

No. 772,748.

PATENTED OCT. 18, 1904.

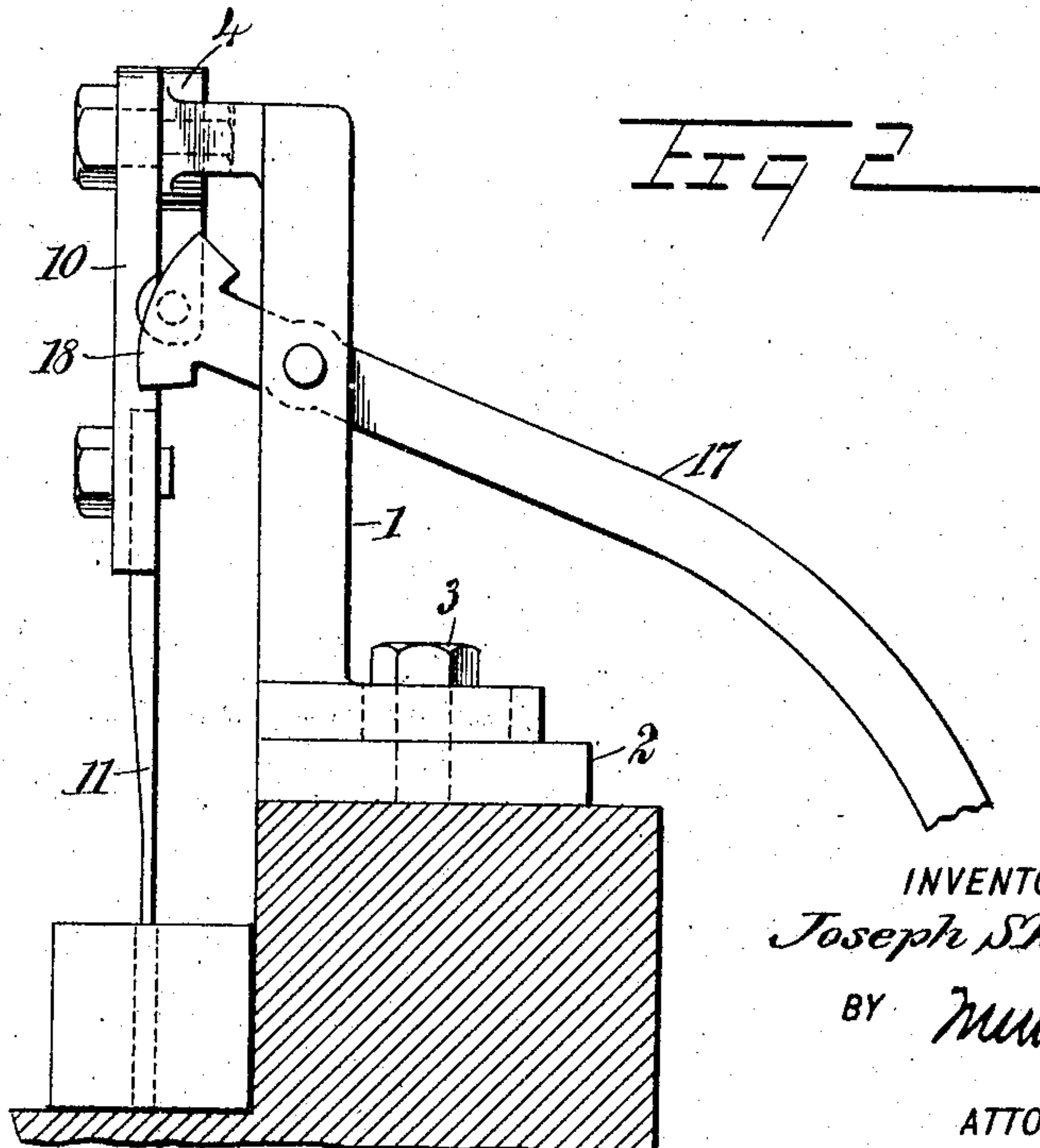
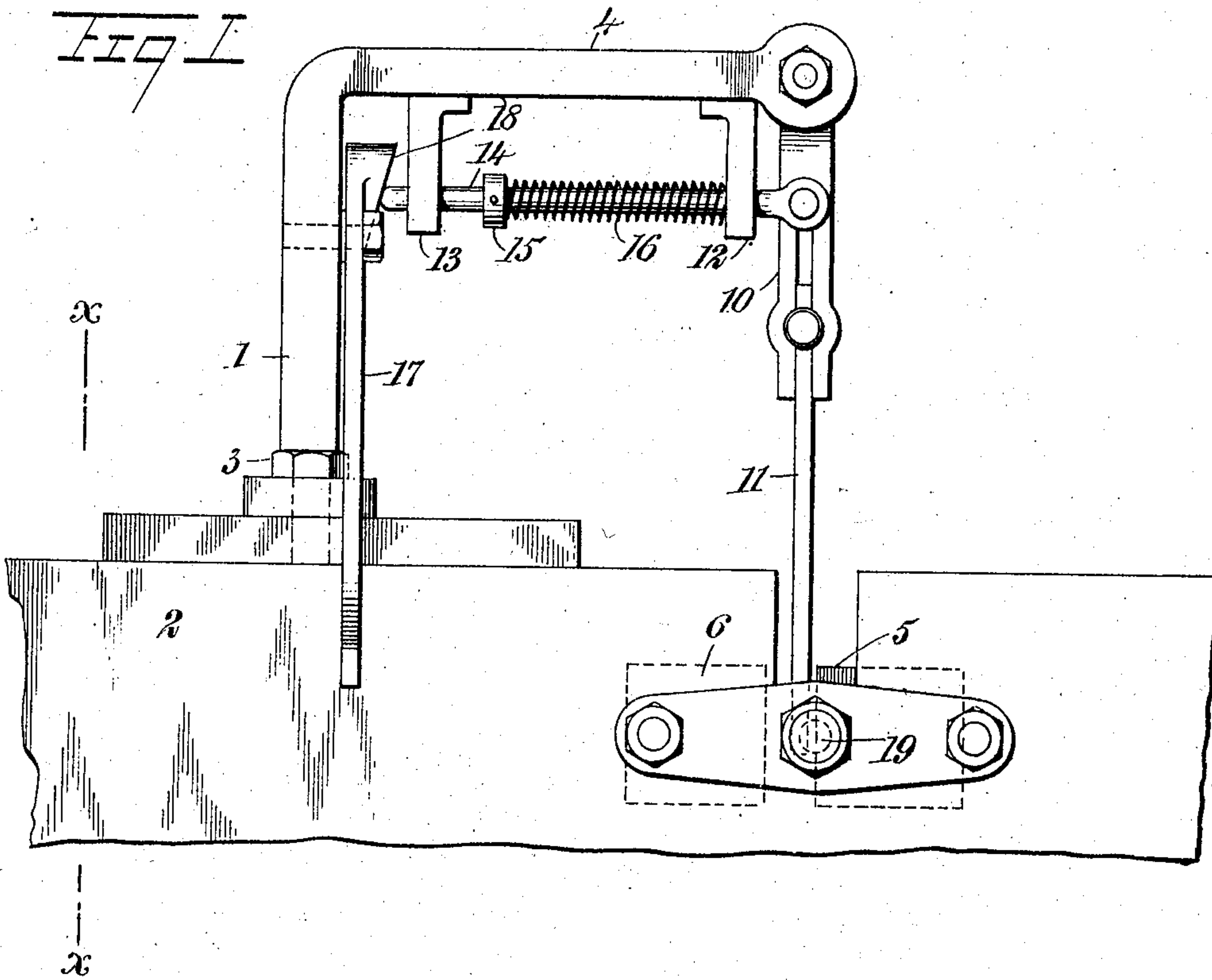
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ATTACHMENT FOR BOLT HEADING OR UPSETTING MACHINES.

APPLICATION FILED JAN. 20, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

H. Walker
C. R. Ferguson

INVENTOR

Joseph Skelton

BY

Mum

ATTORNEYS

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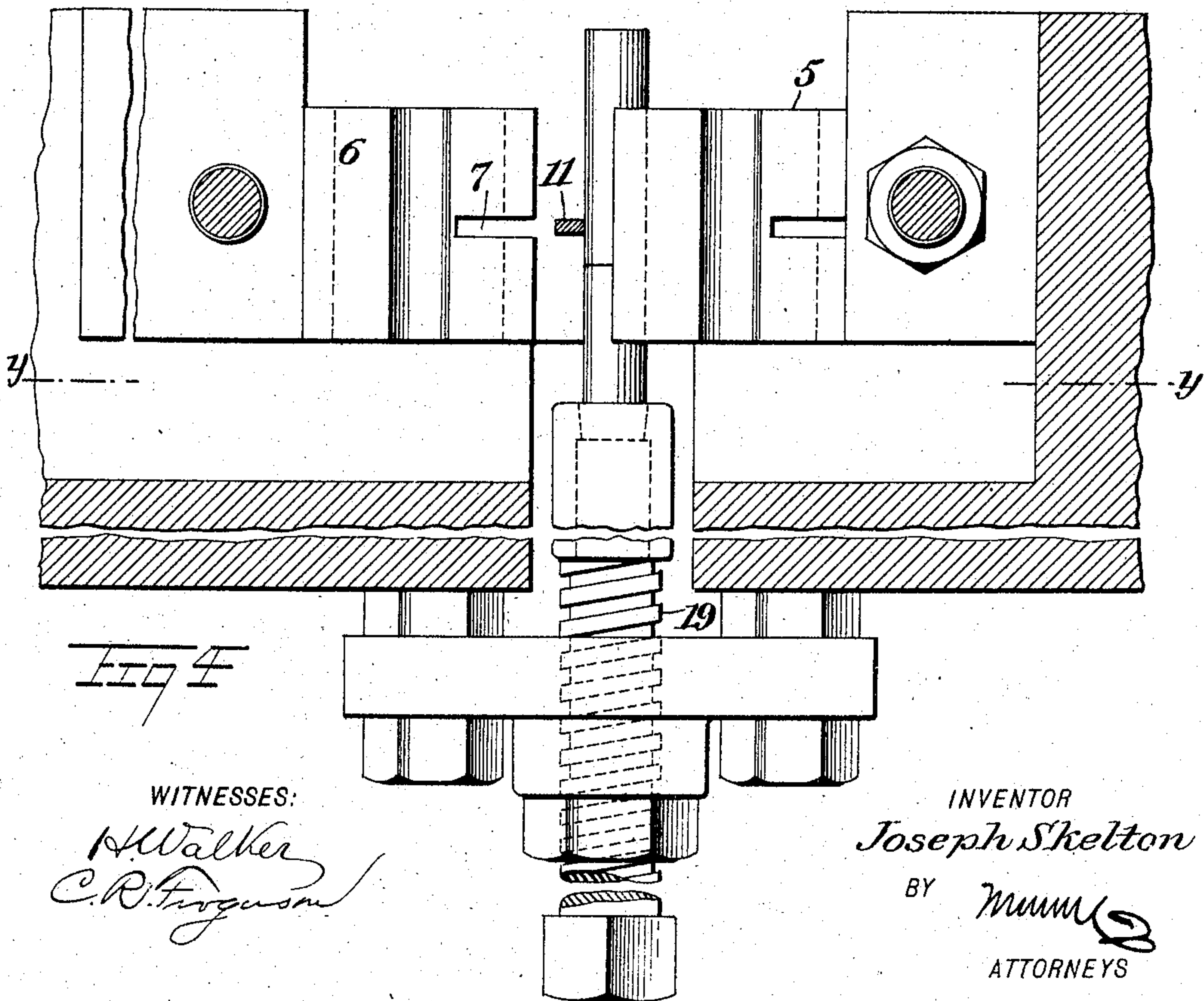
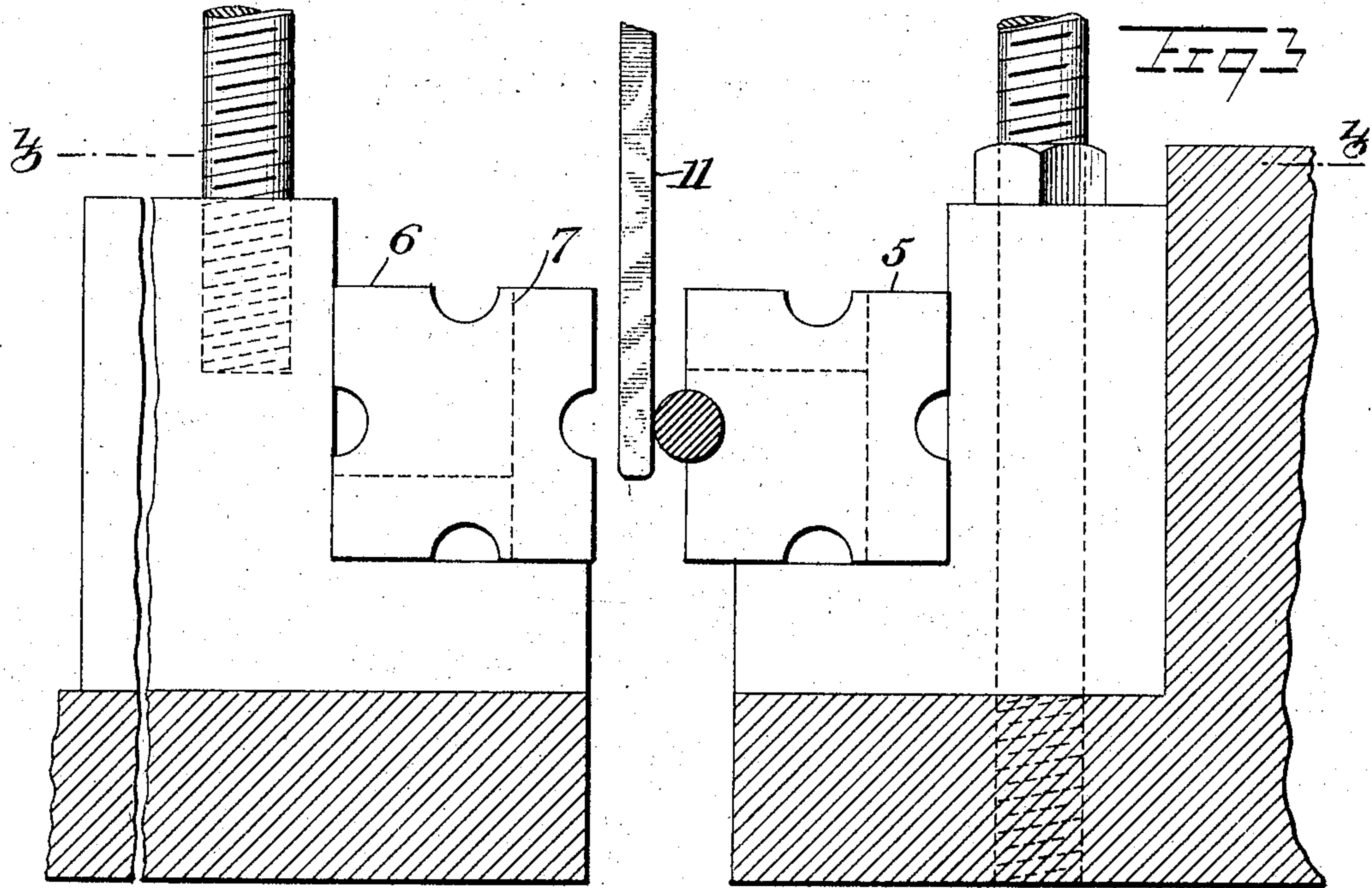
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UNITED STATES PATENT OFFICE.

JOSEPH SKELTON, OF WEST MELBOURNE, VICTORIA, AUSTRALIA.

ATTACHMENT FOR BOLT HEADING OR UPSETTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 772,748, dated October 18, 1904.

Application filed January 20, 1904. Serial No. 189,799. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SKELTON, a citizen of the United States, and a resident of West Melbourne, Victoria, Australia, have
5 invented a new and Improved Attachment for Bolt Heading or Upsetting Machines, of which the following is a full, clear, and exact description.

This invention relates to improvements in
10 devices for holding a piece of iron, steel, or other metal in position while the movable die in a heading or upsetting machine is moved up to the work, an object being to provide a simple attachment for a heading or upsetting
15 machine of the class having open dies and by the use of which the machine may be rendered capable of turning out the work much more rapidly than is ordinarily done and with a better finish.

20 I will describe an attachment for bolt heading and upsetting machines embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying
25 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of an attachment for bolt heading and upsetting machines
30 embodying my invention. Fig. 2 is a side elevation thereof, partly in section on the line *x x* of Fig. 1. Fig. 3 is a section on the line *y y* of Fig. 4, and Fig. 4 is a section on the line *z z* of Fig. 3.

35 Referring to the drawings, 1 designates an upright secured to a machine bed-plate 2 by means of a single bolt 3, and from the upper end of this upright an arm 4 extends laterally and terminates at a point over a fixed die 5 and a movable die 6. These dies are substantially of the usual form, having channels to receive the body of the bolt, rivet, or metal to be operated upon. The die 6, however, is
40 provided with a vertical channel 7 for receiving the work-holding finger, as will be hereinafter described, the said die 6 being closed by the machine. Depending from the arm 4 and having swinging connection therewith is a supporting-bar 10 for the finger 11. Movable
50 in hangers 12 13 on the arm 4 is a push-

rod 14, which at its outer end is pivotally connected to the bar 10, and between the hanger 12 and a collar 15 on said push-rod is a spring 16, designed to move the rod with the parts connected thereto in one direction. 55

Mounted to swing on the upright 1 is a lever 17, designed to be operated either by hand or foot power, and on the upper end of this lever is an inclined or cam surface 18, with which the end of the rod 14 engages. 60

In the operation the blank or piece of metal on which the head is to be formed is to be placed from the front in the channel of the fixed die, and then while held in such position by the operator's tongs the lever 17 is
65 operated to move the rod 14, so that it will swing the finger 11 into engagement with the work while so held, as indicated in Fig. 3. While so held the die 6 is closed by the machine, and then of course the heading, upsetting, or operation on the work is done. As the movable die moves toward the fixed die the slot or channel 7 will receive the lower portion of the finger 11. After the operation
75 on the work the movable die moves back, enabling the work to drop out, which of course is relieved of pressure from the finger 11 upon releasing the lever 17, so that the spring 16 may move the finger in releasing direction. 80

Any length of bolt or rivet may be formed
85 in the device having connection with the machine by employing an adjustable abutment 19 in the form of a screw with the inner end passing into the die to engage with the end of the work.

With my attachment to a heading and upsetting machine work may not only be turned out rapidly, but there will be no waste of material, as all short pieces can be used up in short work. With the device rivets can be
90 made equal to solid-die rivets without the taper of the solid-die rivet, or they can be made with the taper, if preferred, at a much less cost and much quicker than solid-die rivets, any length being made by changing the length
95 of the tail or adjusting screw 19.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a heading or upsetting machine, a pair of dies, one of said dies having move- 100

ments toward and from the other die and having a channel in its face at an angle to its work-engaging surface, and a work-holding finger arranged between the dies and adapted
5 to be received in said channel.

2. In a heading or upsetting machine having a fixed die, and a movable die, a support arranged above the dies, a finger having swinging connection with said support and
10 extended between the dies, a push-rod having connection with the finger, and a cam for moving said rod in one direction, the said movable die having a channel to receive said
finger.

15 3. In a heading or upsetting machine having a fixed die and a movable die having a channel to receive a finger, a support having a portion arranged over the dies, a bar having swinging connection with said support, a
20 finger depending from said bar and extended

between the dies, hangers connected to the support, a rod movable through said hangers and having pivotal connection with the swinging bar, a lever pivoted to the support, a cam
on said lever for moving the rod in one di- 25
rection, and a spring for moving said rod in the opposite direction.

4. In a heading or upsetting machine, a fixed die, a movable die having a vertical
channel, and a swinging work-holding finger 30
extended between the dies and adapted to engage in said channel.

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

JOSEPH SKELTON.

Witnesses:

JOHN P. BRAY,
C. HARTLETT.