Munger & Gibson,

Tire Upsetter.

No. 111,136. Patented Jan. 24. 1871.

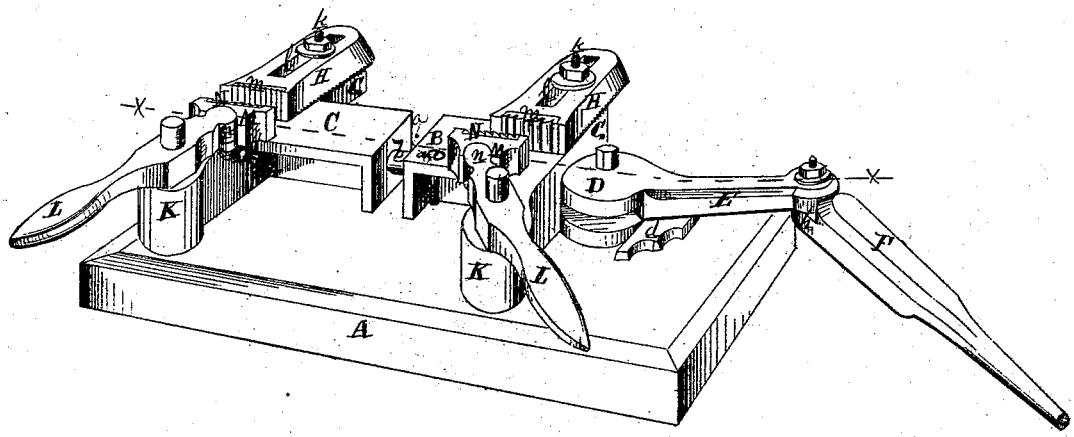


Fig. 1.

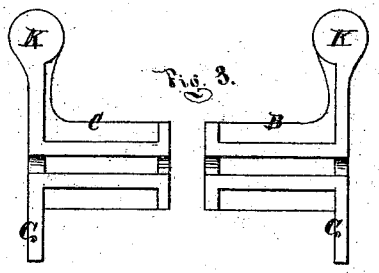


Fig. 3.

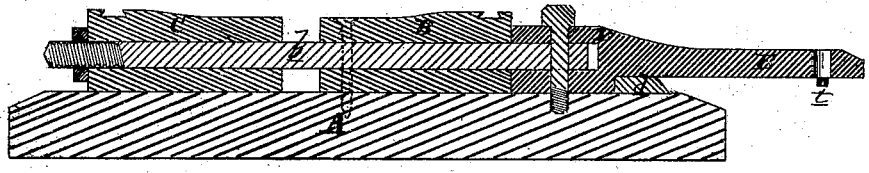


Fig. 2

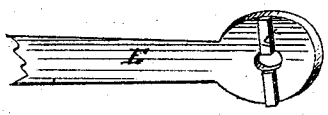
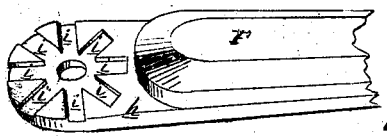


Fig. 4.



ATTEST

M. Stewart

Frederick Ebitz

INVENTOR

M. S. Munger

C. W. Gibson

per Atty

Thos. S. Sprague

United States Patent Office.

MARTIN L. MUNGER AND CORODON D. W. GIBSON, OF GRAND BLANC, MICHIGAN.

Letters Patent No. 111,136, dated January 24, 1871.

IMPROVEMENT IN MACHINES FOR UPSETTING IRON.

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

To whom it may concern:

Be it known that we, MARTIN L. MUNGER and CORODON D. W. GIBSON, of Grand Blanc, in the county of Genesee and State of Michigan, have invented a new and useful Improvement in Machines for Upsetting Iron; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification.

Figure 1 is a perspective view of our machine.

Figure 2 is a vertical sectional view of the adjustable slides on the line *x x* in fig. 1.

Figure 3 is a plan view of the bottom of the rigid and movable bed-plates.

Figure 4 is a view of the operating-lever, showing the method of connecting the same.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved construction of that class of machines employed for upsetting iron, and consists in a novel method of connecting and extending the operating-lever, and in a new and peculiar arrangement and adaptation of its various parts to perform the desired work.

In the drawing—

A represents the top of a block or bench upon which the apparatus operates.

B is a bed-plate secured to the bench by means of bolts *a*, and may have projections or lugs cast upon its under side, which may engage with corresponding recesses in the top of the bench.

C is a sliding bed-plate resting and operating upon the bench, but not secured thereto.

A rod, *b*, passes longitudinally through both these bed-plates, and is secured to the outer end of C by suitable nuts.

The opposite end of this rod is pivoted to the cam D in such a manner that the partial rotation of the cam by means of the lever E will compel the bed-plate C to advance and recede toward and from two rigid bed-plate, B.

A plate, *d*, is secured upon the bench in such a manner that the cam impinges against it when it is desired to compel the bed-plate C to recede from B; reversing the motion, the cam impinges against the end of bed-plate B, and causes the bed-plate C to advance toward B, by this means shortening or shrinking the iron when the latter is confined and held in position, as hereinafter described.

The under side of the lever E is provided with a projection or lug, *t*, at the end where said lever is connected to the extension or prolongation of the same.

The strap *h*, to which is secured the prolongation F, is pivoted to the lever E, and is provided upon its upper face, at the point of junction, with a series of recesses, *i*, corresponding in size with the hereinbefore-mentioned lug upon the under side of the end of the lever E; and, by means of the engagement of said lug or projection with the recesses *i*, any change in the shape of the combined lever may be made to suit the space in which the same is operated, thereby enabling the apparatus to be used in a corner or in a small compass.

The two bed-plates are provided with projections G, whose top faces are serrated. Upon these projections rest the adjustable slides H, whose bottom faces are serrated, and engage with the serrations upon the top faces of the projections.

Bolts *k*, secured to projections G, pass upward through the slots *l*, and, by means of suitable nuts, allow the slides H to be held rigidly in their engagement, as hereinbefore recited, and also of being adjusted to suit the width of the iron to be operated upon.

Dovetailed into the inner ends of these slides H are the serrated stud-plates *m*, to assist in grasping and holding the iron to be shortened or shrunk.

The two bed-plates are also provided upon their opposite sides with other projections, K, to which are pivoted the levers L. To the ends of these levers are secured, by knuckle or other joints, *n*, the plates M, in the inner faces of which are dovetailed serrated steel plates N, which are designed, with the serrated plates *m*, to hold the iron being operated upon.

The adjustability of the plates M upon the levers L, by means of the joints *n*, allows of their grasping and holding various shapes of iron against the plates *m*, while the adjustability of the slides H, as described, allows any desired width of iron to be operated upon.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In iron-upsetting machines, the combination of the levers E and F, when connected and operating substantially as herein set forth.

2. The arrangement of the bed-plates B and C, cam D, levers E, F, and L, slides H, plates M, bolts *a*, rod *b*, plate *d*, bolts *k*, steel plates *m* N, and joints *n*, when combined and operating substantially as and for the purposes shown and described.

MARTIN L. MUNGER.
CORODON D. W. GIBSON.

Witnesses:
C. S. MARVIN,
Mrs. CAROLINE E. MARVIN.