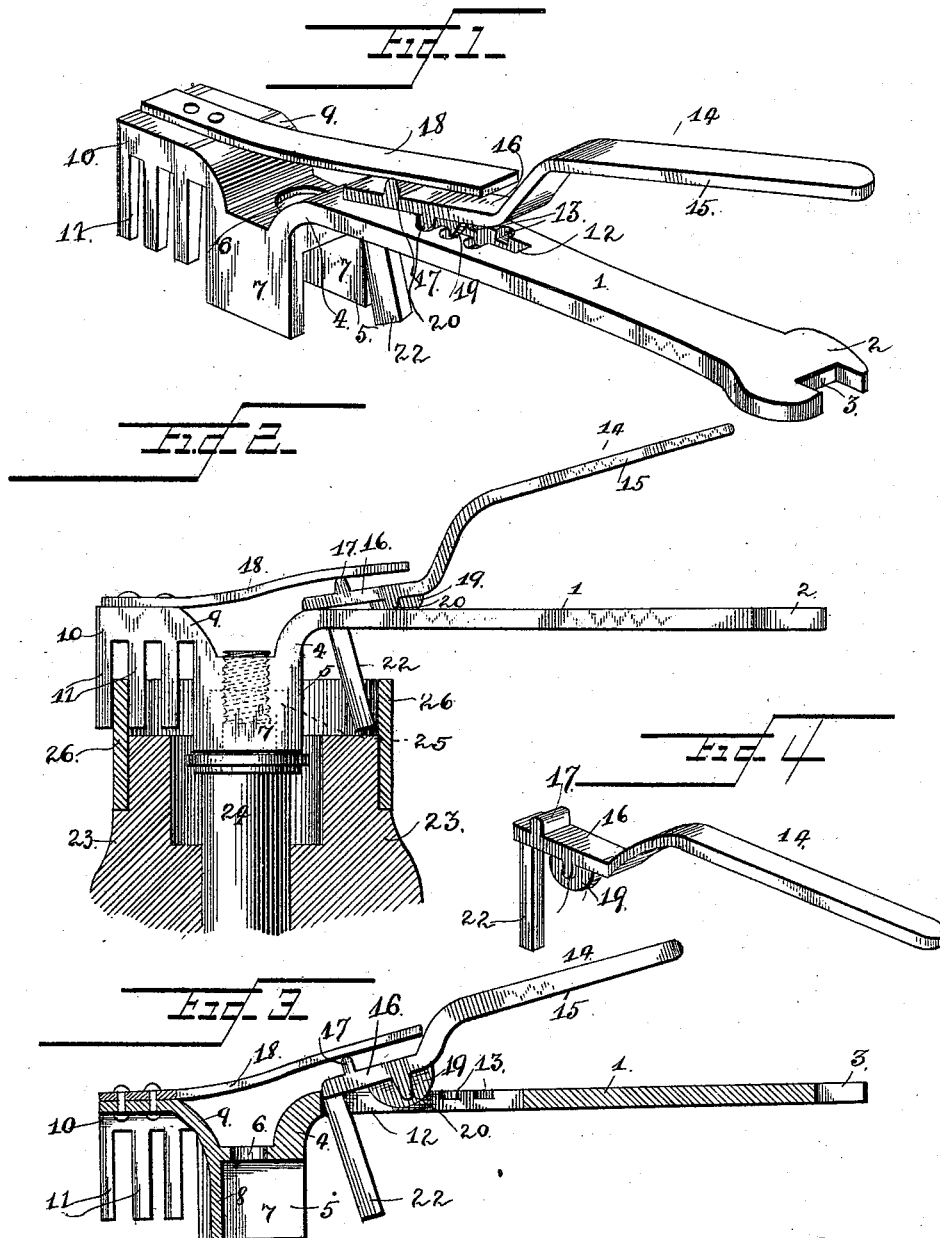


(No Model.)

J. LEPLEY.  
WRENCH.

No. 423,483.

Patented Mar. 18, 1890.



Witnesses:

*Horace S. Seitz*  
*W. S. Duvall*

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# UNITED STATES PATENT OFFICE.

JAMES LEPLY, OF LEWISBURG, PENNSYLVANIA.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 423,483, dated March 18, 1890.

Application filed December 5, 1889. Serial No. 332,621. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES LEPLY, a citizen of the United States, residing at Lewisburg, in the county of Union and State of Pennsylvania, have invented a new and useful Wrench, of which the following is a specification.

This invention has relation to that class of wrenches adapted for gripping and holding the nuts of axles while the wheels are being turned for the purpose of removal or application of the same.

Among the objects in view are to provide a wrench adapted to be applied to the nut and to adjust itself to the hub-band and grip, the same making a rigid connection between it and the nut.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a wrench constructed in accordance with my invention. Fig. 2 is a vertical section of a hub, a wrench thus constructed applied thereto. Fig. 3 is a longitudinal section of the wrench; Fig. 4, a detail in perspective of the locking-lever.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the handle of the wrench, which may be of any suitable shape, and is preferably provided at its rear end with a head 2, having a nut-receiving socket 3. The forward end of the handle is provided with the neck 4, disposed at a right angle to the handle, and at the lower end of the same there is formed, integral therewith, a hub-nut-receiving socket 5, the top of which is provided with a circular opening 6, adapted to receive the end of the axle. The socket 5 is in this instance rectangular and open at its rear, the same being formed by opposite depending flanges or walls 7 and an end wall 8. From the upper edge of the socket 5 there projects a neck 9, terminating in a pair of opposite depending flanges 10, transversely slotted, as 11, the slots of one flange registering with those of the other.

12 represents a slot formed in the handle 1 in rear of the neck 3, the opposite edges of the slot being provided with registering depressions 13.

14 represents a locking-lever, the rear end of which projects rearwardly over the handle 1 to form a hand-rest 15 and terminates at its front end in a foot 16 below the plane of the hand-rest. The upper surface of the foot is provided with a rib 17, upon which normally bears the free end of a flat-spring 18, the front end of which is secured to the neck 9. The under surface of the foot is provided with a central lug 19, which takes in the slot of the handle, and with opposite lugs 20, which take into any of the pairs of bearing-depressions formed in the edges of the slot.

22 represents a dog or finger, which depends from the under surface of the foot 16 at its front end and through the slot in the handle.

23 represents the hub of a wheel, 24 the axle, 25 the nut, and 26 the band.

To apply the wrench the lever is depressed against the tension of the spring, so that the dog is swung toward the socket. The socket is then introduced over the nut and a pair of adjacent transverse slots in the end of the wrench take over the band. The lever is now released and is forced downwardly by the spring, the lower end of the dog binding against the inner face of the band at a diametrically-opposite point to that embraced by the slots, whereby it will be apparent that the nut and band are securely locked together and must move in unison. By rotating the wheel in either direction the same will be removed from the axle or applied thereto, as is well known, in accordance with the direction of the movement.

By reason of the series of slots it will be apparent that the wrench is adapted for hub-bands of varying sizes, and it will be apparent also that the distance of the dog from the nut-receiving socket may be varied for the same purpose by setting the bearing-lugs of the lever in any of the pairs of bearing-depressions.

The device herein described will be found to be extremely simple, useful, and efficient,

and it is apparent that, with the exception of the lever and spring, it may be cast in a single piece.

Having described my invention, what I claim is—

1. In a wrench of the class described, a handle provided at one end with a nut-receiving socket and beyond the same with opposite flanges provided with opposite band-receiving recesses, in combination with a lever fitted on the handle and a binding-dog projecting through the handle and at the side of the socket, substantially as specified.

2. In a wrench of the class described, the combination, with the handle terminating at its forward end in a nut-receiving socket arranged below the plane of the handle and beyond the same in opposite slotted flanges located in the plane of the handle, of a lever, a spring for depressing the same at its forward end, and a dog depending through a slot in the handle at that side of the socket opposite the slotted flanges, substantially as specified.

3. In a wrench of the class described, a handle terminating in a nut-receiving socket and beyond the same in a neck having opposite depending flanges correspondingly slotted or recessed to receive the band of the hub, in combination with a lever pivotally mounted upon the handle in rear of the socket, and a dog depending from the lever and adapted to bind against the hub-band at a point opposite the flanges, substantially as specified.

4. In a wrench, a handle provided near its end with a longitudinal slot, the opposite edges of which are provided with corresponding bearing-depressions, the forward end of the handle being provided with a nut-receiving socket arranged below the plane of the handle, a

lever having opposite bearing-lugs near its forward end adapted to be removably mounted in the depressions, a binding-dog depending from the end of the lever and through the slot in the handle, and a spring for depressing the front end of the lever, substantially as specified.

5. In a wrench, the combination, with the handle provided with a slot near its front end, the edges of which have corresponding depressions, the neck formed at the end of the handle and terminating in a nut-receiving socket and projected beyond the socket and provided with opposite flanges having corresponding hub-receiving slots, of a lever terminating in the front end in a foot provided upon its under surface with a central lug taking in the slot, opposite bearing-lugs for taking in the depressions, a depending dog projecting through the slot, a rib formed on the upper surface of the foot, and a flat spring secured to the neck and having its free end terminating upon the rib, substantially as specified.

6. In a wrench of the class described, the handle provided at one end with a hub-nut-receiving socket 5, one wall of which is open, and beyond the socket with a series of slots or recesses which are designed to receive the hub-band, and a spring-pressed locking-lever provided with a dog 22, as set forth.

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

JAMES LEPLEY.

Witnesses:

THOMAS CHURCH,  
H. E. GUTELIUS.