

C. C. SWANSON.
WRENCH.

APPLICATION FILED FEB. 27, 1909.

941,431.

Patented Nov. 30, 1909.

FIG. 1.

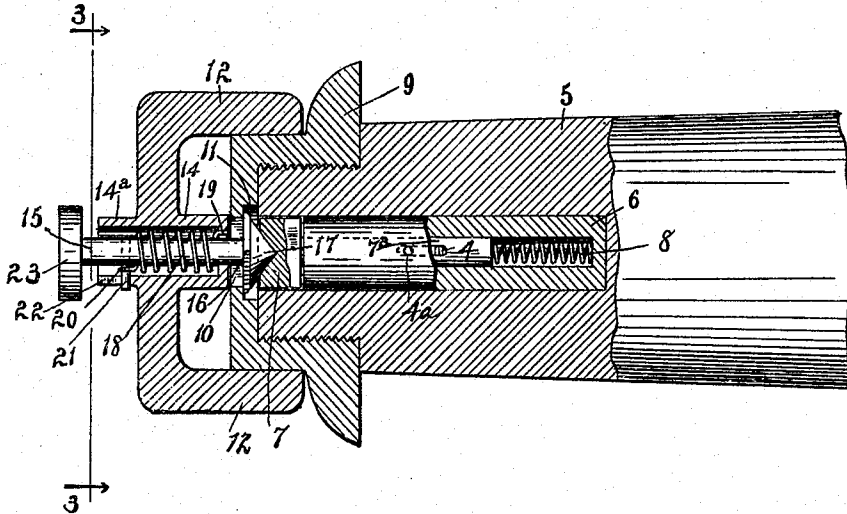


FIG. 2.

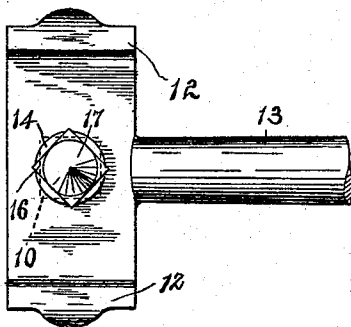
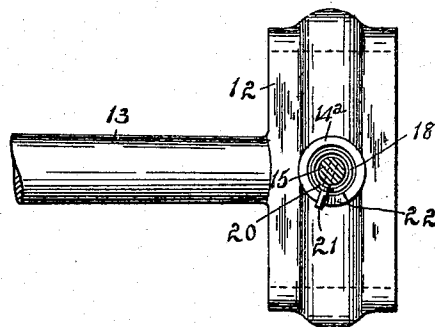


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. SWANSON, OF LAPORTE, INDIANA, ASSIGNOR OF ONE-HALF TO
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WRENCH.

941,431.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed February 27, 1909. Serial No. 480,474.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. SWANSON, citizen of the United States, residing at Laporte, in the county of Laporte and State of Indiana, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to improvements in tools for removing nuts from spindles and like devices and especially to a wrench which is adapted to be used in connection with a nut and spindle which form the subject matter of a separate application for Letters Patent filed simultaneously herewith under Serial No. 480,475.

The particular object of this invention is to provide a form of wrench which will not only release the nut from the spindle referred to but will hold said nut embraced by the jaws of the wrench until it is returned to the spindle.

A further object of my invention is to provide a wrench which also may be used on ordinary nuts within the capacity of the jaws of said wrench.

In the accompanying drawing which forms a part of this application for Letters Patent, I have shown an improved form of my wrench in conjunction with the style of nut and spindle to which it is especially adapted in the following views:

Figure 1 is a sectional view taken through the end of a spindle and its nut with my wrench applied to the latter; Fig. 2 is a bottom plan view of my improved wrench with a portion of the handle, and Fig. 3 is a top plan view of the wrench with a portion of the handle.

Referring to the details of the drawing 5 represents the end of a spindle which is longitudinally bored to receive a plug 6 which in turn is bored longitudinally to receive a bolt 7^a on the outer end of which is a rectangular head 7. An expansion coiled spring 8 is placed in the bore of the plug 6 and normally projects the bolt 7^a to the extent permitted by a pin 4^a which extends through the plug 6 and through a slot 4 in the bolt 7^a. The outer face of the head 7 of this bolt is formed with a conical recess. The nut 9 is provided with a central rectangular opening 10 and with a recess 11 of greater diameter than the opening 10.

12 represent the clamping jaws of the wrench which are cast integrally with the

handle 13 and with a central cylindrical boss 14, 14^a. The portion of the boss 14 projects between the jaws 12 while the portion of the boss 14^a extends from the outer face or back of the wrench. These portions form a housing for a latch 15 the inner end of which is provided with a head composed of a rectangular flange 16 and a conical projection 17 which is adapted to be seated when the wrench is applied to the nut 9 in the conical recess in the outer face of the bolt 7.

Surrounding the latch 15 is a coiled spring 18 one end 19 of which is secured in a suitable opening in the boss 14 and the opposite end 20 is attached to a pin 21 in the boss 14^a. This pin has a limited rotary movement in a slot 22 which is cut in the boss 14^a as shown in Fig. 3. The latch 15 is provided with a thumb portion 23 by which it may be turned and also pushed inwardly against the tension of the spring 18.

In applying this wrench to the nut 9 the head of the latch is inserted through the opening 10 in the nut and the latch turned until the sides of the flange 16 are out of registry with the walls of the opening 10. The latch is then pressed inwardly by the operator thus depressing the head 7 of the bolt 7^a below the outer end of the spindle 5 and out of engagement with the nut 9 so that by turning the wrench by its handle 13 the nut may be unscrewed from the spindle 5. As the flange 16 will intersect the walls of the opening 10 it will be seen that the wrench will furnish a support for the nut 9 after the latter is unscrewed and thus be in position to return the nut to the spindle when the latter has been oiled thus preventing the nut from becoming lost or coming in contact with the dirt and saving the fingers of the operator from contact with the grease and oil which usually attach to the ordinary spindle nut.

It will be apparent that the form of flange 16 and opening 10 may vary from that shown in the accompanying drawing without departing from the spirit of this invention and that other modifications in detail may be made without impairing the efficiency of the device disclosed.

Having thus described my invention what I claim as new is:—

1. A wrench comprising gripping jaws, a central boss and suitable handle integrally

formed, in combination with a latch yield-
ably and partially rotatable in said boss,
said latch having a rectangular head termi-
nating in a conical end, and means for manu-
5 ally operating the same.

2. A wrench comprising a suitable handle
and gripping jaws, in combination with a
latch member having a flanged and conical
head and a grasping portion, a coiled spring
10 adapted to yieldingly support said latch and

maintain the latter in operative position,
and means for limiting the rotation of said
latch, substantially in the manner and for
the purpose set forth.

In testimony whereof I affix my signature 15
in the presence of two witnesses.

CHRISTOPHER C. SWANSON.

Witnesses:

FRANK E. OSBORN,

MATE G. LINE.