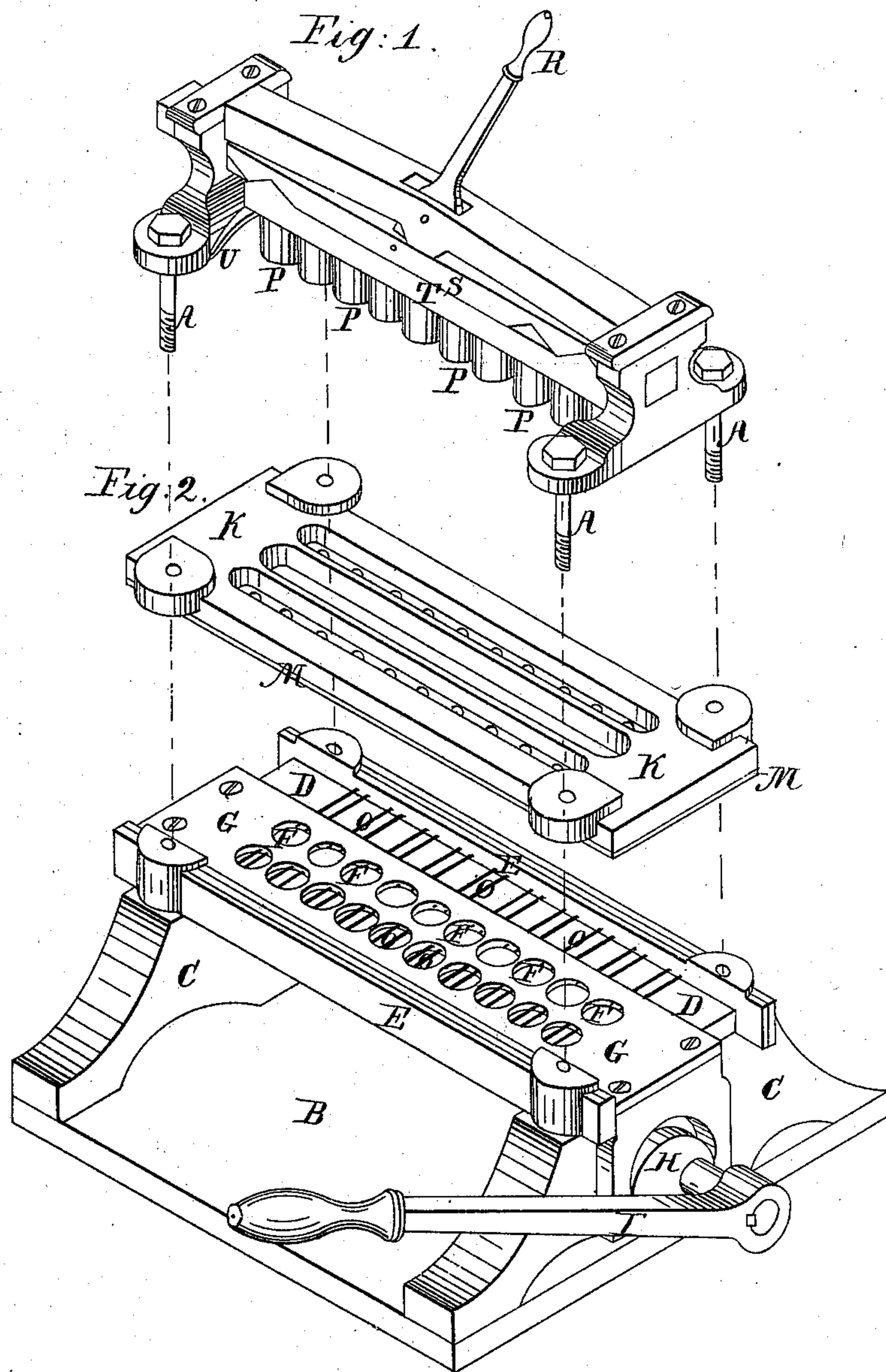


P. L. Higley.

Molding Metal Disks.

N^o 89,866.

Patented May 11, 1869.



Witnesses;
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P. L. HIGLEY, OF CINCINNATI, OHIO.

Letters Patent No. 89,866, dated May 11, 1869.

IMPROVEMENT IN MACHINE FOR MOULDING METAL DISKS, RIVETS, &c.

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, P. L. HIGLEY, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a certain new and useful Improved Machine for Moulding Metal Disks, Rivets, &c.; 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 part of this specification, in which—

Figure 1 represents a perspective view of the devices for discharging the blanks from the mould.

Figure 2 is a perspective view of the top plate of the machine, showing the troughs for pouring the metal.

Figure 3 is a perspective view of the lower part of the machine, the movable mould-plate, and the mode of operating it.

The devices shown in these figures, when united in the direction of the dotted line by the bolts A, form the entire machine.

My invention consists in a machine for moulding metal disks for seals, rivets, and other similar articles.

B represents a bed-piece, to which the side pieces C C are secured.

Upon the side pieces is mounted a bed, D, having raised sides, E E, and provided with a slot extending down the middle, of a length sufficient to embrace all the openings F, and sufficiently wide to allow the castings, when forced from said openings, to fall through.

G is a movable mould-plate, of steel, sliding from side to side upon the bed, and operated by the cam H and lever I.

This mould-plate is perforated with two or more series of holes, of any desired shape.

In the form shown in the drawings, there are two such series of circular holes, so arranged, that when the mould-plate is thrown to one side of the bed, one series shall be over the slot in the bed D, and the other directly under the series of openings in one of the troughs in the plate K.

When the plate G is thrown, by means of the cam, to the other side of the bed D, the series of holes that was over the slot passes under the openings in the other trough of plate K, while the second series of holes, in plate G, comes over the slot, or opening in plate D.

The plate K is provided, on its under side, with a steel plate, M, which forms the bottom of the troughs, and is perforated with holes, through which the melted metal passes into the moulds in plate G.

Plates M and G being in contact, it is obvious that when the latter plate is moved under the former, by means of the cam, the effect is to cut off the burr from the casting, and to leave a smooth surface.

For the purpose of casting seals for freight-cars, or similar purposes, a series of wires, O O O, is shown, extending from the side pieces E through the moulds in the plate G, and of such length, that when the plate G is thrown from side to side, the wires upon the opposite side will be withdrawn entirely from the mould, so as not to interfere with the discharge of the casting; but, as the casting may still adhere to the moulds, by the friction of the material, I have provided a series of punches, P P P, fig. 1, operated by the lever R, and the double-inclined planes S and F.

By moving the lever from side to side the punches are forced through the series of moulds over the slot in plate D, thus discharging the castings from said moulds. Upon releasing the lever, the punches are raised by means of springs, one of which is shown at U, fig. 1.

The operation of this machine, the parts being bolted together, as heretofore described, is as follows:

Plate G being thrown to the left of the machine, so as to be in contact with the side piece E, the melted metal is poured into the left-hand trough in the plate K, and flows through the holes in said trough into the moulds F F. As soon as it is set, by moving the lever I, the plate G moves to the other side of the bed D, the shearing-action of the plates G and M cutting off the burr on the casting, while the movement of the plate G carries the castings themselves directly over the slot in the plate D. By a movement of the lever R, the castings are discharged from the moulds, while the right-hand series of moulds, being now directly under the right-hand trough in the plate K, is ready for another casting.

It is obvious that the form of the moulds may vary; that the wires O O may be dispensed with, so that the moulds may be used for the casting of disks, or rivets, or any other forms of the same general character.

Having thus described my invention,

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

1. The above-described machine for moulding metal disks, substantially as shown and described.
2. The movable plate G, perforated as described.
3. The double series of wires O O, attached to the stationary plate at one end, penetrating the moulds, serving as guides to the mould-plate, and acting as cores for the holes, or slots in the castings, substantially as shown.

P. L. HIGLEY.

Witnesses:

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