

SCOTT & CLARRIDGE.

Power Hammer.

No. 68,797.

Patented Sept. 10, 1867.

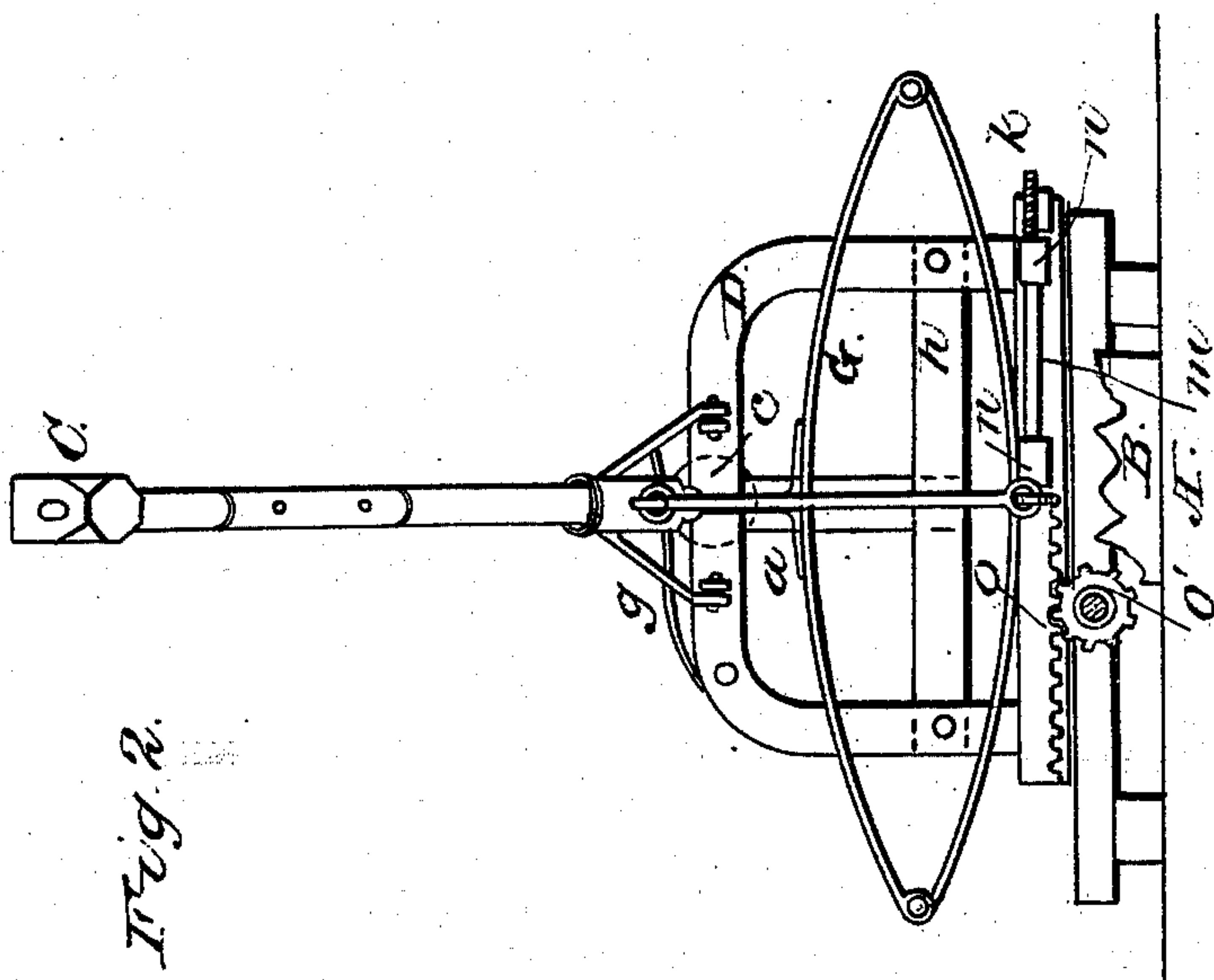


Fig. 2.

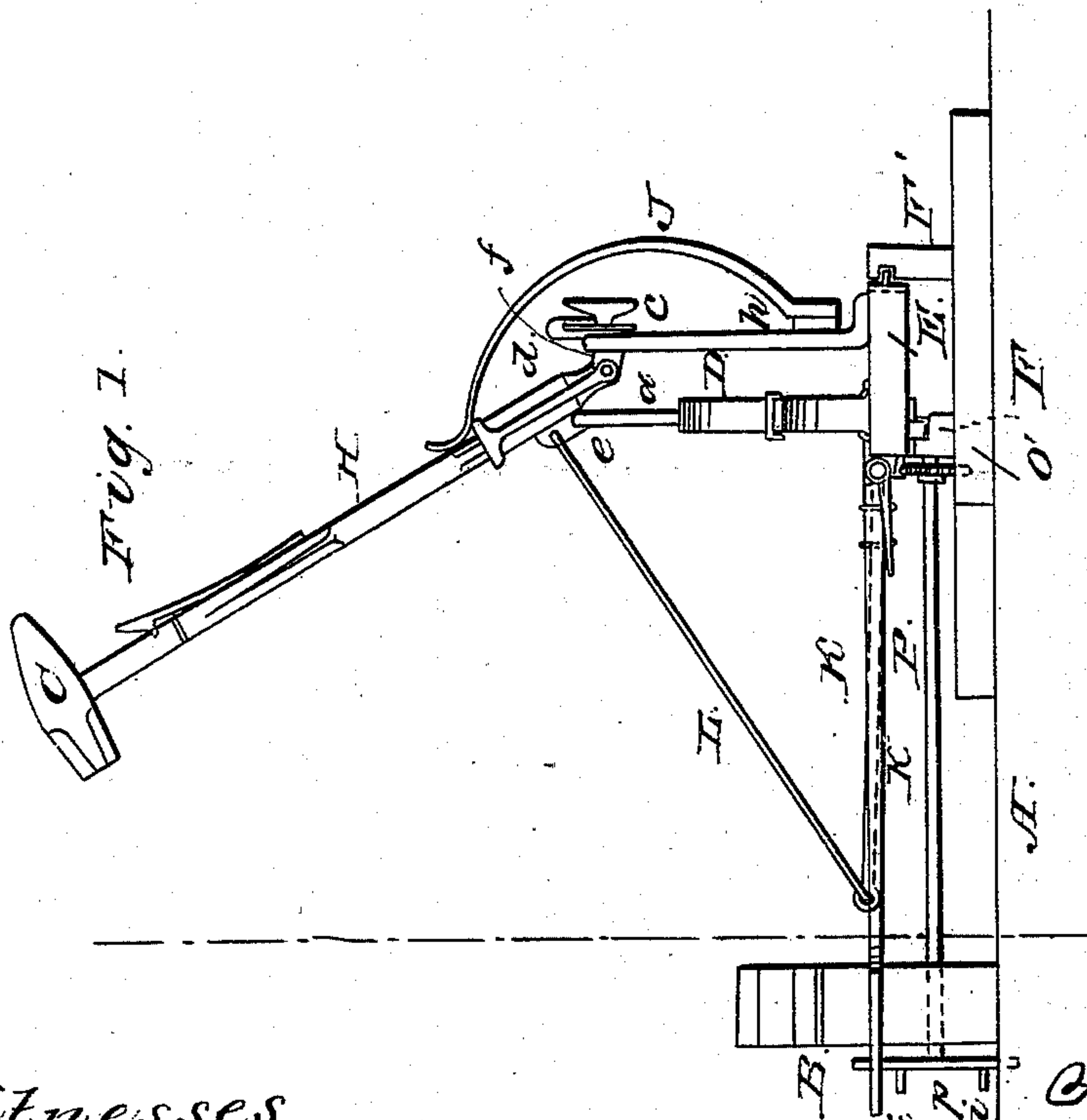


Fig. 1.

Witnesses
Thos Insche
J. A. Service

Inventors
Thos Scott
John Clarridge
Per Munn & Co
Attorneys

United States Patent Office.

THOMAS SCOTT, OF MADISON MILLS, AND JOHN CLARRIDGE, OF PANCOAST-BURG, OHIO.

Letters Patent No. 68,797, dated September 10, 1867.

IMPROVED POWER-HAMMER.

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, THOMAS SCOTT, of Madison Mills, and JOHN CLARRIDGE, of Pancoastburg, both in the county of Fayette, and State of Ohio, have invented a new and useful improvement in Foot Trip-Hammers; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention consists in an arrangement whereby a trip-hammer is operated by the foot with the aid of springs and a rack and pinion, by which the hammer is made to traverse the anvil, and also in the device for reversing the hammer.

Figure 1 is a side view of the whole arrangement.

Figure 2 is a front view.

Similar letters of reference indicate like parts.

A is the platform or base, to which the anvil and other parts of the apparatus are attached. B is the anvil. C represents the hammer. The hammer-handle is attached to an arch marked D, which is attached to a sliding carriage, E. This carriage works in grooved timbers, (which are rigidly attached to the platform,) marked F F'. G is an elliptic spring, which is fastened to the carriage by a bolt, or in any other suitable manner. *a* is a stand, which is rigidly attached to the top of the spring G. D is a sleeve on the end of the hammer-handle H. On the lower side of this sleeve there is an ear, *e*, to which the stand *a* is attached by a pin, or in any manner which will be sufficiently substantial and form a joint thereby. Passing through the arch D there is a clevis connection marked *f*, to which the extreme end of the hammer-handle is attached. On the opposite side of the arch there is a disk or collar on *f*, marked *c*, which has notches in its periphery, and attached to the arch there is a spring, *g*, which has on its under side a little ledge which drops into the notches on the disk and thereby holds the clevis *f* in place. The hammer-handle turns in the sleeve *d*, and the hammer is reversed by raising the spring *g* from the disk C and turning the handle half way round, when the spring *g* drops into another notch and holds the clevis connection, and consequently the hammer, in the desired position. J is a spring, which is attached to a cross-bar, *h*, on the arch D. As the hammer is thrown up by the force of the elliptic spring G, the handle strikes the end of this spring J, expending thereon the force of the momentum of the hammer. The spring recoiling therefrom starts the hammer back in its downward movement with increased force. The blow of the hammer on the anvil is produced by the action of the foot upon the lever-treadle K. This lever is hinged to the carriage E, as seen in the drawing. It is formed of two levers, in fact, K and K', in order to operate upon the hammer-handle so that the hammer will strike in about the middle of the anvil. For this purpose the lever is double, one portion being the treadle K, and the other, K', being attached to the hammer-handle by the rod L, as seen in the drawing. This double lever is secured to the carriage by the portion of it which is bent at right angles with the lever, and which is seen at *m* attached to the carriage by eyes *n n*. In order that the hammer may be made to strike upon any part of the anvil, there is a rack attached to the front part of the carriage E, seen in fig. 2, marked O. P is a shaft, upon the end of which is a pinion, O'. The shaft is supported at its outer end by the anvil-block and by one of the stationary carriage-ways F at the other. Upon the outer end is a disk-wheel, *r*, which has pins on its face, *i*, by which the shaft is revolved, by the hand or by the foot, while the hammer is in operation. It will thus be seen that the hammer may be made to strike the iron upon any part of the anvil, and that it can be readily reversed, so that the *pene* of the hammer can be used when desired.

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

1. The combination, substantially as shown and described, of the clevis *f*, disk *c*, spring *g*, and sleeve *d*, whereby the hammer may be reversed, substantially in the manner set forth.
2. The arrangement of the several devices for producing the downward and upward stroke and the lateral movement, substantially as herein shown and described.

THOMAS SCOTT,
JOHN CLARRIDGE.

Witnesses:

CHAUNCEY SCOTT,
HUGH P. SMITH.