(No Model.)

S. F. DOBBINS.

FURNACE GRATE.

No. 525,191. Patented Aug. 28, 1894.

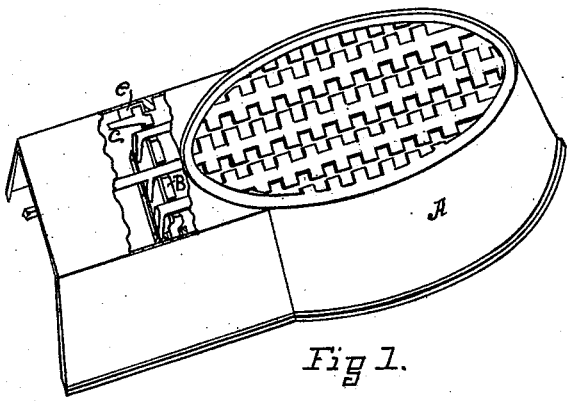

Fig 1.

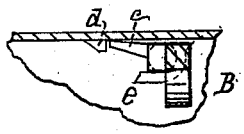

Fig 4

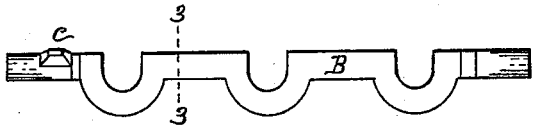

Fig 2

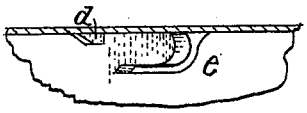

Fig 5

Fig 3

Witnesses:
A. B. Stillman.
A. E. De Forest.

Inventor:
Samuel F. Dobbins.
by J. H. Wells, Atty.

UNITED STATES PATENT OFFICE.

SAMUEL F. DOBBINS, OF MARSHALL, MICHIGAN.

FURNACE-GRATE.

SPECIFICATION forming part of Letters Patent No. 525,191, dated August 28, 1894.

Application filed March 28, 1894. Serial No. 505,514. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. DOBBINS, a citizen of the United States, residing at Marshall, in the county of Calhoun and State of Michigan, have invented new and useful Improvements in Furnace-Grates, of which the following is a specification.

My invention is adapted to either stationary bars, or bars that are so constructed as to rock upon journals, and pertains to the manner of fastening the supporting beam in the ashpit. The object sought is, ease in placing the grate in position, and in removing the same.

For the purpose of this application I have chosen the rocking grate composed of three bars, the back ends of which are journaled and supported in sockets. The front ends are also journaled and rest in depressions made in the upper surface of my supporting beam. This beam has an offset near each end, and at one end, a short arm extending forward from it. The ashpit is of cast iron in which sockets are provided to receive the back end of the grate bars and also one end of my supporting beam. A narrow shelf forms the support for the other end of the beam. On the under side of the top of the ashpit is a retaining lug, which in connection with the arm of the beam holds the beam upon the shelf as will be hereinafter more fully explained.

In the accompanying drawings which are a part of this specification, Figure 1 is a perspective view of an ashpit with the grate in place, a part of the top being cut away to show the supporting beam as it rests upon the shelf. Fig. 2, is an elevation of the beam. Fig. 3 is a top view of the same. Fig. 4 is an end view of the same partly in section through 3, 3, Fig. 2. Fig. 5 is a perspective view of the shelf on which one end of the beam rests, and also the retaining lug.

The supporting beam B is eccentrically journaled by means of the offsets *o o*, and when the beam is in its normal position the bearing surfaces are in substantially the same horizontal plane as the journals and the arm *c* extends from the journal in a direction opposite to the offset portions *o o*. The beam B. receives its support on the line 2 2 while the grate is supported by it on the line 1, 1. The effect of this is to tilt the beam and throw the outer end of the arm *c* up against the under side of the ashpit where it engages with the lug *d*, and the beam is thus held securely upon the shelf *e*. It will be seen that the more heavily the grate is loaded, the more securely the arm *c*, engages with the lug *d*.

To remove the beam and with it the bars of the grate, it is only necessary to pry the end of the arm *c*. down until it is below the lug when it may be drawn out.

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

The supporting beam B to a furnace grate herein described being eccentrically journaled by means of the offsets *o o*, and having the arms *c* extend from the journal in a direction opposite to that of the offset portions *o. o*, combined with the shelf *e* and lug *d*, substantially as and for the purpose specified.

SAMUEL F. DOBBINS.

Witnesses:
C. E. GANS,
I. A. WAY.