No. 666,108. Patented Jan. 15, 1901.

R. MEEKS.

WRENCH.

(Application filed May 21, 1900.)

(No Model.)

FIG. 1.

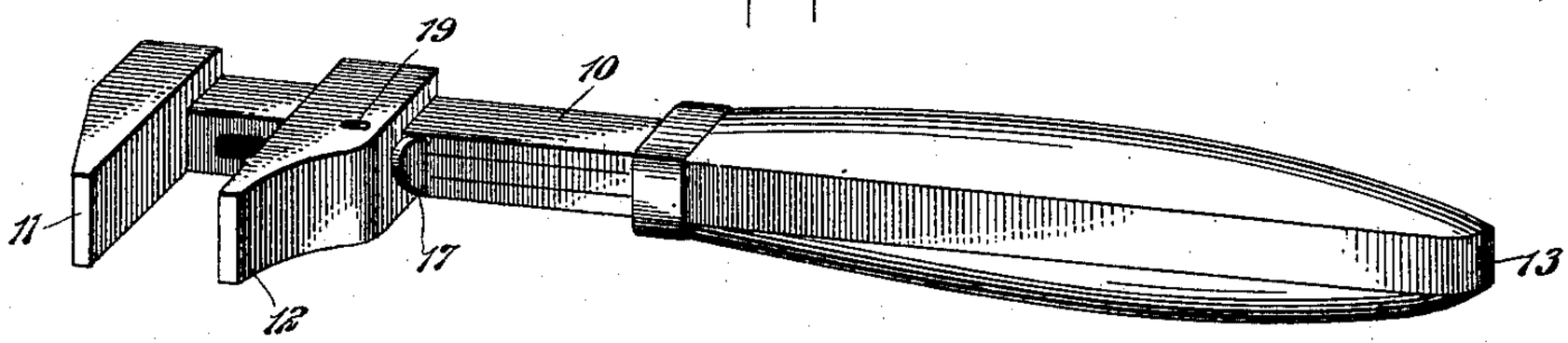


FIG. 2.

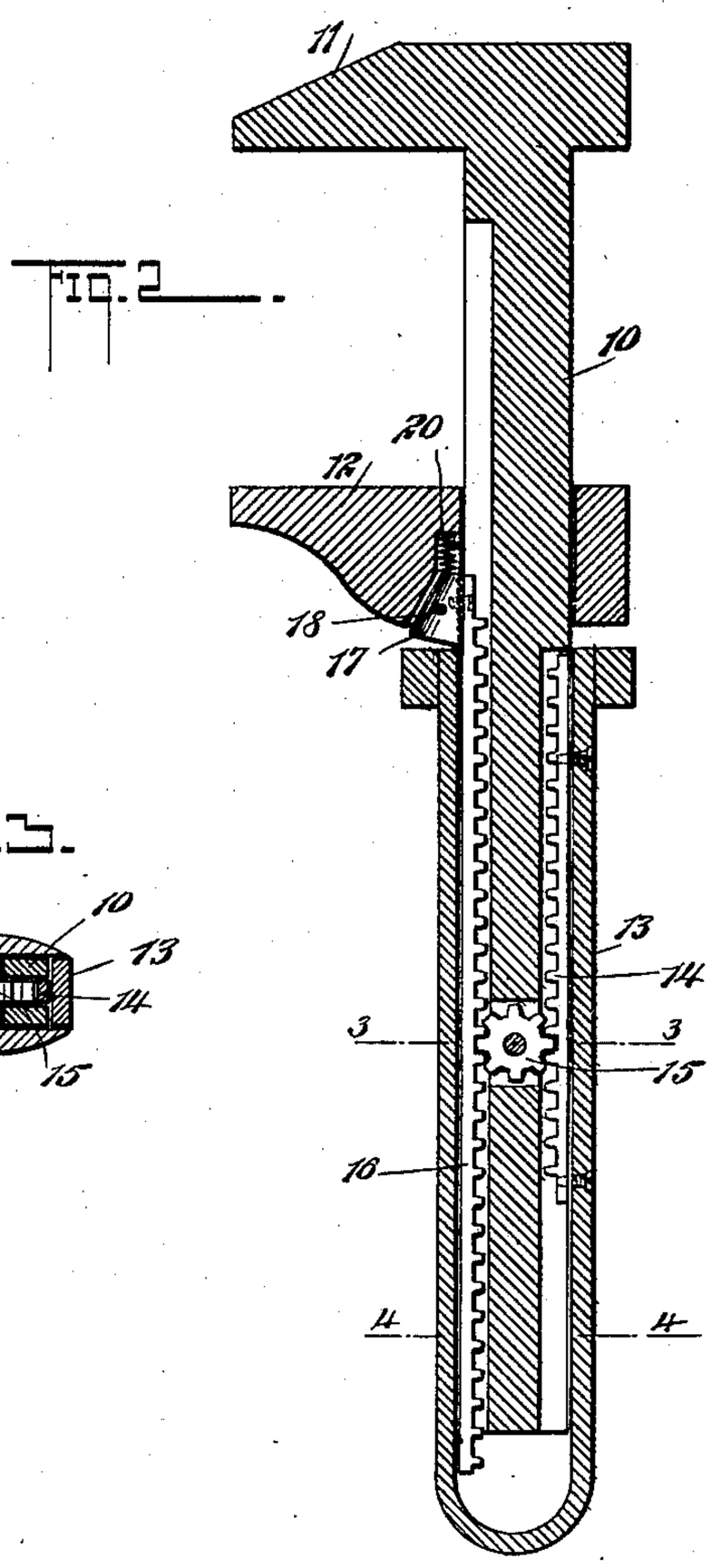


FIG. 3.

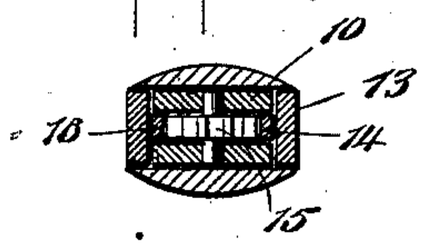
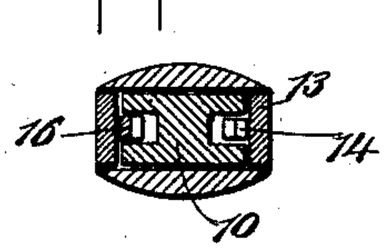


FIG. 4.



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WRENCH.

SPECIFICATION forming part of Letters Patent No. 666,108, dated January 15, 1901.

Application filed May 21, 1900. Serial No. 17,427. (No model.)

To all whom it may concern:

Be it known that I, REGINALD MEEKS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

This invention relates to improvements in wrenches for turning nuts, bolts, or pipes; and the object is to provide a wrench the movable jaw of which may be moved toward or from the fixed jaw by simply moving the handle longitudinally with relation to the fixed jaw, thus providing for the quick adjustment of the wrench to a nut or the like without the use of screw-threads and adjusting-nuts or swinging levers, as usually employed.

I will describe a wrench embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a wrench embodying my invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a section on the line 3 3 of Fig. 2, and Fig. 4 is a section on the line 4 4 of Fig. 2.

Referring to the drawings, 10 designates the shank portion of the wrench, upon the end of which is a fixed jaw 11. Movable on the shank 10 is a jaw 12, and also movable on the said shank is a tubular handle 13. Attached to the inner side of the tubular handle is a rack 14, with which a pinion 15 engages, the said pinion being pivoted in the shank 10. The pinion 15 also engages with a rack 16, which is attached at one end to the movable jaw 12. As here shown, this rack 16 is attached to a wedge 17, mounted on a pivot 18, which has movement in slots 19, formed in the jaw 12. The jaw 12 is normally moved forward with relation to the wedge 17 by means of a spring 20.

In operation when it is desired to adjust the wrench to a nut or the like it is only necessary to engage the fixed jaw 11 with the nut, and then by drawing the handle portion in a direction away from the fixed jaw the rack 14 will rotate the pinion 15 in such direction as to move the jaw 12 against the nut. While turning the nut, the jaw 12 will be prevented from moving out of engagement therewith by means of the wedge 17, which, owing to its inclined upper surface engaging with the inclined wall of the recess in which it is placed, will be forced against the shank 10.

In releasing the wrench from a nut or the like the handle is to be moved toward the fixed jaw, which will cause the movable jaw to move outward or from the nut.

It will be noted that in this wrench there are no parts liable to get out of order and, further, that the adjustments are practically automatic—that is, it is not necessary to manipulate an adjusting-nut on a screw-threaded shank, as in ordinary wrenches. The jaws are shown as smooth on their inner faces; but it is obvious that they may be corrugated to adapt the device for use as a pipe-wrench.

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

1. A wrench, comprising a shank portion, a fixed jaw on said shank portion, a pinion carried by the shank, a handle movable longitudinally on the shank, a rack attached to said handle and engaging with the pinion, a movable jaw, and a rack on said movable jaw engaging with the pinion, substantially as specified.

2. A wrench, comprising a shank portion, a fixed jaw on the shank portion, a jaw movable on the shank portion, a handle movable longitudinally on the shank, a rack attached to the interior of the handle, a pinion mounted in the shank and engaging with said rack, a rack attached to the movable jaw and engaging with said pinion, and a spring-pressed wedge arranged in the movable jaw, substantially as specified.

3. A wrench, comprising a shank portion, a fixed jaw on the shank portion, a jaw movable on the shank portion, a handle movable longitudinally on the shank portion, and

means operated by the movement of said handle to move the movable jaw toward or from the fixed jaw, substantially as specified.

4. A wrench comprising a fixed jaw, a movable jaw, non-rotary handle and means operated by a longitudinal movement of the wrench-handle for adjusting the movable jaw, substantially as specified.

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

REGINALD MEEKS.

Witnesses:
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