(No Model.)

# P. H. QUINLAN.

## PIPE WRENCH.

No. 432,079. Patented July 15, 1890.

Fig. 1.

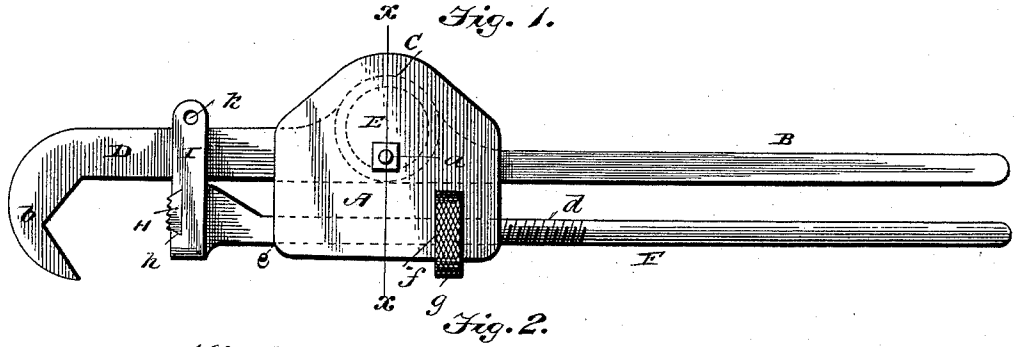
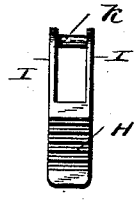



Fig. 2.

Fig. 3.



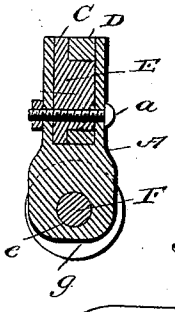




Fig. 4.

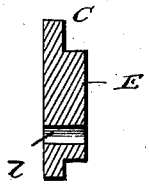



Fig. 8.

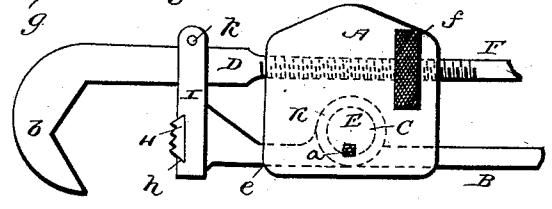



Fig. 5.

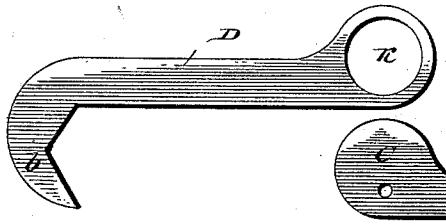



Fig. 6.

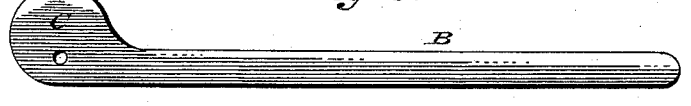
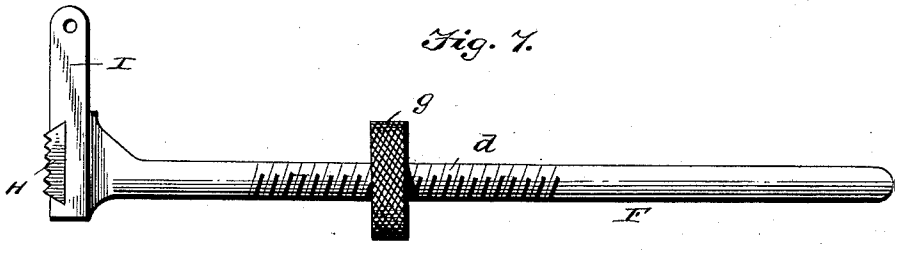



Fig. 7.




Witnesses

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# UNITED STATES PATENT OFFICE.

PATRICK HENRY QUINLAN, OF NEW ORLEANS, LOUISIANA.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 432,079, dated July 15, 1890.

Application filed September 26, 1889. Serial No. 325,124. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK HENRY QUINLAN, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Pipe-Wrenches; and I do 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.

This invention has relation to an improvement in pipe and nut wrenches, and the novelty will be fully understood from the following description and claims, when taken in connection with the annexed drawings, in which—

Figure 1 is a side elevation of my improved wrench, showing the parts in a position ready for use. Fig. 2 is a cross-sectional view taken on the line *x x* of Fig. 1. Fig. 3 is a face view of the serrated jaw. Fig. 4 is a cross-sectional view through the eccentric of one of the levers. Fig. 5 is a side view of the outer jaw. Fig. 6 is a side view of the eccentric lever, and Fig. 7 is a side view of the threaded rod or lever carrying the inner jaw with the operating-nut thereon. Fig. 8 is a side view of a modification, showing the handle portion of the levers broken away.

Referring by letter to the said drawings, A indicates the frame for sustaining and connecting the various parts of my improved wrench. This frame A is provided with a bore *e*, which extends longitudinally through it for the purpose of receiving the threaded rod or lever carrying the inner jaw. This frame is furthermore provided at a point intersecting the bore *e* with a slot *f*, which is designed to receive the operating-nut *g*. This nut *g*, which is preferably provided with a milled surface and fits snugly in the slot *f*, has an internally-threaded aperture designed to engage the external threads *d* of the rod or lever F. It will thus be seen that by turning the nut in one direction the rod or lever, and consequently the jaw carried thereby, will be advanced, when by turning the said nut in the opposite direction the lever and jaw will be retracted. The lower jaw or inner jaw, which carries at its forward end the biting portion, is preferably formed with a seat *h* to receive a serrated block H. This jaw is also provided with two arms I, adapted to straddle the straight or longitudinal portion of the opposite jaw from within outwardly, and their outer ends are connected by means of a rod or bolt *k*, which is preferably a roller, so as to allow a free and easy movement of the inner jaw upon the outer side of the opposite jaw. The frame A is also provided with a longitudinal slot or aperture, as better shown in Fig. 2 of the drawings, and is designed to receive and form a bearing for the pivotal parts of the outer jaw and its operating-lever.

D indicates the outer jaw, which has its forward end terminating in an angular-faced hook *b*. This jaw is provided at its opposite or inner end with an eye K, which is designed to be secured by means, which will be presently explained, within the slotted portion of the frame A.

B indicates one of the levers. This lever, which forms one of the handles of the wrench, is provided at its forward end with a head C, and on one side of this head is formed an eccentric E, through which, and at an eccentric point, is a journal-aperture *l*, a bolt *a* being employed to pivotally secure the hook-jaw and eccentric lever in the slotted walls of the case or frame A.

While I have shown and described the hooked jaw as having an eye and connected by an eccentric joint with one of the handles, yet it is obvious that the hook-jaw may have its inner end terminating in an externally-threaded portion and the internally-threaded nut employed to move it, while the opposite jaw may have its inner end terminating in the eye or recess and connected with the operating-lever by an eccentric joint. The operation in either case will be the same, as it is my object to have one of the jaws given a positive and ready backward and forward movement by means of an eccentrically-jointed lever, while the other will be given a steady and uniform movement by the manipulation of a nut co-operating with a threaded rod or bar.

The frame or casing is here shown as being made entire and provided with a slot to receive the eccentrically-jointed levers and a bore to receive the threaded rod or bar, yet in some cases it may be desirable to form this frame or casing in several parts, and I have found that it is convenient in some instances

to form such frame from two similar plates and unite them by bolts, rivets, or other suitable fastening devices.

It will be observed that when the operating-lever B has been brought to the position shown in Fig. 1 of the drawings, so that both levers will afford a convenient grasp of the operator, the outer or hook jaw will be drawn inwardly, or in the direction of the inner jaw.

Having described my invention, what I claim is—

1. A wrench comprising a connecting plate or frame having an internal bore or bearing and also a transverse slot across said bore, a threaded nut therein, a rod having external threads and bearing in said bore and nut and carrying at its forward end a jaw, a jaw bearing in the plate, and a hand-lever eccentrically connected with the latter jaw and also journaled in the plate, substantially as specified.

2. The combination, with a connecting and sustaining plate or frame, of a lever bearing in said plate, a jaw connected to the said lever by an eccentric joint, a threaded rod bearing in said plate and carrying a jaw at its forward end, an internally-threaded nut arranged in a slot in the plate for moving the rod, and arms also at the forward end of the rod straddling the opposite jaw, substantially as specified.

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

PATRICK HENRY QUINLAN.

Witnesses:
F. L. RICHARDSON,
W. MORGAN GURLEY.