

No. 680.560.

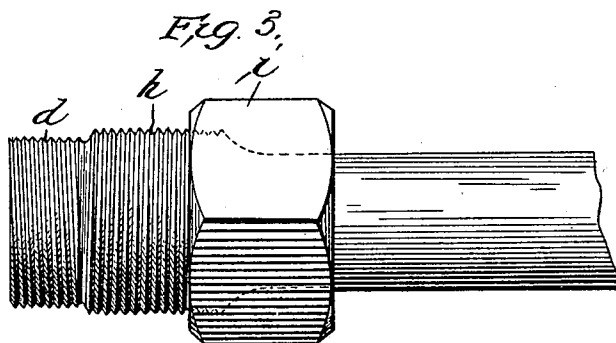
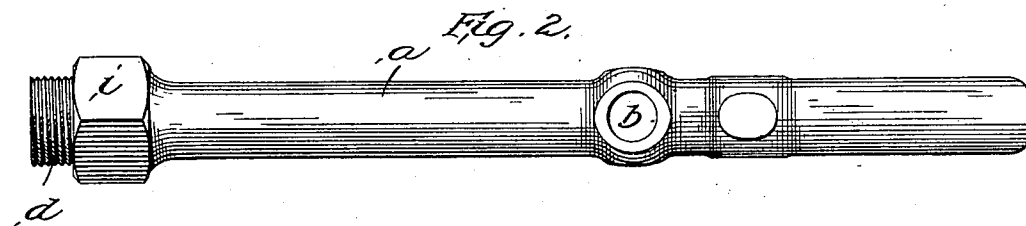
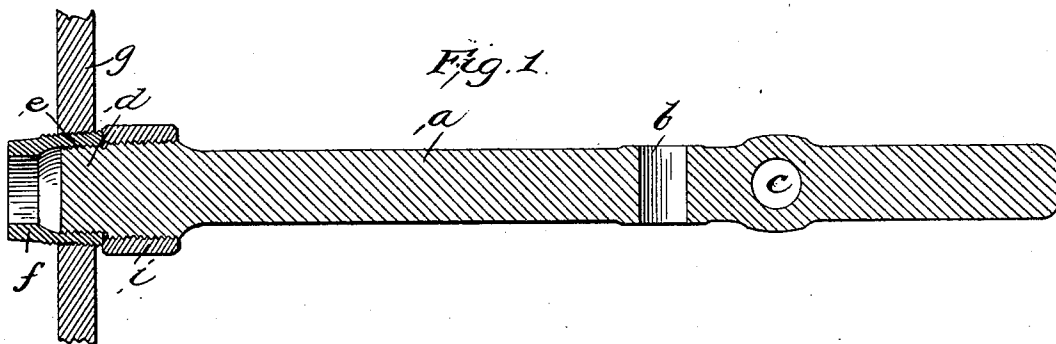
Patented Aug. 13, 1901.

J. B. BARNES.

WRENCH.

(Application filed June 8, 1901.)

(No Model.)



Attest:
Edw. L. Reed.

Inventor:
Joshua B. Barnes
By: [Signature]
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.