

(No Model.)

G. B. MARTIN.
WRENCH FOR VEHICLES.

No. 515,436.

Patented Feb. 27, 1894.

FIG. 1.

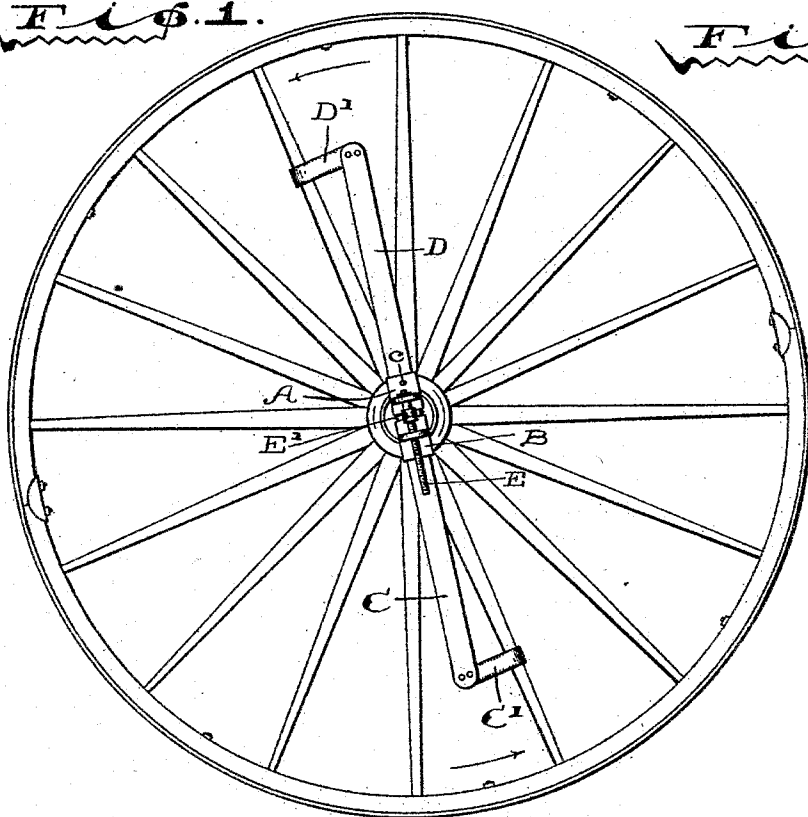


FIG. 2.

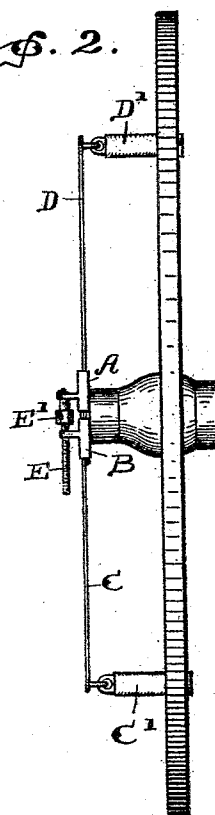


FIG. 3.

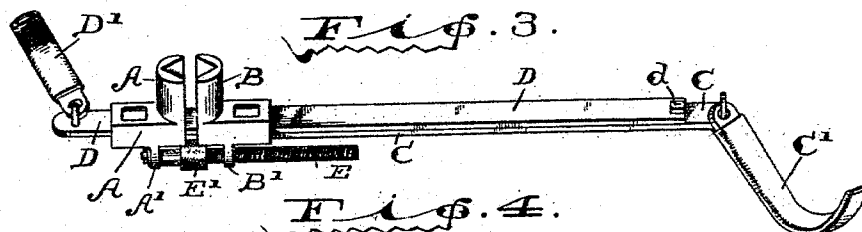
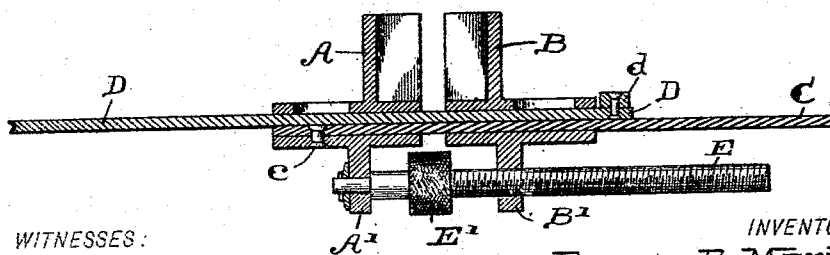


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE B. MARTIN, OF INDIANAPOLIS, INDIANA.

WRENCH FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 515,436, dated February 27, 1894.

Application filed August 31, 1893. Serial No. 484,441. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. MARTIN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Wrenches for Vehicles, of which the following is a specification.

The object of my said invention is to produce a wrench by which the axle nuts of vehicles can be turned on and off (and held when off) quickly and easily, and without necessity of handling.

A wrench embodying said invention will be first fully described and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a vehicle wheel with my improved wrench applied thereto; Fig. 2 an edge elevation of the same; Fig. 3 a perspective view of the wrench separately, on an enlarged scale, when closed together to its shortest length, and Fig. 4 a central sectional view, on a still further enlarged scale, of the central portion of the wrench.

My improved wrench consists of two jaws, A and B, and two bars, C and D, which pass through suitable perforations in the base of said jaws, which perforations run at right angles with the gripping portions thereof. The jaws are adjusted toward or from each other by a screw rod E, which may be either a right-and-left-hand screw, or may have one end journaled in an ear A' on one of the jaws, while the other end is screw threaded and engages with the ear B' on the other jaw, as shown. A milled collar or thumb piece E' should be provided for revolving this rod E in adjusting the jaws. In adjustment said jaws slide back and forth upon the bars C and D. The jaw A, however, is fixedly attached to the bar C by a bolt or rivet c. The bar D is free to slide endwise through both the jaws, and thus the wrench can be shortened and lengthened, while the jaw B can be adjusted over both the bars, and the wrench thus fitted to various sized nuts. The bar D has a projection d which prevents it from sliding entirely out of the perforations in the jaws, and said projection limits the movement of said

bar;—which, when pulled out to the limit of its adjustment, is intended to extend to substantially the same distance from the jaws as the bar C.

As will be readily understood, this wrench may be used as an ordinary wrench if desired; and it is best adapted for such use when closed up to its shortest length, as shown in Fig. 3 of the drawings. This adaptability to be shortened also enables its size to be reduced, so that it may be more conveniently handled or carried when not in use.

The bars C and D are provided, respectively, with hooks C' and D' which are adapted to engage with the spokes of the wheel, so that when said wheel is raised off the ground, by means of a jack or otherwise, placing this wrench upon a nut and attaching the hooks to the spokes, as shown in Fig. 1, will result, when the wheel is revolved, in the nut and washers being turned off the end of the axle, and said nut and wheel and washers will be held together by said wrench until it is desired to replace them, (as after the spindle has been lubricated,) thus avoiding any handling of the greasy nut or washers, or any possibility of dropping them in the dirt. As will be readily understood, the nut is gripped tightly between the jaws by adjusting the screw rod E.

The hooks C' and D' are preferably provided with rubber or other soft or flexible shields, so that the spokes will not be marred by contact therewith.

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

1. The combination, in a carriage wrench, of two bars, overlapping each other two jaws mounted thereon, and hooks on the ends of said bars adapted to engage with the spokes of a wheel, whereby an axle nut may be manipulated by placing the wrench thereon and turning the wheel, substantially as set forth.

2. The combination, in a wrench, of the jaws A and B having perforations in their bases, the bars C and D passing through said perforations, and the screw rod E connected to said jaws whereby they may be adjusted, said several parts being arranged and operating substantially as set forth.

3. The combination, in a wrench, of the jaws
A and B, the screw rod E attached to said
jaws, the bars C and D passing through per-
forations in the bases of said jaws, overlap-
5 ping each other and the hooks C' and D' at-
tached to the outer end of said bars, all sub-
stantially as and for the purposes set forth.

In witness whereof I have hereunto set my
hand and seal, at Indianapolis, Indiana, this
5th day of August, A. D. 1893.

GEORGE B. MARTIN. [L. s.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.