

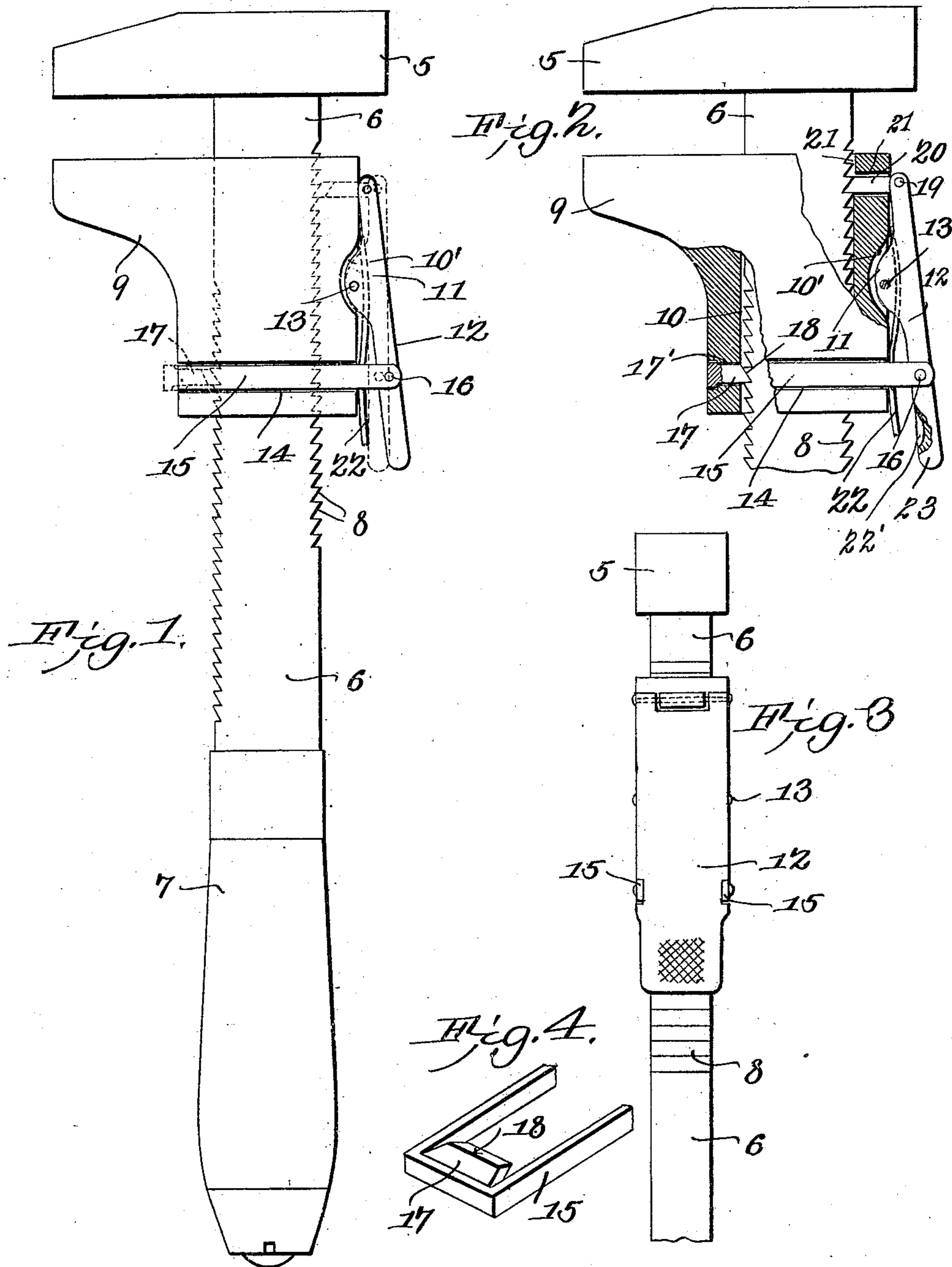
No. 841,018.

PATENTED JAN. 8, 1907.

O. B. JORDAN.

WRENCH.

APPLICATION FILED JUNE 25, 1906.



WITNESSES:

E. J. Stewart
L. J. Nixen

Otto B. Jordan,
INVENTOR.

By *Chas. H. Snow*
ATTORNEYS

UNITED STATES PATENT OFFICE.

OTTO B. JORDAN, OF WONEWOC, WISCONSIN.

WRENCH.

No. 841,018.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed June 25, 1906. Serial No. 323,376.

To all whom it may concern:

Be it known that I, OTTO B. JORDAN, a citizen of the United States, residing at Wonewoc, in the county of Juneau 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 simple, inexpensive, and efficient wrench capable of being quickly adjusted so as to securely grip nuts of different sizes.

A further object of the invention is to provide a quick-acting wrench in which the locking of the movable jaw is effected by a pair of spring-actuating pawls carried by the movable jaw and adapted to engage the depending shank of the stationary jaw.

A still further object of the invention is to generally improve this class of devices so as to add to their utility and durability, 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 quick-acting wrench constructed in accordance with my invention. Fig. 2 is a similar view partly in section. Fig. 3 is a rear elevation. Fig. 4 is a perspective view of a portion of the locking-bail detached.

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

The improved wrench consists of a stationary jaw 5, provided with a depending shank 6, to the free end of which is secured in any suitable manner a handle 7 of any approved form. The opposite longitudinal edges of the shank 6 are provided with a plurality of teeth or serrations 8, and slidably mounted on said shank is a movable jaw 9, provided with a longitudinal opening or recess 10 for the reception of the shank, as shown. The side walls of the movable jaw 9, at the rear end thereof, are formed with recesses or depressions 10', adapted to receive the depending ears 11 of a hand-operated lever 12, the latter being pivotally supported within the recesses 10' by means of a transverse pin or rod 13.

The front and side walls of the movable jaw 9 are formed with guiding-recesses 14, in which is slidably mounted a locking bail or yoke 15, the ends of which are pivotally secured to the lever 12, as indicated at 16. The closed end of the bail 15 is provided with an inwardly-extending locking-pawl 17, which extends through an opening 17' in the movable jaw and is inclined or beveled, as indicated at 18, to correspond to the inclination of the teeth on the shank 6, said pawl being adapted to engage the teeth for locking the movable jaw in adjusted position. Pivoted at 19 to the short end of the lever 12 is a locking-pawl 20, which extends through an opening 21 in the rear wall of the movable jaw and is also inclined or beveled to correspond to the inclination of the adjacent teeth on the shank. The pawls 17 and 20 are normally held in engagement with the teeth on the shank 6 by means of a spring 22, one end of which is secured to the lever 12, while its opposite or free end bears against the movable jaw 9, there being a recess 22' formed in the terminal handle 23 of the lever 12 for the reception of the free end of said spring, as shown. It will thus be seen that the spring 22 serves to normally hold the locking-pawls in engagement with the teeth on the shank 6, and thereby prevent accidental movement of the movable jaw.

In operation when it is desired to adjust the movable jaw the handle of the lever 12 is depressed or forced inwardly toward the movable jaw, which simultaneously disengages the pawls 17 and 20 from the adjacent teeth on the shank, thus permitting the movable jaw to be adjusted longitudinally of the shank for engagement with the nut, pipe, or other object to be gripped. When the lever is released, the spring forces the locking-pawls into engagement with the teeth on the shank, and thereby locks the movable jaw in adjusted position.

Attention is called to the fact that the locking-pawl 17 is formed integral with the bail or yoke 15, while the intermediate portion of the spring 22 is bowed laterally to assist in retaining the pawls in engagement with the teeth on the shank. It will also be observed that by having the free ends of the locking-pawls inclined or beveled to correspond to the inclination of the teeth on the depending shank the jaw 9 is free to move vertically of the shank, the spring 22 yieldably supporting the pawls in engagement

with the teeth and permitting the same to move laterally and clear the teeth when an upward movement is imparted to said adjustable jaw.

5 From the foregoing description it will be seen that there is provided an extremely simple and effective wrench admirably adapted for the attainment of the ends in view.

10 Having thus described the invention, what is claimed is—

15 1. In a wrench, a stationary jaw provided with a shank, a movable jaw slidably mounted on the shank, locking-pawls carried by the movable jaw and adapted to engage the opposite longitudinal edges of the shank for locking the movable jaw in adjusted position, and a lever connecting said pawls and serving to release the same.

20 2. In a wrench, a stationary jaw provided with a shank having oppositely-disposed teeth, a movable jaw slidably mounted on the shank, locking-pawls carried by the movable jaw and adapted to engage the teeth on the shank for locking the movable jaw in adjusted position, and a spring-pressed lever connecting the pawls and serving to release the same.

30 3. In a wrench, a stationary jaw provided with a depending shank having oppositely-disposed teeth, a movable jaw slidably mounted on the shank and having its side walls provided with guiding-grooves, a bail slidably mounted in the guiding-grooves and provided with an integral pawl adapted to engage the teeth on one side of the shank, a pawl adapted to engage the teeth on the opposite side of the shank, and a spring-pressed lever pivotally mounted on the movable jaw and connecting the locking-bail and adjacent pawl, said lever serving to simultaneously release both locking-pawls.

45 4. In a wrench, a stationary jaw provided with a shank having oppositely-disposed teeth, a movable jaw slidably mounted on the shank and having its side walls formed

with transversely-disposed guiding-grooves, a locking-bail slidably mounted in the grooves and provided with an inwardly-projecting pawl the free end of which is inclined or beveled for engagement with the teeth on one side of the shank, a pawl slidably mounted in an opening formed in the rear wall of the movable jaw and also provided with an inclined face for engagement with the teeth on the opposite side of the shank, a lever pivoted on the movable jaw and operatively connected with the locking-bail and adjacent pawl, and a spring interposed between the lever and the movable jaw for normally holding the locking-pawls in engagement with the teeth on said shank.

5 5. In a wrench, a stationary jaw provided with a depending shank having its opposite longitudinal edges formed with teeth, a movable jaw slidably mounted on the shank and provided with aligned depressions, said movable jaw being formed with transversely-disposed guiding-grooves and having recesses formed in the front and rear walls communicating with the shank, a lever pivotally mounted on the movable jaw and provided with laterally-extending ears fitting within the depressions, a locking-bail pivoted to one end of the lever and having its closed end formed with an inwardly-projected locking-pawl adapted to engage the teeth on one side of the shank, a locking-pawl pivoted to the opposite end of the lever and slidably mounted in the adjacent opening in the movable jaw for engagement with the teeth on the opposite side of the shank, and a spring interposed between the handle and the movable jaw for normally holding the locking-pawls in engagement with the teeth on said shank.

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

OTTO B. JORDAN.

Witnesses:

C. E. WOLFENDEN,
A. P. GALE.