T. T. WOOD.

Machine for Heading Wrought Nails.

No. 163,620. Patented May 25, 1875.

Fig. 1

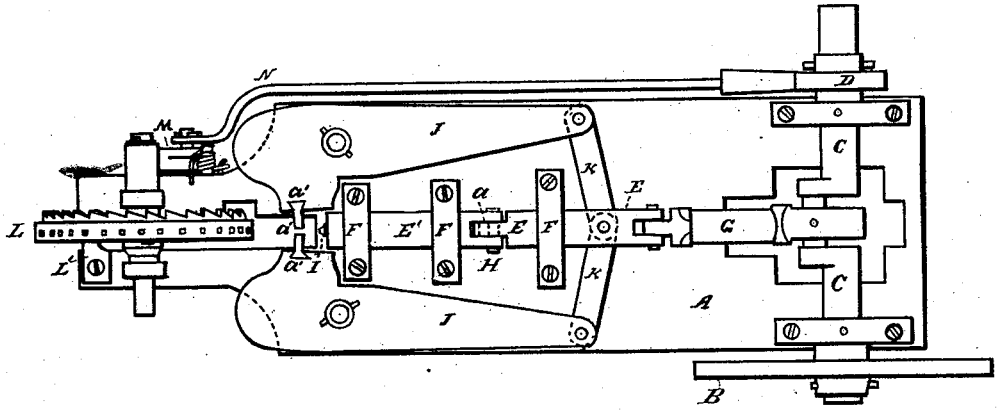


Fig. 2

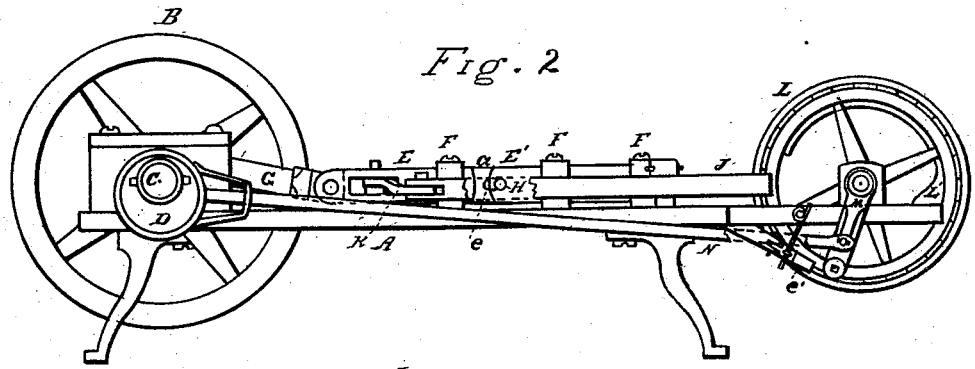


Fig. 3

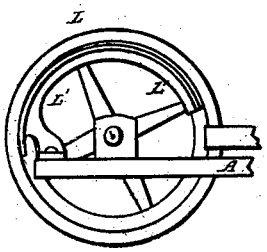
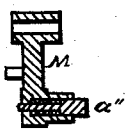


Fig. 4



WITNESSES

E. F. Duhamel

S. M. Davies

INVENTOR

Thomas P. Wood

By Gridley & Warner

Attys

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

THOMAS T. WOOD, OF CHICAGO, ILLINOIS, ASSIGNOR TO GEORGE B. GRIFFEN, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR HEADING WROUGHT-NAILS.

Specification forming part of Letters Patent No. **163,620**, dated May 25, 1875; application filed January 5, 1875.

To all whom it may concern:

Be it known that I, THOMAS T. WOOD, of Chicago, in the county of Cook and State of Illinois, have invented a new, useful, and Improved Machine for Heading Wrought-Iron Nails, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part hereof, and in which—

Figure 1 is a top view of my improved machine; Fig. 2, a side elevation thereof; Fig. 3, a like view of the other side of the nail-receiver, detached; and Fig. 4, a section of the free pendent and yielding catch therein.

Like letters of reference indicate like parts.

In the drawing, A represents the table or frame of the machine. B is the driving-wheel, mounted on the crank-shaft C, on which the eccentric D is also arranged. E and E′ are blocks resting freely in the guides F F. G is a pitman driven by the shaft C, and connected to the block E. *a* is a tenon on one end of the block E, and the adjacent end of the block E′ is cut to receive this tenon, as shown. H is a pin passing horizontally through the cut end of the block E′, and through a horizontal slot, *e*, in the tenon *a*. I is a projecting piece, striker, or header on the outer end of the block E′. J J are levers pivoted to the table A, and provided with the jaws *a′ a′*, arranged as shown. K K are levers pivoted to the block E, and to the ends of the long arms of the levers J J. The levers K K are set as shown to operate as a toggle. L is the nail wheel or receiver. This wheel is mounted on the frame, and small holes, sufficiently large to receive the nails or blanks to be headed, are cut vertically through its periphery, as shown. L′ is a fixed guard attached to the frame, and arranged within the periphery of the wheel, thus preventing the nails from dropping through the holes. One side of the wheel L is toothed, as shown. M is a pendant freely mounted on the arbor of the nail-receiver, and N is a pitman or connecting-arm attached to this pendant and driven by the eccentric D. The pendant M carries a yielding catch, *a″*, which engages the teeth on the nail-receiver during each forward stroke of the arm N. *e′* is a spring-catch to prevent the reverse movement of the nail-receiver.

In using my improved header, the nails or blanks to be headed are arranged in the receiver by an attendant. These nails are then carried, by an intermittent movement, between the jaws *a′ a′*, one nail being presented to the jaws at a time during the operation of the machine. The nails, after reaching the jaws, are firmly grasped by them. The blocks E and E′ now move forward with great force until the striker or header I hits that end of the nail presented to it, and by this means the nails are headed. The next movement of the levers J J opens the jaws, and the nail-receiver now presents a succeeding nail. In this manner all the nails are headed in succession, and during the continued rotation of the wheel L they drop therefrom into any suitable receptacle.

The header I has sufficient lost motion, owing to the arrangement of the pin H in the slot *e*, to admit of the jaws being brought together upon the nails before the header reaches them, and also to allow them to separate, so as to release the nails before the receiver is again actuated. The nails, after being headed and carried from the jaws, fall from the receiver on or before reaching a vertical line.

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

In combination, the pivoted levers J J, provided with the jaws *a′ a′*, the toggle K K, pivoted to the said levers, and the reciprocating blocks E and E′, loosely jointed to each other and pivoted to the toggle, substantially as and for the purposes specified.

THOMAS T. WOOD.

Witnesses:

CONSIDER H. WILLETT,

F. F. WARNER.