

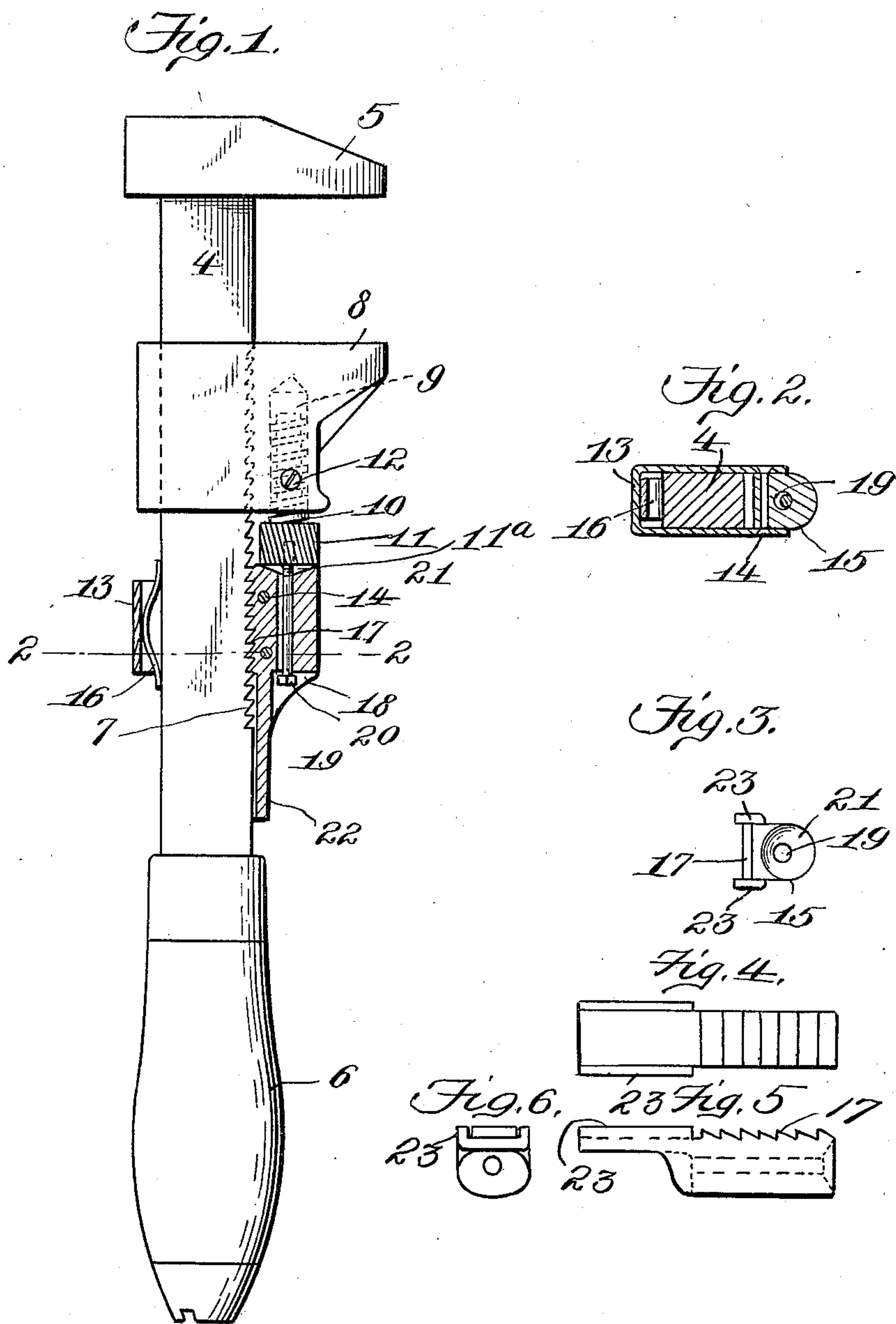
No. 841,000.

PATENTED JAN. 8, 1907.

J. C. DUFRESNE.

WRENCH.

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# UNITED STATES PATENT OFFICE.

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## WRENCH.

No. 841,000.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed February 13, 1906. Serial No. 300,885.

*To all whom it may concern:*

Be it known that I, JERE C. DUFRESNE, a citizen of the United States, residing at Claremont, in the county of Sullivan and State of New Hampshire, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches; and the object thereof is to provide a wrench, in a manner as hereinafter set forth, whereby it will not be necessary to cause the entire adjustment of the sliding jaw through the medium of a screw, thereby considerably shortening the period of time necessary to adjust the sliding jaw with respect to the fixed jaw.

The invention further aims to provide a wrench which shall be simple in its construction, strong, durable, efficient in its use, readily and conveniently adjusted, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts hereinafter more specifically described, and illustrated in the accompanying drawings, which form a part of this specification, and wherein is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, wherein like reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a sectional elevation of a wrench in accordance with this invention. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is a top plan view of the abutment member of the adjusting-slide. Fig. 4 is a rear view of the abutment member. Fig. 5 is a side elevation thereof, and Fig. 6 is an end view.

Referring to the drawings by reference characters, 4 denotes the shank of the wrench, carrying on one end the fixed jaw 5 and on its other end provided with a handle 6. One face of the shank 4 is provided with a series of teeth, as at 7, for a purpose to be hereinafter referred to.

Mounted upon the shank 4, so as to be slidable thereon, is the jaw 8, having a screw-threaded recess 9, in which operates the adjusting-screw 10, the latter having its lower end provided with a milled head 11, having a

conoidal-shaped end 11<sup>a</sup> for the purpose of assisting in holding the abutment member, to be hereinafter referred to, in mesh. The screw 10 is prevented from turning when occasion so requires and from rotating within the recess 9 through the medium of the stop-screw 12, which is mounted in the jaw 8 and extends in the recess 9, so as to engage in the threads of the screw 10.

Arranged upon the shank 4 and below the milled head 11 of the screw 10 is an adjusting-slide, which is formed of a yoke-shaped member 13 and an abutment member 15, the member 13 having the ends thereof secured, as at 14, to the member 15. The yoke 13 is of such length as to project away from one side of the shank 4, and interposed between the yoke 13 and the said side of the shank 4 is a spring 16, whose function is to retain the abutment member in engagement with the teeth 7 of the shank. The abutment member 15 is formed with a series of teeth 17, which mesh with the teeth 7, formed on the shank 4, and when in engagement with said teeth 7 the adjustable slide is prevented from moving in one direction on the shank 4. When moving in the other direction, the teeth of the member 15 can ride over the teeth of the shank 4. The abutment member 15 is provided with a cut-away portion 18, opening into a vertically-extending opening 19, through which extends a headed connecting-bolt 20, having one end thereof screw-threaded and which engages in the milled head 11 of the adjusting-screw 10. By such an arrangement the adjusting-screw 10 is connected with the abutment member 15. The latter at its upper end is depressed, as at 21, and its lower end formed with an elongation 22, which bears against the shank 4 and acts as a shield to protect the teeth 17 when the wrench is closed, or nearly so. The abutment member 15 straddles one side of the shank 4, and to enable the said straddling of the shank the abutment 15 is provided with the lugs 23. These lugs 23 are formed integral with the abutment member 15 below the teeth 17 and extend at the side of the shank, and the lugs 23 not only prevent lateral movement of the abutment member, but also act in connection with the elongation 22 to protect the teeth 17.

When using the wrench, the spring 16 is compressed so as to cause the moving away of the teeth 17 of the abutment 15 from the



teeth 7 of the shank 4. The adjusting-slide is then moved in one direction or the other upon the shank 4, such movement of the adjusting-slide carrying the jaw 8 therewith.

5 After this movement has been made the final adjustment of the sliding jaw 8 is had through the medium of the screw 10. Owing to the arrangement of the parts it is evident that the adjusting-slide has the member 15 there-  
10 of act as an abutment for the jaw 8 and screw 10, as the conoidal-shaped end of the milled head of the screw 10 rests in the recess in the top of the member 15. The conoidal-shaped end of the milled head of the screw 10  
15 assists in holding the member 15 in mesh, for it will be evident that when force is applied on the jaw 8 it causes the conoidal-shaped end of the milled head to enter into the recess in the abutment member 15, conse-  
20 quently pushing the teeth tighter as more force is applied. By setting up the wrench in the manner as set forth it is evident that it will not be necessary to cause the entire adjustment of the jaw 8 by means of an adjusting-screw, as a partial adjustment of the jaw  
25 8 is had through the medium of the adjusting-slide, the screw 10 being only used to complete the adjustment for the jaw 8.

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

1. A wrench having a slidable jaw provided with a screw-threaded recess, a screw  
35 extending in said recess and having a milled head provided with a conoidal-shaped end, means engaging the screw within the recess to prevent the turning of the screw, a yoke, an abutment member secured thereto and having a recess adapted to receive the  
40 conoidal-shaped end of the milled head of said screw, said abutment member further provided with an opening, and a bolt extending through the opening and connected to

the milled head of the screw for connecting the jaw and the screw to the abutment.

2. A wrench having a slidable jaw provided with a screw-threaded recess, a screw  
45 extending in said recess and having a milled head provided with a conoidal-shaped end, a yoke, an abutment member secured thereto  
50 and having a recess adapted to receive the conoidal-shaped end of the milled head of said screw, said abutment member further provided with an opening, and a bolt extending  
55 through the opening and connected to the milled head of the screw for connecting the jaw and the screw to the abutment.

3. A wrench having a slidable jaw provided with a screw-threaded recess, a screw  
60 extending in said recess and having a head, a yoke, an abutment member secured thereto and having a recess adapted to receive the head of the screw, said abutment member  
65 further provided with an opening, and a bolt extending through the opening and connected to the head of the screw for connecting the jaw and the screw to the abutment.

4. A wrench having a slidable jaw provided with a screw-threaded recess, a screw  
70 extending in said recess and having a head, a yoke, an abutment member secured thereto and having a recess adapted to receive the head of the screw, said abutment member  
75 further provided with an opening, a bolt extending through the opening and connected to the head of the screw for connecting the jaw and the screw to the abutment, and means carried by the slidable jaw and engaging  
the screw to prevent the turning thereof.

In testimony whereof I have hereunto set  
80 my hand in presence of two subscribing witnesses.

JERE C. DUFRESNE.

Witnesses:

R. T. HART,  
CHAS. H. LONG.