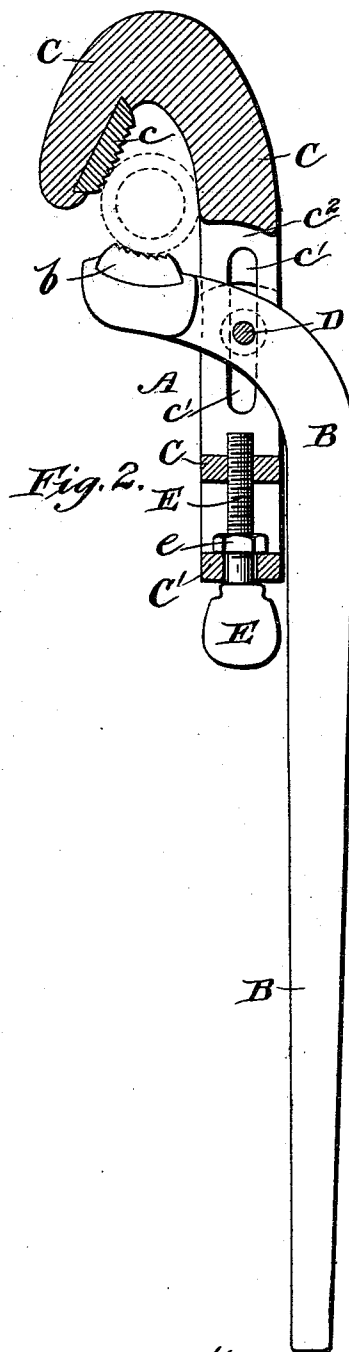
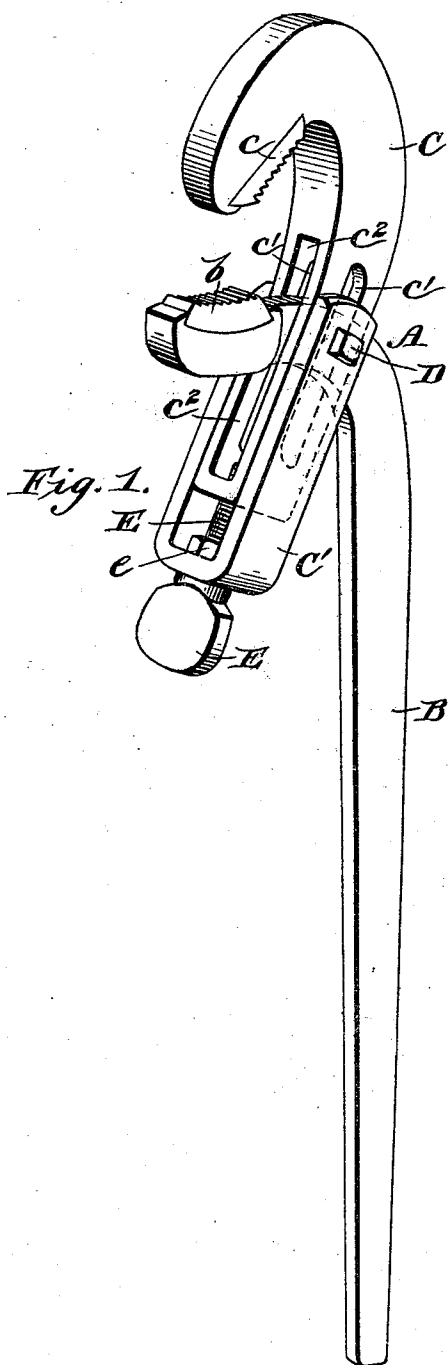


(No Model.)

W. KING.
PIPE TONGS.

No. 514,936.

Patented Feb. 20, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM KING, OF LONGMONT, COLORADO, ASSIGNOR OF ONE-HALF TO
DAVID E. SECOR, OF SAME PLACE.

PIPE-TONGS.

SPECIFICATION forming part of Letters Patent No. 514,936, dated February 20, 1894.

Application filed March 10, 1893. Serial No. 465,443. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KING, of Longmont, in the county of Boulder and State of Colorado, have invented a new and useful Improvement in Pipe-Tongs or Wrenches; and I do hereby declare the same to be so fully described and set forth in the following specification and illustrated in the accompanying drawings, forming a part thereof, as to enable those skilled in the art to which it appertains to make and use the same.

The object of my invention is to produce a pipe-tongs or wrench that is easy to operate and to repair or renew the working parts; it requires but one handle to operate the tongs, its operation is automatic, as it "takes hold" and "lets go" automatically on the operation of the handle in one direction or the other, and, as the biting jaws or surfaces are dovetailed in, they can easily be removed when desired; furthermore, there being three comparatively flat bearing-points it is not liable to crush even thin or weak pipe.

In the accompanying drawings, Figure 1. is a perspective view. Fig. 2. is a longitudinal sectional view of one jaw the other jaw and lever being in perspective.

In carrying out my invention I have combined a yoke with the toothed and jawed levers, their fulcrum piece, and the adjusting screw therefor; the purpose of the yoke being to support the piece and adjust the jaws. C, is the hooked jaw.

B, is the operating lever and jaw, in which is dovetailed the biting surface jaw *b*, the biting jaw *c*, is dovetailed in the jaw C. The lever B and the jaw C, are crossed one on the other, and are held together by a fulcrum piece D, which goes through them and the yoke C'; the jaw C, is slotted at *c'* and at *c''*, as clearly seen in the drawings. The jaw C is slipped upon the lever B by means of the slot *c''*, that is, the lever B passes through the slot *c''*, in the jaw C. The pivot or fulcrum piece D plays in the slot *c'* in the jaw C, and hence the lever B is made to play or slide within the jaw C, to the full extent of the slot *c'*. The operating screw E goes through the head of the yoke C' and turns freely

within, being provided outside of said yoke 50 with a wing or thumb nut having a shoulder rest to rest against the yoke head. So there is a shoulder on said screw within the yoke; these two shoulders serve to maintain such a connection between the yoke and the screw as 55 will admit of the screw's being freely rotated, and thus cause the yoke to either advance or recede on the screw, as the screw, by reason of said shoulders, can neither advance nor recede. As the fulcrum piece is carried by the yoke 60 and fits closely in the lever B, it will be seen that the said yoke, fulcrum piece, and lever B will be moved simultaneously as the screw E is rotated, and hence the yoke and the lever and jaw B, will be slid on and within the jaw 65 C, whenever the screw is operated.

Among the advantages of my new pipe tongs or wrench are these: By reason of the three gripping surfaces or bearings (see Fig. 2.) the pipe even though thin and weak is 70 not liable to be crushed; it has but one operating handle and is operated by one hand, leaving the other hand of the workman free to hold the pipe or for other service; and, by reason of a slight backward motion of the operating lever B, the tongs will "let go" 75 automatically, and so, by reason of a forward motion of the operating lever B, the tongs will "take hold" automatically; furthermore, by reason of the adjusting screw E, the jaws 80 may be set for very small or very large pipe. The only limit to the size of the pipe is the limit of the slot *c'*. Furthermore, one of the greatest advantages of my tongs is that when the biting jaws (proper) *b* and *c* wear out 85 there is nothing to do but knock them out of the dovetails and drive in new ones, making the repair of my tongs both quick and cheap.

Having thus described the nature of my invention and the manner of constructing 90 and using the same, what I claim is—

In combination the hooked jaw having the two slots therein substantially at right angles, one to the other, said jaw being provided with dovetailed ways, the yoke carrying the 95 fulcrum piece, said piece sliding in one of said slots in the hooked jaw, and the adjusting screw swiveled therein, and the operating

lever pivoted to the hooked jaw, and in the other slot, said lever having dovetailed ways and removable biting jaws fitting and adapted to the said dovetailed ways, the said biting
5 jaws, and the face of the hooked jaw forming three gripping surfaces, all as set forth.

In testimony whereof I have signed my

name to this specification, in the presence of two subscribing witnesses, this 30th day of January, A. D. 1893.

WILLIAM KING.

Witnesses:

GEO. H. THORNE,
J. A. BUCKLEY.