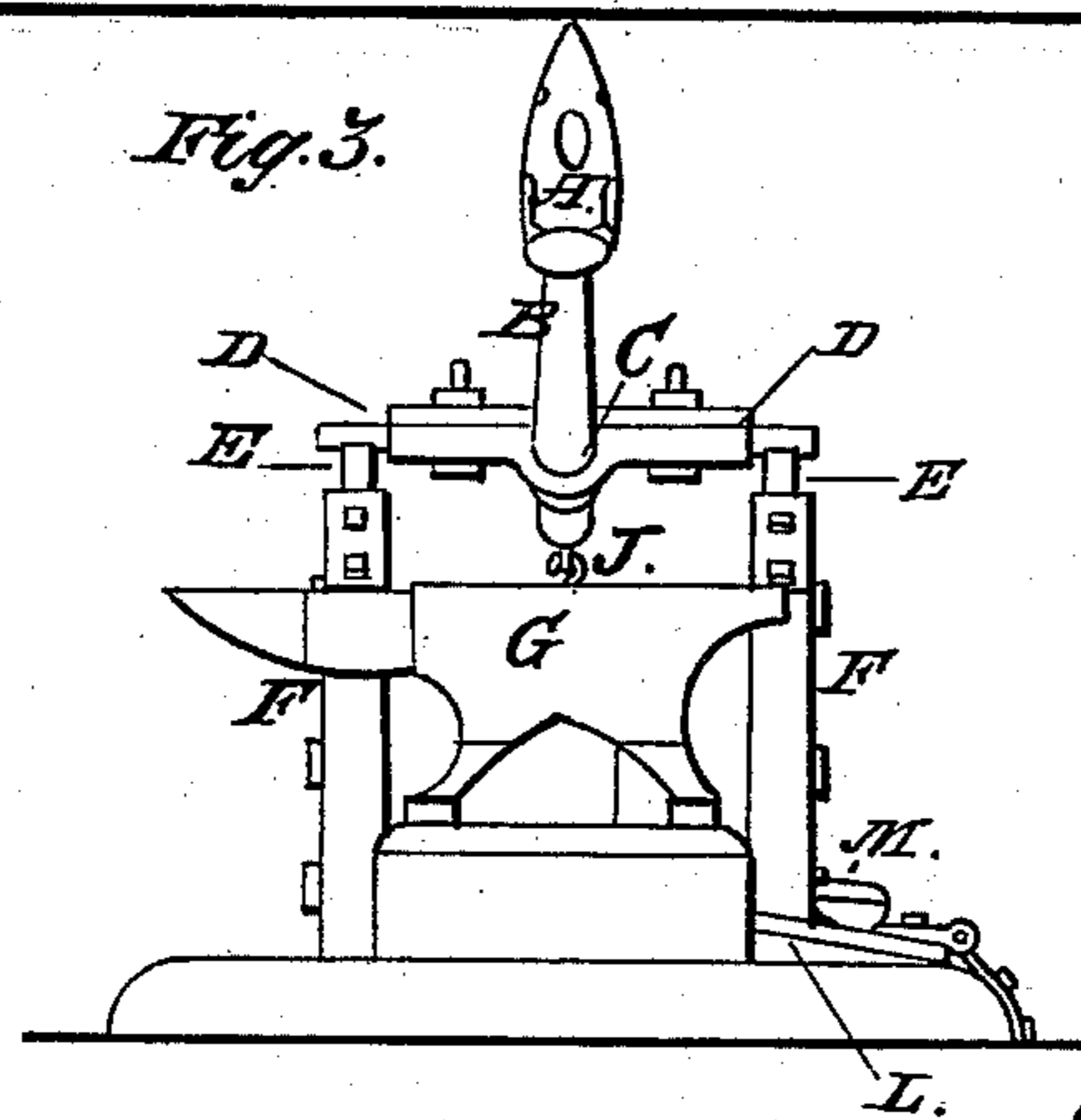
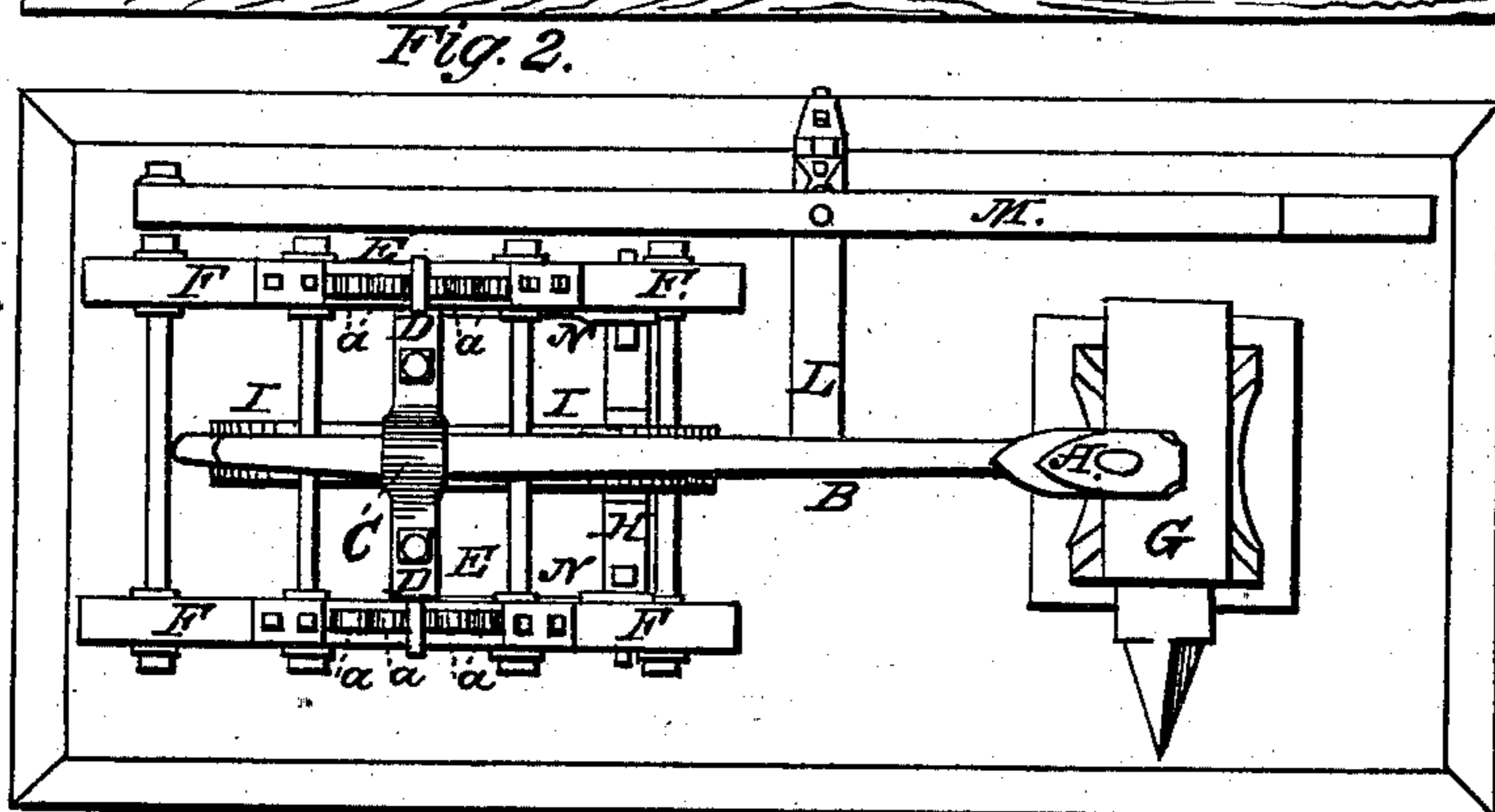
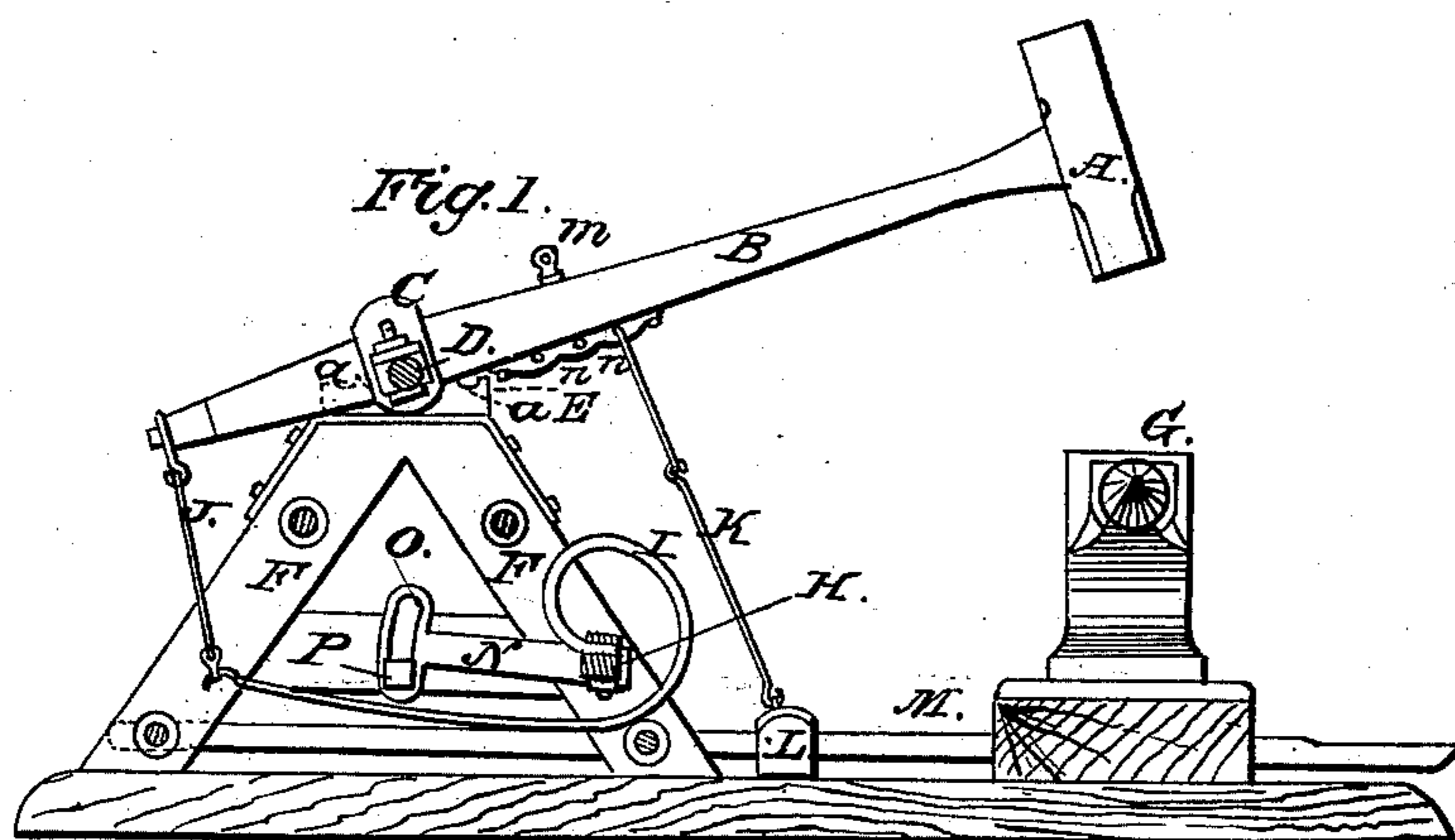


PETERSON & JONES.

Oliver.

No. 78,825.

Patented June 9, 1868.



Witnesses:
Jno L Burne
Geo. H. Strong

Inventors;
Nelson Peterson
and
G. W. Jones
By their Atty;
Dewey Ho

United States Patent Office.

NELSON PETERSON AND GEORGE W. JONES, OF ANTIOCH, CALIFORNIA.

Letters Patent No. 78,825, dated June 9, 1868.

IMPROVED FORGING-APPARATUS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, NELSON PETERSON and GEORGE W. JONES, of Antioch, county of Contra Costa, State of California, have invented a new and useful Spring-Hammer for Blacksmiths; and we do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention without further invention or experiment.

The nature of our invention is the construction of a spring-hammer for smiths, and it has for its object the employment of a spring, either flat or spiral, by which the hammer is raised from the anvil, while, by a treadle conveniently situated, the smith can bring the hammer down with any required degree of force.

It also consists in so suspending or mounting the axis, on which it moves, that the hammer can be easily turned to any portion of the anvil. By turning the hammer over, the toe or point may be used when necessary.

To more fully explain our invention, reference is had to the accompanying drawings, of which—

Figure 1 is a side sectional elevation, taken through *x x*, fig. 2.

Figure 2 is a plan.

Figure 3 is an end view.

Similar letters of reference in each of the figures indicate like parts.

A is the head of the hammer, having the handle, B. This handle is encircled by a band at C, or supported by an equivalent device on the axle, D, which has its bearings on the pillow-blocks or boxes, E. These boxes rest on the strong frame, F, and are formed with a number of recesses, *a a*, for the axes, so that by allowing the axle to stand at an angle, the hammer can be made to strike any required part of the anvil, shown at G.

Between the frames F a strong wood or metal bar, H, extends, having a slot in the centre which holds firmly one end of the curved spring I. This spring is of steel, and sufficiently stiff to raise and retain the hammer clear of the anvil, whatever may be its weight.

The connection between the spring and the end of the hammer-handle is made by a link or connecting-rod, J.

In front of this axis D, and below the handle, the connecting-link or chain, K, has one end fastened, while the other is fastened to the lever, L. This lever is hinged, as shown, and has the treadle M crossing it, and reaching to a point where it will be convenient for the foot of the smith, by which it is operated.

A series of holes may be arranged on the handle, so that the link K may be attached at a greater or less distance, and vary the force of the blow.

The link J is attached to the end of the hammer by a swivel or movable band, so that, if desired, the hammer may be turned over, and the point used. To do this, the link K must be disconnected from the handle, and, after turning, attached to the eye, *m*.

An arm or lever, N, extends back from the bar H, at each side, and has a slot, O, at the end, through which a screw, P, passes, by which it can be secured at any point. By moving this arm up and down, the bar H will be turned slightly, and the tension of the spring is increased or diminished.

Any size of hammer may be used by increasing the power of the spring I, and the smith can easily operate it with his foot, thus dispensing with a helper.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The bar H, with its slotted lever N, screw P, and spring I, in combination with the link J and handle B, substantially as described.

2. The bearings E, having the recesses *a a a* for supporting the axle D, so as to allow the hammer to be used on any part of the anvil, substantially as described.

In witness whereof, we have hereunto set our hands and seals.

NELSON PETERSON. [L. s.]
GEORGE W. JONES. [L. s.]

Witnesses:

J. L. BOONE,
C. W. M. SMITH.