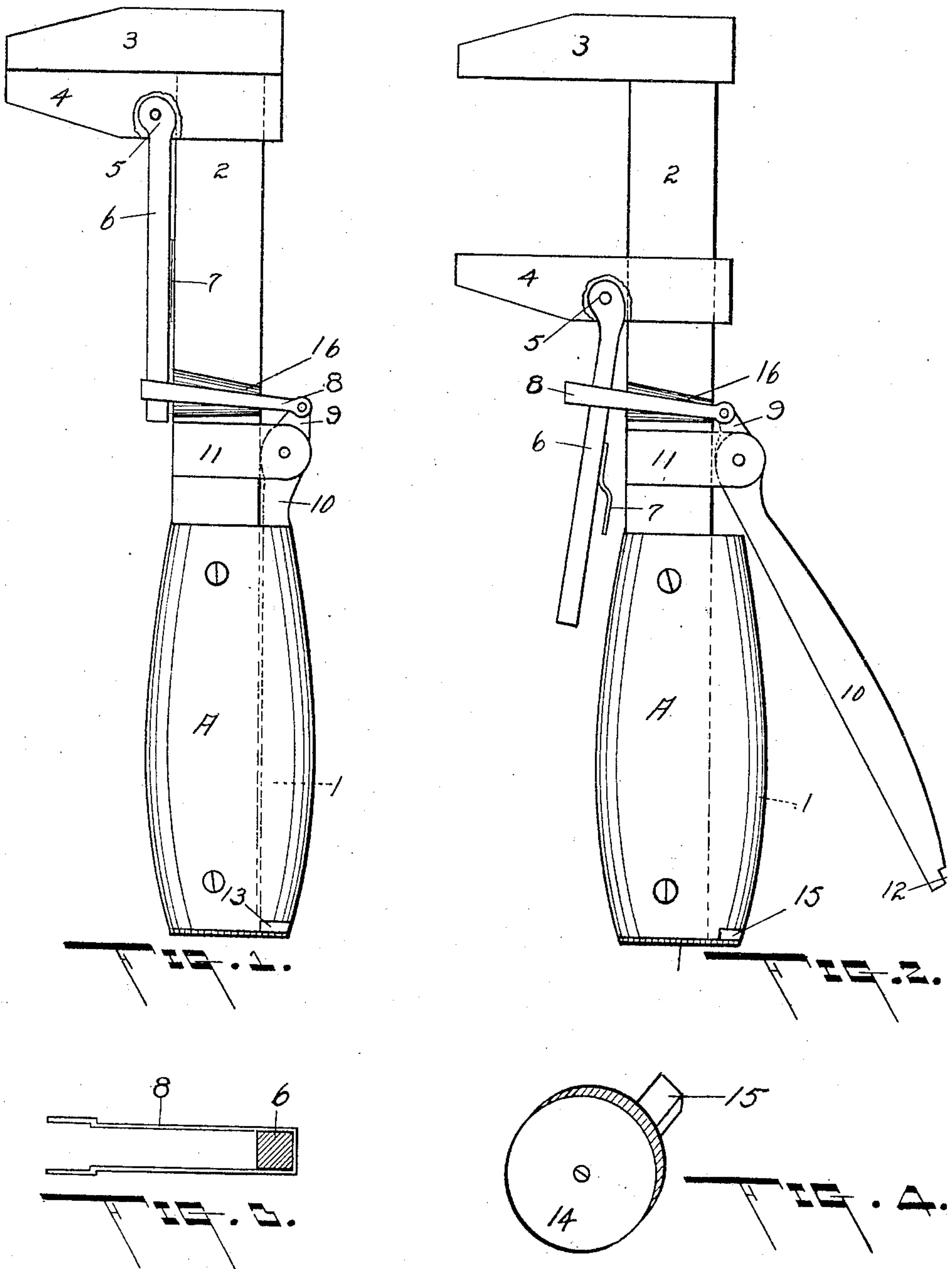


No. 829,612.

PATENTED AUG. 28, 1906.

E. VUILLEMOT.
WRENCH.

APPLICATION FILED APR. 13, 1906.



WITNESSES:

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WRENCH.

No. 829,612.

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To all whom it may concern:

Be it known that I, EUGENE VUILLEMOT, a citizen of the United States, residing at Birch Run, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in wrenches, one object of which is to provide a wrench which can be easily and quickly adjusted to the size of the work.

Another object is the provision of means for rapidly and easily locking the movable jaw in the desired position and for releasing the same as quickly.

A third object is the provision of means combined with the locking means for retaining the latter in locked position.

A further object is the provision of a neat, simple, and strong wrench which is capable of a greater range of adjustment than is the common form of screw-wrench and which can be inexpensively manufactured.

To these ends my invention consists in certain novel elements and combinations of parts, together with their equivalents, such as will be more fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view. Fig. 2 is a side view, and Figs. 3 and 4 are views of details.

While I have shown and described one embodiment of my invention herein, it should be noted that the invention is capable of assuming other constructions as well, the present being merely an exhibition of one such structure illustrating the novel idea.

A indicates a handle longitudinally grooved, as at 1, and provided with a bar 2 in the usual manner, said bar provided with a stationary jaw 3, as is customary in this class of wrenches.

Slidably mounted on the bar is a movable jaw 4, interiorly recessed to receive the head 5 of a clamping member, the head being approximately circular and provided with a tail 6, extending tangentially therefrom and projecting a distance out of the recess somewhat greater than the range of adjustment

allowed the movable jaw. If desired, the tail may carry a leaf-spring 7, adapted to engage the bar 2 when the parts are in locked position for a purpose hereinafter set forth. The head 5 is pivotally secured within the jaw 4 and is adapted to be rocked therein, the point where the tail merges into the head adapted to take against the bar when the tail is swung toward the bar, whereby to tightly retain the movable jaw in any position to which it may be adjusted. When the tail is swung toward the bar 2 to grip the jaw and bar together, the spring 7 is placed under tension, so that when the tail is released the spring will force or swing it away from the bar to instantly release the movable jaw. It is obvious that an eccentric head might be employed rather than the circular one shown.

Some mechanism is necessary for swinging and releasably retaining the tail adjacent the bar, one such construction being shown in the drawings and comprising a preferably U-shaped strap 8, extending transversely of the bar, the strap embracing the tail and the bar 2, the free ends of the strap being pivotally secured to an offset ear 9, which ear is carried by a lever 10, pivoted at a point near the ear to a bracket 11, preferably, though not necessarily, secured at the lower end of the bar 2. The long arm of the lever preferably extends the entire length of the handle and is swung toward and from the handle to draw the strap and the tail encircled thereby to the bar or throw the strap away from the bar to release the tail. When in unlocked position, the long arm of the lever lies at an angle to the handle, the strap being forced to one limit of its movement and the tail 6 itself lying at an angle to the bar, as shown in Fig. 2. The lever 10 is received in the groove 1 of the handle when the parts are in the locked position shown, the strap being drawn tightly against the tail, swinging the latter toward the bar to cause the head to take against the bar and lock the jaw. From this construction it will be seen that while the wrench is in use the hand of the operator holds the lever in the groove and absolutely prevents any possibility of a release of the jaw; but as one means for positively locking the lever in the groove I have recessed the free end of the lever, as at 12, and have formed another re-

cess 13 at the end of the handle. Then to the end of said handle I have pivotally secured a disk 14, having a milled or knurled edge for permitting the disk to be swung by the fingers of the operator. A lug 15 is carried by the disk, the lug projecting at right angles thereto and received in the recess 13 of the handle when the lever is in the open position of Fig. 2; but when in the position shown in Fig. 1 the projecting lug may be moved out of the recess 13 and over the free end of the lever, owing to the cut-away portion thereof, whereby the lever is locked in the groove. In order to guide the strap during its movements, I may provide the bar 2 with the groove or grooves 16 larger at one end than at the other to permit a slight play of the strap caused by its pivotal connection with the lever.

It is obvious that many changes might be made in the form and arrangement of the several parts described and that the mechanism might be applied to pipe-wrenches, as well as others not herein shown, without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth.

Having thus fully disclosed my invention, what I claim as new is—

1. A wrench comprising a longitudinally-grooved handle, a bar carried thereby, stationary and movable jaws on the bar, the movable jaw being recessed, a head pivotally mounted in the jaw and adapted to frictionally engage the bar, a tail projecting from the head, a transverse strap through which the tail loosely extends, and a pivoted lever received in the groove in the handle, the strap secured to and operated by the lever.

2. A wrench comprising a body portion having a stationary and a movable jaw mounted thereon, a clamping member secured to the movable jaw, the clamping member comprising a head pivotally mounted on the jaw, a portion of the periphery of the head adapted to frictionally engage the body of the wrench to lock the jaw, a tail projecting from the head, the tail adapted to swing the head to throw the latter into or out of engagement with the body and means loosely engaging the tail for positively swinging it in one direction or for permitting it to be moved in the opposite direction.

3. A wrench comprising a body portion, having a stationary and a movable jaw, a clamping member pivotally secured directly to the jaw and adapted to releasably engage the body portion, a tail projecting from the clamping member, a strap movable transversely of the body portion, the tail project-

ing loosely through the strap and means for reciprocating the strap to positively move the tail in one direction or to permit it to be moved in the opposite direction.

4. A wrench comprising a bar having a fixed and a movable jaw thereon, a clamping member pivotally secured to the movable jaw and adapted to releasably engage the bar to lock the jaw in position, a tail projecting from the member, a strap loosely embracing the tail, and movable transversely of the bar, the bar having a groove therein in which the strap is received and guided, and means for reciprocating the strap.

5. A wrench comprising a bar, fixed and movable jaws carried thereby, a clamping mechanism pivotally secured to the movable jaw and adapted to releasably engage the bar to lock the jaw thereto, a strap through which a portion of the clamping mechanism loosely projects, a suitably-pivoted lever, and an offset ear on the lever to which the strap is pivotally secured.

6. A wrench comprising a bar, a grooved handle therefor, a fixed and a movable jaw on the bar, a clamping mechanism pivotally secured to the movable jaw and adapted to releasably engage the bar to retain the movable jaw in adjusted position, and a lever and strap connection for operating or releasing the clamping mechanism, the lever receivable in the groove in the handle.

7. A wrench comprising a bar, a grooved handle therefor, a fixed and a movable jaw on the bar, a clamping mechanism pivotally secured to the movable jaw and adapted to releasably engage the bar to retain the movable jaw in adjusted position, a lever and strap connection for operating or releasing the clamping mechanism, the lever receivable in the groove in the handle, and means for locking the lever in the groove.

8. A wrench comprising a bar, a grooved handle therefor, a fixed and a movable jaw on the bar, a clamping mechanism pivotally secured to the movable jaw and adapted to releasably engage the bar to retain the movable jaw in adjusted position, a lever and strap connection for operating or releasing the clamping mechanism, the lever receivable in the groove in the handle, the handle being recessed adjacent the groove, the free end of the lever also being recessed, a disk pivotally secured to the end of the wrench, and a lug carried by the disk and receivable in the recess in the handle or the recess in the lever, respectively.

9. A wrench comprising a bar, a fixed and a movable jaw on the bar, a clamping-head pivotally mounted in the movable jaw and adapted to releasably engage the bar to lock the movable jaw in place, a tail projecting

from the head by means of which tail the
head is swung into or out of engagement
with the bar, a strap loosely engaging the
tail, the latter movable relative to the strap,
5 a lever to which the strap is secured and by
which the strap is tightened upon or loosened
relative to the tail to positively move the
tail and head in one direction, and a spring

for moving the tail and head in the opposite
direction when the strap is loosened. 10

In testimony whereof I affix my signature
in presence of two witnesses.

EUGENE VUILLEMOT.

Witnesses:

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VICTOR B. ROTTIERS.