No. 766,145. PATENTED JULY 26, 1904.

W. N. GREER.

WRENCH.

APPLICATION FILED MAY 16, 1904.

NO MODEL.

Fig. 1.

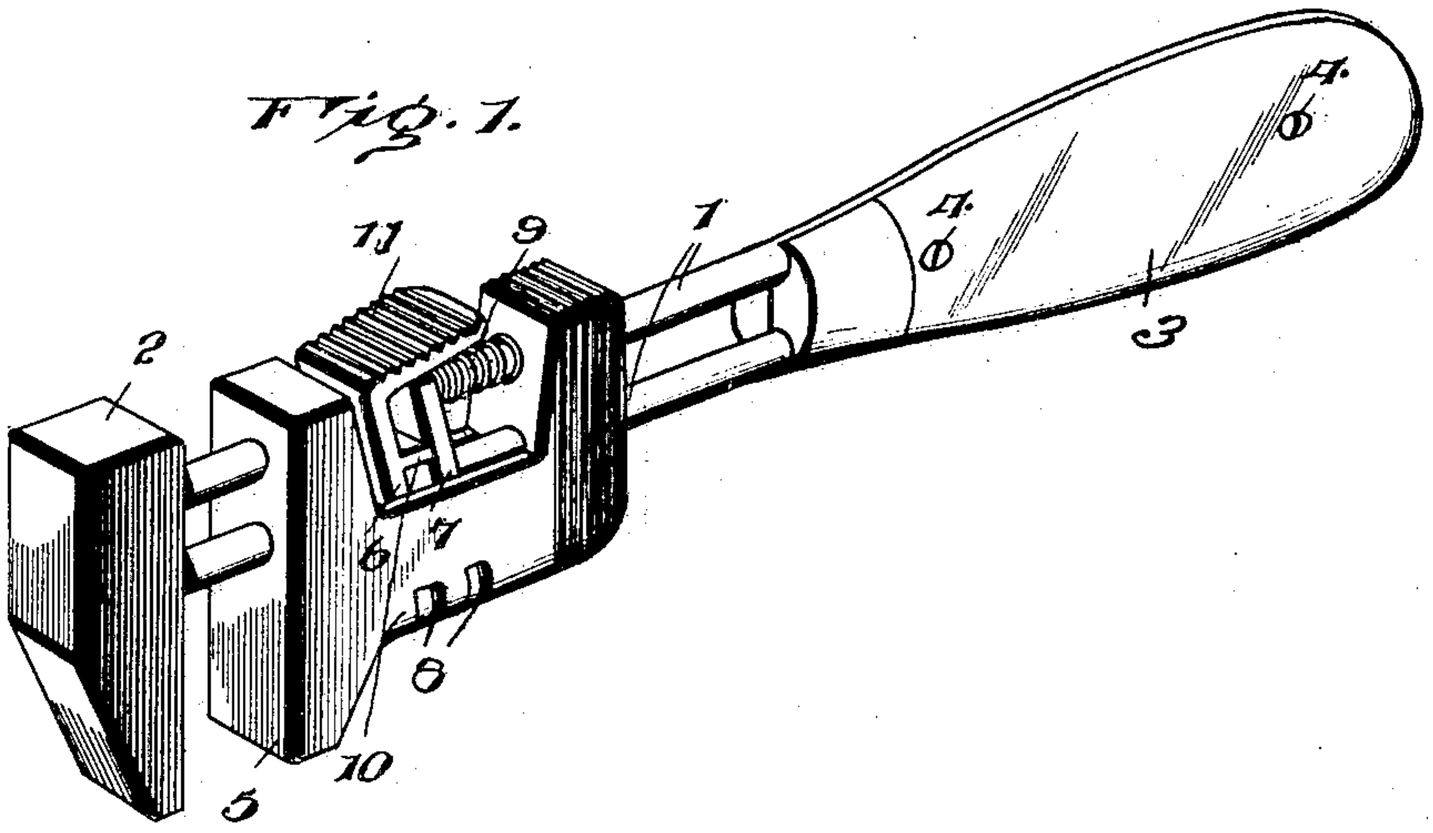


Fig. 2.

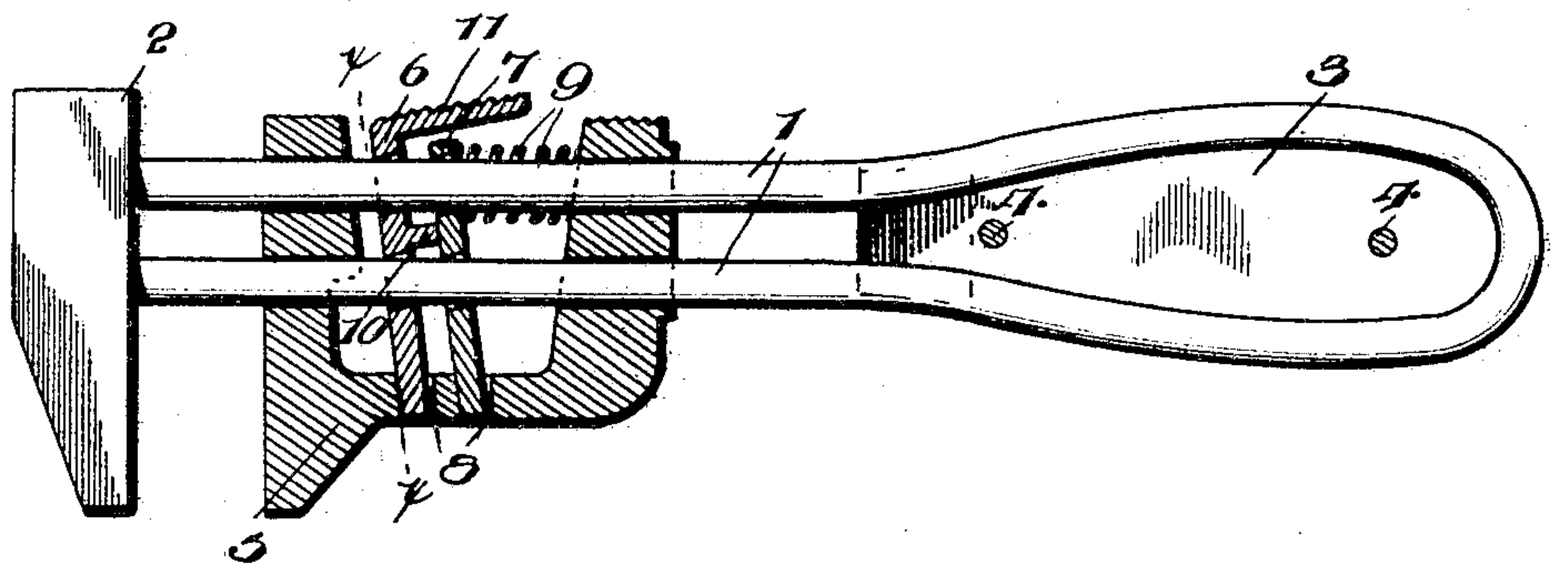
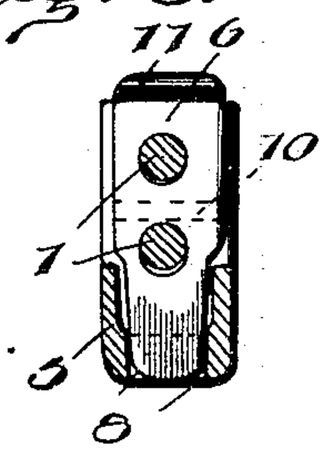


Fig. 3.



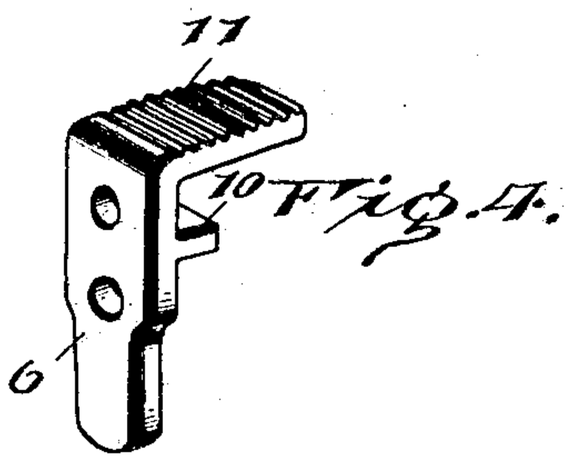


Fig. 4.

Witnesses

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By Lacey, Attorneys

No. 766,145. Patented July 26, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM N. GREER, OF GREELEY, NEBRASKA, ASSIGNOR OF TWO-THIRDS TO JOHN CROCKETT AND EDWARD B. HOBART.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 766,145, dated July 26, 1904.

Application filed May 16, 1904. Serial No. 208,284. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. GREER, a citizen of the United States, residing at Greeley, in the county of Greeley and State of Nebraska, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to that type of wrenches embodying a shank provided with a rigid jaw having a movable jaw adjustable toward and from the said rigid jaw.

The object of the invention is to provide an improved operating mechanism carried by the movable jaw to fix this jaw at an ascertained adjustment upon the shank of the wrench in coöperating position relative to the rigid jaw.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a wrench embodying my invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a vertical transverse sectional view taken about on the line X X of Fig. 2. Fig. 4 is a perspective view of the clutch member provided with the finger-piece.

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

In general structure my wrench comprises the shank 1, which consists of spaced members, being preferably made from a bar bent upon itself between its ends, the end portions of the bar being secured to the rigid jaw 2 of the device. A handle 3 is provided, said handle consisting of handle-blocks secured upon opposite sides of the curved portion of the shank 1 by means of rivets or similar fastenings 4. The movable jaw 5 is adapted for longitudinal movements along the shank 1 toward and from the rigid jaw 2 in the usual manner, and this movable jaw is preferably cut away between its ends, as shown most clearly in Fig. 1 of the drawings. The movable jaw is provided with openings therein which receive the spaced members of the shank 1, and the operating mechanism, which constitutes the essential feature of my invention, is mounted upon the movable jaw for coöperation with the shank to fix the position of the said movable jaw.

The means for holding the movable jaw at an ascertained adjustment consists, essentially, of two clutch members 6 and 7, which latter are provided with openings to admit of mounting said members upon the spaced members of the shank 1, said spaced members of the shank passing through openings in the clutch members aforesaid. The clutch members 6 and 7 are disposed in the cut-away portion of the movable jaw 5, and the lower ends of said clutch members are received in openings 8 in the movable jaw 5, which openings effect bearings for the clutch members to admit of a certain amount of pivotal play thereof. The clutch members are normally held in frictional engagement with the shank members by means of a spring 9, which is interposed between an adjacent portion of the movable jaw 5 and the clutch member 7, said spring 9 being disposed upon the uppermost of the spaced members of the shank. The clutch member 6, which is mounted adjacent the clutch member 7, is provided with a laterally-extending engaging member in the form of a lug 10, which is engaged by the clutch member 7 to cause the member 6 to positively engage the shank under the influence of the spring 9, as above mentioned. When the clutch members 6 and 7 are forced into a position approximately at a right angle to the shank 1, the jaw 5 is freely slidable along the said shank, as will be readily understood. The tension of the spring 9, however, normally holds the clutch members inclined, as regards a relatively vertical line, to cause these members to bite against the shank, and thereby clutch against the part 1 to positively hold the movable jaw from any rearward

movement toward the handle 3, though the movable jaw is freely movable toward the rigid jaw 2. In order to facilitate the manipulation of the clutch members 6 and 7, the member 6 is provided with a finger-piece 11, extending laterally from the upper end thereof and overlapping the upper end of the clutch member 7, as well as the spring 9. The finger-piece 11 when pressed upon will effect a simultaneous pivotal movement of both of the members 6 and 7, and thus admit of movement of the movable jaw from the rigid jaw. The finger-piece 11 constitutes a housing for the spring 9 to prevent lodgment of foreign matter between the coils of this spring, which might interfere with the proper working thereof.

The wrench is very substantial, and the provision of the double clutch members 6 and 7 is advantageous in that the jaw 5 is firmly held in an ascertained position when the said members are engaging the shank 1, and both of the members 6 and 7 are readily operated by manipulation of the finger-piece 10, so as to effect a simultaneous unclutching movement of these parts whenever it becomes necessary to throw the movable jaw away from the rigid jaw.

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

1. In a wrench, the combination of a shank, a rigid jaw carried by the shank, a movable jaw slidable along the shank, separate clutch members pivoted to the movable jaw and provided with openings receiving the shank, engaging means between the clutch members, means for operating said clutch members, and spring means coöperating with one of the clutch members to hold the clutch members positively in engagement with the shank.

2. In a wrench, the combination of a shank, a rigid jaw carried by the shank, a movable jaw slidable along the shank, separate clutch members pivoted to the movable jaw and provided with openings receiving the shank, an engaging member projected from one of the clutch members and coöperating with the other clutch member, a finger-piece projected from one of the clutch members, and a spring coöperating with one of the clutch members to hold said members positively in engagement with the shank.

3. In a wrench, the combination of a shank, a rigid jaw carried by the shank, a movable jaw slidable along the shank, separate clutch members pivotally mounted upon the movable jaw and provided with openings receiving the shank, an engaging member projected from one of the clutch members and engaging the other clutch member to effect simultaneous movement of the clutch members, a finger-piece projected from the clutch member provided with the engaging member aforesaid, and a spring mounted upon the shank and engaging one of the clutch members to hold both of said members normally in engagement with the shank.

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

WILLIAM N. GREER. [L. S.]

Witnesses:
E. B. HOBART,
JOHN CROCKETT.