

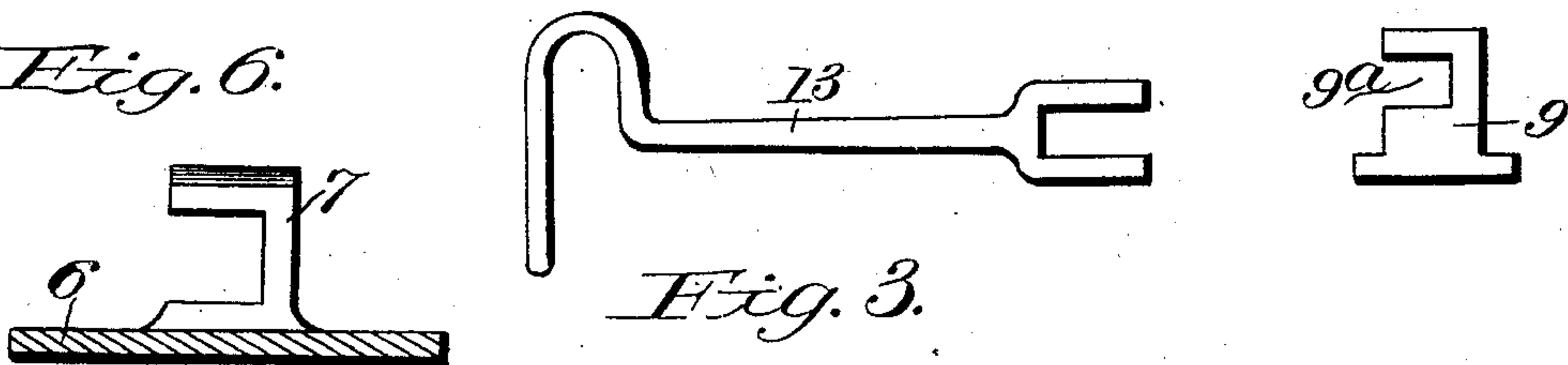
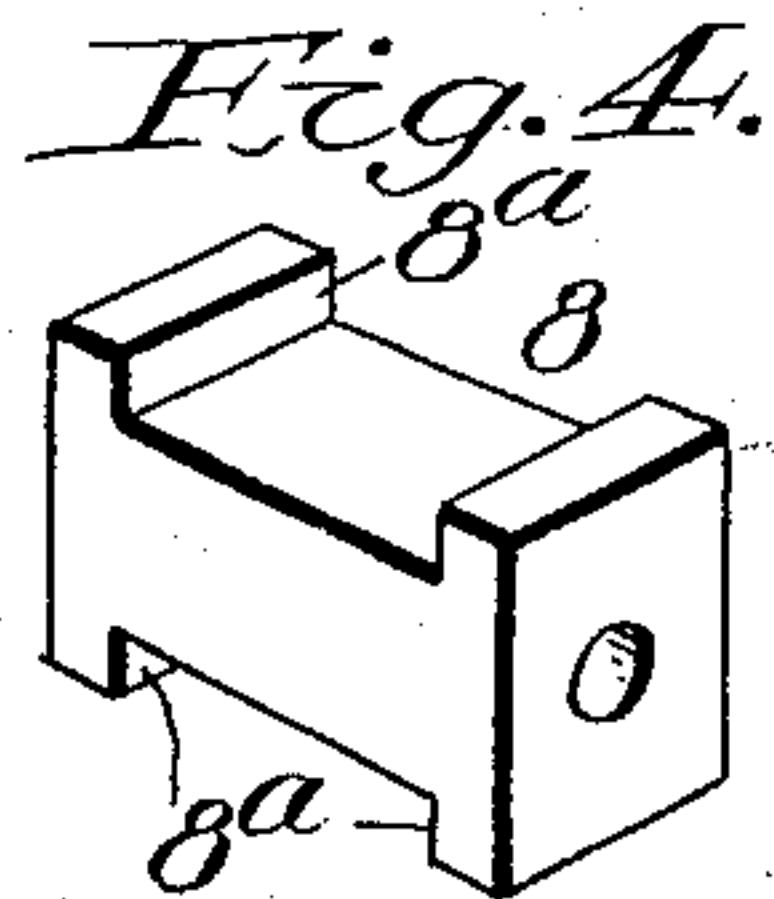
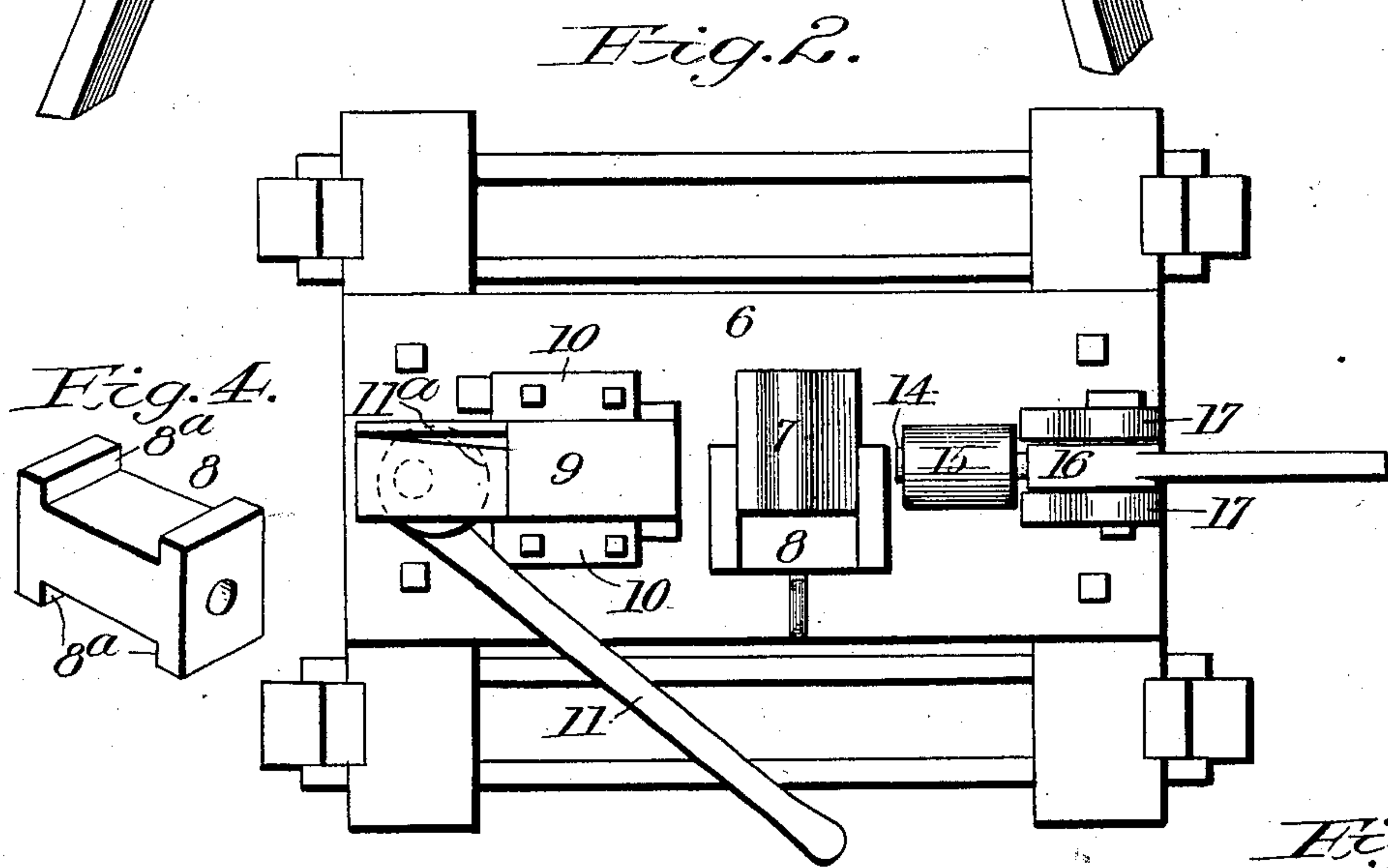
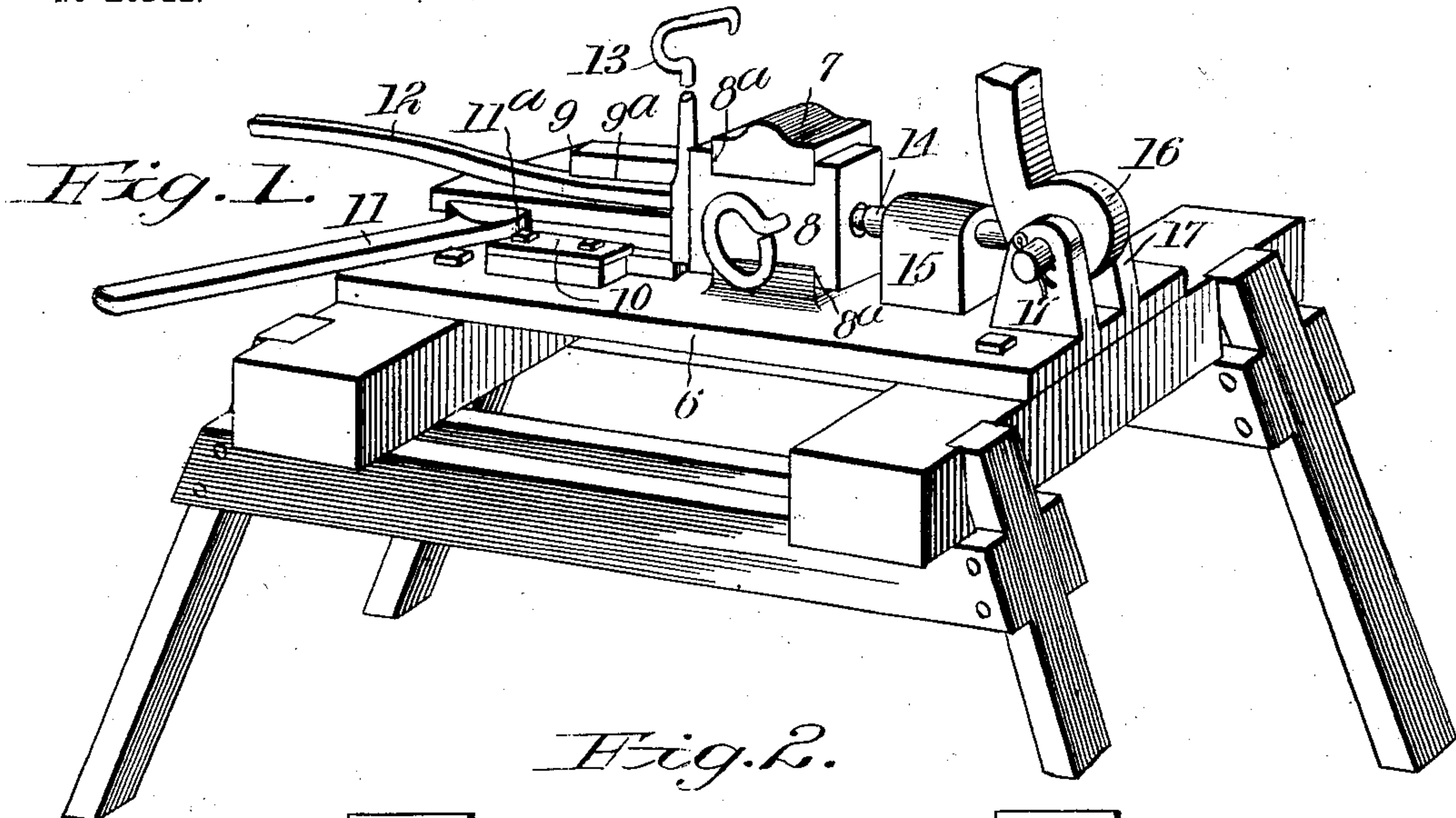
No. 751,491.

PATENTED FEB. 9, 1904.

W. D. FLORANCE.
UPSETTING MACHINE.

APPLICATION FILED JAN. 20, 1903.

NO MODEL.



Inventor

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM D. FLORANCE, OF DALLAS, TEXAS.

UPSETTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 751,491, dated February 9, 1904.

Application filed January 20, 1903. Serial No. 139,729. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. FLORANCE, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Upsetting-Machines; 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 ap-
 10 pertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention comprises a machine for re-
 15 pairing worn axles by upsetting the same in a die of larger size, so that the axle will be enlarged to fit the old box.

The object of the invention is to form a simple, cheap, and efficient machine for this pur-
 20 pose.

In the accompanying drawings, Figure 1 is a perspective view of the machine with an axle in position to be upset. Fig. 2 is a top plan view of the machine. Fig. 3 is a plan view of
 25 a tool used to engage behind the collar of the axle. Fig. 4 is a perspective view of the die detached. Fig. 5 is an end view of the movable abutment, and Fig. 6 is a vertical cross-section showing the holder for the die.

30 Speaking generally, the machine comprises a movable receiver acting as an abutment to hold the axle, a die to receive the spindle thereof, and a plunger acting longitudinally against the end of the spindle to upset the same. The
 35 plunger and abutment are actuated by hand cam-levers, as more fully hereinafter explained.

Referring specifically to the drawings, 6 indicates the bed-plate, with which is cast a
 40 stock or holder 7 to receive the die 8. This die is made in one piece, and the shape and size of its bore are according to the result desired. It is held against endwise movement in the stock by shoulders 8^a, but can be re-
 45 moved through the open side of the stock when desired.

The movable abutment or holder for the axle is indicated at 9 and has a longitudinal recess, as at 9^a, on a line with the die and open at the
 50 side, as shown, to permit the entry of the axle-

spindle into the die. The abutment is slidable longitudinally to and from the die between undercut guides 10, formed on the bed-plate, and is moved by a cam-lever 11, which is piv-
 55 oted on the bed-plate to swing horizontally, and its cam-face 11^a works in a corresponding recess formed in the under side of the abutment-block. At 12, Fig. 1, is indicated an axle in position to be upset, and 13 indicates a forked-size tool which fits over the axle be-
 60 hind the collar thereof and sustains the thrust on the spindle. Several of such tools may be supplied for use, of different sizes, to accommodate axles of different sizes. For the same
 65 purpose dies of various sizes may be provided.

The upsetting plunger or tool is indicated at 14. This is headed to fit over the axle-threads and come against the shoulder at the
 70 outer end of the spindle, so as not to mar the threads. The plunger works in the bore of a guide-piece 15, cast on the bed-plate, and is operated by a vertically-swinging cam-lever
 75 16, pivoted between ears 17 on the bed-plate. The cam-face of the lever bears against the rear end of the plunger.

In operation the abutment-block 9 is moved away from the die to receive the hot axle and is then moved toward the die, carrying the
 80 axle-spindle into the same. Appropriate movement of the lever 16 moves the plunger to give endwise pressure against the spindle, which upsets or spreads the same to fit the die, whereby the spindle is enlarged.

What I claim as new, and desire to secure
 85 by Letters Patent, is—

The combination with a bed, and a die-stock projecting upwardly therefrom and open at one side, of a perforated die in the stock hav-
 90 ing projecting shoulders bearing against the ends of the stock, a sliding abutment opposite one end of the die having a groove lengthwise thereof to receive the work, and a plunger op-
 95 posite the other end of the die.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM D. FLORANCE.

Witnesses:

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