J. C. Higgins,

Power Hammer.

No. 108,023. Patented Oct. 4. 1870.

Fig. 1.

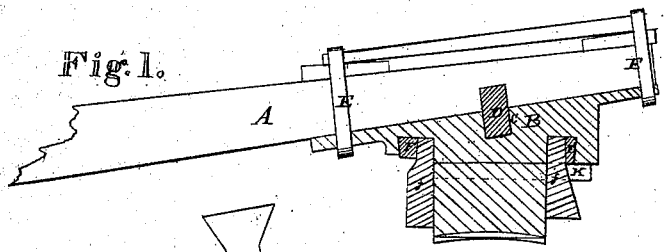


Fig. 8.

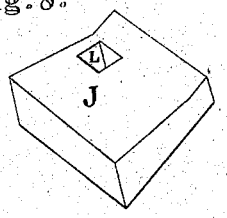


Fig. 3.

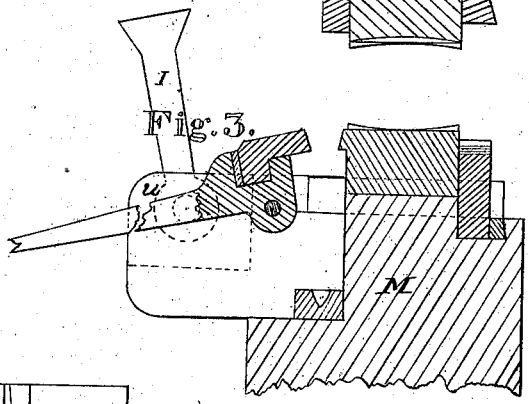


Fig. 2.

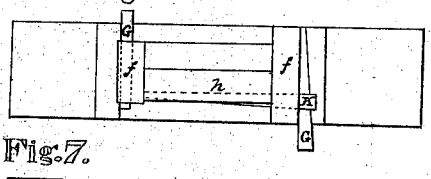


Fig. 7.

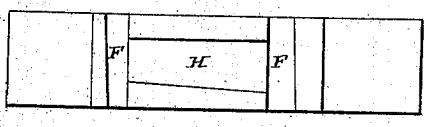


Fig. 4.

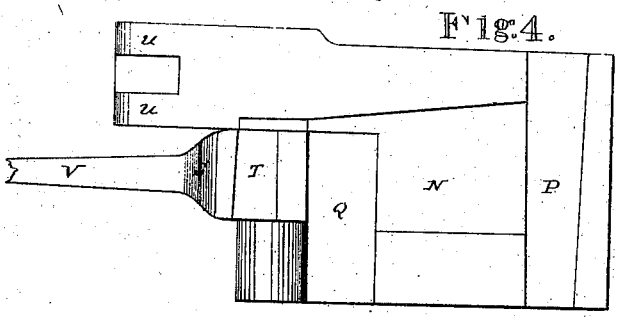


Fig. 5.

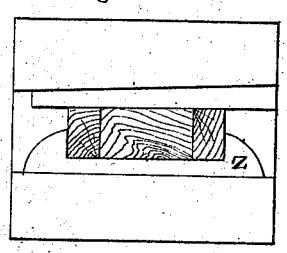
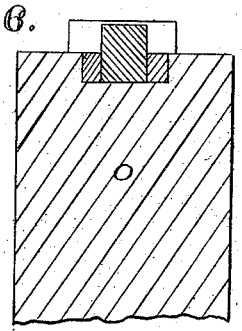


Fig. 6.



Witnesses.
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JOHN C. HIGGINS, OF SKOWHEGAN, MAINE.

Letters Patent No. 108,023, dated October 4, 1870.

IMPROVEMENT IN TRIP-HAMMERS AND ANVIL-STOCKS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN C. HIGGINS, of Skowhegan, in the county of Somerset and State of Maine, have invented a new and valuable Improvement in the Die-stocks of Trip-Hammers and Anvils; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal vertical section of my improved trip-hammer head.

Figure 2 is a bottom view of the same with dies in place.

Figure 3 is a vertical section of my improved anvil-stock.

Figures 4, 5, 6, 7, and 8 are details.

My invention relates to improvements in trip-hammers suitable for the manufacture of axes, hatchets, and other tools, and consists in certain improvements in the head of the trip-hammer, and in the anvil-stock, whereby they are adapted to hold securely the different dies employed to give the requisite shape and finish to the various parts of the tool; also in an improvement in the head of the trip-hammer, whereby it is prevented from slipping backward or forward in the hoops whereby it is attached to the handle.

The letter A of the drawing represents the handle or lever to which the head B is attached.

A notch, C, is made in the upper part of the head to receive a key, D, whereby the slipping of the head back and forth in the fastening-hoops E is prevented.

In the under part or face of the head are formed certain tapering channels to receive the dies. Two of these channels, F F, extend transversely across the face of the head at each end. They are designed to be slightly dovetailed, to give greater security to the wedges G G, which are inserted at the sides of the dies *f*, but the inclination is only upon that wall of each channel which lies adjacent to the wedge therein placed.

Extending lengthwise in the face of the head is the tapering channel H, made somewhat larger than the cross-channels, and provided with an inclined wall to secure the dovetailed wedge K at the side of the die *h* therein placed.

In order that the wedges may not interfere, the bed of the central channel H is somewhat depressed below the level of the beds of the transverse grooves. It is usually made even with the lower edges of the outer walls of these channels.

The cross-dies first having been secured in position, the central or main die is fastened by driving the wedge K into its seat, through a suitable opening, L, in the body of the cross-die *f* at the wide end of the channel H.

M represents the lower die-stock or anvil, provided with central channel N and transverse channels P Q, the beds of the latter being below the level of the bed of the former, for reasons similar to those above described, in connection with the head of the hammer.

S designates the lever, designed to hold the compressing-die. It is provided with a similar tapering channel, T, in which the die is secured by a wedge. It is operated by a lever extending out at right angles to the handle V. In the formation of an axe this compress is used to prevent the spreading of the eye during the squaring of the back.

Lugs *u u* are formed at the corner of the anvil, and are designed to receive the journals of the prop or catch I, which supports the weight of the hammer when not in operation, and prevents the faces of the upper and under dies from coming together when there is nothing between them.

The anvil-stock above described is used in all cases where the upsetting of the head is required.

When this is not the case, the common anvil-stock O may be employed, and the cross-dies secured in the recess of the plate Z, as shown at fig. 5 of the drawing.

Instead of wedging the dies into their seats independently, the cross-dies may be made to fit their channels, and all the dies can then be secured by the long wedge K.

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

1. The trip-hammer head herein described, provided with notch C and key D, longitudinal channel H, and transverse channels F F, having their beds at different levels, and otherwise arranged, as described, so that the dies can be secured in their seats by separate wedges, or all fastened by a single wedge, as specified.

2. The anvil-stock herein described, having compressing lever S, slot Q, and catch I, longitudinal and transverse channels N P, having their beds at different levels, and adapted to hold the lower dies in place, in the manner and for the purposes specified.

3. In combination with the transverse and longitudinal dies, the wedge and plate Z, for securing them in position in the slot of a common anvil, as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. HIGGINS.

Witnesses:

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W. B. NUTTER.