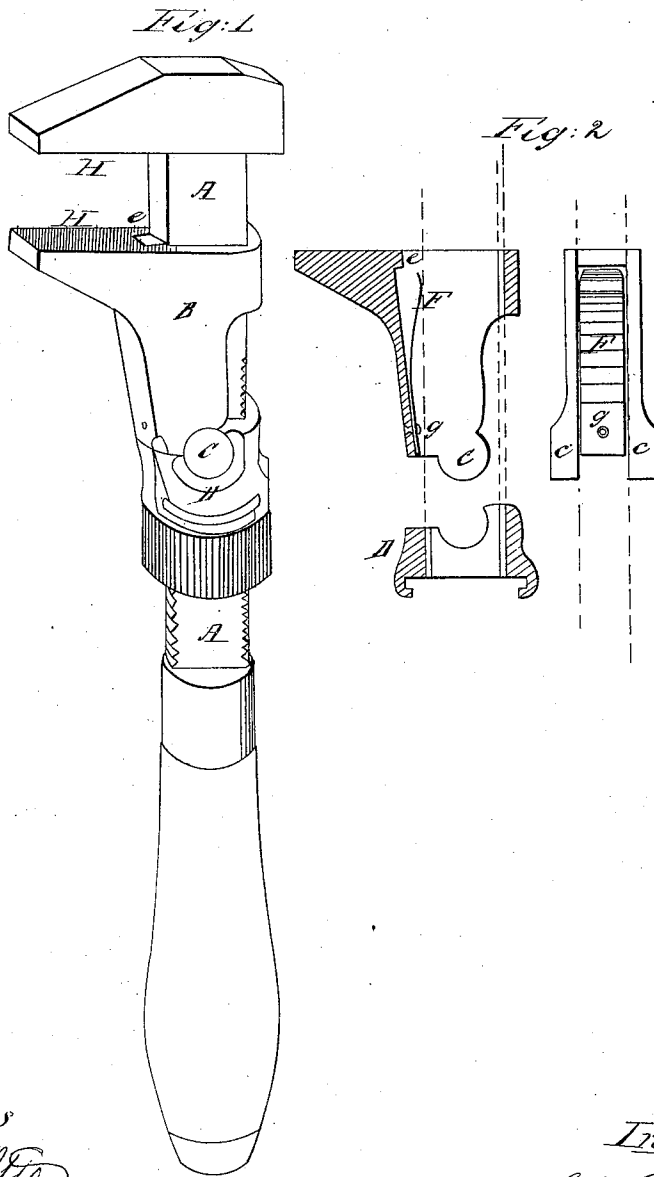


J. Faessler

Wrench,

N^o 101,114.

Patented Mar 22, 1870.



Witnesses

Henry Otto
David Hughes

Inventor

John Faessler

United States Patent Office.

JOHN FAESSLER, OF BLOOMINGTON, ILLINOIS.

Letters Patent No. 101,114, dated March 22, 1870.

IMPROVEMENT IN WRENCH

The Schedule referred to in these Letters Patent and making part of the same.

I, JOHN FAESSLER, of Bloomington, in the county of McLean and State of Illinois, have invented certain Improvements in Screw-Wrenches, of which the following is a specification.

Nature and Objects of the Invention.

During a practice of twenty years as a machinist and erector, I often felt the want of a tool or wrench, with which to take a hold of, or turn any piece of machinery, be it square or round, a nut, pipe, stud, &c., with equal facility. In accordance I have for some time been attempting to construct such a tool, and herewith present the result of my study and labor—the old common screw-wrench improved, so that it will take a firm hold of any round piece, just as well as it will hold a square or six-sided nut, &c., without changing its parts, or without adding any to or taking any from it; and I wish it especially understood that a screw-wrench constructed in this manner will hold any round piece, as well as a square one of the same size, without any additional strain to the wrench, so that it is equally well adapted to any kind of work; and as for simplicity and consequent cheapness, I don't believe it can be excelled.

Two or three of my improved screw-wrenches, of different size, will supply the mechanic, stationary engineer, &c., with wrenches for all his wants, and so replace all that lot of wrenches, pipe-tongues, wrench-jaws, &c., which altogether cause considerable expense and trouble in carrying about.

Description of the Accompanying Drawings.

Figure 1 is a perspective view of my improved screw-wrench.

Figure 2 are vertical transverse sections, showing the interior of the movable jaw and the saddle, as well as the spring and its position.

General Description.

A is the old and well-known wrench-stem, with upper jaw, thread, nut, and handle.
B is the lower jaw, constructed in such a manner

that it is movable, not only up and down, but also sidewise, its lower ends *c* being rounded and left a little thicker than the upper portion, in order to strengthen them, resting in a saddle, D, which is connected in the well-known way to the nut, which, when turned, opens or closes the two jaws.

The opening *e* in the upper end of the lower jaw, through which the stem passes, is left a little longer than the width of the stem, from one-eighth to one-quarter of an inch, according to size, so as to allow it to move, while the spring F, a piece of an old clock-spring, is riveted on the inside *g* to press slightly against the stem, to hold the jaw square.

The faces H of both jaws must be roughed, either small teeth milled or filed, or cut like a file and hardened to prevent slipping.

Now then, the lower jaw being stationary at its lower ends, and, by a slight pressure against, to overcome the pressure of the spring, the upper end moving toward the stem, you will observe that it shortens the distance between the two jaws.

A square or cornered piece will evidently hold in this wrench the same as in any other screw-wrench. Should you, though, not have the jaws close enough, so that another wrench would slip over the corners, this wrench will, in consequence of the faces being roughed, not only not slip, but the lower jaw will move, and, shortening the distance between the two jaws, will hold the piece tight. And so it will hold any round piece; it will not slip, but hold, and the harder you pull, the tighter it will hold, and when you let go, it will let go too.

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

The wrench composed of the shank, nut, and jaw A, the movable jaw B and spring H, in combination with the saddle D, substantially as described.

JOHN FAESSLER.

Witnesses:

HENRY OTTO,
DAVID HUGHES.