

YOUNG & TITUS.
Horseshoe Machine.

No. 301.

Patented July 29, 1837.

Fig. 2.

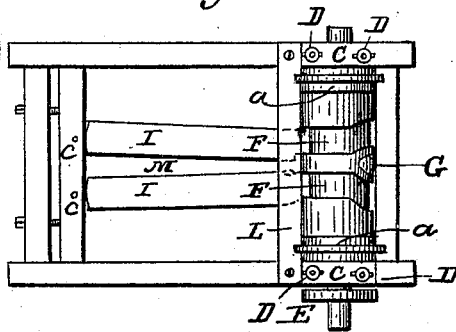


Fig. 3.

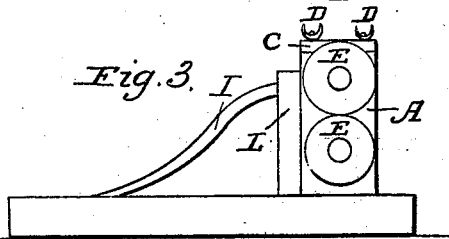
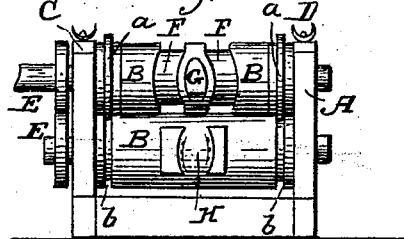


Fig. 1.



UNITED STATES PATENT OFFICE.

B. YOUNG, OF KILLINGLY, AND S. TITUS, OF BROOKLYN, CONNECTICUT.

MACHINE FOR MAKING HORSESHOES.

Specification of Letters Patent No. 301, dated July 29, 1837.

To all whom it may concern:

Be it known that we, BARZILLAI YOUNG, of Killingly, and SAMUEL TITUS, of Brooklyn, in the county of Windham and State of Connecticut, have invented a new and useful Machine for Making Horseshoes; and we do hereby declare that the following is a full and exact description thereof, reference being had to the drawings which accompany and make a part of this specification.

In a suitable frame A, A, Figure 1, of the drawings, I mount two rollers B, B, running in boxes in the frame; the caps of the frame C, C, having tightening screws D, D, passing through them to press the rollers together, and thus determine the thickness which shall be given to the shoe. To prevent all lateral motion in the rollers I form upon one of them two projecting tongues or fillets *a, a*, which fit into corresponding grooves *b, b*, on the other roller. The two rollers are geared together by means of toothed wheels E, E, upon their gudgeons. In the upper roller I form two guide grooves or channels F, F, passing all around the roller and equal in width along its whole course; these grooves pass in a direct line around, excepting on each side of the die G, where they are curved in the manner shown in the drawing, for a purpose to be presently explained. The die G which is formed or affixed upon the roller projects therefrom to a height about equal to the thickness of a shoe, and its outline is such as adapts it to form the interior of it, while the ledge which surrounds it corresponds with the width to be given thereto.

H is the lower cylinder or roller.

I is a mold or counter formed by attaching checks K, K, to the roller, which checks fit the exterior of the shoe and have within them creasers and punches to form the creases and countersink the nail holes on the face of the shoes. In the revolution of the rollers the checks K, K, are received within the grooves F, F.

T, T, Figs. 2 and 3, are guides, or benders, of stout iron which swivel on joint pins *c, c*, in the lower part of the frame, curving up in the manner shown in Fig. 3; their lower sides rest upon a breast L in front of the upper roller and opposite to its middle. The ends of these guides, or benders, pass into the grooves F, F, and are of the same width with them; it will be manifest, there-

fore, that they will be moved in and out by the curvature of the grooves. The guides are wider at their ends, (say one-half an inch) than the grooves, and are notched on their inner edges to enable them to pass within them, thus leaving a shoulder which is to bear against the shoe as it is carried around by the die. Between the guides I, I, there is a bar of iron M, which we call a conductor; it is curved up in the same manner as the guides and rests between them on the same breast piece, extending thereon as far as the shoulders of the guides. It has a lip, or elongation, inside of the breast to sustain the shoe on the die after its toe passes beyond the guides. It is to be observed that in the drawings referred to in the foregoing description the same letters of reference are used to designate the same parts in each of the figures.

In using this machine the rollers may be turned by any adequate power, and as they are geared together by wheels equal in size they will revolve in the same time. The bar of iron, of a suitable size, is to be cut to the proper length for a shoe, heated red hot, and laid upon the guides against the upper rollers; as this revolves toward the guides the middle of the bar is caught by the die and it is carried forward between the guides, the motion of which being governed by the grooves, they bend the heated iron around the die, while the two faces of the shoe are formed by the rollers and thus, at every revolution, a shoe is produced.

Having thus fully described the construction of our said machine and the manner in which the same operates; we hereby declare that we do not claim to be the inventors of a machine for making horse shoes by means of rollers, this having repeatedly been essayed, but in a manner different from that herein described.

What we claim, therefore, is—

The manner of forming the shoe by the combined operation of the rollers, the guides, the conductor, and the die, arranged and constructed, substantially, in the manner herein set forth.

BARZILLAI YOUNG.
SAMUEL TITUS.

Witnesses:

DANIEL P. TYLER,
JONA. A. WEBB.