

C. E. TISH.
PIPE WRENCH.

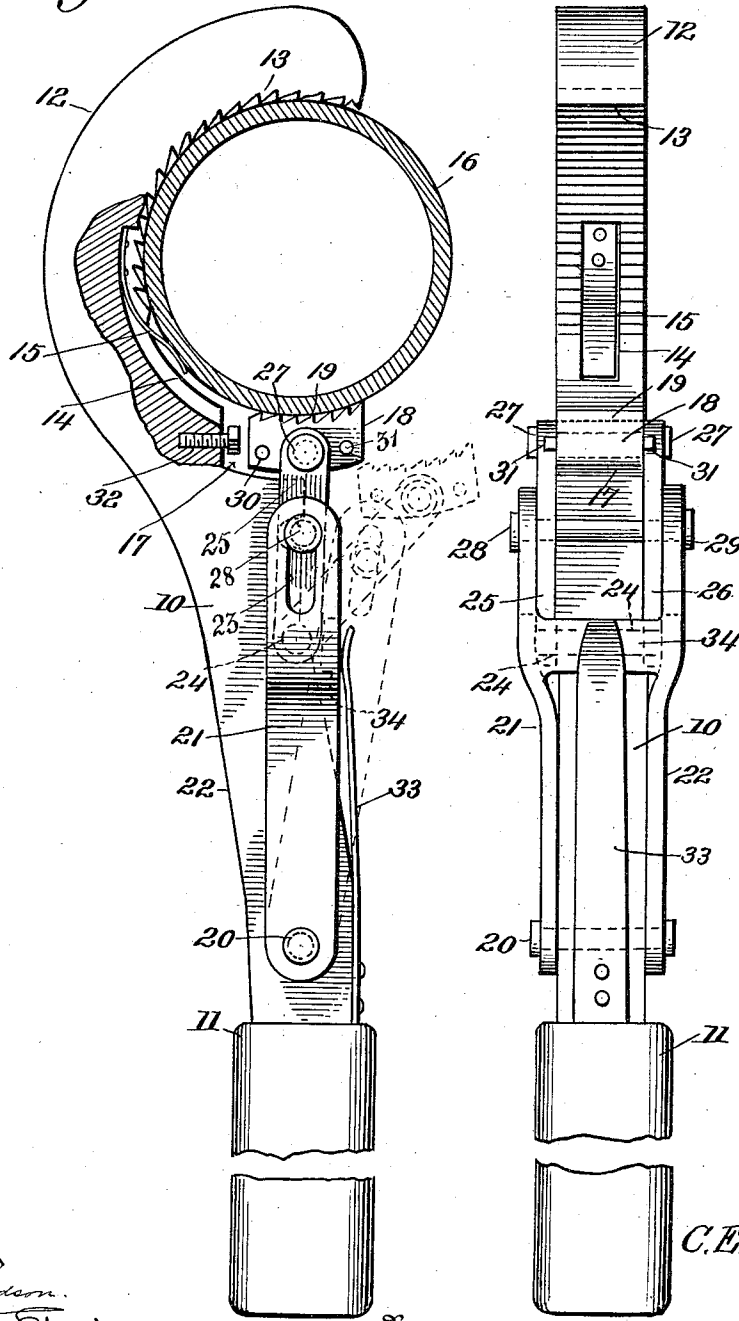
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Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

CLINTON E. TISH, OF DEMOCRACY, OHIO, ASSIGNOR OF ONE-HALF TO FESTUS W. LONEY, OF DEMOCRACY, OHIO.

PIPE-WRENCH.

1,060,513.

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To all whom it may concern:

Be it known that I, CLINTON E. TISH, a citizen of the United States, residing at Democracy, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention relates to improvements in pipe wrenches and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device of this character which automatically adapts itself to pipes or rods of varying sizes without structural change or re-arrangement of the parts.

Another object of the invention is to provide a device of this character in which provision is made for adjusting a movable gripping member to correspond to the pipe or rod to which it is to be applied.

Another object of the invention is to provide a device of this character wherein provision is made for securing the device to a wall or other like support by the same fastening devices whereby the backing is secured.

Another object of the invention is to provide a device of this character wherein provision is made for protecting the corners and preventing the displacement of the holding devices.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention:

Figure 1 is a side elevation of the improved wrench partly in section; Fig. 2 is a front elevation of the same.

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

The improved device comprises a stock or bar 10 having a hand grip 11 at one end and with a curved jaw member 12 at the other end, the jaw having gripping teeth or serrations 13 in its curved face.

Formed within the serrated or toothed

portion of the head 12 is a longitudinal cavity 14, and secured within this cavity is a spring 15 which projects into the space defined by the curved jaw and operates to release the pipe, a section of which is represented at 16, and thus obviates any tendency of the pipe to stick in the implement.

The stock 10 is provided with a recess or cavity 17 at the juncture of the stationary jaw and the stock 10, and movably disposed within this cavity is a movable grip jaw 18 having serrated gripping teeth 19 which co-act with the teeth of the jaw 12 to produce the requisite grip upon the pipe.

Pivoted at 20 to the stock 10 at opposite sides are holding plates 21—22 which extend toward the jaw 12 and are provided near their outer ends with longitudinal slots, one of which is shown at 23. Pivoted at 24 to the sides of the stock 10 are relatively short arms or links 25—26, the links being pivotally united at their outer ends at 27 to the movable jaw member 18.

The links 25—26 are connected by a transverse pin 35 having enlarged heads 28—29 bearing respectively against the outer faces of the plates, the pin extending through the slots of the plates.

The jaw member 18 is provided with stop pins 30—31 at opposite sides of the links to limit the movement of the member 18, as hereinafter explained.

Threaded into the stock 10 above the cavity 17 is a stop pin 32, against whose outer end the jaw member 18 bears when in its inward position. It will be obvious that the pin 32 may be adjusted to control the inner position of the jaw member 18.

A spring 33 is connected to the stock 10 and bears constantly against a transverse member 34, which connects the plates 21—22, and thus exerts its force to maintain the plates and their connected parts yieldably in their inward or withdrawn position.

With a device thus constructed, when the pipe or rod is to be engaged the smaller jaw 18 is withdrawn manually into the position shown by dotted lines in Fig. 1, and until the jaw 12 is located around the pipe. The smaller jaw 18 is then released to enable the spring 33 to cause the smaller jaw to engage against the pipe. Then by moving the stock in the direction of the arrow it will be obvious that the pipe will be firmly

gripped and turned. Then at the reverse movement the smaller jaw 18 will be automatically released to enable the implement to grip the pipe in a new place.

5 The smaller spring 15 will be of just sufficient strength to hold the pipe free from the jaws during the return movement and prevent the wrench from slipping over the pipe until the "grip" is attained through
10 the action of the smaller jaw 18. The larger spring 33 operates to prevent the smaller jaw 18 from moving outward to an undue extent when released, or when the return stroke is being made after the pipe
15 has been partly rotated.

It will be obvious that the small adjusting screw 32 may be turned inward to increase the throw of the jaw 18 and thus enable the latter to take a firmer "hold" on
20 the pipe.

The pins 30—31 are spaced a sufficient distance apart to permit the requisite swinging movement of the jaw member 18, but will engage against the links 25—26 and
25 prevent the overturning of the jaw member.

The improved device is simple in construction, can be strongly and durably constructed, and of any required size to adapt the implement to pipes or rods of various
30 sizes.

The adjusting screw 32 and the releasing spring 15 are important features of applicant's implement and materially increase its efficiency and utility.

35 Having thus described my invention, what I claim as new is:—

1. In a wrench of the class described a stock having a stationary jaw, a spring

adapted to bear against the object being held to force it from the stationary jaw, and
40 a movable jaw operating to hold an object against the stationary jaw and against the resistance of the spring.

2. In a wrench of the class described a stock having a stationary jaw provided with
45 a longitudinally extending recess in its serrated face, a spring supported within said recess and adapted to bear against the object being held to force it from the stationary jaw, and a movable jaw operating to hold
50 an object against the stationary jaw and against the resistance of said spring.

3. In a wrench of the class described, a stock having a stationary serrated jaw, plates pivotally connected to said stock and
55 provided with longitudinal slots, a movable jaw, links pivotally united to said stock and to said movable jaw, a pin carried by said links and extending through the slots of the
60 plates.

4. In a wrench of the class described, a stock having a stationary serrated jaw, plates pivotally connected to said stock and
65 provided with longitudinal slots, a movable jaw, links pivotally united to said stock and to said movable jaw, a pin carried by said links and extending into the slots of the plates, and a spring operating to maintain
said movable jaw yieldably in position.

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

CLINTON E. TISH. [L. S.]

Witnesses:

ED. FRY,
ALLIE FRY.