(No Model.)

P. W. LOWNES.

PIPE WRENCH.

No. 588,751. Patented Aug. 24, 1897.

Fig. 1.

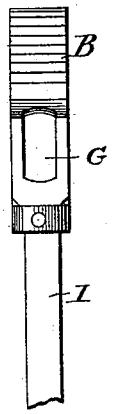


Fig. 2.

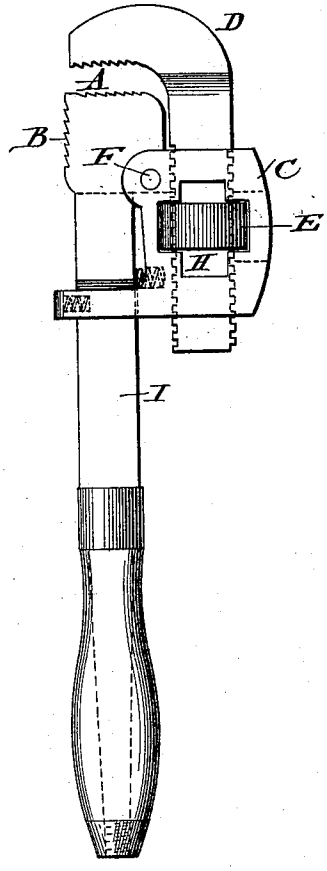


Fig. 3.

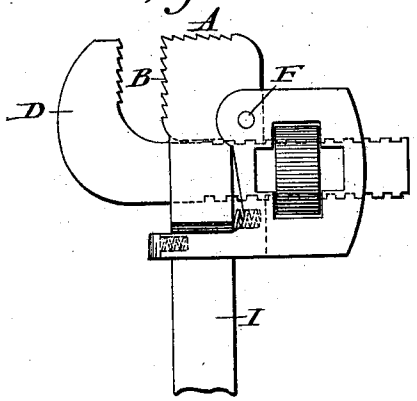


Fig. 4.

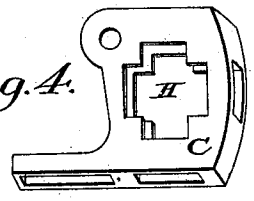
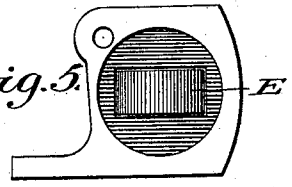


Fig. 5.



Witnesses.
E. R. Lownes.
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UNITED STATES PATENT OFFICE.

PHINEAS W. LOWNES, OF HUNTSVILLE, ALABAMA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 588,751, dated August 24, 1897.

Application filed October 8, 1896. Serial No. 608,305. (No model.)

To all whom it may concern:

Be it known that I, PHINEAS W. LOWNES, of the city of Huntsville, State of Alabama, have invented an Improvement in Pipe-Wrenches, of which the following description, in connection with the accompanying drawings, is a specification.

My invention relates to certain improvements in that class of pipe-wrenches in which the movable or adjustable jaw is operated by a nut situated in a recess in a bridle or frame which is hinged or swung on one side of the body or handle part of the wrench, the swinging motion of the bridle or frame on the hinge giving the tightening or gripping movement, which enables the wrench to take hold on the pipe.

The object of my invention is to construct a wrench that will be adapted for a wider range of work than wrenches of this class have been heretofore.

In the drawings, Figure 1 is a front edge view of the upper part of the wrench. Fig. 2 is a side view of the whole wrench with the jaw in upright position. Fig. 3 is a side view of the wrench with the jaw in the crossed position. Fig. 4 is a perspective view of the bridle. Fig. 5 is a side elevation of a different form of bridle.

By reference to the drawings it will be seen that the main body or handle part I of this wrench has on one end two toothed faces A and B, Fig. 2, one on the upper and one on the outer side. On the opposite or inner side of the handle I is hinged or swung by a pin or pivot F the bridle or frame C, Fig. 2, containing the adjustable jaw D and the nut E, the pin being set in such a position that it is equidistant from each of the two toothed faces A and B. Just below the toothed face B on the side of the handle I is a slot or mortise G, Fig. 1, large enough for the shank of the jaw D to pass freely through the handle or body I. Opposite to this slot G is the recess H in the bridle or frame C, containing the nut E, said recess being of such form as will enable the nut E to be set nearly parallel with either of the toothed faces A or B, as may be desired. This adjustment in one case enables the long or hooked jaw D to work in conjunction with the top toothed face A, as in most wrenches of this class, (see Fig. 2,) and when put in the other or crossed position the long jaw D passes through the slot G in the handle I and works in conjunction with the outer face B, as in Fig. 3 of the drawings, the object of this position being to enable the workman to get into close places, where the long handle would otherwise be in the way. This plan of working the long or hooked jaw of a wrench in two positions has been attained before in other classes of wrenches, as in Sidney Cook's patent, No. 401,819, granted April 23, 1889, where the grip was obtained by the tipping of the long jaw on its axis in a circular carrier containing the nut and located in the body of the wrench, and in my own patent, No. 446,220, granted February 10, 1891, where the long jaw does not swing, but where the grip is obtained by the swinging motion of the lower or double-faced jaw, which forms a cam; but it has not heretofore to my knowledge been attained or thought feasible in wrenches of this type, where the gripping principle is made by the swing of the whole frame or bridle on a hinge connecting one corner of the frame and one edge of the body or handle part, and the method herein illustrated of obtaining this result constitutes my invention, for which I desire to obtain Letters Patent.

Although for the best results I prefer to use the nut-recess, as in Figs. 2, 3, and 4, where the apertures cross each other, it being simpler as well as cheaper, there may be a carrier, either round or with angular sides, to contain the nut, as in Fig. 5.

What I claim is—

1. In a wrench, the combination, with a main body or bar, having toothed faces on its upper end and outer side, and an aperture or slot transversely through said body, of a frame or bridle hinged to the inner side of said body, a threaded nut in said bridle and a movable jaw detachably and adjustably located in said bridle, passing through the nut, whereby provision is made for causing the movable jaw to work in conjunction with either toothed face of said body, substantially as set forth.

2. In a wrench, the combination with a frame, or bridle, having apertures in its top, bottom and sides, forming passages at right angles to each other, and a nut centrally lo-

cated therein, of a main body or bar to which said frame or bridle is hinged, said body having an opening through it edgewise, and toothed faces on its upper end and outer side, the whole forming a provision whereby an adjustable jaw may work in conjunction with either of the toothed faces as may be desired, substantially as set forth.

3. In a wrench, the combination, with a bridle or frame, having centrally located therein, transverse recesses to accommodate a nut, and openings forming passages at right angles to each other through said bridle, of a sliding jaw adjustable by said nut, and so arranged thereby as to work through these passages and with either of two toothed faces respectively located on the end and side of a main body, to which said bridle is hinged, substantially as set forth.

4. In a wrench, the combination with a handle, or body having toothed faces on the upper end and outer side, a slot transversely through said body below said faces, of a frame or bridle hinged to said body at a point on the inner side equidistant from corresponding points on either of the two toothed faces, forming a provision whereby a long or hooked jaw located in said frame, may work with either of said toothed faces, and occupy a similar relative position to each; substantially as set forth.

In testimony whereof I have hereunto signed my name in presence of two subscribing witnesses.

PHINEAS W. LOWNES.

Witnesses:
JNO. S. REED,
LAWSON W. WHITE.