

No. 843,693.

PATENTED FEB. 12, 1907.

C. T. O'HARA.
CYLINDER WRENCH.
APPLICATION FILED JUNE 2, 1906.

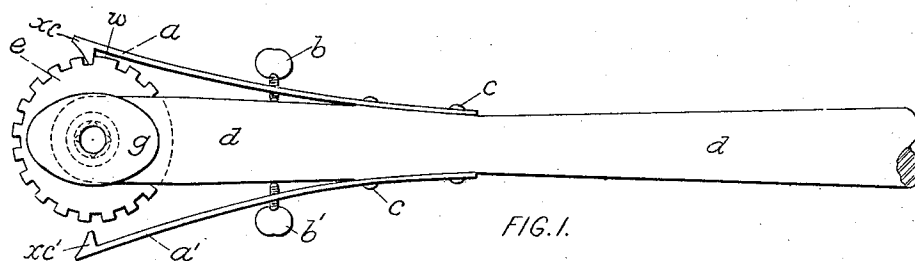


FIG. 1.

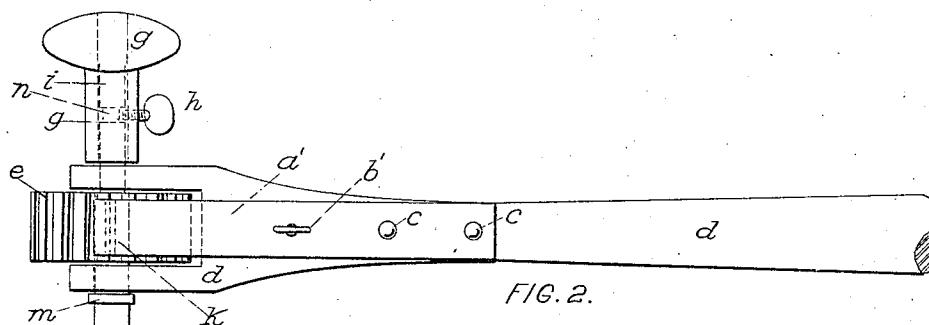


FIG. 2.

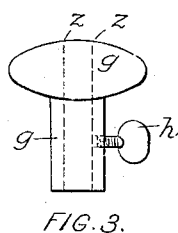


FIG. 3.

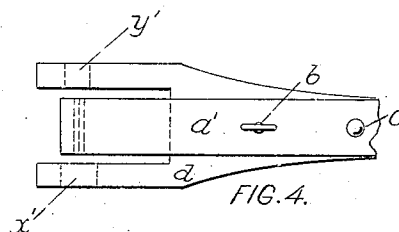


FIG. 4.

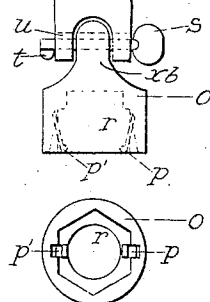


FIG. 5.

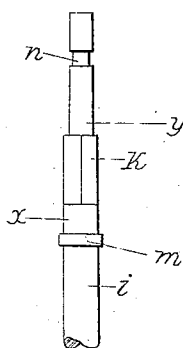


FIG. 6.

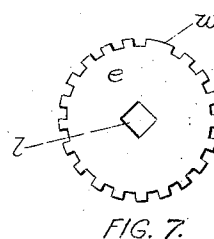


FIG. 7.

Witnesses

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CYLINDER-WRENCH.

No. 843,693.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed June 2, 1906. Serial No. 319,828.

To all whom it may concern:

Be it known that I, CHARLES T. O'HARA, a citizen of the United States, residing at Deepcreek, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Cylinder-Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a more practical wrench for the purpose of setting and removing bolts and nuts of a cylinder in a threshing-machine and for like purposes; also in other machines when it is desired or required that bolts and nuts should be set or removed where it is necessary to work within a frame or among obstructions and where there is space only for the handle to operate in a portion of a circle and where an ordinary wrench cannot be used.

A further object is to provide a wrench-head that will hold the nut when removed or being placed for setting, thereby avoiding the inconvenience of having the nut drop down into the machine, making it difficult to recover the same.

A still further object is to provide a removable wrench-head, whereby another or different head can be substituted for different styles of nuts or for other purposes.

I accomplish these objects by the mechanism in the accompanying drawings, in which—
Figure 1 is a top plan view of the wrench.
Fig. 2 is a side elevation of wrench. Fig. 3 is the hand-rest *g* detached. Fig. 4 is plan of handle *d* with removable parts detached. Fig. 5 is a plan view of wrench-head *o*. Fig. 6 is a plan view of top portion of shaft *i*. Fig. 7 is a plan of cog-wheel *e*.

In a detailed description of my invention *a* and *a'* indicate steel arms on which is secured clutches *xc* and *xc'*.

b and *b'* indicate thumb-screws used to raise and lower the arms *a* and *a'* to effect the throwing in and out of the cogs on the wheel *e* of the clutches *xc* and *xc'*. The purpose of having clutches on both sides of the handle *d* is to permit of the turning of the

cog-wheel *e* either way, as the purposes might require.

w indicates an enlarged cog for the purpose of added resistance when an extra force is required in turning a nut or bolt.

c indicates the head of rivets used in securing the arms *a* and *a'* to the handle *d*.

g indicates a hand-rest for purpose of steadying the tool when in use.

z z indicates sides of hollow space in hand-rest *g*, permitting the hand-rest to fit over top of shaft *i*, and *h* indicates thumb-screw operating into groove *n* to hold handle onto shaft *i*.

x on the shaft *i* indicates the axle over which the opening *x'* in the handle *d* operates, and *y* on shaft *i* indicates the axle over which the opening *y'* in the handle operates.

k indicates the square portion of the shaft *i* over which the cog-wheel *e* rests at *l*, and *m* indicates the shoulder on shaft *i*, serving as a rest for the combined handle *d* and cog-wheel *e*.

o indicates the wrench-head *s*, a key passing through a hole *xb* in the top portion of the wrench-head *o* and through shaft *i*.

t indicates a projection on the key *s*, which when turned into the slot *u* locks the key so that same will not work out while in use, the purpose of the key being to secure the wrench-head to the shaft *i*.

r indicates the hollow portion of the wrench-head *o* cut to fit over a bolt-head or nut, and *p* and *p'* indicate two pieces of steel so set as to operate as springs to press against a nut while in the cavity *r*, thereby holding the same in place and preventing the nut from dropping out.

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

In the combination of a cylinder-wrench, having a perpendicular shaft, with wrench-head secured to the bottom of the shaft, the upper portion of such shaft being suitably set to provide a round axle for the receiving of a handle operating at right angles with the shaft and a square axle for a cog-wheel operating between two forks of a handle, with arms on either side of the handle secured to

the same, and a clutch secured to the end of
each arm operating in the grooves of the cog-
wheel, such arms being thrown into or out of
the grooves of the cog-wheel by means of a
5 thumb-screw operating through such arms
and against the handle, substantially as set
forth.

In testimony whereof I have affixed my
signature in presence of two witnesses.

CHARLES T. O'HARA.

Witnesses:

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