

*O. J. Smith,*

*Wrench.*

*No. 105604.*

*Patented July 19, 1870.*

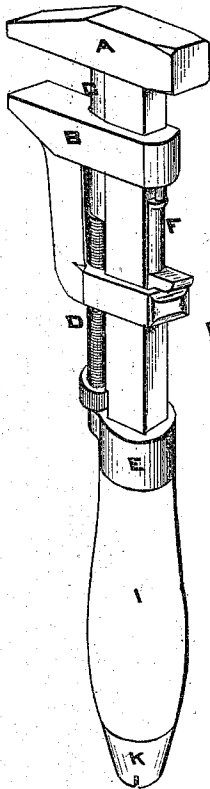


FIG. 1.

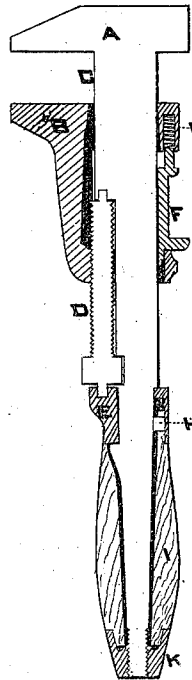


FIG. 2.

WITNESSES:

*Wm. H. Hornor.*  
*O. J. Smith*

INVENTOR:

*Othaniel J. Smith*

# United States Patent Office.

OTHNIEL J. SMITH, OF WAUWATOSA, WISCONSIN.

Letters Patent No. 105,604, dated July 19, 1870.

## IMPROVEMENT IN WRENCHES.

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

I, OTHNIEL J. SMITH, of Wauwatosa, in the county of Milwaukee and State of Wisconsin, have invented certain Improvements in Wrenches, of which the following is a specification.

### *Nature and Object of the Invention*

Is to construct a wrench that shall be strong and easily changed for any sized nut without difficulty.

### *Description of the Drawing forming part of this Specification.*

Figure 1 is a perspective view.

Figure 2, a sectional view.

### *General Description.*

A is the permanent jaw and shaft

B, the movable jaw.

C, a raised rib on the inside of the shaft A, for the purpose of strengthening it and preventing the shaft from bending.

D, screw, which operates the movable jaw.

E, ring, with hole in it, which admits the end of screw D.

This ring slips on over the shaft A, and is held in place by the wedge H.

F, thumb-piece, which holds jaw B firmly onto the screw D.

G, spring, which holds thumb-piece out in place.

H, wedge, which holds ring E firmly in position.

I, wooden handle.

K, nut, which screws onto shaft A, to hold handle I on.

This wrench is very simple and strong, and the peculiarities about it are the rib C, which strengthens the shaft A, the ring or thimble E, and its peculiar fastening, slipping on over the shaft A, and bearing its whole length, falling in behind a slot, and the wedge H on its other side, between it and the shaft A, holding it firmly in position. The screw D, with one end in the end of rib C, and the other in the ring or thimble E, being held firmly in position, and the jaw B, which can be thrown off of the screw and slipped back and forth, as may be desired, by shoving the thumb-piece F back.

### *Claims.*

1. Shaft A, with rib C on the front side of it, in combination with jaw B and thumb-piece F, substantially as described.

2. Shaft A, jaw B, thumb-piece F, screw D, and thimble E, held in position by wedge H, substantially as described.

3. Shaft A, rib C, screw D, with one end of it inserted in rib C, and the other end in thimble E, substantially as described.

OTHNIEL J. SMITH.

Witnesses:

J. B. SMITH,

WILLIAM H. HORNOR.