No. 833,865.

PATENTED OCT. 23, 1906.

W. A. BEASON.

WRENCH.

APPLICATION FILED MAR. 1, 1906.

Fig. 1.

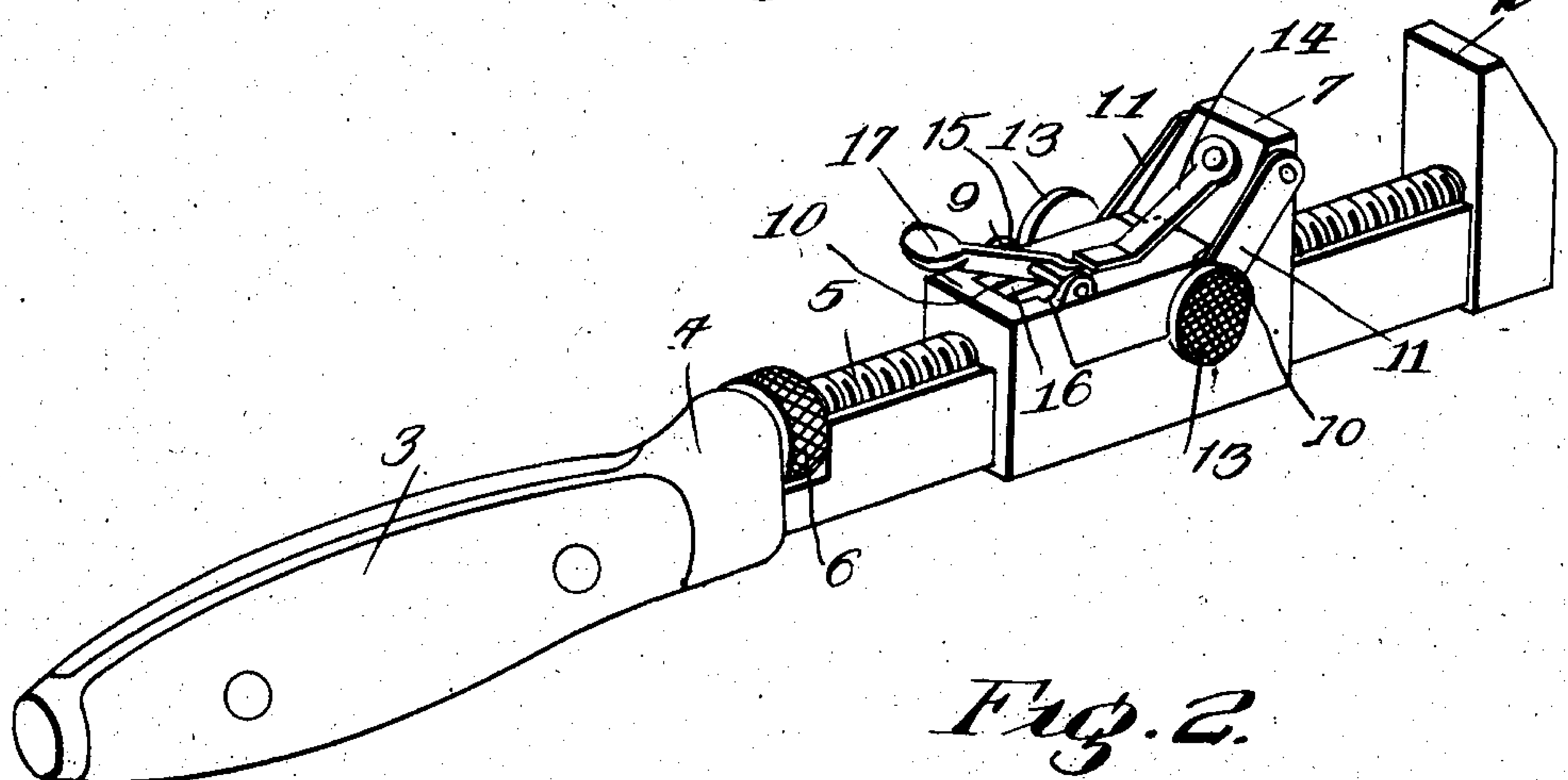


Fig. 2.

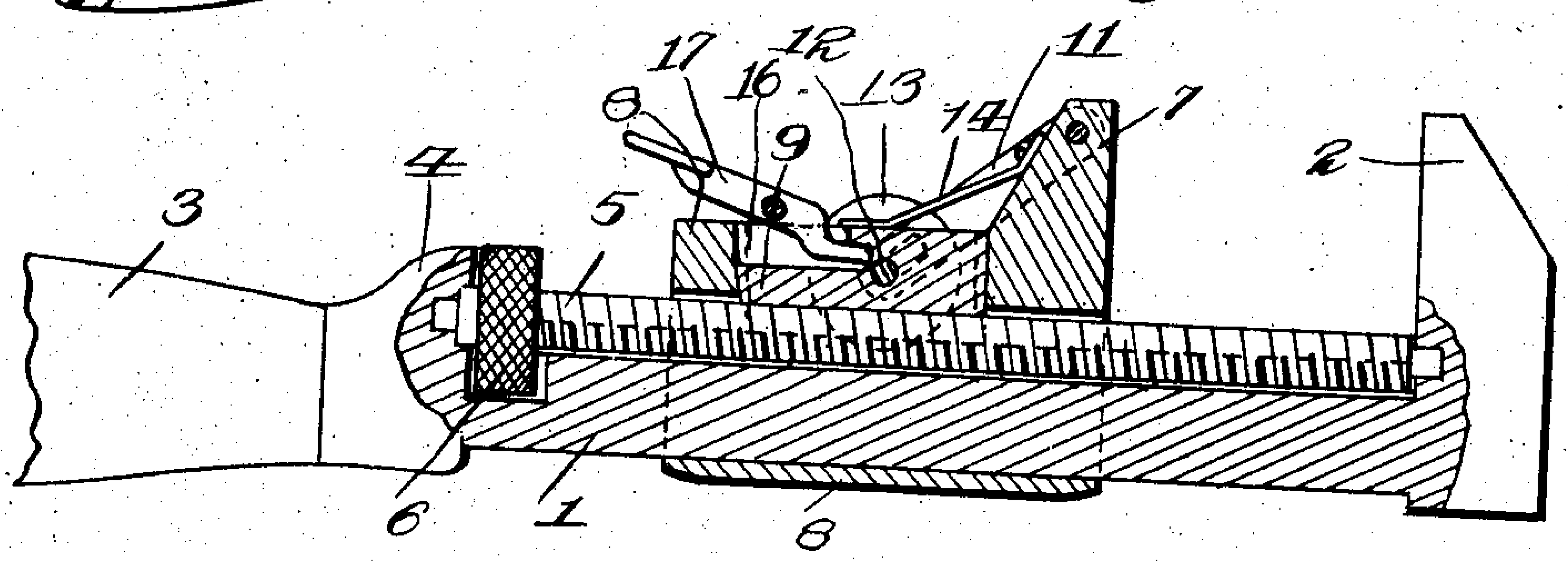
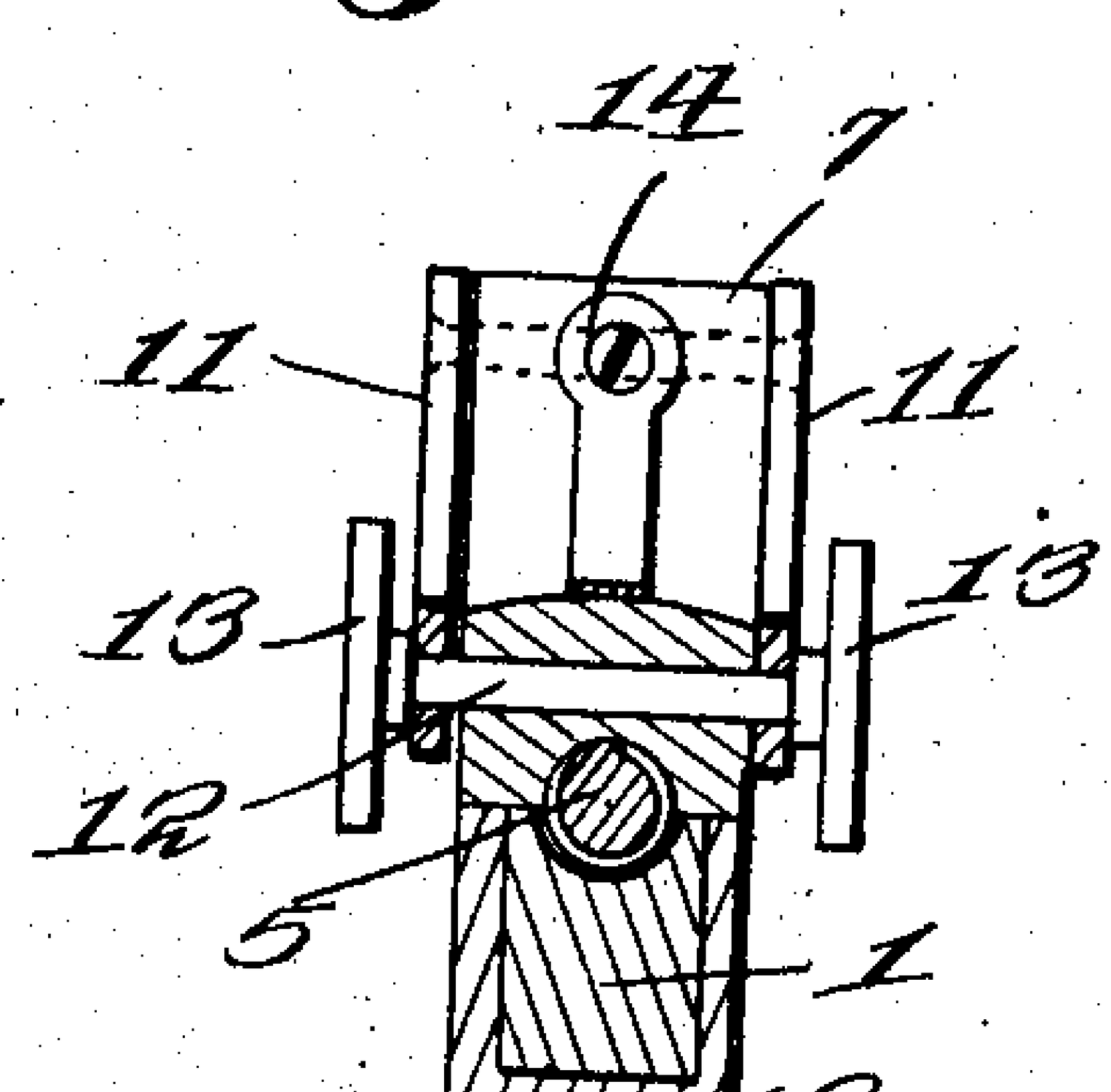
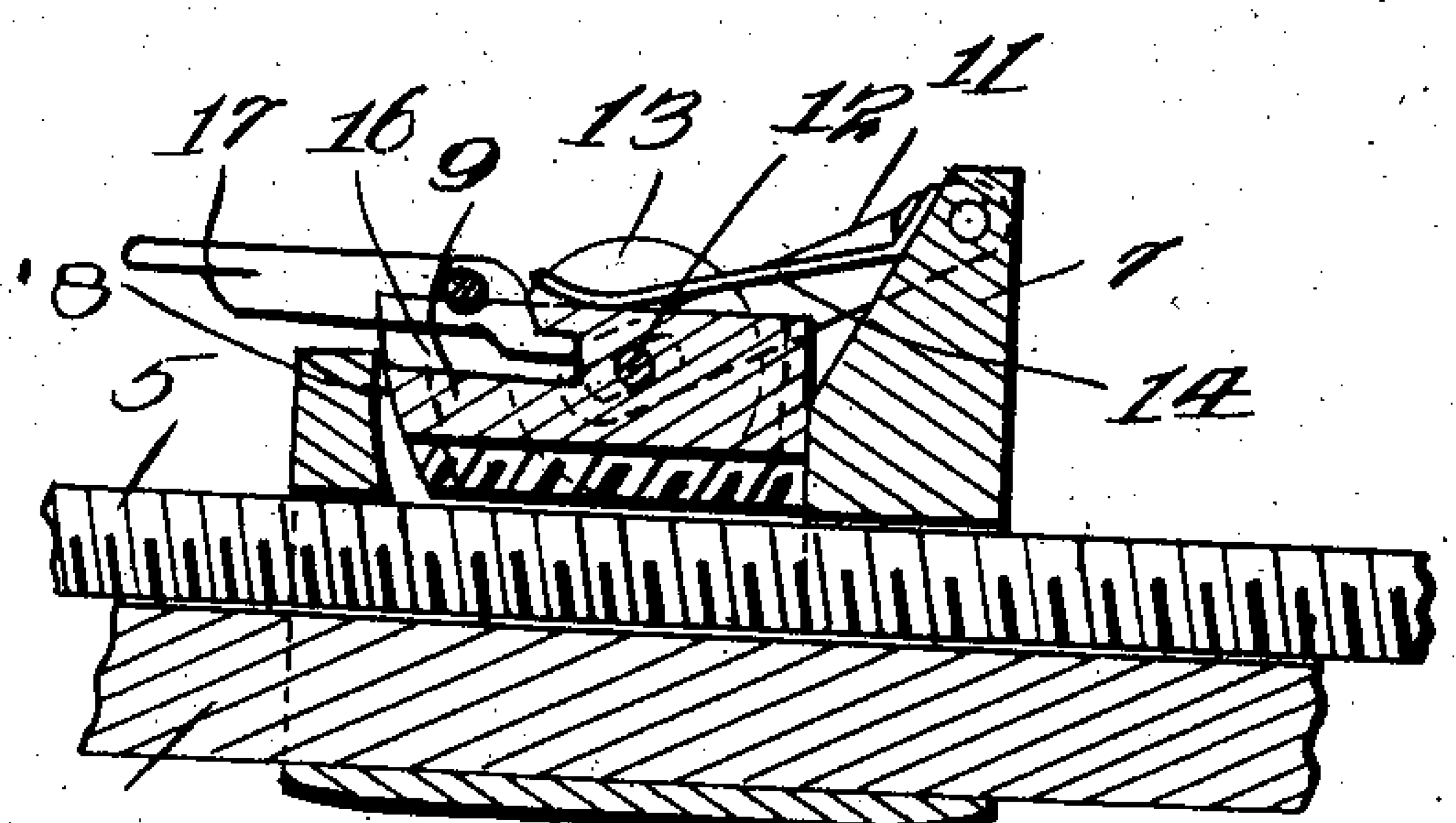


Fig. 4.

Fig. 3.





W. A. Beason. Inventor

Witnesses

By Attorneys

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UNITED STATES PATENT OFFICE.

WILLIAM A. BEASON, OF ASHVILLE, ALABAMA.

WRENCH.

No. 833,865. Specification of Letters Patent. Patented Oct. 23, 1906.

Application filed March 1, 1906. Serial No. 303,700.

To all whom it may concern:

Be it known that I, WILLIAM A. BEASON, a citizen of the United States, residing at Ashville, in the county of St. Clair and State of Alabama, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

The type of wrenches in common use is objectionable for many purposes, owing to the fact that it requires a large amount of time for the proper adjustment of the jaws, and the quick-acting wrenches which have been hitherto designed do not permit as fine an adjustment as is frequently necessary.

The object of the present invention has accordingly been to design a wrench which embodies in one tool the great advantages of the two types of wrenches just mentioned. For this purpose the movable jaw of the wrench is provided with a block one face of which is threaded so as to engage with the threaded adjusting-rod, said block being slidably mounted, so as to be quickly moved out of engagement with the adjusting-rod when it is desired to move the movable jaw for any considerable distance.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of the wrench. Fig. 2 is a side elevation of the same, parts being broken away and shown in section. Fig. 3 is a transverse sectional view. Fig. 4 is a longitudinal sectional view through a portion of the wrench and shows the blocks as disengaged from the adjusting-rod.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the shank of the wrench, which is provided with a fixed jaw 2 of the conventional type at one end and with a handle 3 at the opposite end. The handle 3 is formed with a lug 4 at the inner end thereof, which serves as a bearing for the adjusting-rod 5. This threaded adjusting-rod 5 extends longitudinally along the shank 1 and has one end mounted in the fixed jaw 2, while the opposite end is mounted in the lug 4.

In the preferred form of the invention the face of the shank 1 adjacent the adjusting-rod 5 is formed with a groove or depression which receives the inner portion of the adjusting-rod and serves as a guard to exclude dirt or other foreign matter. A thumb-piece 6 is formed integral with the adjusting-rod 5, and this thumb-piece is shown in the drawings as being located adjacent to the handle 3, so as to be readily accessible. The movable jaw 7 is secured to or preferably made integral with a sleeve 8, which is slidably mounted upon the shank 1 and also fits over the adjusting-rod 5. A block 9 is mounted in one side of sleeve 8, so as to engage with the threaded adjusting-rod, the face coming into contact with the said rod being formed with a longitudinal depression which is threaded so as to coöperate with the threads upon the rod 5. The ends of the block 9 are provided with tongues 10, which slide in corresponding grooves in the sleeve 8. This construction prevents any lateral displacement of the block 9, but enables the block to be moved in and out of engagement with the rod 5. This block 9 is connected to the movable jaw 7 by means of link members 11, one end of which are pivoted to said jaw, while the opposite ends are pivoted to the block by means of a pin 12. The extremities of the pin 12 preferably project beyond the sides of the wrench and are formed with finger-pieces 13, which are preferably knurled, as shown. When thus constructed, it will be apparent that by grasping the finger-pieces 13 the block 9 can be moved out of engagement with the threaded stem 5 and the movable jaw moved to any desired position upon the shank 1. When the finger-pieces 13 are released, the block 9 is again forced against the rod 5 by means of a spring 14, which is secured to the movable jaw and which bears against the block. After the movable jaw has thus been placed approximately at the required position it can be accurately adjusted by turning the thumb-nut 6 in the usual manner. It will thus be understood that by employing the threaded adjusting-rod 5 the movable jaw 7 can be very accurately adjusted, while by disengaging the block 9 from the rod 5 the movable jaw can be quickly moved to any desired position upon the shank 1. A finger-lever 17 may also be employed when desired for throwing the block 9 out of engagement with the ad-

justing-rod 5. This lever 17 is shown as pivotally mounted between lugs 15, projecting outwardly from the sleeve 8, the rear end of the lever forming a finger-piece, while the forward end fits in a recess 16 in the block 9 and engages with said block to pull the same away from the threaded adjusting-rod when pressure is exerted upon the finger-piece.

Having thus described the invention, what is claimed as new is—

1. In a wrench, the combination of a shank, a fixed jaw rigidly secured to the shank, a threaded adjusting-rod extending along the shank, a movable jaw formed in connection with a sleeve which is slidably mounted upon the shank, a block loosely mounted in one side of the sleeve and adapted to engage with the before-mentioned threaded adjusting-rod, the said block being formed at opposite ends with tongues which operate in corresponding slots in the sleeve and prevent lateral displacement of the block, link members loosely connecting the block to the movable jaw, a spring for normally holding the block in engagement with the adjusting-rod, and a finger-piece for withdrawing the block from engagement with the adjusting-rod.

2. In a wrench, the combination of a shank, a fixed jaw rigidly secured to the shank, a threaded adjusting-rod extending along the shank, a movable jaw formed in connection with a sleeve which is slidably mounted upon the shank, a block loosely mounted in one side of the sleeve and adapted to engage with the threaded adjusting-rod, a pin passing through the block and having finger-pieces formed at its extremity which serve as a means whereby the block can be disengaged from the adjusting-rod to enable the movable jaw to slide freely upon the shank, a pair of link members located upon opposite sides of the block, each of the link members having one end pivotally connected to the movable jaw, while the opposite end is loosely connected to one of the projecting ends of the before-mentioned pin, and means for holding the block normally in engagement with the adjusting-rod.

3. In a wrench, the combination of a shank, a fixed jaw rigidly connected to one end thereof, a handle at the opposite end thereof, a threaded adjusting-rod extending along the shank and mounted between the fixed jaw and the handle, a movable jaw formed in connection with a sleeve which is slidably mounted upon the shank, a block loosely mounted in one side of the sleeve and adapted to engage with and coöperate with the threaded adjusting-rod, a pin passing through the block and having finger-pieces at the extremity thereof, the said finger-pieces serving as a means for lifting the block out of engagement with the threaded adjusting-rod, a pair of link members located upon opposite sides of the block, each of the link members having one end pivotally connected to the movable jaw, while the opposite end is loosely connected to one of the projecting extremities of the before-mentioned pin, means for holding the block normally in engagement with the threaded adjusting-rod, and a finger-lever pivotally mounted upon the sleeve and engaging with the block to form a second means whereby the same can be lifted out of engagement with the adjusting-rod.

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

WILLIAM A. BEASON. [L. s.]

Witnesses:

T. B. HEALD,

ABNER CROW.