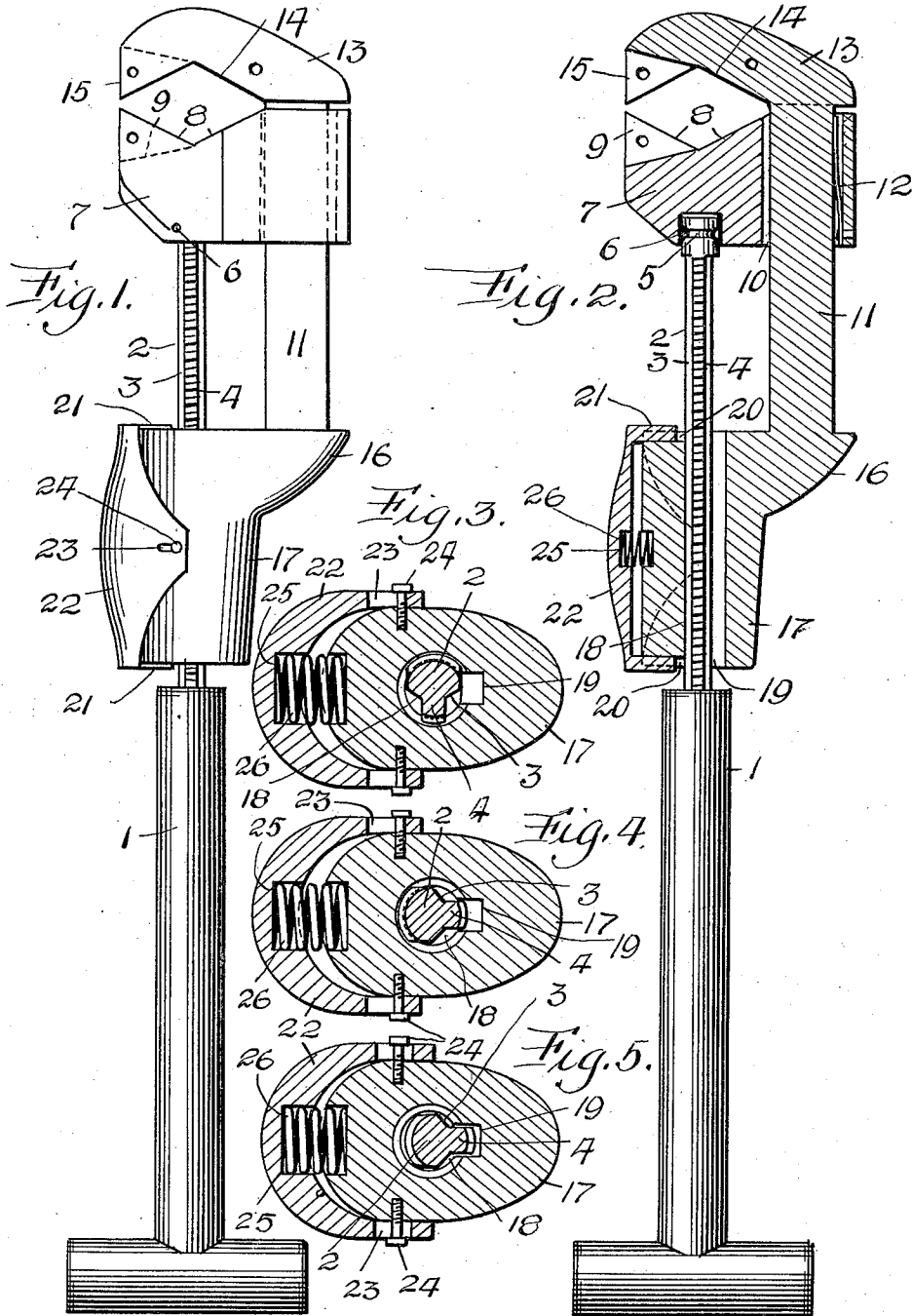


G. J. WHITE.
WRENCH.

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1,062,207.

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WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE J. WHITE, OF WASHINGTON, PENNSYLVANIA.

WRENCH.

1,062,207.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE J. WHITE, a citizen of the United States of America, residing at Washington, in the county of Washington 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 my invention are to provide a quick acting wrench wherein positive and reliable means are employed for locking an adjustable jaw relatively to a fixed jaw, and to provide a wrench that can be advantageously used either as a nut or pipe wrench, the wrench having provision whereby various kinds of gripping blocks can be connected thereto.

Further objects of my invention are to provide a wrench with an attachment that permits of a pipe threader being held for threading a pipe, and to accomplish the above results by a mechanical construction that is durable, inexpensive to manufacture and highly efficient for the purposes for which it is intended.

The present invention involves a rapid adjusting mechanism that forms a subject matter of a companion application, filed under even date, and the principle of the present invention is the application of the rapid adjusting mechanism to tools that will facilitate various operations.

Reference will now be had to the drawings, wherein like numerals denote corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of a wrench. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a horizontal sectional view of a wrench showing the shank in position for minute adjustment. Fig. 4 is a similar view showing the shank in position whereby the nut body can be shifted. Fig. 5 is a similar view showing the nut body shifted.

A wrench in accordance with this invention comprises a T-shaped handle 1 that has the outer end thereof provided with a shank 2. The shank 2 in its original form is cylindrical and screw threaded, but said shank is provided with longitudinal cut away portions 3 leaving a tongue 4. The outer end of the shank 2 has an annular groove 5 and extending into said groove is a pin 6 that

retains said shank in engagement with a stationary jaw 7. The stationary jaw 7 has angularly disposed gripping surfaces 8 and a groove 9 in which can be mounted the tongue of a suitable gripping block (not shown). The stationary jaw 7 has a longitudinal opening 10 providing clearance for a bar 11. In the opening 10 there is mounted a flat spring 12 that engages the rear wall of the bar 11 for maintaining the latter centrally with respect to the opening 10 to overcome any binding action between the bar and the jaw when adjusting the bar through the opening 10. The outer end of the bar 11 has a jaw 13 provided with angularly disposed gripping surfaces 14 and a groove 15, said gripping surfaces and said groove confronting the surfaces and the groove of the stationary jaw 7 and for the same purpose as the gripping surfaces and groove of said stationary jaw. The inner end of the bar 11 is formed integral with the offset portion 16 of a nut body 17. The nut body 17 has a longitudinal threaded bore 18 for the shank 2 and the wall of said bore is provided with a longitudinal groove 19 adapted to provide clearance for the tongue 4 of said shank. The ends of the nut body 17 are provided with guide-grooves 20 in communication with the bore 18. Extending into the guide-grooves 20 are the arms 21 of a yoke 22, said yoke having the sides thereof slotted, as at 23 whereby said yoke can be loosely connected to the nut body 17 by screws 24 or other fastening means. The confronting sides of the yoke 22 and the nut body 17 have oppositely disposed sockets 25 and arranged in said sockets is a coiled compression spring 26.

As illustrated, the nut body 17 is held relatively to the shank 2, whereby said shank can be rotated to minutely adjust the nut body 17 relatively to the stationary jaw 7. By rotating the shank 2 until the threaded longitudinal tongue 4 confronts the front side of the bar 11, which position of the shank places the tongue 4 in position to enter the groove 19, the yoke 22 can then be pressed toward the nut body 17, whereby the nut body 17 will be moved toward the shank and the tongue 4 enter the groove 19. This is best accomplished by gripping the nut body 17 and the yoke 22 with one hand while the handle 1 of the wrench is held in the other hand. After the nut body 17 has been shifted toward the shank 2, the nut body 17

can be rapidly adjusted relatively to said shank thereby accomplishing a rapid adjustment of the jaw 13 relatively to the jaw 7.

What I claim is:—

5 1. A wrench comprising a shank, a longitudinal threaded tongue carried thereby, a jaw loosely connected to the outer end of said shank, said jaw having a longitudinal opening formed therein, a nut body movable
10 relatively to said shank, a bar carried thereby and extending through the opening of said jaw, a jaw carried by the outer end of said bar, and a yoke in connection with said nut body for locking said body relatively to
15 said shank.

2. A wrench comprising a shank, a longitudinal threaded tongue carried thereby, a jaw movably connected to the outer end of

said shank, said jaw having an opening formed therein, a nut body movably arranged upon said shank and having a longitudinal groove providing clearance for the tongue of said shank, a bar carried by said nut body and extending through the opening of said jaw, a jaw carried by the outer end of said bar and confronting the jaw of said shank, and a spring pressed yoke carried by said nut body and cooperating therewith whereby said nut body can be shifted relatively to said shank. 20 25 30

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

GEORGE J. WHITE.

Witnesses:

MAX H. SROLOVITZ,

KATHERINE ERRETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."