

E. C. & G. W. REA.
WRENCH.
APPLICATION FILED MAR. 9, 1909.

939,317.

Patented Nov. 9, 1909.

Fig. 1.

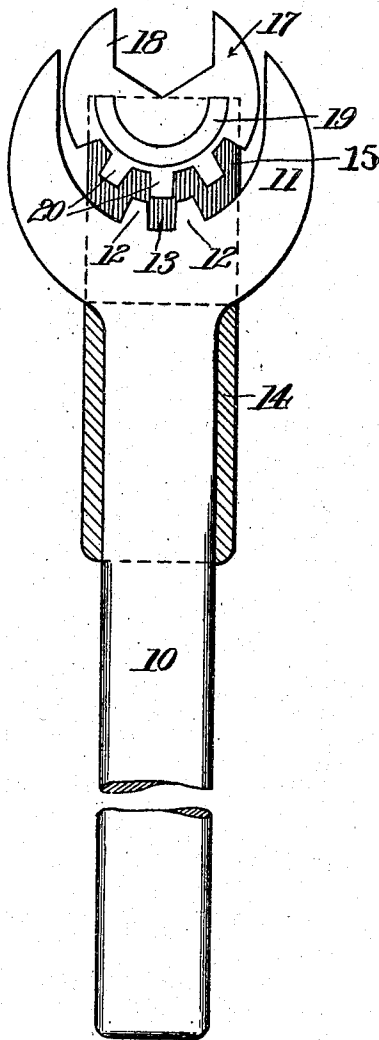


Fig. 2. Fig. 3.

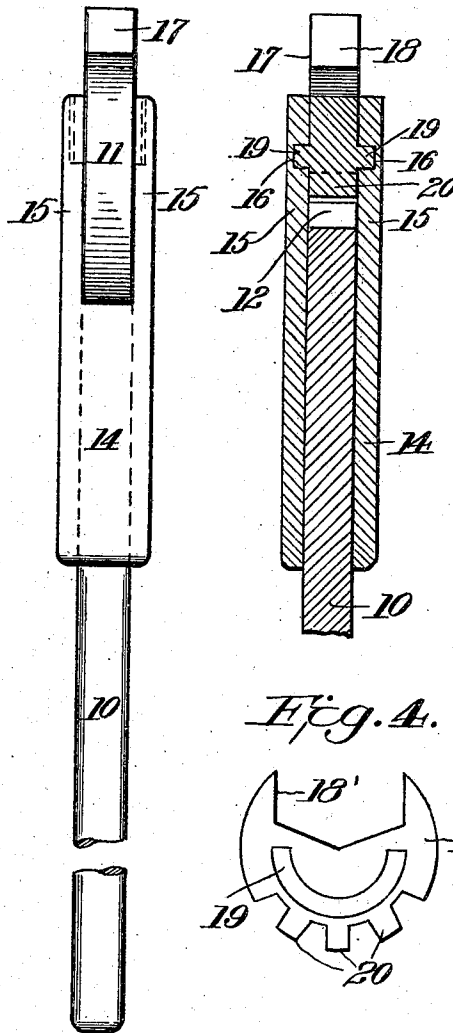
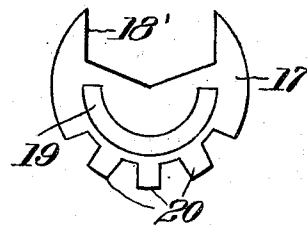


Fig. 4.



Witnesses
C. H. Walker
Lewis Hodges

Inventors
Edward C. Rea
George W. Rea
By *J. M. Hodges* Attorney

UNITED STATES PATENT OFFICE.

EDWARD C. REA AND GEORGE W. REA, OF BAKER CITY, OREGON.

WRENCH.

939,317.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed March 9, 1909. Serial No. 482,397.

To all whom it may concern:

Be it known that we, EDWARD C. REA and GEORGE W. REA, of Baker City, in the county of Baker and State of Oregon, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to certain new and useful improvements in wrenches.

10 The invention has for its object to provide a simple and inexpensive wrench which is adapted for use in corners and at various angles.

15 The invention also has for its object the production of an adjustable head and means for holding the same locked in any desired position.

20 A further object is to provide a wrench of this character with a removable head and to provide heads of various sizes which may be substituted one for the other.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

25 In the accompanying drawing:—Figure 1 is a side view, partly in section, illustrating our improved wrench. Fig. 2 is an edge view thereof. Fig. 3 is a transverse sectional view. Fig. 4 is a detail showing the wrench head in elevation.

30 Referring to the drawing, 10 designates the handle of our improved wrench, one end thereof being forked, as indicated at 11 and provided with spaced apart teeth 12 forming a space 13 between them. Slidably mounted upon the shank of the handle 10 is a carrier 14 provided with extensions 15 having on their inner faces semicircular grooves 16. Mounted between the extensions 15 is a wrench head 17 provided with the opening 18 shaped to engage a nut. The head 17 is approximately circular and provided on each side with a rib 19 adapted to engage the grooves 16. The periphery of said head opposite the opening 18 is provided with a plurality of teeth 20. In Fig. 4 we have shown a head in which the opening 18' is of a different size from the opening 18.

50 In practice, the sleeve 14 is moved upward to the limit of its movement, the same being stopped by the arms of the fork 11, and a head 17 inserted by placing the ribs 19 in engagement with the grooves 16, and then turning said head. When the opening 18 has been moved to the position desired,

the sleeve 14 is moved downward until the teeth 20 engage with the teeth 12, whereupon the wrench may be used in the usual way. When it is desired to change the position of the opening 18, it is only necessary to move the sleeve so as to disengage the teeth 12 and 20 when the head 17 may be turned to the desired position. In the same manner heads with openings 18' of different sizes may be readily substituted one for the other.

We claim as our invention:—

1. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle, a wrench head rotatably mounted in said carrier, and means for locking said head against movement.

2. A wrench comprising a handle, a carrier slidably mounted thereon, a rotatable head removably mounted in said carrier, and means for locking said head.

3. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle and provided with grooves, a rotatable head mounted in said carrier and provided with ribs engaging said grooves, and means for preventing rotation of said head.

4. A wrench comprising a handle provided with a forked end, a carrier slidably mounted thereon and provided with semicircular grooves, a circular wrench head rotatably mounted in said carrier and provided with semicircular ribs engaging said grooves, and means for engaging said head to prevent rotation thereof.

5. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle, a rotatable wrench head removably mounted in said carrier and provided with peripheral teeth, said handle being provided with teeth adapted to engage the teeth of said head.

6. A wrench comprising a handle provided with a forked end, a carrier slidably mounted on said handle, a rotatable wrench head provided with peripheral teeth, said head being also provided with semicircular ribs engaging said carrier, said handle being provided with means for engaging said teeth.

EDWARD C. REA.
GEORGE W. REA.

Witnesses:

EMMETT CALLAHAN,
E. FORREST HERDIEN.