

UNITED STATES PATENT OFFICE.

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FIRE-TONGS.

SPECIFICATION forming part of Letters Patent No. 741,816, dated October 20, 1903.

Application filed June 2, 1903. Serial No. 159,764. (No model.)

To all whom it may concern:

Be it known that I, LEWIS MCKINNISS, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Fire-Tongs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in fire-tongs for removing clinkers, &c., from stoves and furnaces; and it consists of a pair of fire-tongs provided with oppositely-disposed gripping members, means for operating the same to cause them to approach, and means for locking the gripping members upon the clinker to be removed.

In the accompanying drawings, wherein a preferable embodiment of my invention is shown and wherein like letters of reference refer to similar parts in both views, Figure 1 is an elevation of my improved fire-tongs with the gripping members in their open position, parts being in section; and Fig. 2 is a transverse section taken in line 1 1 of Fig. 1.

Referring now more particularly to the drawings, A designates a tube or sleeve provided at one end with the laterally-projecting gripping-finger B and at the other end with the coupling C. The coupling C is formed with a laterally-extending elbow *c*, in which the handle D is adapted to be secured. The interior of the coupling C is screw-threaded, as at *c'*, for the reception of the screw-threaded end *e* of the tubular portion E.

F is a rod rigidly secured in the lower end of the tubular portion E and extending loosely through the tube or sleeve A. The free end of the rod F is provided with a plurality of laterally-extending gripping-fingers E', which are arranged to cooperate with the gripping-finger B and between which and the gripping-finger B the clinker is adapted to be gripped when it is desired to remove the same from the furnace. The upper end of the tubular portion E is provided with a handle F', by which the rod F may be caused to turn in the tube or sleeve A and the gripping-fingers E' and B be caused to approach and grip the clinker or separate and release the same. In order to lock the gripping-fingers in either their open or closed position, I have provided

the tongs with a lock, which consists of a series of ratchet-teeth G, formed on the tubular portion E near the point where it screws into the coupling C, and a pawl H, secured on the coupling C and arranged to engage with the ratchet-teeth G. The casting C is preferably formed with a laterally-extending ear C², on which the pawl H is secured by means of the pivot-bolt *h*.

I do not desire to limit myself to the precise form and construction shown in the drawings, as it is obvious that many minor changes might be made thereto without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, and a rod passing loosely through said sleeve and adapted to be turned therein provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle.

2. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, a rod passing loosely through said sleeve and adapted to be turned therein provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and means for locking the parts in adjusted positions.

3. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, a rod passing loosely through said sleeve and adapted to be turned therein provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and a pawl-and-ratchet connection between the rod and the sleeve for locking the parts in adjusted positions.

4. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, and a rod passing through and in

screw-threaded engagement with said sleeve provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle.

5 5. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, a rod passing through and in screw-threaded engagement with said sleeve provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and means for locking the parts in adjusted positions.

15 6. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other end with gripping means, a rod passing through and in screw-threaded engagement with said sleeve provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and a pawl-and-ratchet connection between the rod and the sleeve for locking the parts in adjusted positions.

25 7. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-extend-

ing handle and at the other end with gripping means, a rod passing loosely through said sleeve and adapted to be turned therein provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and means for locking the parts in adjusted positions comprising a plurality of ratchet-teeth and a pivoted pawl arranged to engage said ratchet-teeth.

30 8. A pair of fire-tongs comprising a sleeve provided at one end with a laterally-projecting handle and at the other with gripping means, a rod passing through and in screw-threaded engagement with said sleeve provided at one end with gripping means arranged to cooperate with the gripping means on the sleeve and at the other end with an operating-handle, and means for locking the parts in adjusted positions comprising a plurality of ratchet-teeth and a pivoted pawl arranged to engage said ratchet-teeth.

40 50 In testimony whereof I affix my signature in presence of two witnesses.

LEWIS MCKINNISS.

Witnesses:

F. R. GOODE,
L. S. COOL.