

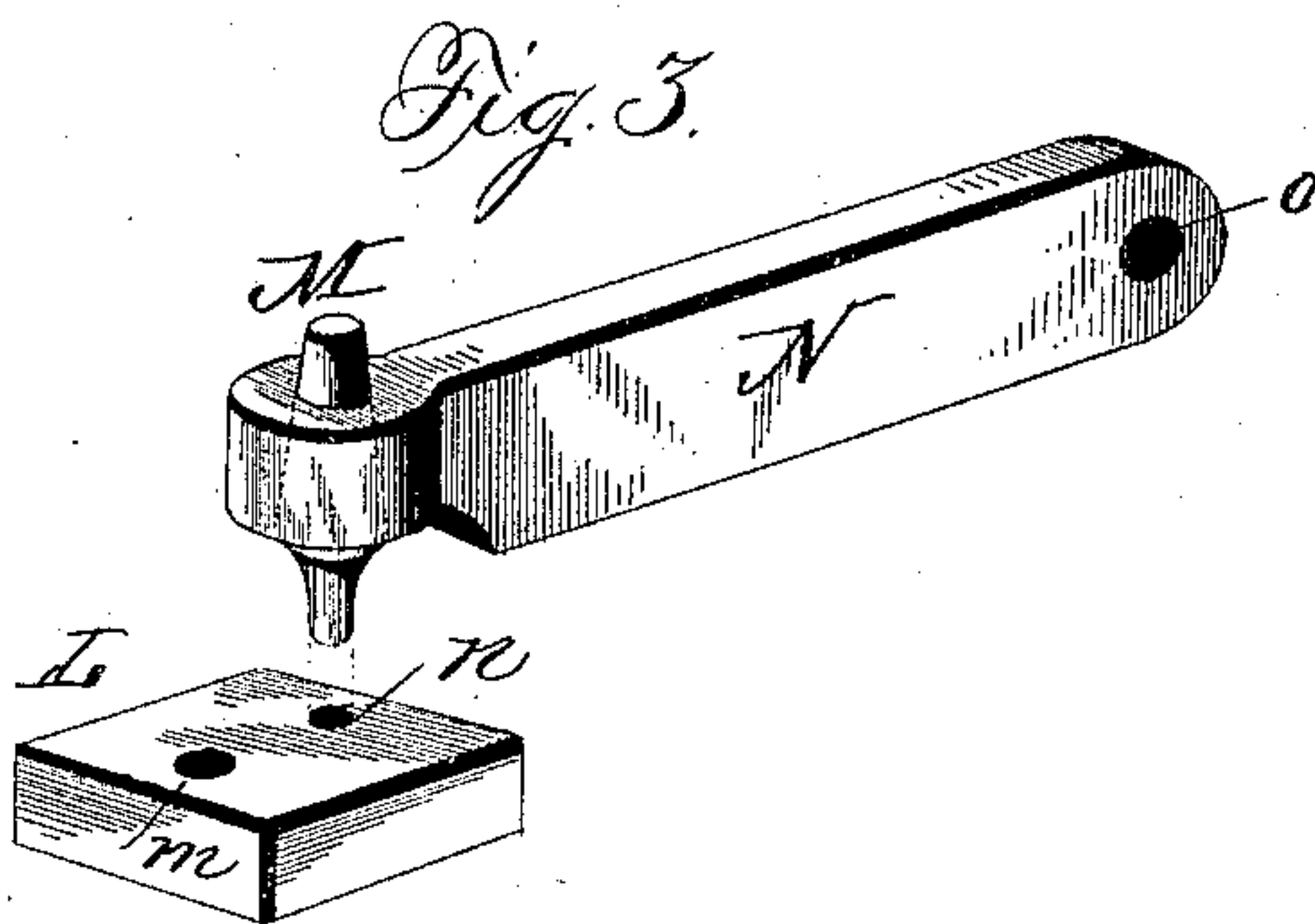
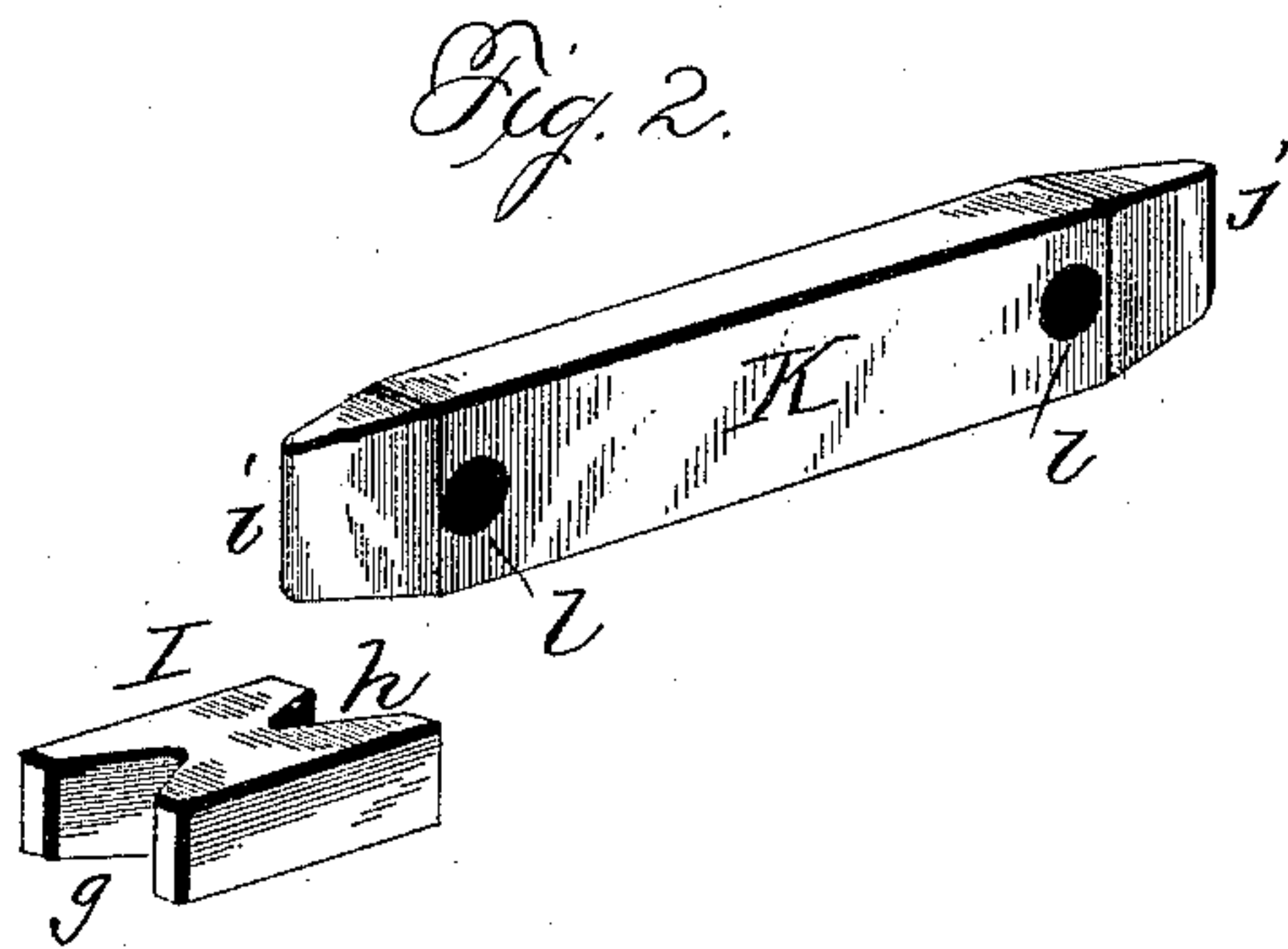
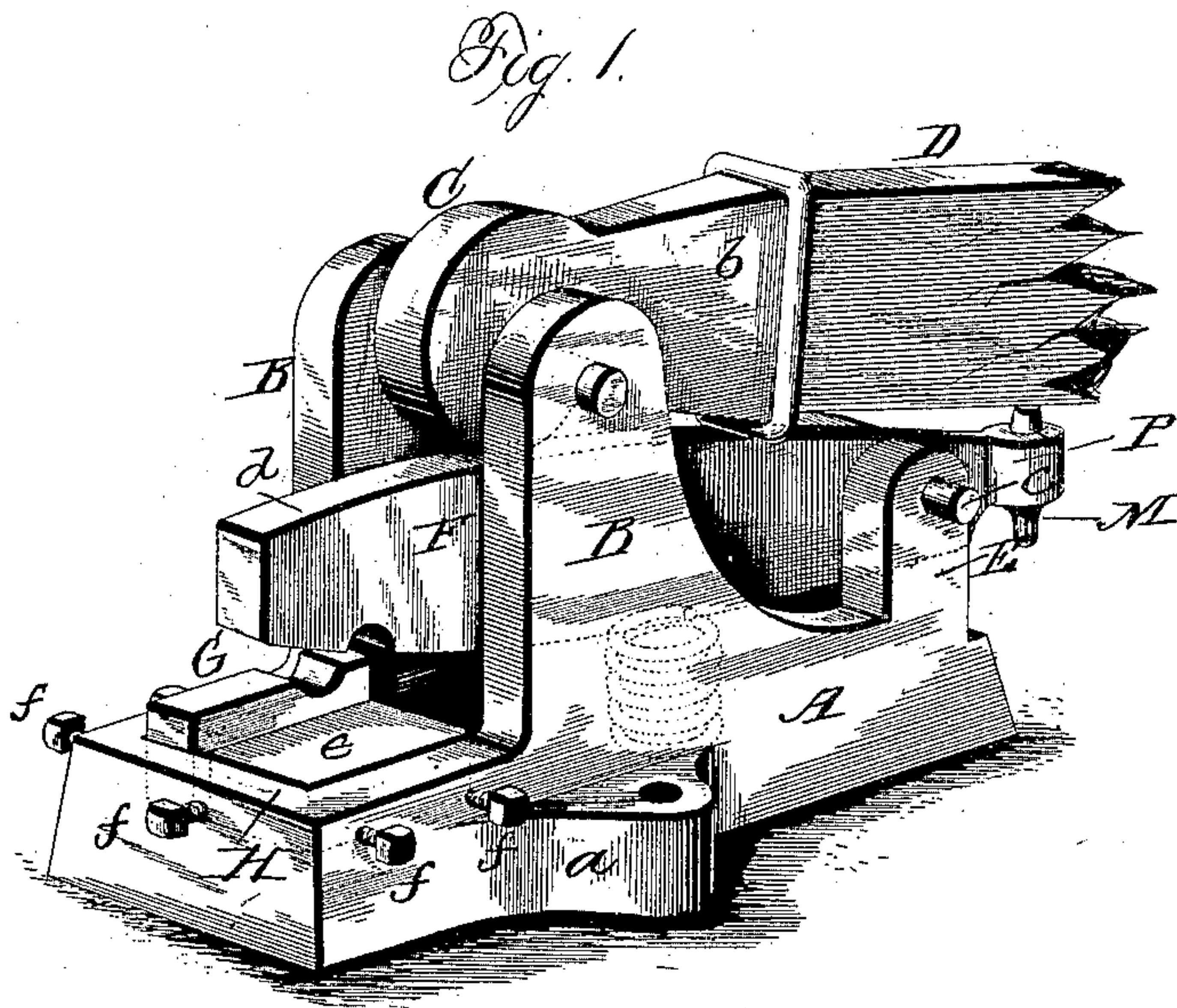
(No Model.)

J. SCHOFIELD.

COMBINED PUNCH, SHEARS, AND SAW GUMMER.

No. 401,594.

Patented Apr. 16, 1889.



Witnesses,
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UNITED STATES PATENT OFFICE.

JAMES SCHOFIELD, OF PETOSKEY, MICHIGAN.

COMBINED PUNCH, SHEARS, AND SAW-GUMMER.

SPECIFICATION forming part of Letters Patent No. 401,594, dated April 16, 1889.

Application filed September 17, 1888. Serial No. 285,563. (No model.)

To all whom it may concern:

Be it known that I, JAMES SCHOFIELD, a citizen of the United States, residing at Petoskey, in the county of Emmet and State of Michigan, have invented certain new and useful Improvements in Combined Punch, Shears, and Saw-Gummer; and I do hereby declare that the following is a full, clear, and exact description 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 drawings is a perspective view of my invention, showing it adapted for cutting off round and flat bar-iron; Fig. 2, a similar view of the devices for attaching to the machine when used for gumming saws, and Fig. 3 a perspective view of the devices to be used in the machine for punching metal.

The object of the present invention is to provide a simple, practical, and easily-operating machine which can be used as a shears for cutting round and flat bar-iron, for gumming saws, and for punching metals, the several devices as they are required for use being connected to one and the same frame, which is adapted to receive them, and are quickly and readily removed and replaced by others adapted to do a certain class of work.

The invention consists in the general construction of the machine and its attachments, substantially as shown in the drawings and hereinafter described and claimed.

In the accompanying drawings, A represents the base of the frame cast with laterally-projecting ears *a*, having holes therein to attach said base to a suitable support by screws or other fastenings, as required. The base A is also cast with standards B, to which is pivoted the cam-lever C, cast with a socket, *b*, to receive a suitable handle, D. In the rear of the standards B are short standards E, to which are detachably pivoted the several tools as they are required for use. In Fig. 1 is shown the shear-blade F, pivoted to said standards by the pin *c*, which is removable when it is desired to detach said blade. This blade in the position as shown is especially adapted to cut off round bar-iron, and when flat bar-iron is to be operated upon the blade F is re-

moved and reversed, the opposite edge thereof, as shown at *d*, being used. The stationary blade of the shears is shown at G, and is held firmly in position by means of the block *e* and set-screws *f*.

The base A and the standards B E constitute the frame of the machine, the front part of the base being cast with a seat, H, to receive the stationary parts of the several tools.

The saw-gummer consists of the die I, having two bifurcations, *g h*, of different sizes, to adapt it to the gage of tooth required, and is held in the seat H by means of the set-screws and block, and may be reversed when required to bring either size of the bifurcation in use. The punch K, which operates with the die I, has its ends *i j* in size and shape to correspond with the bifurcations *h*, and has holes *l* near each end for reversibly attaching it to the standards E by means of the pivot-pin *c*.

The punch for punching holes is shown in Fig. 3, and consists of the anvil or block L, having a series of different-sized holes, as shown at *m n*, which may be of any number, and the block adjusted in the frame H so as to bring any one of the number of holes in position to be directly under the punch.

The punch, as shown at M, may be of various sizes to correspond with the sizes of the holes in the block L, and are detachably connected to the arm N, having at its rear end a hole, *o*, for attaching it to the standards E. The shanks of these punches are made tapering and are inserted in the arm N, as shown in Fig. 3. The punch K of the saw-gumming tool will cut at either end and at either the top or bottom, thereby presenting four cutting sides to the two ends of the punch.

When the machine is adapted to cut flat bar-iron, the blade G is reversed to bring the flat edge up, and the blade F is also reversed, as previously stated.

The shear-blade F has a rear extension to form an arm, P, which is similar in construction to the arm N so far as it is adapted to receive the punch M, thereby dispensing with the separate arm N, which in some cases may be advantageous, as the object of the invention is to provide a simple and inexpensive

machine that will do the required work as expeditiously as possible.

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

1. The combination, with a set of reversible and detachable tools, of a frame to which the tools may be interchangeably connected, consisting of the base A, cast with standards B
10 E, and seat H, and ears *a*, and the cam-lever C, pivoted to the standards B, substantially as and for the purpose set forth.

2. The combination, with the frame constructed substantially as described, and provided with a cam-lever, of the reversible blade 15 F, detachably connected to the frame, substantially as and for the purpose set forth.

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

JAMES SCHOFIELD.

Witnesses:

P. B. WACHTEL,
E. C. BARNUM.