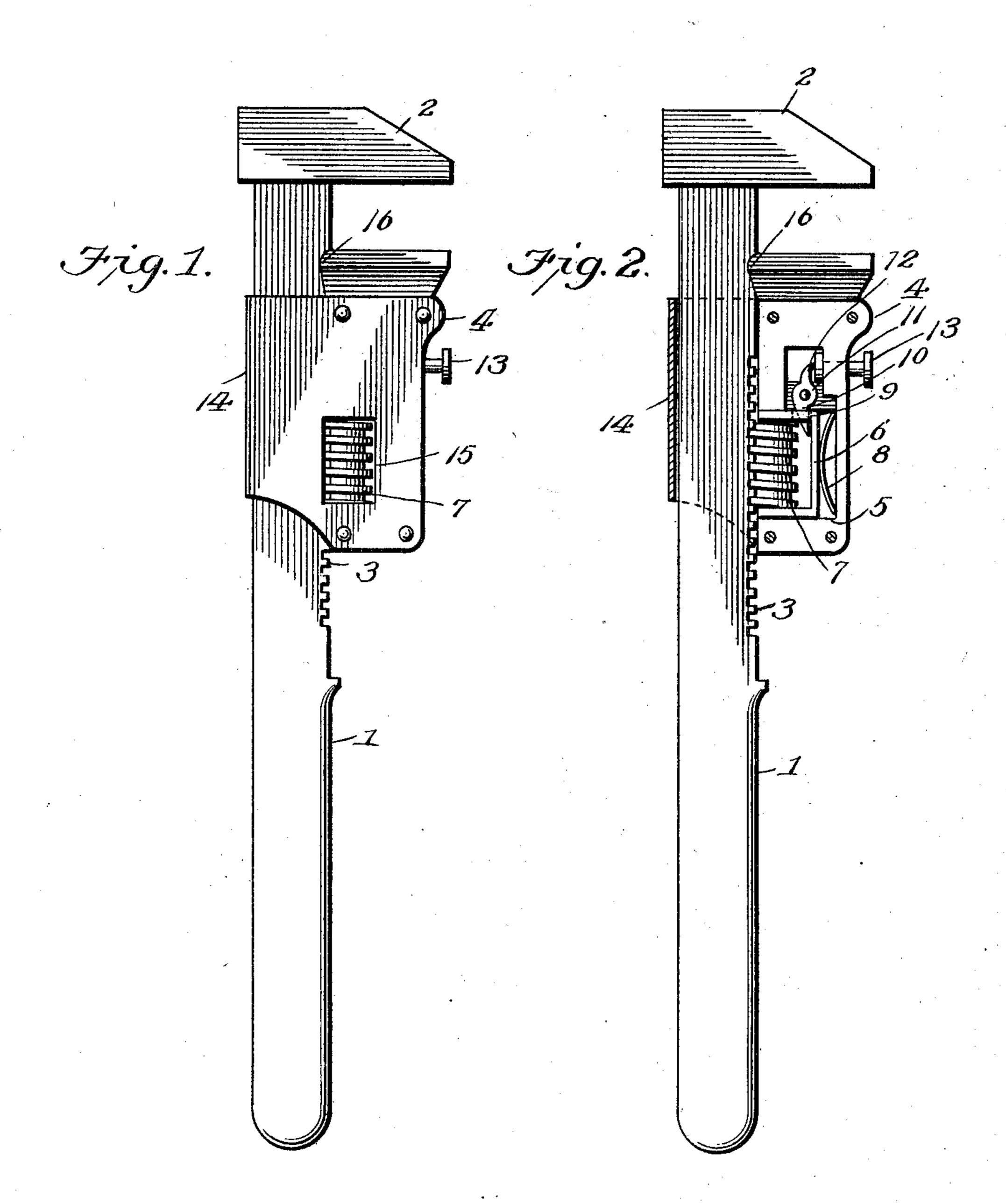
J. L. BOVEE.

WRENCH.

APPLICATION FILED SEPT, 27, 1902.

NO MODEL.



Jacob L. Bovee,

Witnesses

## UNITED STATES PATENT OFFICE.

JACOB L. BOVEE, OF RICHFORD, NEW YORK.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 719,299, dated January 27, 1903.

Application filed September 27, 1902. Serial No. 125, 105. (No model.)

To all whom it may concern:

Be it known that I, JACOB L. BOVEE, a citizen of the United States, residing at Richford, in the county of Tioga and State of New York, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches; and the object thereof is to provide an efficient and durable wrench having a jaw which is capable of quick adjustment.

Other objects, as well as the novel details of construction, will be specifically described hereinafter and illustrated in the accompany-

15 ing drawings, in which— Figure 1 is a side elevation

Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Figure 2 is a side elevation, one side of the plate for securing the sliding jaw being removed, so as to illustrate the interior construction of the sliding-jaw mechanism.

The reference-numeral 1 designates the shank of a rigid jaw 2 and in one edge of which are a plurality of teeth 3.

4 designates the sliding jaw of the wrench, which comprises the block having a recess 5 cut therein for the reception of a laterally-sliding spring - pressed approximately U-shaped clip 6, which constitutes a securing device and bearing for the revoluble worm 7, which is designed to engage the teeth 3 of the shank 1, so as to adjust the jaw with relation

to the jaw 2.

Immediately in the rear of the clip 6 and 35 bearing against the block 4 is a flat spring 8, the bowed portion of which bears against the U-shaped clip, so as to normally force the worm 7 in contact with the teeth. In the upper vertical arm of the clip 7 is a perforation 40 9, on which projects a downwardly-extending finger 10 of a vertically-arranged pivotal lever 11. A finger 12 projects from the lever 11 upwardly and is designed to be engaged by a transversely-arranged sliding bolt 13, so 45 that by pressing inward toward the shank on the bolt 13 the lower portion of the lever will be caused to move away from the shank, forcing the clip away therefrom and carrying the worm out of engagement with the teeth 50 3, so that the jaw may be moved longitudinally with relation to the shank by sliding it, thus expediting the adjustment of the wrench.

The jaw 4 is secured to the shank by a clip 14, which comprises a plate bent intermediate its ends and approximately U-shaped in 55 cross-section, said plate being fastened to either side of the jaw 4 by bolts or rivets and embracing the shank 1, the plate being provided with diametrically oppositely located slots 15, whereby the operator can grasp the 60 worm to turn the same, so as to effect a nicety of adjustment. The approximate adjustment can be effected by pushing in on the bolt 10, so as to throw the worm out of engagement with the rack, whereby the jaw may 65 be slid on the shank. The jaw 4 is provided with parallel flanges 16, which embrace either side of the shank to guide the jaw on the shank and to add rigidity thereto in the operation of the wrench.

While I have described what to me at this time appears to be the very best means of accomplishing the desired result, I do not limit myself to the exact construction shown, but reserve the right to make such slight changes 75 and alterations as may suggest themselves from time to time without departing from the spirit or sacrificing the advantages of my in-

vention.

Having thus described my invention, what 80 I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench the combination with a shank having teeth on one edge and a jaw on one end, of a sliding jaw on the wrench provided 85 with a recess, a device slidably secured in the recess, a worm journaled therein and adapted to normally engage the teeth on the shank, a pivoted lever arranged above the device, one end of which projects through an 90 opening therein, and a sliding bolt adapted to be exerted against the other end of the lever to slide the device and retract the worm out of engagement with the teeth.

2. In a wrench the combination with a shank, 95 of a rigid jaw thereon, a sliding jaw carried by the shank and adapted to engage the teeth thereon, a U-shaped clip carried by the sliding jaw, means carried by the clip for engaging the teeth on the shank of the wrench, a spring normally holding the means carried by the clip in engagement with the shank, a pivoted lever above the clip and projecting through the opening therein, and means for

actuating the lever to slide the clip whereby the engaging means will be thrown out of contact with the teeth.

3. In a wrench the combination with a shank having teeth on one edge and a jaw on one end, of a sliding jaw on the shank, a device slidably secured with relation to the sliding jaw, a worm journaled therein and adapted to normally engage the teeth on the shank, and a pivoted lever arranged above the de-

vice, one end of which projects through an opening therein, said lever being adapted to be operated to slide the device and retract the worm out of engagement with the teeth.

In testimony whereof I affix my signature 15

in presence of two witnesses.

JACOB L. BOVEE.

Witnesses:

B. C. RAWLEY, FRANC BELDEN.