(No Model.) 2 Sheets—Sheet 1.

W. C. SMITH.

STOVE.

No. 327,336. Patented Sept. 29, 1885.

Fig. 1.

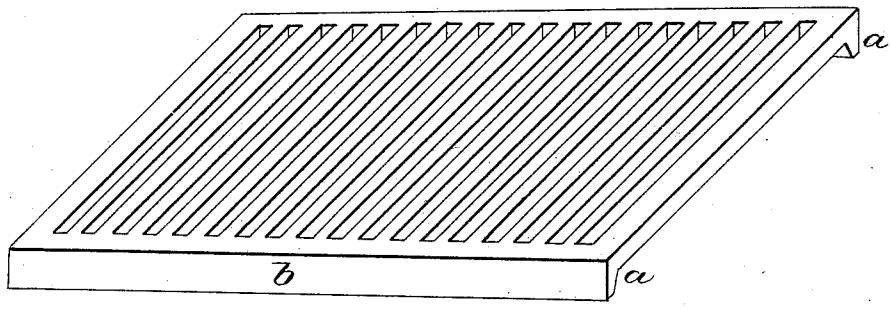


Fig. 2.

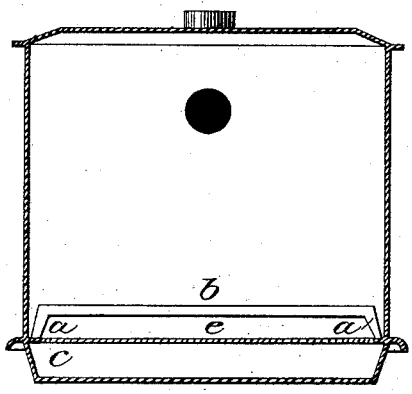


Fig. 3.

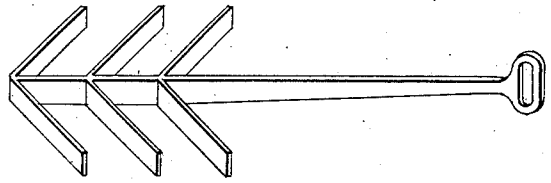


Fig. 4.

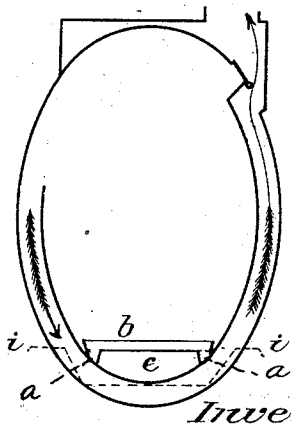
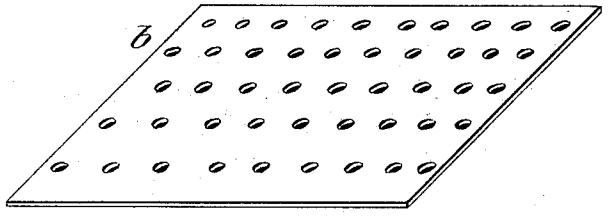


Fig. 5.



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(No Model.)

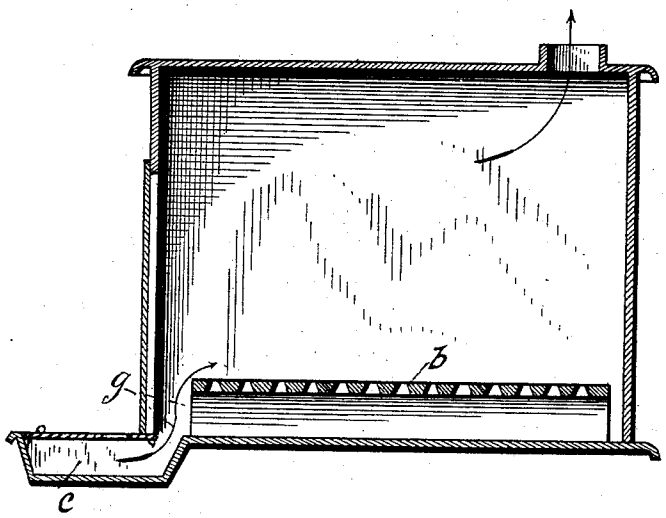
2 Sheets—Sheet 2.

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No. 327,336. Patented Sept. 29, 1885.

Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM C. SMITH, OF WARSAW, MISSOURI.

STOVE.

SPECIFICATION forming part of Letters Patent No. 327,336, dated September 29, 1885.

Application filed December 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, WM. C. SMITH, of the town of Warsaw, in the county of Benton, State of Missouri, have invented an Improvement in Wood-Burning Heating-Stoves, which consists of an ash-sifting device or attachment to be applied to all varities of wood-burning heating-stoves to secure the entire combustion of the fuel, and to furnish means for the removal of ashes without interfering with the fire, of which the following description, taken in connection with the accompanying sheet of drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

In the accompanying sheet of drawings, Figure 1 is a representation of the device to be used in the ordinary box-stoves having flat square bottoms; and it consists of a plate of cast-iron having openings through which the ashes may pass, and having flanges or feet *a a*, of sufficient width, or other suitable support sufficiently high to admit of the removal of ashes, to prevent an inconvenient accumulation in the fire-chamber. Fig. 2 is a sectional view of a square box-stove, showing the position occupied by the device at *b*, supported by its feet *a a*, forming a chamber, *e*. The ash-pit is formed in the hearth at the front, and is shown at *c*. Fig. 3 shows a device for removing the ashes from the chamber *e*, drawing them into the ash-pit *c*. Fig. 4 is a sectional view of the fire-box and flue of the Todd stove, showing the position occupied by the device at *b*, with its supports *a a*, forming the chamber *e*, the dotted lines *i i* showing position occupied by the hearth, and forming the ash-pit *c*. Fig. 5, *b* represents the device in the form of a perforated plate of cast-iron to be made of suitable size and form for any wood-burning heating-stove to which such a device may be attached, for the purposes described. Fig. 6 represents a longitudinal sectional elevation.

In the construction of wood-burning heating-stoves I do not claim as my invention a grate or a perforated plate, for they have been previously used, but not to secure the purpose or effect for which my invention is designed—namely, to form a supplementary chamber into which the accumulating ashes above within the fire-chamber may be transferred by sifting through the openings in the plate into the space made, by an occasional withdrawal of the ashes from the space beneath, without producing an under draft or otherwise affecting its operation as a wood-burning stove.

The perforated or slotted plate or partition *b* is placed on the bottom of the stove in the manner indicated by the drawings, and the ashes upon accumulating will sift through the partition *b* down into the space beneath said partition, and when necessary the ashes are raked or scraped forward into the receptacle *c*, and while there act somewhat to deflect or cause the incoming air to pass upwardly over the fire, all subsequently-formed ashes sifting down into the space under the plate, and being raked forward into the receptacle *c* from time to time, the latter being emptied when necessary.

The plate *b* is designed to be of a length less than the stove from front to rear, as shown, whereby a space, *g*, is formed between the front edge of said plate and the front or door of the stove, the hearth of the stove being constructed on a plane beneath or lower than the bottom thereof, as shown, by which the air entering at the draft-opening will be induced to follow the direction indicated by the arrow, Fig. 6. In raking the ashes forward into the pit from the space under the plate to provide space into which the accumulated ashes above will fall, it is not necessary to remove the entire mass that may have already sifted down, but simply enough to permit accommodation of those from above, it being desirable always to keep the space *e* well filled to attain the object sought. The necessary opening of the door for the insertion of the raking implement does not retard or interrupt the operation to any material extent.

What I do claim as my invention is—

The combination, with a wood-burning heating-stove having a hearth situated lower

than its bottom provided with a draft-opening immediately in the rear of and beneath the front wall of the fire-chamber, of a perforated ash-sifting plate located in the bottom thereof, the same being of a length less than that of the stove, whereby the space *g* is formed, and also having supporting legs or feet whereby a space is formed between the plate and the bottom of the stove, substantially as described.

WM. C. SMITH.

Witnesses:
JNO. E. MORGAN, Jr.,
D. B. HURLBUT.