

(No Model.)

A. W. INGELSON.
PIPE TONGS.

No. 546,101.

Patented Sept. 10, 1895.

Fig. 1.

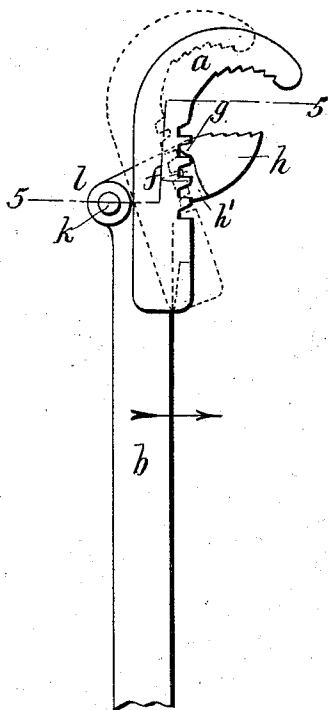


Fig. 2.

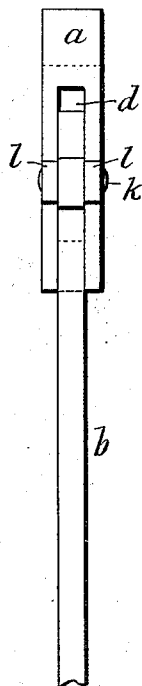


Fig. 3.

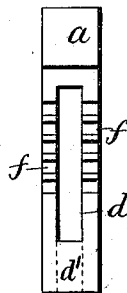


Fig. 4.

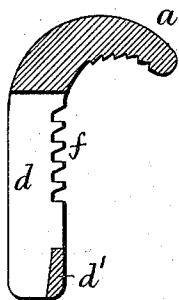


Fig. 5.

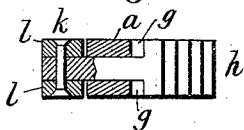


Fig. 6.

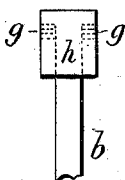
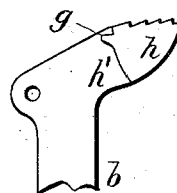


Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUST WALDEMAR INGELSON, OF TORSHÆLLA, SWEDEN.

PIPE-TONGS.

SPECIFICATION forming part of Letters Patent No. 546,101, dated September 10, 1895.

Application filed July 25, 1894. Serial No. 518,559. (No model.) Patented in Sweden September 2, 1893, No. 5,030.

To all whom it may concern:

Be it known that I, AUGUST WALDEMAR INGELSON, engineer, a subject of the King of Sweden and Norway, residing at Torshælla, Sweden, have invented certain new and useful Improvements in Universal Pipe-Tongs, (for which I have obtained a patent in Sweden, No. 5,030, dated September 2, 1893;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of pipe-tongs which are provided with an adjustable gripping-jaw whereby the tongs may be adjusted to pipes of different diameters. My invention has for its object to produce a light and powerful tool of this kind which can be readily adjusted to grasp different-sized pipes.

In the accompanying drawings, Figure 1 is a side elevation of my improved pipe-tongs. Fig. 2 is a rear view thereof. Fig. 3 is a detached front view of the movable jaw. Fig. 4 is a longitudinal section of the same. Fig. 5 is a cross-section on line 5 5, Fig. 1. Fig. 6 is a front view of the stationary jaw. Fig. 7 is a side elevation thereof.

Like letters of reference refer to like parts in the several figures.

h is the stationary jaw, which is secured to or formed on the handle *b*, and which projects laterally beyond the latter. The face of the fixed jaw is serrated, as shown.

a is the movable or adjustable jaw, which co-operates with the fixed jaw, and which is preferably curved, as shown, and serrated on its inner or concave face. This movable jaw is provided with a bifurcated or slotted shank *d*, the members of which loosely straddle the handle *b*. These members may be connected at their rear ends on the front side of the handle by a cross-piece *d'*. The bifurcated shank *d* is provided on its front side, on opposite sides of the handle, with a series of notches or recesses *f*, a pair of which are adapted to engage with a pair of teeth or projections *g*, arranged on the adjacent rear portion of the fixed jaw, so as to hold the

movable jaw against movement toward and from the fixed jaw.

l represents stops arranged on opposite sides of the handle in rear of the bifurcated shank of the adjustable jaw, whereby the notches of the latter are normally held in engagement with the teeth *g* at the rear end of the fixed jaw. These stops preferably consist of antifriction-rollers, which are journaled on a transverse pivot-pin *k*, passing through the handle, as shown in Figs. 2 and 5. The shank of the adjustable jaw is normally parallel with the handle, as shown by full lines in Fig. 1, and in this position the shank of the jaw, while held against longitudinal movement, is free to swing on the teeth of the fixed jaw as a fulcrum for gripping the pipe between the jaws. The space between the teeth *g* of the fixed jaw and the opposing faces of the antifriction-rollers *l* is greater than the width of the shank of the adjustable jaw, so that upon swinging said shank forwardly, as shown by dotted lines in Fig. 1, the notches of the shank clear the teeth of the stationary jaw. In this position of the movable jaw the same can be adjusted toward and from the fixed jaw to accommodate the pipe to be seized, and after adjusting the same its shank is swung back to its normal position, whereby the notches of the shank adjacent to the teeth *g* of the fixed jaw engage with said teeth, holding the jaw in its proper position relatively to the fixed jaw. In order to permit the shank of the adjustable jaw to assume the necessary angular position for releasing it, the adjacent rear portion of the fixed jaw is under-cut, as shown at *h'*.

In operating the tongs the handle is pulled in the direction of the arrow in Fig. 1, whereby the jaws are caused to grip the pipe and turn the same forwardly, and upon swinging the handle backward the movable jaw releases its hold, allowing the jaws to slip on the pipe in a well-known manner, preparatory to taking a new grip.

My improved tongs may also be used as a wrench for turning screw-nuts and bolt-heads of different sizes.

I claim as my invention—

The combination with a handle having a fixed jaw and a pair of teeth or projections arranged at the inner end of said jaw on op-

posite sides of the handle, of an adjustable jaw co-operating with the fixed jaw and having a bifurcated shank straddling the handle and provided on opposite sides of the handle
5 with a series of notches which interlock with the opposing teeth or projections of the fixed jaw, a fixed pivot secured to the handle of the fixed jaw in rear of the bifurcated shank of the movable jaw and anti-friction rollers mounted
10 on said pivot on opposite sides of the handle

and bearing against the rear side of the members of said bifurcated shank, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST WALDEMAR INGELSON.

Witnesses:

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