

No. 755,518.

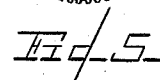
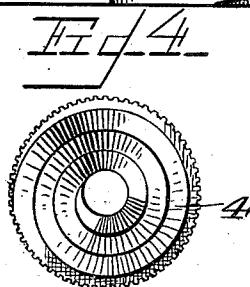
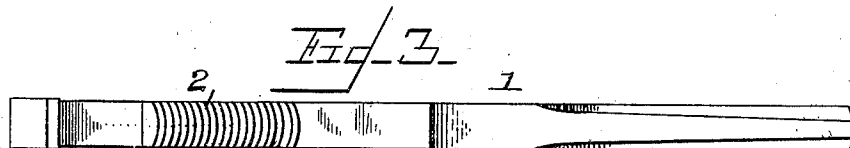
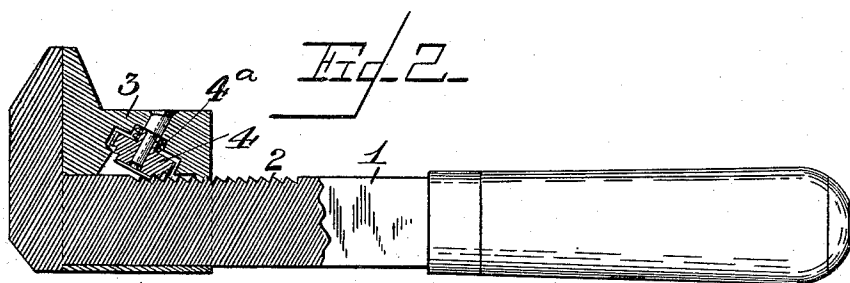
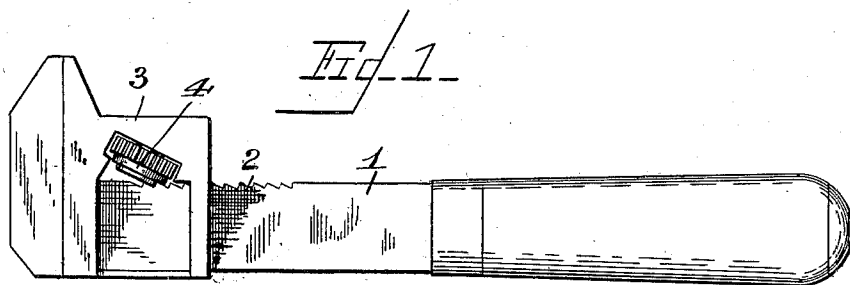
PATENTED MAR. 22, 1904.

G. MOORE.

WRENCH.

APPLICATION FILED NOV. 14, 1903.

NO MODEL.



Witnesses:
Wm. H. Durand
John H. Hester

Inventor:
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By *his Attorney* *Lawson Baggett & Co.*

UNITED STATES PATENT OFFICE.

GEORGE MOORE, OF SHIPPINGPORT, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 755,518, dated March 22, 1904.

Application filed November 14, 1903. Serial No. 181,223. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MOORE, a citizen of the United States, residing at Shippingport, in the county of Beaver and State of Pennsylvania, have invented new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to certain improvements in wrenches, particularly for turning or releasing nuts.

Said invention has for its object to effect the relative adjustment of the wrench-jaws to the least fraction of an inch in applying the same for use, to offer a powerful steady effective resistance in their grip upon the nut or object grasped or manipulated by said jaws, and to otherwise improve the utility or efficiency of the wrench.

To these ends my invention consists of the combination and arrangement of parts, including their construction, substantially as hereinafter more fully disclosed, and specifically pointed out by the claims concluding the following specification.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a side elevation thereof. Fig. 2 is a sectional elevation taken in a plane extending through the forward and rear edges of the wrench. Fig. 3 is a detached forward edge view of the handled or fixed jaw member. Fig. 4 is a detailed view of the movable-jaw-member-actuating part, showing more especially the engaging or effective face or surface thereof. Fig. 5 is a cross-section of the wrench produced in a line passing through the pivot or axis of the movable-jaw-member-actuating part.

In the carrying out of my invention I provide the handled or fixed jaw member 1 upon the forward edge of its metal portion with a series or plurality of notches or serrations 2, preferably slightly arcuate or curved in the general transverse plane or section of said member.

The sliding or movable jaw member 3, preferably constructed in skeleton-like form and fitted upon the shank of the fixed jaw member 1, carries or has axially or centrally pivoted therein a preferably milled edged pinion

or worm 4, arranged at an obtuse angle or diagonally to said shank, spring-pressed, as at 4^a. Said worm has its convoluted or threaded portion adapted to engage the serrated or notched surface of the last named, whereby it is apparent that by actuating or turning said worm or pinion said movable jaw may be adjusted or moved in the required direction along said shank away from or toward the fixed jaw, as may be required in applying said jaws to the nut or object to be turned or removed. Said construction and arrangement of parts provide for the adjustment of the movable jaw to the smallest or least fraction of an inch in fitting the jaws to the nut or object to be operated and is adapted to secure a powerful and effective grip of said jaws upon such nut or object.

This wrench is also capable of adjustment in the minimum time and may be quickly and readily applied to any required sized nut, while the movable jaw is fixed in its position at any point of adjustment and such position maintained without the use of a spring or other additional means of assistance.

It will be understood that I do not limit myself to details herein, as they may be changed without departing from the spirit of my invention and said invention yet be protected.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench having a fixed jaw member and a movable jaw member, equipped with an actuating part provided with a conically-winding thread, said fixed jaw member having its shank adapted to be engaged by said thread.

2. A wrench provided with a fixed jaw member, having its shank provided with a series of arcuate notches whose concavities face in the general direction of the longitudinal plane thereof, and a movable jaw member equipped with an actuating part provided with a conically-winding thread engaging said notches.

3. A wrench provided with a fixed jaw member having its shank provided with a series of arcuate notches whose concavities face in the general direction of the longitudinal plane of said shank, and a movable jaw member

equipped with an actuating part arranged obliquely to said fixed shank and having a conically-winding thread engaging said notches.

4. A wrench provided with a fixed jaw member having its shank provided with a series of arcuate notches whose concavities face in the general direction of the longitudinal plane of said shank, and a movable jaw member equipped with a worm provided with a conically-winding thread engaging said notches.

5. A wrench provided with a fixed jaw member having its shank provided with a series of arcuate notches whose concavities face in the general direction of the longitudinal plane of said shank, and having forwardly-inclined rear surfaces and slightly rearward inclined forward surfaces, and a movable jaw member carrying an axially-pivoted worm arranged at an inclination to said shank and having a conically-winding thread engaging said notches.

6. A wrench provided with a fixed jaw member having its shank provided with a series of arcuate notches whose concavities face in the general direction of the longitudinal plane of said shank, and having forwardly-inclined

rear surfaces and slightly rearward inclined forward surfaces and a movable jaw member carrying an axially pivoted worm having a milled peripheral edge and a conically-winding thread engaging said notches, and arranged diagonally to said shank.

7. A wrench provided with a fixed jaw member having its shank provided with a series of arcuate notches, whose concavities face in the general direction of the longitudinal plane of said shank, and have forwardly-inclined rear surfaces and slightly rearward inclined forward surfaces, a movable jaw member fitted upon said shank, and an inclined worm, with its axis or pivot bearing in said movable jaw, said worm having a milled circumferential edge and a conically-winding thread engaging said notches.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE MOORE.

Witnesses:

ELMER LYONS,
JAMES HARPER.