

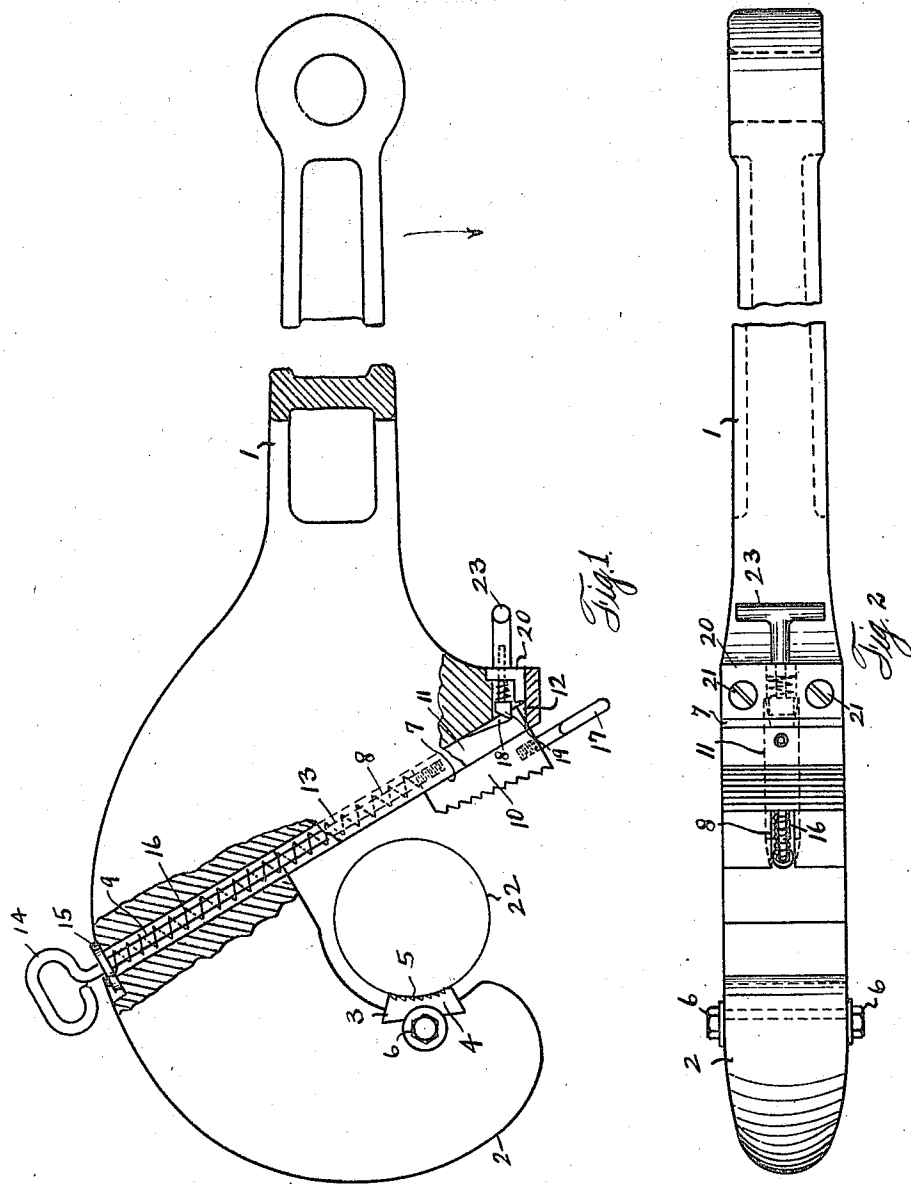
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O. PEARCE ET AL

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TONG

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UNITED STATES PATENT OFFICE.

OSCAR PEARCE AND IVAN BALES, OF HOUSTON, TEXAS.

TONG.

Application filed December 1, 1922. Serial No. 604,400.

To all whom it may concern:

Be it known that we, OSCAR PEARCE and IVAN BALES, citizens of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in a Tong, of which the following is a specification.

This invention relates to new and useful improvements in a tong, and has particular relation to a tong specially designed for use in screwing together and unscrewing tool joints and for turning heavy pipe in the process of screwing together and unscrewing sections thereof.

One object of the invention is to provide a tong which is formed for application to a tool joint or pipe section or other similar object and which will gradually grip the pipe as power is applied to the handle so as to prevent the slippage of the tong on the object being turned and which will readily release the pipe when the tong is operated reversely.

Another object of the invention is to provide a tong having a fixed jaw and a slidable jaw and which includes means for engaging with the slidable jaw to hold it in inoperative position while the tong is being applied to the tool joint or other object to be turned.

A still further feature of the invention resides in the provision of a tong having a slidable jaw which is equipped with hand grips through which said slidable jaw may be manually manipulated.

With the above and other objects in view the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:—

Figure 1 shows a side view of the tong, and

Figure 2 shows an edge view thereof.

In the drawings the numeral 1 designates the tong handle, and formed integrally therewith there is a curved jaw 2 formed to fit around the tool joint or other object to be turned and whose free end has a transverse dove tail groove 3 in which a correspondingly shaped bar 4 is fitted. The inner face of this bar is arcuate and provided with the teeth 5 and it is held in position by means of set screws 6, 6 which are threaded into the jaw 2 and whose heads abut against

the ends of said bar. Opposite the teeth 5 the handle is formed with a flat face 7 which diverges outwardly with respect to the toothed face 5. This face has a dove tailed groove 8 therein and aligned therewith and forming a continuation of said groove there is a bore 9 through the base of the jaw 2. A slidable jaw 10 has a bearing on said face and is formed with a tenon 11 which fits in said groove. The operative face of the jaw 10 is toothed and the jaw is held against detachment by means of an abutting shoulder 12 forming the outer end of the groove 8. A rod 13 has its inner end screwed into the tenon 11. This rod works through a bore 9 and its outer end is formed with a hand grip 14 and has the collar 15 slidable thereon. Surrounding said rod there is a coil pull spring 16 whose respective ends are attached to the collar 15 and the jaw 10 respectively. The outer end of the jaw 10 has a grip 17 fastened thereto. The underside of the tenon is formed with a suitable catch 18, and a spring seated latch 19 is mounted in a suitable casing 20 which is secured to the handle by means of screws 2, or other suitable means and this latch is adapted to engage in the catch 18 to hold the jaw 10 in inoperative position as shown in Figure 1. When the tong is being applied to the pipe 22 the jaw 10 is forced outwardly through either of the grips 14 or 17 until the latch 19 engages with the catch 18. When the tong is in position for operation the latch is withdrawn by pulling outwardly on the grip 23, which is carried by said latch, and the pull of the spring 16 will then carry the jaw 10 into engaging relation with said pipe. The tong is then manipulated in the direction indicated by the arrow in Figure 1 and the toothed face of said jaw will engage the pipe and as the handle is manipulated said jaw will slide up the face 7 and wedge between it and the pipe and will cause the tong to securely grip and turn said pipe. The wrench may then be manipulated in the opposite direction to secure a new hold on the pipe and the spring 16 will hold the jaw 10 in close contact with the pipe and ready to engage the same when the handle is again manipulated forwardly in the direction indicated by said arrow. When it is desired to disengage the tong from the pipe it may be manipulated in reverse direction to release the jaw 10 and said jaw may then be forced outwardly by hand until the latch

19 engages the catch 18 and the tong may then be entirely disengaged from the pipe.

What I claim is:—

A pipe tong including a handle, one end
5 of which is curved, said curved end having
a bore substantially tangential with relation to the pipe to be turned, pipe engaging teeth carried by the free end of the
curved end, adapted to engage with said
10 pipe, on one side, a slidably mounted jaw
adapted to engage with the pipe on the opposite side, a rod working through said bore
one end of which is connected to said last
mentioned jaw, and the other end of which
15 is formed into a hand grip through which

the slidable jaw may be manually operated, a pull spring attached to said slidable jaw and normally holding it in pipe engaging position, and a releasable locking device arranged to engage with and lock said slidable 20 jaw in non-engaging position.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

OSCAR PEARCE.
IVAN BALES.

Witnesses:

E. V. HARDWEY,
L. M. HOCK.