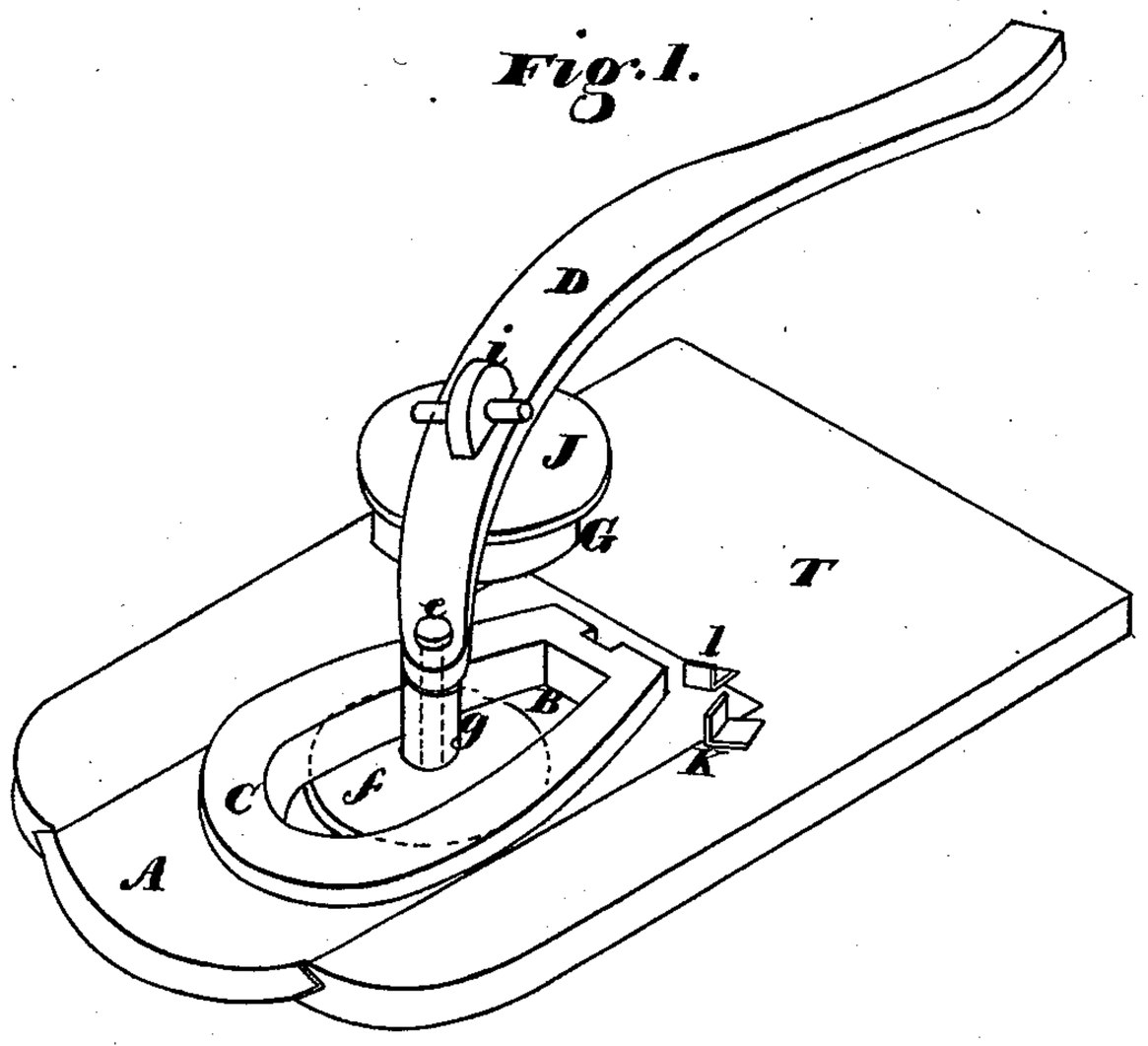
A. BARTON.

Machine for Bending Horseshoes.

No. 163,841. Patented June 1, 1875.

Fig. 1.



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ARTHUR BARTON, OF NEVADA CITY, CALIFORNIA.

IMPROVEMENT IN MACHINES FOR BENDING HORSESHOES.

Specification forming part of Letters Patent No. **163,841**, dated June 1, 1875; application filed April 27, 1875.

To all whom it may concern:

Be it known that I, ARTHUR BARTON, of Nevada City and county, State of California, have invented a Machine for Bending Horseshoes; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to a cheap and simple machine for bending pieces of iron or steel into circular forms, but which is more especially adapted for forming horseshoes. In the present state of the art of making horseshoes a bar of iron or steel which is rolled into the proper form to be cut off and bent into horseshoes is furnished to blacksmiths at a cost not exceeding the cost of ordinary plain bar iron or steel. My machine is intended to bend these iron or steel bars after they have been cut off to the proper length into horseshoe shape, and thus avoid the tedious method of bending and forming them by hand.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my machine.

A is the die-plate which I use. In the center of this plate I make an opening, B, which will correspond in shape to the shape of the horseshoe, but which is smaller than the shoe to be made. Around this opening I make a ledge, C, which is as high as the bar of metal to be bent, and which will also be in the form of the horseshoe. D is a lever or handle, which is secured to the upper side of the die-plate by a pin, *e*, which passes at right angles through the opening B, and is secured on the under side of the die-plate to a disk, *f*, which is larger than the opening B. A roller, *g*, is placed loosely on the pin *e* between the end of the lever D and the disk *f*, so that it will rotate when it is carried around against the inner wall of the opening B. G is a pressure-wheel, which is secured to the under side of the handle or lever D far enough outside of the ledge C to admit the bar which is to be bent between it and the outside face of the ledge. The wheel G rotates between the lever and plate A upon a spindle, *i*, which extends downward from the lever, and this pin may be adjustable along the handle to accommodate bars of different widths. A thin wheel, J, which is larger in diameter than the wheel G, is placed upon the same spindle above the wheel G, so that its edge will project beyond the edge of the pressure-wheel G, and thus form an independent rotating flange, which will bear upon the bar and keep it down against the die-plate.

It will thus be seen that if one end of a heated bar of iron or steel be secured between the stop K and the outside face of the ledge C it can be bent to the form of a horseshoe by carrying the end of the handle or lever around in a circle corresponding to the shape of the shoe. The center about which the lever moves will travel around the inner wall of the opening B as fast as the pressure-wheel G travels around the outside wall of the ledge; and as the opening corresponds in shape to the shape of the ledge, the bar will be bent by the wheel against the outer face of the ledge, and thus be converted into the proper shape.

l is a stop, against which the end of the bar is placed before bending it, and K is the stop which holds the end of the bar against the ledge C. The edges of the plate A are made in the form of a **V**, so that it can be fitted as a slide into a recess in a bed-plate, T, as represented.

By this arrangement die-plates having flanges of different shapes and sizes can be substituted for each other, and thus make one bed-plate and lever serve for all.

This device is very inexpensive, and is easily operated. It enables any person to readily form a horseshoe without previous experience.

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

1. The improved horseshoe-former herein described, consisting of die-plate A, with its opening B and ledge C, in combination with

a lever, D, having a shifting center or spindle, *i*, and pressure-wheel G, substantially as and for the purpose described.

2. The die-plate A, with its opening B, ledge C, and stops *l* K, in combination with a traveling pressure-wheel, G, and independent flange-wheel J, and shifting center *i*, operated by the lever D, substantially as and for the purpose described.

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