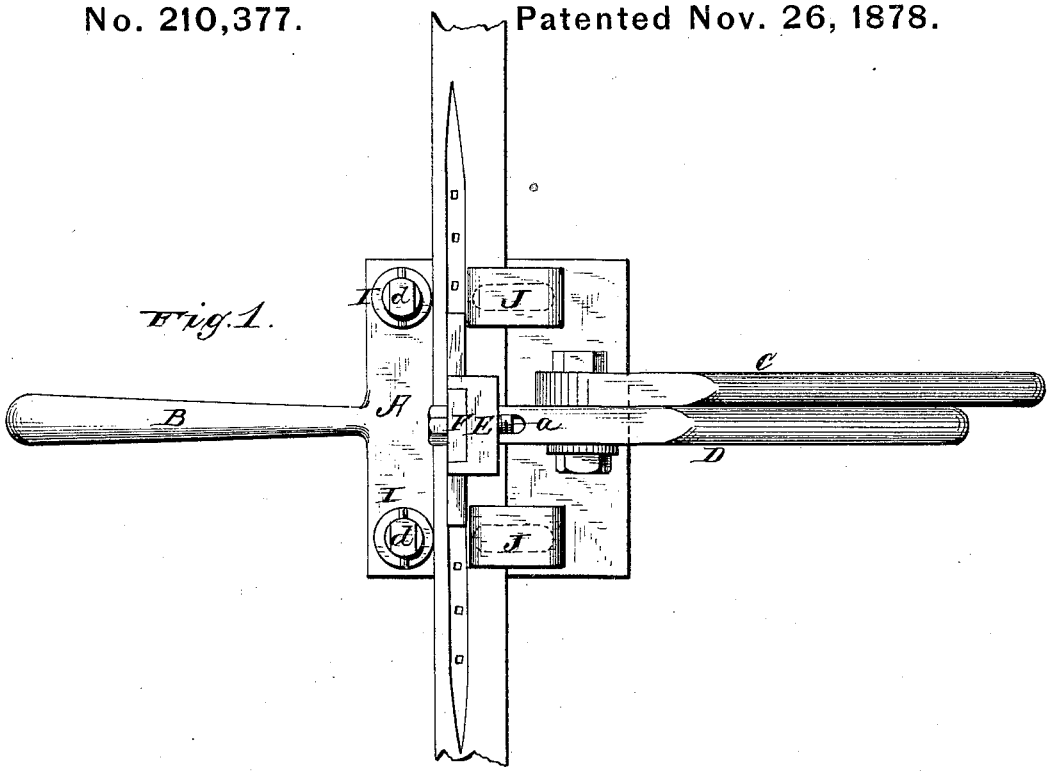


Fig. 2.

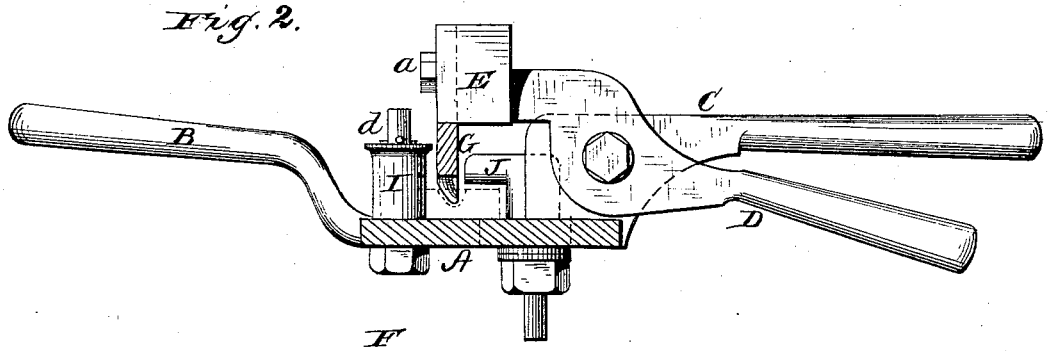
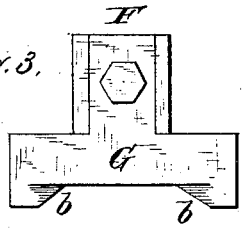


Fig. 3.



WITNESSES

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IMPROVEMENT IN DEVICES FOR GAGING THE CUTTING OF HORSESHOE-BLANKS.

Specification forming part of Letters Patent No. **210,377**, dated November 26, 1878; application filed November 9, 1878.

To all whom it may concern:

Be it known that I, JAMES T. WALKER, of Albany, in the county of Albany and in the State of New York, have invented a new and useful Machine for Gaging the Cutting of Horseshoe-Blanks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for gaging the cutting of horseshoe-iron, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a plan view of my invention. Fig. 2 is a vertical section of the same, and Fig. 3 is a detailed view of a part thereof.

A represents a rectangular plate of any suitable dimensions, provided on opposite sides with handles B and C, extending in opposite directions. To the side of the handle C, near the inner end, is pivoted a lever, D, the inner end of which forms a grooved head, E, to receive the shank F of a gripe or clamp; G, said shank being fastened in the head by one or more bolts, *a*.

The gripe or clamp G is constructed, as shown in Fig. 3, with a beveled projection, *b*, at each end. These projections are of such shape and at such distances apart as to fit in the inner ends of the nail-grooves of a horseshoe-blank before the same is bent. For different sizes of horseshoes, different gripes or clamps will be used.

The horseshoe-iron to be cut by the shears is placed between two rollers, I I, and two L-shaped guides, J J. The rollers I are placed upon pins or studs *d d* fastened in the plate A, while the guides J J are adjustable in slots in said plate, so as to accommodate the machine to different thicknesses or widths of horseshoe-iron.

In rolling horseshoe-iron it has been customary to make certain marks at the points where the iron is to be cut into blanks, which are afterward to be bent in a machine for that purpose. In such bending-machines the gaging is usually done from the end of the blank.

It has been ascertained that in the rolling of horseshoe-blanks, from various causes, such as the unequal heating of the iron, the slip of the rolls, &c., the blanks will vary in length, and in feeding such blanks to the bending-machine some means have to be provided to compensate for the inequality in length, or else the crease or nail-holes in the bent blank will not be central or in their proper position, and the result will be a defective shoe. The usual way to prevent this is to assort the blanks and adjust the bending-machine for each assortment. This entails an expense which is obviated by the use of my device for gaging the cutting of the blanks, and at the same time a more perfect result is obtained than by the ordinary way.

I obviate this difficulty mentioned by gaging the cutting of the iron from the center of each blank, making one end of all the blanks of a given size of shoe of uniform length, and it is this end which will form the gage in the bending-machine, so as to bring the nail-grooves in proper places at the toe of the blank, no matter whether the blank is a little longer at one end than at the other.

The operation of my machine is as follows: The rolled horseshoe-iron is inserted between the rollers I and guides J under the gripe or clamp G, and the operator causes said gripe to enter the nail-grooves of the first blank in the iron. The gripe, as above stated, fits the inner ends of these grooves, so there can be no mistake whatever. The machine with the iron is then moved upon the bed of the shears t a properly-arranged stop, when the shear cut off the end of the iron, leaving the inner end of the first blank of a certain length from the center. The operator now loosens the lever D to raise the gripe from the first blank, and moves the machine to the second blank, where in like manner the gripe is made to enter the inner ends of the nail-grooves, the iron being prevented from slipping back by the usual dog on the shears arranged for that purpose. The machine with the iron is again moved forward to the stop, and the shears cut off the first blank, leaving the inner end of the

second blank precisely the same length as the corresponding end of the first blank; and so on in succession with every blank.

It will thus be seen that all the blanks are of uniform length from the center to one end, and this end is the one that will be used to gage by in the bending-machine.

The nail-grooves in the bent blanks will therefore be uniformly in their proper places at the toe, though one end of the blank may be longer than the other.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A clamp or clamping device, substantially as herein described, arranged to gripe a bar of horseshoe-iron in the center of the horseshoe-blank, for gaging the cutting of the iron uniformly from the center to one end of the blank, substantially as herein set forth.

2. The gripe or clamp G, provided with the projections *b b*, arranged to fit in the inner ends of the nail-grooves of a horseshoe-blank, for the purposes herein set forth.

3. The combination of the plate A, handles B C, pivoted lever D, and gripe or clamp G, substantially as and for the purposes herein set forth.

4. The rollers I and adjustable guides J, in combination with the plate A, handles B C, lever D, and gripe G, for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of November, 1878.

JAMES T. WALKER.

Witnesses:
C. L. EVERT,
FRANK GALT.