

No. 805,793.

PATENTED NOV. 28, 1905.

J. P. A. HANLON.

WRENCH.

APPLICATION FILED JUNE 17, 1905.

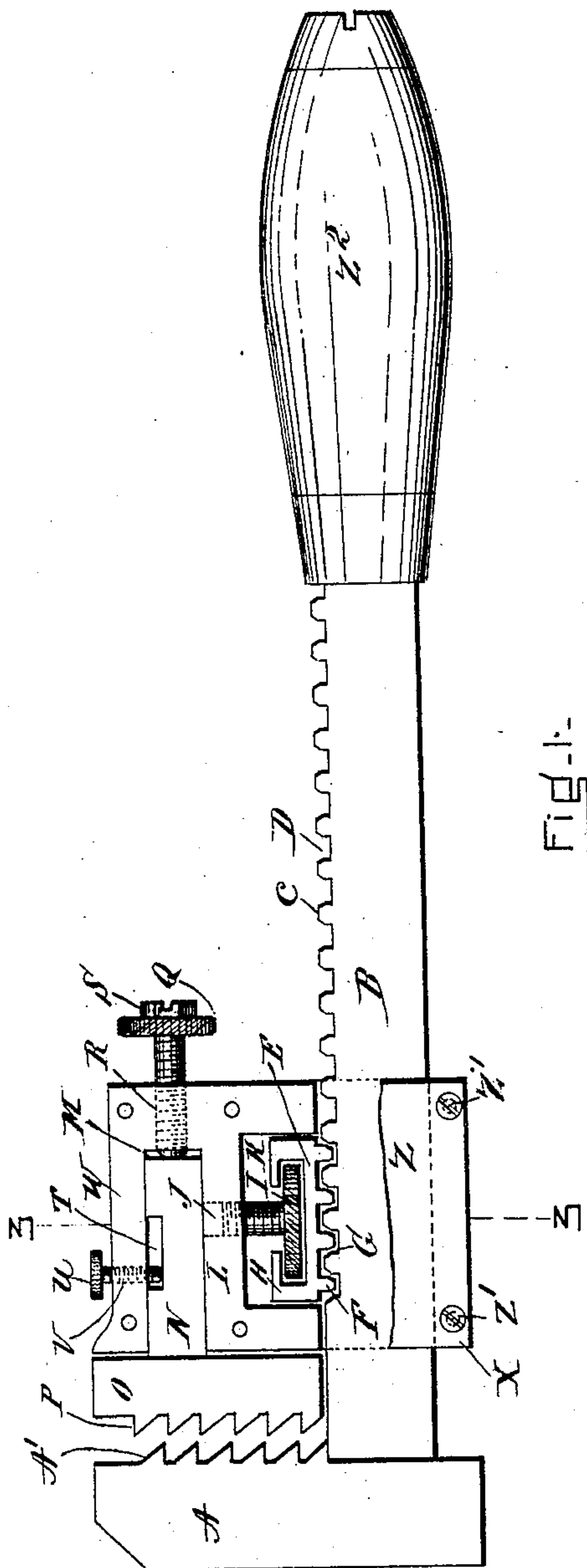


Fig. 1.

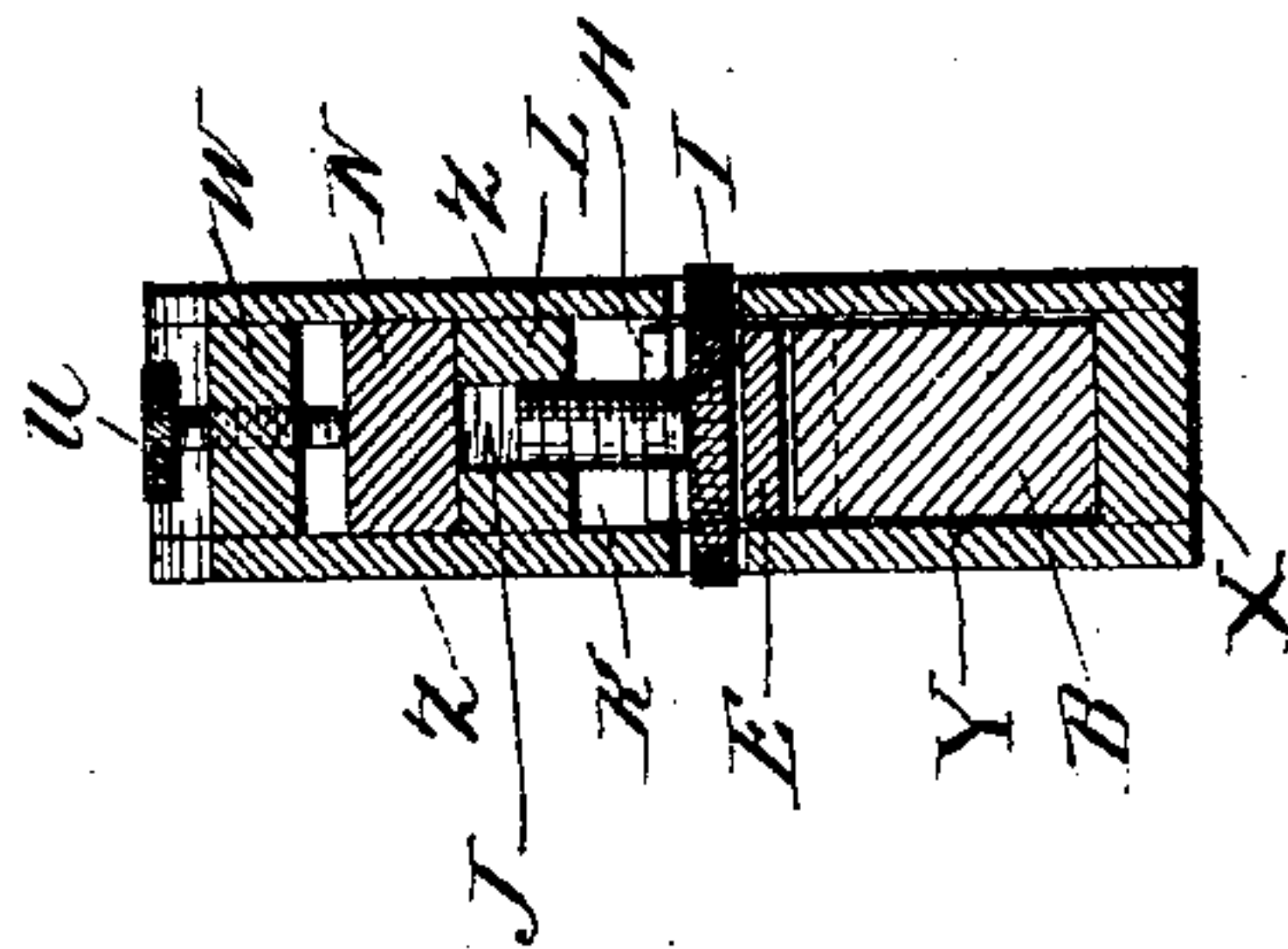


Fig. 3.

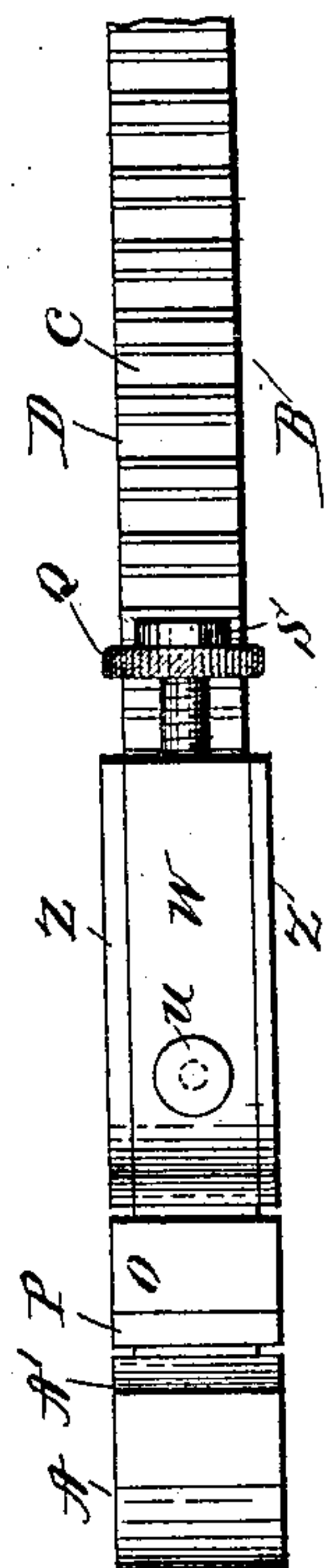


Fig. 2.

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WRENCH.

No. 805,793.

Specification of Letters Patent.

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Application filed June 17, 1905. Serial No. 265,821.

To all whom it may concern:

Be it known that I, JOSEPH P. A. HANLON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Wrenches, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention has reference to improvements in wrenches, and particularly to improvements in combination-wrenches.

One object of the invention is to facilitate the adjustment of the movable jaw with relation to the fixed jaw and to positively secure the movable jaw in the adjusted position.

Another object of the invention is to so construct a wrench of this character that a vise-grip may be effected.

Other objects of the invention will appear from the following description.

The invention consists in the combination, with the fixed jaw and its rack-bar, of the jaw having a frame movably mounted on the rack-bar and the peculiar means carried by said frame for engaging the rack.

The invention consists in the peculiar movable jaw and the vise-gripping device carried thereby and adjustable independently of the movement of said jaw.

The invention also consists in such other novel features of construction and combination of parts as shall hereinafter be more particularly described, and pointed out in the claim.

Figure 1 represents a side elevation of the improved wrench, a portion of the frame of the movable jaw being broken away. Fig. 2 represents a plan view of parts of the wrench. Fig. 3 represents a sectional view taken on line 3 3, Fig. 1.

Similar letters of reference designate corresponding parts throughout.

As shown in the drawings, in its preferred form the wrench-jaw A has the teeth A' and is fixed on the rack-bar B, having the teeth C, which are separated by the spaces D. On the rack-bar B is movable a frame comprising the spacing-blocks LW and X and the side plates Z Z, secured together by screws Z' Z' or in any other suitable manner, a compartment or guide M being formed between the parts L and W of the block and a compartment K being formed in said block, from which compartment extends the screw-threaded bore J. In the compartment K is movable the locking member E, having the teeth F, the spaces G between said teeth and the inwardly-extend-

ing arms H H, between which the thumb-nut I is engaged, the screw-threaded shank of this thumb-nut working in the screw-threaded bore J.

In the guide M of the spacing-block LW is slidably mounted the shank N, having the slot T and furnished with the jaw O, having the teeth P. In the member W of the spacing-block is formed the screw-threaded perforation V, in which the thumb-screw U works. The end of this screw extends into the slot T of the shank N and limits the movement of said shank. The means for forcing the shank N and its jaw O toward the jaw A is the thumb-screw Q, which works in the threaded perforation R and has in addition to the thumb-grip the nut S, adapted to be engaged by a suitable key or wrench and having a slot which is adapted to receive a screw-driver.

The movable frame and its jaw O may be quickly adjusted by sliding the frame along the bar B to the desired position. The thumb-screw I is then turned to move the locking member E toward said bar B, thus engaging the teeth F of said locking member with the teeth C of the bar B, whereby the ordinary grip on the article between the jaws A and O is effected. If a more positive grip in the nature of a vise-grip on the article is desired, the operator now advances the jaw O and its shank N by turning the thumb-screw Q by his fingers, by a screw-driver engaging the slot of the nut S, or by a key or wrench fitting said nut S, this depending on the amount of pressure that he desires to exert on said nut.

While the teeth C and F may be of any suitable shape, they are preferably formed with sides extending at right angles to the bar B and locking member E. The jaws A and O may or may not be provided with teeth.

Wrenches of this description are adapted to be readily adjusted, and the movable jaw is adapted to be positively locked in the adjusted position. The jaws are also capable of a vise-like grip on material between them, and this grip may be greater or less, depending on the method of effecting the rotation of the screw Q, practically offering three tensions.

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

The combination with a rack-bar having a fixed jaw, of a frame having spacing-blocks above and below the rack-bar, the block above the rack-bar having an opening, a cross member, and a guide-slot, side plates connecting

said spacing-blocks, a thumb-screw the shank
of which is engaged in a screw-threaded per-
foration of said cross member, a clamping
member having teeth adapted to engage with
5 the teeth of the rack-bar and arms embracing
the thumb-screw, a slide movable in the guide-
slot of the upper block and having a groove
in one edge and a jaw, a thumb-screw work-
ing in a screw-threaded perforation of said
10 upper block and extending into the groove in
said slide, and a screw working in a screw-
threaded perforation in said upper block and
bearing against the end of said slide, said lat-

ter screw having a thumb-nut and slotted
squared projection whereby said screw may 15
be engaged by the fingers, by a screw-driver,
or by a wrench, substantially as and for the
purpose described.

In testimony whereof I have signed my name
to this specification in the presence of two sub- 20
scribing witnesses.

JOSEPH P. A. HANLON.

Witnesses:

GEORGE O. HANLON,
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