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W. B. DAVIS.

WRENCH.

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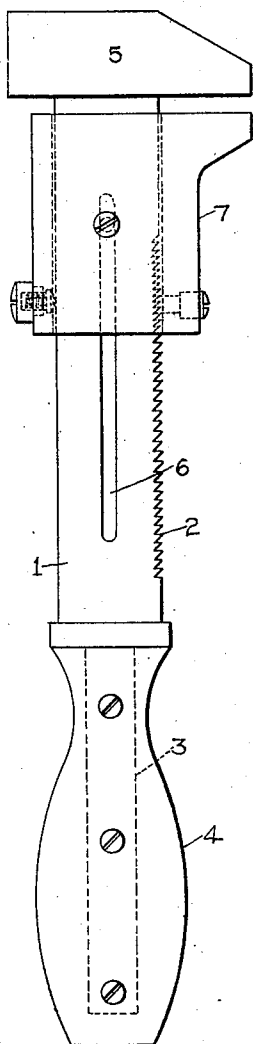


FIG. 1

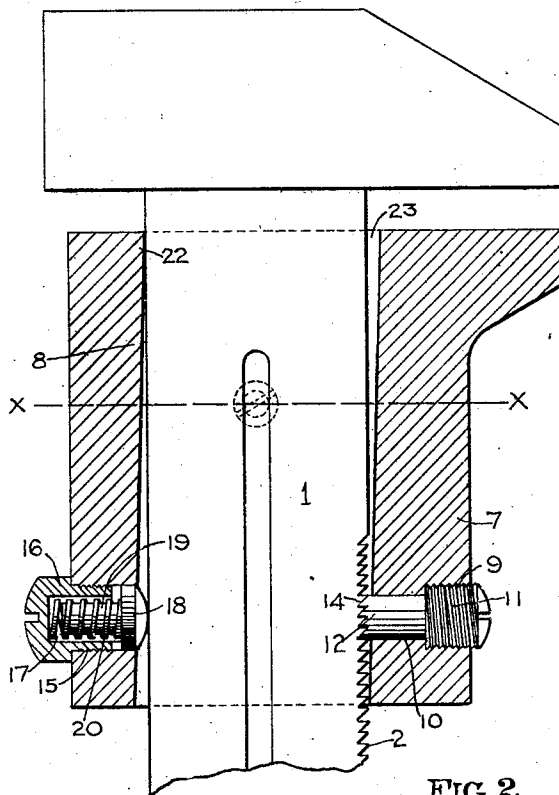


FIG. 2

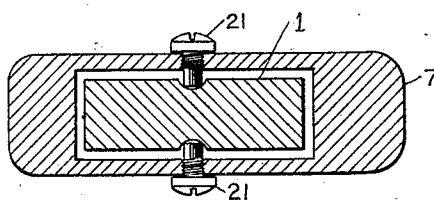


FIG. 3

WITNESSES:

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WRENCH.

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To all whom it may concern:

Be it known that I, WILLIAM B. DAVIS, a citizen of the United States of America, residing at Swissvale, in the county of Allegheny 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 improvements in wrenches and the invention has for its object the provision of novel means for easily and quickly adjusting the movable jaw of a wrench, dispensing with the ordinary screw and nut commonly employed.

My improved wrench consists of comparatively few parts arranged and constructed to provide a strong and durable wrench capable of withstanding the rough usage to which wrenches are generally subjected.

The detail construction entering into the wrench will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of the wrench constructed in accordance with my invention, Fig. 2 is an enlarged sectional view of the movable jaw of the wrench, Fig. 3 is a horizontal sectional view of the same taken on the line $x-x$ of Fig. 2.

To put my invention into practice, I construct my wrench of a shank 1 rectangular in cross section and provided with teeth 2 upon one of its edges. The shank is formed with a contracted end 3 for receiving a detachable handle 4. The opposite end of the shank is provided with a fixed jaw 5, while diametrically opposed sides of the shank are formed with longitudinally disposed grooves 6, the object of which will presently appear.

Mounted upon the shank 1 is a movable jaw 7 having an opening 8 through which the shank 1 extends. The jaw 7 upon its front edge is provided with a threaded recess 9 terminating in an opening 10, said recess receiving a threaded plug 11 carrying a pin 12, extending through the opening 10 to engage the shank 1, the end of the pin 12 being provided with a plurality of teeth 14 adapted to mesh with the teeth 2 of the shank 1.

Diametrically opposite the detachable pin 12, the movable jaw 7 is provided with an opening 15 and threaded in said opening is a screw 16 having a socket 17. Movably mounted in the opening 15 is a button 18 having a shank 19 extending into the socket 17 of the screw 16. Surrounding the shank 19 is a coiled spring 20, said spring bearing against the button 18 and the inner end of the socket 17, and normally maintaining said button in engagement with the shank 1.

Diametrically opposed sides of the movable jaw 7 are provided with set screws 21 extending into the dia-

metrically opposed grooves 6 of the shank 1, said screws guiding the jaw 7 upon the shank 1, and serving functionally as trunnions for the jaw 7 when the same is rocked or tilted upon the shank 1, to disengage the toothed edge of said shank from the toothed end of the pin 12.

Since the coiled spring 20 normally holds the button 18 in engagement with the shank 1, the lower rear edge of the jaw 7 will be held away from the shank causing the upper rear edge of the jaw to engage the shank as indicated at 22, while the upper front edge of the jaw will clear the shank, as at 23, and the lower front edge will be held in engagement with the toothed edge of the shank 1. In consequence of this construction, it is only necessary to press upon the rear edge of the jaw 7 to disengage the pin 12 carried by said jaw from the toothed edge of the shank, permitting of said jaw being quickly adjusted upon the shank, and when released automatically assuming a locked position. In pressing the rear edge of the jaw 7 the spring 20 is compressed, allowing the button 18 to recede into the opening 15 of the jaw.

From the novel construction of the wrench it will be apparent that a ready adjustment of the movable jaw 7 can be accomplished in the direction of the fixed jaw, but in order to adjust said movable jaw away from the fixed jaw 5, it is necessary that the rear edge of the movable jaw be pressed towards the shank.

As the various parts of my wrench are detachable, they can be easily renewed, but as the parts are assembled in a compact manner, eliminating all projections of any consequence, it is thought that the wrench will be free from danger of injury when ordinarily used.

Such variations in the details of construction, as are permissible by the appended claims, may be resorted to without departing from the spirit and scope of the invention.

What I claim and desire to secure by Letters Patent, is:—

1. In a wrench, the combination with a toothed shank having longitudinally disposed grooves formed in diametrically opposed sides, said shank having a fixed jaw, and a detachable handle, of a movable jaw mounted upon said shank and having an opening through which said shank extends, set screws carried by the sides of said jaw and extending into the grooves of said shank, a threaded plug mounted in the front lower edge of said movable jaw, a pin carried by said plug and having a toothed end to engage said toothed shank, a screw detachably mounted in the rear lower edge of said movable jaw and having a socket formed therein, a button mounted in said jaw and having a shank extending into the socket of said screw, a spring mounted in said socket and bearing against said button for normally holding the toothed shank in engagement with the toothed end of said movable jaw.

2. In a wrench, the combination with a toothed shank having a fixed jaw, said shank having longitudinally disposed grooves formed therein, of a jaw movably mounted

upon said shank, set screws carried by said jaw and extending into the grooves of said shank, a plug detachably mounted in the front edge of said shank, a toothed pin carried by said plug and engaging said toothed shank, a 5 spring pressed button detachably mounted in the rear edge of said movable jaw, for engaging said shank and normally holding the toothed edge of said shank in engagement with said toothed pin.

10 3. In a wrench, the combination with a toothed shank having a fixed jaw, of a jaw movably mounted upon said shank, set screws carried by diametrically opposed sides of said movable jaw and engaging said shank, a toothed

pin detachably mounted in the front edge of said jaw and engaging said toothed shank, a spring pressed button detachably mounted in the rear edge of said jaw for normally holding said shank in engagement with said toothed pin. 15

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

WILLIAM B. DAVIS.

Witnesses:

MAX H. SROLOVITZ,

A. J. TRIGG.