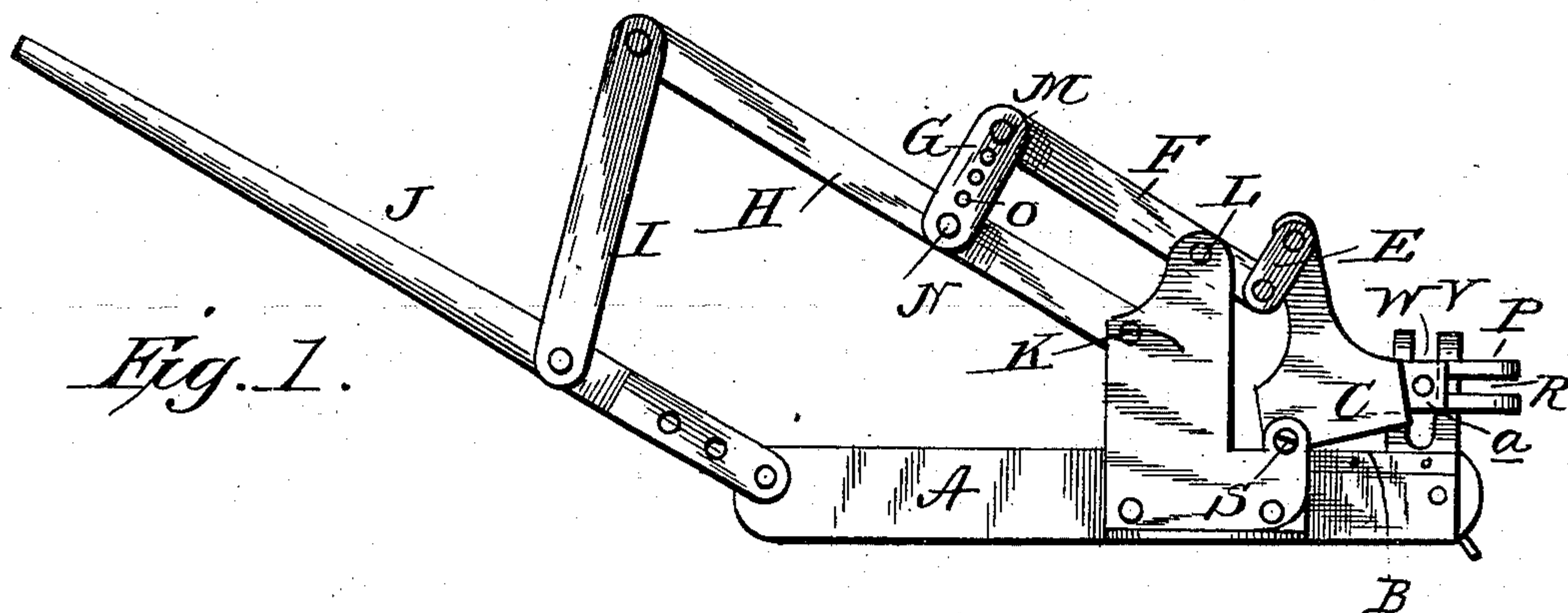


(No Model.)

H. J. SHAFFER.  
DEVICE FOR CUTTING IRON.

No. 604,270.

Patented May 17, 1898.



*Fig. 1.*

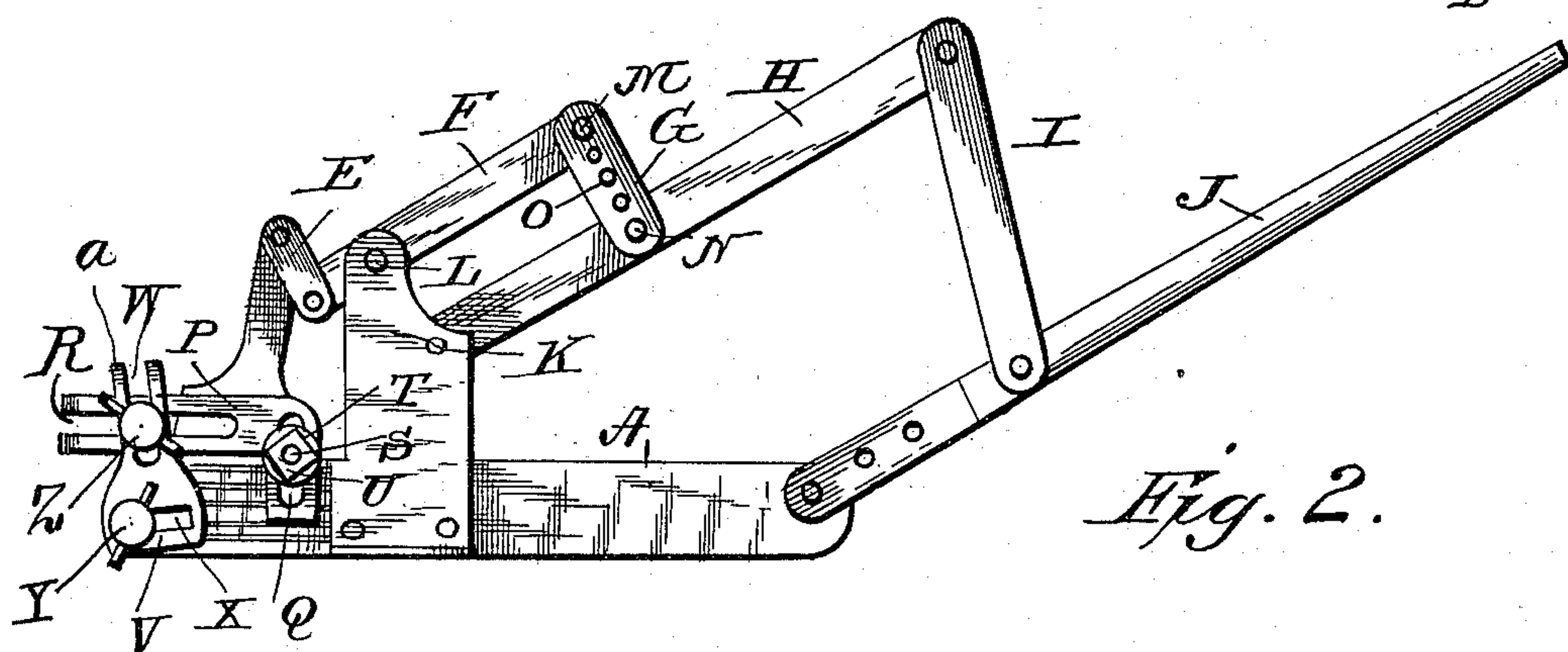


Fig. 2.

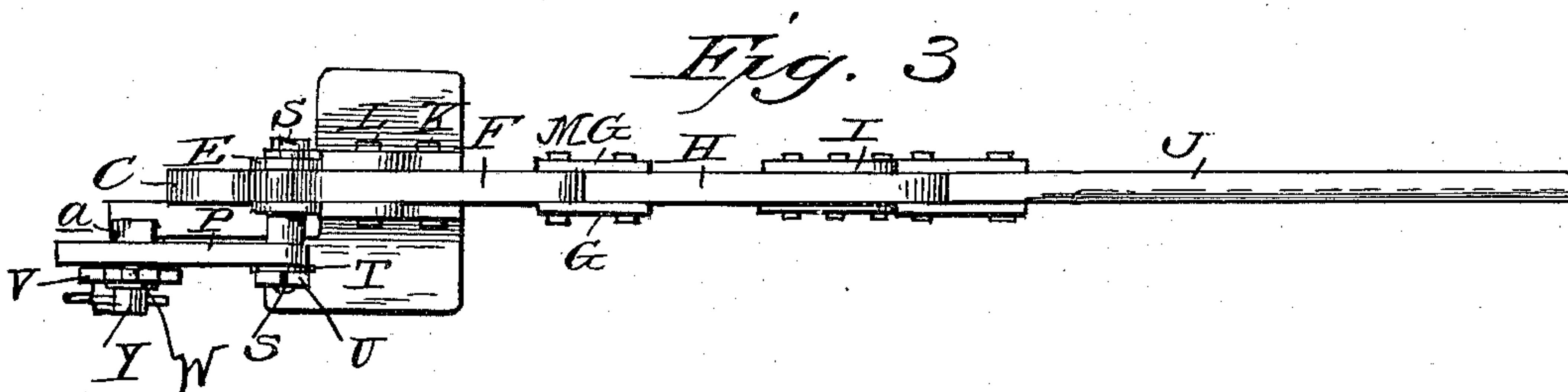
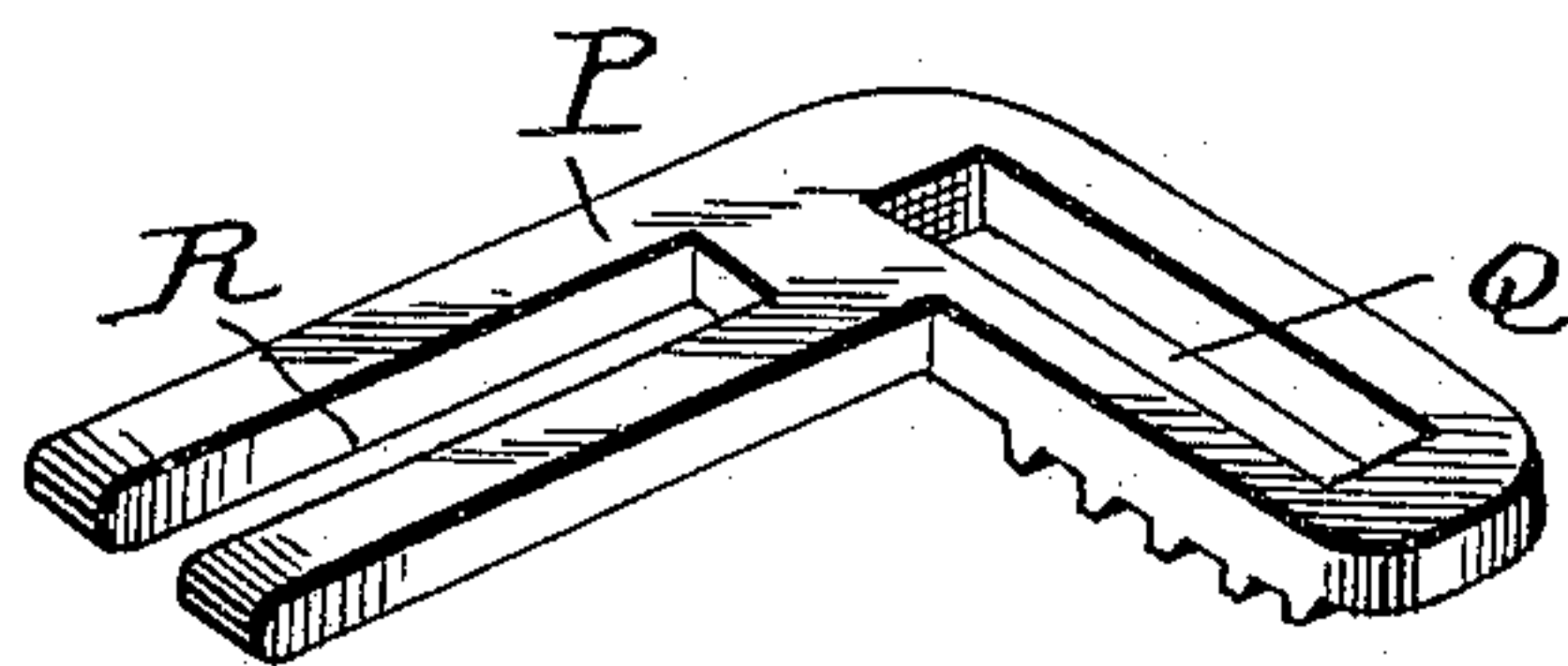
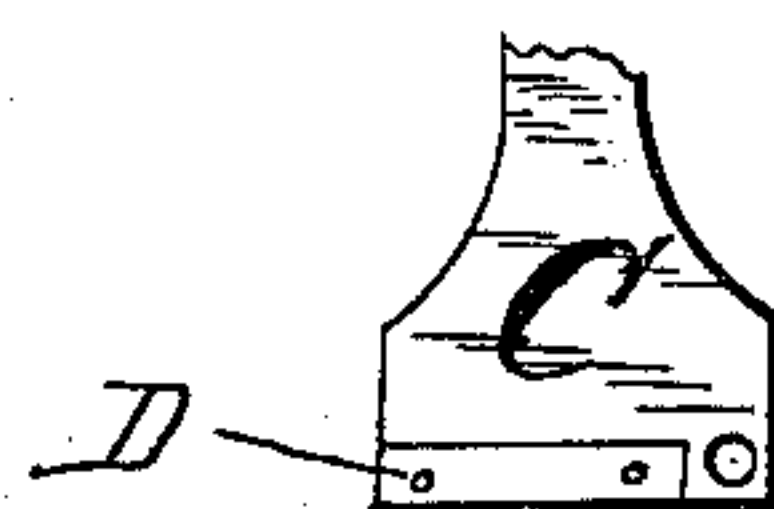


Fig. 3



*Fig. 4.*



*Fig. 5.*

Witnesses:  
 Frank L. Orvand.  
 J. L. Leomin

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By Louis Baggett & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

HOMER J. SHAFFER, OF SCOTT, INDIANA.

## DEVICE FOR CUTTING IRON.

SPECIFICATION forming part of Letters Patent No. 604,270, dated May 17, 1898.

Application filed May 23, 1896. Serial No. 592,793. (No model.)

*To all whom it may concern:*

Be it known that I, HOMER J. SHAFFER, a citizen of the United States, residing at Scott, in the county of La Grange and State of Indiana, have invented certain new and useful Improvements in Devices for Cutting Iron; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in devices for cutting metal; and it has for its object, among others, to provide a simple and cheap device for this purpose which shall be capable of cutting metal with ease. It is composed of few parts and those readily assembled, not liable to become broken or injured in any way, and by reason of the arrangement of compound levers but little power or stroke is required for cutting any desired thickness of metal.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention in this instance resides in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of the improved machine. Fig. 2 is a similar view looking from the opposite side. Fig. 3 is a plan view, and Fig. 4 a detail perspective view of the adjustable angle-plate. Fig. 5 is a detail view of the pivoted cutter, showing the removable blade.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the bed-plate, which may be of any suitable material and of the required dimensions.

B is the fixed cutter, supported on the bed-plate or base in any convenient manner.

C is the movable cutter. It is provided with a removable cutting edge or plate D, and to the upper end of the cutter there are attached the short arms E, which are extended parallel with each other and are connected with the arm F, the other end of which has connected therewith the bars G, the lower ends of which are connected with the bar H, to the rear end of which are connected the short arms I, which are in turn pivotally connected with the operating-lever J, which is pivoted at its lower end to the base or bed plate. The other end of the bar H has a pivotal connection with the uprights K, between which it is located, secured to the base A. The bar F is also pivoted to said uprights at L.

The arms G are formed with a number of holes O, through which pass pins or keys M and N, which also pass through holes in the bars F and H. By removing these pins and passing them through other holes in the arms G the said bars F and H may be adjusted with respect to each other so as to vary the leverage.

The arms E and G and bar F act as toggle-levers, and by connecting the bar F near to bar H by means of the holes in the arm G and the removable pins or keys the said arms will be nearer in horizontal alinement with said bar H, thereby increasing the power, as it is well known that the nearer toggle-levers are in alinement the greater the power.

Secured to the plate A at the side opposite the cutter or blade is an angle-plate P, formed with a vertical and a horizontal slot Q and R. The pivot S of the cutter C passes through slot Q and is provided with a washer T and nut U. By loosening said nut the plate P may be adjusted vertically.

The letter V designates a vertical plate formed with a vertical slot W and a horizontal slot X. A set-screw Y passes through slot X and engages with a recess in plate A, while a similar set-screw Z passes through slot R and is provided with a nut and serves to support the horizontal end of the angle-bar P. By loosening said screws the plate V can be adjusted vertically and horizontally.

In practice the plate P is adjusted with respect to plate A so that the space between the horizontal arm of the former and the base-



plate A is about equal to the thickness of the metal to be cut. The metal is then passed between said plates and between the cutters or blades and the lever J operated, which, 5 through its connections, will operate the pivoted plate so that its cutter or blade and the cutter secured to the base-plate A will cut the metal. The purpose of plate P is to hold the metal while being cut and prevent twisting of the same. 10

What is claimed as new is—

1. In a device for cutting metal, the combination with the base provided with a fixed cutter, the uprights secured to said base, and 15 the cutter pivoted thereto, of the arms pivotally connected with said cutter, the bar pivoted to said uprights and arms, the arms pivoted to said bar and formed with a number of holes, the bar pivotally connected thereto 20 and to said uprights, the removable keys or pins, the bar pivoted to said last-mentioned

bar and the lever pivoted thereto and to said base, substantially as described.

2. In a machine for cutting metal, the combination with the base-plate, provided with 25 a cutter, the pivot-pin secured to said base-plate, the plate pivoted thereto provided with a cutter and means for actuating the same, of the angle-plate formed with a vertical slot through which said pivot-pin passes and with 30 a horizontal slot, the vertical plate formed with a vertical and a horizontal slot, the set-screws and the nuts to secure and adjust the same, substantially as described.

In testimony whereof I have signed this 35 specification in the presence of two subscribing witnesses.

HOMER J. SHAFFER.

Witnesses:

JAMES S. DRAKE,  
J. W. HANAN.