

J. H. MORRISSEY.

Wrench.

No. 167,012.

Patented Aug. 24, 1875.

Fig. 1.

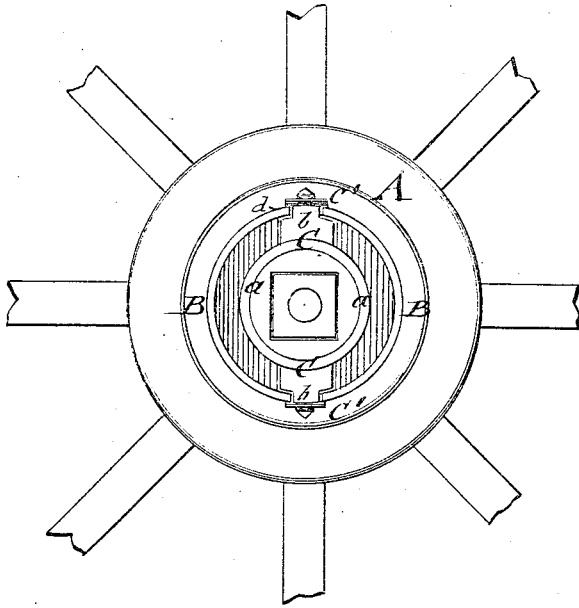


Fig. 2.

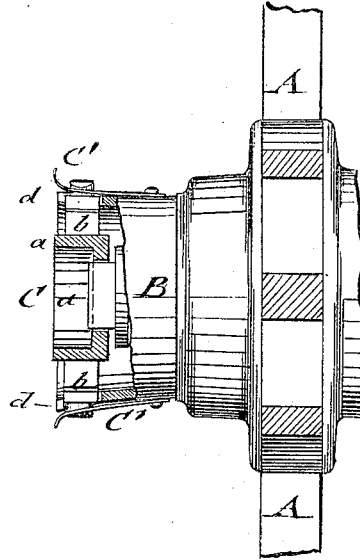
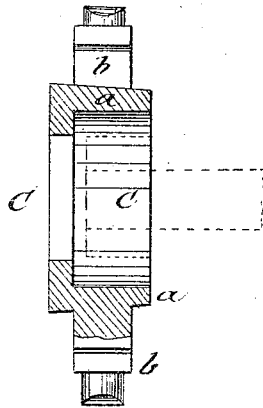


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. MORRISSEY, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **167,012**, dated August 24, 1875; application filed July 10, 1875.

To all whom it may concern:

Be it known that I, JOHN H. MORRISSEY, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and Improved Wheel-Wrench, of which the following is a specification:

In the accompanying drawing, Fig. 1 represents a front view of the hub of a wheel with my wrench attached thereto; Fig. 2, a sectional side view of the same; and Fig. 3, a vertical central section of the wrench detached.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish for vehicles an improved wheel-wrench, that is always ready for use by remaining attached to the hub of the wheel, so as not to be mislaid, and which allows the expeditious unscrewing of the nut, and taking off of the wheels from the axles.

The invention consists of a wheel-wrench having a central socket part, with diametrically-extending arms that are securely locked by fastening-springs to the hub-band, to be applied to the nut for unscrewing the same, and in reversed position for being stored away without engaging the nut.

In the drawing, A represents a vehicle-wheel, to the hub-band B of which are attached at diametrically-opposite points band-springs or other fastening devices C', that serve to retain the wheel-wrench C inside of the hub-band. The wrench C is made of a cylindrical socket part, *a*, with a square nut-fitting aperture and with diametrically-extending arms *b*, that enter recesses *d* of the hub-band below the fastening-springs C', coming thereby in contact with the same, so that the springs bind over the projecting arm ends and lock the wrench firmly to the hub-band.

When the wheels have to be taken off the axles the wrench is placed with the aperture downward on the nut, fastened by the springs, and the nut unscrewed by merely turning the wheel in the proper direction. The wrench turns with the wheel and loosens thereby the nut, so that wheel and hub are taken off together. The wrench is then attached to the next hub, and so on until all the wheels are taken off, the wrench remaining in the last wheel until they are put on again, when the order of replacing and the direction of turning them for tightening the nuts is reversed. The wrench is then detached from the springs and reversed to be attached in reversed position with the aperture at the outside and the socket extending to the inside, as shown in Fig. 1, allowing thereby the free turning of the wheel, without the nut being acted upon by the wrench. The wrench is in this position retained on the hub-band, to be at any time within reach, without getting mislaid and lost, rendering thus the unscrewing and tightening of the nuts very easy and expeditious.

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

A wheel-wrench, having socket, with diametrically-extending arms, in combination with the recessed hub-band of a vehicle-wheel, having locking-springs applied thereto for retaining the wrench in position to turn the nuts, and in reversed position without engaging the same, substantially as and for the purpose set forth.

JOHN HENRY MORRISSEY.

Witnesses:

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