

(No Model.)

H. C. BOEDICKER.
MACHINE FOR MAKING NUT BLANKS.

No. 426,656.

Patented Apr. 29, 1890.

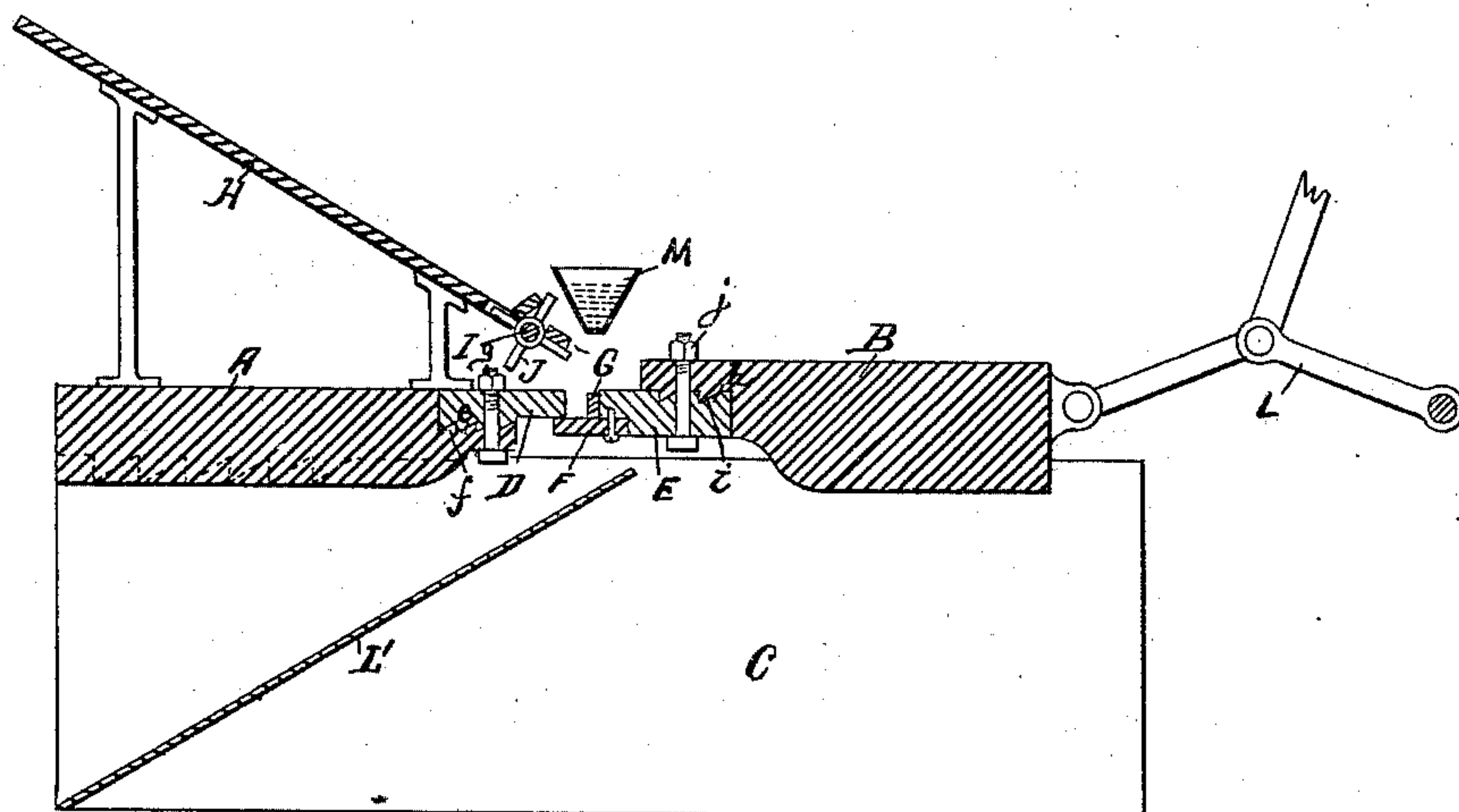


FIG. 1.

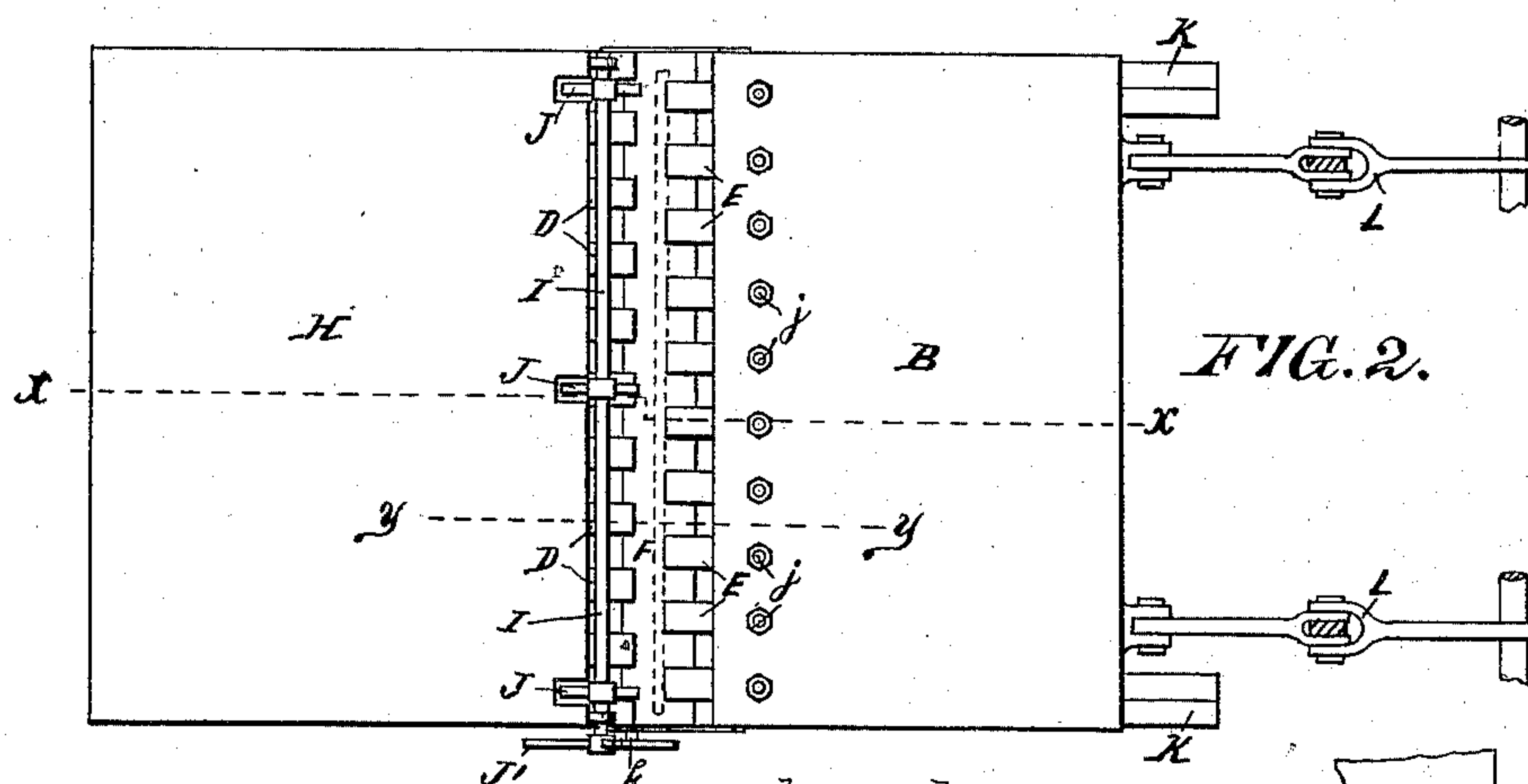


FIG. 2.

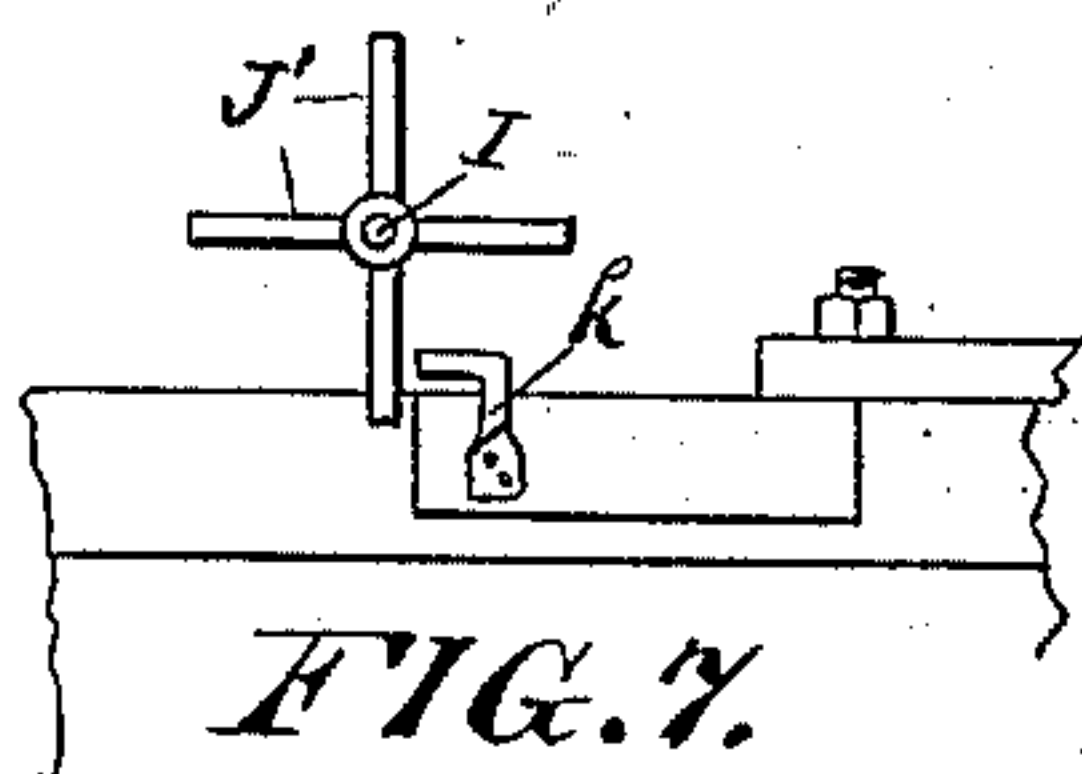


FIG. 7.

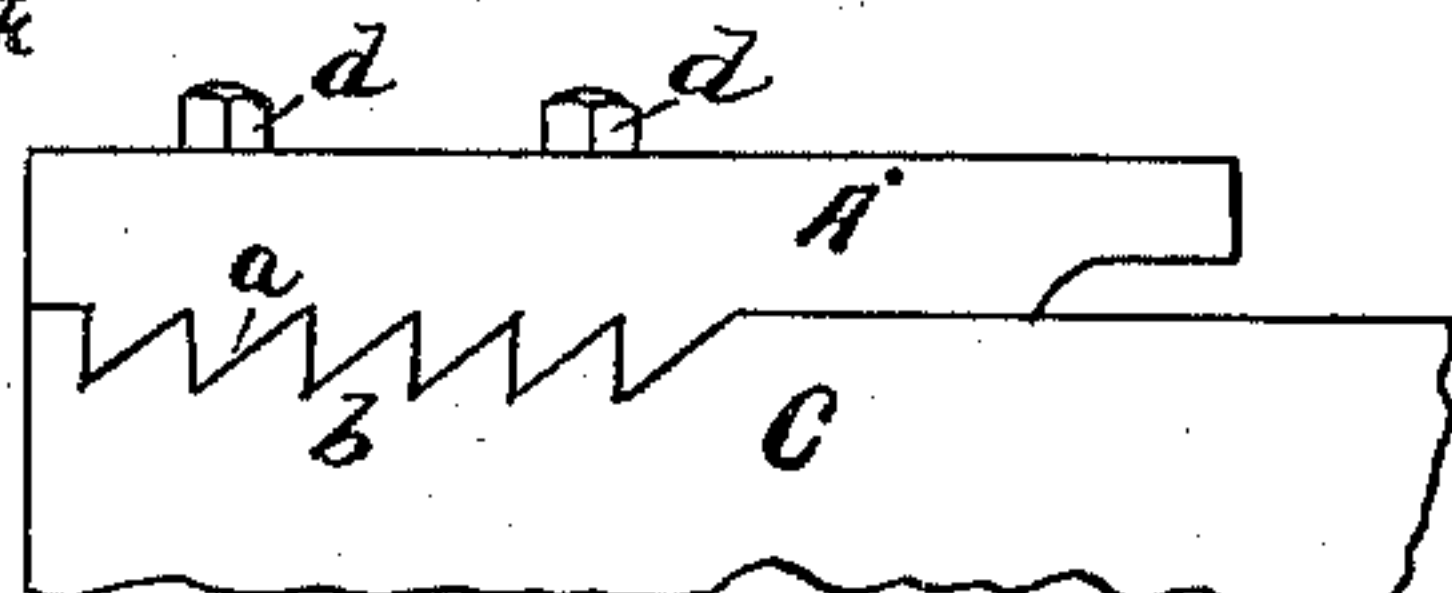


FIG. 3.

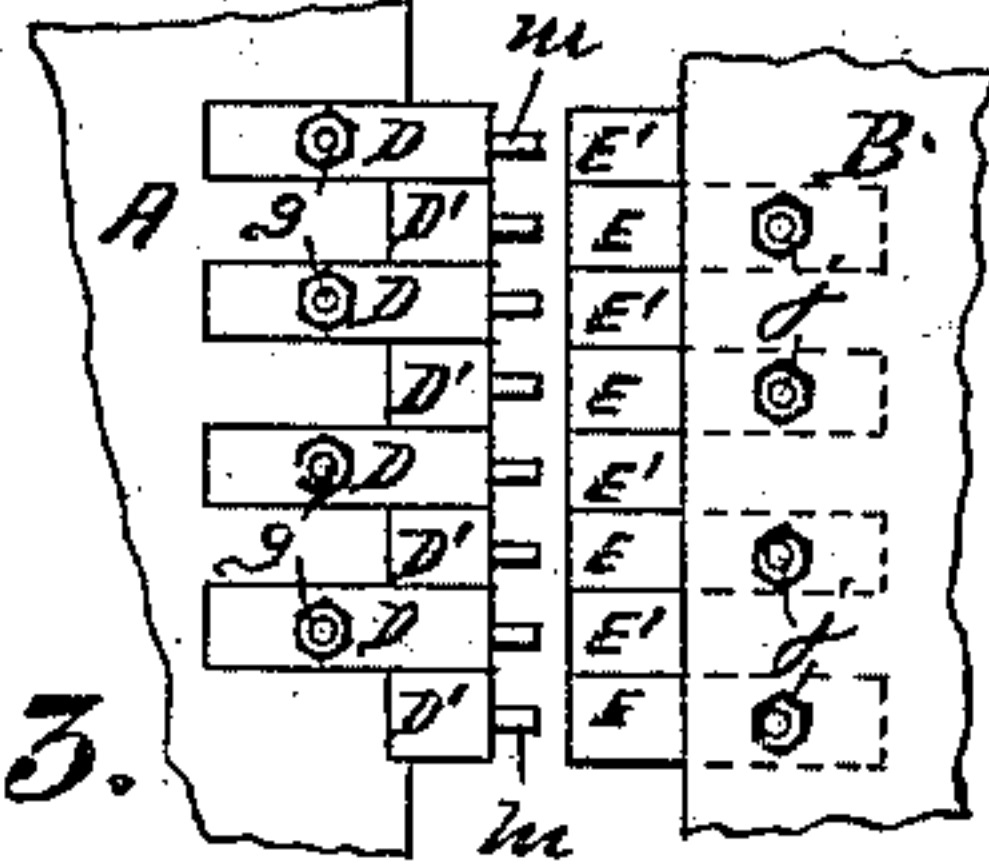


FIG. 8.

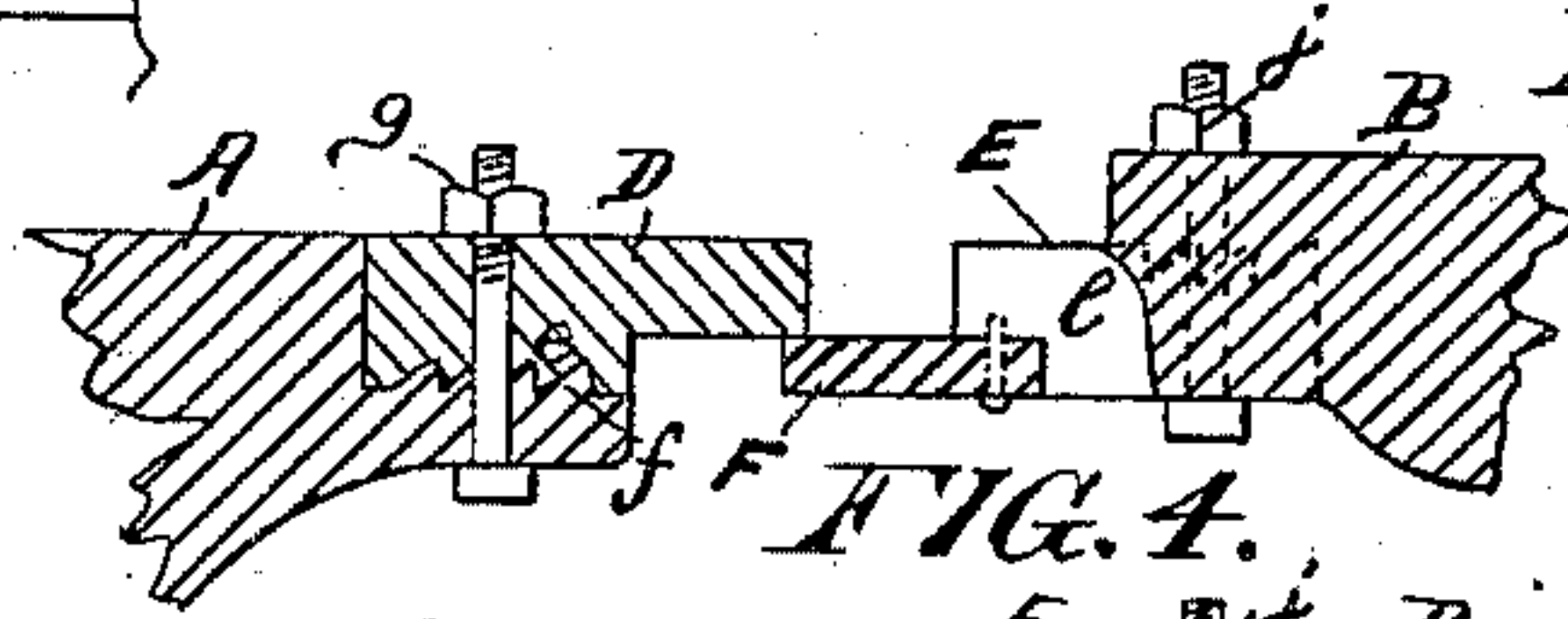


FIG. 4.

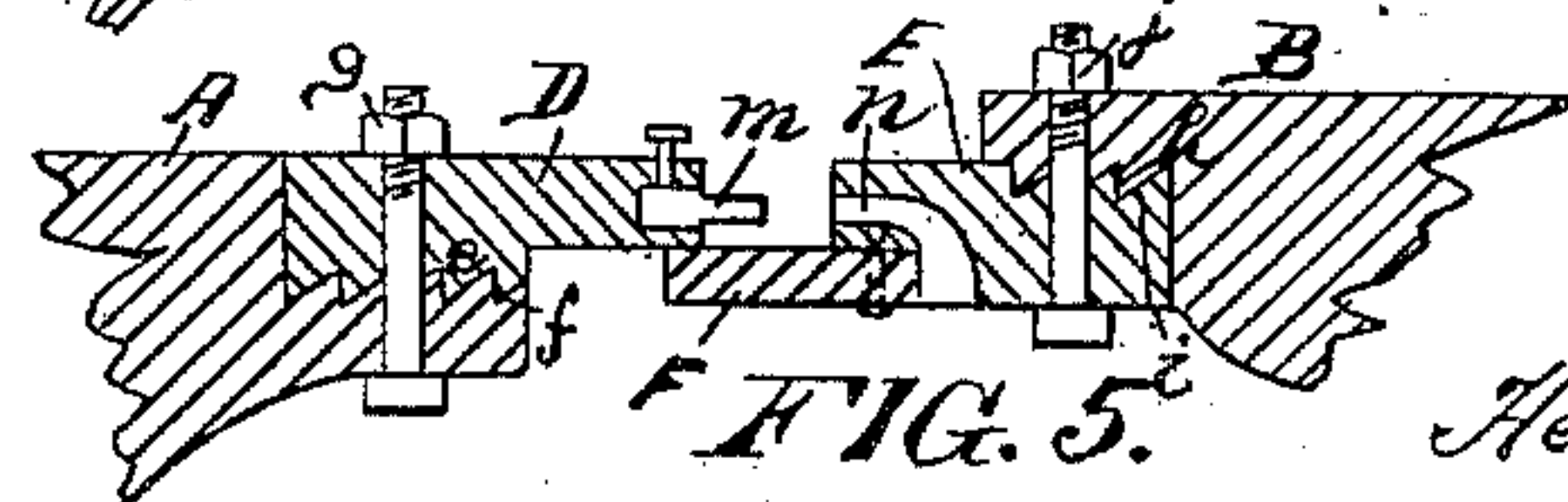


FIG. 5.



FIG. 6.

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MACHINE FOR MAKING NUT-BLANKS.

SPECIFICATION forming part of Letters Patent No. 426,656, dated April 29, 1890.

Application filed February 17, 1890. Serial No. 340,772. (No model.)

To all whom it may concern:

Be it known that I, HERMANN C. BOEDICKER, a citizen of the United States, and a resident of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Making Nut-Blanks, of which the following is a specification.

My invention relates to improvements in machines for making nut-blanks; and the object of my invention is to furnish a machine which will cut from a bar of iron a great number of nuts simultaneously.

My invention consists of two rows of dies or cutters, which are placed facing each other and alternately, so that the female die is formed by the space between the male dies, which space is equal in width to the width of a male die. One row of the dies or cutters is stationary, and the other row is moved up to them in order to cut the bar into the blanks.

My machine is furnished with an inclined table and intermittent feeding-wheels for feeding the bars to the machine, with an oiling device, by means of which the dies may be oiled, and the dies themselves are removable and interchangeable.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate similar parts throughout the several views, Figure 1 is a sectional elevation of my improved nut-blank-cutting machine, taken on the line *xx*, Fig. 2. Fig. 2 is a plan of the machine, the oil-trough being removed; Fig. 3, a side elevation of part of the front part of the machine, showing the manner in which the stationary die-holder is secured to the frame; Fig. 4, an enlarged sectional elevation of the dies and part of their holders, taken on the line *yy*, Fig. 2; Fig. 5, a sectional elevation of a pair of dies arranged to punch the bar before the blanks are cut; Fig. 6, a bottom view of one of the dies; Fig. 7, a side elevation of part of the machine, showing the device for turning the shaft which carries the feeding-wheels; and Fig. 8 is a plan of part of dies, &c., showing an arrangement by which a series of punches for perforating the bar from which the blanks are cut may be arranged without removing the cutting-dies.

A is the stationary die-holder; B, the recip-

rocating die-holder; C, the frame of the machine; D, the stationary dies; E, the reciprocating dies; F, a bar secured to the bottom of the reciprocating dies, which supports the bar G, out of which the blanks are cut; H, an inclined table carried by stationary die-holder A or frame C, and I a shaft carrying feeding-wheels J for feeding one bar at a time to the cutters.

The stationary die-holder A is furnished at its bottom with ratchet-teeth *a*, Fig. 3, which mesh with corresponding teeth *b* in the top of frame C, and is held firmly in place by these teeth and by bolts and nuts *d*, which are arranged in the usual manner.

The reciprocating die-holder B travels in suitable grooves or guides K in the top of frame C, and it may be actuated by levers L, by screws, cams, or any other suitable mechanism.

The stationary dies D are furnished at their bottoms with ratchet-teeth *e*, which engage with similar teeth *f* on the stationary die-holder A, and are secured in place by bolts and nuts *g*.

The reciprocating dies E are furnished with ratchet-teeth *h*, which engage with similar teeth *i* on the reciprocating die-holder B, and they are secured to this die-holder by bolts and nuts *j*.

The bars G, which are to be cut into the nut-blanks, are placed upon the table H and by gravity slide to its bottom, where they rest, one at a time, upon the spokes of the wheels J. As the reciprocating die-holder B moves forward, a tappet *k*, Figs. 2 and 7, carried by this die-holder, engages a spoke on a wheel J', secured to shaft I, and turns this shaft, which causes wheels J to turn and deliver a bar of metal to the cutters. The bar of metal G falls and rests upon the bar F, which is carried by cutters or dies E. The dies are placed alternately, as shown in Fig. 2—that is, the stationary dies are so placed that they mesh with the reciprocating dies, and as the dies come together the bar G is cut into as many blanks as there are dies in the machine. The blanks cut by the stationary dies D are pushed in between the reciprocating dies E, and after reaching the rear end of bar F fall down through a slot *l*, Fig. 4, upon an incline L', Fig. 1, and run down this to the front part of

the machine. The blanks cut by the reciprocating dies are in a similar manner forced between the stationary dies and also fall upon the incline L'.

5 Above the cutters or dies D E, I place a trough M, which may be filled with oil, which may drip through suitable orifices upon the cutters in order to lubricate them. Should any one of the cutters D E become worn or
10 broken, it may be removed and a new one inserted.

Should it be desired to punch the bar G before it is cut into the blanks, the stationary dies D may be furnished with punches *m*, Fig. 15 5, and the reciprocating dies E with holes *n*, or vice versa, and between each stationary die D a blank D', Fig. 8, is placed, which carries a punch, and between each die E a blank E' is placed, which is furnished with a hole similar
20 to the hole *n* in the dies E. When this punching arrangement is used, it will be understood that the feed of the reciprocating dies must be decreased. After the holes in the bar G are punched the blanks D' E' and the punches
25 *m* may be removed and the bar cut into the blanks.

Having thus described my invention, I claim—

1. In a machine for cutting nut-blanks, the
30 combination of a row of stationary dies and a row of reciprocating dies alternately arranged and adapted to cut a bar of metal into a number of blanks simultaneously, substantially as set forth.

35 2. The combination, in a machine for cutting

nut-blanks, of a set of stationary dies and a set of reciprocating dies alternately arranged, and mechanism, substantially as described, for actuating the reciprocating dies and for feeding the bar of metal to be cut to the dies, substantially as set forth.

3. The combination, in a machine for cutting nut-blanks, of a set of stationary dies, a set of reciprocating dies, an oil-trough placed above said dies, and mechanism, substantially as described, for actuating the reciprocating dies and for feeding the bars to the dies.

4. The combination, with the die-holders, as described, of the dies furnished with ratchet-teeth adapted to engage similar teeth on the die-holders, and bolts and nuts *j*, all substantially as described.

5. The combination of the stationary and reciprocating dies and die-holders, the bar F, recesses *l*, and incline L, substantially as and for the purposes set forth.

6. The combination, with dies D and E, of the blanks D' E', one set of said dies and blanks being furnished with punches *m* and the other with holes *n*, substantially as and for the purposes set forth.

7. The combination, with the inclined feeding-table H, of the shaft I and wheels J, and mechanism, substantially as described, for turning said shaft and wheels, substantially as and for the purposes set forth.

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