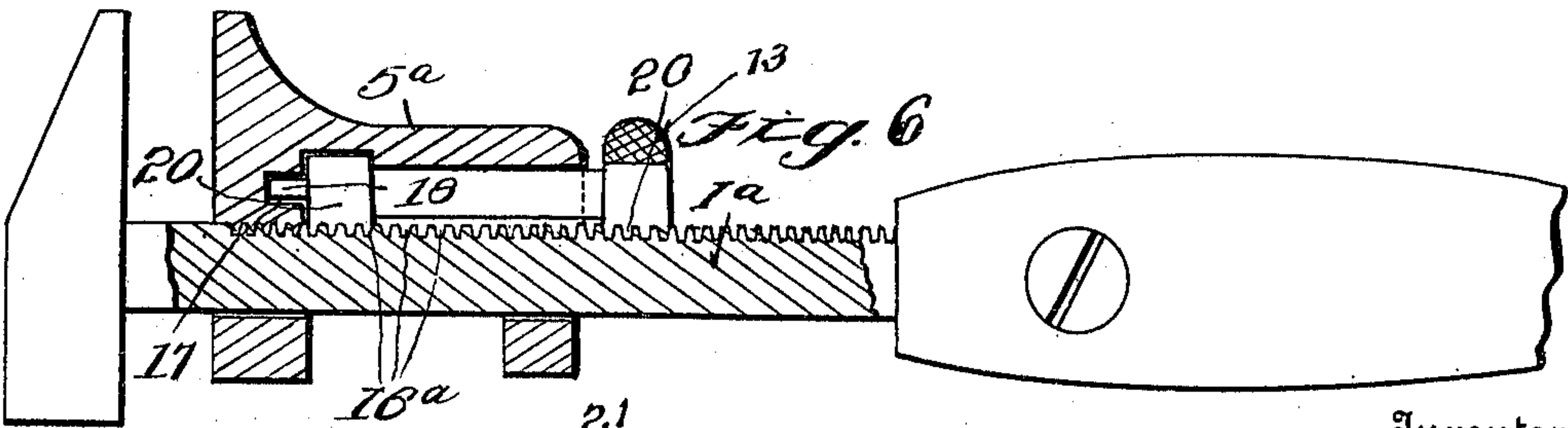
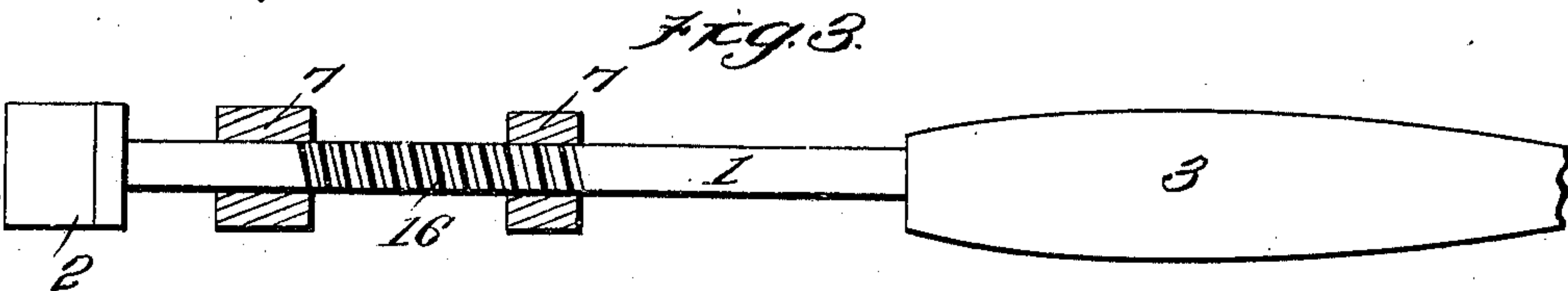
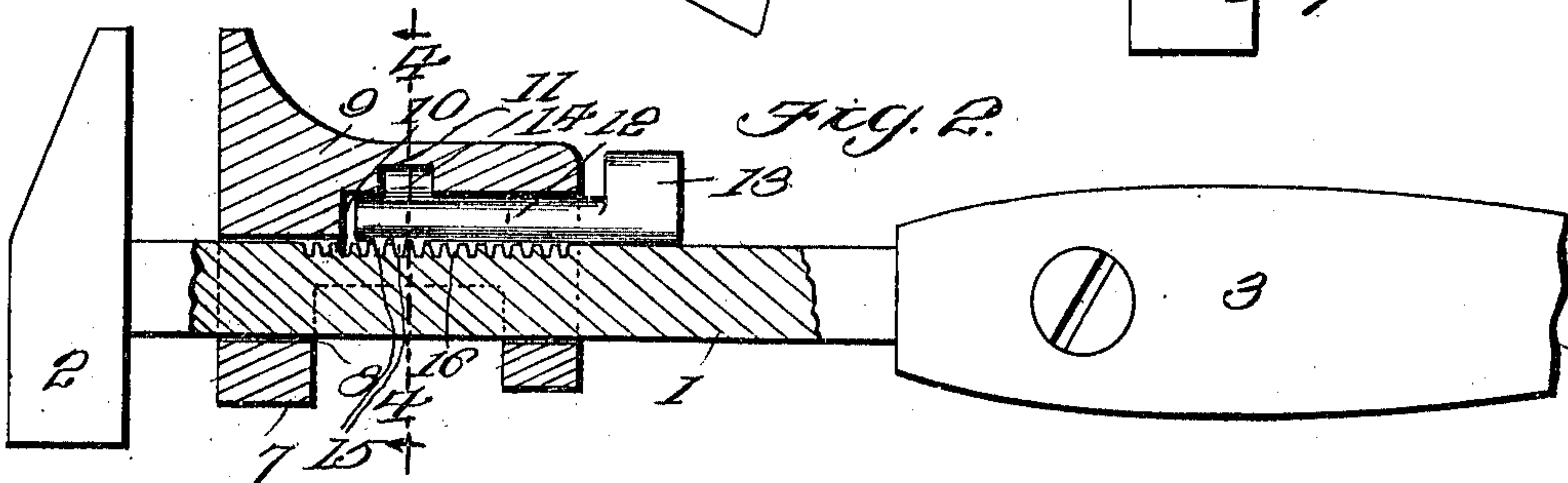
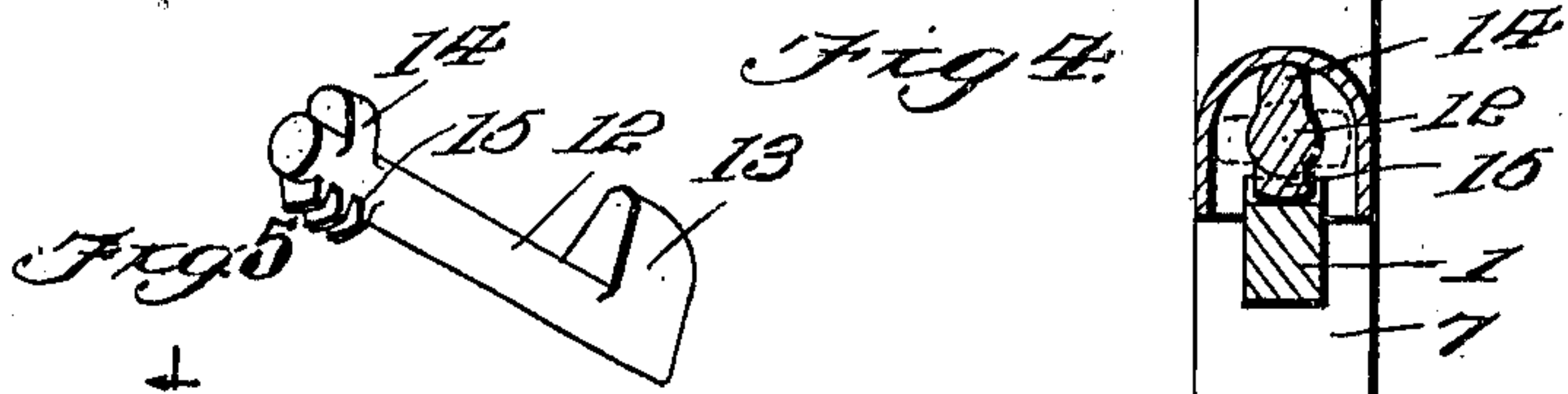
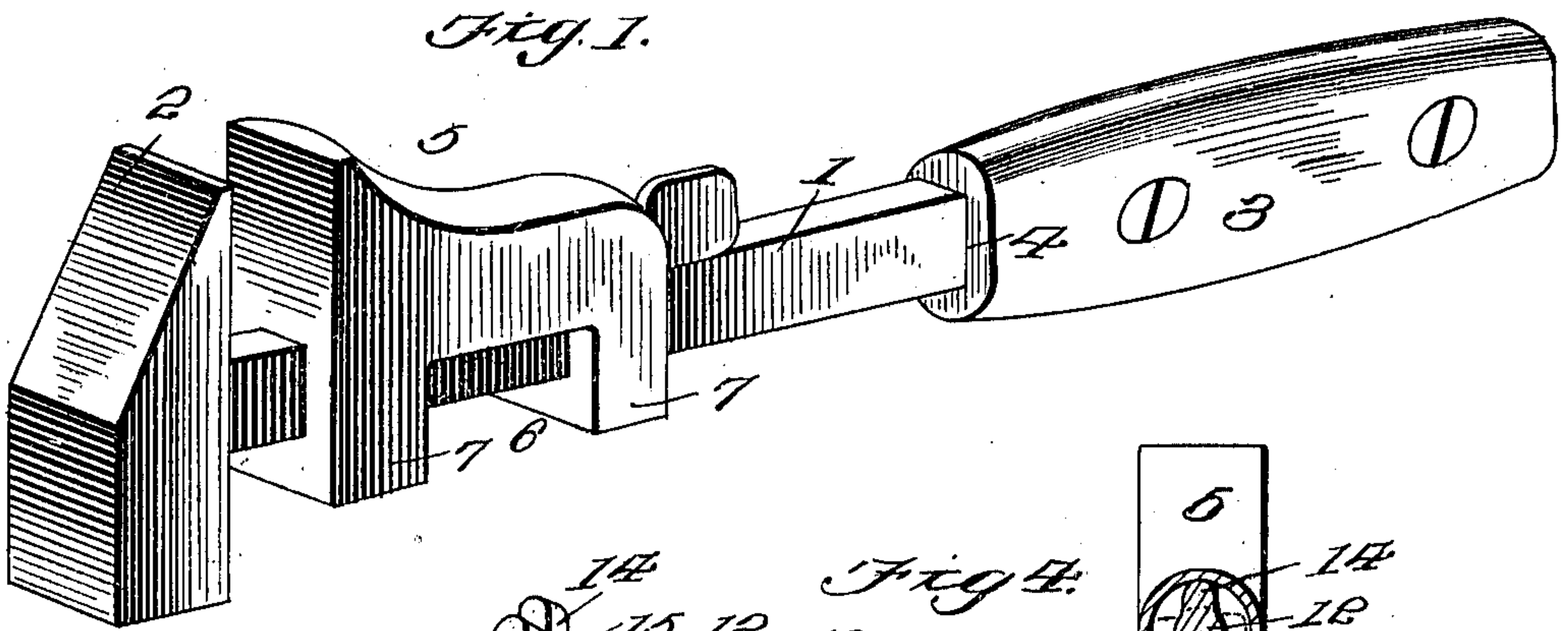


C. C. GUERNSEY.
MONKEY WRENCH.
APPLICATION FILED OCT. 30, 1909.

978,151.

Patented Dec. 13, 1910.



Witnesses
W. H. Hoodson
Juana M. Fallon

Fig. 7.

By
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UNITED STATES PATENT OFFICE.

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MONKEY-WRENCH.

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Specification of Letters Patent.

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Application filed October 30, 1909. Serial No. 525,488.

To all whom it may concern:

Be it known that I, CHARLES C. GUERNSEY, citizen of the United States, residing at Derry, in the county of Rockingham and State of New Hampshire, have invented certain new and useful Improvements in Monkey-Wrenches, of which the following is a specification.

This invention relates to certain new and useful improvements in wrenches and more particularly to the class known as "monkey wrenches."

The object of the invention is to provide a device of this character which may be easily and quickly adjusted to the work and locked in such position.

Another object of the invention is to provide a wrench wherein the movable jaw is capable of being slidably adjusted and after being advanced to the work may be forced up to grip said work by the same action which locks said jaw in position.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of my improved wrench; Fig. 2 is a vertical longitudinal sectional view, partly in elevation; Fig. 3 is a top plan view partly in section showing the diagonal position of the teeth on the shank; Fig. 4 is a transverse section taken on the line 4-4 of Fig. 2; Fig. 5 is a detail view of the locking key; Fig. 6 is a view similar to Fig. 2 and showing a modified form of my invention; Fig. 7 is a detail view of a modified construction of locking key.

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

Referring to the drawing the numeral 1 designates the shank of my improved wrench at one end of which is located a fixed jaw 2 which may be formed integral with said shank. The opposite end of the shank is provided with a handle 3 which may be secured thereto, in any suitable manner. In

the present instance I have shown the handle provided with the longitudinally extending recess 4 adapted to receive the end of the shank.

The numeral 5 designates a movable jaw which is provided in its rear edge with the longitudinally extending recess 6, forming keepers 7. The keepers 7 have extending therethrough apertures 8 which are designed to receive the shank 1 and thus allow free movement of the jaw 5 along said shank between the fixed jaw 2 and the handle 3. The movable jaw 5 is provided in its body portion 9, with a longitudinally extending recess 10, said body portion being also provided with a transverse slot 11 communicating with recess 10 near one end thereof, as shown. The aperture thus formed is designed to receive a locking key 12, which latter extends toward the handle of the wrench. One end of said key is provided with the thumb-piece 13 which may be formed integral therewith. The key 12 is provided near its opposite end with a lug 14 extending parallel with the thumb-piece 13, and adapted to rotate in the transverse recess 11, the rear wall of the recess 11 being curved transversely to form a bearing surface for the lug 14, as best shown in Fig. 4 of the drawing.

Formed on the key 12 opposite the lug 14 is a threaded cam 15 the threads of which are cut diagonally so as to present inclined surfaces for engagement with correspondingly inclined teeth 16 on the front edge of the shank. It will thus be clear that when the jaw 5 has been adjusted to the work and the key 12 turned, the threads on the cam by engagement with the teeth 16 will cause the movable jaw to be wedged up against the work and be held firmly in that position. Owing to the position of the threads 15 on the key 12, it will be seen that the jaw 5 will be allowed free movement along the shank 1 when the thumb-piece 13 lies transversely thereto. In order to engage the shank and wedge the jaws against the work, it is only necessary to press the thumb-piece laterally until it assumes a vertical position.

In assembling my improved wrench, the key 12 is first inserted in the jaw 5 and turned so that the threads 15 will not interfere with the shank 1. The shank 1 is then inserted through the keepers 7 and the han-

dle applied when the wrench is ready for use.

In Fig. 5 I have illustrated a modified form of my invention in which the movable jaw 5^a is provided with a recess 17 designed to receive a pintle 18 carried by the locking key 19. The key 19 is provided at its ends with the shank engaging cams 20 which are threaded and are designed to mesh with teeth 16^a on the shank 1^a, one of said cams being located at the base of the movable jaw 5^a and provided with a thumb piece 13^a which will be formed integral therewith and the other cam provided with a laterally extending lug 21 adapted to fit within the transverse seating recess of the movable jaw, as shown. This form of my invention may be found desirable for heavy work or where it is desired to have two bearing surfaces to engage the shank. In this form, as in the other, the threads of the cams are preferably diagonally disposed, so as to cause a wedging action on the jaw 5^a.

From the foregoing description in connection with the accompanying drawing it will be seen that I have provided a wrench of simple construction, admitting of manufacture at small cost, wherein the movable jaw may be readily adjusted to suit varying sizes of work and said movable jaw locked in engagement with the work.

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

1. A wrench including a shank having a fixed jaw and provided at one longitudinal edge thereof with transversely disposed inclined teeth, a movable jaw slidably mounted on the shank and provided with a longitudinal seating recess opening through one end of the movable jaw, there being a transverse recess formed in the movable jaw and intersecting the longitudinal recess, and a locking key journaled in the seating recess and provided with a laterally extending lug pro-

jecting within the transverse recess, one end of the locking key being provided with a cam disposed at a point diametrically opposite the lug and provided with threads for engagement with the teeth on the shank, the other end of the key being projected through the open end of the movable jaw and provided with a laterally extending thumb piece disposed on the same side of the key as said lug.

2. A wrench including a shank provided with a fixed jaw and having one longitudinal edge thereof provided with transversely disposed inclined teeth, a movable jaw slidably mounted on the shank and provided with a longitudinal seating recess opening through one end of the movable jaw, there being a transverse recess formed in said movable jaw and communicating with the seating recess, the rear wall of said transverse recess being curved to produce a bearing surface, and a locking key journaled in the seating recess and having one end thereof provided with a laterally extending lug seated in the transverse recess and bearing against the curved wall thereof, one end of said locking key being provided with a cam arranged diametrically opposite the lug and provided with threads adapted to engage the teeth on the shank, the opposite end of the key being projected through the open end of the movable jaw and provided with a terminal laterally extending thumb piece arranged on the same side of the key as said lug and disposed at substantially right angles to the length of the key, the walls of the key between the lug and thumb piece being smooth and unobstructed.

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

CHARLES C. GUERNSEY. [L. s.]

Witnesses:

RICHARD C. POTTER,
BESS. L. RUSSELL.