(No Model.)

A. ANDERSEN.

MACHINE FOR FORMING CLIPS ON HORSESHOES.

No. 315,591. Patented Apr. 14, 1885.

Fig. 1

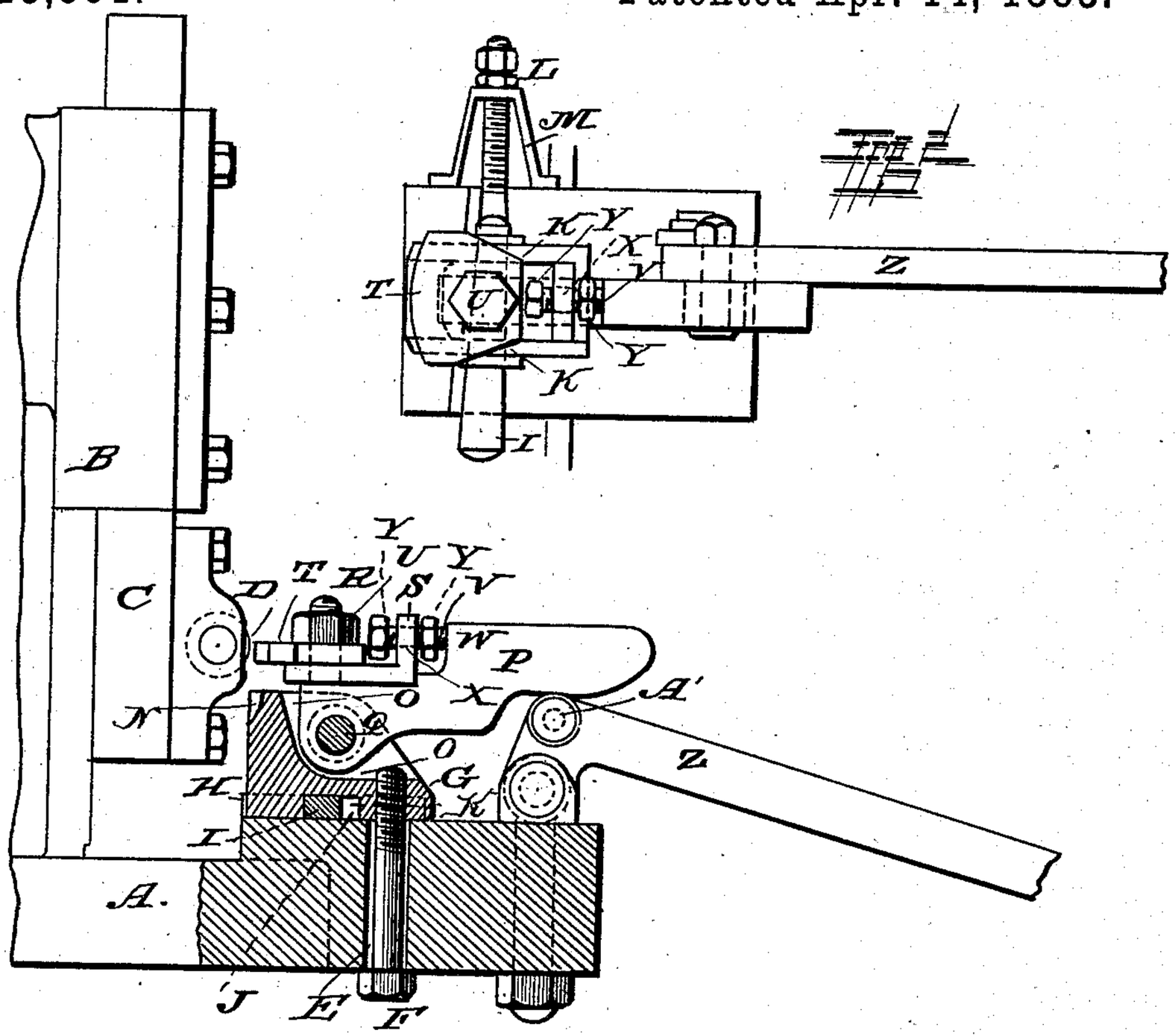

Fig. 2

Fig. 3

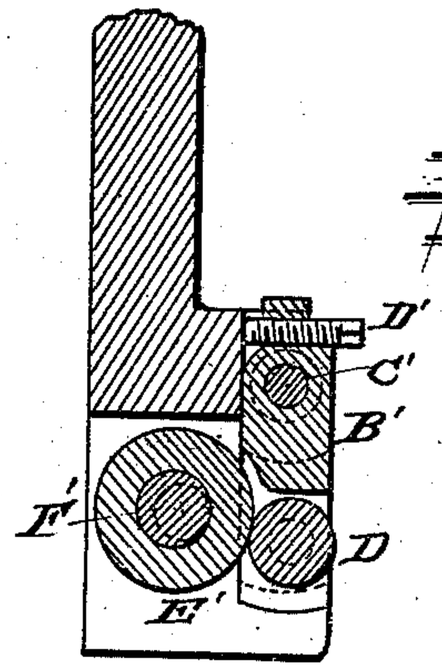

Fig. 4

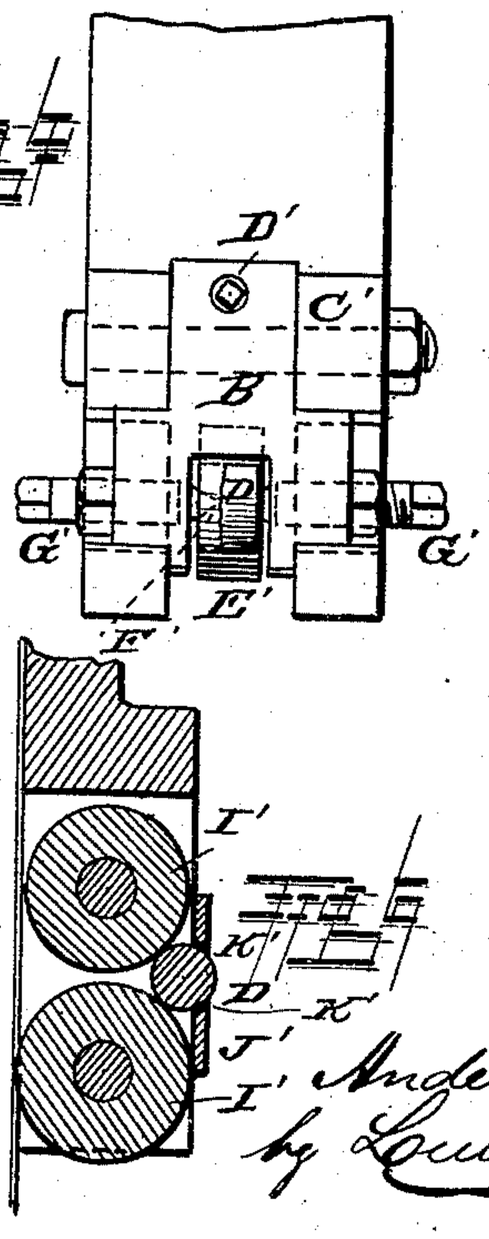

Fig. 5

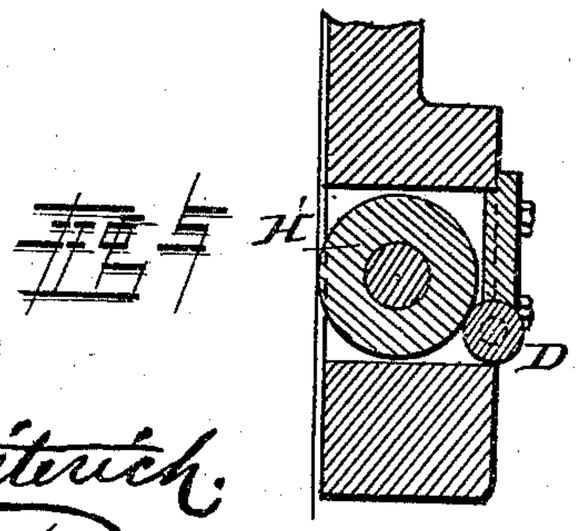

Fig. 6

WITNESSES:

Fred. L. Dieterich.

Wm. Fecker

INVENTOR.

Anders Andersen

by Louis Bagger & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDERS ANDERSEN, OF COPENHAGEN, DENMARK, ASSIGNOR TO THE KJOBENHAVNS HESTESKOFABRIK, OF SAME PLACE.

MACHINE FOR FORMING CLIPS ON HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 315,591, dated April 14, 1885.

Application filed June 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, ANDERS ANDERSEN, a subject of the King of Denmark, and residing at Copenhagen, in the Kingdom of Denmark, have invented certain new and useful Improvements in Machines for Stamping Metal; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side view, partly in section, of my improved machine for forming and pressing metal. Fig. 2 is a top view of the mechanism holding the work. Figs. 3 and 4 are respectively a vertical, sectional, and a front detail view of the sliding block carrying the presser-roller; and Figs. 5 and 6 are sectional detail views of modifications of the slide and roller.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to machines for striking up the clips or calks on horseshoes; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the bed-plate of the machine, which is provided with upright ways B, in which a sliding block, C, travels, which is provided with a suitably-journaled roller, D, the periphery of which projects slightly outside the face of the sliding block. The bed plate or table has a longitudinal slot, E, through which a screw-bolt, F, passes, and in which the said bolt slides, and the upper end of this bolt enters the under side of a block, G, which slides in ways H upon the upper side of the table, the said ways and the slot or oblong bore extending at a right angle to the face of the upright ways and of the sliding block. The block G, which forms the lower rigid jaw of the clamping device holding the work, may be adjusted closer to or farther from the ways and the roller-carrying sliding block, by the screw-bolt sliding in the slot in the table, and a wedge, I, having its narrower end screw-threaded, passes through a transverse groove, J, in the under side of the sliding jaw-block and through two notches, K K, in the sides of the ways upon the table, and may be adjusted in the said groove and notches by means of a nut, L, bearing against the outer side of a perforated bracket, M, through the perforation in which the threaded shank of the wedge passes; and it will thus be seen that the wedge, being drawn by the nut with its wider end into the groove in the under side of the sliding jaw-block, will force the said block toward the upright ways, and will allow the jaw-block to be slid away from the ways when forced with its wider end out of the groove. The upper corner of the jaw-block facing the sliding roller-bearing block is cut away to form a recess, N, into which the metal of the shoe is forced by the presser-roller when the sliding block and roller are depressed, thus forming the clip. The upper portion of the jaw-block is recessed at O, and a clamping-lever, P, is pivoted, with its inner end in the said recess, upon a transverse bolt, Q, and is provided upon the upper side of its inner end with an upwardly-projecting screw-bolt, R, upon which a rectangularly-bent sliding piece, S, slides, and an upper jaw-piece, T, is secured by means of a nut, U, fitting upon the upper end of the screw-bolt. The rectangularly-bent sliding piece slides upon the upper side or edge of the inner end of the clamping-lever, and a screw, V, projects inward from an inwardly-facing shoulder, W, formed by the outer free end of the clamping-lever, and the upwardly-bent portion of the bent sliding piece has a perforation, X, through which this screw passes, and two nuts, Y Y, bear against the two sides of the upwardly-bent end of the sliding piece, serving to adjust the said piece. An elbow-lever, Z, is pivoted at the end of its short arm upon the table, under the free arm of the clamping-lever, and is provided at its elbow with a roller, A′, which bears against the under side of the said clamping-lever, serving to raise it, and thus clamp the horseshoe-blank, which is placed upon the sliding jaw-block and clamped by the upper jaw-piece, the sliding bent piece being adjust-

ed to the thickness or width of the blank, as also the sliding jaw-block is adjusted closer to or farther from the ways and roller-bearing block, according to the size of the shoe-blank and to the proportions desired to be given to the clip. It will be seen that the shoe-blank being firmly clamped by the jaws, the descending roller in the block will force the metal of the edge of the blank downward, causing it to fill the recess in the upper and inner corner of the lower jaw, and the said recess is of the shape desired to give to the clip.

In Figs. 3 and 4 is shown a construction of the roller-supporting parts of the sliding roller-bearing block, by means of which the roller may be adjusted to project more or less outside the face of the block, the roller being journaled in the lower end of a block, B′, which is pivoted upon a transverse bolt, C′, at its upper end in the sliding block, and the said pivoted bolt is provided at its upper end above the pivotal point with a set-screw, D′, the inner end of which bears against the sliding block, and which screw serves to limit the swing of the pivoted block. The inner side of the roller bears against the periphery of a roller, E′, which is journaled upon a short shaft which has eccentric recesses F′ in its ends, into which recesses the ends of two screw-bolts, G′, pass; and it will be seen that by adjusting the set-screw at the upper end of the pivoted block, and by adjusting the shaft of the inner roller, the pivoted block and the presser-roller may be adjusted to project more or less outside the face of the sliding block.

In Fig. 5 the presser-roller is shown pivoted in the face of the sliding block and bearing against a large anti-friction and supporting roller, H′, and in Fig. 6 the inner side of the roller bears against two anti-friction and supporting rollers, I′ I′, while it is prevented from falling out by a plate, J′, having a transverse slot with beveled edges, as shown at K′, and secured across the face of the sliding block.

The operation of my machine will be understood without further explanation, and it will be seen that it may be adjusted to hold blanks of any size and to press or strike up clips of different dimensions.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for striking up clips or calks on horseshoes, the combination of a clamping device having means, substantially as described, for adjusting its jaws, and adapted to hold the article to be struck up in a horizontal position, with a vertically-sliding block having a presser-roller journaled transversely in the same, as and for the purpose shown and set forth.

2. In a machine for striking up clips or calks on horseshoes, the combination of the table formed with a longitudinal slot, and with longitudinal sliding ways, having notches in its sides, a jaw-block having a transverse groove in its under side and a screw-threaded perforation, a screw-bolt sliding in the slot in the table and fitting with its upper end in the threaded perforation, and a movable jaw pivoted upon the upper side of the jaw-block, as and for the purpose shown and set forth.

3. In a machine for striking up clips or calks on horseshoes, the combination of the lower jaw-block having a recess in its upper corner, and having means for adjusting it with the clamping-lever pivoted in the upper side of the jaw-block, and formed with an inwardly-facing shoulder in the upper side of its outer end, provided with an inwardly-projecting nutted screw-bolt, the rectangularly-bent sliding piece sliding upon the upper side of the inner end of the lever, with its upwardly-bent portion upon the nutted screw-bolt, and the upper jaw-piece, as and for the purpose shown and set forth.

4. In a machine for striking up clips or calks on horseshoes, the combination of the lower jaw-block having a recess in its upper corner, and having means for adjusting it, the upper clamping-lever pivoted in the upper side of the jaw-block and provided with adjustable jaw-pieces, and the elbow-lever pivoted at the end of its short arm upon the table and provided with a roller at the elbow bearing against the under side of the upper clamping-lever, as and for the purpose shown and set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ANDERS ANDERSEN.

Witnesses:
FREDERIK WOLFF,
EMIL HANSEN.