

(No Model.)

W. E. WALKER & G. E. WILBUR.

GRATE FOR HEATING STOVES.

No. 370,362.

Patented Sept. 20, 1887.

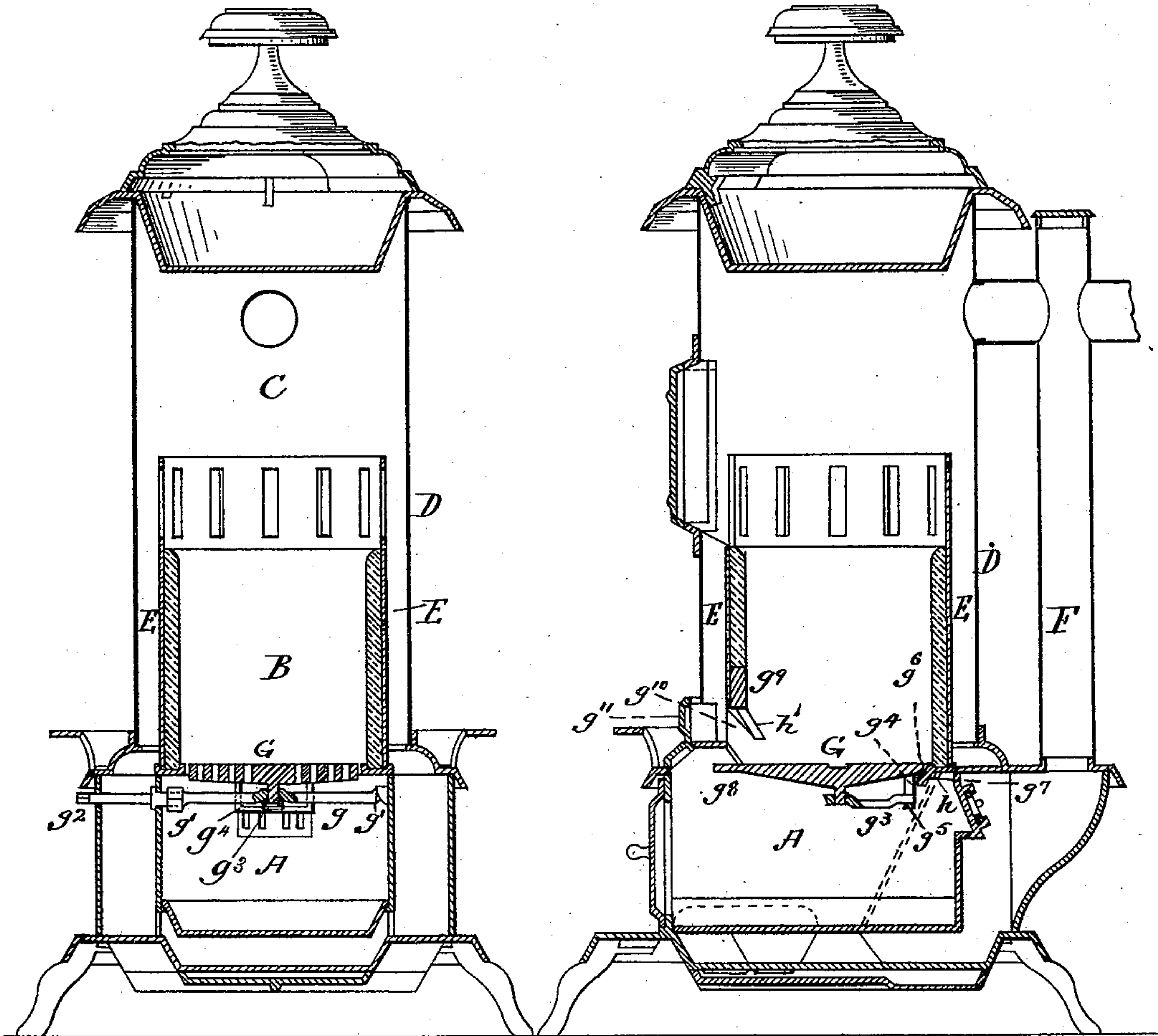


FIG. 1.

FIG. 2.

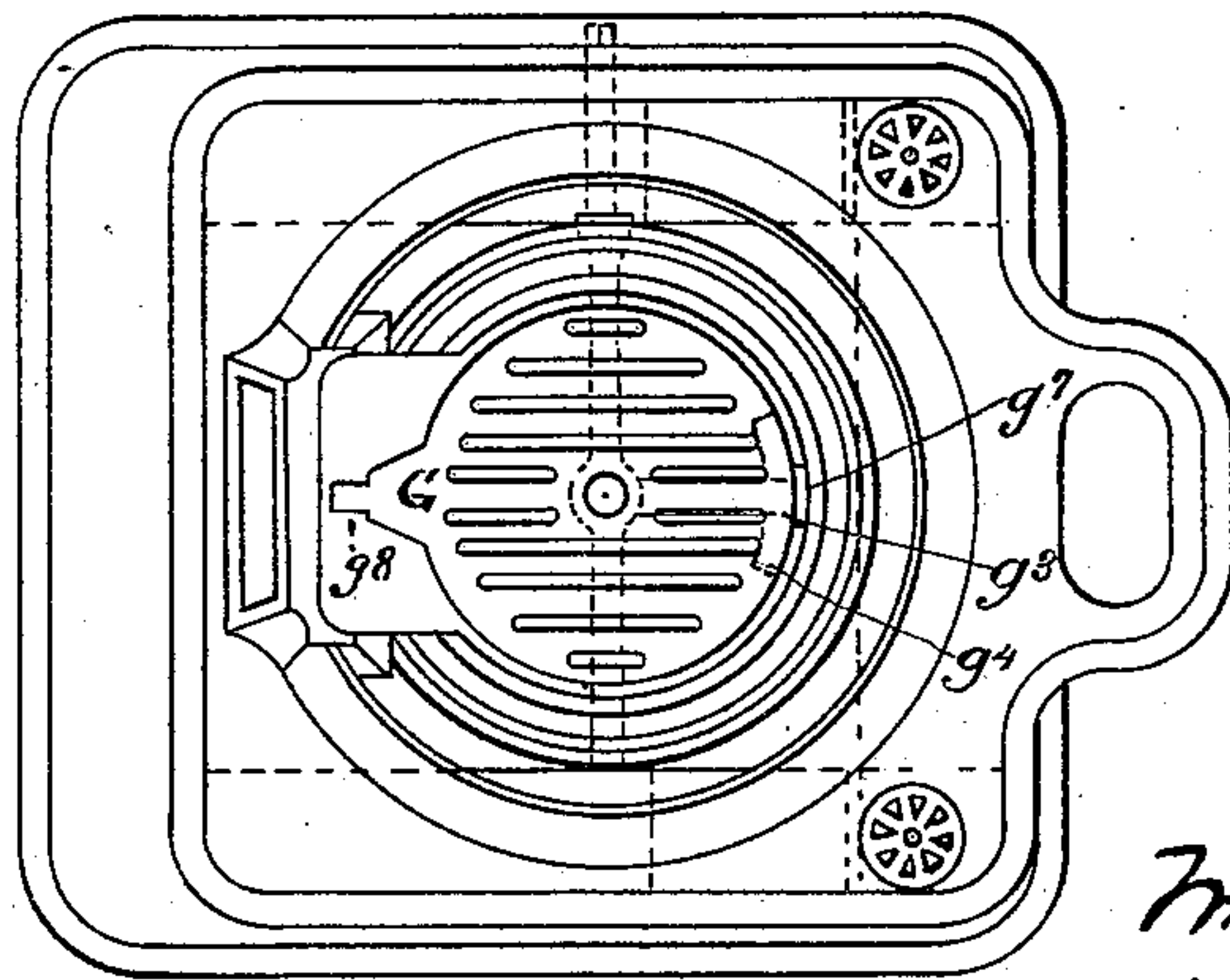


FIG. 3.

WITNESSES.

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GRATE FOR HEATING-STOVES.

SPECIFICATION forming part of Letters Patent No. 370,362, dated September 20, 1887.

Application filed April 2, 1885. Serial No. 161,018. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. WALKER and GEORGE E. WILBUR, both of Taunton, in the county of Bristol and State of Massachusetts, citizens of the United States, have invented new and useful Improvements in Grates for Heating-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in describing its nature, in which—

Figure 1 is a vertical section from side to side of a stove containing the grate. Fig. 2 is a vertical central section of the said stove from front to back. Fig. 3 is a section upon and a plan view taken on a horizontal plane with the upper surface of the upper base-plate of the stove.

The invention relates especially to the means of supporting or hanging the grate for dumping it.

In the drawings, A is the ash-pit; B, the fire-pot; C, the combustion-chamber; D, the outer casing of the main portion of the stove.

E E are downflues connecting the combustion-chamber with the base-flue. F is the uptake. G is the grate. It is carried or supported by the cross-bar g , which extends from side to side across the upper portion of the ash-pit chamber, and has bearings g' in the plates forming the sides of the ash-pit chamber, and one end, g^2 , extends through the outer plate of the base-section, and is shaped to receive a wrench or handle, whereby it is turned. The cross-bar g also has a backward-extending arm, g^3 , (see Fig. 2,) the end of which enters a slot, g^4 , in the downward-projecting lug g^5 , extending from the under surface of the rear portion of the grate.

The back edge or section, g^6 , of the grate is supported, when the grate is in a horizontal position, by the shoulder or ledge g^7 , which projects downwardly and outwardly from the plate h , which supports the fire-brick. The front portion or section, g^8 , of the grate preferably extends beyond the inner line of the fire-pot wall, as represented in Fig. 2. The front portion, g^9 , of the combustion-chamber does not extend down to the

level of the grate, (see Fig. 2,) there being between the lower edge of the wall and the upper surface of the grate, when in a horizontal position, the space g^{10} , by which access to the upper surface of the grate is provided through the door g^{11} . There are formed to project downward from the lower edge of the portion or section g^9 of the fire-pot the fingers h' , which have an inward direction or inclination, as shown in Fig. 2, so as to provide a space by which the upper surface of the grate can be reached from the door g^{11} , and also to prevent the contents of the combustion-chamber from crowding into said space.

It will be observed from the above description that the grate is arranged to dump its contents toward the front of the ash-pit chamber, and that the arm g^3 of the bar G strengthens the support and balances the grate, so that it is firmly held in a horizontal position against the shoulder g^7 , and cannot readily be tipped from that position, unless the door g^4 is turned; also, that the arm g^3 acts as a lever when moved by the arm g^2 , and brings the turning bar or force against the back edge of the grate, so that the dumping or turning of the grate is more easily accomplished.

It will be observed that by means of the opening g^{10} , and by hanging the grate so that it can be moved or tipped slightly downward at the front, clinkers can be readily sliced or moved off its upper surface into the ash-pit chamber below.

The subject-matter of this application was originally described in our application for Letters Patent filed December 22, 1884, Serial No. 150,907, and was removed therefrom by amendment duly filed.

Having thus fully described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination of the grate G, the slotted lug g^5 , extending downward from its rear end, the operating-bar g^2 , and its backward-extending arm g^3 , the end of which enters the slot in the said lug g^5 , all substantially as and for the purposes described.

2. The combination, in a stove, of the fire-
pot having the fingers h' extending down-
ward and inward from its front wall into the
chamber or space g^{10} , the said space or cham-
5 ber g^{10} , the door g^{11} thereto, the grate G, hav-
ing the hanger or lug g^5 extending downward
from its rear end, the operating-bar g^2 , and its
backward-extending arm g^3 , the end of which

enters the slot in the said hanger g^5 , as and for
the purposes described.

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Witnesses:

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