

A.G. Coes,

Fire Tongs.

No. 102371.

Patented Apr. 26. 1870.

Fig. 1.

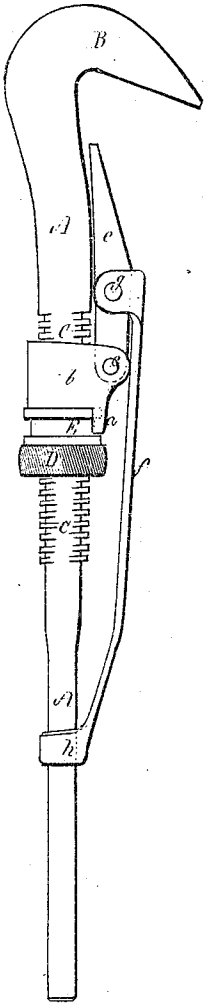


Fig. 2.

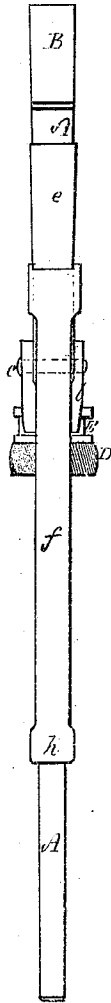
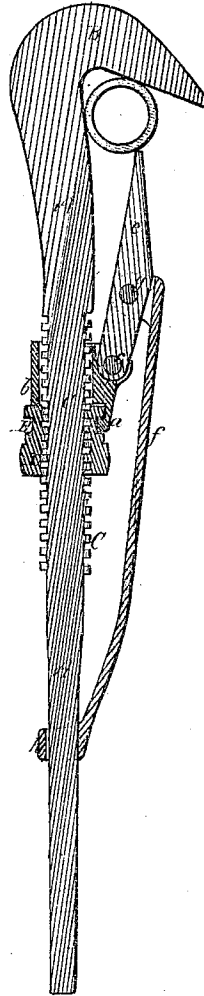


Fig. 3.



Witnesses.

C. Griffith.
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Avery Gates Coes.
by
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United States Patent Office.

AURY GATES COES, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 102,371, dated April 26, 1870.

IMPROVEMENT IN PIPE-TONGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom these presents shall come:

Be it known that I, AURY GATES COES, of the city and county of Worcester, and Commonwealth of Massachusetts, have made an invention of certain new and useful Improvements in "Pipe-Tongs," so called; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawings making part of this specification, and in which—

Figure 1 is an elevation;

Figure 2, a plan; and

Figure 3, a horizontal section of a pair of pipe-tongs embodying my improvements.

Figure 4 is a transverse section of the same, taken through the fulcrum of the movable latch to be hereinafter explained.

The purpose of the invention herein described is to reduce the cost of an instrument now become of common use in the mechanic arts, as well as to produce one possessing advantages in several respects over those heretofore made, such invention consisting in the employment of a hooked stationary or primary jaw formed with a long shank, substantially after the manner of many screw-wrenches now in daily use, a movable jaw or latch being pivoted to a clasp or yoke sliding freely upon the said shank, and moved to and fro thereon, with respect to the primary jaw, by means of a nut enveloping a male screw cut upon such shank, the free end of the latch being adjusted to the varying diameters to which the instrument is adapted by the agency of a rod or bar, one end of which is pivoted to such latch, and whose opposite encircles and slides freely upon the shank of the primary jaw in unison with the traversions of the clasp before mentioned, as carrying the movable jaw or latch, the whole being arranged as hereinafter explained.

Referring to the drawings accompanying this specification, and which illustrate my present invention, the reader will see that A denotes a long bar or shank substantially rectangular in cross-section, and formed at one end with a curved or hooked projection or abutment B for overlapping a pipe or other cylindrical object.

The central portion of this bar A, for about one-third its entire length, is provided upon its periphery with an annular circumscribing male screw, C, of metal, overlapping the outer face of the latch e, and pivoted thereto at or near its center, as shown at g, the rear or opposite extremity of this rod f being formed into an eye, h, to embrace and slide freely upon the shank A.

The purpose of this rod or handle f is to effect such elevations of the latch or departure of the same from the bar of the instrument as to inclose and clasp

at the proper point the pipe or object to be grasped and revolved.

I am aware that heretofore pipe-tongs have been produced in divers ways, and with a stationary jaw or abutment, and a movable jaw.

In such cases, however, the movable jaw has been operated by a long handle making part of it, and it is the objection to this long handle that my present invention is in part intended to avoid, as the long movement of this handle and the distance intervening between it and the bar of the instrument, in adapting the latter, are a cause of much annoyance and inconvenience.

It will be seen that a slight movement upon which is passed a cylindrical milled nut or sleeve, D, such nut being grooved upon its periphery, as shown at E, for reception of a lateral lip, a, making part of a clasp or slider, b, which loosely encompasses the bar of the instrument or the male screw cut thereupon.

It will be apparent that rotations of the nut b upon the screw c will cause traversions of both nut and slider upon such screw, and toward or away from the hooked jaw B, according to the direction in which the said nut is revolved.

Disposed between the two arms or projections of the clasp or slider b, and fulcrumed at its rear end thereto, as shown at e, is a movable jaw or latch, e, the base of this latch being stepped within the body of the slider in order to create a solid and unyielding abutment for the same to resist thrust and torsion upon the instrument, it being understood that the said latch e is disposed upon the side of the bar A, from which the departure of the hook B takes place, thus bringing the hook and latch in alignment with each other.

F, in the drawings, represents a rod or strip only of the rod f in my invention is necessary to effect the longest range of the latch or movable jaw e, thus in a simple and very inexpensive manner doing away with the objections before stated.

Another advantage peculiar to my arrangement of parts, and which distinguishes it from any heretofore in use, is seen in the fact that the instrument may be adjusted and used with one hand only, while the use of the nut d as a motor for the clasp b, and the latch or jaw e, allows of rapid and extended variations in the size of the inclosure erected by the jaw B and C, and consequently in the effective capabilities of the instrument.

Claims.

I claim—

1. The movable jaw or latch e, in combination

with a rod or bar *f*, having one of its ends pivoted to the jaw, and the other end arranged to slide upon the bar of the instrument, whereby said jaw or latch can be adjusted substantially as described.

2. The improved pipe-tongs before described, the same consisting of the primary jaw B and bar A with its screw C, and the latch or movable jaw *e*, the latter being fulcrumed to or stepped within the clasp

or slider *b*, and adjusted by the rod or handle *f*, the slide being caused to traverse the bar by means of the nut D, to which it is swiveled, and the whole operating as before set forth.

AURY GATES COES.

Witnesses:

W. W. RICE,
JONAS PHILLIPS.