J. J. BARTENSTEIN.

WRENCH.

APPLICATION FILED MAY 31, 1913.

1,168,844. Patented Jan. 18, 1916.

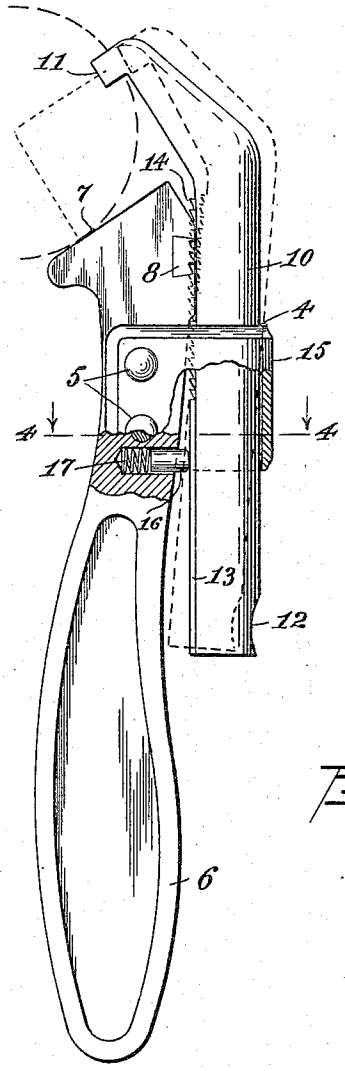


Fig. 1

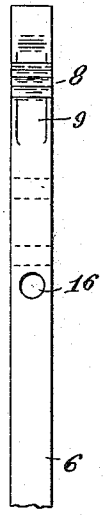


Fig. 2

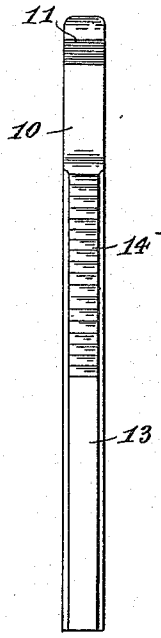


Fig. 3

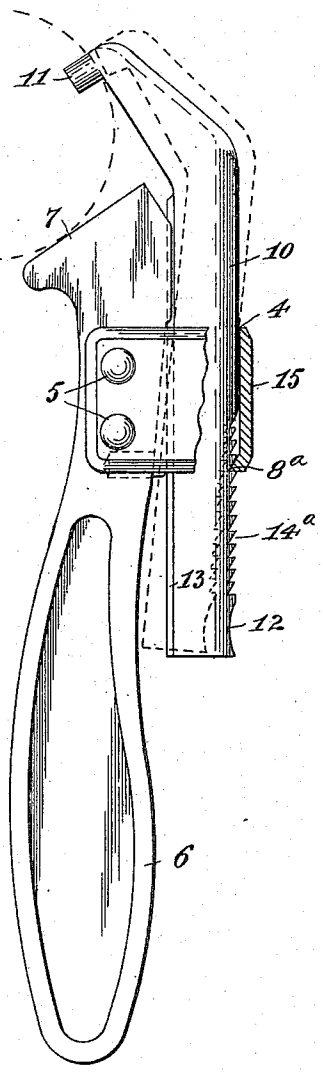


Fig. 5

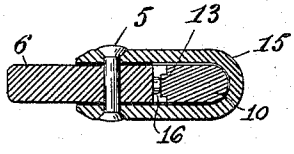


Fig. 4

Witnesses:
J. Griswold.
E. Worthington.

Inventor,
John J. Bartenstein
by Luther B. Hopper,
Attorney.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN J. BARTENSTEIN, OF CLEVELAND, OHIO, ASSIGNOR TO THE VLCHEK TOOL COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

WRENCH.

1,168,844. Specification of Letters Patent. Patented Jan. 18, 1916.

Application filed May 31, 1913. Serial No. 771,127.

To all whom it may concern:

Be it known that I, JOHN J. BARTENSTEIN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches.

Simplicity of construction, and ease of grip adjustment and release, together with light weight and great relative strength, are the prime objects of the invention.

It is particularly adapted to spanner wrenches, providing an adjustable slidable jaw, which can be quickly and conveniently adjusted to take work of different sizes.

Certain features of it are also applicable to wrenches of other kinds, and especially so are the means for adjusting the movable jaw, and for holding it as set.

Referring now to the accompanying drawings, wherein are illustrated preferable embodiments of the invention as applied to spanner wrenches:—Figure 1 is a side view of a wrench in closed position, the opened, or released position of the movable jaw being indicated by dotted lines. Fig. 2 is an edge view of the handle member, and Fig. 3 an edge view of the movable jaw, the said views showing the meeting faces of the two members. Fig. 4 is a sectional view taken on line 4—4 of Fig. 1. Fig. 5 is a side view of a closed wrench showing a modification, the dotted lines indicating the opened position of the movable jaw.

The reference numeral 6 indicates a handle member having at its front end an inclined jaw 7 which, when straight faced, as shown, is suitable particularly for operation on round work. On its inner edge, near the front end, the handle member has a toothed block 8, which is set and firmly fixed in a recess, or notch, made to receive it, and said edge of this member has also a longitudinal groove 9, across which the teeth of the block 8 project.

The movable jaw member is indicated at 10, and it comprises a bar suitably bent near its front end, and terminating with a round or rectangular lug 11 to engage in a hole, or a notch, in the object to be moved, or to engage the corner of a nut, or the like. For most efficient operation on a round nut or bar, the axis of the engaging lug 11 should be parallel to the face of the handle jaw 7, so that said axis extended meets the center of the piece operated upon; then the direction of pressure of the jaw 7 becomes a radial line, as shown, substantially at right angles to said lug axis. The inclination of the jaws serves to make the wrench stronger and more compact than would otherwise be possible. The rear end of the bar 10 has a recess 12 for thumb or finger, on the side opposite to the handle 6. On the inner edge of the member 10 is a rib 13 which slides in the groove 9, for the purpose of lateral strengthening, and the front portion of this rib is toothed, as indicated at 14, to form a rack, the teeth being engageable with the teeth of the piece 8 to lock the jaws at adjustment.

The movable jaw 10 is slidably mounted under a strap 15 rigidly secured to the handle member 6 by rivets 5, or in any suitable way, with sufficient play to permit the teeth 8 and 14 to be engaged or disengaged by swinging the jaw member 10 toward or from the other member. The jaw member 10 rocks under and within the strap 15, having its fulcrum on the forward edge of the strap at 4. A pin 16, pressed behind by a spring 17, located in a recess in the handle jaw member 6, bears against the rear end of the jaw member 10, and tends to throw the front end of said member forwardly, so that the teeth of the two members will catch, and, normally, said spring pin holds the members in locked engagement.

In the modified form shown in Fig. 5, the members are similarly constructed, but, instead of the teeth engaging as described above, the rear edge of the member 10 has a rack 14^a adapted to be engaged by a tooth, or lip 8^a at the rear edge of the strap 15, to hold the parts at adjustment.

In the operation of the wrench, the jaws may be disengaged by pressing inwardly on the tail of the member 10 against the pressure of the spring pin 16, thereby rocking said member upon its fulcrum 4, and disengaging the teeth 8 and 14, or 8^a and 14^a, as the case may be, and then the member 10 may be slid lengthwise either way to desired adjustment; and the pressure of the thumb or finger being released, the spring pin 16 will swing the members together and reëngage the teeth. A very quick adjustment, or release, may be thus effected, and the use of only one hand is required to accomplish

the same. The adjustment may also be effected by engaging the lug 11 of the movable jaw with the work, and then "breaking" the wrench by pressure upon the handle 6 to disengage the teeth, permitting the handle jaw to be slid forward to adjustment; and, likewise, backward to release the wrench.

I further point out and distinctly claim as my invention:—

1. A wrench comprising a handle member terminating in a jaw and having rigidly secured to its shank a strap enfolding a portion of its rearward face, an adjustable jaw member fitted to slide lengthwise between said handle member and strap and to rock in the wrench plane with its fulcrum on said strap, locking means normally coöperating to engage said members with each other, and means whereby said adjustable jaw member may be released from said locking means by rocking it by hand upon its fulcrum on said strap.

2. A wrench comprising a handle member terminating in a jaw and having rigidly secured to its shank a strap enfolding a portion of its rearward face, an adjustable jaw member adapted to slide lengthwise between said handle member and strap and to rock with its fulcrum on the forward edge of said strap, tongue and groove means co-active between said handle and adjustable jaw members to prevent lateral displacement of said members, locking means normally engageable by spring pressure between said members, and means whereby said adjustable jaw member may be released from said locking means by rocking it by hand upon its fulcrum on said strap.

3. A wrench comprising a handle member terminating in a jaw and having rigidly secured to its shank a strap enfolding a portion of its rearward face, an adjustable jaw member fitted to slide lengthwise between said handle member and strap and to rock in the wrench plane with its fulcrum on the forward edge of said strap, one or more teeth projecting from the handle member structure toward the adjustable jaw member and teeth adapted to engage therewith upon the shank of the said adjustable jaw member, and a spring device operating to hold said adjustable jaw member normally against the said strap with the said teeth interlocking, said spring device being capable of compression by hand sufficient to release said teeth from engagement with each other.

4. In a spanner wrench, a handle member terminating in an integrant jaw disposed at an acute angle to the main axis of the wrench, said handle member having rigidly secured to its shank a strap enfolding a portion of its rearward edge, an adjustable jaw member comprising a straight shank fitted to slide lengthwise and to rock between said handle member and its strap, said jaw member having its forward end bent inwardly toward the handle member and terminating in a lug projecting substantially at right angles to said bent end and normally parallel to the face of said handle member jaw, spring operated locking means normally engageable between said members, and means whereby said adjustable jaw member may be released from said locking means by rocking it by hand upon its fulcrum on the forward end of said strap.

In testimony whereof, I affix my signature in the presence of two subscribing witnesses at Cleveland, Ohio, this 20th day of May, 1913.

JOHN J. BARTENSTEIN.

Witnesses:
R. B. HOPPER,
L. G. HOPPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."