

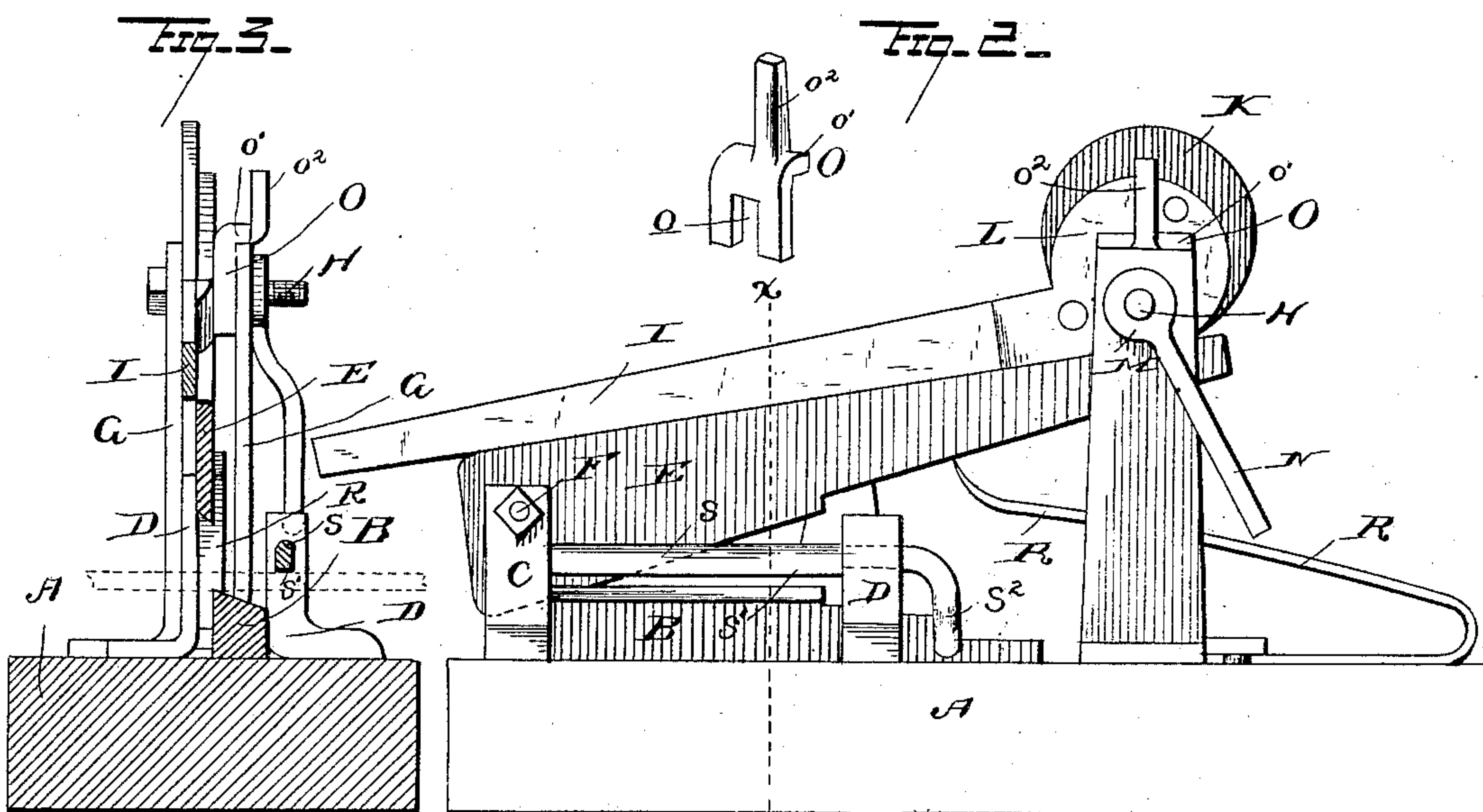
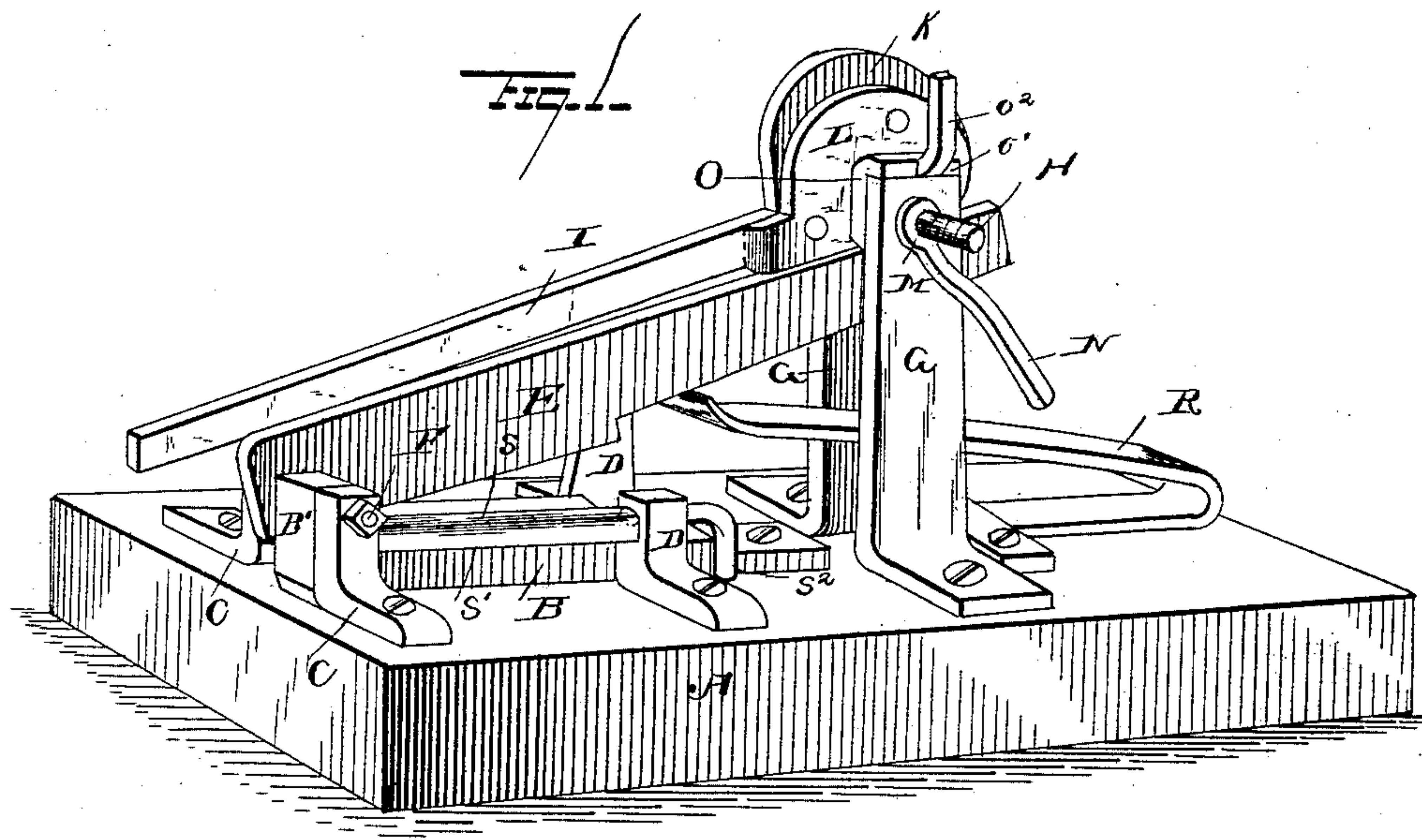
(No Model.)

A. GARGRAVE.

BAR CUTTER.

No. 348,731.

Patented Sept. 7, 1886.



Witnesses

Wm. T. Gill

J. W. Garner

Inventor

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By his Attorneys

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The plate or bar to be cut is fed between the jaws B and E from the side opposite the guard S, and the latter is turned, so as to cause its cam to bear upon the upper side of the said bar or plate, and thus prevent it from rising when the jaw E is lowered, thus maintaining the said bar or plate in a line exactly at right angles to the path of the jaw E. When the large cam bears on the free end of the movable jaw E, the said jaw is moved farther in its downward course, but the leverage is decreased and the power of the jaw correspondingly lessened. The machine, when thus arranged, is adapted for cutting plates, but is unable to cut bars of considerable thickness. When it is desired to cut such bars, the lever is shifted laterally, so as to cause the large cam to disengage the movable jaw and the small cam to bear upon the same, thus greatly increasing the leverage and enabling the machine to cut bars of considerable thickness. It will be noted that the fulcrum of the movable jaw is at a considerable distance above the cutting-edge of the immovable jaw. The object of this construction is to cause the movable jaw to thrust forwardly on the bar or plate, and simultaneously with the downward movement of the said jaw, thus preventing the bar or plate from working toward the fulcrumed end of the movable jaw, and insuring a clean cut of the bar or plate.

Having thus described my invention, I claim—

1. The combination, in a bar-cutter, of the movable jaw and the laterally-movable lever having the eccentric cams of different sizes, whereby either of the said cams may be caused to bear upon and operate the movable jaw, substantially as described. 35

2. The combination, with a bar-cutter, of the rocking guard S, substantially as described. 40

3. The combination, in a bar-cutter, of the movable spring-actuated jaw, the laterally-movable lever having the cam of different sizes, and means for securing the said lever at any desired lateral adjustment, substantially as described. 45

4. The combination, in a bar-cutter, of the movable spring-actuated jaw, the laterally-movable lever having the cams of different sizes, and the block O, adapted to bear on either side of the said lever, to secure it at either lateral adjustment, substantially as described. 50 55

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

AMOS GARGRAVE.

Witnesses:

T. M. RANDALL,
ELIAS SHAW.

UNITED STATES PATENT OFFICE.

AMOS GARGRAVE, OF YORKVILLE, ILLINOIS.

BAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 348,731, dated September 7, 1886.

Application filed June 14, 1886. Serial No. 205,173. (No model.)

To all whom it may concern:

Be it known that I, AMOS GARGRAVE, a citizen of the United States, residing at Yorkville, in the county of Kendall and State of Illinois, have invented a new and useful Improvement in Bar-Cutters, of which the following is a specification.

My invention relates to an improvement in bar-cutters; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a bar-cutter embodying my improvements. Fig. 2 is an elevation of the same. Fig. 3 is vertical transverse sectional view taken on the line *x x* of Fig. 2.

A represents a block or support, upon which is secured an immovable horizontal jaw, B, the cutting-edge of which is beveled or inclined, and the outer end of the said bar is upturned at right angles, as at B'.

C represents a pair of right-angled brackets, which are arranged on opposite sides of the upturned end of the jaw B, the vertical arm of one of the said brackets bearing directly against one side of the said upturned end of the jaw, and the vertical arm of the other bracket being arranged at a slight distance from the opposite side of the upturned end of the jaw. These brackets are secured to the base-block by means of bolts or screws, which pass through their horizontal arms and enter the said base-block.

D represents a pair of similar brackets, which are arranged in line with the brackets C, one of the said brackets D bearing directly against one side of the jaw B, near the inner end thereof, and the other bracket D being arranged at a slight distance from the opposite side of the jaw.

E represents the upper or movable jaw, the outer end of which is pivoted between one side of the upturned end of the jaw B and the opposing side of one of the brackets C, the said jaw E being pivoted upon the transverse bolt F, which passes through horizontal aligned openings made in the upper end of the brackets C and the upturned end B' of the jaw. The lower or cutting edge of the jaw E is inclined upwardly from the outer or pivoted end of the said jaw toward the inner or free end thereof.

The free end of the jaw E works between a pair of vertical standards, G, which are bolted or screwed with the base A at the inner end of the jaw B. Through the upper ends of the standards G passes a transverse bolt, H, on which is journaled a lever, I, the inner end of which is provided with a pair of eccentric cams K and L, the cam L being of considerably less diameter than the cam K. The space between the upper ends of the standards G is greater than the thickness of the cam K and L, so that the lever I is free to be moved laterally on the bolt H a distance equal to the thickness of the jaw E, thereby permitting either the cam K or the cam L to bear upon the outer end of the jaw E.

On the outer threaded end of the bolt H is a nut, M, having a handle or lever, N, by means of which the said nut may be readily turned on the bolt; and O represents a plate, the thickness of which is equal to the thickness of the jaw E. The said plate is provided in its lower edge with a vertical open slot, *o*, which is adapted to receive the shank of the bolt H. The upper end of the plate is provided with a horizontal lateral flange, *o'*, from which extends a vertical handle, *o''*, by means of which the said block may be placed upon the bolt H on either side of the pivoted end of the lever I, between one of the cams of the said lever and the opposing inner sides of one of the standards G. This enables the lever to be maintained in position with either of its cams bearing on the free end of the jaw E.

R represents a flat spring, which has one end secured to the base A between the lower end of the standards G, and the upper end of the spring is bent rearwardly between the said standards and caused to bear under the jaw E, near the inner end thereof. This spring keeps the jaw E normally raised, so as to permit a bar or plate to be fed between the opposing cutting-edges of the jaw E and the jaw B.

S represents a guard composed of a horizontal rock-shaft, which is journaled in one of the brackets C and one of the brackets D, which bear against one side of the jaw B, the said rock-shaft having a lateral projection or cam, S', and its inner end provided with a bent lever, S'.

The operation of my invention is as follows: