

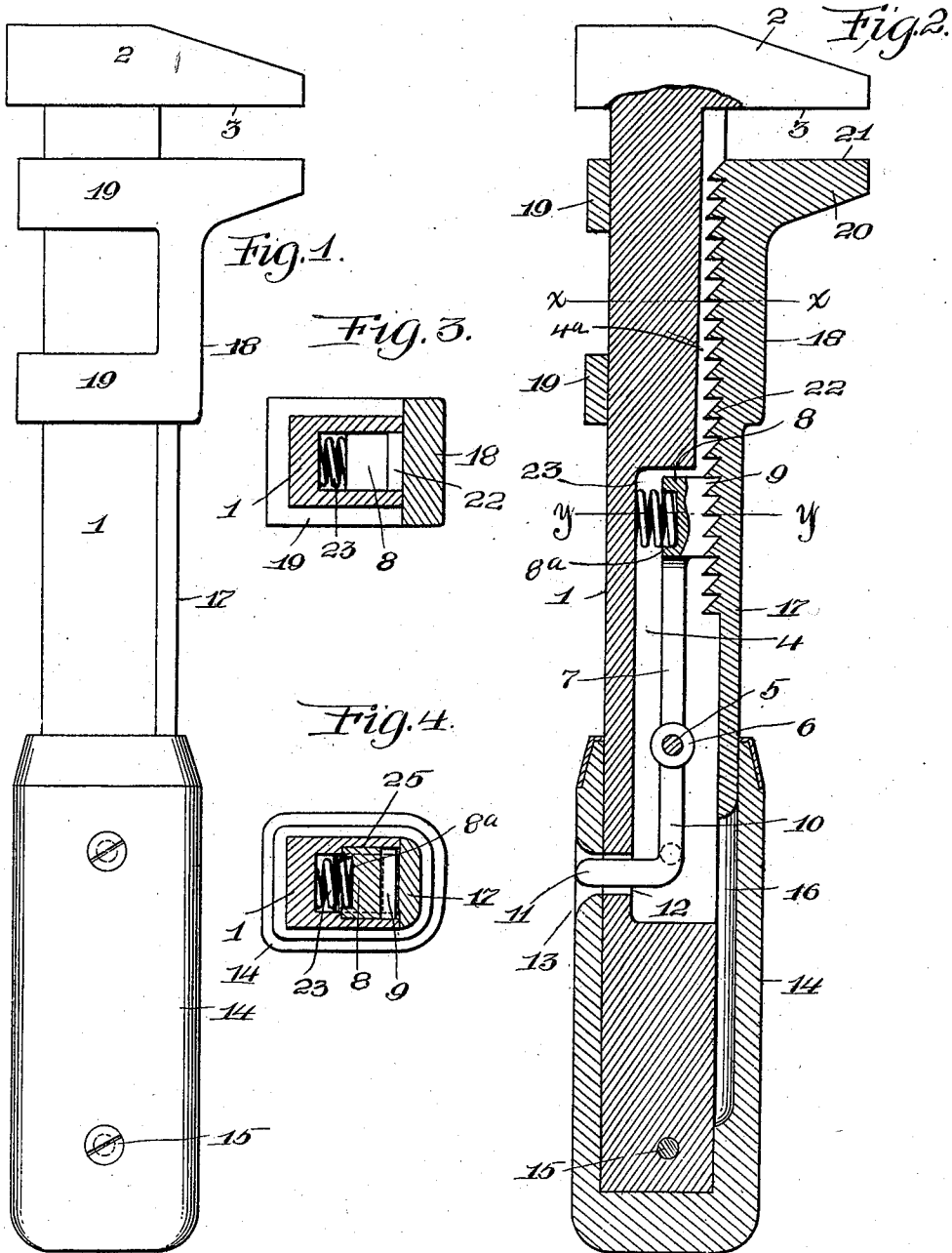
R. J. BOMBLATUS & F. CAVIOLA.

WRENCH.

APPLICATION FILED OCT. 24, 1910.

981,523.

Patented Jan. 10, 1911.



WITNESSES

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UNITED STATES PATENT OFFICE.

RUDOLPH J. BOMBLATUS AND FRANK CAVIOLA, OF FORBES ROAD, PENNSYLVANIA.

WRENCH.

981,523.

Specification of Letters Patent.

Patented Jan. 10, 1911.

Application filed October 24, 1910. Serial No. 588,667.

To all whom it may concern:

Be it known that we, RUDOLPH J. BOMBLATUS and FRANK CAVIOLA, citizens of the United States of America, residing at Forbes Road, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wrenches, and the objects of our invention are first, to provide a quick-acting wrench that can be used for various purposes; second, to furnish a wrench with means as will be hereinafter set forth whereby the movable jaw thereof can be easily and quickly adjusted; third, to furnish a wrench with an adjusting mechanism that is protected from rough usage of the wrench; fourth, to provide a wrench consisting of comparatively few parts easily and quickly assembled, and fifth, to accomplish the above results by a wrench that is strong and durable, inexpensive to manufacture, and efficient for the purposes for which it is intended.

We attain the above objects by a mechanical construction that will be hereinafter specifically described and then claimed, and reference will now be had to the drawings, wherein:

Figure 1 is a side elevation of the wrench. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a horizontal sectional view taken on the line $x-x$ of Fig. 2, and Fig. 4 is a similar view taken on the line $y-y$ of Fig. 2.

A wrench in accordance with our invention comprises a shank 1 that is rectangular in cross section and has the upper end thereof provided with an integral jaw 2 having a gripping surface 3. The shank 1 has the front side thereof provided with a longitudinal central groove 4 approximately one-third the length of the shank and with another groove 4^a extending from the jaw 2 to the upper end of the groove 4. The shank intermediate the ends thereof is provided with a transverse pivot pin 5 and pivotally mounted upon said pin is the barrel 6 of a locking lever, said lever having the long arm 7 thereof provided at its extremity with a toothed block 8, said block having a plurality of teeth 9. The rear side of the block 8 has a seat 8^a for the inner convolution of a coiled compression spring

23 interposed between said block and the shank 1. The short arm 10 of the locking lever is bent at right angles to provide a push stem or button 11, said push stem or button extending through an opening 12 provided therefor in the rear side of the shank 1, also through a beveled opening 13 registering with the opening 12 and formed in the handle 14 mounted upon the lower end of the shank 1.

The handle 14 can be made of metal or wood and is secured to the shank by screws or other fastening means 15. The inner wall of the handle 14 is provided with a longitudinal recess 16 extending from the upper end of the handle into proximity to the lower end thereof. This groove is adapted to receive an extension 17 of a movable jaw 18 slidably mounted upon the shank 1 and retained in engagement therewith by straps 19 embracing said shank. The movable jaw 18 has the upper end thereof provided with an extension 20 having a gripping surface 21 adapted to cooperate with the gripping surface 3 in gripping the facets of a nut. The inner wall of the movable jaw 18 and a portion of the inner wall of the extension 17 of said jaw are provided with teeth 22 adapted to be engaged by the teeth 9 of the block 8, said block being retained in engagement with said teeth through the spring 23. The block 8 in its movement is guided by oppositely disposed grooves 25 provided therefor in the confronting walls of the grooves 4.

The extension 17 sliding in the handle 14 cooperates with the straps 19 of the movable jaw 18 in bracing the movable jaw upon the shank, and in order that the parts of the wrench can be easily and quickly assembled, the handle 14 can be made in two parts connected to the shank 1 through the medium of the screws 15.

It is thought that the operation and utility of the wrench will be apparent without further description, and while in the drawings there is shown a preferred embodiment of the invention, it is to be understood that the structural elements thereof are susceptible to such changes as fall within the scope of the appended claims.

What we claim, is:

In a wrench, a shank, a fixed jaw carried by the upper end thereof, said shank having a central longitudinal groove formed therein and another groove extending from said fixed jaw to the upper end of said central

groove, a locking lever pivotally mounted
in the said central groove of said shank, a
toothed lock carried by the long arm of
said lever, the short arm of said lever being
5 bent at right angles to provide a push but-
ton or stem adapted to extend through an
opening provided therefor in said shank, a
handle detachably mounted upon the lower
end of said shank and having an opening
10 formed therein providing clearance for said
push button or stem, the inner wall of said
handle having a longitudinal recess, a mov-
able jaw slidably mounted upon said shank
and having an extension adapted to ride into
15 the recess of said handle, that wall of said

movable jaw confronting the grooves of said
shank having teeth adapted to be engaged
by said toothed block, and means located in
the central groove of said shank and adapted
to normally hold said toothed block in en- 20
gagement with the teeth of said movable
jaw, substantially as and for the purpose
herein described.

In testimony whereof we affix our signa-
tures in the presence of two witnesses.

RUDOLPH J. BOMBLATUS.
FRANK CAVIOLA.

Witnesses:

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