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COMBINED POKER AND CLINKER TONGS

Filed June 6, 1928

Fig. 1.

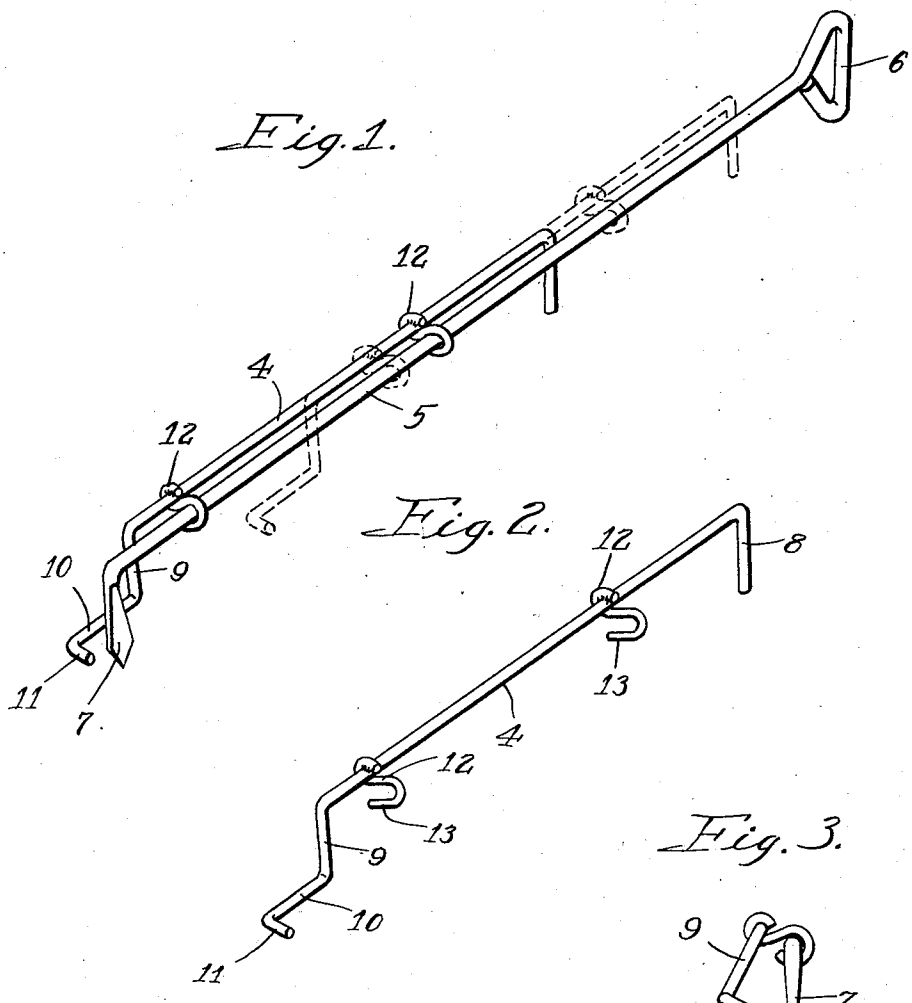


Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE

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COMBINED POKER AND CLINKER TONGS

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This invention relates to hand implements for use in connection with furnaces and open grates for working or conditioning a fire bed and for removing clinkers.

One of the objects of my invention is to provide an improved clinker tongs characterized by a sliding and a swiveling clinker rod which may be manipulated in a particularly advantageous manner as will be described hereinafter.

Another object is to provide as a new article of manufacture a clinker rod which may be sold either as a unit for attachment to an ordinary furnace poker, or as a complete clinker tongs including as one of the jaw elements a conventional furnace poker. My improved clinker rod is preferably shorter than the poker and is attached to the latter by suitable means such as links permitting of lengthwise as well as swiveling movement of the clinker rod upon and with respect to the poker. By providing a handle on one end of the clinker rod and a jaw on the opposite end the jaw may be manipulated with respect to the poker jaw or prong to clamp either lengthwise or sidewise according to the particular needs. I have also aimed to provide a clinker rod of the character described having a jaw of improved construction comprising a first and a second right angle bend in one plane and a third right angle bend in a transverse plane adapted to cooperate with the prong of a poker for gripping and clamping. This adds to the utility of the implement as it gives not only a greater clamping range but also a better holding effect. This is especially advantageous in connection with clinkers of large and unusual shapes and proportions.

Still another object is to provide an implement of the character described which may be economically produced and which will be thoroughly practical for the purposes intended.

Referring to the drawing—

Figure 1 is a perspective view of a combined poker and clinker tongs embodying my invention;

Fig. 2, is a perspective view of the clinker rod separate from the poker; and

Fig. 3 is an end view looking at the jaw end of the implement.

My invention relates particularly to the construction of the clinker rod designated generally by 4, which as above mentioned may be sold as a separate article of manufacture, as shown in Figure 2, this being an economy to the purchaser possessing an ordinary furnace poker with which the clinker rod is intended to be used. The clinker rod may also be attached to a conventional furnace poker as shown in Figure 1 and sold as a complete implement which has the functions both of a poker and a clinker tongs.

The poker, designated generally by 5, may be of any suitable or preferred construction and as shown in Figure 1 comprises a rod of suitable length shaped at one end to provide a handle 6 and at its opposite end a right angle prong 7 which constitutes one of the jaws of the tongs when the clinker rod is assembled therewith as will be presently described.

The clinker rod 4 is bent at one end to provide a handle 8 and at its opposite end to provide first and second right angle bends 9 and 10 respectively, in the same plane as the handle 8, and a third right angle bend 11 in a plane transverse to that of the handle. Any suitable means may be provided for attaching the clinker rod to the poker so that it may have longitudinal movement with respect to the poker and also have a swiveling movement. In this instance a pair of S-shaped links 12 are welded at one end to the clinker rod in spaced relation as shown and are looped at the opposite end around the poker so as to permit of the sliding and swiveling movements referred to. When the clinker rod is sold as a separate article the end 13 of each link will be left open as shown in Fig. 2, thus permitting sidewise insertion of the poker, after which the ends may be hammered down into holding connection. Any suitable or equivalent means may, however, be used for attaching and holding the two rods in operative relation such, for example, as ordinary chain links. It will be observed, viewing Fig. 1, that the clinker rod is considerably shorter in length than the poker,

thus allowing relative lengthwise manipulation between the two rods for purposes which will be presently apparent.

The implement above described is adapted for use as an ordinary furnace poker as when the clinker rod is drawn back to a rearmost position on the poker. In this condition the poker may be used effectively for working the fire bed without obstruction of the clinker rod.

Whenever desired, the clinker rod may be moved into a position in which its jaw end cooperates with the prong or jaw on the poker for gripping or clamping a clinker. In this sense I have provided a new and improved implement whereby one of the jaws may be moved in a clamping action either lengthwise of the poker or in a swiveling movement transverse to the plane of said lengthwise movement. In the full line position shown in Figure 1 the portion 10 of the swiveling jaw is positioned opposite to the poker jaw 7 so that upon manipulating the handles these jaws may be caused to open and close on a clinker and to effectively hold the clinker for withdrawing it from the furnace. Obviously, the tongs may be used as such for handling clinkers outside of the fire bed or furnace. The tongs are also adapted for other uses as for handling heated metal parts especially in connection with forges where the poker is useful in working the fire bed and positioning the parts to be heated. Under some circumstances, especially in the handling of large clinkers, the clinker rod may be withdrawn to permit working the poker jaw around the back of the clinker, whereupon the clinker jaw may be pushed forwardly to clamp the interposed clinker. One example of this latter method of using the implement is shown by the dotted line position of the clinker rod in Figure 1. The shape of the jaw on the clinker rod is also advantageous in that it gives a wide gripping portion 10 and an angular end 11 which, combined with the capacity for movement lengthwise and in a transverse plane, enables firm gripping of almost any clinker. This shape together with the capacity for movement of this jaw with respect to the poker jaw greatly increases the range of use and the utility of the implement.

While I have illustrated but a single embodiment of my invention it should be understood that various changes might be made in the shape and proportion of the parts within the spirit and scope of the appended claims.

I claim:

1. As a new article of manufacture, a poker attachment comprising a rod bent at one end to provide a handle and at its opposite end to provide a clamping portion, said clamping portion having a first and a second right angle bend in one plane and terminating in a third right angle bend in a transverse plane.

2. The combination of a poker having a handle at one end and an angular prong providing a jaw at the opposite end, a clinker rod having a handle at one end and a prong providing a clamping jaw at the opposite end, the clinker rod being substantially shorter than the poker, a plurality of S-shaped members having one end fixed to the clinker rod and the other end slidably and rotatably supported upon the poker intermediate the end permitting the former to have a longitudinal as well as a swiveling movement with respect to the latter.

3. The combination of a poker having a handle at one end and an angular prong providing a jaw at the opposite end, a clinker rod having a handle at one end and a prong providing a clamping jaw at the opposite end, this clamping jaw having a first and a second right angle bend in one plane and terminating in a third right angle bend in a transverse plane, the clinker rod being substantially shorter than the poker, and a plurality of S-shaped members having one end fixed to the clinker rod and the other end slidably and rotatably supported upon the poker intermediate the ends permitting the former to have a longitudinal as well as a swiveling movement with respect to the latter.

In witness of the foregoing I affix my signature.

FREDERICK T. RICHARDS.