No. 616,414. Patented Dec. 20, 1898.

M. C. GAY.

WRENCH.

(Application filed July 29, 1897.)

(No Model.)

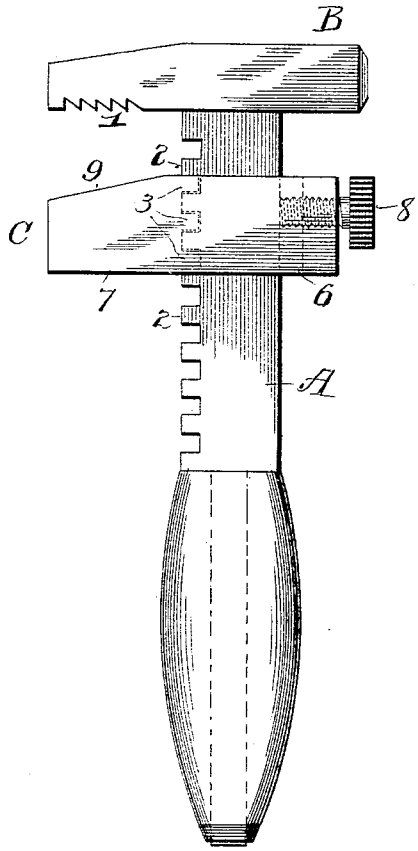


Fig. 1.

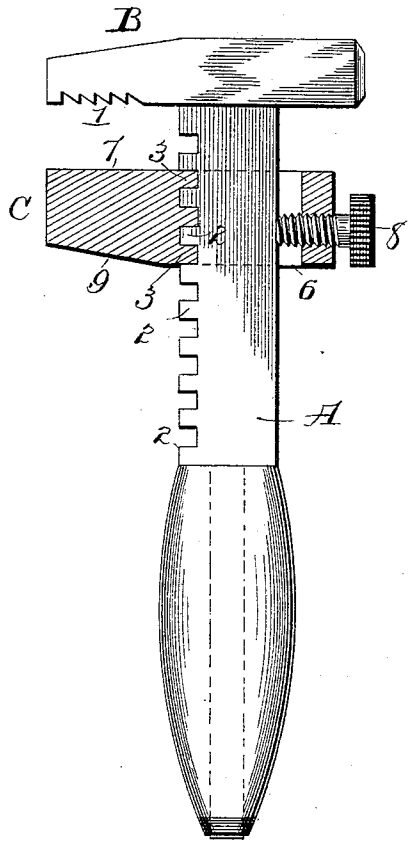


Fig. 2.

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UNITED STATES PATENT OFFICE.

MATTHEW C. GAY, OF ARCADIA, FLORIDA, ASSIGNOR OF ONE-THIRD TO W. P. HATCHETT, OF MIAMI, FLORIDA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 616,414, dated December 20, 1898.

Application filed July 29, 1897. Serial No. 646,408. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW C. GAY, of Arcadia, in the county of De Soto and State of Florida, 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, and more particularly to such as are adapted for use either as a pipe or a nut wrench, the object of the invention being to produce a wrench which can be conveniently and effectively used for turning nuts and which can be, with equal or even greater efficiency, used as a pipe-wrench without complications, such as springs, heretofore employed with pipe-wrenches.

A further object is to produce a wrench which shall be simple in construction, which shall comprise a minimum number of parts, one in which the movable jaw can have a pivotal action when used on a pipe, which shall be strong and durable, which can be effectually used on very large nuts or pipes, and which shall be efficient in all respects in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a wrench embodying my improvements, with the movable jaw in position for use on a pipe. Fig. 2 is a similar view showing the parts in position for use as a nut-wrench.

A represents a shank, and B a fixed jaw thereon, the inner face of which is provided with teeth 1. The inner face of the shank A is made (preferably throughout its length or approximately so) with large teeth 2, to be engaged by similar teeth 3 within the movable jaw C, said movable jaw being made with a yoke 6 to embrace the shank A. The teeth on the shank, as well as those in the movable jaw, are made quite deep and are preferably square or angular in form. When the wrench is to be used for nuts, the straight or horizontal face 7 of the movable jaw will be presented to the fixed jaw, and after said movable jaw shall have been adjusted for the size of the nut on which it is desired to use the wrench it will be secured in position by means of a set-screw 8, which passes through the rear end of the yoke of the movable jaw and engages the rear side of the shank A, thus maintaining the teeth in the movable jaw securely interlocked with the teeth on the shank. The movable jaw will thus be held in position with the several teeth thereof engaging a corresponding number of teeth on the shank.

When it is desired to convert the device into a pipe-wrench, the movable jaw will be removed from the shank and then replaced, with the inclined face 9 presented to the fixed jaw. When the movable jaw shall have been properly adjusted for the pipe on which it is desired to use it, the set-screw will be turned just sufficiently to prevent the disengagement of the teeth of the jaw from the teeth of the shank, but not sufficiently to cause the teeth of the jaw to be tightly held in the bottoms of the recesses between the teeth on the shank, as was the case when the jaw was secured to the shank to be used on nuts. Thus it will be seen that when adjusted for a pipe the movable jaw will be loose on the shank without being permitted to move longitudinally thereon, and hence during the use of the wrench on a pipe the movable jaw will be permitted to have a pivotal movement on the teeth of the shank. From this construction it will be seen that each time the wrench is released for the purpose of turning it backwardly to take a new bite on the pipe the movable jaw will be permitted to have a pivotal movement on the teeth, and the efficiency of the device as a pipe-wrench will thus be greatly enhanced without detracting from its strength or durability.

By my improvement I am enabled to dispense entirely with the use of springs for the movable jaw. Said jaw can be readily adjusted for use. The teeth on the jaw and on the shank serve the double purpose of preventing longitudinal movement of the jaw on the shank when once adjusted and also con-

stitute a fulcrum for said movable jaw, and my improvements comprise very few parts and are not liable to get out of order.

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 a shank and a fixed jaw thereon, of teeth on the shank, a movable jaw adapted to slide on said shank and having an inclined face and also a face parallel with the fixed jaw whereby it is adapted for a pipe or a nut, teeth in said movable jaw to engage the teeth on the shank and a set-screw for retaining the teeth in the movable jaw in mesh with the teeth on the shank, substantially as set forth.

2. In a wrench, the combination with a shank having long parallel teeth and having a fixed jaw at one end, of a movable jaw having long teeth to intermesh with the teeth on the shank, the opening in said movable jaw for the passage of the shank being of such size as to permit lateral adjustment of the movable jaw on the shank and a set-screw carried by the movable jaw and having a bearing on the shank, whereby said movable jaw will be permitted to have a pivotal movement without disengaging the teeth, substantially as set forth.

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

MATTHEW C. GAY.

Witnesses:
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THOS. D. BOURLAND.