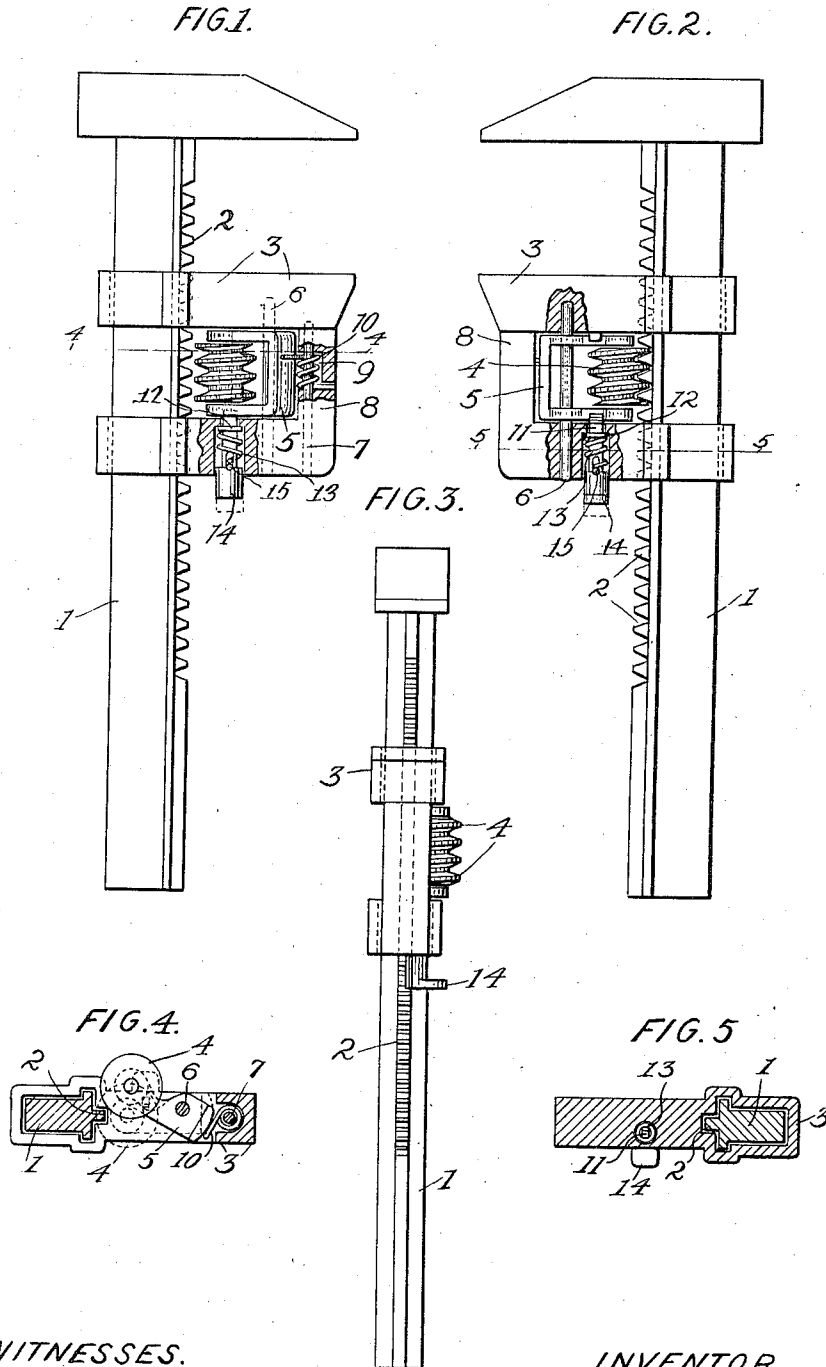


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WRENCH.

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1,038,708.

Patented Sept. 17, 1912.



WITNESSES.
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WRENCH.

1,038,708.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HIPOLIT ZIELINSKI, a citizen of Warsaw, Russian Poland, residing at Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to improvements in wrenches and its object is to produce a wrench provided with means for throwing the worm into and out of engagement with the rack thereby enabling quick adjustment of the tool.

Cheapness of manufacture and durability are other objects attained.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described in the following specification, pointed out in the claim and illustrated in the accompanying drawing which forms a part of the specification and in which—

Figure 1 is a side elevation of my improved wrench partly in section. Fig. 2 is a similar view partly in section with the tool rotated upon its vertical axis through an arc of 180 degrees. Fig. 3 is a front view of the tool with the worm thrown out of engagement with the rack. Fig. 4 is a horizontal section taken on line 4—4 of Fig. 1. Fig. 5 is a similar view taken on line 5—5 of Fig. 2.

Like reference characters indicate corresponding parts throughout the several views.

1 is the stationary shank provided with the rack 2, and 3 is the movable jaw provided with the worm 4 which is supported in the knuckle 5 that is pivotally disposed upon the vertical pin 6 secured in the movable jaw.

7 is another vertical pin disposed in the vertically disposed portion 8 of the movable jaw which is apertured as at 9 to accommodate a spring 10 coiled about the pin 7 and having one end seated in the portion 8 of the jaw 3 and the other end resting upon the knuckle 5 which is grooved for the accommodation of the said spring termination. The pressure of the spring 10 which is ex-

erted upon the knuckle 5 is sufficient to rotate it upon its pivot 6 thus throwing the worm 4 out of engagement with its rack.

11 is a small pin provided with a collar 12 seated in a recessed portion in the lower member of the movable jaw and having one end adapted to enter a small aperture in the knuckle 5 as shown in Fig. 2; the recessed portion of the jaw being enlarged below the collar 12 for its retention and for the retention of a spring 13 coiled about the pin 11 below the said collar, one end of the said spring resting against the collar and the other being secured to a small pin 15 that extends transversely through the lower portion of the jaw 3 and through the slotted portion of a dog 14 made integral with the said pin 11, the slot in the said dog 14 extending into the pin 11 so that the dog and pin may be drawn downward (the pin 15 being held stationary by the movable jaw) against the pressure of the spring 13. Normally the end of the pin 11 resting in the apertured portion of the knuckle will prevent rotation of the said knuckle upon its pivot but when it is desired to throw the worm out of engagement with the rack the dog 14 is manually drawn downward thus withdrawing the pin 11 from connection with the said knuckle and permitting the spring 10 to rotate the said knuckle.

What is claimed is:—

The combination in a wrench comprising a fixed jaw and a movable jaw suitably apertured, of a knuckle pivotally mounted in the said movable jaw and provided with a worm, a pin provided with a spring adapted for engagement with the said knuckle disposed in an apertured portion of the said movable jaw, a slotted spring-actuated pin suitably supported disposed within another apertured portion of the said movable jaw for releasable locking-engagement with the said knuckle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two subscribing witnesses.

HIPOLIT ZIELINSKI.

Witnesses:

LEON SITCK,
JOSEPH BAROWSKI.