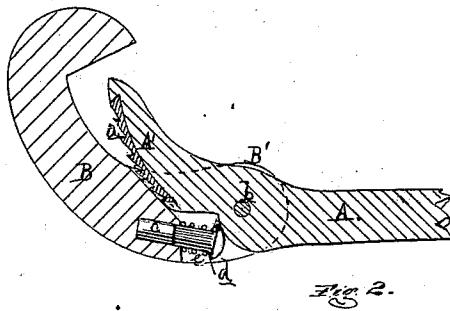
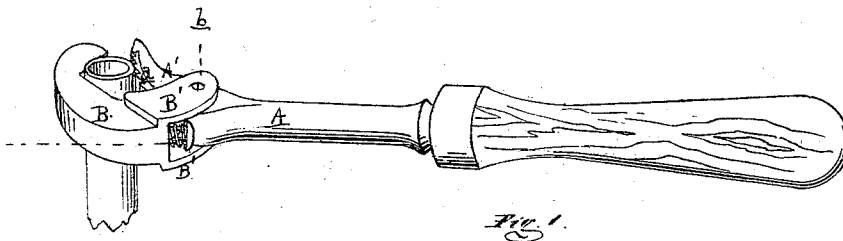


J. CRAIG.

Improvement in Pipe-Wrenches.

No. 131,252.

Patented Sep. 10, 1872.



ATTEST:
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INVENTOR:
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UNITED STATES PATENT OFFICE

JOHN CRAIG, OF DETROIT, MICHIGAN.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. 131,252, dated September 10, 1872.

To whom it may concern:

Be it known that I, JOHN CRAIG, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Self-Adjusting Pipe-Wrenches; and do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my improved pipe-wrench, grasping a pipe; and Fig. 2 is a horizontal section of the wrench without the pipe.

Like letters refer to like parts in each figure.

This invention relates to a pipe-wrench so constructed that it will automatically grasp and hold cylindrical objects of various diameters and have a greater range of capacity than others of its class, as heretofore constructed. The invention consists in the peculiar construction and arrangement of the device and its several parts, as more fully hereinafter set forth.

In the drawing, A represents a bar or lever having a curved jaw, A', at one end, convex on its face, and which may be either of wrought-iron or a malleable casting. In the face of this jaw is inserted, by dovetailing it, a serrated steel bit, *a*. B is a curved hook, having a square shoulder at its outer end, and is pivoted to the lever A at *b*. This hook may also be of wrought or malleable iron; it is hinged or pivoted through ears B', which embrace the body of the lever at the commencement of its curve, the pivot *b* passing through both ears and the lever. In the base of the hook there is drilled a hole, *c*, and in it is inserted a headed pin, *d*. Before the hook is pivoted to the lever

the head of the pin bears against the edge of the lever, and between the head of the pin and the base of the hook a spiral spring, *e*, is coiled about the pin, the tendency of which spring is to close the hook against the curved face of the lever, as seen in Fig. 2.

The operation of the wrench will be readily understood on reference to the drawing.

The form of the hook and its arrangement with relation to the curved jaw A' are such that the smallest wrench used in the trade—to wit, that for turning one-eighth-inch pipe—will also grasp an inch pipe, and so on through the larger sizes of wrenches, which cannot be done in other wrenches without adjusting one of the jaws for the purpose.

I do not wish to be understood as claiming that other wrenches require to be adjusted for each diameter of pipe, but that they cannot grasp pipes of such great difference in diameter as this can without adjustment; nor do I claim, broadly, a pivoted hook provided with a spring.

If the lever be made of malleable cast-iron the steel bit *a* may be dovetailed in, as described; but, if the lever be of wrought-iron the curved part may be plated with steel and serrated.

What I claim as my invention, and desire to secure by Letters Patent, is—

The hook B, provided with the recess *c*, and the pin *d* and spring *e*, in combination with the handle A having the jaw A' with bit *a*, as described.

JOHN CRAIG.

Witnesses:

H. F. EBERTS,
CHAS. L. MESSMORE.