

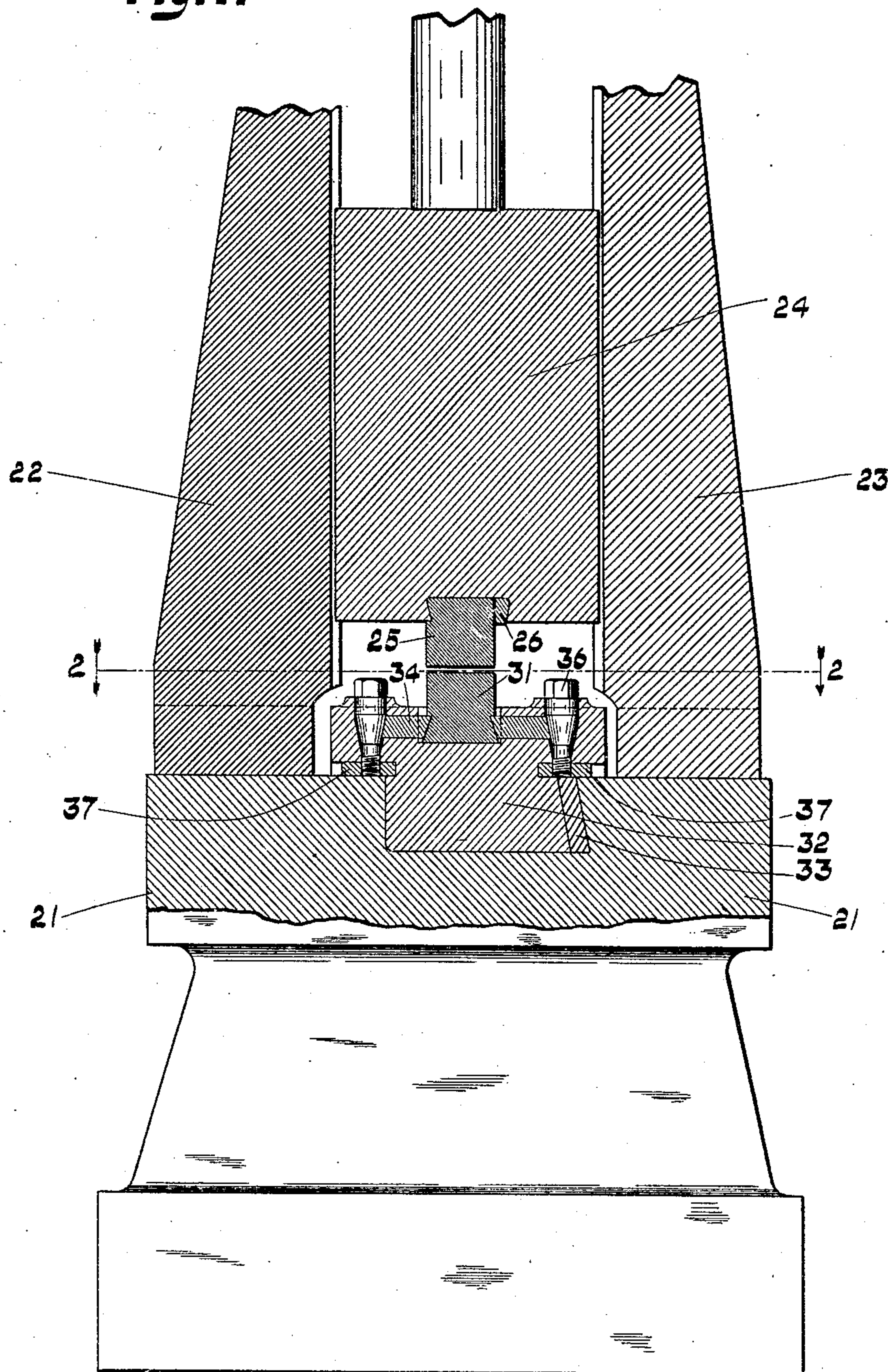
W. F. GORTON.
DIE HOLDER FOR DROP HAMMERS.
APPLICATION FILED APR. 24, 1909.

940,005.

Patented Nov. 16, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

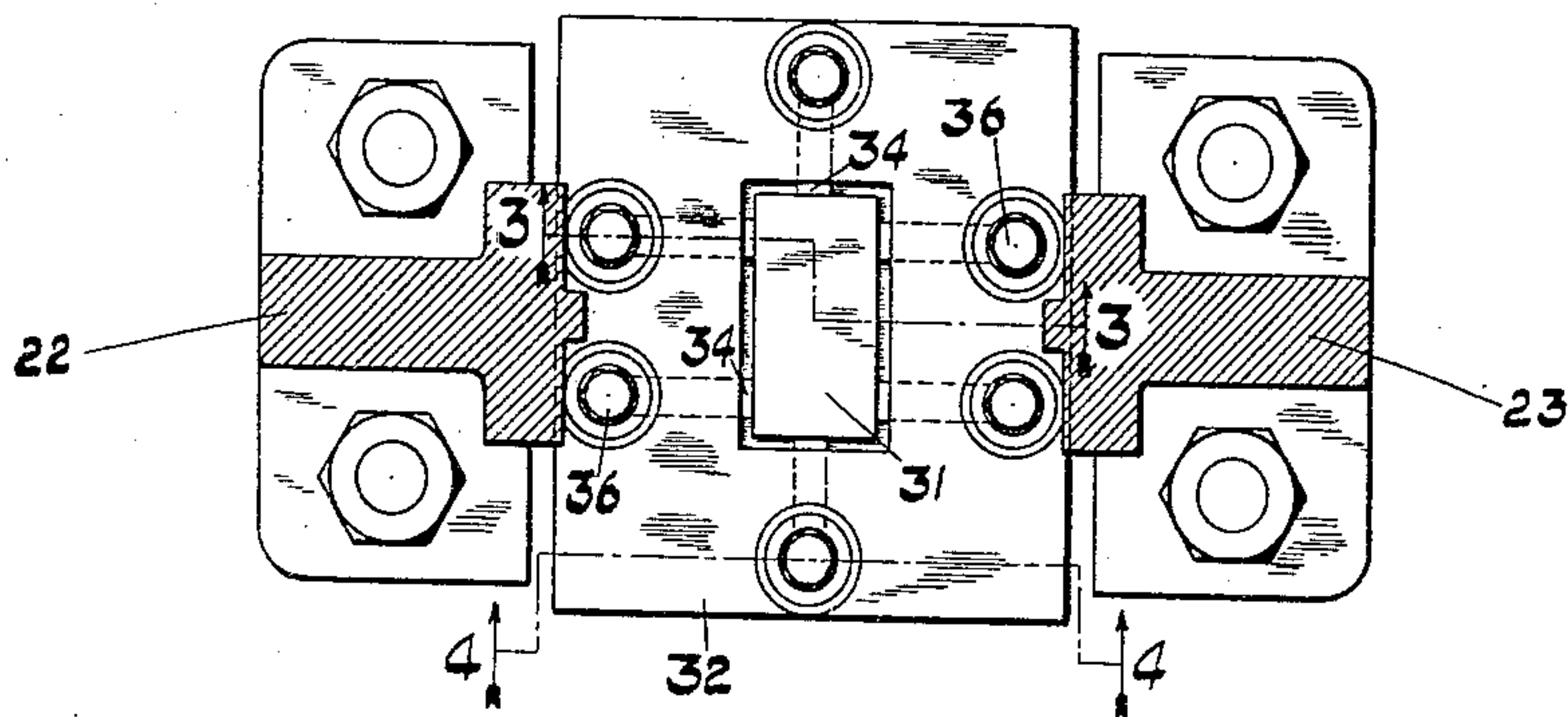


Fig. 3.

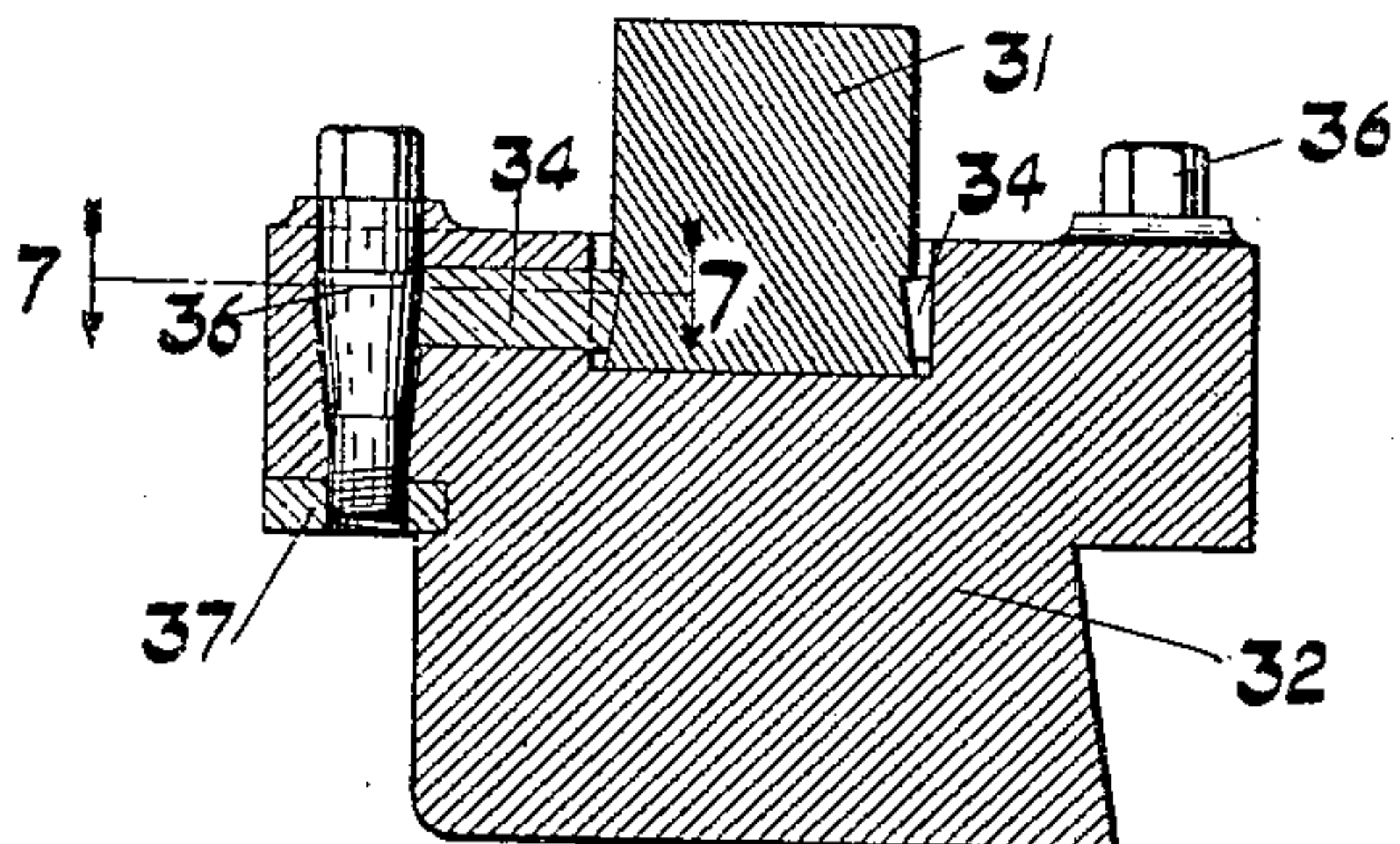


Fig. 4.

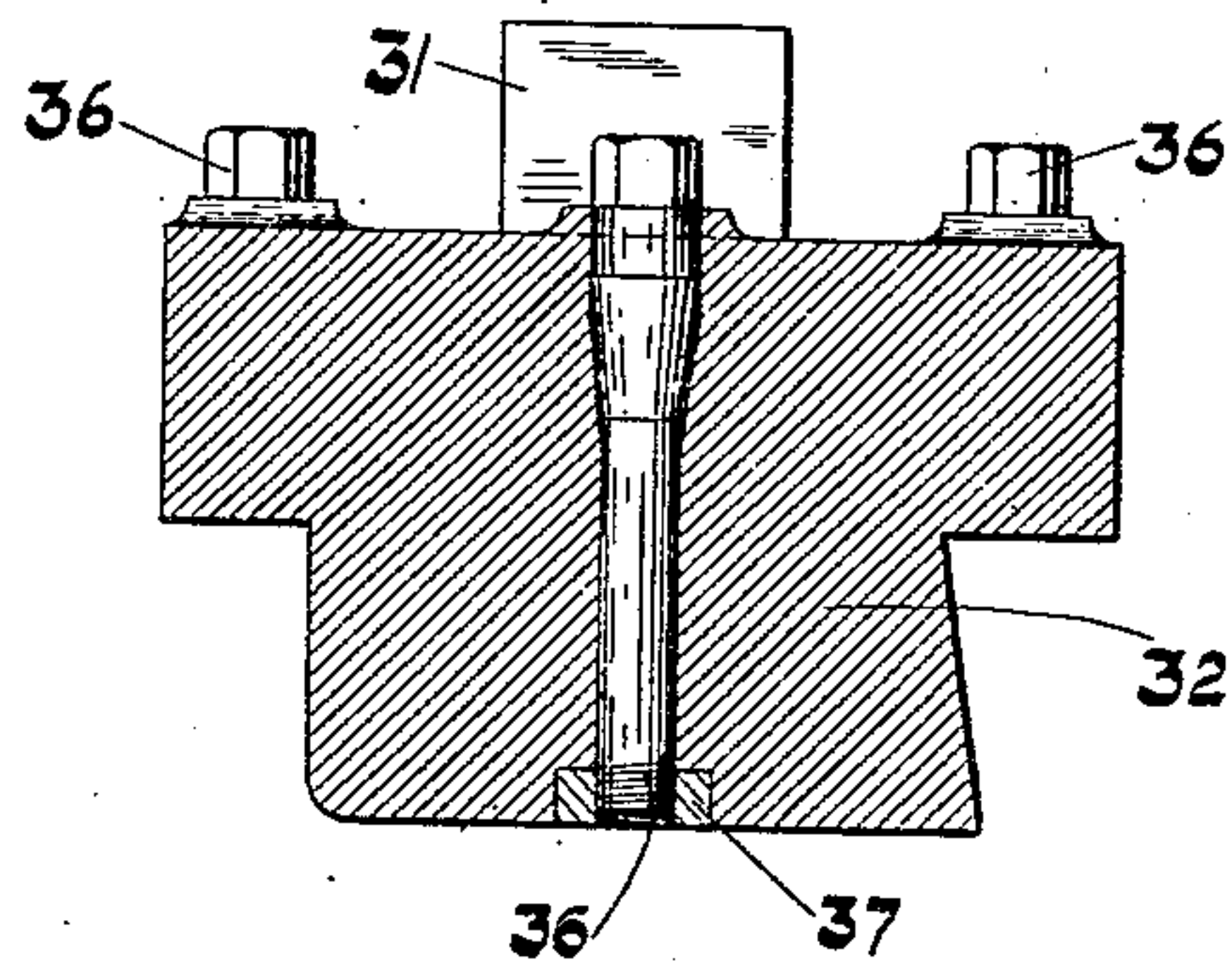


Fig. 5.

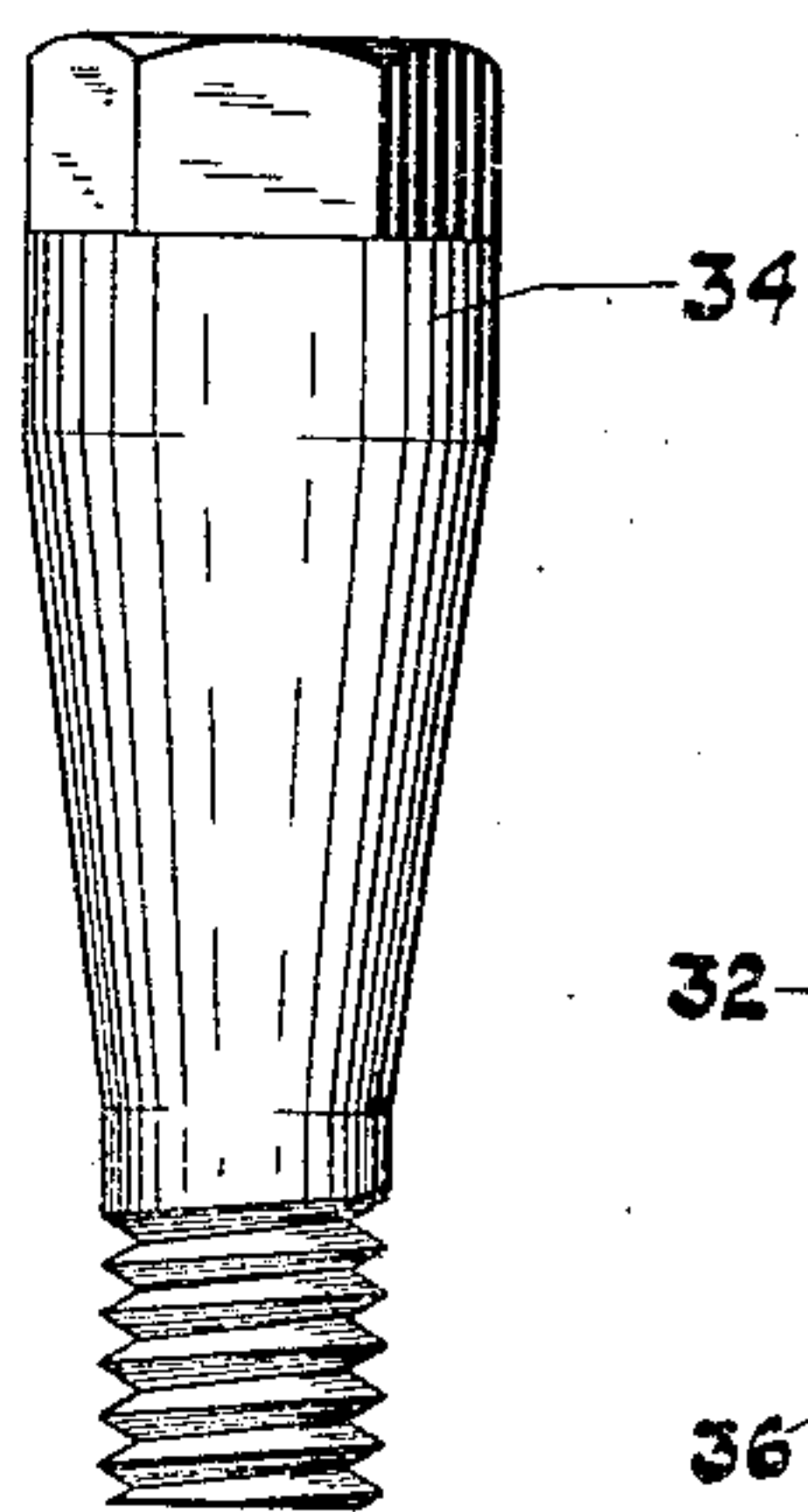


Fig. 6.

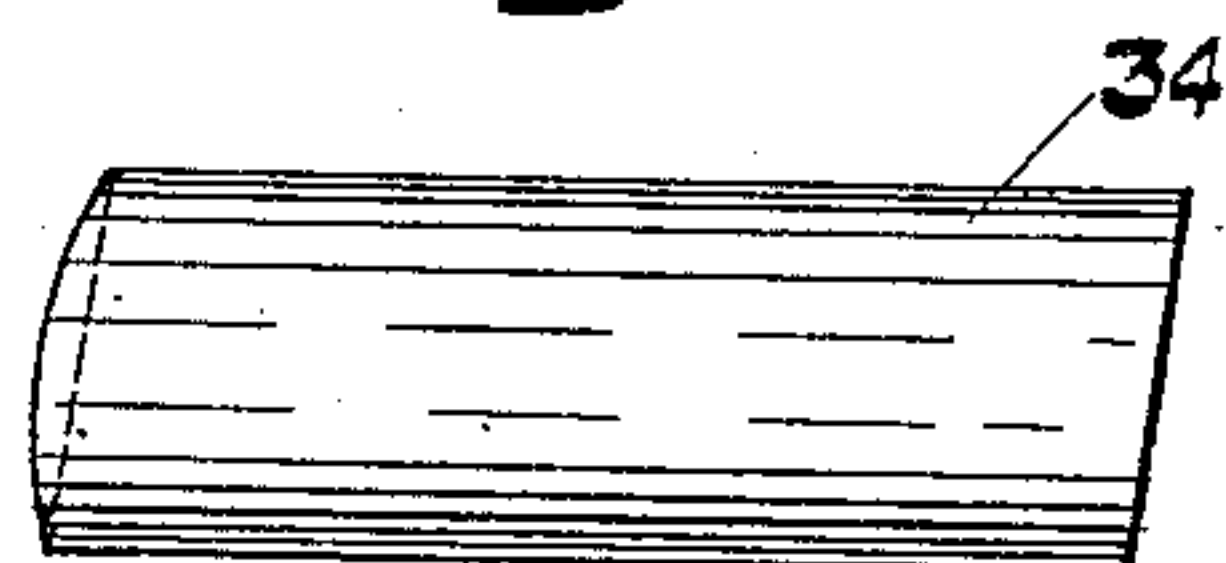
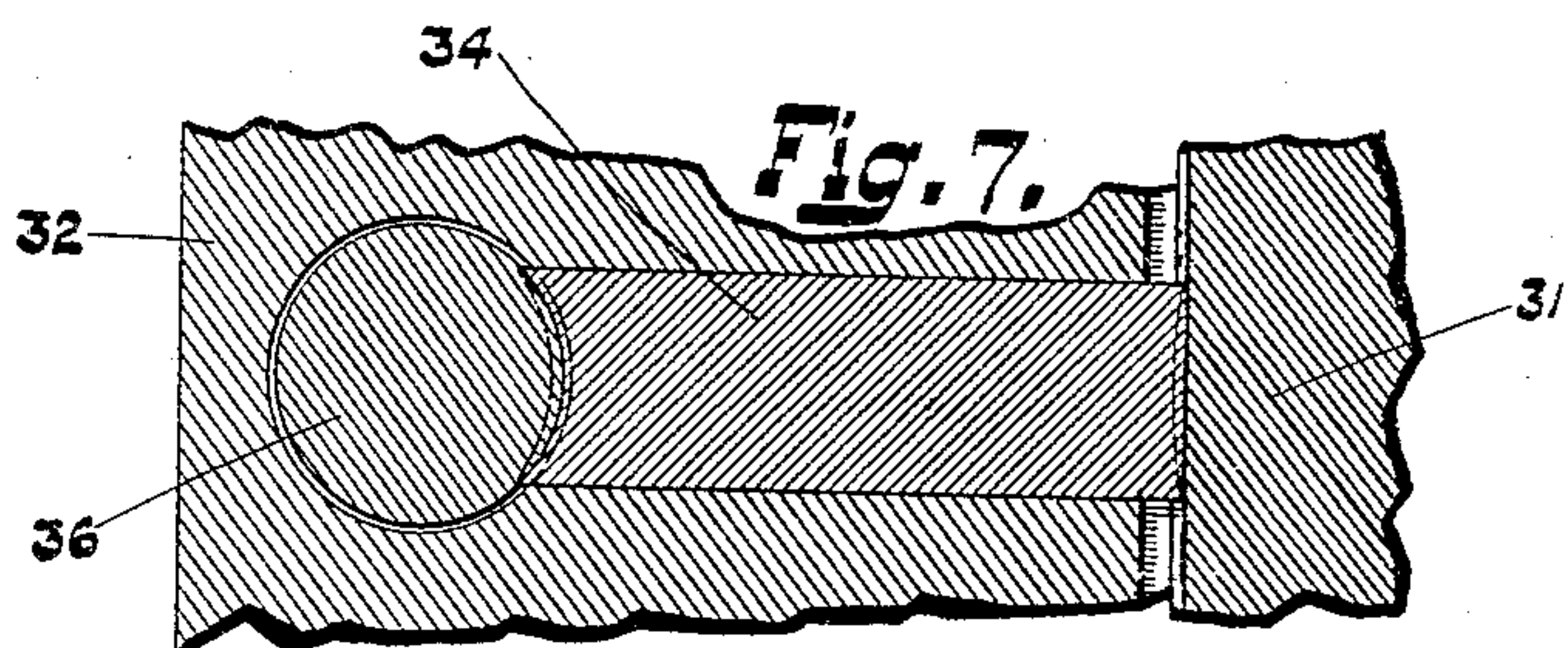


Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM F. GORTON, OF MUNCIE, INDIANA, ASSIGNOR TO ONTARIO SILVER COMPANY,
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DIE-HOLDER FOR DROP-HAMMERS.

940,005.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed April 24, 1909. Serial No. 492,206.

To all whom it may concern:

Be it known that I, WILLIAM F. GORTON, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Die-Holders for Drop-Hammers, of which the following is a specification.

The object of my present invention is to produce a reliable and efficient holder for such parts as the dies of drop hammers and the like.

A die holding apparatus embodying my said invention will be first fully described, and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a view partially in side elevation, and partially in vertical section, of a drop hammer, the dies therein, and die-holding devices made in accordance with my present invention; Fig. 2 a detail horizontal plan view thereof, as seen when looking downwardly from the broken line 2 2 in Fig. 1; Fig. 3 a detail sectional view on a somewhat enlarged scale as seen when looking in the direction indicated by the arrows from the broken line 3 3 in Fig. 2; Fig. 4 a detail sectional view as seen when looking in the direction indicated by the arrows from the broken line 4 4 in Fig. 2; Fig. 5 a side elevation of one of the wedge bolts separately; Fig. 6 a side elevation of one of the keepers separately, and Fig. 7 a horizontal sectional detail view taken at the point indicated by the broken line 7 7 in Fig. 3.

In these drawings I have shown, as the principal part of the machine embodying my invention, an ordinary anvil 21 with the columns 22 and 23 and hammer 24 of a drop hammer of any usual or desired construction. The hammer 24 is shown as having the upper die 25 secured therein by means of a wedge-like keeper 26, in an ordinary and well known manner. The lower die 31 is seated in a die holding block 32, which is keyed into the anvil 21 by means of a wedge or key 33. The die 31 has tapered sides at the lower end, and horizontally-disposed keepers 34 are mounted in correspondingly horizontally-arranged apertures in the upper portion of die block 32, and their inner ends press against the tapered sides of the die.

Vertical apertures are also formed in the die holding block 32 (transversely of those which contain the keepers 34), and wedge shaped bolts 36 enter these last-named apertures and press against the rear ends of the keepers 34. The form of the keepers 34 is best shown in Fig. 7. The rear ends are tapered to substantially correspond with the taper of the inner ends, but the said rear ends are also formed concave to receive and fit against the sides of the wedge shaped bolts 36. The lower ends of the bolts 36 are screw-threaded, and enter suitable nuts 37.

The operation may be stated as follows:—The die 31 is seated in the central space formed for the purpose in the upper side of the die holding block 32, the keepers 34 having previously been inserted in the horizontal apertures radiating from the said die space. The wedge shaped bolts 36 are then inserted in the perpendicular apertures, and, by means of the application of a suitable wrench to their non-circular upper ends, are driven down transversely of the keepers endwise, the lower ends of said bolts engaging nuts 37. The wedging action of these bolts drives the keepers 34 in strongly and firmly against the tapered sides of die 31, holding the same securely in place. Die 31 may also be adjusted somewhat by this same means, as will be readily understood. It is obvious that the wedge shaped bolts upon one side may be driven down until the die 31 is adjusted to exactly the relation to die 25 which is desired; and the wedge shaped bolts on the opposite side then driven down until the die is impinged strongly between the two opposing keepers or sets of keepers.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is,

1. The combination of a die holding block having a die receiving recess therein, a die having inclined sides seated in said recess, keepers mounted in apertures in the die block arranged at right angles with the die and having inclined faces corresponding to the inclined faces on the die, and inclined wedges mounted in apertures in the die holding block for forcing the keepers into contact with the die.

2. The combination of a holding block having a tool receiving recess therein with apertures arranged alongside said recess and other apertures arranged at substantially

right angles with the last named apertures, a tool adapted to be seated in the receiving recess, keepers arranged within the apertures leading into said recess, and wedge
5 like devices for operating said keepers.

3. The combination of a holding block having a tool receiving recess therein with apertures arranged alongside said recess and other apertures arranged at substantially
10 right angles with the last named apertures, a tool adapted to be seated in the receiving recess, keepers arranged within the apertures leading into said recess, and wedge

like devices for operating said keepers, the adjacent faces of the tool and the keepers
15 being correspondingly tapered at the points of engagement.

In witness whereof, I, have hereunto set my hand and seal at Muncie, Indiana, this
twentieth day of April, A. D. one thousand
20 nine hundred and nine.

WILLIAM F. GORTON. [L. s.]

Witnesses:

E. G. CLARKE,
L. B. THURLOW.