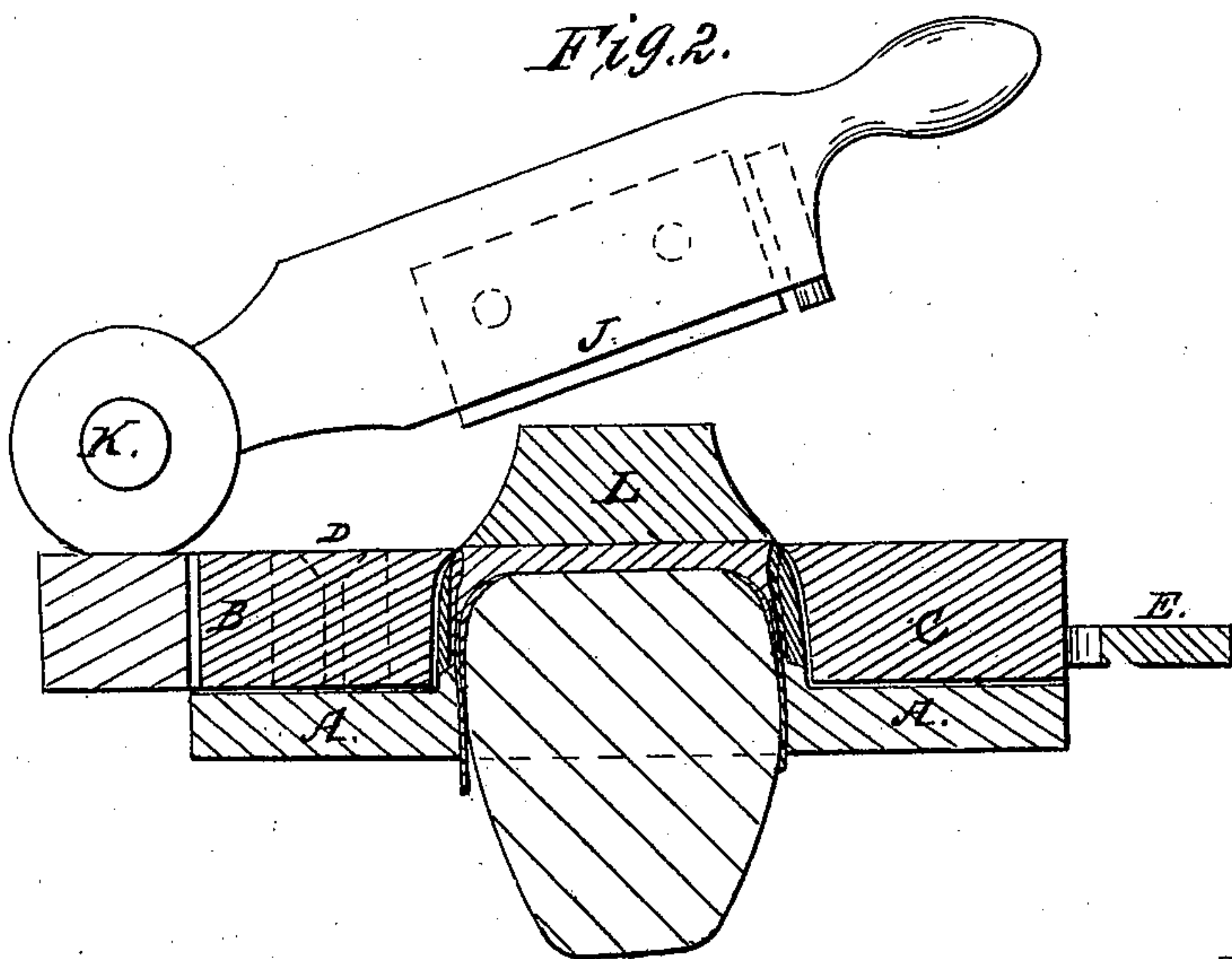
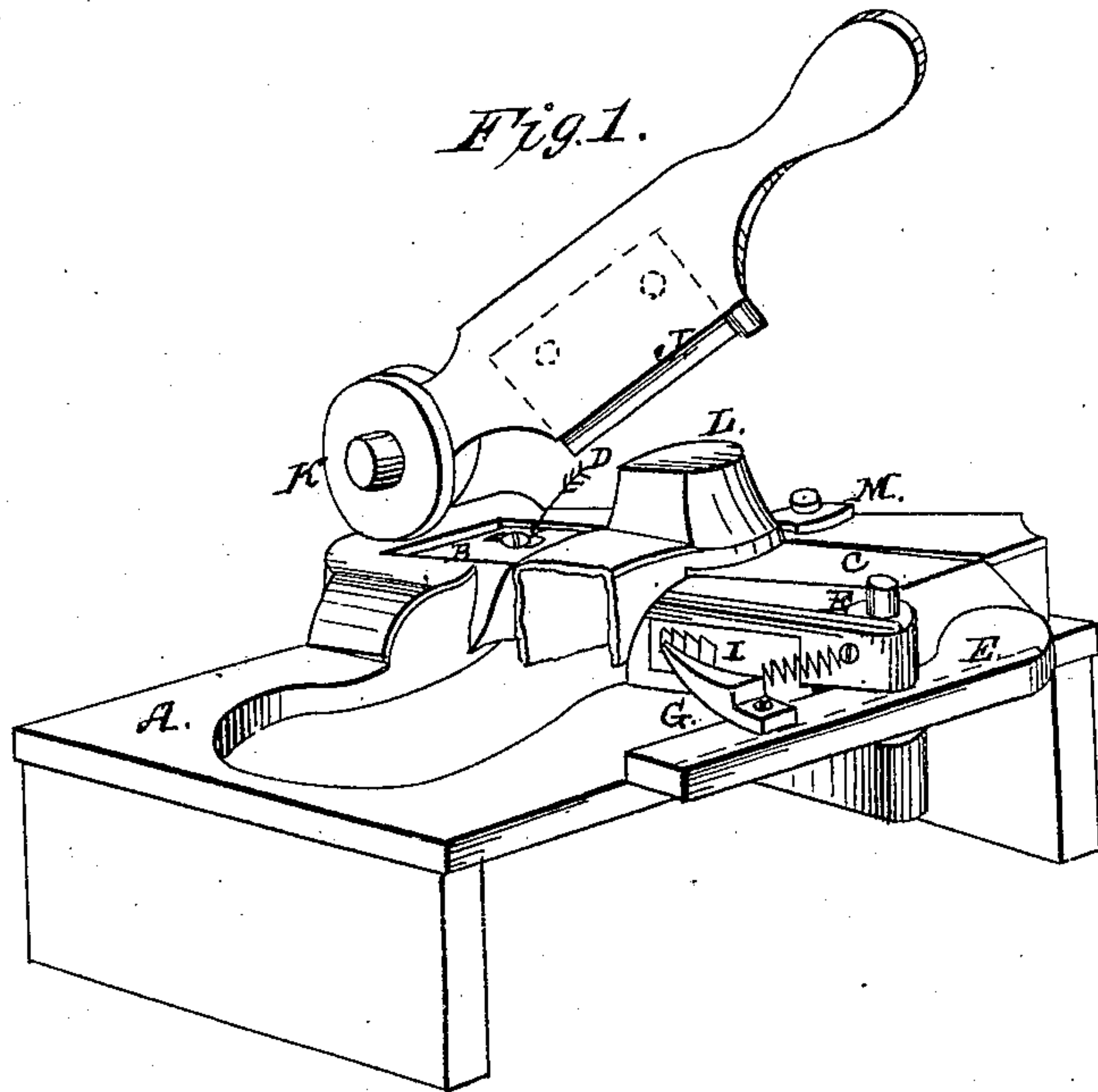


C. H. Helms,
Heel Machine,
No 52,997, Patented Mar. 6, 1866



Witnesses:

C. L. Barrett

Charles Buckingham

Inventor:

C. H. Helms

UNITED STATES PATENT OFFICE.

CHARLES H. HELMS, OF POUGHKEEPSIE, NEW YORK.

IMPROVED HEEL-BREASTING MACHINE.

Specification forming part of Letters Patent No. 52,997, dated March 6, 1866.

To all whom it may concern:

Be it known that I, CHARLES H. HELMS, of Poughkeepsie, Dutchess county, State of New York, have invented certain new and useful Improvements in Heel-Breasting Machinery; and I do hereby declare that the following is a full description of the same.

The object of my invention is to cut or square the front side of the heel of a boot or shoe, or what is technically called "breasting" the heel; and the nature of my invention consists, first, in the combination of two adjustable jaws or clamps for holding the shoe while being cut; second, the combination of a straight-edge cutter with the adjustable jaws or clamps for the purpose of cutting the heel; third, the combination, with the adjustable jaws, of an adjustable guide-plate, to regulate the depth or length of the heel of the boot or shoe; fourth, the combination of a lever-rack and pawl with the adjustable jaws, for the purpose of operating the same, to hold the heel of the boot or shoe firmly in place while under the action of the cutter; but to describe my invention more particularly I will refer to the accompanying drawings, forming a part of this specification, the same letters of reference wherever they occur referring to like parts.

Figure 1 is a perspective view of the machine, showing the heel of a shoe adjusted between the jaws. Fig. 2 is a transverse-cut section of the machine, showing the heel of a shoe as held between the jaws.

Letter A is the frame of the machine, made of metal or any other suitable material. In the upper surface of it is arranged, in suitable grooves or guideways, adjustable jaws or clamps B and C. The jaw B is held in its place by a set-screw, D, so that whenever the size of the heel is properly gaged it is then screwed down to the frame as a solid fixture for the time being, while the jaw C is left adjustable and held up to its work by means of a binding-lever, E, or other suitable mechanism, to be operated by a foot-lever or other application of power. This lever is secured to the frame by a center pin, F, so as to admit

of sufficient motion in it to allow of a drawing-back motion in the jaw C, to adjust the heel of the shoe between the jaws and at the same time have its outer end long enough to give a powerful leverage to bind the shoe firmly in the machine.

For the purpose of holding the jaws up to their work while the heel is being cut, a pawl, G, is attached to the outer end of the lever, which, by means of a spring, H, engages in a rack, I, secured to the frame of the machine, and thereby holds the jaws firmly upon the heel until it has been cut.

Letter J is a straight-edge cutter, secured by means of a center pin or joint, K, to the frame of the machine in such a position as to cut across the face of the heel in its down-stroke.

Letter L is the heel of a shoe (having a block in it to represent the last on which the shoe is made) as adjusted between the jaws and held while being cut; and M is a gage-plate secured to the upper surface of the frame, just back of the heel, and made adjustable by means of a set-screw, for the purpose of regulating the length of the heel.

Having now described my invention, I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States—

1. The combination of the two adjustable jaws B and C as a means of holding the heel of a boot or shoe while being cut or breasted, as hereinbefore set forth.

2. The straight-edge cutter, in combination with the two adjustable jaws B and C, for the purposes hereinbefore set forth.

3. The gage-plate M, in combination with the two adjustable jaws B and C, for the purposes hereinbefore set forth.

4. The lever E and pawl and rack, substantially as and for the purposes hereinbefore set forth, in combination with the adjustable jaws B and C, for the purposes described.

C. H. HELMS.

Witnesses:

O. L. BARRITT,

CHARLES BUCKINGHAM, Jr.