

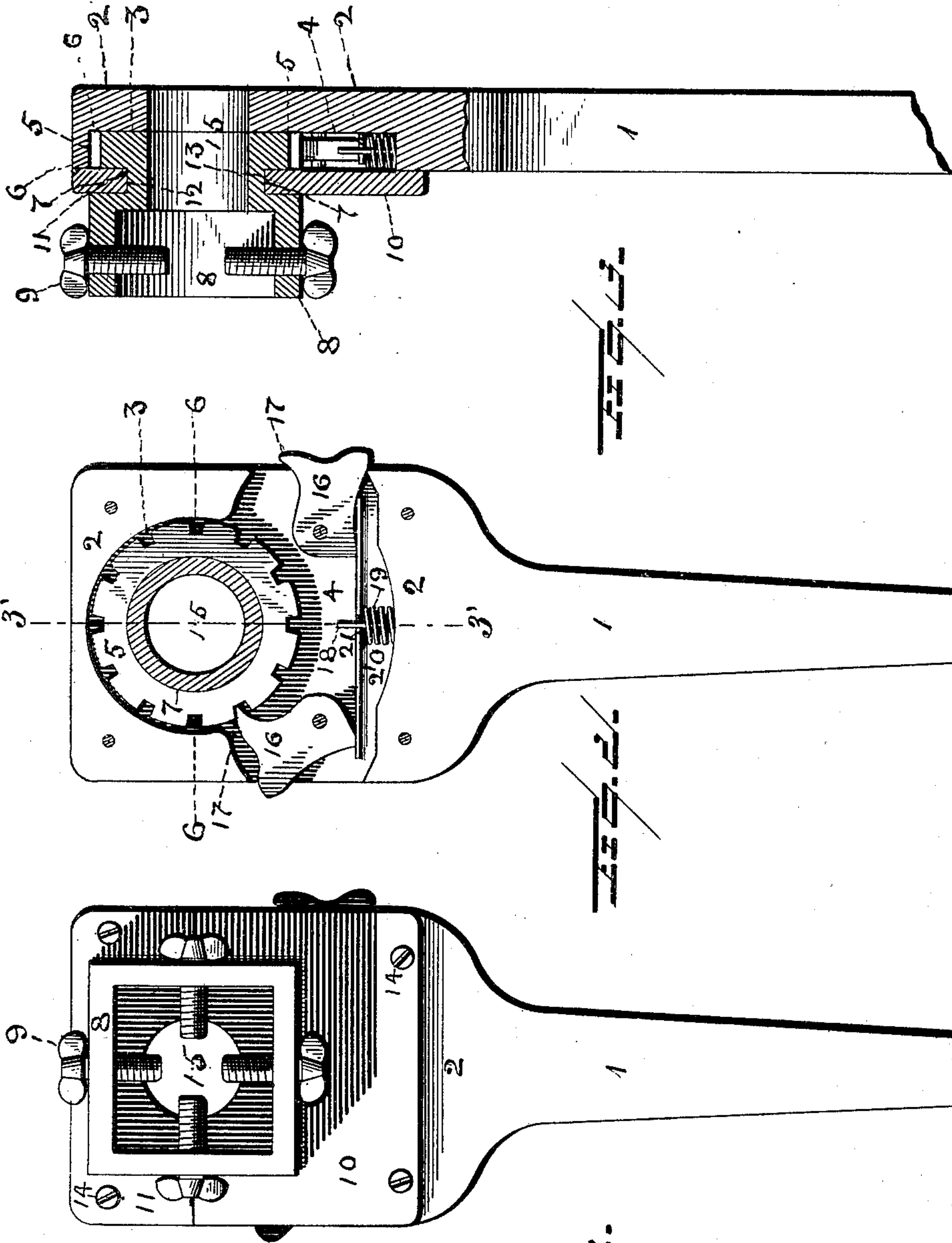
No. 686,717.

Patented Nov. 19, 1901.

W. EGGERT.  
RATCHET WRENCH.

(Application filed Apr. 12, 1901.)

(No Model.)



WITNESSES:

*H. F. Doyle.*  
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BY

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# UNITED STATES PATENT OFFICE.

WILLIAM EGGERT, OF SHERMAN, MICHIGAN.

## RATCHET-WRENCH.

SPECIFICATION forming part of Letters Patent No. 686,717, dated November 19, 1901.

Application filed April 12, 1901. Serial No. 55,568. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM EGGERT, a citizen of the United States, residing at Sherman, in the county of St. Joseph and State of Michigan, have invented a new and useful Ratchet-Wrench, of which the following is a specification.

My invention relates to improvements in ratchet-wrenches, wherein a countersunk lower plate receives a ratchet-wheel and the aperture in the nut-head is regulated by thumb-screws; and the object of my improvement is to provide a cheap simple ratchet-wrench readily adjustable to various positions and different-sized nuts and easily operated.

The accompanying drawings illustrate the means whereby the foregoing object is attained.

Figure 1 is a top plan view of the wrench. Fig. 2 is a plan view drawn on the surface of the head and handle. Fig. 3 is a cross-section of the wrench, drawn through the center of the head, as shown in Fig. 1.

Similar numerals designate similar parts throughout the several views.

In the drawings numeral 1 indicates the handle of the wrench, terminating in an enlarged head 2, in which are formed a circular recess 3 and, connected therewith, an irregular space 4, extending across the entire width of said head 2 next the handle thereof. A circular plate 5, provided with notches 6 at its rim, is connected at right angles and integral by a stud 7 with a nut-head 8, furnished with wing-head screws 9. The plate 5 is placed in the circular recess 3, in which it fits and rotates freely. Two plates 10 11, with semi-circular spaces 12 13 cut out of the adjacent ends of said plates, are placed over the head 2 and secured thereto by the screws 14. The spaces 12 13 form a circle inclosing the stud 7 rotatively therein beneath the nut-head 8. Coincident apertures through the stud 7, the circular plate 5, and the head 2 form the opening 15 to permit the passage of long bolts passing through the nuts being operated on. Two pivoted stop-catches 16 are placed at opposite sides of the head 2 in the space 4. Each catch is provided with stop projection 17,

adapted to engage the notches 6. The rod 18 is secured in the space 4 and has encircling it a spiral spring 19, which actuates a bar 20, provided with an orifice 21 in the center, through which said rod 18 projects loosely. Thus when the bar 20 is pressed against the catches 16 it retains them firmly in the required positions.

Four wing-head screws 9 are inserted and operated in the sides of the nut-head 8 and insure a rapid engagement of nuts of various sizes placed therein, and thus is provided a cheap and simple construction of wrench for operating in various positions.

Having now fully shown and described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench, the combination with a handle and a recessed head having a circular aperture therethrough; of a circular plate revolvably mounted in the recess and having an aperture in alinement with the aperture in the head, a cylindrical flange or stud extending laterally from the plate, an angular nut-head at the outer end of the flange, wing-screws extending through the sides of said nut-head at angles to each other, a face-plate secured over the recess in the head of the wrench and inclosing, and forming a bearing for, the flange, thereby preventing lateral movement of the circular plate and its flange, teeth upon the periphery of the circular plate, oppositely-disposed catches pivotally mounted in the recess in the head and adapted to engage the teeth, a rod secured in the recess in the head, a bar slidably mounted thereon, and a spring upon the rod adapted to press the rod normally against the catches and hold one or both of them in or out of engagement with the teeth.

2. The combination with the recessed head of a wrench having an aperture therein; of a revoluble tube in the recess in alinement with the aperture, said tube having an annular groove, a face-plate extending over the recess and into the groove and forming a bearing for the tube, a nut-head to the tube, wing-screws therein, teeth upon the inner end of the tube, pivoted catches in the recess and



at opposite sides of the tube, a spring-pressed  
bar adapted to hold either or both of the  
catches in or out of engagement with the  
teeth, and an ear to each catch extending lat-  
5 erally from the recess at all times, whereby  
the same may be manipulated from or toward  
the teeth.

In testimony whereof I have subscribed my  
name hereto in presence of two witnesses.

WILLIAM EGGERT.

Witnesses:

D. D. RORICK,  
E. D. MORTON.