

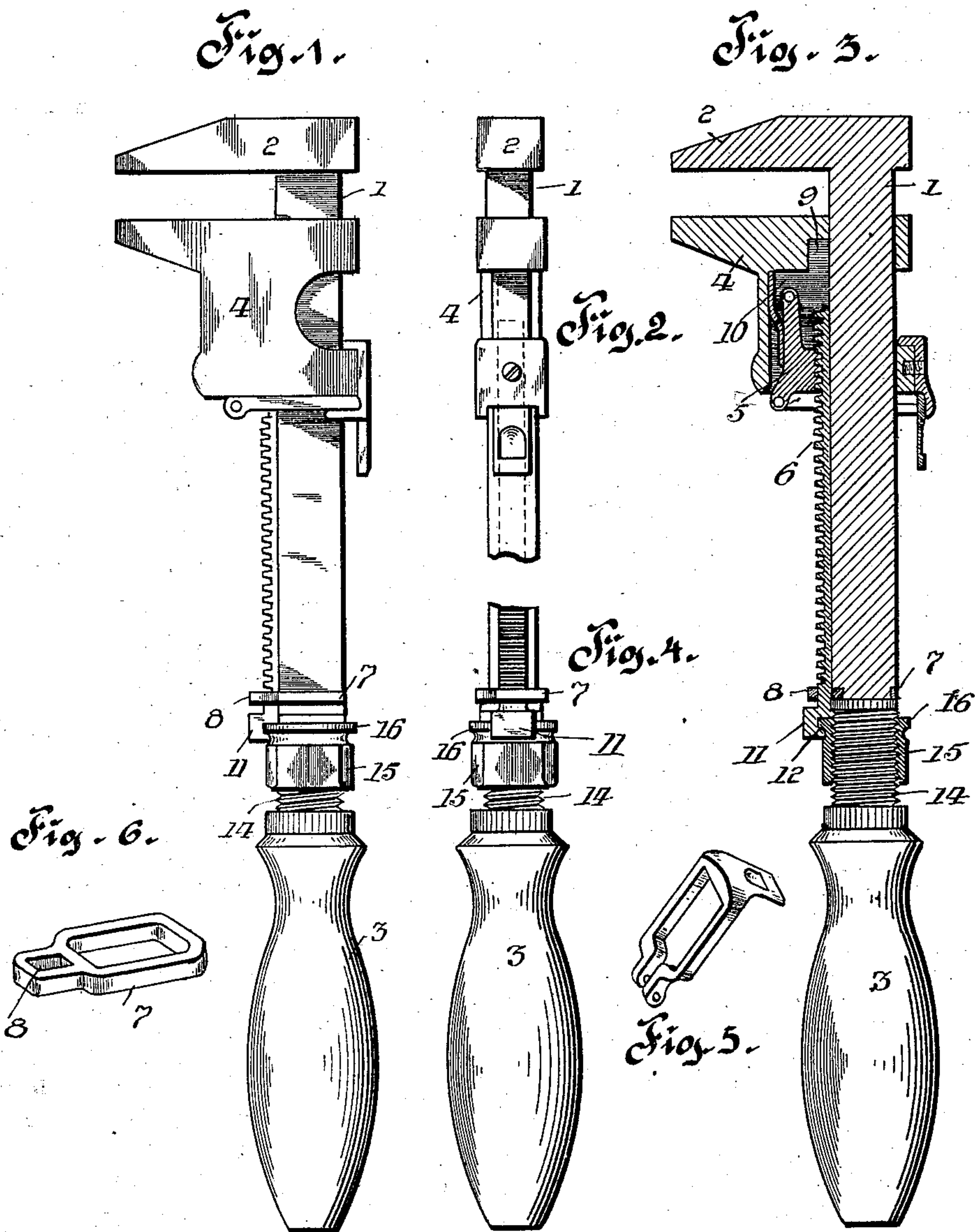
No. 762,784.

PATENTED JUNE 14, 1904.

I. WEISNEK.
WRENCH.

APPLICATION FILED MAR. 4, 1904.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

IGNATZ WEISNEK, OF FEDERAL, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 762,784, dated June 14, 1904.

Application filed March 4, 1904. Serial No. 196,570. (No model.)

To all whom it may concern:

Be it known that I, IGNATZ WEISNEK, a citizen of the United States of America, residing at Federal, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to wrenches, and more particularly that class of wrenches wherein a movable jaw is adapted to be adjusted upon a toothed shank; and the object of this invention is to provide a wrench of 15 this character where the movable jaw may be adjusted to a finer degree than has heretofore been realized from wrenches wherein the movable jaw has only been adjusted by the teeth carried by the shank of the wrench. In 20 wrenches of this character the movable jaws have been adjusted to that degree of fineness which depended upon the size of the teeth carried by the shank of the wrench, and when these movable jaws have been adjusted to the 25 nut or object upon which the wrench is to be used it is often impossible to adjust the movable jaw to the nut or object in such a manner that all lost motion will be prevented and the slipping of the wrench dispensed with, and in 30 carrying out my invention I employ means in connection with the shank of the wrench whereby after the movable jaw has been set to the nut or object it may be again adjusted to fit the nut more snugly than if the movable 35 jaw had only been adjusted by the teeth carried by the shank.

My invention is particularly applicable to that class of wrenches wherein a toothed shank is employed, and especially upon my improved 40 wrench shown in my Patent No. 743,369, granted to me on November 3, 1903.

All the above construction will be hereinafter more fully described, and specifically pointed out in the claims, and in describing 45 the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

50 Figure 1 is a side elevation of my improved

wrench. Fig. 2 is a detailed view thereof, the handle and a portion of the shank being broken away. Fig. 3 is a vertical longitudinal sectional view of my improved wrench, showing the handle in side elevation. Fig. 4 55 is a detailed view of a portion of my improved wrench, the outer part of the shank and the jaws being broken away. Figs. 5 and 6 are detailed perspective views of yokes forming part of the attachment of my improved wrench. 60

In the drawings accompanying this application I have illustrated my improved form of wrench as shown in patent granted to me on November 3, 1903, and I have shown my improved wrench of the exact construction as 65 that of my former patent with the exception of the toothed shank and attachment applied thereto, and in referring to the drawings the reference-numeral 1 designates the shank of the wrench, which upon its outer end has a 70 fixed jaw 2 and secured to its inner end by any suitable means a handle 3. Mounted upon the shank 1 and adapted to slide thereon I provide a jaw 4, having pivotally mounted therein a spring-actuated toothed dog 5, which 75 is adapted to engage the teeth of the shank. All of this construction will be readily seen and understood from my prior patent, and reference will now be had to my improved attachment, which is adapted to adjust the 80 movable jaw 4 to a much finer degree than the form of adjustment illustrated and described in my prior patent.

To put my improved attachment into practice, I secure the teeth upon the shank of the 85 wrench in such a manner that the same may be adjusted, and the reference-numeral 6 designates a toothed bar, which is supported against the shank 1 by a yoke 7, said toothed bar being adapted to pass through a contracted portion 8 of said yoke. The toothed bar 6 is 90 made of sufficient length to extend into the movable jaw 4 and be supported therein by the toothed dog carried in said jaw, and to allow for the adjustment of said jaw upon the 95 shank 1 I provide a cut-away portion 9 in the top of the interior recess 10 of this jaw, and into this cut-away portion 9 is adapted to pass the outer end of the toothed bar when the movable jaw 4 is adjusted or moved outwardly 100

to a position farther along the shank than that shown in the accompanying drawings. Formed integral with the inner end of the toothed bar 6 is an enlarged portion 11, having a recess formed in its inner side, as designated by the reference-numeral 12, the back wall of this recess being formed on an arc, the object of which will be hereinafter more fully described. Intermediate the shank 1 and the handle 3 thereof I provide an annular threaded portion 14, upon which is adapted to be adjusted a nut 15, having an annular collar 16 upon its outer end, which is adapted to engage in the recess 12 of the enlarged portion 11, carried by the toothed bar, the rear wall of the recess being formed upon an arc to conform to the circumference of the annular collar 16, carried by the nut 15.

The operation of my improved wrench is as follows: The movable jaw 4 of my improved wrench having been set or adjusted to the nut or object upon which the wrench is to be used, I obtain a finer adjustment of this jaw by rotating the nut 15, carried upon the threaded portion 14 of the shank, the annular collar 16 of the nut 15 rotating in the recess 12 of the enlarged portion 11 of the toothed bar, and it can be readily seen that when the nut is adjusted upon the threaded portion 14 the toothed bar 6 will be raised or lowered upon the shank 1, and the movable jaw 4 may be adjusted to any degree of fineness, especially when the threads of the portion 14 are constructed upon a slight pitch or at a less angle or degree than the teeth of the bar 6.

It will readily be seen that the movable jaw 4 may be adjusted independent of the adjustment obtained by the nut 15 and that by the construction of my improved wrench the use thereof will be applicable to work on which heretofore a wrench of this type could not be

used, and it will be noted that the simplicity of construction will facilitate the operation of the wrench in such a manner that a fine adjustment may be easily and quickly obtained. 45

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

1. In a wrench, the combination with the shank having a fixed jaw on one end and a handle on the other end, the movable jaw mounted to slide on the shank, the rack-bar mounted on one face of the wrench-shank and provided with an enlarged inner end having a groove on its inner face, and the dog carried by the movable jaw for engagement with the rack-bar, of a yoke embracing the wrench-shank and provided with a contracted apertured end to receive the rack-bar, and a nut threaded on the shank between the handle and said yoke, and provided with an annular flange engaging in the groove in the enlarged end of the rack-bar, substantially as described. 50 55 60

2. In a wrench, the combination with the shank, and the stationary and movable jaws, of a rack-bar fitted to one face of the shank and provided with an enlarged end provided with a groove in its inner face, a yoke spanning the shank and having an apertured end receiving the rack-bar and holding the same against the shank, and an adjusting-nut threaded on the shank adjacent the yoke and having an annular flange engaging the groove in the rack to move the rack longitudinally of the shank as the nut is rotated on the shank, substantially as described. 65 70 75

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

IGNATZ WEISNEK.

Witnesses:

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