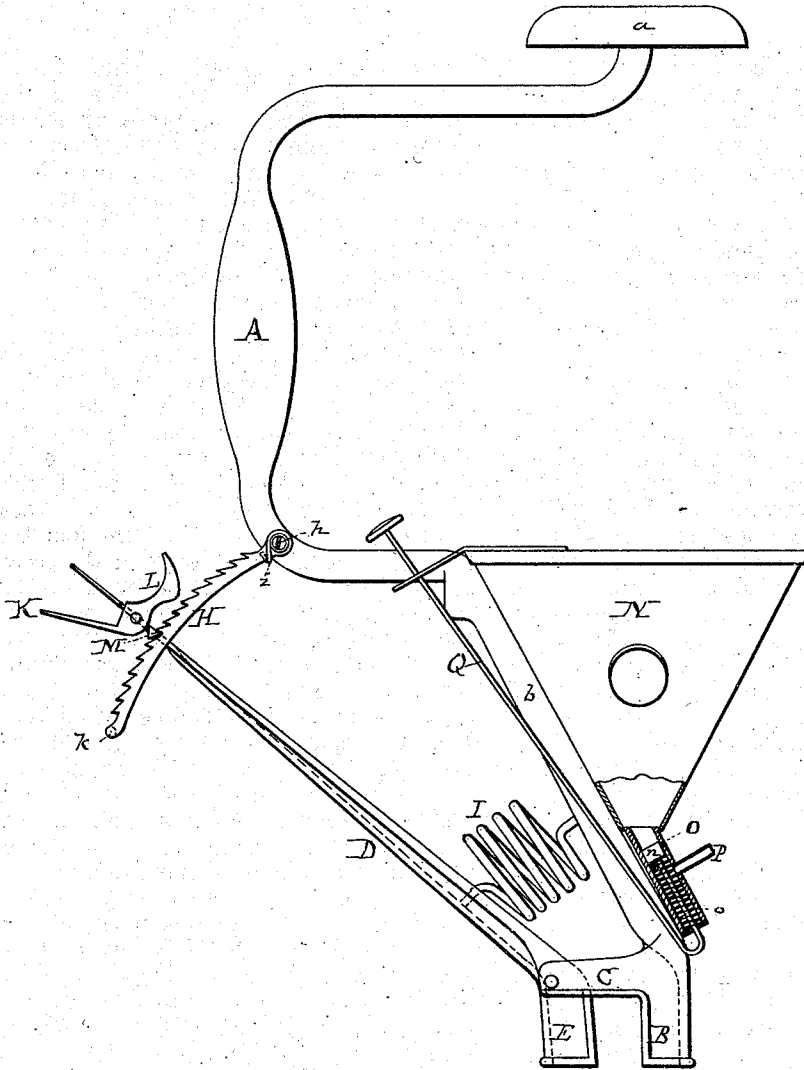


W. R. MOORE.
Wrenches.

No. 156,370.

Patented Oct. 27, 1874.



WITNESSES.

R. Gibson
Dennis Loring

INVENTOR.

William R. Moore
by

BY Cox and Cox ATTYS

UNITED STATES PATENT OFFICE.

WILLIAM R. MOORE, OF BURTON, OHIO.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **156,370**, dated October 27, 1874; application filed July 2, 1874.

To all whom it may concern:

Be it known that I, WILLIAM R. MOORE, of Burton, Geauga county, Ohio, have invented certain new and useful Improvements in Wrenches, of which the following is a specification:

The invention relates to wrenches; and consists in providing a handle, preferably of a crank operation, the lower extremity of which is conformed with ears, to which is pivoted an arm or lever, the end of which adjacent to the end of the handle is carried out of line and constructed, with the extremity of the handle, to form an effective mechanism for the purpose of gripping the nut. The arm or lever extends upward, resting against a stud or catch upon the end of a curved yielding ratchet, which is attached to the handle of the device, and the upper side of which is provided with notches conformed to receive a pawl, which is attached to the arm or lever immediately above the notched edge of the ratchet. The upper extremity of the arm or lever is reduced to a thumb-piece, and a second thumb-piece, provided with a foot which projects over the upper or notched edge of the ratchet, is added for the purpose of disengaging the ratchet when it is desired to do so. To hold the arm or lever in place a spring is inserted between it and the handle of the device near the lower extremities thereof.

The nature of the invention, together with the details of construction, will more fully appear in the description of the parts hereinafter.

The object of the invention is to provide a convenient and effective wrench especially adapted to use in removing the wheels of vehicles.

The accompanying drawing presents a device embodying the invention in perspective.

A, in the accompanying drawings, is the handle of the device provided at its upper extremity with the breast-piece *a*, and having the part *b* inclined downward, terminating in the jaw B, adjacent to which are the ears C, which project at right angles to the jaw B, and between which is pivoted the arm or lever D, the lower extremity of which is bent, as

shown, forming the jaw E, which coacts with the jaw B to gripe the nut. The handle A is of the crank form in the present instance, and at its lower angle is attached the curved yielding ratchet H, which turns upon the pin *h* and is held in place by the spring *i*. The ratchet H is provided at its outer extremity with the stud or catch *k*, against which rests the upper part of the arm or lever D, the arm or lever being forced outward and against the catch *k* by the spring I secured between the lever D and handle A, a short distance above their point of connection. The upper extremity of the arm or lever D is in the form of a thumb-piece, and pivoted to it upon the side toward the ratchet H is the thumb-piece K, which operates the foot L that extends over the ratchet H in line therewith. Directly below the pivot of the foot L is the pawl M, and the upper edge of the ratchet H is provided with notches, in which it fits, the said notches being constructed so as to present a rectangular side toward the pawl, the interior side of which is correspondingly rectangular. Thus the arm D is held securely at any point upon the ratchet when the jaws B E are separated, and yet may be readily disengaged and permitted to occupy its natural position in contact with the stud or catch *k* at the outer end of the ratchet. N is an oil-can attached to the part *b* of the handle in any suitable manner. It is preferably of funnel-shape, having at its lower extremity the hollow cylinder O provided at its point of contact with the can with the valve *n*, below which is the spout P. Connected with the valve *n* is the spring *o* within the cylinder O, which closes the valve, thus preventing an escape of the oil. But the valve *n* may be opened at will by means of the rod Q, the lower extremity of which, being bent, projects upward into the cylinder and is attached to the valve, its upper end being provided with a button which is adjacent to the gripe on the handle. Thus, by pressing the button upon the rod Q the valve is opened and the oil may be discharged from the spout P at will.

The form I have described is probably to be preferred, but it is apparent that it may

be varied without affecting the nature and objects of the invention.

I do not claim the oil-can, as shown; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination of the handle A, having the jaw B and ears C, with the lever D, having the jaw E, and pivoted to the ears C, pawl M, ratchet H, spring I, and foot L.

In testimony that I claim the foregoing improvement in wrenches, as above described, I have hereunto set my hand and seal this 1st day of July, 1874.

WILLIAM R. MOORE. [L. S.]

Witnesses:

ROWLAND COX,
DENNIS TINNEY.