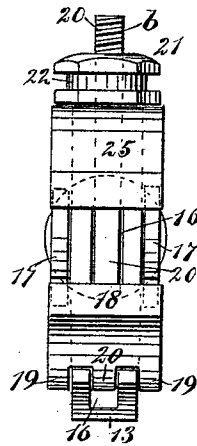
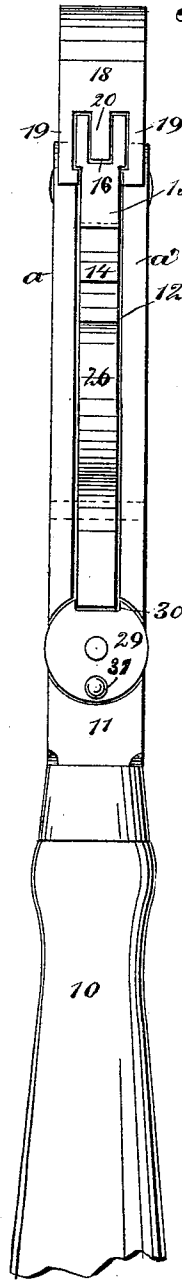
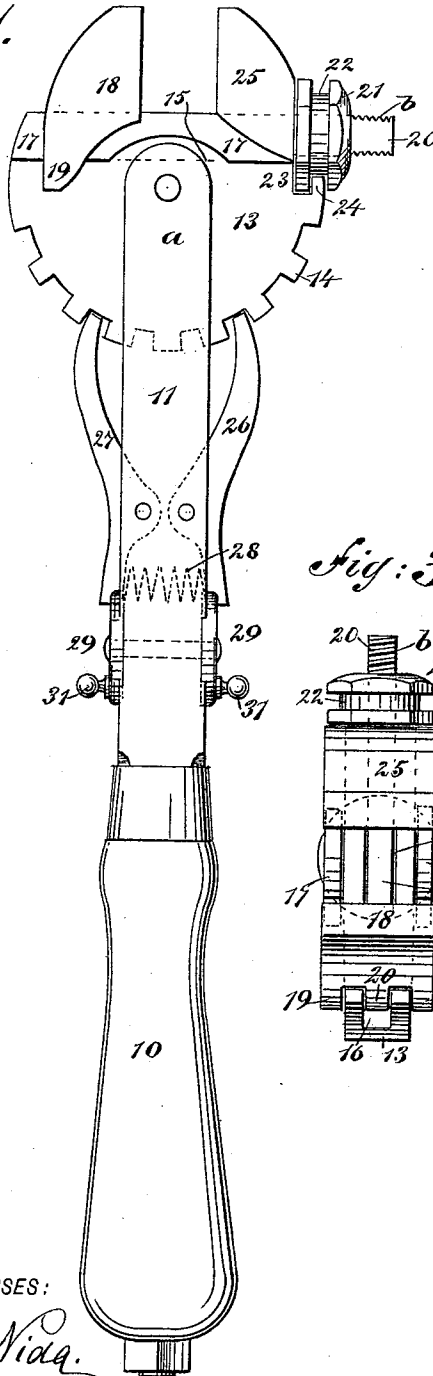


A. CINCADE.
WRENCH.

Patented Sept. 29, 1891.



Chas. Nida.
C. Sedgwick

A. Cincade
BY Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBERT CINCADE, OF JERSEY CITY, NEW JERSEY.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 460,427, dated September 29, 1891.

Application filed April 8, 1891. Serial No. 338,102. (No model.)

To all whom it may concern:

Be it known that I, ALBERT CINCADE, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful
5 Improvement in Wrenches, of which the following is a full, clear, and exact description.

The invention is an improvement in that particular class of ratchet-wrenches having pivoted spring-dogs for locking a pivoted
10 head or block that carries adjustable jaws for holding a nut or other object to be turned.

The improvement relates to the construction and combination of the pivoted block, the jaws, and means for adjusting the latter,
15 as hereinafter described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the
20 views.

Figure 1 is a side elevation of the wrench. Fig. 2 is an edge view thereof, and Fig. 3 is a plan view of the wrench.

The handle 10 is secured in any suitable or
25 approved manner at one end of the shank or stock 11, the shank or stock being of metal and provided with a vertical recess 12, extending from its upper edge nearly to its attachment with the handle, as shown in Fig. 2, whereby the shank or stock is virtually bi-
30 furcated, being divided at its upper end into two members *a* and *a'*, as the recess 12 extends through from side to side. In the upper end of the recess a semicircular or segmental block 13 is pivoted. The circular peripheral surface of the block is provided with a series of teeth 14, and the toothed surface of the block is adapted to enter the recess 12 in the shank. The upper edge 15 of the block
35 is straight and is provided with a longitudinal groove 16, extending through the periphery. Upon each side of the block 13, near the straight edge 15 thereof, a rib 17 is produced, adapted to constitute a guide for a
40 movable jaw 18, the said jaw being provided with arms 19, which extend downward, one at each side of the block, beneath the lower edge of the ribs 17, and the movable jaw is further provided with an attached bar 20, preferably rectangular in cross-section, located
50 centrally upon its under face, and said bar

extends some distance beyond the inner face of the jaw at a right angle thereto. The bar 20 is of sufficient size to neatly fit and slide in the groove 16 of the block 13, and is of a
55 length sufficient to project beyond one edge of the block when the jaw is located at the opposite edge. The upper and lower surfaces of the bar 20 at its outer end are threaded, as illustrated at *b*, and upon the threaded surface of the bar an adjusting-nut 21 is located,
60 which nut is provided with a peripheral circular groove 22, and the block 13 is provided with a recess 23 to receive a portion of the nut, as shown in Fig. 1, and a lug 24, extending in the groove of the nut, whereby the nut
65 is held in one position with respect to the block 13, and a jaw 25, which is rigidly attached to or constitutes an integral portion of the upper or straight face of the block at the end adjacent to the nut. The groove 16 in the block extends through the fixed jaw
70 25. Within the recess 12 of the shank or stock two dogs 26 and 27 are pivoted, the said dogs being opposite each other, and the upper ends of the dogs are normally made to engage with the periphery of the block 13 between sundry of its teeth through the medium of tension exerted upon the lower ends of the dogs by means of a spring or springs
75 28. When both dogs engage with the block, the wrench may be used in the capacity of a monkey or plain wrench, and the wrench may be utilized either as a right or left hand ratchet-wrench by causing only one of the
80 dogs to engage with the block. The dogs are held out of engagement with the block, when desired, through the medium of disks 29, pivoted one at each side of the shank upon the solid portion thereof at the lower end of the shank-recess 12. Each disk is provided with a recess 30 in its periphery and with an attached knob or stud 31, whereby it is rotated. When the recessed surfaces of the disks are opposite the lower ends of the dogs,
85 the upper ends of the dogs are free to engage with the block 13; but when the lower ends of the dogs are pressed inward and the solid peripheral portions of the disks are carried over the dogs the said dogs are held at their
90 upper ends out of engagement with the block, and the block may be rocked in the shank,
100

as required. It is evident that the block may be adjusted so as to bring the jaws immediately over the end of the shank or to carry the jaws at any desired angle to the longitudinal axis of the shank, and that the block may be fixedly held in any of these positions. It is also evident that by manipulating the nut 21 the sliding jaw may be carried to or from the fixed jaw, as occasion may demand. It will also be readily understood that, as heretofore stated, either of the dogs may be quickly carried into engagement with the block or disengaged therefrom to convert the wrench into a right or left hand ratchet-wrench, as the character of the work and the place in which the wrench is to be used may demand.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a wrench of the class hereinbefore indicated, the combination, with the pivoted block 13, having the fixed jaw 25, the lug 24, and the groove 16 in its straight edge, of the movable jaw 18 and the bar 20, formed solid with said jaw and threaded at its free end and fitted and sliding in said groove, and the nut 21, working on said bar and having a circumferential groove which receives the aforesaid lug, all as shown and described.

ALBERT CINCADE.

Witnesses:

D. W. LAWRENCE,
WM. C. WALLACE.