S. F. Gamage,

Pipe Wrench.

No. 48,017. Patented May 30, 1865

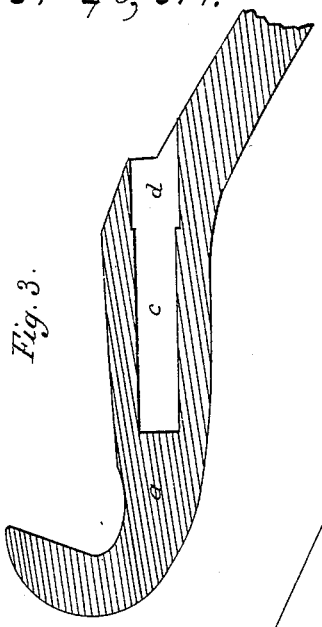

Fig. 3.

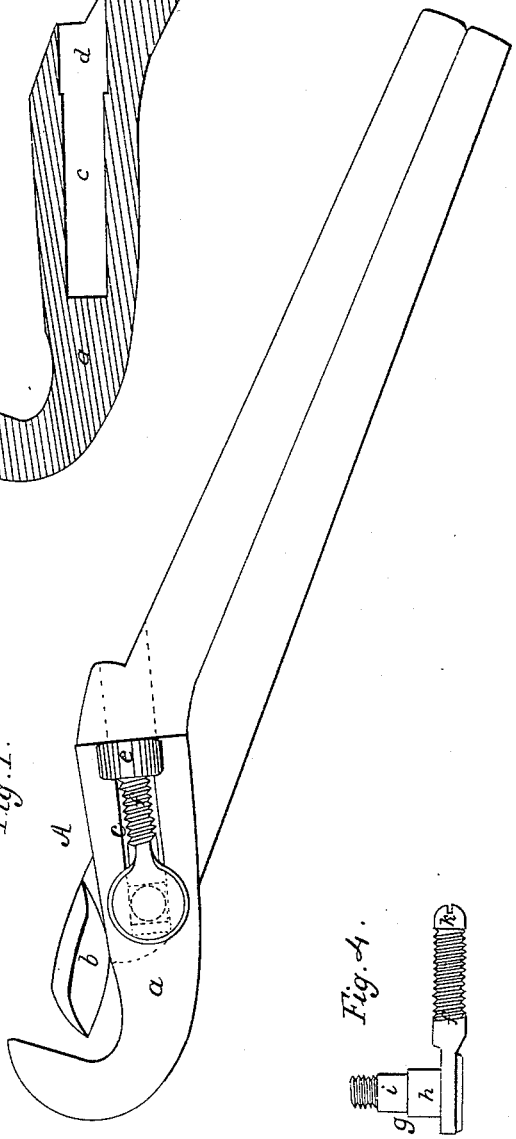

Fig. 1.

Fig. 4.

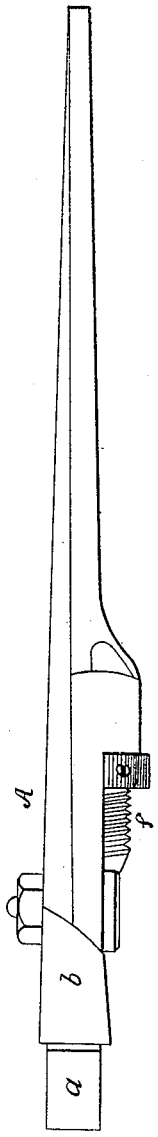

Fig. 2.

Witnesses
J. L. Newton
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Inventor
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UNITED STATES PATENT OFFICE.

SAMUEL F. GAMAGE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND N. M. DOW, OF SAME PLACE.

IMPROVED PIPE-TONGS.

Specification forming part of Letters Patent No. **48,017**, dated May 30, 1865.

To all whom it may concern:

Be it known that I, SAMUEL F. GAMAGE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Pipe-Tongs; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, making a part of this specification.

Figure 1 is a simple side view of the pipe-tongs. Fig. 2 is a top view of the same. Fig. 3 is a section of the stationary jaw-lever, showing the slot and the opening for the screw in the same. Fig. 4 is a view of the screw-shank and fulcrum detached from the instrument, showing the several parts connected therewith.

The letter A represents the whole instrument; *a*, the stationary jaw-lever; *b*, the moving or sliding jaw-lever; *c*, the slot in the stationary jaw-lever; *d*, the opening for the screw in the same; E, the milled nut; *f*, the screw-shank; *g*, the turning pin or journal; *h*, its square shoulder; *i*, its bearing part for sliding jaw-lever; *k*, the screw for retaining the screw-shank in place.

Now, in order that others may be enabled to understand better the nature and use of my invention and its superiority over all other instruments now used to effect the same purpose, I will proceed to explain the same and show wherein its superiority consists.

The pipe-tongs may be made of steel, iron, brass, or any metal or material which will effect the intended purpose. The several parts of the same are the stationary jaw-lever *a*, the movable jaw-lever *b*, and these two jaw-levers cross each other and are held together by the screw-shank *f* and the fulcrum in the manner exhibited in Fig. 2. It will be perceived, also, that the screw, screw-shank, and the parts of the fulcrum designated in Fig. 4 by the letters *g h i* are formed of one solid piece, so that it is stronger and less liable to get out of order than if made by two or more pieces. By means, also, of the arrangement of the fulcrum sliding in the slot *c* in the stationary jaw-lever and carrying with it the movable jaw-lever, this instrument may be used for pipes of any size desired.

This movement of the jaw-lever *b* is effected by turning the milled nut E forward or backward by the thumb, or thumb and finger. The milled nut is protected by being partially let into the slot and by the projection on the stationary jaw-lever, as seen in Fig. 2. The screw *f* also passing into this opening, is entirely protected. If it projected beyond the casement or opening, or was turned from without, instead of being stationary, by carelessly throwing down the instrument while in use, it might be easily injured or ruined, so that its superiority over other instruments used for the same purpose is clearly seen.

The use of the instrument is well known and need not be further explained. It may be readily taken apart, when necessary, by withdrawing the screw *k* and the nut from the end of the fulcrum.

What I claim as my invention, and desire to secure by Letters Patent, is—

The solid screw and fulcrum, designated, respectively, by the letters *f g h i*, as operated by the milled nut E, applied and arranged in the opening and slot in the stationary jaw-lever, substantially in the manner and for the purposes above specified.

SAMUEL F. GAMAGE.

Witnesses:

J. L. NEWTON,

NAHUM M. DOW.