

No. 814,633.

PATENTED MAR. 6, 1906.

S. J. WELTER.

HAND VISE.

APPLICATION FILED APR. 26, 1905.

Fig. 1.

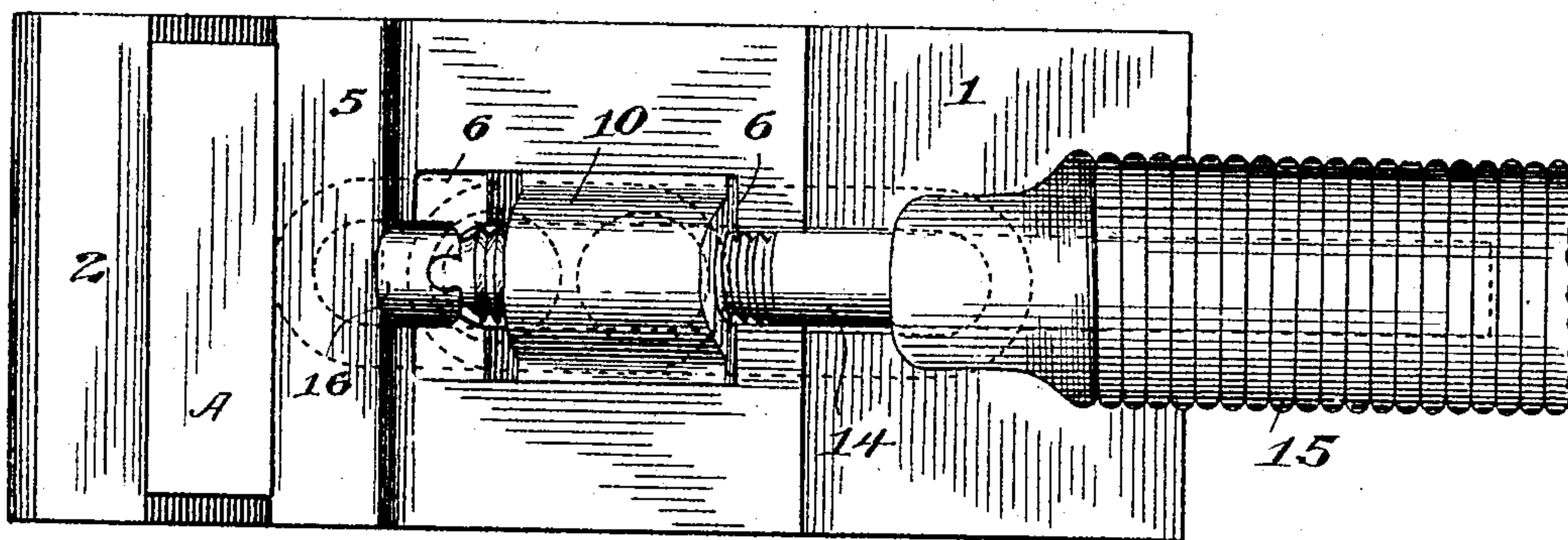


Fig. 2.

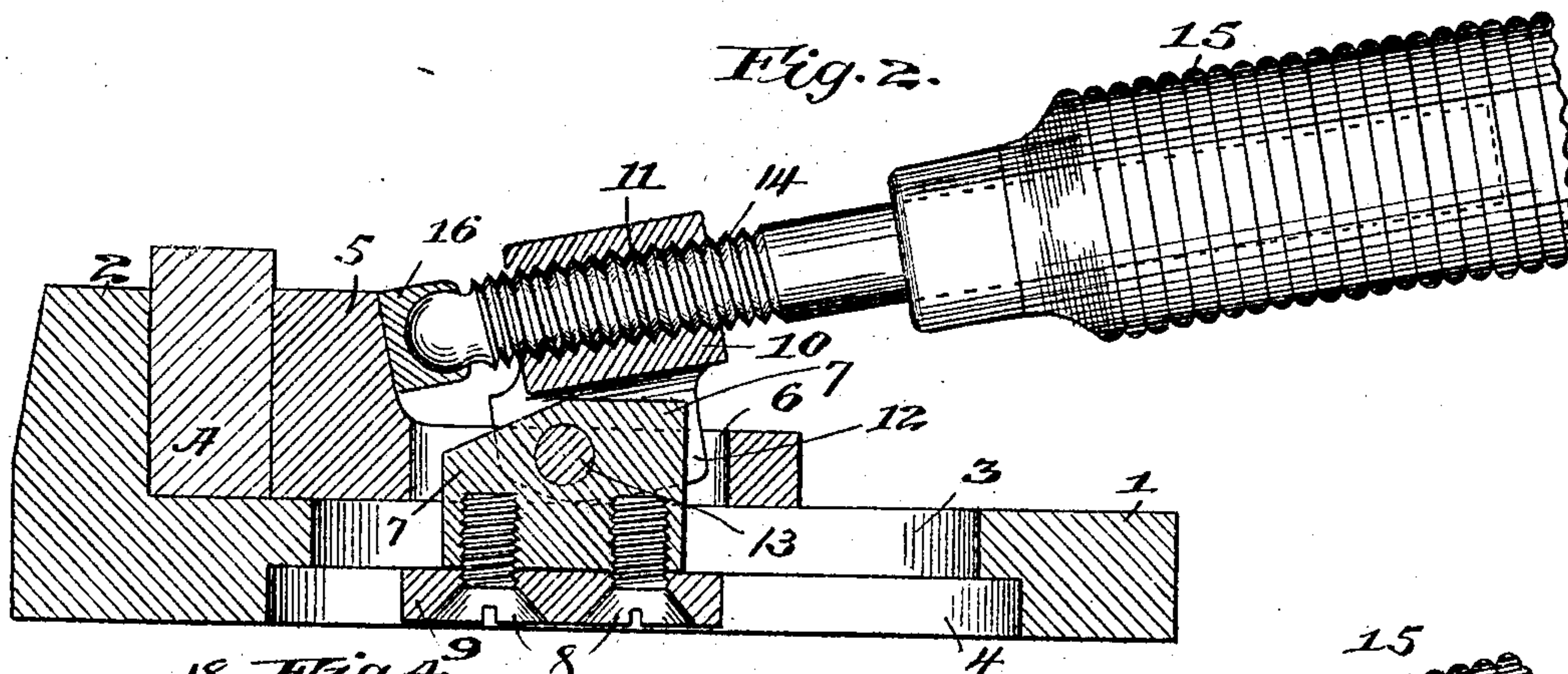


Fig. 4.

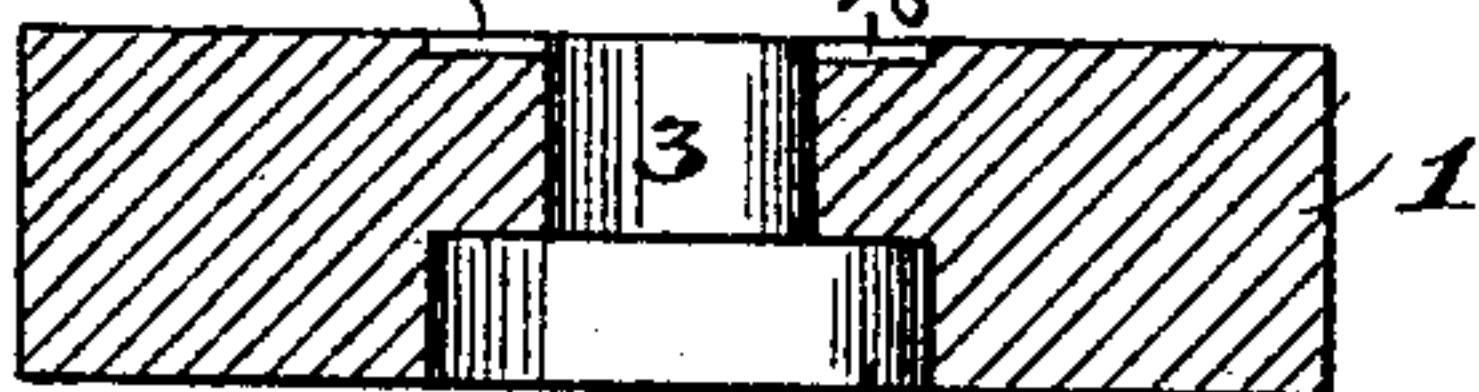
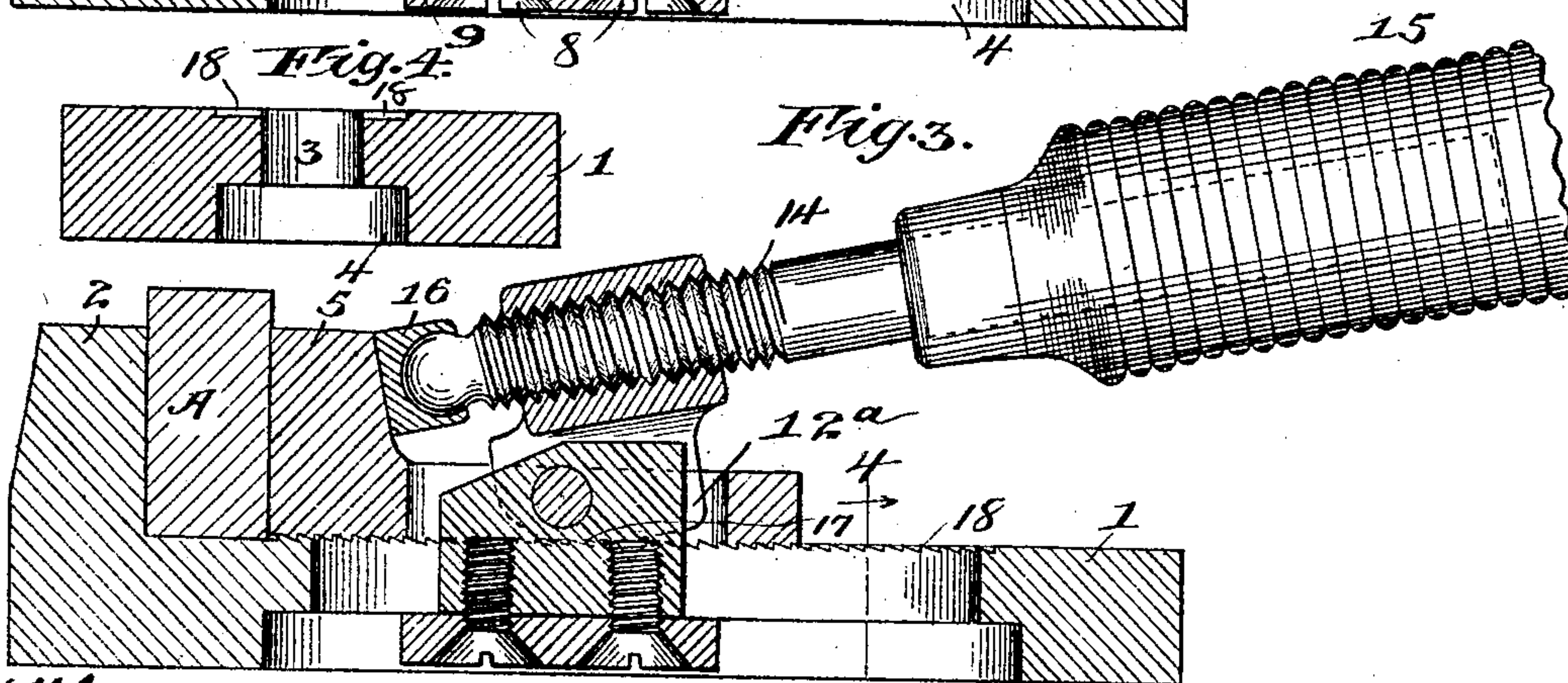


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## HAND-VISE.

No. 814,633.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed April 26, 1905. Serial No. 257,479.

*To all whom it may concern:*

Be it known that I, SEBASTIAN J. WELTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hand-Vises, of which the following is a specification.

This invention relates to hand-vises of that general type by means of which material being worked upon can be quickly and firmly gripped and conveniently and rigidly held in the hand during such work, though the principle involved may be readily adapted to any kind of vise.

Among the salient objects of the invention are to provide a device of the character referred to capable of instant adjustment to the thing to be gripped therein and this without the workman removing his hand from the handle of the device; to provide a device wherein the same movement which tightens the grip of the vise upon the thing being held simultaneously locks the adjustable member thereof in the adjusted position; to provide a device wherein this compound or double movement is controlled through and by means of the handpiece or handle by which the device is gripped and manipulated; to provide a device of the character referred to which constitutes in itself a base or block for the thing being worked upon and which is capable of being used in various positions, and, in general, to provide a simple and economical yet a most effective and practicable device of the character referred to.

The invention will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of one embodiment of the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view of a slightly-modified form of the invention. Fig. 4 is a cross-sectional view of the base member, taken on line 4 4, Fig. 3.

Referring to the drawings, 1 designates the base or body of the device, preferably of steel, having the jaw member 2 and provided with a longitudinally-extending slot 3. Said slot 3 is enlarged at the under side of said base member, as indicated at 4, Figs. 2 and 3, to provide a slideway for a purpose hereinafter referred to. 5 designates a second jaw

member slidably mounted upon said base or body and having therethrough a rectangular opening 6, substantially the same width as the enlarged portion of the slot 3, with which it is adapted to register when the parts are assembled.

7 designates a through member extending through the slot 3 and the opening 6 and having secured thereto at its lower edge by means of the screws 8 a plate 9, arranged to fit flush within the enlarged portion of the slot 3, as indicated in Fig. 2, and to slide longitudinally of the base, together with the sliding jaw member 5. Pivoted to said through member 7 is an eccentric or cam member 10, having a threaded barrel-like portion 11 and a pair of side members 12, which extend downwardly into the opening 6 on each side of the upper portion of the through member 7 and are pivotally connected to the latter by means of a rivet 13. The lower edges of said side members are curved eccentrically to the pivot at 13 and bear upon the base member 1 at opposite sides of the slot 3. 14 designates a screw member passing through and having threaded engagement with the barrel-like portion 11 of said member 10 and is provided at its outer end with a handpiece or handle 15, by which it is turned, and at its opposite end with a bearing-cap 16, mounted thereupon by a swivel connection and adapted to bear against the jaw member 5 and move the latter forwardly when turned.

By gripping the handpiece or handle 15 the cam-block or eccentric member 10, the through member 7, and the sliding jaw 5 can all be moved together backwardly or forwardly upon the base member 1, thus making it possible to instantly adjust the jaws to any piece of work to be held therein. For instance, if a bar of iron A is to be drilled it is placed upon the base member 1 adjacent the jaw 2 and the other jaw member moved up against it. Now by turning the handpiece and actuating-screw 14 a double or compound action results. The eccentric member 10 is rocked downwardly on its pivot, which results in drawing upwardly on the through member 7 and clamping said through member and eccentric member to the base member 1 and also in advancing the sliding jaw 5 simultaneously into gripping relation with



the work A, both the gripping and locking action being perfected by the simple turning of the hand-piece and actuating-screw 14.

In Fig. 3 the lower edges of said side members 12<sup>a</sup> are provided with notches 17, adapted to mesh with corresponding notches 18, formed in the upper surface of the base member along the sides of the slot 3. The edges of said base member and sliding jaw are made flush with each other and are square, whereupon the device can be used edgewise if it is desired to bore a hole longitudinally through the block A clamped therein.

While I have herein shown and described what I deem preferred embodiments of the invention, I am aware that modifications can be made therein without departing from the spirit of the invention, and I do not, therefore, limit the invention to the details shown and described, except in so far as such details are made the subject-matter of specific claims.

I claim—

1. A vise comprising in combination a base or body member provided with a jaw and having therein a slot, a cooperating jaw member slidably mounted upon said base or body member and provided with an opening therein arranged to register with said slot, a locking member for locking said base and jaw members together and working through said slot and opening, and an actuating member operatively connected with said locking member and engaging said movable jaw member, whereby to simultaneously lock said members together and advance said jaw member into a tightened gripping position.

2. In a hand-vise, the combination of a base or body member provided with a jaw and a slot, a cooperating jaw member slidably mounted thereupon and provided with an opening registering with said slot, a through member sliding within said slot with said jaw member, a cam member pivoted upon said through member and working in the opening in said jaw member and operat-

ing to lock said members together, and an actuating member through said cam member and engaging said jaw member, whereby the operating of said actuating member rocks said cam member and advances said jaw member simultaneously, substantially as described.

3. A hand-vise comprising in combination a base or body member provided with a jaw, a cooperating jaw member slidably mounted upon said base or body member, a through member operatively connected with both of said members and moving with the jaw member, a cam member provided with an eccentrically-disposed cam-surface and mounted upon said through member, and an actuating member having threaded engagement with said cam member and bearing against said movable jaw member, whereby the turning of said actuating member operates to simultaneously rock said cam member to lock said base and jaw members against relative movement and to tighten the gripping hold of the jaw members, substantially as described.

4. A hand-vise comprising in combination a base or body member provided with a jaw and having therein a slot with ratchet-teeth along its sides, a cooperating jaw member sliding upon said base member and having an opening therethrough, an eccentric - cam member provided with ratchet-teeth and having operative connection with said base and jaw members, a combined handpiece and actuating member threaded through said cam member and bearing against said movable jaw member, whereby the turning of said handpiece operates to simultaneously advance said jaw member into tightened gripping position and to lock said base and jaw member against relative sliding movement, substantially as described.

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