

S. A. BROCKWAY.
 RATCHET WRENCH.
 APPLICATION FILED JULY 1, 1908.

923,942.

Patented June 8, 1909.

Fig. 1.

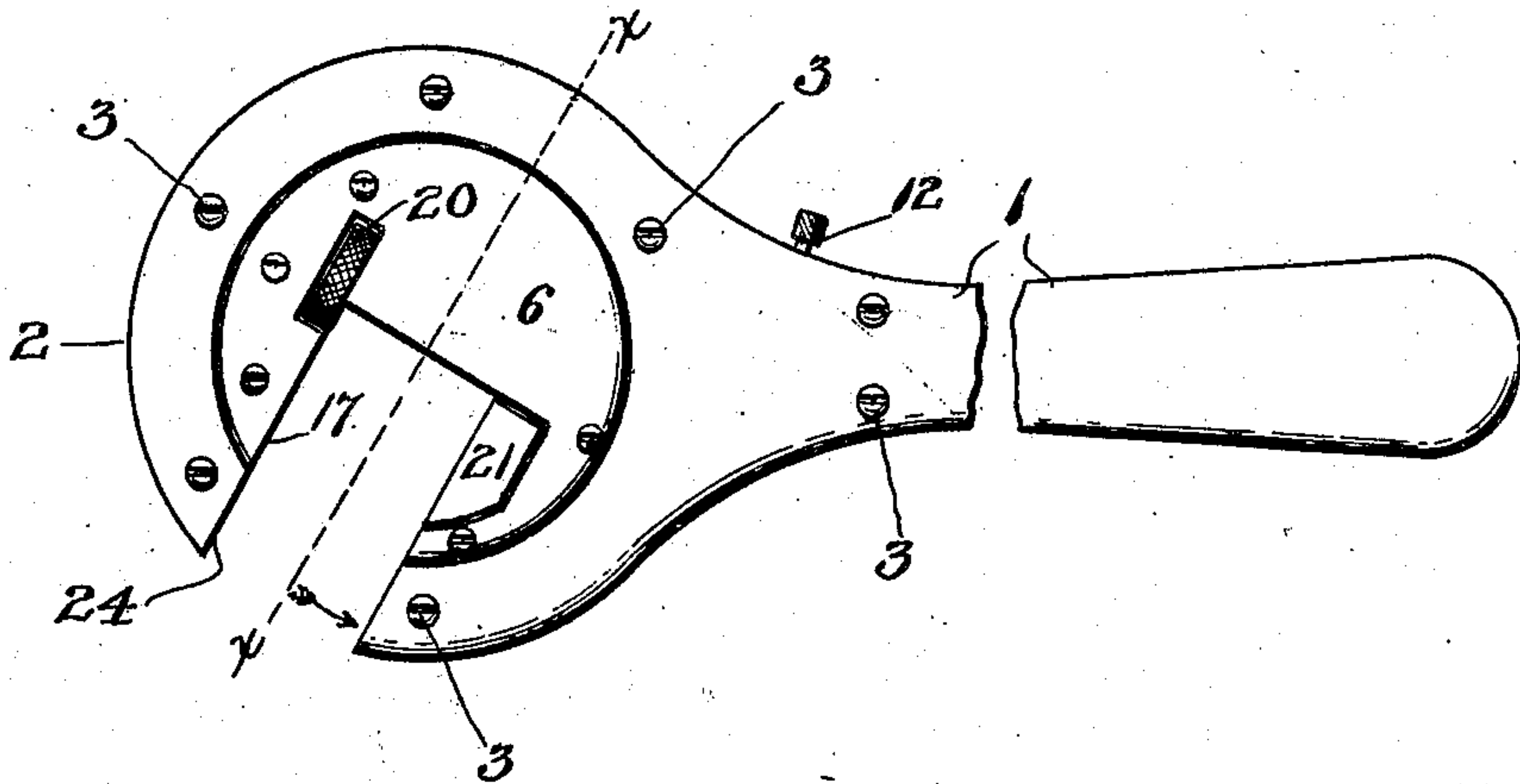


Fig. 2.

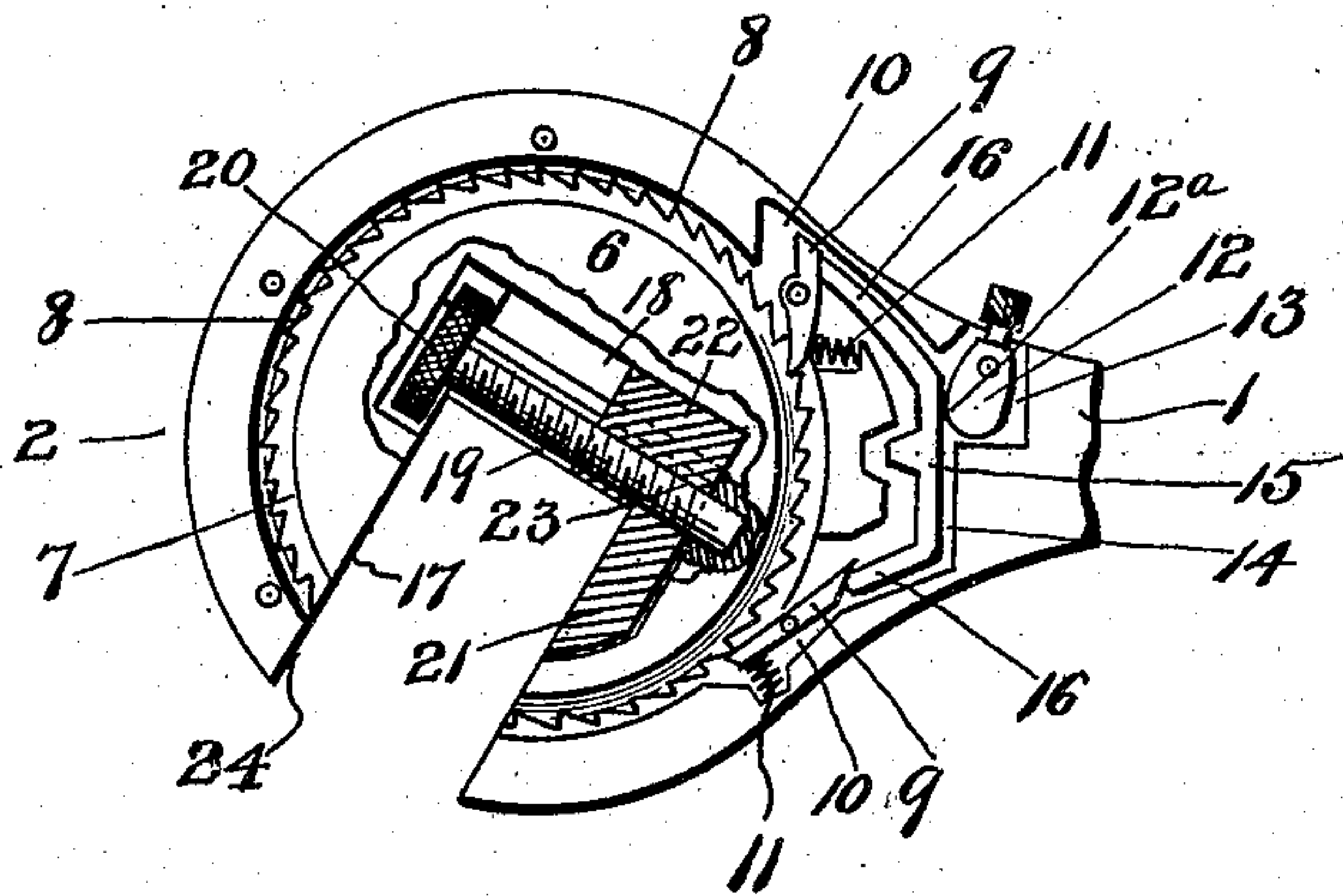
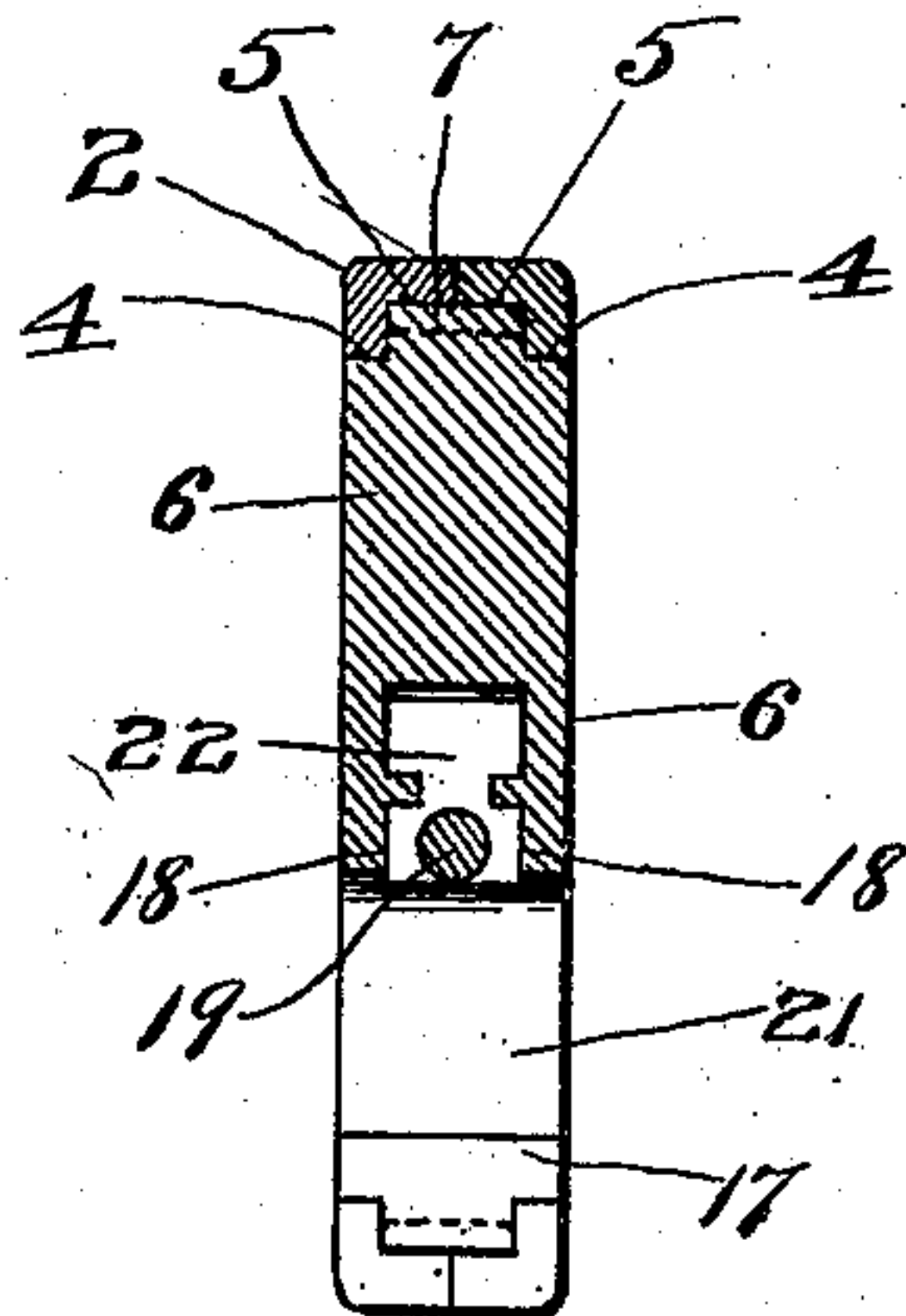


Fig. 3.



Witnesses

James H. Blackwood
 W. O. Blackwood

Inventor.

S. A. Brockway

By James H. Polk

Attorney

UNITED STATES PATENT OFFICE.

SCOTT A. BROCKWAY, OF FORDYCE, NEBRASKA.

RATCHET-WRENCH.

No. 923,942.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed July 1, 1908. Serial No. 441,399.

To all whom it may concern:

Be it known that I, SCOTT A. BROCKWAY, a citizen of the United States, and a resident of Fordyce, in the county of Cedar and State of Nebraska, have invented certain new and useful Improvements in Ratchet-Wrenches, of which the following is a full and complete specification.

My improvement relates to wrenches of the class having a circular stock rotatable in a circular socket in the end of the handle, the periphery of the stock being provided with ratchet-teeth that are engaged by pawls pivotally mounted in the handle and so arranged that they engage the teeth on the stock alternately when in operation. A trip-bar is mounted in the handle and provided with projections that engage the free ends of the pawls and a trip-lever is fulcrumed in position to engage the trip-bar and has an operating end extending outside of the handle. This mechanism provides for throwing the pawls out of operative position when it is desired to run the stock in the direction opposed by the ratchet and pawls. The stock is formed with a recess extending to its periphery and a movable screw-actuated jaw is mounted therein so that the wrench may be adjusted to different sized nuts and one side of the handle opposite the socket therein is provided with an opening that registers at times with the recess in the stock.

The construction and operation of my improved wrench will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved wrench; Fig. 2, a central, horizontal, sectional view of the head of the wrench, showing the wrench-stock, pawls, and trip mechanism in elevation; and Fig. 3, a central, horizontal, sectional view of the wrench-stock taken on the line *xx* of Fig. 1.

In the drawings similar reference characters indicate corresponding parts in all of the views.

The handle 1 of my improved wrench is provided with an elongated head 2, formed of two mating pieces secured together by screws, rivets or other fastenings 3. Each of the pieces of the head 2 is formed with a circular socket 4, having an offset 5, in which is mounted the wrench-stock 6, having a peripheral projection 7 to engage said offset 5, said projection being provided with ratchet-teeth 8.

9 indicates pawls pivotally mounted in recesses 10 in the head 2 and normally held in engagement with the ratchet teeth 8 by means of coil-springs or their equivalent 11. The pawls 9 are so positioned that they engage alternately the teeth 8 so as to secure a practically continuous engagement between the pawls and ratchet-teeth.

12 indicates a lever fulcrumed in a recess 13 in the head 2, and having one end extending outside of the head. A trip-piece is loosely mounted in another recess 14 in the head 2, consisting of a bar 15, having projections 16, extending from each end, to engage the pawls 9. The trip-piece aforesaid is so positioned that the lever 12 engages bar 15 when the lever is actuated to throw the pawls into an inoperative position, the arms of the lever being rounded, as shown at 12^a, so that when the pawls are being held from engagement with the ratchet the lever is clamped in a holding position.

The wrench-stock 6 is formed with a recess 17 extending to its periphery and its inner side is grooved, as shown at 18, and has a screw 19 rotatably mounted therein and operated by means of a wheel 20.

21 indicates a block mounted in recess 17 and having a base portion 22 extending into the groove 18, said base having a threaded bore 23 to engage the screw 19.

It will be understood from this construction that by turning the screw in the proper direction the space between the side of recess 17 and the opposite face of block 21 may be adjusted to fit the nut or other object to be turned.

The side of the handle-head 2 is cut away, as shown at 24, so that by turning the stock 6, so that the recess 17 is opposite said cut away portion, the wrench may be more readily placed on the nut.

Having thus described my invention, what I claim is—

1. In a wrench, a handle having an enlarged head provided with a circular socket, a wrench-stock rotatably mounted in said socket having ratchet-teeth on its periphery, a plurality of pawls simultaneously engaging said ratchet-teeth and alternately locked thereto, a bar slidably mounted in said head and having projections engaging said pawls, and a lever fulcrumed in the head and engaging the bar to simultaneously actuate the pawls into an inoperative position, substantially as shown and described.

2. A wrench consisting of a handle having
an enlarged head provided with a circular
socket, a wrench-stock rotatably mounted in
said socket having ratchet-teeth on its periph-
5 ery, a plurality of pawls simultaneously en-
gaging said ratchet-teeth and alternately
locked thereto, a bar slidably mounted in
said head and having projections engaging
said pawls, a lever fulcrumed in the head and
10 engaging the bar to simultaneously actuate
the pawls into an inoperative position, the

stock formed with a recess, a block slidably
mounted in the recess, and a screw engaging
said block to actuate it, substantially as
shown and described. 17

In witness whereof I have hereunto set my
hand in presence of two subscribing wit-
nesses.

SCOTT A. BROCKWAY.

Witnesses:

JOHN WELBURN,
F. P. VOTER.