

(Model.)

E. O. CARVIN.

PIPE WRENCH.

No. 367,786.

Patented Aug. 9, 1887.

Fig. 1

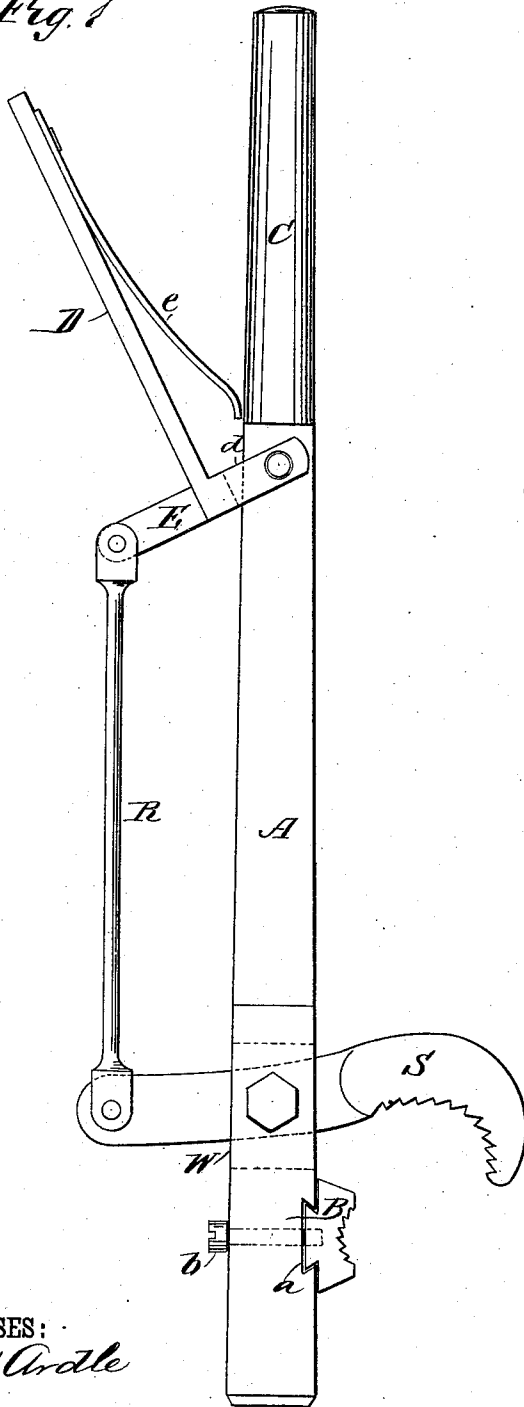
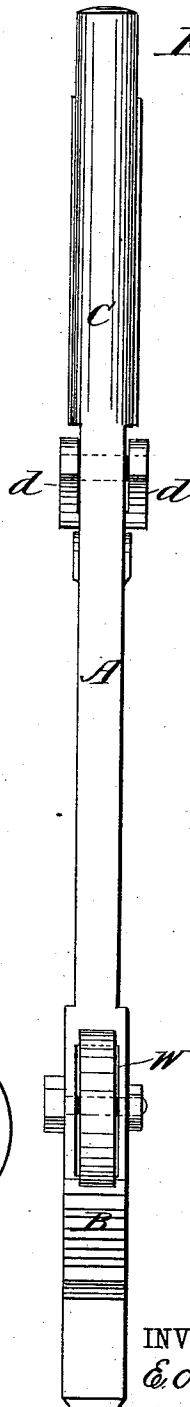


Fig. 2



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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 367,786, dated August 9, 1887.

Application filed October 5, 1886. Renewed July 8, 1887. Serial No. 243,762. (Model.)

To all whom it may concern:

Be it known that I, EDWARD O. CARVIN, of Corvallis, in the county of Benton and State of Oregon, have invented a new and useful Improvement in Pipe-Tongs, of which the following is a full, clear, and exact description.

My invention relates to pipe-tongs; and it consists in a wrench having a shank provided with a detachable concave jaw, and a co-operative jaw whose face is also concaved and pivoted in a slot in said shank, the relative position of the jaws to each other being such that as soon as the operator closes down upon the pipe or rod, through the medium of a spring-actuated lever attached to the shank and united to the pivoted jaw by means of a connecting-rod, the wrench tightens in proportion to the force applied, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of my pipe-tongs, and Fig. 2 is a view of the same turned one-quarter around.

A is a shank provided at one end with a dovetailed slot, *a*, cut to receive the detachable jaw B, whose toothed engaging-surface is concaved, and at the other with a rounded surface, C, to facilitate handling. The detachable jaw B is held in position by means of a screw, *b*, passing through the shank A and engaging its under side.

The lever D, pivoted by arms *d d* to the shank A near its rounded surface, has riveted to its under side, in close proximity to its disengaged end, a spring, *e*. The free end of this spring *e* engages and bears upon the shank A, serving to keep the lever D extended when not in operation.

An extension, E, formed upon the outer surface of the lever D, over the space between its pivotal arms *d d*, is united by means of a connecting-rod, R, to the jaw S, pivoted in a slot, W, in the shank A.

In my tongs, by the use of the dovetail slot *a* and fastening-screw *b*, I am enabled to use different-size jaws therein, making the tongs adjustable to different sizes of pipe, and by having the jaws concave I gain a great amount of bearing-surface and render the tongs less liable to break or otherwise injure the pipe.

The spring *e*, in its attachment to the lever D and bearing upon the handle C, causes, through the medium of the extension E and connecting-rod R, the pivoted jaw S to remain open when not in operation. Thus the wrench may at all times be taken up for use, ready to grasp any rod or pipe within the compass of its adjustment.

In operation the lever D becomes a handle, together with the rounded surface C of the shank A, as in clinching the pipe the lever D, pivoted by the arms *d d* to the shank A, is drawn closely in to the rounded surface C of said shank A, flattening the spring *e* thereto, and is held in this position when in use. This movement of the pivoted lever D causes the connecting-rod R, through the extension E, to draw down the pivoted jaw S into co operation with the jaw B, dovetailed upon the shank A, to clamp and hold the pipe firmly.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The herein-described pipe-wrench, consisting of the slotted shank A, provided with the stationary detachable jaw B, the movable jaw S, pivoted in the slot of the shank, with its end projecting through the said slot, the lever D, pivoted to the shank and provided with the extension E, the spring *e*, secured to the lever and engaging the shank, and the rod R, connecting the extension of the lever with the end of the movable jaw, as specified.

EDWARD O. CARVIN.

Witnesses:

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