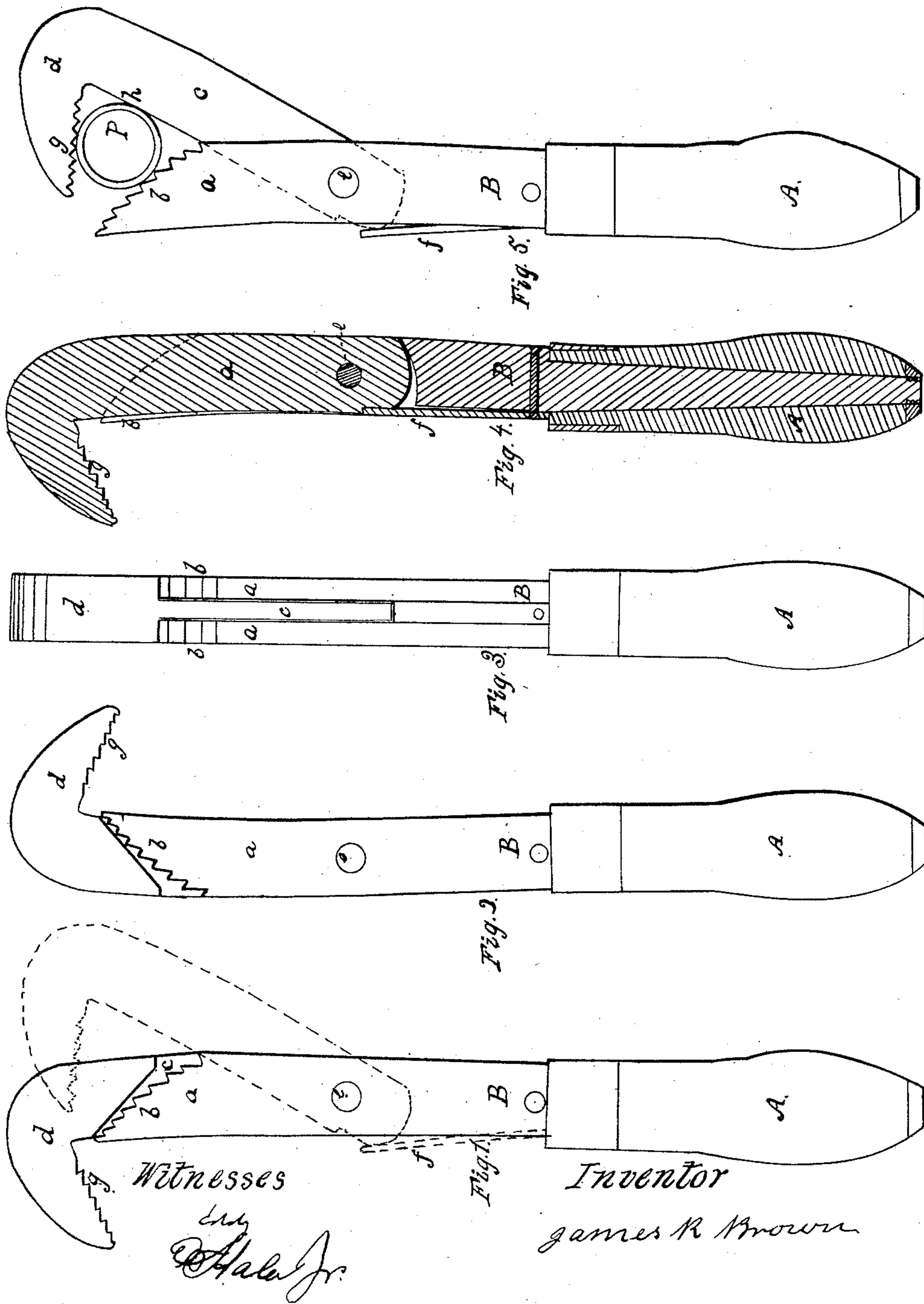


PIPE WRENCH.

No. 44,703.

Patented Oct. 18, 1864.



# UNITED STATES PATENT OFFICE.

JAMES R. BROWN, OF BOSTON, MASSACHUSETTS.

## IMPROVED PIPE-WRENCH.

Specification forming part of Letters Patent No. 44,703, dated October 18, 1864.

*To all whom it may concern:*

Be it known that I, JAMES R. BROWN, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Pipe-Wrench; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figures 1 and 2 are views of opposite sides of it; Fig. 3, a rear elevation, and Fig. 4 a longitudinal section, of it. Fig. 5 is a side elevation of it as applied to a pipe.

In such drawings, A denotes the handle, affixed to a bifurcated shank, B, whose two prongs or parts, *a a*, are flat and parallel and terminate at their ends in two toothed jaws, *b b*, each of which is disposed at an acute angle with respect to the front edge of the prong, as shown in Figs. 1 and 2. Between these prongs, or in the space between them, the shank *c* of the claw *d*, is arranged, as shown in the drawings, and near its lower end is connected to the prongs by, and so as to be capable of turning on, a pin, *e*, in front of which and arranged on the shank B, as shown in the figures, is a spring, *f*.

The jaw or toothed surface *g* of the claw *d* I arrange at an acute angle with the inner face, *h*, of the shank *c*. Such angle may be about sixty degrees.

When the pipe wrench so made is applied to a pipe, as shown in Fig. 5, in which the pipe is exhibited at P, it will touch the pipe at three points about equidistant from each

other, the inner side, *h*, of the shank *c* serving under the pressure of the pipe P against it, (such pressure being induced by the spring *f*) to crowd the pipe up to the jaws *b* and *g*, and thus insure a proper hold of such thereon while the wrench may be in use.

In some respects my improved pipe-wrench is similar to the wrench described in the United States Patent No. 18,135. It differs therefrom, however, in some important particulars, especially in having two separate jaws, *b b*, formed and arranged on two prongs, as described—that is, so that the shank *c* of the claw may work between such prongs, as well as between the jaws *b b*, whereas in the wrench of said Letters Patent No. 18,135 a single “rag-jaw,” having a screw adjustment, is used.

My improved pipe-wrench is self-adjusting when applied to a pipe. In other words, it readily adapts itself to the pipe, and requires no movement of a screw to fit it thereto.

I claim—

My improved pipe-wrench, as constructed, with its claw *d* and the shank *c* thereof, applied and arranged relatively to the two jaws *b b* and their combined prongs *a a*, substantially in manner and so as to operate therewith, as specified.

JAMES R. BROWN.

Witnesses:

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