

J. C. TOBIN.
BLACKSMITHS' MACHINE.

No. 188,696.

Patented March 20, 1877.

Fig. 1.

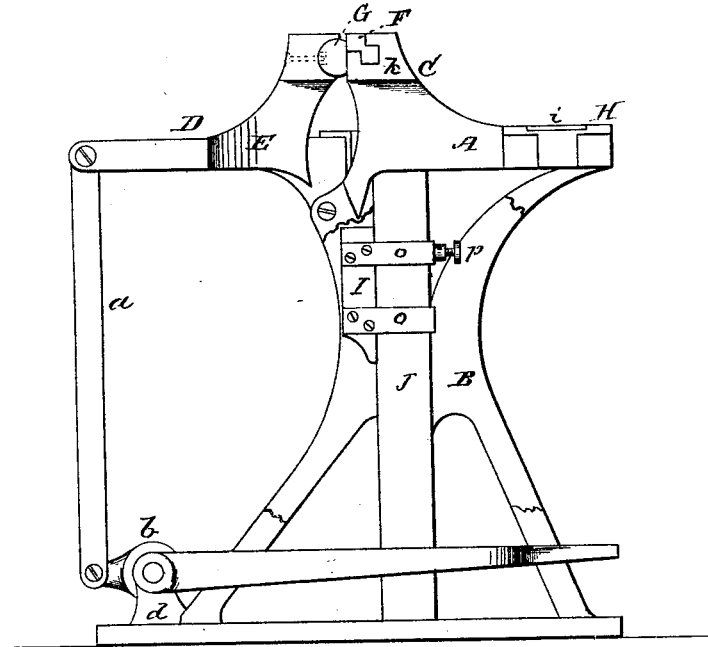


Fig. 2.

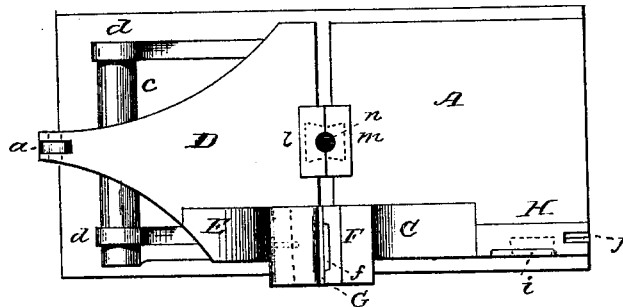


Fig. 3.

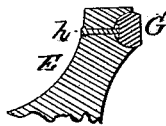


Fig. 4.



Fig. 6.



Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE

JAMES C. TOBIN, OF NORTHAMPTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO OSMORE O. ROBERTS, OF SAME PLACE.

IMPROVEMENT IN BLACKSMITHS' MACHINES.

Specification forming part of Letters Patent No. **188,696**, dated March 20, 1877; application filed January 31, 1877.

To all whom it may concern:

Be it known that I, JAMES C. TOBIN, of Northampton, in the county of Hampshire and State of Massachusetts, have invented a new and valuable Improvement in Blacksmith's Machine; 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 drawings, 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 side elevation of my invention, with the frame or support partly broken away. Fig. 2 is a top-plan view of the same; Fig. 3, a detached view of one of the standards, showing it in section, with one of the jaws connected thereto; Fig. 4, a detached view of said jaw; Fig. 5, a detached view of the reversible jaw; and Fig. 6, a detached view of one of the dies.

This invention has relation to machines used in blacksmithing, and for other purposes to which it may be found adapted; and the object and purpose thereof is to produce a machine simple in construction, effective in operation, and one that will serve the purposes of several blacksmiths' tools used for calking horseshoes, heading bolts, and blacksmithing in general.

My invention therefore consists in the construction, arrangement, and combination of the several parts, as will be hereinafter described, and subsequently pointed out in the claims.

In the accompanying drawings, A represents the table, supported upon legs or a suitable frame-work, B, said table being cast or otherwise formed with a short standard, C. Pivoted to the frame-work B is a table, D, which is also formed with a short standard, E. Connected to the outer end of this table D is a pitman, *a*, the lower end thereof being pivoted to a sleeve, *b*, which is secured over a horizontal shaft, *c*, supported in bearings *d*, said shaft being operated by a foot-lever, *e*, which, through the pitman *a*, brings the standard E to or from standard C, as may be required. The standard C has a peculiar-formed

recess for the reception of a reversible jaw, F, having upon one of its faces an inclined recess, *f*, and to the standard E is secured, within a semicircular recess, a jaw, G, the same having a small vertical groove, *g*, for the reception of one end of a rod, *h*.

It will be noticed that the recess in the standard is sufficiently deep in order that the extremities of the same will reach forward far enough beyond the largest part of the jaw G to prevent said jaw from falling forward. These jaws upon the standards are particularly adapted for horseshoe fitting. The heel ends of the shoe, after being properly heated, are placed between the jaws, and pressure is then exerted upon the foot-lever *e*, bringing the jaw G against the shoe, while the calks are being turned in the usual manner with a hammer, only both are turned in the same heat and with one movement of the machine.

If the calks are required to be sharp, they are turned in the angular recess *f* upon the jaw F.

A die, H, is fitted within a dovetail recess at the side of the stationary table A, said die being used for the purpose of truing the calks, which is accomplished by first being brought to an edge upon the angular face *i* of the die, and afterward trued by hammering the calk-edge downward into a recess, *j*, V shape in form, upon the same die. This die H also takes the place of the ordinary anvil, and can be used for various purposes in place of the tools now used by the blacksmith, and a horseshoe can be entirely completed and finished without the aid of additional tools generally used in the manufacture of horseshoes.

The die or jaw F, as before described, is made reversible, it having a plain face, *k*, so that the jaw may be removed and the plain face used when circumstances require. Also, the die H may be removed and a plain-surface die used in place of it.

It will be noticed that the peculiar shape of the jaw F has an additional advantage to that of being reversible, by holding itself firmly within the recess in the standard C, and is prevented from sliding laterally by a suitable set-screw.

The jaw G, as constructed and connected

to the standard, is allowed to partly rotate to accommodate its bearing surface to the different thickness in the metal articles placed between the jaws.

The tables A D carry suitable dies *l m*, secured within dovetail grooves in the table. These dies have semicircular grooves *n n*, and the object and purpose of the dies are to hold bolts, rods, or other similar articles while being operated upon; and, when used for heading bolts, a gage, I, is employed, which is made to be vertically adjustable to or from the dies *l m* upon an upright bar, J, by bands *o*, passing around the same, and held in position by a set-screw, *p*. Thereby any length of bolt may be headed by moving up the gage to the desired distance from the dies, the lower end of the bolt resting upon the upper face of the gage, allowing a sufficient length of the bolt to project above the face of the dies to form the heads.

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

1. The reversible jaw F, of the form described, and having an angular recess, *f*, and plain face *k*, in combination with the standard C, substantially as and for the purpose described.

2. The improved blacksmith's machine herein described, consisting of the tables D A, with jaws G F and dies *l m* H, and the gage I, as specified.

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

JAMES C. TOBIN.

Witnesses:

OLIVER WALKER,
MARY M. TOBIN.