

C. H. FULMER.
Pipe-Wrenches.

No. 154,471.

Patented Aug. 25, 1874.

FIG I

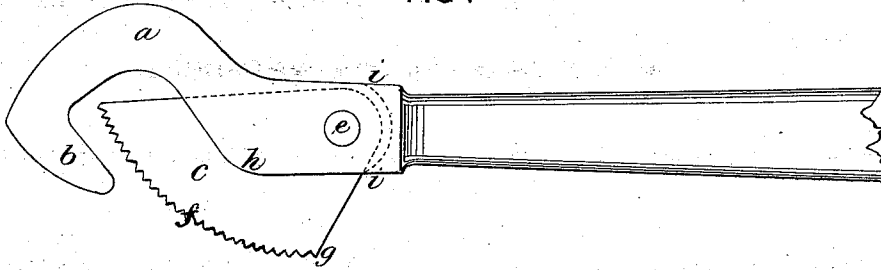


FIG II

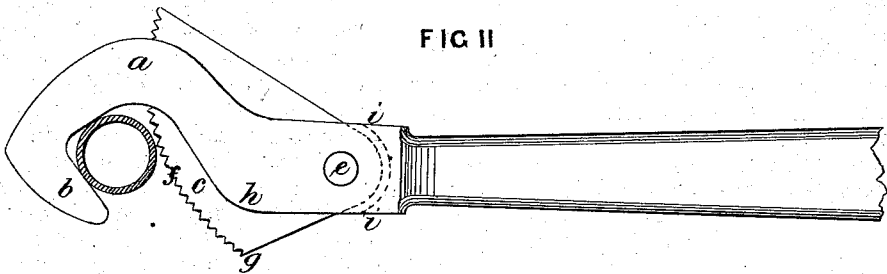


FIG III

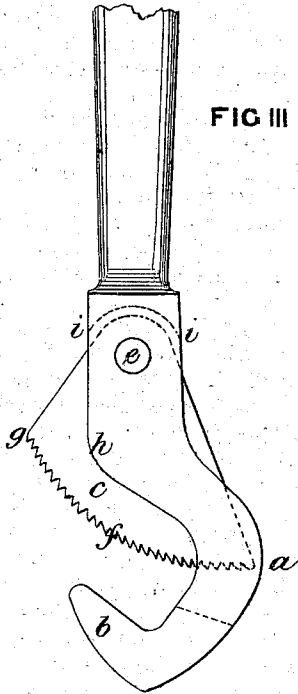
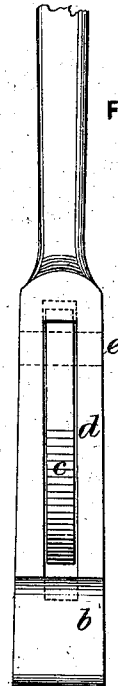


FIG IV



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES H. FULMER, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. **154,471**, dated August 25, 1874; application filed June 20, 1874.

To all whom it may concern:

Be it known that I, CHARLES H. FULMER, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Pipe-Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of pipe-wrenches in which the jaw has a slot for the reception and play of a pivoted serrated gripping-tongue.

In such devices, however, the tongue is arranged to stand within and across the jaw-seat or entering space for the pipe, and can only open and close outward from the jaw to allow the latter to be put over the pipe, so that it may be gripped by the tongue. Moreover, by such arrangement, the wrench is required to be handled in a particular way, or else the tongue must be opened by hand to apply the wrench; and especially is this the case when applied in a manner that the weight of the tongue will cause it to close the throat of the space in the jaw for the pipe.

It is the object of my invention to avoid these disadvantages and inconveniences; and to this end my invention consists in pivoting the tongue so that it will play within the slot of the jaw to act against the latter from the closed side, and leave the throat of the jaw free to receive the pipe, with the tongue in position to bear against the pipe, and to be borne away by it in placing the wrench upon said pipe, because, as the tongue plays within the groove from the closed side of the jaw, it will hang ready to pass in and toward the jaw, and rest against the pipe.

In the accompanying drawings, Figure 1 represents a view of the wrench with the tongue hanging in the jaw-space, but not closing it against the entrance of the pipe; Fig. 2, a similar view with the tongue carried out of the way by contact with the pipe; (in these two views the wrench is shown as ap-

plied in a horizontal position;) Fig. 3, the wrench as applied in a vertical position, and Fig. 4 an edge view of the same.

The jaw is formed by a hump bend, *a*, and an angular end, *b*, and between these the space and seat for the pipe is formed, with the angular end arranged to clamp the pipe by a serrated tongue, *c*, opening and closing with it from the back or closed side of the jaw. The jaw has a slot, *d*, formed lengthwise therein, within which the tongue *c* is secured by a pivot, *e*, at its rear end, and the slot *d* is made long enough to allow the tongue to play through it and into the seat-space for the pipe from the closed side of the jaw. The acting face *f* of the tongue is a convex curve, serrated to bite upon and hold the pipe against the angular jaw *b*, and, by working in the slot from the closed side, the tongue is braced nearly throughout its length by the sides which form said slot, whereby the socket of the tongue is extended as a brace to its extreme end, which renders it very solid and firm, and causes the strain upon the tongue to be in a direct line with the handle.

By this construction, it will be seen that the heel *g* of the tongue commences its projection within the space for the pipe at the point *h* of the bend, which forms the gripping-space, and thereby leaves such space wholly unobstructed by the tongue, which affords greater facility in applying the wrench, the design of the invention being to arrange the tongue to act with the jaw from the rear side of the wrench, in order thereby to allow the tongue to be in position to be pressed away from the jaw by its contact with the pipe, and in this way avoid the necessity of having to open the tongue by hand at any time or in any position of the wrench.

The tongue is fitted to bear upon its socket, and not upon the pivot, and the shoulders *i i* of the slot form stops to limit the inward and rearward movement of the tongue, and its inward movement brings it within the jaw-throat from its closed side, as contradistinguished from being brought into action from the open side of the jaw.

I claim—

The serrated tongue *c*, pivoted within the slotted jaw *a*, and arranged to open and close from the closed or seat side of the same, so that when the wrench is applied with the tongue thrown forward the pipe will press it back and follow it into the hook, substantially as described.

In testimony that I claim the foregoing as my own I have affixed my signature in presence of two witnesses.

CHARLES H. FULMER.

Witnesses:

S. A. FULMER,

MOSES G. McLAIN.