

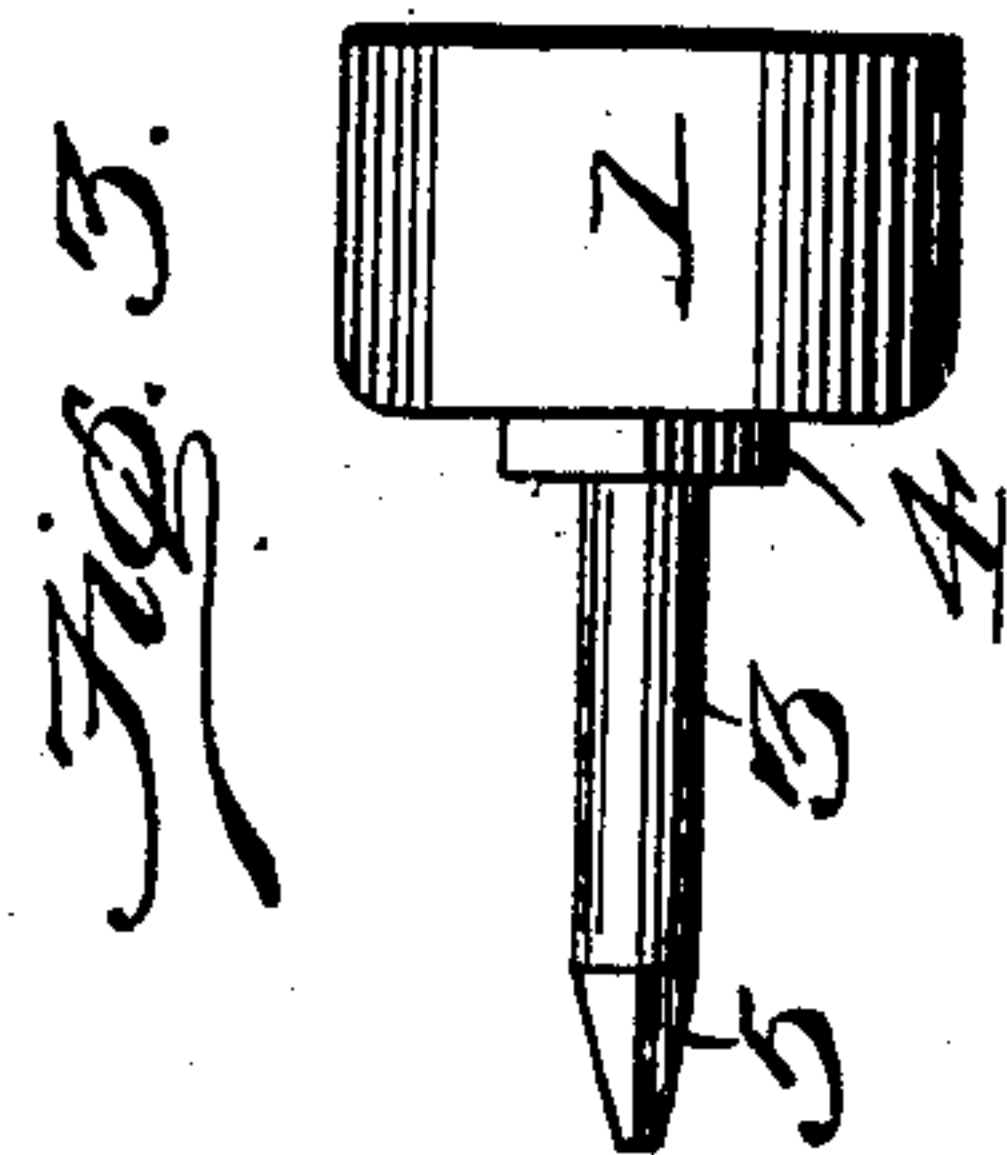
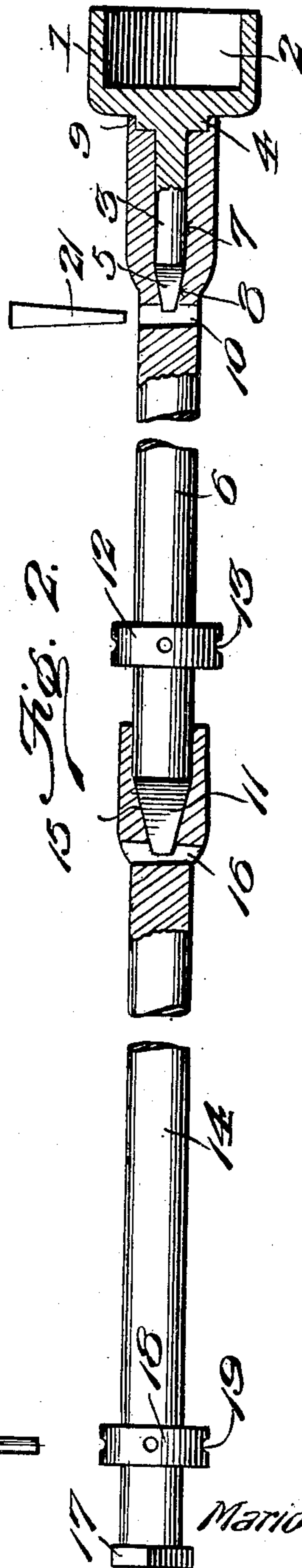
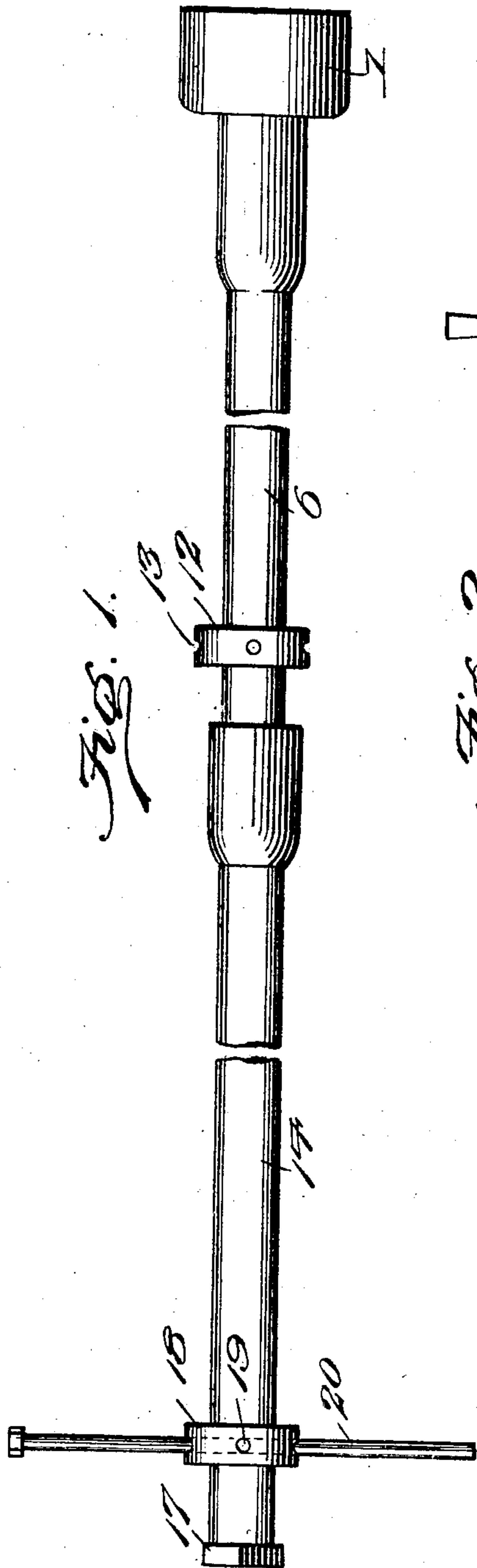
No, 863,551.

PATENTED AUG. 13, 1907.

M. A. MULRONY.

WRENCH.

APPLICATION FILED APR. 24, 1907.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## WRENCH.

No. 863,551.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed April 24, 1907. Serial No. 370,073.

*To all whom it may concern:*

Be it known that I, MARION A. MULRONY, a citizen of the United States, residing at Plaza, in the county of Spokane and State of Washington, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches for turning nuts, keys and the like in places that are not readily accessible with an ordinary wrench; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability and general efficiency.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing, Figure 1 is a side elevation of the improved wrench. Fig. 2 is a sectional elevation of the same. Fig. 3 is a detail view in side elevation of the nut engaging portion or member of the wrench.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved wrench comprises a head 1 having a recess or socket 2 of polygonal shape adapted for engagement with a nut, a key or valve of a stop cock, or other object that is to be turned; the head 1 of the recess or socket therein may be of any desired dimensions, and the socket may be of any desired shape to engage the object that is to be turned. The head 1 is provided with a shank 3 which may be of cylindrical shape, said shank being provided at the base thereof with an offset 4 which is preferably square; the terminal end of the shank 3 has a tapering or wedge-shaped extension 5 which is preferably square in cross-section.

6 designates an extension rod having at one end a socket which includes a cylindrical portion 7 adapted to receive the cylindrical portion of the stem or shank 3; said recess terminating at its inner end in a wedge-shaped pocket 8 adapted to receive the wedge 5, and the outer extremity of said socket being expanded to form a recess 9 adapted to receive the square offset 4 formed at the base of the stem or shank 3. The rod 6 has a transverse slot 10 intersecting the inner end of the pocket 8; and said rod is provided at its outer end with a terminal

wedge 11 and near its outer end with a collar 12 having transverse apertures 13 for the reception of a handle 55 whereby it may be turned.

14 is a second extension member or rod having at one end a socket 15 for the reception of the wedge-shaped end 11 of the rod 6, said socket 15 being intersected at its inner end by a slot 16; the opposite extremity of the rod 14 has a square head 17 constituting a wrench seat; and near the outer end of the rod 14 is formed a collar 18 having transverse apertures 19 for the reception of a handle bar 20 whereby it may be turned.

When the shank 3 of the head 1 is inserted into the socket 7 of the extension rod 6, the wedge 5 may be driven into the pocket 8 where it will be firmly seated, thus holding the head 1 in position to be used, being turned by means of a handle bar, as 20, inserted through one of the transverse apertures 13 of the collar 12. If an additional extension is required, the extension rod 14 may be mounted upon the rod 6, the wedge 11 of which will enter, and be securely seated in the socket 15 while the entire apparatus may be turned by a handle bar 20 inserted through one of the transverse apertures 19, or by means of an ordinary wrench engaging the seat 17.

In order to separate the parts of the device, a wedge-shaped key, as shown at 21, may be inserted into the slots 10 and 16 and lightly tapped with a hammer, thus disengaging the terminal wedges of the shank 3 and the rod 6 from the sockets in which they are seated.

This improved implement is simple in construction and may be used or employed for a variety of purposes where an ordinary wrench is not available.

Having thus fully described the invention, what I claim as new is:—

1. In an extension wrench of the character described, a head having a nut engaging recess and provided with a shank having a terminal wedge and a square offset at the base thereof, in combination with an extension member having a socket provided at its inner end with a wedge-shaped pocket and at its outer end with an expanded portion of square cross-section to fit the offset at the base of the shank upon the head member.

2. In a device of the class described, a head member having a nut engaging recess and a shank provided with a terminal wedge and with a square offset at the base thereof, in combination with an extension rod having a socket for the reception of the stem or shank, said socket having a wedge-shaped pocket at its inner end and an expanded outer portion to engage the square offset at the base of the shank, said extension rod being provided with a transverse slot intersecting the wedge-shaped pocket, and with a transversely apertured collar near its outer extremity.

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

MARION A. MULRONY.

Witnesses:

C. A. BRAND,  
E. E. HARDING.