S. D. TURNER.

Machine for Punching Horseshoes.

No. 49,838. Patented Sept. 5, 1865.

Fig. 2.

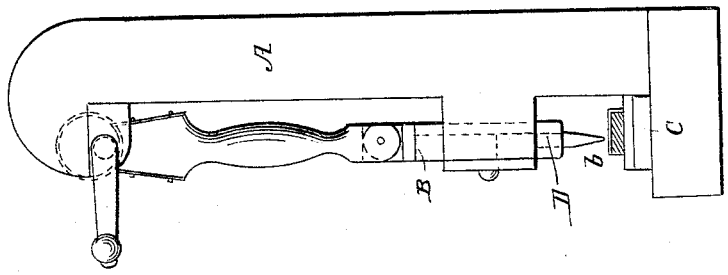
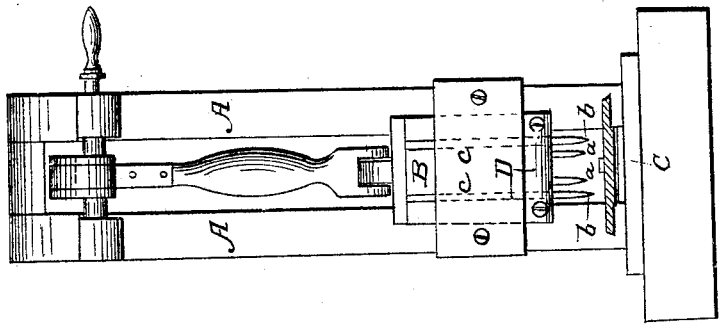


Fig. 3.

Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

SAML. D. TURNER, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO THE UNION HORSESHOE COMPANY, OF SAME PLACE.

MACHINE FOR PUNCHING HORSESHOES.

Specification forming part of Letters Patent No. **49,838**, dated September 5, 1865.

To all whom it may concern:

Be it known that I, SAMUEL D. TURNER, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Machines for Punching Horseshoes; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a front elevation. Fig. 2 is a side elevation. Fig. 3 represents a shoe-blank which has been punched and creased.

It is customary in the manufacture of horseshoes by machinery to make the crease and punch the holes for the nails in the blank before bending and plating the same in the machine.

Fig. 3 represents a blank or straight bar of the proper size to form a shoe which has been creased and punched.

Heretofore it has been usual to punch the four holes with which each crease is provided at one operation by the use of a series of four punches moving together. It has been found, however, that from the size of the punches which it is necessary to employ in order to give to them sufficient strength, as well as to make the holes large enough to allow for their usual contraction, resulting from the subsequent operation of plating or hammering the shoe, the metal is liable to become split between the holes if the four holes for each crease are punched at the same time.

I propose to remedy the difficulty by punching two alternate holes out of the four at the same time and then complete the series by punching the other two alternate with the first punched, at the same time providing for gaging the proper distances for the holes from each other.

In the accompanying drawings, A A is a strong upright frame, upon which the plunger B, working in suitable guides, is mounted and arranged to have a reciprocating motion imparted to it in a direction perpendicular to the plane of the bed C. The lower end of the plunger is provided with a tool-stock, D, in which are secured the punches *a a*, and also the spring gage-points *b b*. The punches are in all respects like those in common use for the purpose of punching a shoe-blank, but are twice the distance from each other that it is designed that any two consecutive holes in the shoe shall be. The gage-points *b b* resemble externally the punches, with the difference that they are somewhat longer, and they are provided with springs back of their ends in sockets *c c* in the plunger, so that they can yield when their points come in contact with the metal of the blank.

The blank to be punched, Fig. 3, is placed upon the bed C. Motion is given to the plunger B by any of the usual methods, and the punches *a a* descend and punch the holes 1 and 3. While this is being done the gage-points *b b* rest upon the surface of the blank; but as their respective sockets extend up into the plunger the punches can perform their work without injury to them. The blank is next moved after the punches have been withdrawn far enough to the right or left along the bed to allow one of the gage-points to spring into one of the holes already punched, and thus accurately gage the distances at which holes 2 and 4 will be punched upon the next descent of the plunger.

What I claim as of my invention, and desire to secure by Letters Patent, is—

A machine for punching horseshoes, consisting of one or more punches, *a a*, in combination with one or more elastic gage-points, *b b*, operating in the manner substantially as described, for the purposes specified.

SAMUEL D. TURNER.

Witnesses:

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