

No. 806,061.

PATENTED NOV. 28, 1905.

J. W. BUTLER.  
WRENCH.

APPLICATION FILED MAY 9, 1905.

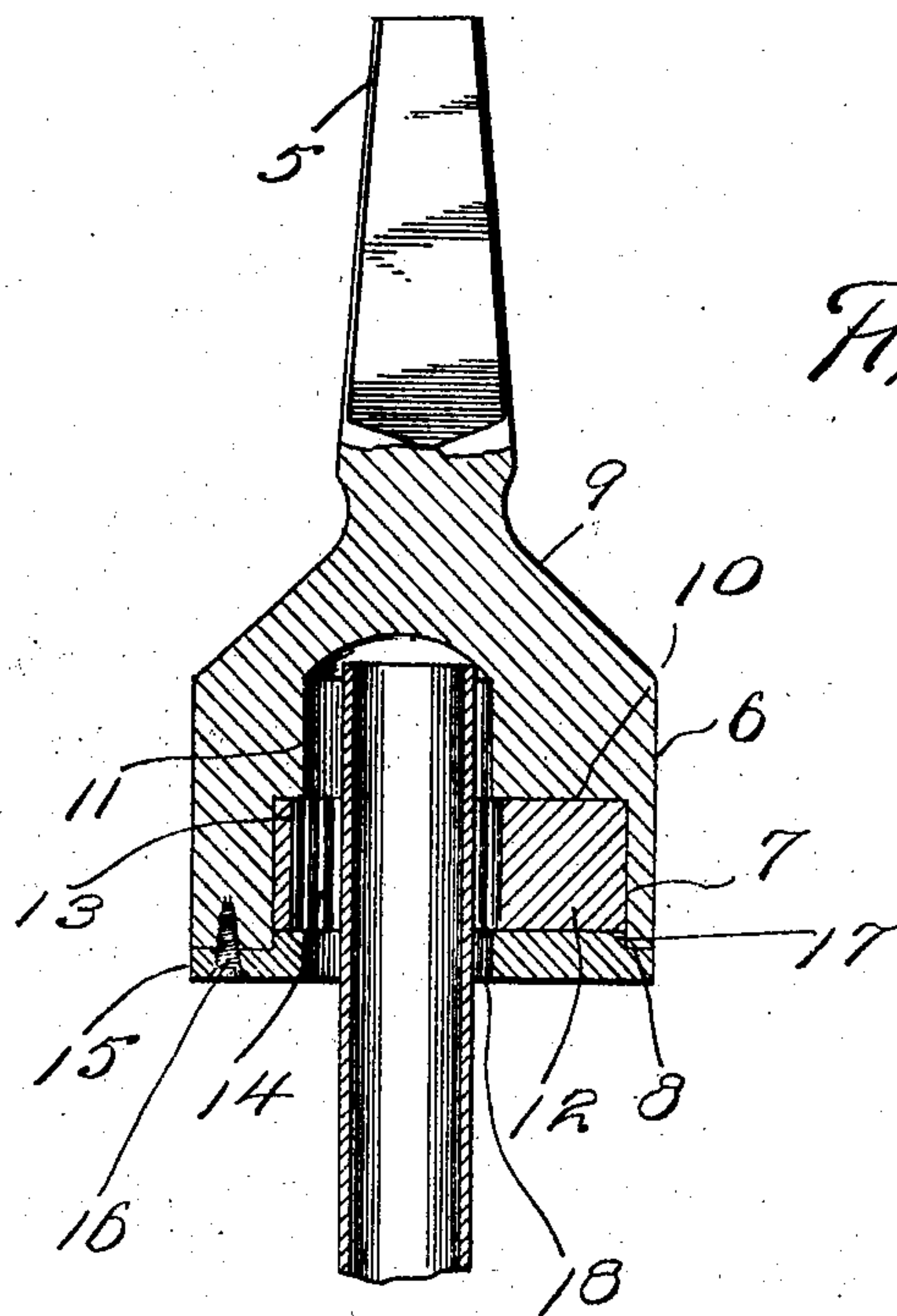


Fig. 1.

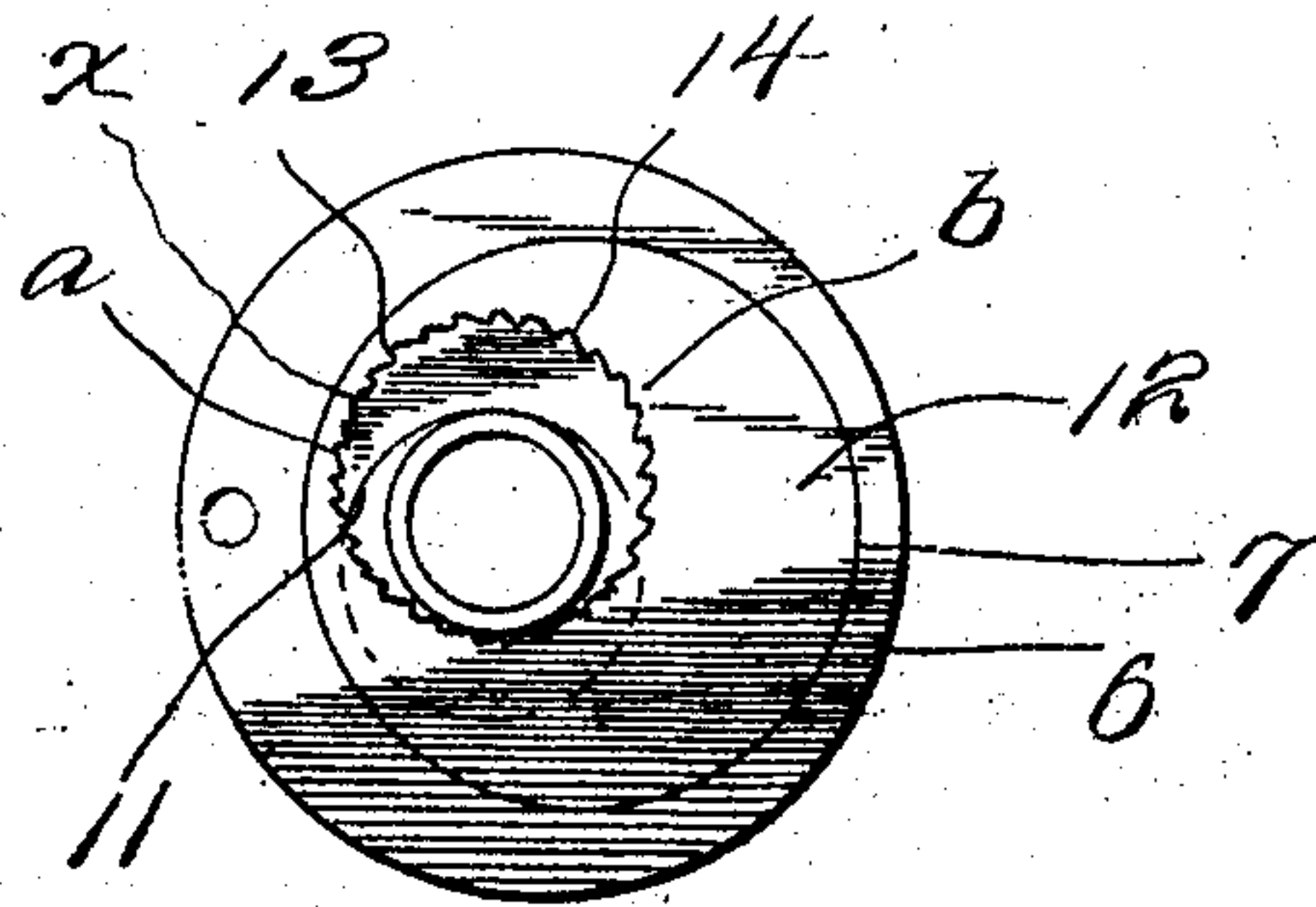


Fig. 2.

Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN W. BUTLER, OF SHREVEPORT, LOUISIANA.

## WRENCH.

No. 806,061.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed May 9, 1905. Serial No. 259,538.

*To all whom it may concern:*

Be it known that I, JOHN W. BUTLER, a citizen of the United States, residing at Shreveport, in the parish of Caddo, State of Louisiana, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wrenches, and more particularly to that class known as "end" wrenches, and has for its object to provide a wrench of this kind which, while being simple and cheap, will be extremely efficient and which will embody few parts, the device being thus unlikely to become deranged.

Another object is to provide a wrench to be so arranged that it will grip a body when moved in either direction.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific construction shown and described may be made within the scope of the claims and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in both views, Figure 1 is a longitudinal section showing the invention in use. Fig. 2 is a bottom plan view with the retaining-plate removed.

Referring now to the drawings, the present invention comprises an angular stem 5, having an enlarged concentrically-disposed cylindrical head 6 at one end, the latter having an eccentrically-located circular recess 7 in its outer face 8, the face 9 of the head from which the stem extends being known as the "inner" face thereof. Formed in the inner end wall 10 of the recess 7 there is a considerably smaller circular recess 11, which is disposed eccentrically to the recess 7.

Revolubly disposed within the recess 7 there is a hardened disk 12, which forms the gripping-jaw of the wrench, and this disk has an eccentrically-located passage 13 formed therethrough, which is so disposed that through rotation of the disk in the recess 7 it may be registered with the recess 11. The circumscribing wall of this passage 13 is provided with teeth 14, which extend transversely of the wall, and these teeth are directed oppositely from the point  $x$  of the wall which lies nearest to the periphery of the disk, there be-

ing thus formed two series of teeth  $a$  and  $b$ , which meet at a point upon the wall of the passage 13 lying diametrically opposite to the point  $x$ .

A cover-plate 15 is provided, which rests against the outer face 8 of the head, in which position it is secured by a single screw 16, this cover-plate having a boss 17 formed eccentrically thereupon and lying within the recess 7 to hold the cover-plate against movement upon the head, and formed through this cover-plate there is a passage 18, which lies in alinement with the recess 11 and which is of a diameter equal to that of this recess.

In use a stud-screw or other cylindrical body is engaged in the passages 14 and 18 with its end projecting into the recess 11, after which the stem 5 is grasped with a suitable implement and is turned, which will cause the teeth of one of the series  $a$  and  $b$  to bite into the body, when the latter may be turned with the wrench. It will readily be seen that rotation of the wrench in the opposite direction will cause the other series of teeth to bite into the body, and it will thus be understood that the present wrench may be used to rotate a body in either direction.

What is claimed is—

1. A wrench comprising a head having a stem extending from the rearward face thereof and lying concentric therewith, said head having an eccentrically-located cylindrical recess in its forward face and a second recess in the inner wall of said recess, a disk revolubly disposed within the recess and having an eccentric passage formed therethrough, said disk being rotatable to register its passage with the second-named recess, said passage having a toothed wall and a cover-plate disposed against the outer face of the head and having a passage formed therethrough alining with the second-named recess.

2. A wrench comprising a head having an eccentrically-located recess in one of its faces and having a recess in the inner wall of said first-named recess, a disk revolubly disposed in the first-named recess and having a passage formed therethrough, said disk being movable to bring its passage into and out of registration with the second-named recess, the wall of said passage having oppositely-directed series of transverse teeth formed thereupon, and a cover-plate for the first-named recess, said cover-plate having a passage formed therethrough registering with the second-named recess.



3. A wrench comprising a head provided  
with an angular stem, a recess formed in the  
head and lying eccentrically to the stem, a re-  
cess formed in the inner wall of the first-named  
5 recess, a jaw member slidably disposed in the  
first-named recess and having a passage formed  
therethrough and disposed for registration  
with the second-named recess through move-  
ment of the disk, said passage having oppo-  
10 sitely-directed series of teeth upon its wall, a  
cover-plate disposed over the first-named re-

cess and the head and having a boss extending  
into said recess, an attaching device engaged  
in said cover-plate and the head, said cover-  
plate having a passage formed therethrough 15  
and alining with the second-named recess.

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

J. W. BUTLER.

Witnesses:

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J. B. HUTCHINSON.