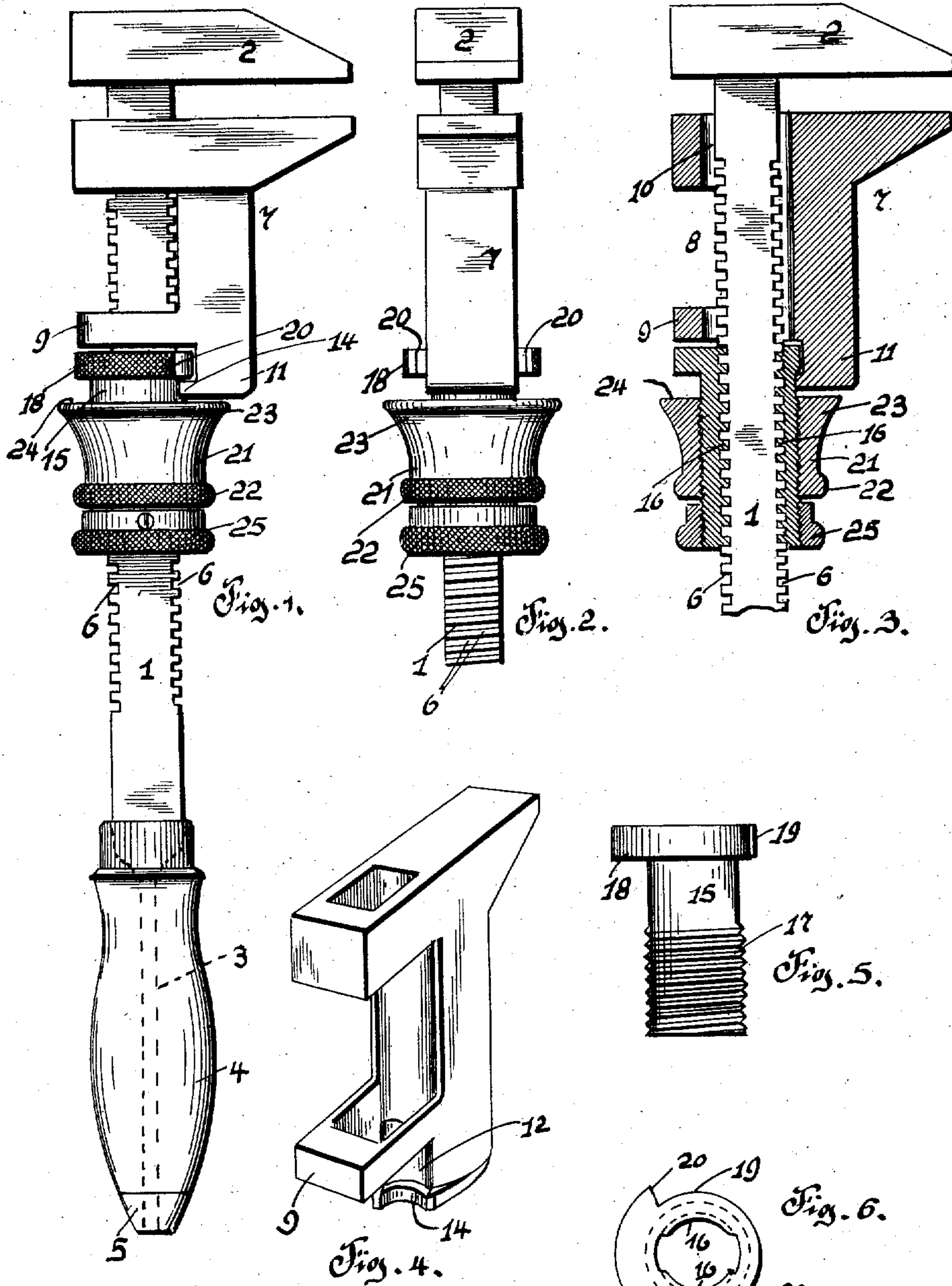


No. 860,552.

PATENTED JULY 16, 1907.

J. F. LYNN.
WRENCH.

APPLICATION FILED DEC. 30, 1906.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES F. LYNN, OF TYRE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO F. B. DUNBAR, OF IMPERIAL, PENNSYLVANIA.

WRENCH.

No. 860,552.

Specification of Letters Patent.

Patented July 16, 1907.

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To all whom it may concern:

Be it known that I, JAMES F. LYNN, a citizen of the United States of America, residing at Tyre, in the county of Allegheny and State of Pennsylvania, have
5 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 certain new and useful improvements in wrenches, and the invention has for its
10 primary object the provision of novel means for easily and quickly adjusting a wrench, and then locking it in its adjusted position.

My invention aims to provide the movable jaw of a
15 wrench with novel means for locking it in engagement with the shank of the wrench, and using auxiliary means to insure a perfect engagement of the jaw with the shank whereby it cannot accidentally move while an
20 object is being manipulated by the wrench. To this end, I have constructed a simple and inexpensive wrench which will be strong and durable and practically indestructible by rough usage.

The detail construction of my improved wrench will be hereinafter more fully described and then specifically
25 pointed out in the claims, and referring to the drawing accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of my improved wrench,
30 Fig. 2 is a fragmentary edge view, Fig. 3 is a vertical sectional view of a portion of the wrench, Fig. 4 is a perspective view of the movable jaw of the wrench, Fig. 5 is a side elevation of the locking sleeve used in connection with the wrench, Fig. 6 is a plan of the
35 same.

To put my invention into practice, I construct my improved wrench of a shank 1 carrying upon its upper end a fixed jaw 2, while its lower end is tapered as at 3,
40 to receive a conventional form of handle 4 normally retained upon the shank 1 by a nut or tap 5. Two opposite edges of the shank 1 are provided with teeth 6, 6, the object of which will presently appear.

Slidably mounted upon the shank 1 is a movable jaw
45 7 one edge of which is cut away as at 8, to form a strap 9, and the top edge of the jaw is provided with a vertically disposed opening 10, to permit of the shank passing through the jaw and the strap 9. The jaw 7 is provided with a depending portion 11 upon its front edge, said depending portion being provided with a curved
50 recess 12 and a flange 14, said flange conforming in contour to the recess 12. Also mounted upon the shank 1 is a locking sleeve 15, two of the diametrically opposed inner sides of the sleeve being provided with internal

teeth 16, 16 adapted to mesh with the teeth 6, 6 of the shank 1. The lower end of the sleeve is externally
55 threaded as at 17 while the upper end is provided with a peripheral flange 18, said flange being cut away upon one side of the sleeve, as at 19 forming shoulders 20, 20. Mounted upon the screw threaded end 17 of the sleeve is a locking nut 21 having a knurled surface 22.
60 The upper end of the nut is enlarged as at 23 to form a top bearing surface 24, the object of which will presently appear. Also mounted upon the screw threaded end 17 of the sleeve 15 is a locking collar 25 which serves functionally as a jam nut for locking the nut 21
65 in a fixed position upon the sleeve 15.

The operation of my improved wrench is as follows: To adjust the movable jaw 7 of the wrench, the sleeve 15 is rotated until one of the shoulders 20 of the flange 18 strikes the depending portion 11 of the movable jaw,
70 this movement of the sleeve being adapted to move the teeth 16, 16 of the sleeve out of engagement with the teeth 6, 6 of the shank 1, at which time the sleeve together with the jaw 7, can be moved along the shank to grip any desired object. The movable jaw 7 is
75 locked in engagement with the shank 1 by revolving the sleeve 15 until the teeth 16, 16 of said sleeve engage the teeth 6, 6 of the shank. To further lock or fix the jaw 7 upon the shank 1, the nut 21 is rotated until the top bearing surface 24 engages the depending portion
80 11 of the jaw 7, this operation also serving to further adjust the jaw 7 relative to the object which it is to grip. This is accomplished by leaving a slight space between the top of the sleeve 15 and the strap 9 of the jaw. The top bearing surface 24 of the nut is adapted
85 to force the flange 14 into engagement with the flange 18 of the sleeve, and fix said jaw relative to said sleeve upon the jaw 1. A further locking of the jaw upon the shank 1 can be accomplished by rotating the locking collar 25 until it jams against the locking nut 21.
90

The cut away portion 19 of the flange 18 of the sleeve 15 leaves the portion of the shoulder opposite the cut away portion entirely unobstructed and in plain view of the operator, so that the position of the sleeve relative to the flange is at all times readily observable, and
95 no danger exists of attempting to use the wrench before the same is properly adjusted, as the operator can tell at a glance whether the wrench is locked or unlocked, as will be obvious.

The jaws 2 and 7 of my improved wrench are con-
100 structed for gripping flat surfaces, but it is obvious that they may be readily serrated and recessed to engage curved or rounded surfaces, such as a pipe, and various other changes may be made in the details of construction, without departing from the spirit and scope
105 of the invention.

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

5 In a wrench, a shank having spaced teeth in two of its opposite edges and with a fixed jaw at one end and a handle at the other end, a movable jaw slidable upon said shank and provided with a depending flanged portion, a sleeve mounted upon said shank and having teeth at the opposite sides of its interior and adapted to engage with the teeth of the shank when the sleeve is disposed
10 in one position and be disconnected therefrom when the sleeve is disposed in another position, said sleeve having a laterally extending flange at one end adapted to be engaged by the flanged portion of said movable jaw, said

sleeve flange having an enlarged portion forming stops at its ends to alternately bear against the sides of the movable jaw at the ends of its flanged portion, and with the intermediate portion of the sleeve flange enlargement roughened to form a finger grip to enable the sleeve to be manipulated. 15

In testimony whereof I affix my signature in the presence of two witnesses. 20

JAMES F. LYNN.

Witnesses:

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W. C. FIFE.