

(No Model.)

C. B. CAMPBELL.
MONKEY WRENCH.

No. 566,655.

Patented Aug. 25, 1896.

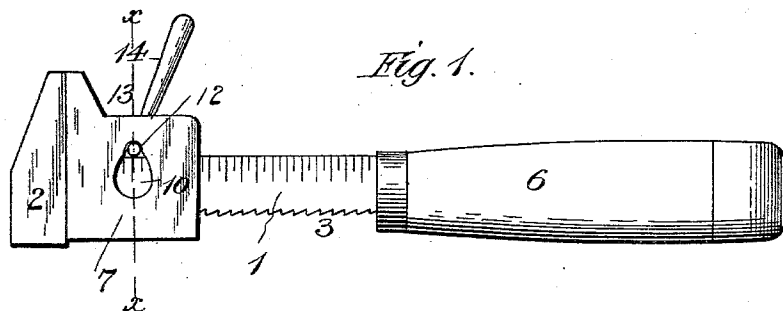


Fig. 1.

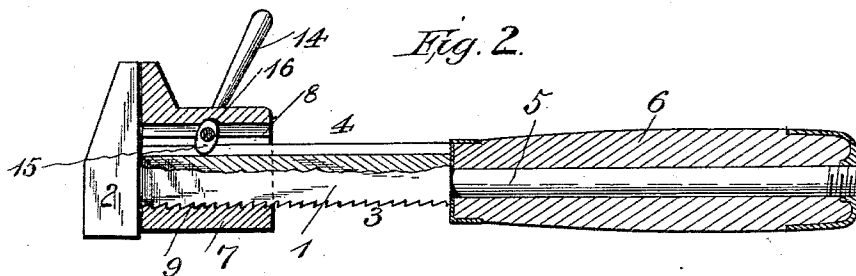


Fig. 2.

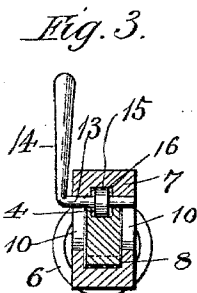


Fig. 3.

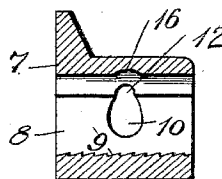


Fig. 5.

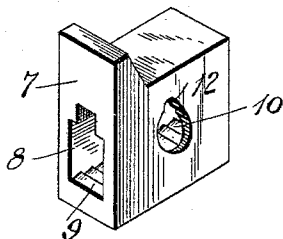


Fig. 4.

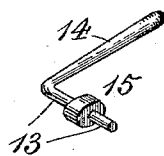


Fig. 6.

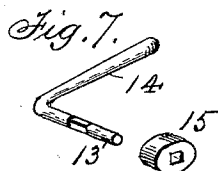


Fig. 7.

Witnesses:
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UNITED STATES PATENT OFFICE.

CYDNOR B. CAMPBELL, OF GLOUSTER, OHIO, ASSIGNOR OF ONE-HALF TO
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MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 566,655, dated August 25, 1896.

Application filed April 25, 1896. Serial No. 589,033. (No model.)

To all whom it may concern:

Be it known that I, CYDNOR B. CAMPBELL, a citizen of the United States, and a resident of Gloucester, in the county of Athens and State of Ohio, have invented certain new and useful Improvements in Monkey-Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to monkey-wrenches; and its object is to provide an improved construction of the same which shall possess superior advantages with respect to its efficiency in operation.

The invention consists in the novel construction and combination of parts which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a monkey-wrench constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section of the same on the line *x x*, Fig. 1. Fig. 4 is a perspective view of the movable block detached. Fig. 5 is a longitudinal section of the same. Fig. 6 is a perspective view of the locking-lever. Fig. 7 is a similar view showing the transverse portion of the lever made angular and the cam having a corresponding aperture therein.

In the said drawings, the reference-numeral 1 designates the shank of the wrench, formed with a number of graduations or a scale, if desired. At its outer end the shank is provided with a stationary jaw 2, and on one edge (which for convenience I will call the "lower" edge) is formed with a number of inclined teeth 3. Upon its opposite edge it is formed with a longitudinal groove 4.

The numeral 5 designates a rod, preferably formed integral with the shank and screw-threaded at its outer end. Upon this rod is fitted a handle 6.

The numeral 7 designates a movable block or jaw having a rectangular longitudinal opening 8 for the passage of the correspondingly-formed portion of the shank 1, and in

the side of this opening is formed a series of inclined teeth 9, which engage with the teeth on the shank. This opening is somewhat larger than the shank, so that it will have sufficient play upon the same to allow the teeth to be disengaged when it is desired to set the wrench. On each side of the block is an opening 10, intersecting the longitudinal opening in the same, and at the upper end of these openings is formed a semicircular notch 12. These openings 10 and the notches are opposite to or alined with each other. Located and journaled in these notches is the transverse end 13 of a bent lever 14, provided with a cam or eccentric 15, which seats in a semicircular groove 16 in the block or movable jaw.

The operation will be readily understood. To set the wrench to fit any particular nut, the lever is turned so as to throw the cam or eccentric out of engagement with the groove in the under side of the shank and permitting the teeth of the block and shank to be disengaged from each other. The block can now be moved back or forth and when adjusted to the desired position the lever is turned in a reverse direction and the cam or eccentric forced into engagement with the groove in the shank, which will press the block downward and cause the teeth thereof to engage with the teeth of the shank. It will be noted that the cam is so located with respect to the shank that the greater the pressure on the block the greater the friction between the cam and shank, thereby insuring greater security against disengagement of the teeth. I prefer to make the cam or eccentric removable from the lever, so as to allow it to be replaced by a new one when worn or injured, and for this purpose the transverse portion of the lever is made square or angular, and a corresponding aperture formed in the cam, so that it will rotate with the lever.

By the construction above set forth the lever can be inserted in the block from either side, so as to enable the wrench to be used with equal facility by a left-handed person.

To take the wrench apart for changing the lever from one side to the other, the handle is unscrewed and the block slipped off, when

the lever and cam can be taken out through one of the side openings in the block and then inserted in the other side.

Having thus described my invention, what I claim is—

1. In a monkey-wrench, the combination, with the shank formed with a stationary jaw at one end, a series of inclined teeth on one edge and a longitudinal groove in the other edge, of the movable block or jaw through which said shank loosely passes, having alined openings in its sides with intersecting notches at the upper ends thereof, and a semicircular transverse groove, the lever working in said notches, the cam on said lever engaging with said grooves, and the series of inclined teeth engaging with the teeth of the shank, substantially as described.
2. In a monkey-wrench, the combination

with the shank formed with a stationary jaw, a series of inclined teeth on one edge and a longitudinal groove in the opposite edge, of the movable block having a longitudinal recess through which said shank passes, alined openings, and notches intersecting therewith, a semicircular groove and a series of inclined teeth engaging with the teeth of the shank, the removable and reversible lever having a squared or angular portion and the removable cam having a corresponding aperture engaging therewith, substantially as described.

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

CYDNOR B. CAMPBELL.

Witnesses:

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JAMES M. AMOS.