No. 882,362. PATENTED MAR. 17, 1908.

J. J. WISE.

WRENCH.

APPLICATION FILED DEC. 5, 1907.

Fig. 1.

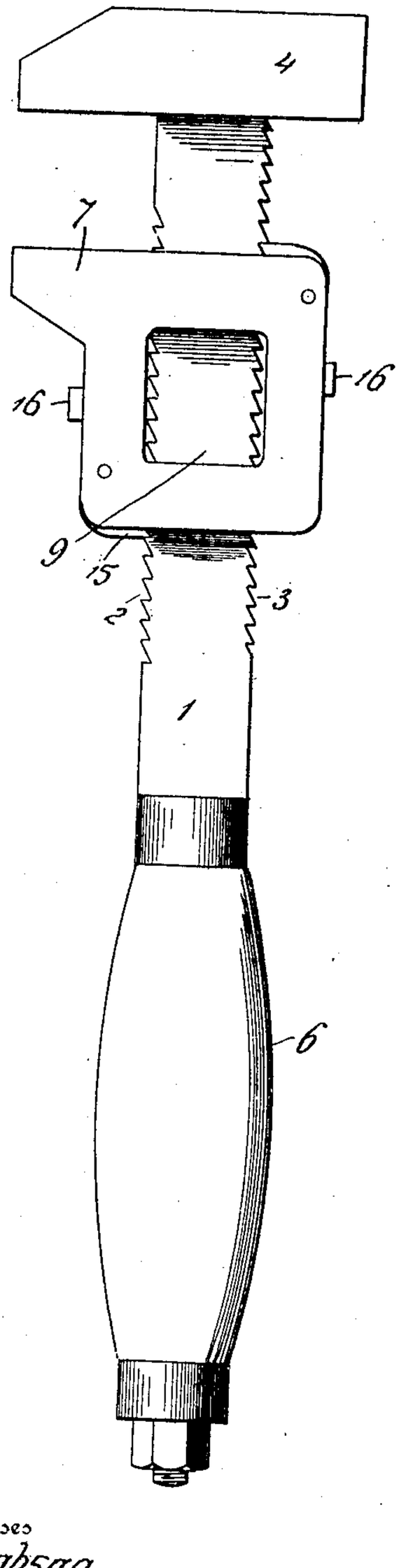
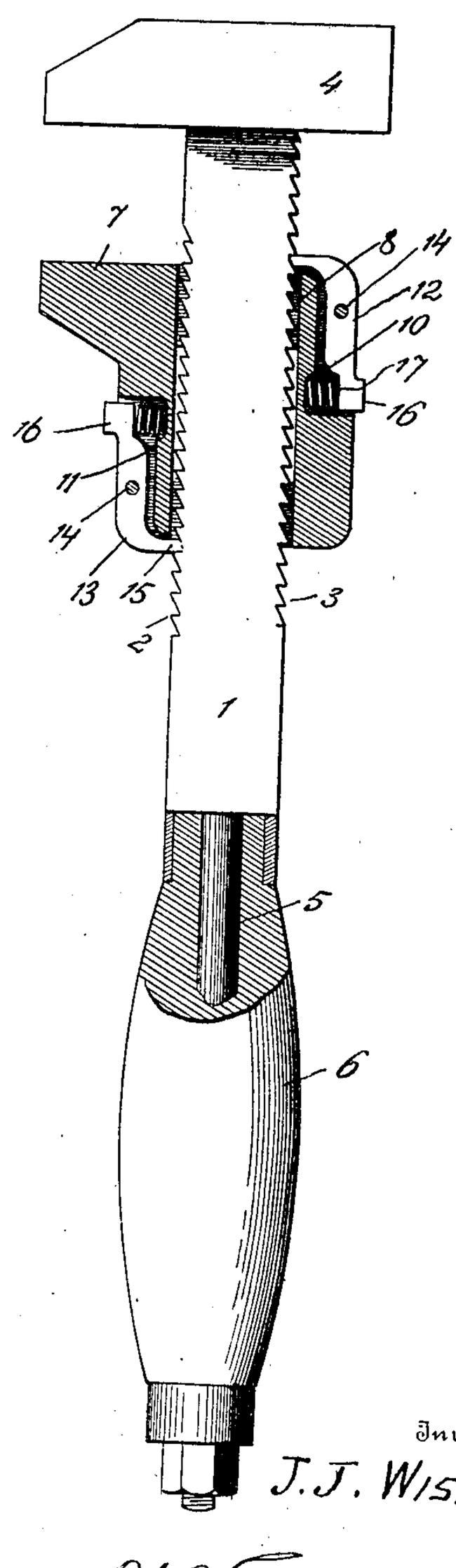


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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WRENCH.

No. 882,362. Specification of Letters Patent. Patented March 17, 1908.

Application filed December 5, 1907. Serial No. 405,172.

To all whom it may concern:

Be it known that I, JOHN J. WISE, a citizen of the United States of America, residing at Pittsburg, 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 objects of the invention are, first, to provide positive and reliable means for quickly adjusting the movable jaw of a wrench; second, to dispense with the use of screw threads and nuts as ordinarily used for holding an adjustable jaw in a fixed position; and third, to provide an inexpensive and durable wrench.

I attain the above objects by a novel construction which will be presently described, and then specifically pointed out in the appended claims.

Referring to the drawing forming a part of this specification, Figure 1 is an elevation of my wrench, and Fig. 2 is a similar view illustrating the movable jaw thereof, and a portion of the nail in section.

In the accompanying drawing, 1 designates a shank rectangular in cross section. This shank has two of its opposite edges provided with teeth 2 and 3, the teeth 3 being the reverse of the teeth 2, but having a similar pitch. The shank 1 carries a fixed jaw 4 upon its upper end, while its lower end is contracted to provide a rod 5 upon which is detachably mounted a handle 6.

Mounted upon the shank 1 is a movable jaw 7 having a vertical opening 8 for the shank 1. The sides of the jaw 7 are cut away as at 9 to reduce the weight of the movable jaw and save material. The jaw 7 is further cut away to provide recesses 10 and 11, the recess 10 being formed in the upper rear edge of the jaw 7, while the recess 11 is formed in the lower front edge of said jaw and diagonally opposite the recess 10.

Pivotally mounted in the recesses 10 and 11 are pawls 12 and 13 respectively, these pawls being held by pins 14. Each pawl is formed with a toothed end 15 and with a button end 16 protruding from the side of the jaw 7. Mounted in the recesses 10 and 11 are coil springs 17 for engaging the button end 16 of the pawls 12 and 13 and retaining the toothed ends 15 of said pawls in engagement with the teeth 2 and 3 of the shank 1.

From the novel construction of the movable jaw 7, it will be observed that the button ends of the pawls 12 and 13 are approximately opposite, and in consequence of such arrangement, the button ends of said pawls can be easily pressed by the thumb and index finger of a hand, to adjust the movable jaw upon the shank 1. When the button ends of the pawls 12 and 13 are pressed, the toothed ends of said pawls are immediately moved out of engagement with the shank 1, allowing the movable jaw to be quickly adjusted to the desired position.

The formation of the teeth upon the shank 1 prevents the movable jaw 7 from being adjusted in either direction, except when the pawls are released from the shank. But, when it is desired to raise the jaw 7, it is only necessary to move the pawl 12, at which time the jaw 7 can be elevated, while the pawl 12 recedes over the teeth 2. It is only necessary to move the pawl 13 when the jaw 7 is to be lowered.

It is thought that the manner of operating my wrench will be apparent without further description, and I desire it to be understood that such changes in the structural details as are permissible by the appended claims can be resorted to without departing from the spirit and scope of the invention.

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

1. A wrench embodying a shank having oppositely disposed edges, provided with teeth, the teeth upon one edge being reverse to the teeth of the opposite edge, a fixed jaw carried by said shank, a detachable handle carried by said shank, a movable jaw slidably mounted upon said shank and having diagonally opposed recesses formed therein, pawls pivotally mounted in said recesses and having toothed ends for engaging the teeth of said shank, coil springs mounted in said recesses for engaging the opposite ends of said pawls and retaining the toothed ends thereof in engagement with said shank.

2. A wrench comprising a toothed shank, a fixed jaw carried thereby, a jaw movably mounted upon said shank and having diagonally opposed recesses formed therein, pawls pivotally mounted in said recesses and having toothed ends for engaging said toothed shank, one of said pawls overlapping the top of the movable jaw and the other of said pawls overlapping the bottom of said movable jaw and springs mounted in said re-

cesses for engaging the opposite ends of said pawls, and retaining the toothed ends thereof in engagement with said shank.

3. A wrench comprising a toothed shank, a fixed jaw carried thereby, a jaw movably mounted upon said shank and having diagonally opposed recesses formed therein, pawls pivotally mounted in said recesses and having toothed ends for engaging said toothed shank, one of said pawls overlapping the top of the movable jaw and the other of said pawls overlapping the bottom of the movable jaw and means mounted in said recesses for retaining said pawls in engagement with said toothed shank.

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

JOHN J. WISE.

Witnesses:
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