

No. 855,866.

PATENTED JUNE 4, 1907.

J. A. SCOTT.
WRENCH.

APPLICATION FILED SEPT. 10, 1906.

Fig. 1.

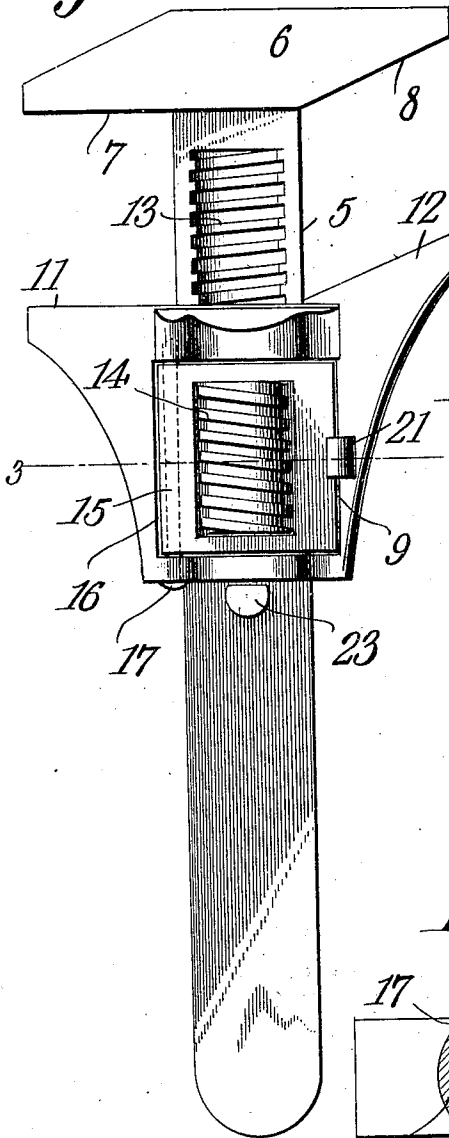


Fig. 2.

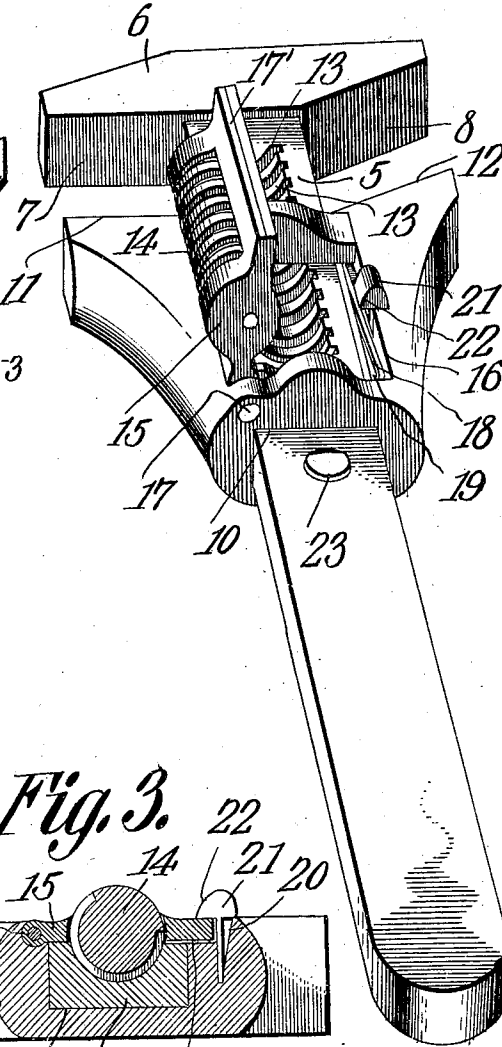
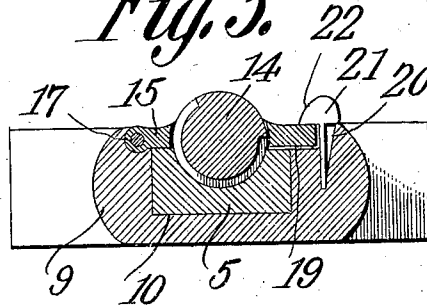


Fig. 3.



WITNESSES:

E. J. Stewart
L. A. McKee

John A. Scott,

INVENTOR.

By *C. A. Snow & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN ALEXANDER SCOTT, OF MARINETTE, WISCONSIN.

WRENCH.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN ALEXANDER SCOTT, a citizen of the United States, residing at Marinette, in the county of Marinette, and State of Wisconsin, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches and has for its object to provide a comparatively simple, and inexpensive device of this character in which the adjustment of the movable jaw may be quickly and accurately effected.

A further object of the invention is to provide a wrench having oppositely disposed gripping jaws arranged at an angle to each other thereby to enable the operator to use the tool under conditions which would render the employment of an ordinary wrench inconvenient or impracticable.

A further object is to provide a wrench having a pivoted frame or carriage mounted for swinging movement on the movable jaw and provided with an adjusting screw for engagement with the threads on the shank, said frame being movable laterally to inoperative position thereby to permit the rapid adjustment of said jaw.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Fig. 2 is a perspective view of the same showing the screw carrying frame moved laterally to inoperative position. Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved wrench consists of a shank 5 provided with a stationary jaw 6 having oppositely disposed gripping faces 7 and 8 preferably disposed at an angle to each other, as

shown. Slidably mounted on the shank 5 is a movable jaw 9 provided with a longitudinal recess 10 and having terminal gripping faces 11 and 12 disposed parallel with the adjacent gripping faces on the stationary jaw. By having the gripping faces 8 and 12 off-set and arranged at an angle to the gripping faces 7 and 11 the wrench may be used under conditions which would render the employment of a wrench having straight jaws inconvenient or impracticable.

Formed in one side of the shank 5 is a longitudinal groove or depression the walls of which are threaded as indicated at 13 for engagement with an adjusting screw 14. The adjusting screw 14 is mounted for rotation in a frame or carriage 15 pivotally mounted at 17 for lateral movement on the movable jaw 9 whereby the screw 14 may be moved laterally into and out of engagement with the threads 13.

The jaw 9 is provided with a rectangular opening 16 for the reception of the frame 15, the latter being provided with a longitudinally disposed lip 17 adapted to bear against a spring 18 when the frame is moved to closed or operative position.

One wall of the recess 16 is formed with a shoulder 19 which forms a support for the spring 18, and seated in a groove 20 communicating with the recess 19 is a spring-catch 21 adapted to engage the lip 17 for locking the frame in closed or operative position. The head of the catch 21 is inclined or beveled as indicated at 22 so that when the frame is swung laterally to closed position the lip 17 will engage the inclined face 22 of the catch and thus force said catch laterally against the rear wall of the opening 20 thereby to permit the closing movement of said frame.

The shank 5 is preferably provided with a lug or projection 23 which engages the lower end of the movable jaw 9 and serves to limit the longitudinal movement of the same and prevent the jaw from becoming accidentally detached from said shank.

When it is desired to adjust the wrench the catch 21 is pressed laterally, which releases the pivoted frame thereby causing the spring 18 to automatically move the adjusting screw 14 out of engagement with the threads 13 thus permitting the movable jaw to be adjusted longitudinally on the shank into engagement with the nut or other article to be gripped. The frame 15 is then swung later-

ally on its pivotal axis 17 into engagement with the catch 21 after which the adjusting member or screw 14 is rotated so as to regulate the pressure exerted by the movable jaw
5 on the nut or other article to be operated upon.

In order to release the nut, it is merely necessary to move the catch 21 laterally when the spring 16 will automatically swing the
10 frame laterally into inoperative position thus permitting the movable jaw to slide freely on the shank in the manner before stated.

The wrenches may be made in different sizes and shapes and the gripping faces of the
15 the jaws may be serrated or otherwise roughened to prevent slipping of said jaws.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends
20 in view.

Having thus described the invention what is claimed is:

1. In a wrench, a shank having a threaded
25 portion and provided with relatively stationary and movable jaws, a frame pivotally mounted for swinging movement on one of the jaws, an adjusting screw carried by the frame and adapted to engage the threads on
30 the shank, means mounted on said jaw and engaging the frame for locking the adjusting screw in operative position, and means for moving the frame automatically to inoperative position when the locking means is released.
35

2. In a wrench, a shank having a relatively stationary jaw and provided with a threaded portion, a movable jaw slidably mounted for longitudinal movement on the shank, a frame
40 pivotally mounted for lateral movement on the movable jaw, an adjusting screw mounted for rotation in the frame and adapted to engage the threaded portion of the shank, means for locking the pivoted frame in closed position,
45 and a spring for moving the frame automatically to open position when the locking means is released.

3. In a wrench, a shank provided with a stationary jaw and having a threaded portion, a movable jaw slidably mounted for longitudinal movement on the shank and provided with a recess, a frame pivotally mounted on the movable jaw and seated in said
50 recess, an adjusting screw mounted for rotation in the frame and adapted to engage the threaded portion of the shank, a catch for

locking the frame in closed position, and a spring bearing against the frame for moving the latter automatically to open position when the catch is released.
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4. In a wrench, a shank having a threaded portion and provided with a stationary jaw, a movable jaw slidably mounted for longitudinal movement on the shank and having a recess formed in one face thereof defining a
65 shoulder, a frame pivotally mounted for swinging movement on the movable jaw and seated in said recess, an adjusting screw carried by the frame and adapted to engage the threaded portion of the shank, a catch secured to the movable jaw for locking the
70 frame in closed position, and a spring bearing against the shoulder for moving the frame automatically to open position when the catch is released.
75

5. In a wrench, a shank provided with a stationary jaw and having a longitudinal depression formed in one face thereof the walls of which are threaded, a movable jaw slidably mounted for longitudinal movement on
80 the shank, a frame pivotally mounted for lateral movement on the movable jaw, an adjusting screw mounted for rotation in the frame and adapted to engage the threads on the shank, means for locking the frame in
85 closed position, and means for moving the frame automatically to open position when the locking means is released.

6. In a wrench, a shank provided with a stationary jaw having a threaded portion, a
90 movable jaw slidably mounted on the shank and having a recess formed in one side thereof, there being an opening communicating with said recess, a frame pivotally mounted for swinging movement on the movable jaw
95 and seated within said recess, an adjusting screw mounted for rotation in the frame and adapted to engage the threads on the shank, a catch seated in the opening in the movable jaw for locking the frame in closed position,
100 a spring for moving the frame automatically to open position when the catch is released, and a lug extending laterally from the shank for limiting the longitudinal movement of the movable jaw.
105

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN ALEXANDER SCOTT.

Witnesses:

C. A. BUDLONG.

DELLA E. RAICHE.