

(No Model.)

J. C. BURGESS.

METAL SHEARING AND PUNCHING MACHINE.

No. 538,234.

Patented Apr. 30, 1895.

Fig. 1.

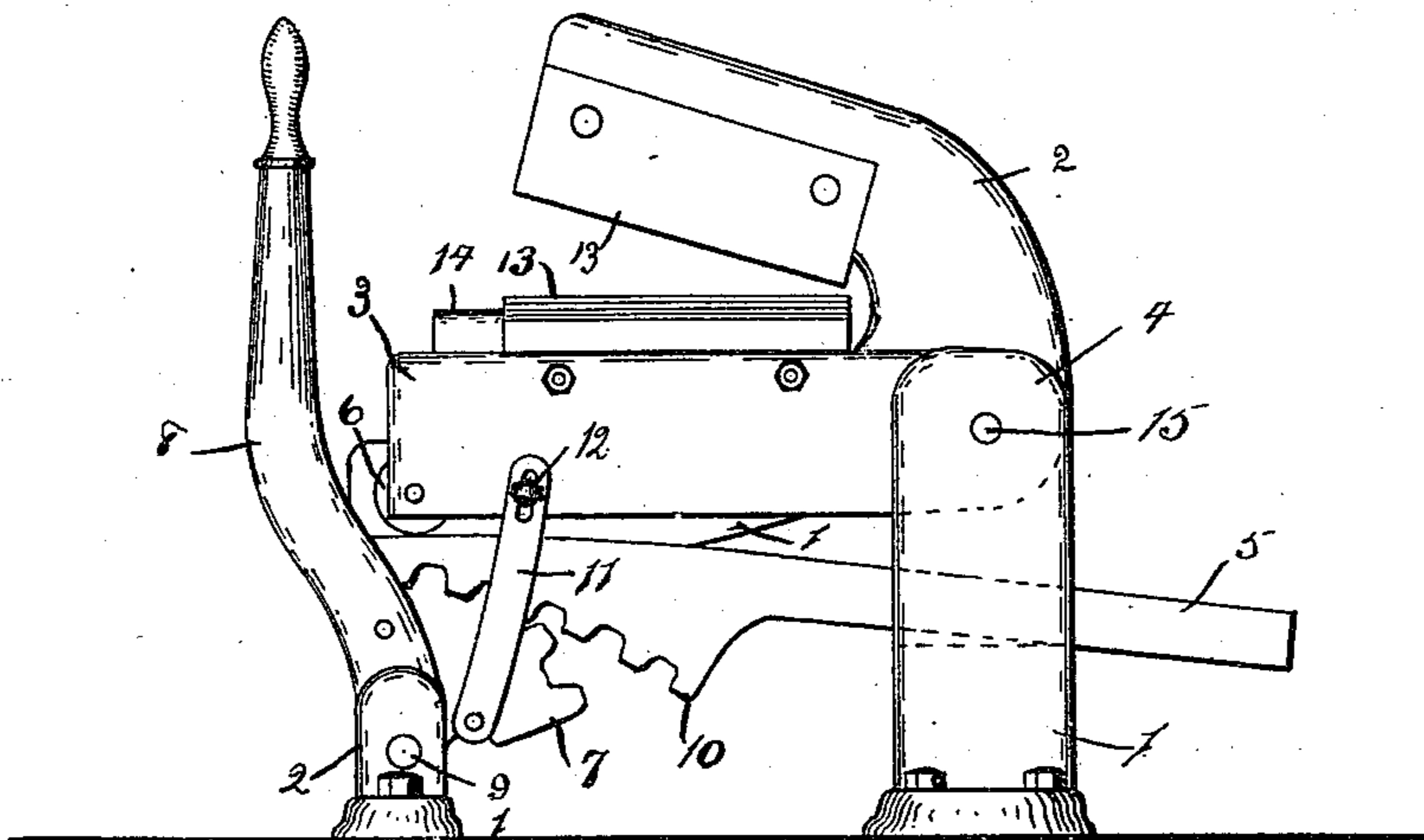


Fig. 2.

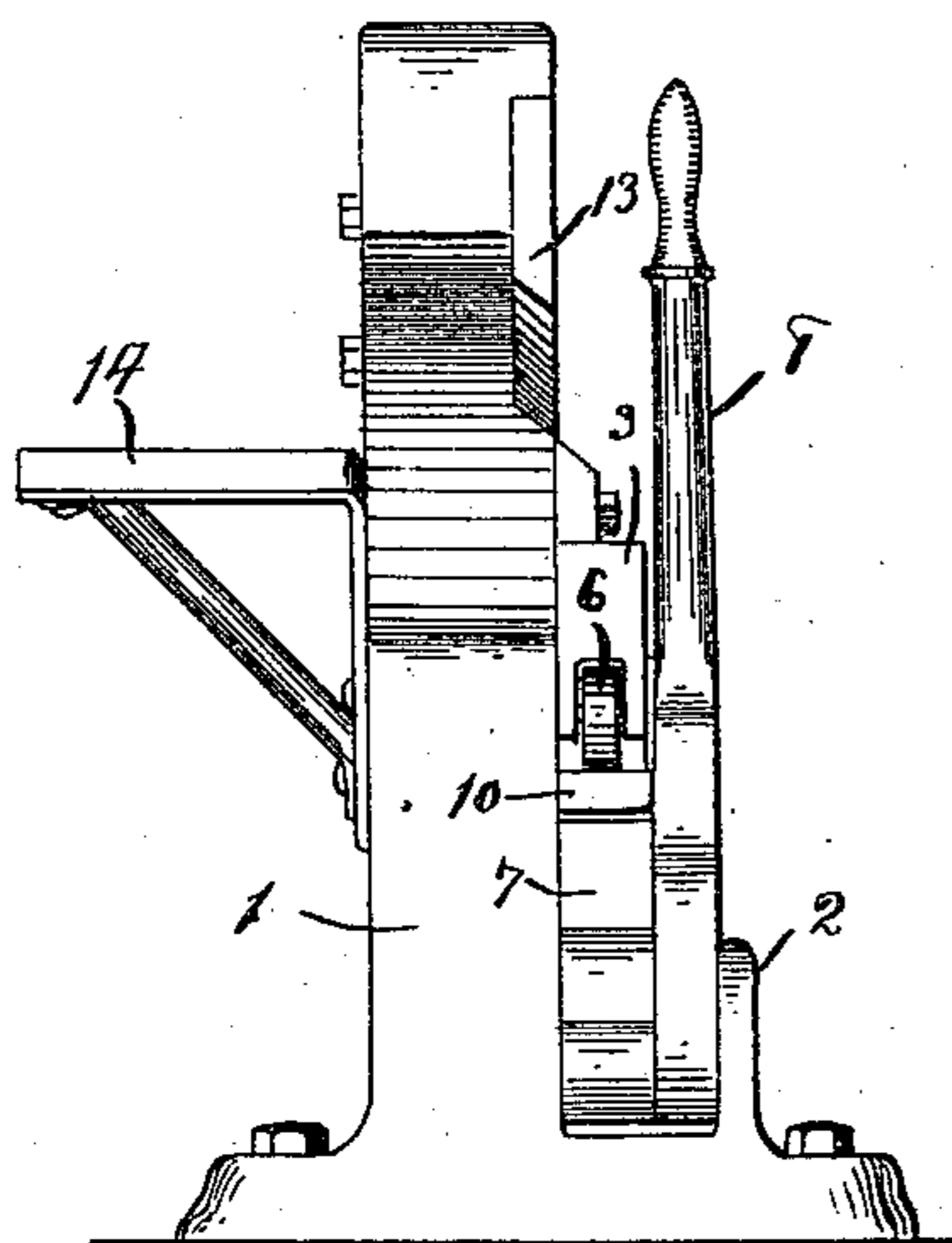
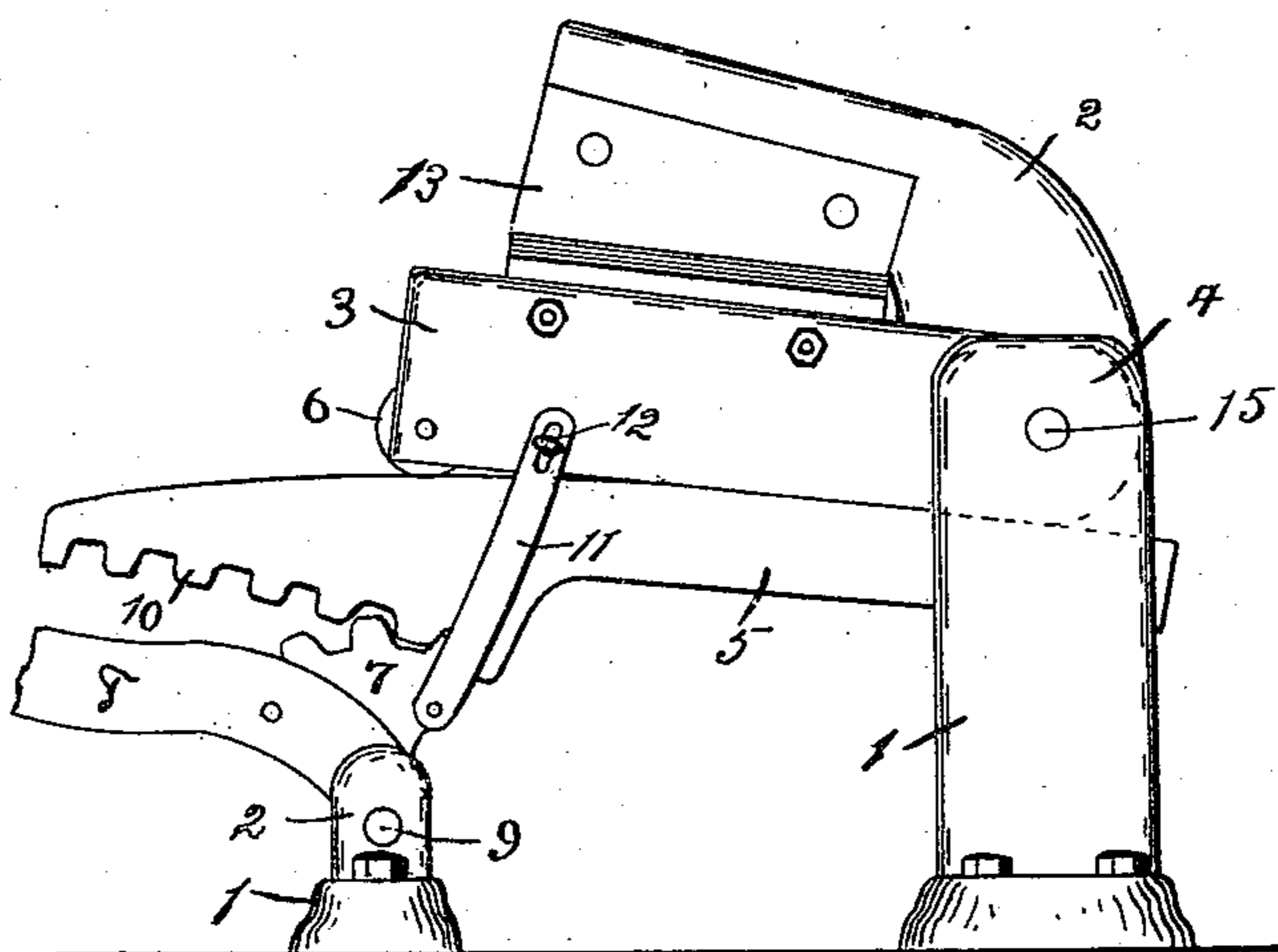


Fig. 3



Witnesses

Geo. C. Coover.
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UNITED STATES PATENT OFFICE.

JAMES C. BURGESS, OF ST. LOUIS CROSSING, ASSIGNOR TO JOS. A. NEWTON,
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METAL SHEARING AND PUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 538,234, dated April 30, 1895.

Application filed February 15, 1895. Serial No. 538,503. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. BURGESS, of St. Louis Crossing, county of Bartholomew, and State of Indiana, have invented certain new and useful Improvements in Metal Shearing and Punching Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

My invention relates to a metal shearing, punching, stamping or raising machine and has for its object an improvement in the operation of such machines and in the simplicity and economy of construction. Its nature will be understood from the following description and claims and drawings forming a part hereof.

Figure 1 is a side elevation of my device with the jaws open. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation with the jaws closed part of the hand lever being broken away.

Upon a suitable foundation I mount the framework 1 with which the upper jaw 2 is integral and stationary. The lower jaw 3 is pivoted at one end to the rear part of the framework at 15 between the main body of the framework and the extension 4 thereof. Between this extension 4 and the main body of the framework is a vertical slot in which not only the lower jaw is pivoted but the rear end of the sliding bar 5 operates. This sliding bar actuates or elevates and lowers the jaw 3. Its upper outline or surface is curved slightly substantially as shown and the lower jaw 3 rides upon it by means of a friction roller 6. The sliding bar 5 is actuated by a cogged segment 7 secured to the hand lever 8 which is pivoted at 9 to a portion of the framework 1. The cogs of the segment 7 mesh with a rack 10 on the lower front end of the sliding bar 5. This rack is inclined upward toward the front or downward toward the rear so that as the hand lever 8 is actuated and the sliding bar 5 moved forward, it will be lifted and thereby lift the lower jaw 3. The sliding actuating bar 5 is held in place at its front end by the framework on one side

and a strap 11 on the other pivoted at one end to the segment 7 and at the other end to the lower jaw 3, one pivot operating in the slot 12 so as to allow for some longitudinal movement of the strap as the machine is operated. Upon the jaws suitable knives 13 are secured and to one side a suitable table 14.

The table or general framework and means of actuating the bar 5 may be modified as desired in any particular case. Instead of the hand lever 8 other well known means of actuating the segment 7 might be adopted. By this means I secure an elevating cut acting against an upper jaw that is absolutely immovable whereby the table does not resist the action of the movable jaw upon the metal, the metal being lifted somewhat above the table, and also the weight of the metal on each side of the shears co-operate with them to separate the metal. Furthermore its lower movable jaw can be made stronger and cheaper than an upper movable one. By the construction I show I also procure a powerful means of actuating the movable jaw and it is not only powerful but the parts are few, strong and not liable to get out of repair.

While the machine shown is a metal shearing machine the same features of construction may be used in a punching, stamping or raising machine.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A metal shearing punching, stamping or raising machine comprising a suitable framework, a stationary upper jaw, a movable lower jaw pivoted at the rear end of the framework and provided with a friction roller on its lower side, a slidable lifting bar provided with an inclined rack on its lower front end, a cogged segment pivoted to the framework and meshing with the rack of the lifting bar, and means of actuating the cogged segment, substantially as shown and described.

2. A metal shearing punching, stamping or raising machine comprising the frame 1, the stationary upper jaw 2, the lower jaw 3 pivoted to the framework at its rear end and provided at its lower front end with the friction roller 6, the lifting bar 5 with its upper sur-

face slightly curved and adapted to engage
the lower jaw and its friction roller, and
mounted slidably in the framework with the
inclined rack 10 at its lower front end, the
5 cogged segment 7 and hand lever 8 secured
thereto, and a strap 11, substantially as shown
and described.

In witness whereof I have hereunto set my
hand this 12th day of February, 1895.

JAMES C. BURGESS.

Witnesses:

J. A. NEWTON,
R. F. FERRY.