

No. 782,274.

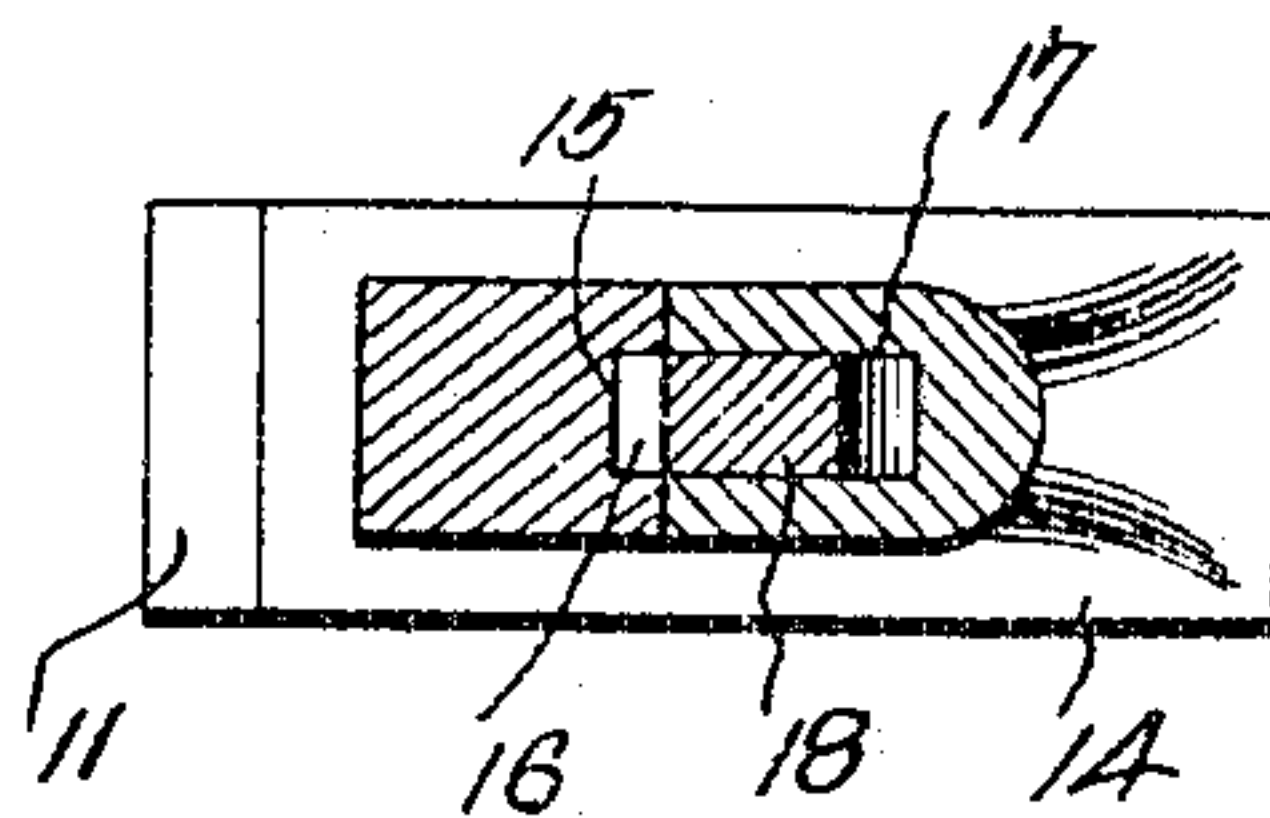
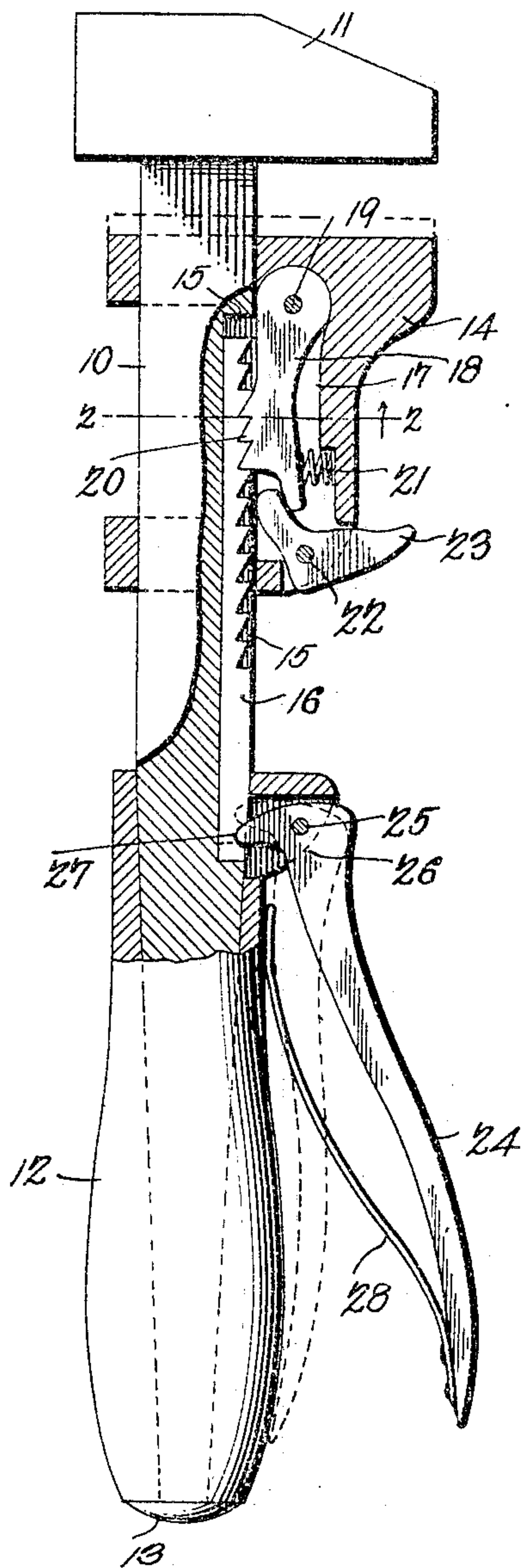
PATENTED FEB. 14, 1905.

J. C. REISINGER.

WRENCH.

APPLICATION FILED JULY 8, 1903.

*Fig. 1.*



*Fig. 2.*

Witnesses  
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# UNITED STATES PATENT OFFICE.

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## WRENCH.

SPECIFICATION forming part of Letters Patent No. 782,274, dated February 14, 1905.

Application filed July 8, 1903. Serial No. 164,729.

*To all whom it may concern:*

Be it known that I, JOHN C. REISINGER, a citizen of the United States, residing at Ewington, in the county of Gallia and State of Ohio, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches of the class known as "quick-action wrenches," and has for its object to simplify and improve devices of this character and produce a wrench which may be quickly adjusted and the jaws forcibly moved into engagement with the article held between them by the action of the hand which operates the wrench and without extra exertion.

The invention consists in certain novel features of construction as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a sectional longitudinal elevation. Fig. 2 is a transverse section on the line 2-2 of Fig. 1.

The improved wrench consists of a stock 10, having the stationary jaw member 11 at one end and a handle member 12 at the other end, the latter preferably of usual form and secured to a tapered portion of the stock by a disk nut 13, as shown. The opposing jaw member is represented at 14 slidably disposed upon the stock between the jaw 11 and handle 12, as shown. Within the portion of the stock between the jaw member 11 and the handle 12 and extending for a distance into the handle is a channel 15, in which a ratchet-toothed bar 16 is disposed and movable therein longitudinally of the stock. The ratchet-toothed bar is thus entirely embedded within the channel and no part projects beyond its general surface, as shown.

Within a cavity 17 in the movable jaw member 14 is a pawl 18, pivoted at one end at 19 in the jaw and with its free end provided with teeth 20, adapted to engage the teeth of the bar 16, and held in yieldable engagement therewith by a spring 21.

Pivotally connected at 22 in the jaw member 14 is a trip-lever 23, having one end in engagement with the free end of the pawl 18,

as shown. The outer end of the lever 23 extends beyond the jaw member 14 in position to be actuated by the thumb of the same hand that grasps the handle member 12 in operating the wrench. By this arrangement it will be obvious that pressure exerted against the trip 23 in the direction of the jaw member 11 will move the jaw member 14 in the same direction, the pawl 18 yielding and permitting the teeth of the pawl to pass over the teeth of the bar 16, but will be prevented by the bar from any return movement. Then by reversing the pressure or drawing the outer free end of the trip-lever toward the handle 12 the pawl 18 will be disconnected from the ratchet-toothed bar and the movable jaw permitted to move in the opposite direction to open the wrench. The pressure of the movable jaw in closing the wrench will cause the bar 16 to move to its withdrawn position, as shown in Fig. 1, and by applying a force to this bar in a direction toward the jaw member 11 the movable jaw 14 will be compressed with corresponding force against the work being held between the jaws. The mechanism employed for accomplishing this final pressure consists of a lever member 24, pivoted near one end at 25 between ears 26, extending from the handle member 12, and with its short "nip" end engaging a transverse recess 27 in the ratchet-toothed bar 16, as shown in Fig. 1. The free end of the lever 24 will be curved to conform to the outlines of the handle member 12, so that when compressed, as shown in dotted lines in Fig. 1, it will lie in close proximity to the handle and not interfere with the hand-grip of the operator. The lever member 24 will preferably be provided with a spring 28 to maintain it yieldably in its distended position and to automatically release the jaw member 14 when the pressure of the hand is removed.

By this simple arrangement when a nut or other object is to be acted upon the operator moves the jaw member 14 against the nut by pressing with the thumb upon the trip-lever or other portion of the movable jaw until the latter is as close to the nut as the sizes of the teeth of the bar 16 will permit, and then



by compressing the lever 24 the bar 16 and the movable jaw member connected thereto will be forcibly moved longitudinally of the stock and exert a final hard nip upon the article held between the jaws and effectually obviate any danger of the slipping of the wrench, and then when the pressure is released the jaw member is automatically released by the springs 28, as above noted.

10 This makes a very simple, cheap, and effective implement which may be extended to grasp any size of nut or other article within the range of its movement and be firmly compressed thereon by the same action which operates the wrench and without interfering with or impeding the action. The lever 24, lying in substantially the same plane as the handle member when compressed, offers no impediment or obstruction to the hand of the operator when the strains are applied to rotate the nut, and when adjusting the movable jaw the hand readily adapts itself to the relatively slight projected position of the lever, and the work is not impeded thereby. If it is not required to impart the final nip to the movable jaw, the lever 24 is held in its closed position and will not interfere with the use of the wrench in the ordinary manner.

Having thus described the invention, what I claim is—

30 1. A wrench comprising a stock having a fixed jaw member, an opposing jaw member slidably disposed upon said stock, a ratchet-

toothed bar having a transverse recess and longitudinally movable between said movable jaw member and said stock, a spring-controlled pawl carried by said movable jaw member and engaging the teeth of said bar, and a lever movably connected in said stock and operatively engaging said transverse recess whereby said ratchet-toothed bar and the movable jaw may be forcibly moved longitudinally of said stock.

2. A wrench comprising a stock having a fixed jaw member and a longitudinal channel, an opposing jaw member slidably disposed upon said stock opposite said channel, a ratchet-toothed bar having a transverse recess and longitudinally movable in said channel between said movable jaw member and said stock and laterally supported by the walls of said channel, a spring-controlled pawl carried by said movable jaw member and engaging the teeth in said bar, and a lever movably connected in said stock and operatively engaging said transverse recess whereby said ratchet-toothed bar and the movable jaw may be forcibly moved longitudinally of said stock, substantially as described.

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

JOHN C. REISINGER.

Witnesses:

E. B. WILCOX,  
ELMER SNYDER.