

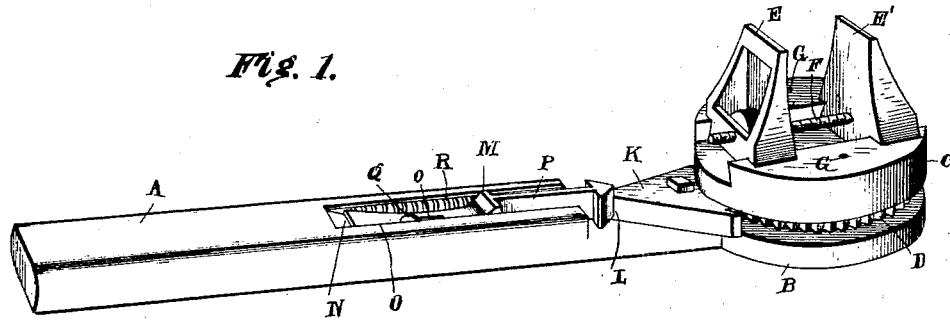
(No Model.)

W. A. OSTEEEN.  
WRENCH.

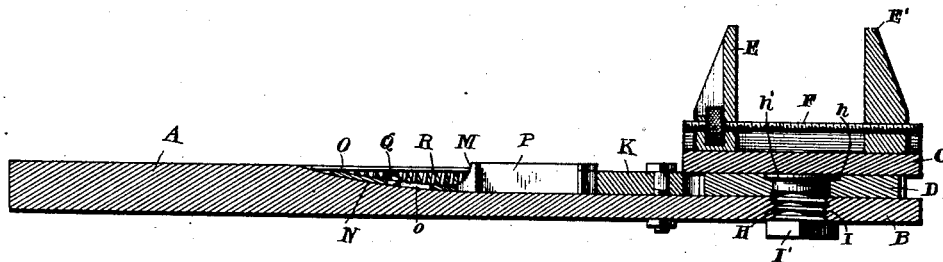
No. 489,032.

Patented Jan. 3, 1893.

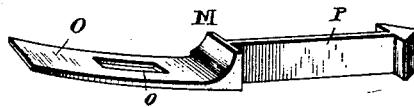
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

*Clifford*

Inventor

*Wm A. Osteen.*

By *his* Attorneys,

*C. E. Dwyer*

*Cash & Co.*

# UNITED STATES PATENT OFFICE.

WILLIAM A. OSTEEN, OF DE ANN, ARKANSAS, ASSIGNOR OF ONE-HALF TO  
JAMES F. JOHNSON, OF SAME PLACE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 489,032, dated January 3, 1893.

Application filed October 19, 1892. Serial No. 449,373. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. OSTEEN, a citizen of the United States, residing at De Ann, in the county of Hempstead and State of Arkansas, have invented a new and useful Wrench, of which the following is a specification.

My invention relates to improvements in wrenches, of the class known as "ratchet-wheel," and it has for its object to provide improved means for adjusting and locking the reversible pawl which controls the ratchet wheel.

Further objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a wrench embodying my invention; Fig. 2 is a central longitudinal sectional view of the same; Fig. 3 is a detail view, in perspective, of the latch.

A designates the handle, which carries the integral head, B.

C designates the rotary jaw-bearing disk to the rear side of which, and between the same and the head, B, is attached the ratchet-wheel, D; and E E' designate the adjustable tap-engaging jaws, connected by the adjusting screw, F.

The ratchet-wheel is secured to the rear side of the rotary disk by the screws, G G, and the front face of the wheel is recessed, as shown at h, to receive the head, h', of the pivot screw, H. This pivot screw is threaded into a central opening, I, in the head, B, and projects beyond the rear side of the same and is engaged by the tap, I'.

The reversible pawl, K—is fulcrumed upon the handle in position to engage the ratchet wheel, and is provided with a wedge-shaped detent, L, which is engaged, to hold the pawl in the desired position, by a latch, M. This latch is seated in a channel, N, in the handle of the wrench, and comprises, essentially, a bowed slide, O, and a spring tongue, P. The bowed slide is provided with a longitudinal slot, o, which is engaged by a set-screw, Q, taking into the handle, whereby the latch is capable of longitudinal movement except when locked in position by the tightening of the set-screw. The latch is normally pressed forward by the coiled actuating spring, R, which is arranged in the channel in the han-

dle and engages a shoulder of the bowed slide. The spring tongue terminates in an arrow-head, which engages the wedge-shaped detent of the reversible pawl.

To change the pawl from a right to a left hand engagement, or vice versa, the latch may be pushed back, against the tension of the actuating spring, or, preferably, the free end of the spring tongue is elevated and passed over the detent. This is possible from the bowed shape of the slide, which being of spring steel is capable of bending sufficiently to allow the head of the tongue to be elevated and carried over the detent.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a wrench of the class described, the combination with a reversible pawl, of a latch having a longitudinally movable slide and a spring tongue carried by the slide to engage the pawl, substantially as specified.

2. In a wrench of the class described, the combination with a reversible pawl, of a latch having a bowed slide, capable of rocking, as described, and a spring tongue carried by the slide, substantially as specified.

3. In a wrench of the class described, the combination with a reversible pawl, of a latch having a bowed slide, provided with a longitudinal slot, and a spring tongue provided with an arrow-head, a set screw engaging said slot, and an actuating spring to normally hold the latch in its advanced position, substantially as specified.

4. In a wrench of the class described, the combination with the handle carrying a head, of a rotary jaw-bearing disk, a ratchet-wheel fixed to the rear side of the disk and provided with a bearing and a communicating recess, the pivot screw fitting in said bearing and headed in the recess, and threaded into a central opening of the head, a tap engaging the rear projecting end of the pivot bolt, the reversible pawl to engage the ratchet wheel, and a latch to engage said pawl, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. OSTEEN.

Witnesses:

JNO. C. DUGGER,  
S. R. MEREDITH.