(No Model.)

S. A. BOSTWICK.

PIPE WRENCH.

No. 271,595. Patented Feb. 6, 1883.

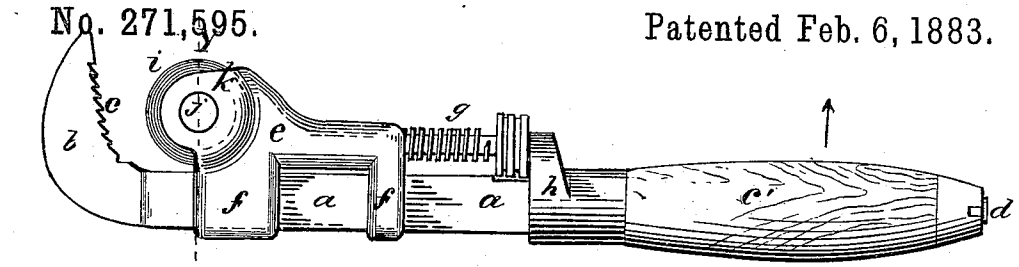


Fig. 1.

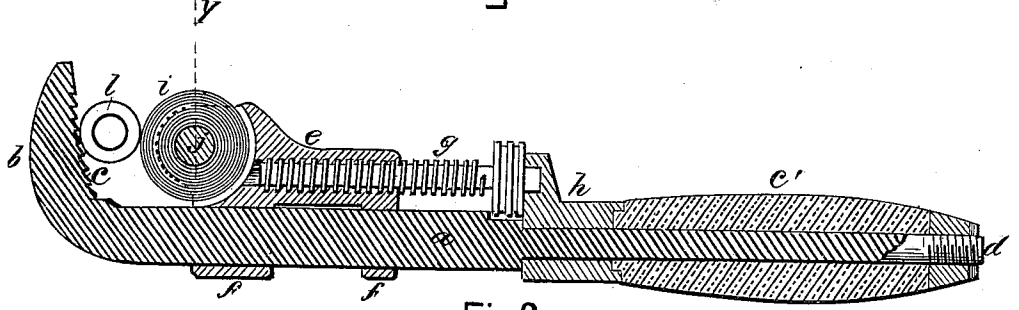


Fig. 2.

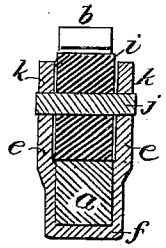


Fig. 3.

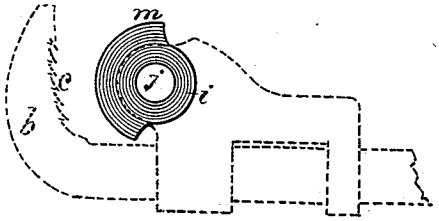


Fig. 4.

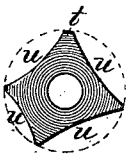


Fig. 7.

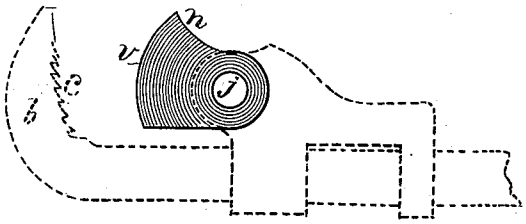


Fig. 5.

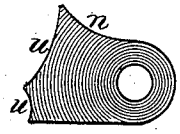


Fig. 6.

Witnesses.
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UNITED STATES PATENT OFFICE.

SEYMOUR A. BOSTWICK, OF CHELSEA, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO FRANK A. MAGEE, OF SAME PLACE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 271,595, dated February 6, 1883.

Application filed November 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, SEYMOUR A. BOSTWICK, of Chelsea, State of Massachusetts, have invented an Improvement in Pipe-Wrenches, of which the following is a specification.

This invention relates to that class of wrenches which are known as "pipe-wrenches;" and it consists in the construction and combination of the divers devices embodied therein, as hereinafter more particularly and fully set forth and claimed.

Figure 1 is a side elevation of a wrench with my invention thereto applied. Fig. 2 is a longitudinal vertical section of Fig. 1. Fig. 3 is a section on line *y y*, Fig. 1. Figs. 4, 5, 6, and 7 are detached side elevations of modifications which in their order will be described.

In said views, *a* represents the bar, which at its front end is formed with a hook, *b*, having on its inner face the ratchet-teeth *c*, as shown. Said bar is formed with a shank, *d*, on which is mounted handle *c'* and the inclosing ferrule *h*, all in the usual manner. A sliding head, *e*, is mounted and arranged to slide on the rectangular portion of bar *a*, and is secured in position by the bands *f*, formed upon said head. A roll, *i*, mounted upon axis *j*, secured in ears *k*, formed upon heads *e*, is arranged to coact with hook *b* in holding pipe *l* while actuating the same.

In use, head *e* is moved by its actuating-screw *g* so as to bring roll *i* at such distance from hook *b* that while pipe *l* will not pass between them, yet when force is applied to handle *c'* in the direction indicated by the arrow in Fig. 1 the action of the pipe upon the roll shall tend to turn the same toward the hook, thereby subjecting the pipe to pressure between the two and causing the teeth *c* to engage the pipe by penetrating the same.

When it is desired to disengage the wrench from the pipe, and handle *c'* is moved in the reverse direction, the rotary motion of the roll causes instant release of the pressure upon the pipe, and the wrench may then be removed without danger of injury to the teeth, as is often the result when the pipe is engaged between two toothed jaws or hooks.

In Fig. 4 roll *i* is shown as formed with a raised or cam-like portion, *m*, whose peripheral line unites with the arc of lesser diameter by a concave line, and in Fig. 5 a cam, *n*, is shown as pivoted in head *e*, and with an arc or face, *v*, to engage pipe *l* in the same manner as does roll *i*. In Fig. 6 said cam *n* is shown with arc-like seats *u*, of different radii, in which pipe *l* may be seated when held in contact with the teeth of hook *b;* and in Fig. 7 roll *i* is shown as formed with a series of such seats *u*, of different radii, to receive pipes of different diameters, such seats being of use when the pipe is large, and the force requisite to be exerted upon it is great and there is consequent possibility of collapse.

I am aware of the grant of the following Letters Patent of the United States, to wit: Franklin and Gilberd, September 18, 1879, No. 212,369; Read, May 14, 1878, No. 203,774; Browning, January 11, 1876, No. 171,982; Scripture, August 28, 1860, No. 29,826; also English Patent, 1853, No. 2,755, and 1862, No. 1,954, and I claim nothing that is shown therein, my invention being unlike that shown in either of said patents; but

What I do claim is as follows, viz:

1. In a pipe-wrench, the combination of hook *b*, formed at right angles, or nearly so, with bar *a*, and having ratchet-teeth *c* inclined toward said bar, and a smooth-faced pivotal support mounted in adjustable head *e* to hold the pipe in contact with said teeth, substantially as specified.

2. In a pipe-wrench, the combination of hook *b*, formed at right angles, or nearly so, with bar *a*, and having ratchet-teeth *c* inclined toward said bar, and a pivotal roll or support mounted in adjustable head *e* and formed with arc-like seats *u* to receive the pipe, substantially as specified.

SEYMOUR A. BOSTWICK.

Witnesses:
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T. W. PORTER.