

No. 680.560.

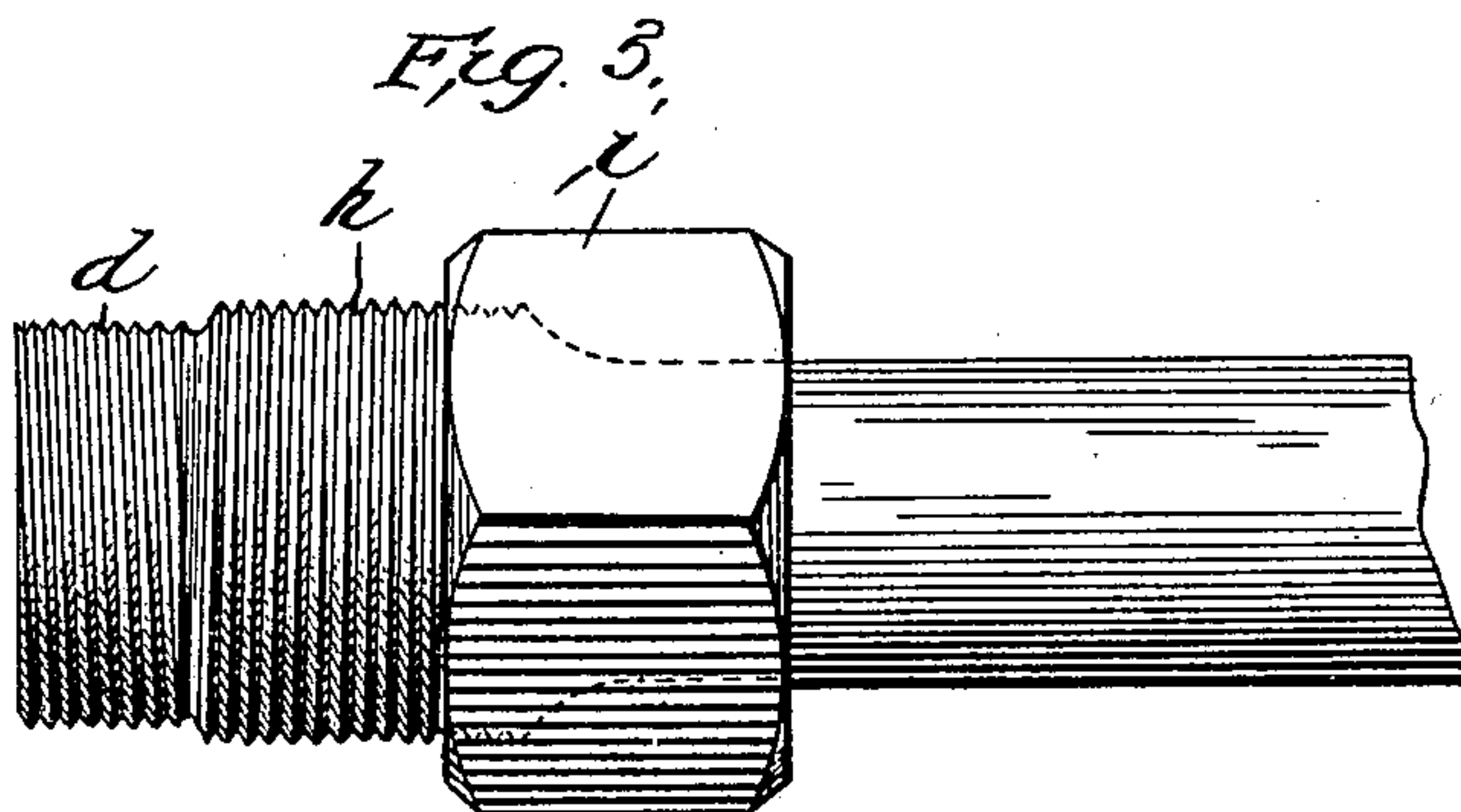
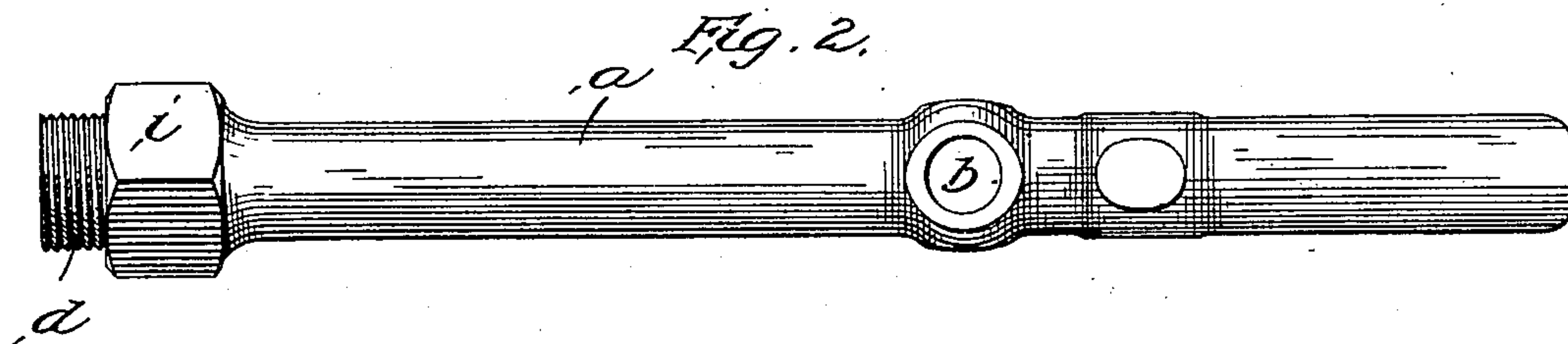
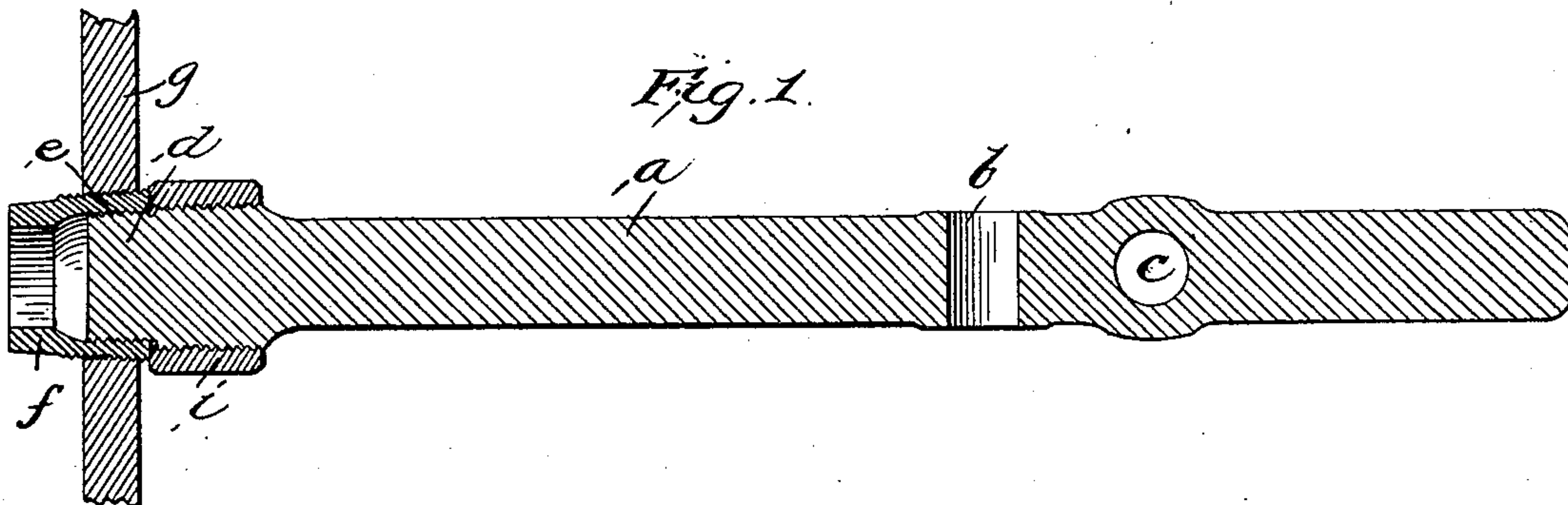
Patented Aug. 13, 1901.

J. B. BARNES.

WRENCH.

(Application filed June 8, 1901.)

(No Model.)



Attest:  
Edw. L. Reed.

Inventor:  
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Atty.

# UNITED STATES PATENT OFFICE.

JOSHUA B. BARNES, OF SPRINGFIELD, ILLINOIS.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 680,560, dated August 13, 1901.

Application filed June 8, 1901. Serial No. 68,751. (No model.)

*To all whom it may concern:*

Be it known that I, JOSHUA B. BARNES, a citizen of the United States, residing at Springfield, Sangamon county, Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to a wrench especially adapted for removing the thimble of the stay-bolt used in connection with boiler-sheets. It is adapted with special reference to the stay-bolt of Patent No. 672,852, granted to me on the 23d of April, and in which there is a bolt connecting the inner and outer sheets of the boiler and a hollow cupped plug or thimble externally screw-threaded and fitted to the boiler-sheet, while internally it is recessed to receive the headed end of the bolt, and above the bolt the walls of the cavity are screw-threaded to receive a sealing-plug. It has been found difficult to remove the cupped plug or thimble, and I aim to provide a tool or wrench to do this easily.

In the accompanying drawings, Figure 1 is a sectional view showing the invention in its application. Fig. 2 is a side elevation, and Fig. 3 is an enlarged detail view.

In the figures, *a* represents a shank of the tool, provided with openings *b c* at right angles and adapted to receive a bar or other means to secure greater leverage in the turning of the shank. Its extreme lower end *d* is threaded to fit the interior thread *e* of the

thimble or plug *f*, which in Fig. 1 is shown in place within the threaded opening of the boiler-sheet *g*. Immediately in rear of the threaded lower portion *d* the diameter of the tool is increased and is threaded oppositely to the threaded portion *d*, as at *h*. A nut *i* is fitted to the threaded portion *h*, and after the threaded end *d* is screwed into the thimble or plug the nut *i* is screwed down until it overhangs the threaded portion *d* slightly and is jammed against the end of the thimble. The result is to lock the parts together, and the turning of the shank *a* will then easily withdraw the thimble.

What I claim is—

1. A wrench having a shank and threaded end, an oppositely-threaded part in rear of the threaded end and a movable nut on said oppositely-threaded part, substantially as described.

2. A wrench comprising a shank, a lower threaded end, an enlarged portion in rear of the same having threads extending in the opposite direction and a nut threaded upon the enlarged portion and adapted to operate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSHUA B. BARNES.

Witnesses:

E. R. JEFFERY,  
A. B. MARS.