

Dec. 13, 1949

G. CARRIS

2,490,898

LOCKING MEANS FOR ROCKABLE GRATE BARS

Filed Nov. 13, 1945

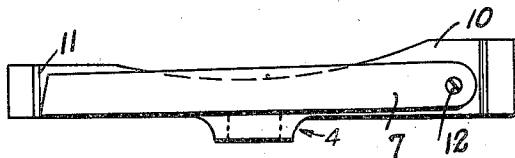


Fig. 1.

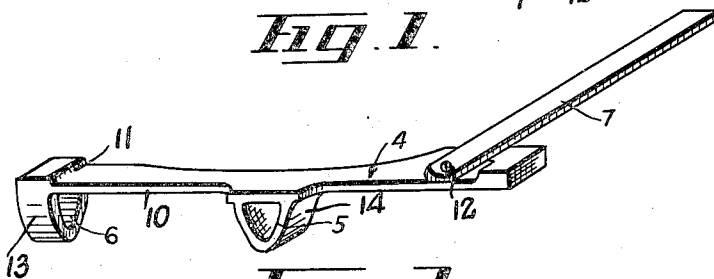


Fig. 2.

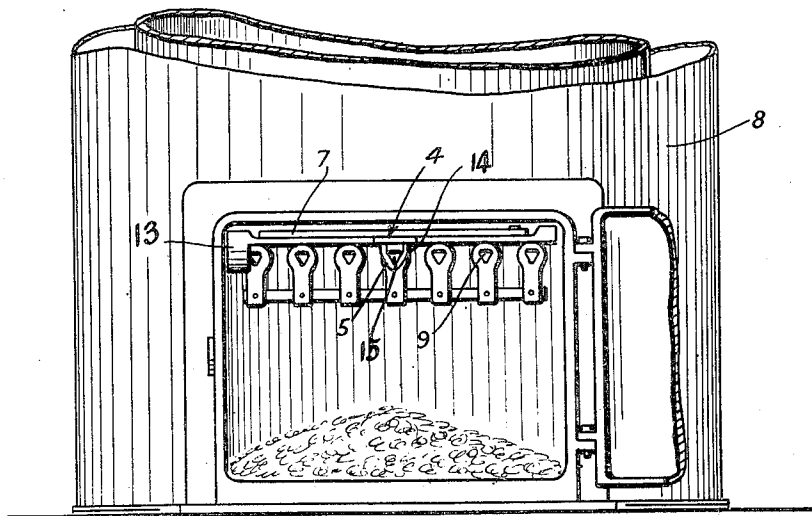


Fig. 3.

INVENTOR.

Gus Carris,

BY

Paul V. Park,
Att'y.

UNITED STATES PATENT OFFICE

2,490,898

LOCKING MEANS FOR ROCKABLE GRATE BARS

Gus Carris, Vancouver, British Columbia, Canada

Application November 13, 1945, Serial No. 628,216

3 Claims. (Cl. 126—169)

1

In burning some of the qualities and mixtures of coal now available a large amount of clinker is produced, and in the process of removing them from the fire box the grates are tipped and unburned fuel falls into the ash pit causing unnecessary waste. To avoid this and to lessen the care required in attending to the fires I have developed the hereinafter described attachment.

With these and other objects in view that may appear while the description proceeds, the invention consists in the novel construction and arrangement of parts as hereinafter more specifically set forth, claimed and shown in the accompanying drawings forming part of this application and in which:

Fig. 1 is a plan view with the shaker handle folded back;

Fig. 2 is a perspective with the handle extended;

Fig. 3 is part of a furnace showing the device in position keeping the grates locked.

In the drawings wherein for the purpose of illustration like numerals are employed to designate like parts throughout the same the numeral 4 denotes generally the locking device which comprises a flat bar 10 having its top surface recessed, as at 11, between its ends to receive a handle 7 pivotally attached at one end to the bar, as at 12. A pair of lugs 13 and 14 depend from the under side of the bar 10, the lug 13 being disposed at one end of the bar and the lug 14 intermediate the ends and protruding forward of one edge of the bar. The lug 13 has an opening 6 extending longitudinally of the bar to form a socket for interfitting engagement with the shaker spindle 15 of the grate bars 9 and is employed when the bar 10 is used for shaking the grates. The lug 14 has an opening 5 extending transversely of the bar 10 to provide a socket for interfitting engagement with the shaker spindle when the bar 10 is employed to lock the grates against movement. The grate bars 9 are rockably mounted in parallel relation in the ash pit of the furnace 8 and are interconnected for movement in unison when oscillated by actuation of the shaker spindle.

In operation, the grate bars 9 are locked against movement by positioning the bar 10 across the top of the grate bars with the socket 5 of the lug 14 engaged with the shaker spindle 15, as disclosed in Fig. 3. Until the bar 10 is removed any movement of the grate bars is prevented.

2

The bar 10 when removed may be employed to shake the grates by engaging the socket 6 of lug 13 with the shaker spindle 15 and swinging handle 7 at right angles to the bar so it may be used as a hand lever for actuating the bar 10 to oscillate the grate bars. The handle 7 also may be used for pulling the bar 10 from its locking position on the grate bars.

While the preferred embodiment of the invention has been disclosed it is understood that minor changes in the construction and arrangement of cooperating elements may be resorted to within the scope of what is claimed without departing from the spirit of the invention.

What I claim is:

1. The combination with a furnace grate including a series of rockable grate bars having a shaker spindle, of a locking bar adapted to extend transversely across the tops of the grate bars, and a depending lug intermediate the ends of said locking bar having a socket formed therein for interfitting engagement with the shaker spindle to secure the locking bar in locking position.

2. A device of the character described in claim 1 including a hand lever pivotally attached to one end of said bar for horizontal swinging movement at right angles to said locking bar.

3. The combination with a furnace grate including a series of rockable grate bars having a shaker spindle, of a locking bar adapted to extend transversely across the top of said grate bars, a lug depending from the locking bar intermediate its ends and forward of one edge thereof having a socket formed therein at right angles to the longitudinal axis of said locking bar for interfitting engagement with the shaker spindle of the grate to secure the spindle and grate bars against movement.

GUS CARRIS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
439,229	Wodell	Oct. 28, 1890
711,066	McCurley	Oct. 14, 1902
1,068,002	Mueller	July 22, 1913
1,228,626	White	June 5, 1917
1,246,937	Kohout	Nov. 20, 1917