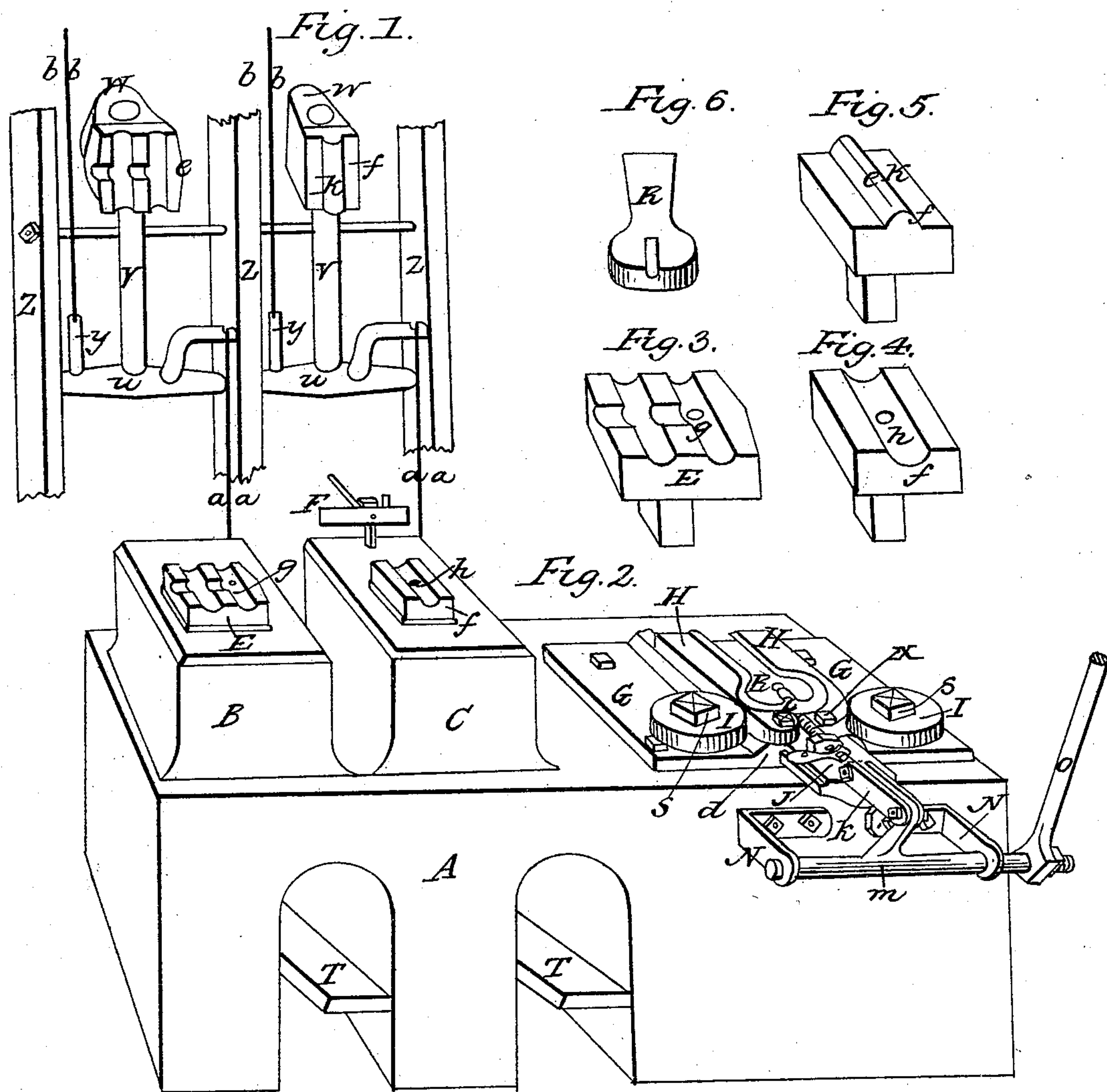


T. MEIKLE.

Machine for Making Plow Clevises.

No. 75,179.

Patented March 3, 1868.



Witnesses:
 B. A. Goff
 Wm C. Harris
 Hm Loehner

Inventor:
 Thomas Meikle.

United States Patent Office.

THOMAS MEIKLE, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 75,179, dated March 3, 1868.

IMPROVEMENT IN MACHINE FOR MAKING PLOUGH-CLEVISES.

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, THOMAS MEIKLE, of the city of Louisville, county of Jefferson, and State of Kentucky, have invented a new and useful Improvement in the Art of Making Plough-Clevises, entitled Thomas Meikle's Plough-Clevis Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the machine, reference being had to the accompanying drawings, and to the letters of reference marked thereon, to wit:

Figures 1 and 2 represent a perspective view of what is called the Oliver trip-hammer.

A is the wooden block on which the machinery rests. T T are the treadle, on which the foot is placed, in order to strike the blow. B B are a cast-iron swage-block placed on the wooden block A, which is cast hollow, and into which the dies E and f are inserted by a projection on the under side of same, as seen in figs. 3 and 4. F is a gauge to hold the iron to its place while the hammer W strikes it. G is a cast-iron plate on which rest all the fixtures necessary for bending the clevises. a are two pieces or ribs running across the plate O, which have a rebate in the inside, in which the slide-plate J slides backwards and forwards. H H are two frames or levers attached to the slide-plate J by two bolts, and as the slide-plate J is moved in forward, so as to clear the rollers I I, they are thrown apart, so as to admit the clevis to be laid into the machine, after which the slide-plate J is drawn back by pressing down the lever O with the hand, which forces the forms H H up between the rollers I I, and hence bends the clevis 2 to the proper shape, (see clevis, marked 2 in fig. 2, which shows how the clevis is formed around the centre-piece R, which is permanently attached to the sliding plate J.) P is a small set-screw for the purpose of being closed up against the back of the clevis, in order to keep it from springing back in the centre under the operation of bending. I I are two stationary rollers, between which the levers or forms H H are drawn back for the purpose of bending the clevis. N N are the stands which receive the rock-shaft m, which connects to the slide-plate J by the connecting-link K, and is moved backwards and forwards by the lever O. Z Z are the two upright pieces to which the hammers W W are attached. U U are the cross-head, which receives the handle of the hammer. a a are a rod connecting by an arm with the cross-head u of the hammer, and running down to the treadles T T, in order to work the hammers W W. b b are a rod running from an arm on the cross-head U up to an imaginary spring at the floor of the house above, but not shown in the drawings, for the purpose of raising the hammers when down. V V are the handle of the hammer. e and f are the dies, which are attached to the face of the hammers W W by projections on the under side, as shown in figs. 3 and 5.

Figures 3, 4, and 5 are perspective views of the dies, showing how they are made, and how they are set into the swage-block and face of the hammers W W.

Figure 6 is a view of the centre-piece R of the slide-plate J, which is attached permanently to the sliding plate J, and around which the clevis is bent.

The above is a clear description of the drawings as referred to; and the above machine is made of iron, except the block A and the treadles T T, and is operated by placing the convex dies e and f in the face of any ordinary trip-hammer, and the concave dies E and f in the swage-block below, and when the hammer W is brought down the upper die fits neatly into the die in the swage-block, except what space is taken up by the thickness of the iron used, which is flat iron, about one inch wide by five-sixteenths in thickness, and is cut off in lengths suitable for the clevises, after which it is heated in the middle and brought out and placed in the die f, and with one stroke of the hammer W the iron is bent to a half circle by laying it lengthwise in the die, and a hole is punched through it at the same time by the punch K in the die, and after which there is a small piece of round iron, about two inches long and one-half inch in diameter, inserted in said hole and riveted fast, after which the clevis is returned to the fire again, and a welding heat is taken on the pin and that part of the clevis required, and after which it is brought out and placed in the left-hand groove of the die E, and is there struck one blow by the die e, in hammer W, which closes the iron on the pin and welds it fast, and rounds up that part of the clevis necessary to be rounded; after which it is placed in the right-hand groove of die E, with the pin downwards through the hole g, and is there struck one blow with the die e, in hammer W, which rounds up perfectly that part of the clevis necessary to be rounded, and is now ready to be bent, and in order to do so it is only necessary to open the levers or forms H H of the bending-machine, so that the clevis can be laid in it,

and after having laid it in, after which it is only necessary to take hold of the lever O with the hand, and press it down, and in doing so the forms H H are drawn up between the rollers I I, and hence bends the clevis 2 to the proper shape, as seen by the clevis 2 in the machine, on fig. 2, and after the clevis is formed it is only necessary to raise the lever O, which throws the forms H H out from between the rollers I I, and permits the clevis to be taken out.

The above is a full description of the operation of the machine. Now, therefore, I do not claim anything as original, or as my improvement in the construction of what is called the Oliver trip-hammer, as described in the drawings, or as used in operating my improvement in the dies, and hence I have not made any model for that part of the machine, as said dies are to be used in the face of any ordinary trip-hammer; but

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

1. The combination of the sliding plate J, having a fixed centre-piece, R, attached thereto, with the compressing-levers or jaws H, rollers I, screw P, and mechanism for operating the sliding plate, substantially as and for the purpose set forth.

2. The swages and blocks constructed as described, for use successively in forming a flat iron bar, so that the clevis may be completed by bending it in a machine fitted for that purpose, substantially in the manner set forth.

THOMAS MEIKLE.

Witnesses:

WM. C. KAISER,
B. H. GOSS.