

A. PLACEK.  
PIPE WRENCH.

APPLICATION FILED MAR. 28, 1917.

1,244,126.

Patented Oct. 23, 1917.

Fig. 1.

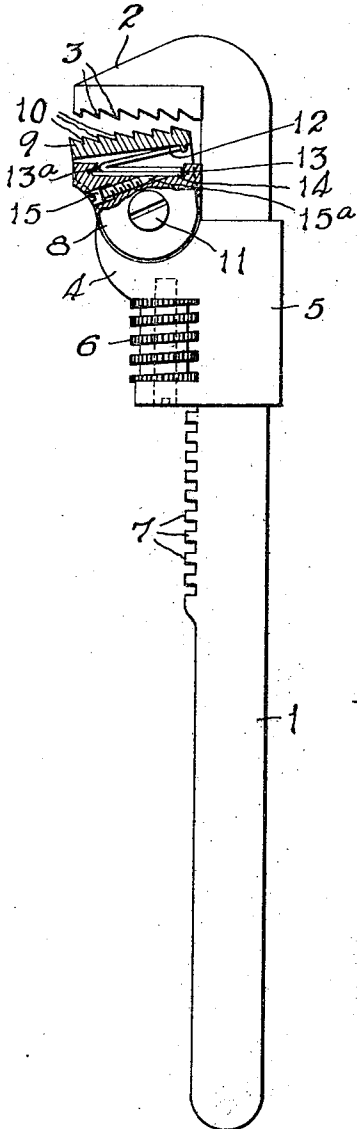


Fig. 2.

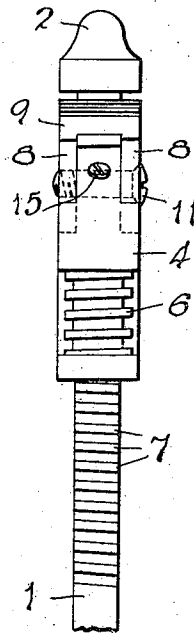


Fig. 3.

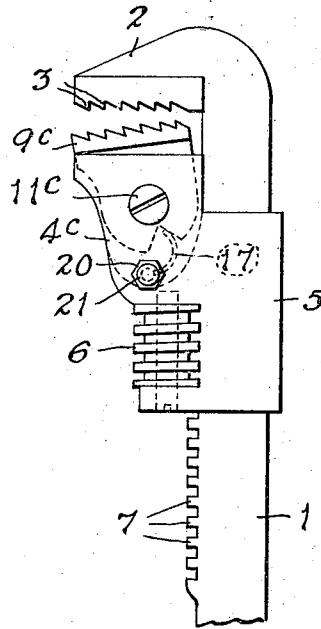


Fig. 5.

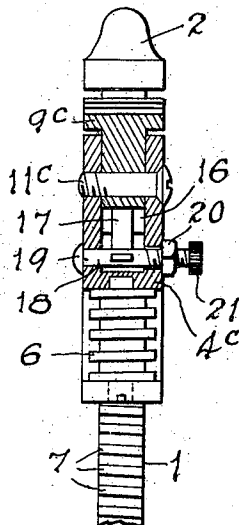
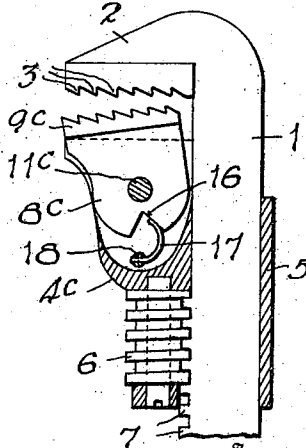


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## PIPE-WRENCH.

1,244,126.

Specification of Letters Patent.

Patented Oct. 23, 1917.

Application filed March 28, 1917. Serial No. 153,061.

*To all whom it may concern:*

Be it known that I, ANTON PLACEK, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga, State of Ohio, have invented a new and useful Pipe-Wrench; 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.

The present invention relates to certain new and useful improvements in pipe wrenches, and has for its object to provide a device of this character which embodies novel features of construction whereby one of the jaws is pivotally mounted in such a manner as to swing into a firm engagement with the pipe on the working stroke of the wrench and release the pipe on the backward stroke of the wrench.

Further objects of the invention are to provide a wrench of this character which is comparatively simple and inexpensive in its construction, which can be easily and quickly adjusted to fit different sizes of pipe, which will firmly grip the pipe when the wrench is in operation, and which provides adjustable spring tension means for normally swinging the movable jaw outwardly into proper position for initial engagement with a pipe or like member.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a side elevation of a pipe wrench constructed in accordance with the invention, portions being broken away and shown in section to illustrate more clearly the mounting of the movable jaw.

Fig. 2 is a front elevation of the wrench, the handle being broken away.

Fig. 3 is a side elevation of a slightly modified construction of the wrench, the lower end of the handle being broken away.

Fig. 4 is a side elevation of the head of the wrench shown by Fig. 3, with portions broken away and shown in section to illustrate more clearly the details of construction.

Fig. 5 is a front elevation of the head of the wrench shown by Fig. 3, portions being broken away and shown in section.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the embodiment of the invention shown by Figs. 1 and 2 of the drawing, the numeral 1 designates a handle which is provided at one end thereof with a laterally projecting fixed jaw 2, the inner or working face of the jaw being formed with inwardly inclined teeth 3. A slide 4 is movable longitudinally upon the handle 1, being formed with a sleeve 5 which loosely receives the handle. The lower end of the slide 4 is notched to receive an adjusting screw 6 which engages a rack 7 on the handle 1, while the upper end of the slide is recessed at the sides thereof to receive the side arms 8 of a movable jaw 9, said movable jaw having an opposed relation to the fixed jaw 2, and being provided on the working face thereof with the outwardly inclined teeth 10. The side arms 8 of the movable jaw fit within the recessed portions of the slide 4 so as to be flush with the outer faces thereof, and are pivotally connected to the slide by means of a screw 11. The movable jaw 9 thus has a limited in and out swinging movement, being inclined outwardly with respect to the fixed jaw 2 when swung away from the handle 1, and being moved slightly toward and into a parallel relation to the fixed jaw 2 when swung upwardly toward the handle 1. This limited movement of the jaw 9 will cause it to tightly grip the pipe on the working stroke of the wrench, and to release the pipe on the backward stroke of the wrench.

A V-shaped spring 12 is arranged under the movable jaw 9 and normally tends to swing the same outwardly away from the handle 1. One arm of the V-shaped spring bears yieldably against the lower face of the jaw 9, while the other arm thereof is received within a recessed seat 13 in the end of the slide 4, and may engage an adjustable bearing plate 14, the outer end of the bearing plate being received within an undercut notch 13<sup>a</sup> at the end of the recessed seat 13, while the inner end thereof is susceptible of having a limited up and down movement to adjust the tension in the spring 12. The conical nose 15<sup>a</sup> of an adjusting screw 15 engages the lower face of the bearing plate

14, so that by moving the adjusting screw in or out the bearing plate 14 can be raised or lowered to increase or decrease the tension of the spring 12, thereby enabling the wrench to be easily adjusted for acting in the most effective manner upon different kinds of work.

A slight modification is shown by Figs. 3, 4 and 5, in which the upper end of the slide 4<sup>e</sup> is recessed or bifurcated to receive the pivot arm 8<sup>e</sup> of the movable jaw 9<sup>e</sup>, said pivot arm being engaged by the screw 11<sup>e</sup> so that the jaw has an in and out swinging movement, exactly as in the previous instance. The lower end of the pivot arm 8<sup>e</sup> is shown as notched at 16 and engaged by a spring arm 17 which is rigid with a transverse pin 18. One end of the spring carrying pin 18 terminates in a rounded head 19, while the opposite end thereof is threaded to receive a clamping nut 20, and terminates in a finger-piece 21. When the nut 20 is loosened the spring carrying pin 18 can be rotated to increase or decrease the tension in the spring 17, while when the nut 20 is tightened the parts are held firmly in an adjusted position. The operation of this form of wrench is exactly as that previously described in connection with the construction shown by Figs. 1 and 2.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

A pipe wrench including a handle pro-

vided with a laterally projecting fixed jaw, a slide adjustably mounted upon the handle and movable toward and away from the fixed jaw, a movable jaw formed with an arm which is pivotally mounted upon the slide, said slide being provided under the movable jaw with a recessed seat having an undercut notch at one end thereof, a bearing plate fitted loosely within the recessed seat and having one end thereof received within the undercut notch, a V-shaped spring interposed between the slide and the movable jaw and having one arm thereof in engagement with the bearing plate, while the other arm thereof engages the movable jaw to swing the same outwardly into a position inclined with respect to the fixed jaw, and an adjusting screw threaded in the slide at an angle to the bearing plate and terminating in a conical nose which engages the bearing plate for adjusting the position of the latter to regulate the tension of the spring, the movable jaw being swung inwardly toward the fixed jaw and into a substantially parallel relation thereto when the wrench is in operation.

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

ANTON PLACEK.

Witnesses:

J. E. VOTAVA,  
ANNA VOTAVA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."