O. F. BERGMAN.
SLICE BAR AND TONGS.
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1,432,952.
To all whom it may concern:

Be it known that I, OLOF F. BERGMAN, a citizen of the United States, residing at Gary, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Slice Bars and Tongs, of which the following is a specification.

The invention relates to a slice bar and tongs combined and cooperating in one implement for removing clinker and slag from a furnace.

The object of the invention is to provide two cooperating instrumentalities in a single implement for cleaning the grates of furnaces and for conveniently removing the clinker and slag therefrom.

Other, further and more specific objects of the invention will become readily apparent to persons skilled in the art, from a consideration of the following description, when taken in conjunction with the drawings, wherein:—

Fig. 1 shows a side elevation of the device.

Fig. 2 is a similar view showing the device at right angles to Fig. 1.

Fig. 3 is a perspective view of a portion of the device showing the slice bar and tongs.

In all of the views the same reference characters are employed to indicate similar parts.

The tongs consist of two handle members 5 and 6, the latter being longer, extended beyond the former, as at 7, and having at its terminal a loop 8 for convenient handling. The shorter arm or handle is provided with a terminal hook 9 which engages the handle 7, for holding the two members together. The member 5 and the member 6 are pivoted together, as at 10, the former being laterally extended beyond the pivot into a jaw 11 and the latter into a jaw 12. The jaws are spread apart, as at 13 and 14, and extending from one of the members 11 or 12, is a prong or slice bar 15, preferably pointed, as at 16, and extending laterally of one of the handles 5 or 6 in direction opposite to the direction from which the jaws 11 and 12 extend.

In using the device the tongs may be kept closed, as shown in Figs. 1 and 2, when the splice bar 18 may be introduced between the grates to clean the slag from between them to give the fire the necessary air. When it is desirable to remove slag, the tongs may be opened and the cake of slag grasped, while a portion of the slag may rest upon the prong 15, to support it while being lifted from the furnace. In this way the prong 15 answers the double purpose of contributing to the ease with which the slag may be removed from the furnace, cooperating with the tongs for this purpose. The jaws of the tongs being turned in the opposite direction from that of the prong 15, the two devices do not interfere with each other when they are being operated separately and they cooperate with each other under conditions where the tongs alone could not serve so conveniently as a means for lifting the slag or clinker from the furnace.

Very frequently large cakes of clinker or slag will accumulate in the furnace and, in order that an active fire may be preserved, the clinker must be taken from it, and therefore, the tongs may be used to seize the clinker while the prong serves as a means for supporting it and cooperating with the tongs for convenience in removing the slag or clinker.

Of course when using the device for the purpose of lifting the clinker the prong 15 should be turned in substantially a horizontal plane and placed underneath the cakes or chunk of slag or clinker, supporting the latter upon its upper surface. In cleaning the grate fire of the furnace there are two operations that are essential: one to clean the slag from between the grate bars, and the other, to remove the slag from the furnace, and these two devices are operable separately and properly cooperate with each other for serving the described purpose.

While I have herein shown a single embodiment of my invention for the purpose
of clear disclosure, it will be manifest to persons skilled in the art, that some change may be made in the general arrangement and configuration of the parts within the scope of the appended claim.

Having described my invention, what I claim as new, and desire to secure by Letters Patent is:

A furnace implement having a pair of hinged together handles, one relatively long and one short; a hook on the short handle to latch it to the long handle; a pair of tongs, one on each handle extending laterally from the hinge and a slice bar extending from one handle in an opposite direction.

In testimony whereof I hereunto subscribed my name.

OLOF F. BERGMAN.