(No Model.)

H. H. WHEELER.

STOVE GRATE.

No. 329,868. Patented Nov. 3, 1885.

Fig. 1.

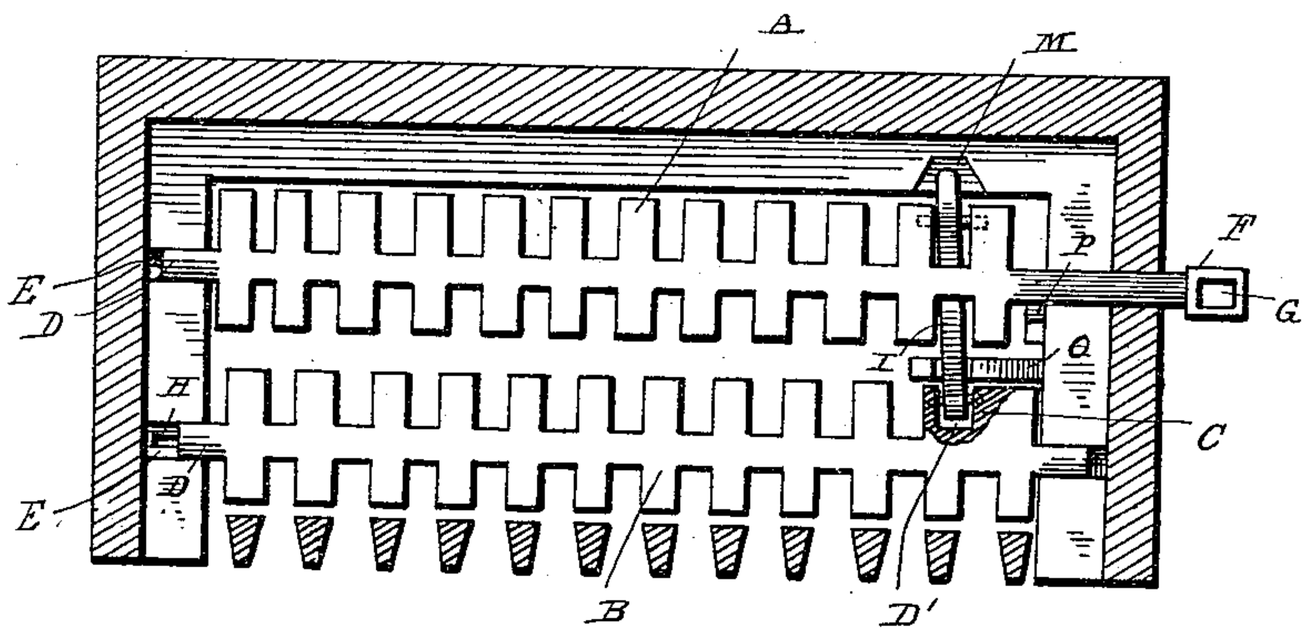


Fig. 2.

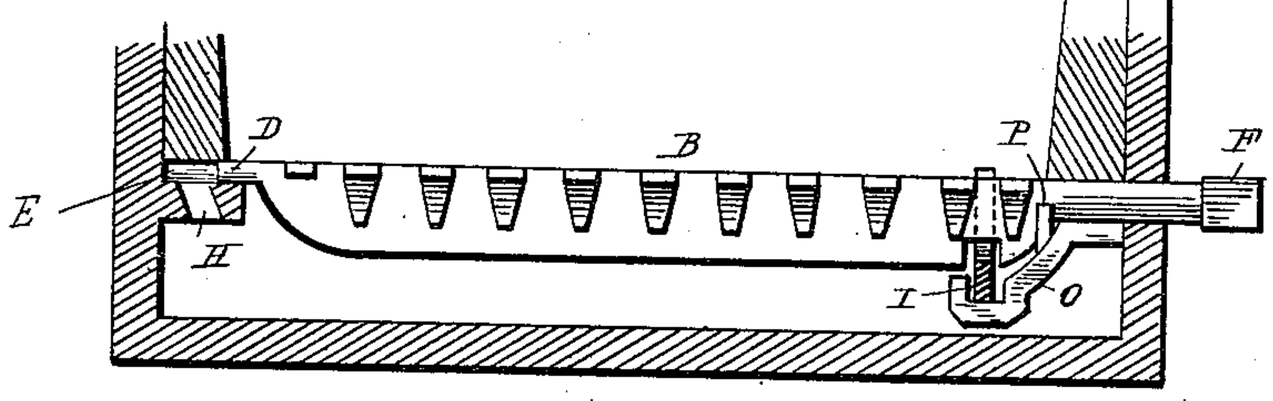


Fig. 3.

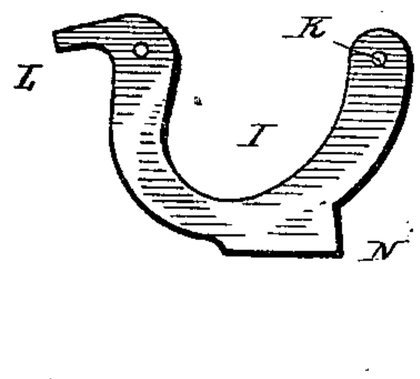
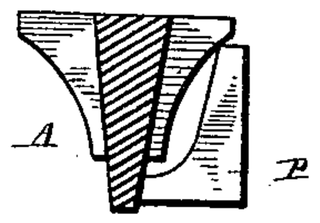


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY H. WHEELER, OF TIFFIN, OHIO, ASSIGNOR OF ONE-HALF TO THOMAS J. KINTZ AND JAMES F. LEAHY, OF SAME PLACE.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 329,868, dated November 3, 1885.

Application filed May 31, 1884. Serial No. 133,346. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. WHEELER, a citizen of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in Stove-Grates, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention is an improvement in grates, and is designed to produce a grate that, with simple mechanism, shall have a reciprocatory and a dumping movement; also, provide a means whereby the grate may be prevented from dumping when it is at rest.

In describing the device reference will be had to the annexed drawings, in which Fig. ure 1 represents a plan view of the grate, its surroundings being in section; Fig. 2, a longitudinal section through the grate, showing one of the grate-bars and its connections; Fig. 3, a detail view of the connecting-yoke, and Fig. 4 a detail section showing the retaining-lug.

In the figures are shown two grate-bars, A and B, respectively, though the number may vary with the dimensions of the grate. These bars are constructed of a central web and transverse lugs, as shown, the bar B having at one end and on one side a transverse lug of larger size than the others, which lug is provided with a slot on its under side. The lug is indicated on the drawings by the letter C, and the slot by D'. The bar A is formed at one end into a shaft, D, which rests in a suitable recess or bearing, E, in the framework surrounding the grate proper, and at the other end with an extended shaft passing through the frame and terminating in a head, F, which is provided with a slot, G, for the insertion of an operating-lever. The webbing which connects the transverse lugs on the grate-bar is shorter than the grate-frame, and thereby allows the said grate-bars sufficient room to have a certain longitudinal movement necessary in shaking the grate. The slots or bearings E are recessed into the grate-frame sufficiently to allow the said longitudinal movement of the grate-bars. These recesses are provided with slots H, leading down into the ash-pan, so that any ashes that may find their way into the said recesses will be immediately discharged into the said ash-pan, thus relieving the bearings from all obstructions.

Pivotally connected to the slot D' in the grate-bar B is a yoke, I, the connection being made by a pin, K, which passes through one arm of the yoke and into the sides of the slot. This yoke passes under the grate-bar A and connects with it (the said bar) between two of the lugs by means of a pin similar to the pin K. The yoke has a nose, L, which projects beyond the said connection with the grate-bar and rests normally in a slot, M, in the grate-frame. This slot is long enough to allow the yoke to travel with the grate-bar A in its longitudinal movement. The yoke at its center N is extended downward somewhat and has a beveled under surface. In the normal position of the grate this surface is nearly level, as is evident. The center N of the yoke rests in a bracket, O, preferably formed integral with the grate-frame. It will be seen that when the bar A is given longitudinal movement by means of a "shaker" inserted in the shaft-head F, the end of the yoke secured therein will move also, (the pin having a slight play in its seating,) which will cause the other bar to move in the opposite direction, the bracket O operating as a pivotal point for the yoke. Thus the grate is "shaken" or given a reciprocatory movement.

When it is desired to dump the grate, the lever is operated to turn the bar A on its shafts. The end of the yoke connected thereto will be elevated and cause the other end, secured to the bar B, to be depressed, carrying the said bar with it, the same operation being performed through a series of bars.

To prevent any unintentional dumping of the grate, a lug is cast on the frame at P, against which the web of the grate-bar A engages when the said bar is moved snug up to the frame.

When several bars are used in the grate, they are all connected by yokes and operated by one lever, as in the drawings. The lug P may also be multiplied.

Having described the device, what I claim is—

1. In combination with a series of grate-

bars, a yoke pivotally connected therewith and provided with a nose or projection normally resting in a slot in the grate-frame, substantially as and for the purpose specified.

2. The combination, with a series of grate-bars, of a yoke pivotally connected therewith and provided with an extended central portion having a beveled bearing-surface, and a bracket depending from the grate-frame, substantially as and for the purpose specified.

3. In combination with a series of grate-bars, a frame therefor in which the said bars have extended bearings, the frame having on it lugs, against which the web of the bars normally rests, substantially as and for the purpose specified.

4. The combination, with a series of grate-bars having extended bearings in a frame, of a yoke or yokes pivoted to the bars, provided with a nose or projection at one end, and a bracket depending from the frame, said frame having a slot or rest for the reception of the nose of the yoke and a lug or lugs, which engage with the bars, substantially as and for the purpose specified.

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

HENRY H. WHEELER.

Witnesses:
GEO. S. YINGLING,
HENRY T. HELLER.