

J. H. WENTWORTH.
Grates for Cooking Stoves.

No. 152,264.

Patented June 23, 1874.

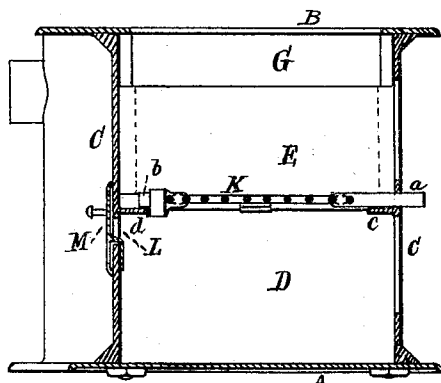


Fig. 3.

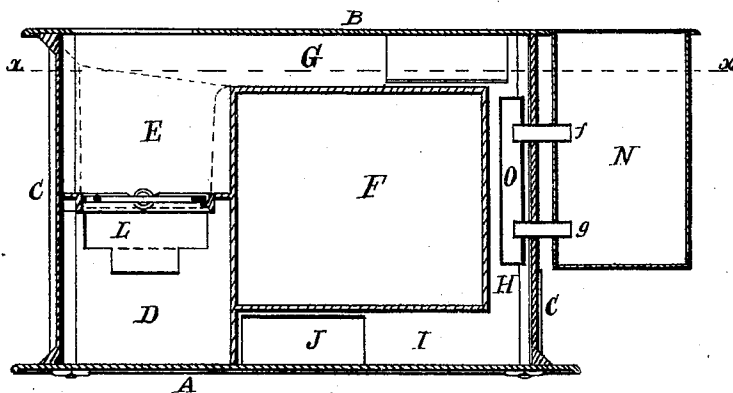


Fig. 2.

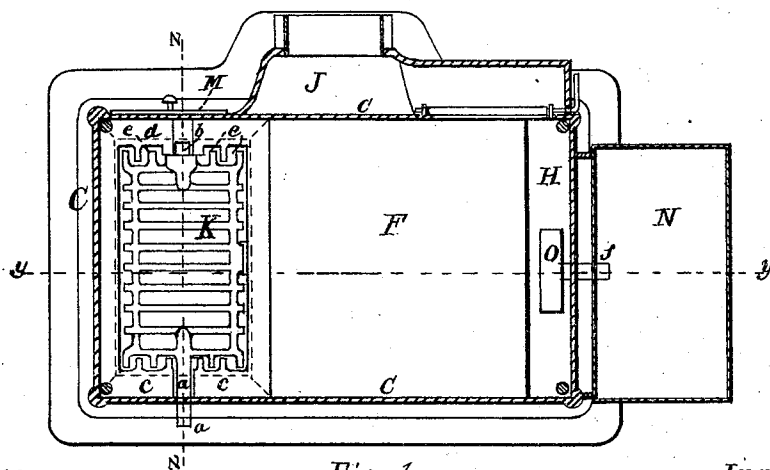


Fig. 1.

Witnesses,
G. A. Brown.
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UNITED STATES PATENT OFFICE.

JAMES H. WENTWORTH, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN GRATES FOR COOKING-STOVES.

Specification forming part of Letters Patent No. **152,264**, dated June 23, 1874; application filed April 21, 1874.

To all whom it may concern:

Be it known that I, JAMES H. WENTWORTH, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Grates for Stoves, of which the following, taken in connection with the accompanying drawings, is a specification:

My invention relates to the hanging of the grate and the provisions made for its removal from the fire-pot without disturbing the lining of fire-brick; and it consists in the formation of an opening in the rear wall of the ash-pit just below the grate, of sufficient size to admit of the grate being passed endwise through the same, said opening to be closed by a door, slide, or other suitable covering when the stove is in working order. It further consists in so hanging the grate that, by partially rotating it, and then raising the rear end slightly and swinging said rear end to the right or left, its rear journal will be brought over an opening in the bar at the rear of the fire-pot, and, by allowing the rear end of the grate to fall again, said journal will pass through the opening, and the whole rear end of the grate will fall below said bar, and by another partial rotation the grate will be brought into a position opposite the opening in the rear wall of the ash-pit, through which the grate may be entirely withdrawn without in the least disturbing the fire-brick lining of the fire-box.

In the drawings, Figure 1 is a sectional plan of a stove embodying my improvements, the cutting plane being on line *x x* on Fig. 2. Fig. 2 is a vertical section on line *y y* on Fig. 1, and Fig. 3 is a transverse vertical section on line *z z* on Fig. 1.

A is the base-plate; B, the top plate, provided with suitable openings for the stove-furniture; and C, the vertical wall-plates, all constructed and secured together in any well-known manner. D is the ash-pit; E, the fire-box, provided with the usual lining of fire-brick, as indicated in dotted lines; and F is the oven. G is the usual horizontal flue over the top of the oven. H is the vertical descending flue in the rear of the oven; and I is a horizontal flue below the oven, leading to the uptake or outside flue J, leading to the chimney, all arranged in the usual manner.

K is the grate, provided with the central pintles or journals *a b*, which rest in bearings in the bars or ledges *c d*, projecting inward from the walls of the fire-box, and upon which the fire-brick lining rests in the usual manner. The journal *a*, at the front end of the grate, projects through the bar of the wall-plate between the fire-door and the ash-pit door, and has its outer end squared to receive a wrench for shaking or revolving the grate. The journal *b*, at the rear end of the grate, rests in a semicircular groove, or half-box bearing, formed in the upper side of the ledge *d*. The inner edge of the ledge *d* is provided with one or more notches, *e*, of suitable depth and width to allow of the free passage of the journal *b* through the same by partially rotating the grate, drawing it toward the front, and swinging the rear end to one side until said journal is over said notch or opening. L is an opening, formed in the rear wall-plate of the ash-pit just below the ledge *d*, of sufficient size to admit of the passage of the grate endwise through the same. M is a door or cover, by which the opening L is closed at all times except when it becomes necessary to remove or insert a grate. When the rear end of the grate K has fallen below the ledge *d*, it is again rotated till it is in position to pass through the opening L, through which it is then withdrawn, and a new one may be inserted in the same manner by simply reversing the order of operations.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The opening L through the rear wall of the ash-pit below the grate, in combination with a cover or door, M, to close the same, and through which, by opening or removing said door or cover, the grate may be withdrawn from the fire-box, substantially as described.

2. In combination with the grate K and the opening L, arranged as set forth, the ledge *d*, provided with one or more notches, *e*, substantially as described.

Executed at Boston this 16th day of April, 1874.

JAS. H. WENTWORTH.

Witnesses:

L. A. WOOD,
WM. P. EDWARDS.