

(No Model.)

J. T. WILEY & E. E. BOYD.
PIPE WRENCH.

No. 568,966.

Patented Oct. 6, 1896.

Fig. 1.

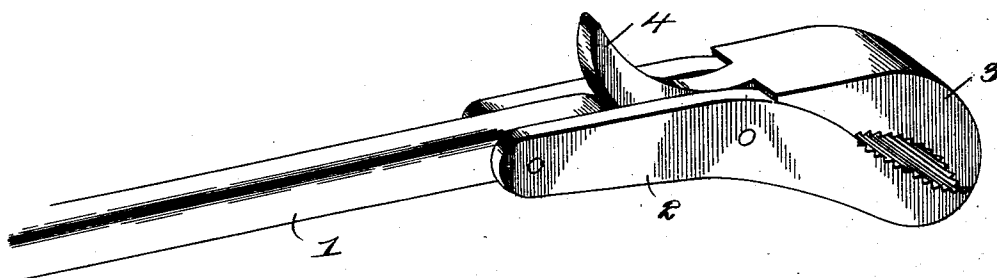
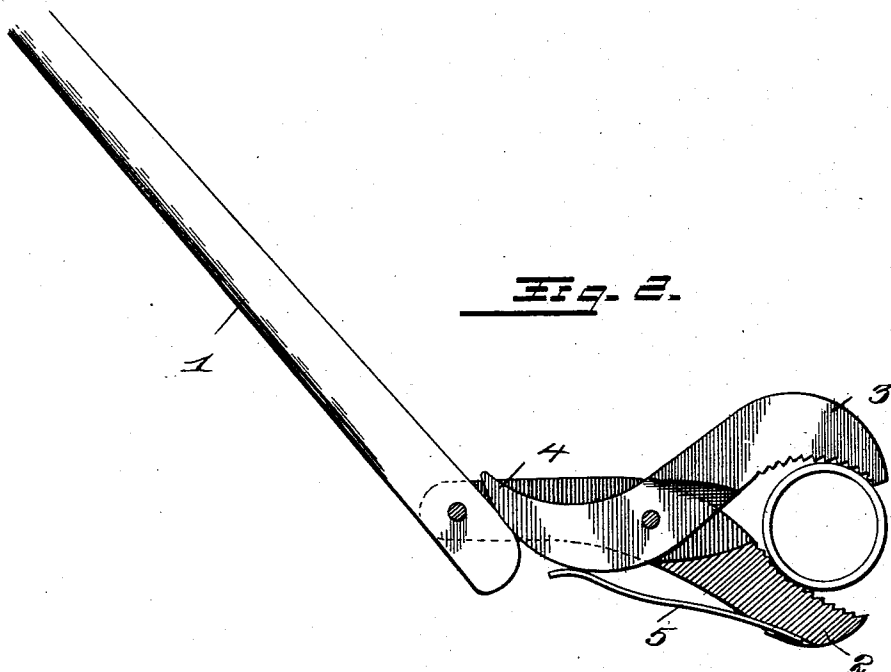


Fig. 2.



Witnesses

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By their Attorneys,

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UNITED STATES PATENT OFFICE.

JONAS T. WILEY AND ELMER E. BOYD, OF LISCOMB, IOWA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 568,966, dated October 6, 1896.

Application filed September 23, 1895. Serial No. 563,388. (No model.)

To all whom it may concern:

Be it known that we, JONAS T. WILEY and ELMER E. BOYD, citizens of the United States, residing at Liscomb, in the county of Marshall and State of Iowa, have invented a new and useful Pipe-Wrench, of which the following is a specification.

This invention relates to an improvement in pipe-wrenches, and has for its object to simplify and improve the construction of devices of the nature referred to with a view to cheapening the cost of manufacture and rendering the same more efficient and positive in action.

To this end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of the improved pipe-wrench constructed in accordance with this invention. Fig. 2 is a longitudinal section through the same, illustrating the operation thereof.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

Referring to the accompanying drawings, 1 designates the wrench-handle, which may be of any convenient length, and 2 the main gripping-jaw, which is pivotally connected to said handle. The main jaw 2 has its inner operative face toothed or serrated in the usual manner, and the rear portion of said jaw is extended at a slight angle thereto and bifurcated for the double purpose of receiving the adjacent end of the handle and the reduced end or shank of a supplemental pivoted jaw 3. The pivoted jaw 3 is made in substantially ogee shape and has its operative inner face toothed or serrated to correspond with the jaw 2, and the rear end of this pivoted jaw is reduced in thickness to form a curved shank 4, a portion of which enters and rests within the bifurcated end of the main jaw 2, wherein it is pivoted by means of a pin or rivet. The adjacent end of the handle 1 is rounded, and such rounded end and the rounded or curved edge of the shank 4 of the pivoted jaw 3 constitute cam-faces, which upon the

vibration of the handle 1 in the proper direction serve to force the wrench-jaws into firm and positive engagement with the pipe to which the wrench is applied. Previous to the vibration of the handle 1 the jaws are held in engagement with the pipe by means of a flat leaf-spring 5, one extremity of which is secured to the outside face of the jaw 2, the other or free end bearing against the rounded edge of the shank 4 of the jaw 3, as shown in Fig. 2, the tension of the spring being exerted to close the jaws.

By means of the construction above described it will be seen that the jaws of the wrench may be readily opened or moved apart and applied around a section of pipe, after which the handle 1 is vibrated in such manner as to bring its rounded or cam face into frictional engagement with the corresponding face of the pivoted supplemental jaw. This causes the jaws to grip the pipe with a force which gradually increases with the pressure put upon the handle until the pipe is gripped with enough force to give the required turn thereto. Upon reversing the movement of the handle the jaws are released from their engagement with the pipe, thereby allowing the wrench to be easily and readily removed.

The device is very simple in construction, comprises a minimum number of parts, is not liable to get out of order and will be found reliable and positive in practice.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

The herein-described pipe-wrench, comprising a toothed main jaw having its rear end forked, a supplemental jaw pivoted intermediate its ends in the fork of the main jaw and formed at its rear end with a rounded convex face, a handle pivoted in the fork of the main jaw and extended in longitudinal alinement with and beyond its pivot into the path of the rear end of the other jaw, said handle being formed with a rounded extremity which coöperates with the convex face of the supplemental jaw, whereby the handle acts with increasing leverage on the supplemental

jaw, and a jaw-closing spring extending longitudinally of the main jaw and secured fixedly at one end to the forward end of the main jaw and bearing at its free end against
5 the rear end of the other jaw, substantially as described.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures in the presence of two witnesses.

JONAS T. WILEY.
ELMER E. BOYD.

Witnesses:

C. F. BIERBORN,
F. W. NANSER.