

(No Model.)

T. H. OXNAM, J. JOYCE & J. FRANCIS.  
PIPE WRENCH.

No. 503,215.

Patented Aug. 15, 1893.

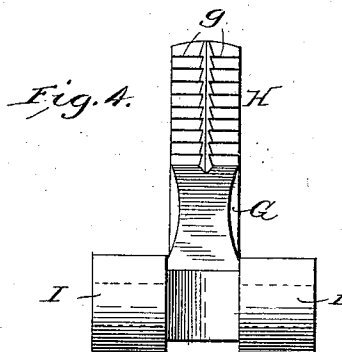
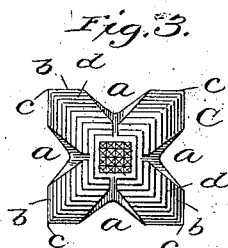
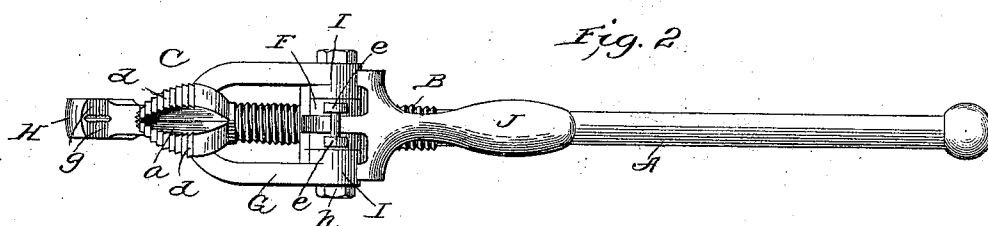
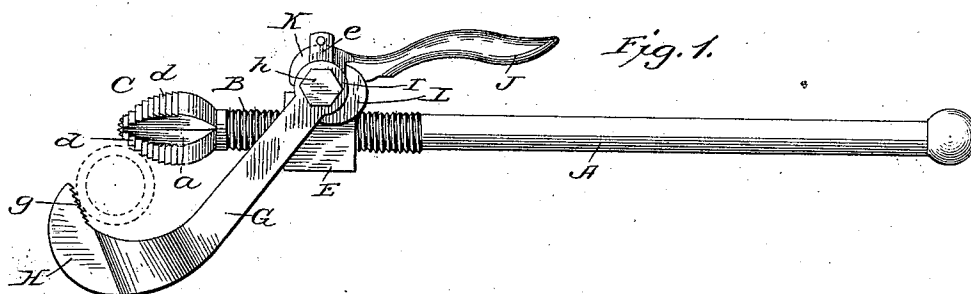


Fig. 5.

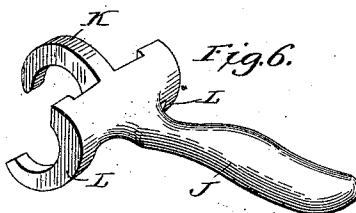
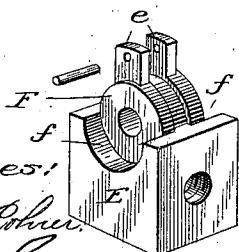


Fig. 6.

Witnesses:

Harry D. Rohrer.

G. Sandberg

Thomas H. Oxnam Inventors  
James Joyce  
Joseph Francis  
By *[Signature]*

# UNITED STATES PATENT OFFICE.

THOMAS H. OXNAM, JAMES JOYCE, AND JOSEPH FRANCIS, OF DE LAMAR,  
IDAHO.

## PIPE-WRENCH.

**SPECIFICATION** forming part of Letters Patent No. 503,215, dated August 15, 1893.

Application filed April 14, 1893. Serial No. 470,331. (No model.)

### *To all whom it may concern:*

Be it known that we, THOMAS H. OXNAM, JAMES JOYCE, and JOSEPH FRANCIS, citizens of the United States, residing at De Lamar, in the county of Owyhee and State of Idaho, have invented certain new and useful Improvements in Pipe Wrenches or Tongs; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to pipe wrenches or tongs and has for its object the production of a wrench which is at once simple and light in its construction, easily manipulated, adjustable to pipes of different diameters, and especially efficacious in its use and operation.

The invention will be hereinafter more fully described.

In the accompanying drawings, Figure 1 represents a side elevation of our improved wrench applied to a section of pipe in a position for turning. Fig. 2, is a front view thereof. Fig. 3 is an end view of the upper jaw. Fig. 4 is a similar view of the lower jaw; and Figs. 5 and 6 are detached views of an adjusting nut and finger lever respectively.

Reference being had to the accompanying drawings, in which like letters indicate like parts wherever employed, A represents the main handle or operating lever of the tool, having cut thereon near its lower portion an external screw thread B; while the lower extremity of shaft or handle A is enlarged as shown, and formed into a burr or quadruple gripping jaw C, which consists of channels *a a a* radially disposed concentrically—the intervening ribs, so formed being provided with teeth *d*.

E is a nut provided with an internal thread corresponding in pitch with screw B, by which it is engaged, and having projecting from its face a perforated lug F with projecting bearings *e e*; the nut E having recesses *f* on its face on either side of lug F.

G represents a yoke terminating in a broadened hook-shaped jaw H bearing upon its inner face a double row of serrations or teeth *g*; while the opposite ends of yoke G

are provided with inwardly extending perforated hubs I I, which, when the parts are properly assembled, rest in recesses *ff* where they are journaled upon a bearing *h*. The finger lever J, parallel with the lever A facilitates the operation and effect of the wrench. A central curved spur K, projecting from the lower end of lever J, passes between the bearings *e e* above lug F, and at times abuts against the face of the nut E; while to each side are located similar but oppositely curved spurs L resting upon hubs I I, at the sides of nut E and normally in contact with the lower sides of yoke G, thus limiting the extent to which jaws C, H, may be opened.

It will be observed that a revolution of lever A, in either direction, adapts the quadruple jaw C quickly to pipes of varying diameters, and owing to the eccentric axis upon which the lower jaw H is journaled, the tool affords a vise-like grip preventing accidental slippage, the finger lever J serving as an additional safe-guard in this respect.

It will be seen that our device is so constructed that strains imposed upon it are received by the side walls or recesses *ff*, thus relieving the bearing *h*.

It will be apparent that minor structural modifications might be employed, without departing from the spirit of our invention.

Having thus fully described our improvements, what we claim is—

In a pipe wrench, the main lever A threaded at the outer end, and terminating in a dentated, quadruple gripping jaw C, having radial, concentric recesses *a a*; the nut E, adapted to engage the threaded end of lever A and provided with recesses *ff*; the supplemental lever J having spurs K, L L; the lug F provided with bearings *e*; and the yoke G, provided with bearings I I seated in said recesses *ff*, and terminating outwardly in the curved, dentated jaw H, the whole co-operating as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS H. OXNAM.  
JAMES JOYCE.  
JOS. FRANCIS.

Witnesses:

THOS. R. FAULL,  
S. V. REYNOLDS.