

No. 830,896.

PATENTED SEPT. 11, 1906.

P. J. HARRAH.
COMBINED VISE AND DRILL.
APPLICATION FILED DEC. 4, 1905.

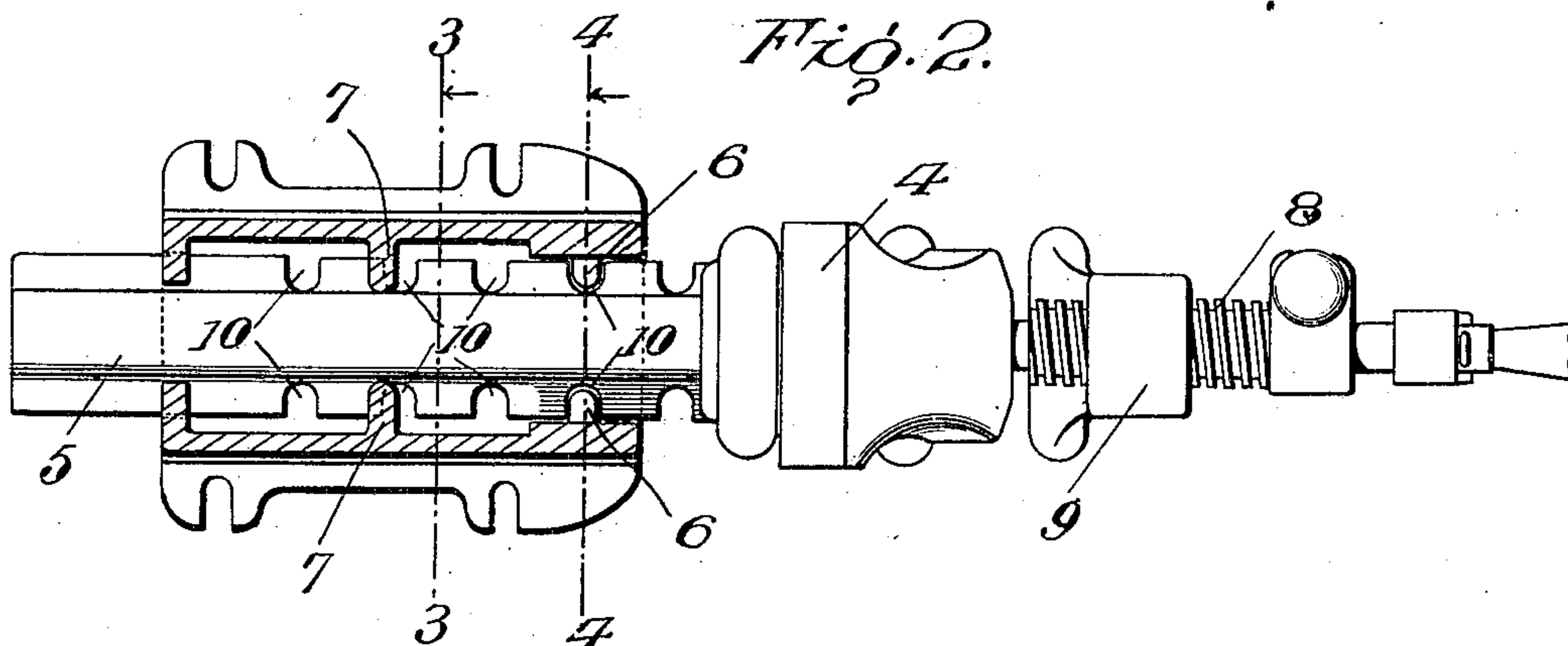
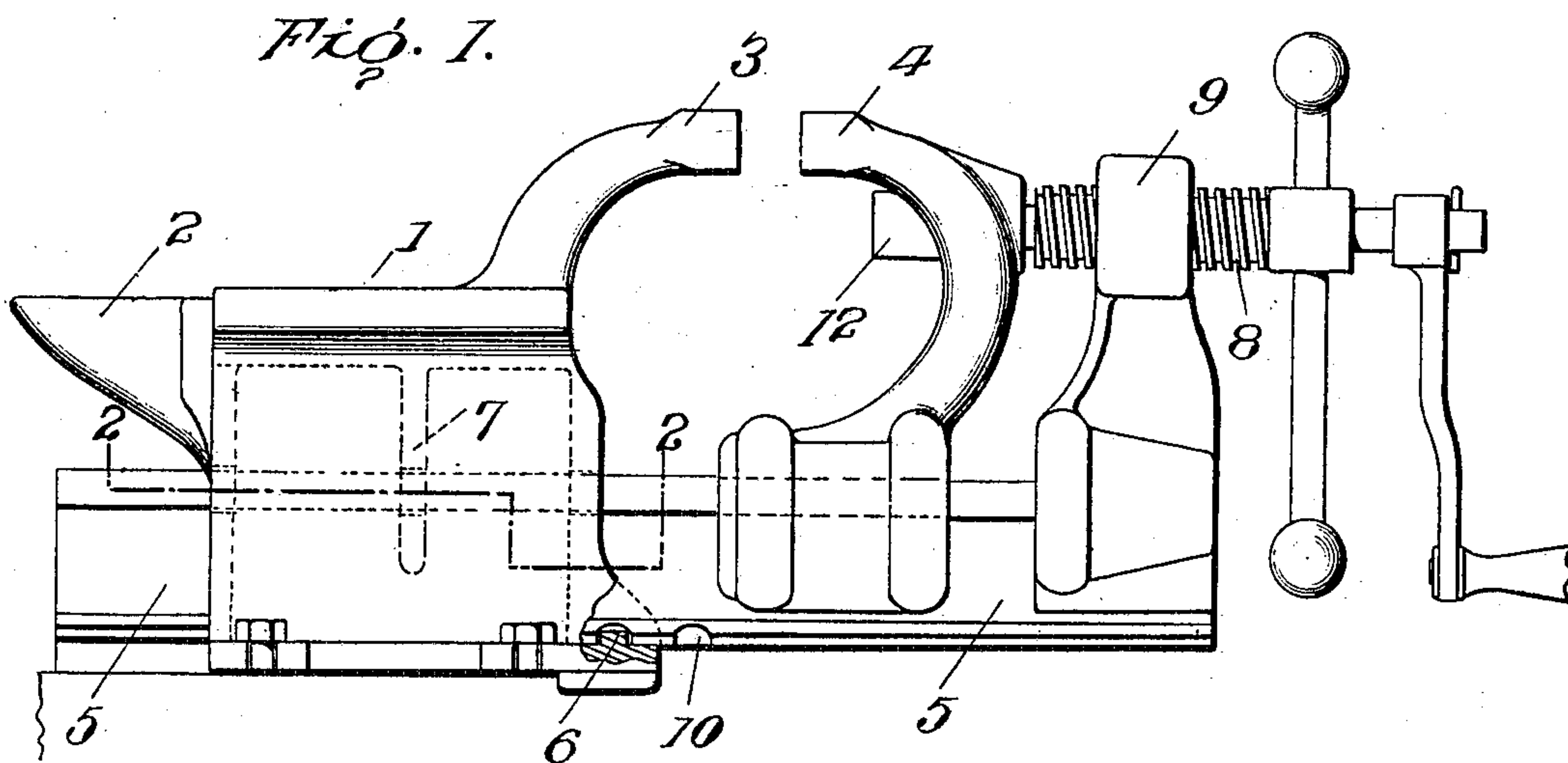


Fig. 3.

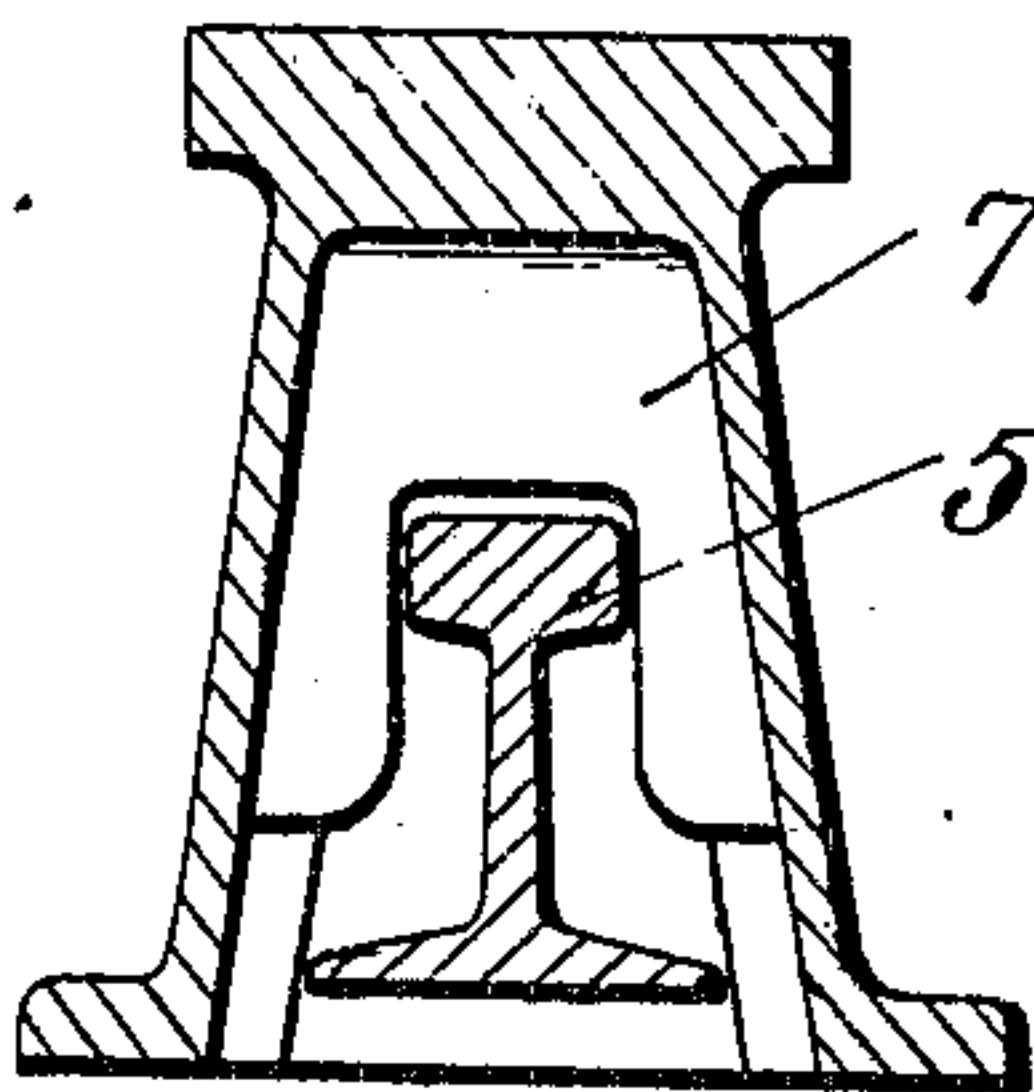
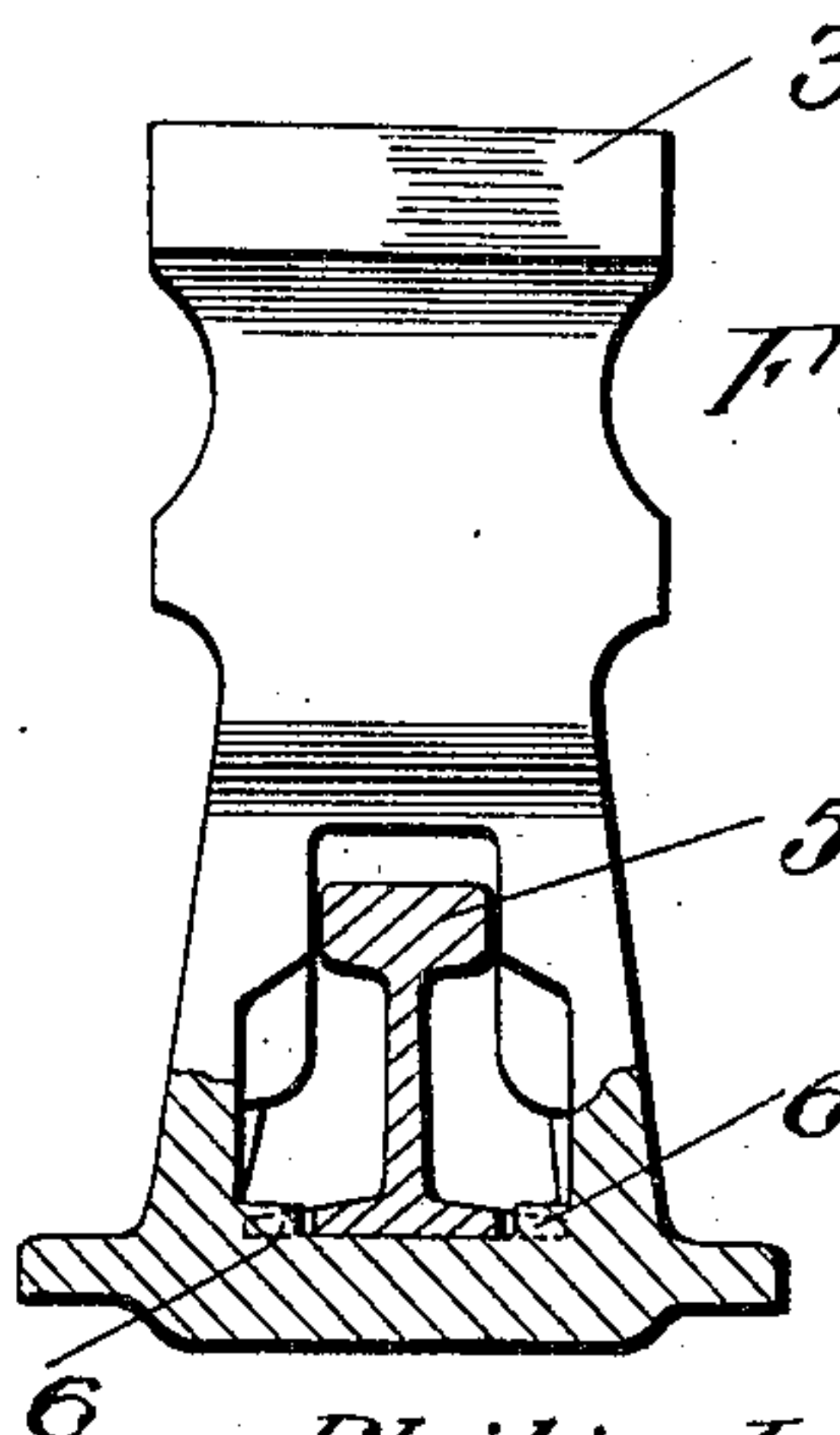


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

PHILIP J. HARRAH, OF BLOOMFIELD, INDIANA.

COMBINED VISE AND DRILL.

No. 830,896.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed December 4, 1905. Serial No. 290,228.

To all whom it may concern:

Be it known that I, PHILIP J. HARRAH, of Bloomfield, in the county of Greene and State of Indiana, have invented certain new and useful Improvements in a Combined Vise and Drill; 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.

The object of this invention is to improve the construction of a combined vise and drill of the character embraced by Letters Patent No. 566,170, issued to me August 18, 1896, to the end that the parts may be more cheaply manufactured, more easily adjusted, and more securely held in place.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a plan view, with the anvil in section, on line 2 2, Fig. 1. Figs. 3 and 4 are cross-sectional views on lines 3 3 and 4 4, Fig. 2.

Referring to the drawings, 1 designates an anvil from one end of which extends a pointed lug 2 and from the other end an overhanging arm, forming the stationary jaw 3 of the vise, the movable or adjustable jaw 4 being mounted on an adjustable supporting-bar 5, which fits in the body of the anvil. As is well known, the latter is permanently secured to any suitable base, and on its bottom at one end on opposite sides of a longitudinal opening are two opposite lugs 6, while within the anvil at about the center thereof is a guide-plate 7, with which the upper portion of the supporting-bar 5 is designed to engage, being guided thereby. This supporting-bar 5 is of I shape in cross-section, and the adjustable jaw 4 is formed at its bottom with curved arms, which hug the upper laterals and web, so that by turning the screw 8, working in a vertical post 9, fixedly mounted on said bar, the adjustable jaw may be moved toward or away from the stationary jaw. The base of the I-bar 5 is formed with edge recesses 10 to accommodate the oppositely-disposed lugs 6. The space between the top of the I-bar and the roof of the openings in the end wall and plate 7 is sufficient to enable the supporting-

bar to be lifted just sufficient to disengage opposite recesses from the lugs 6, permitting the bar to be moved farther inward or outward, according to the space which it is desired to secure between the jaws of the vise. The final adjustment or binding of the jaws is secured, of course, by the adjustment of the movable jaw on its supporting-bar. Thus it will be seen that by making the supporting-bar of I shape I am enabled to form the locking-recesses which engage the lugs of the anvil in the opposite edges of the base of the bar, that the upper laterals and web of this bar form the retaining agency for the movable jaw, and that the bar is held as against lateral displacement by reason of its upper laterals being in close relation to the walls of the openings formed in the central guide-plate 7 and in the end of the anvil.

As in my Patent No. 652,674, dated June 26, 1900, I have indicated a drill-socket 12 with its stem passing through the adjusting-screw 8.

I claim as my invention—

1. The combination with the anvil having an overhanging jaw and a longitudinal opening with oppositely-disposed lugs at the base of the anvil, of the supporting-bar of I shape in cross-section having edge recesses at its base for engaging with said lugs, said bar fitting in said opening, and the adjustable jaw movably mounted on said supporting-bar.

2. The combination with the stationary anvil having an overhanging jaw, a longitudinal opening, a guide-plate therein, and oppositely-disposed lugs at the sides of such opening, at the base of the anvil, of the I-shaped supporting-bar designed to extend into said opening and be guided by said plate, said bar having opposite edge-recesses in its base for interlocking with said lugs, the adjustable jaw having curved arms hugging the upper laterals and web of said bar, and a screw mounted on said bar for engaging and moving said adjustable jaw.

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

PHILIP J. HARRAH.

Witnesses:

OTTO F. HEROLD,
DOROTHY DEAN.