(No Model.) 3 Sheets—Sheet 1.

H. C. BASCOM.

STOVE GRATE.

No. 307,703. Patented Nov. 4, 1884.

Fig. 1.

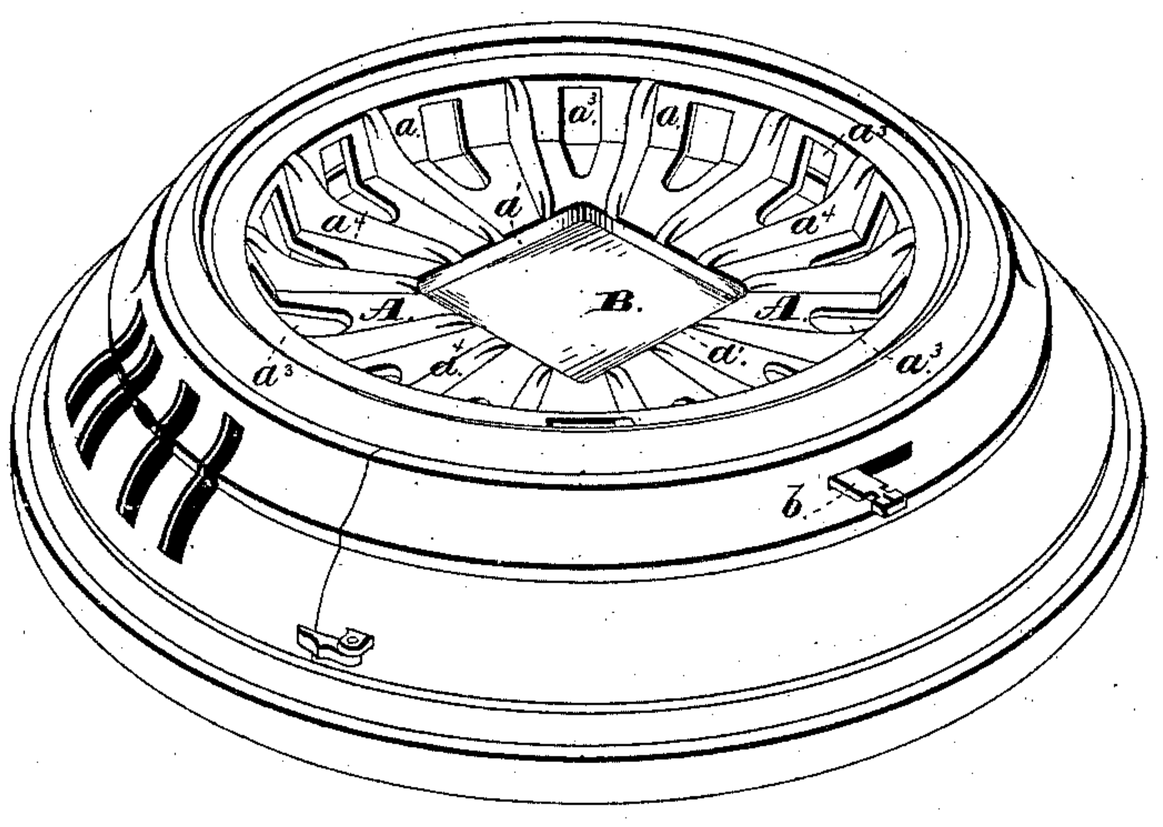
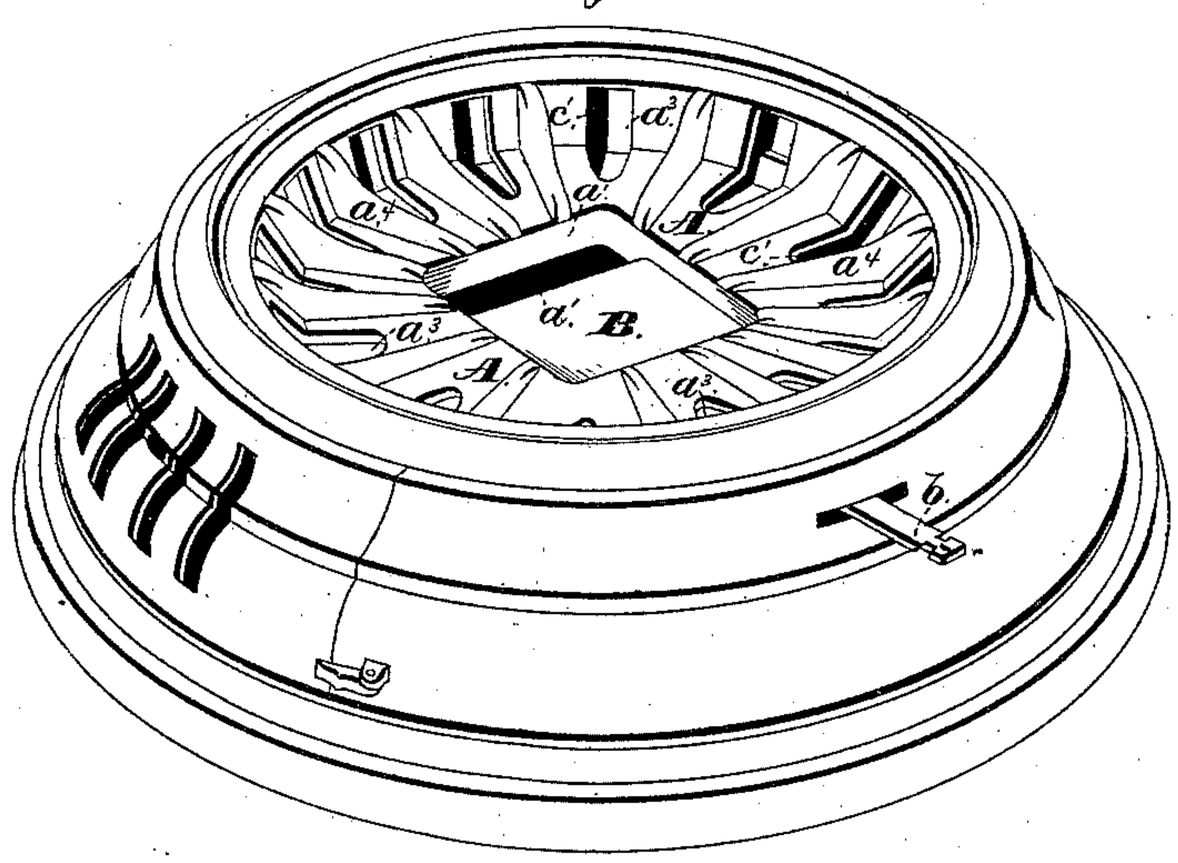


Fig. 2.



Witnesses:
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Henry C. Hazard.

Inventor:
H. Clay Bascom, by
Brindle & Russell, his Attys

(No Model.)

3 Sheets—Sheet 2.

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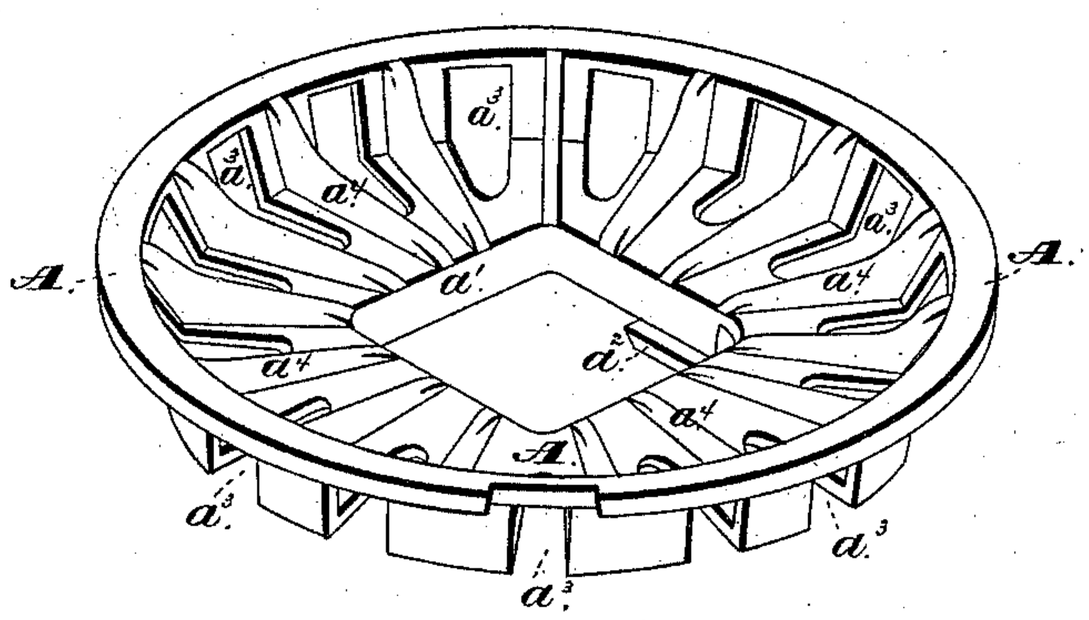
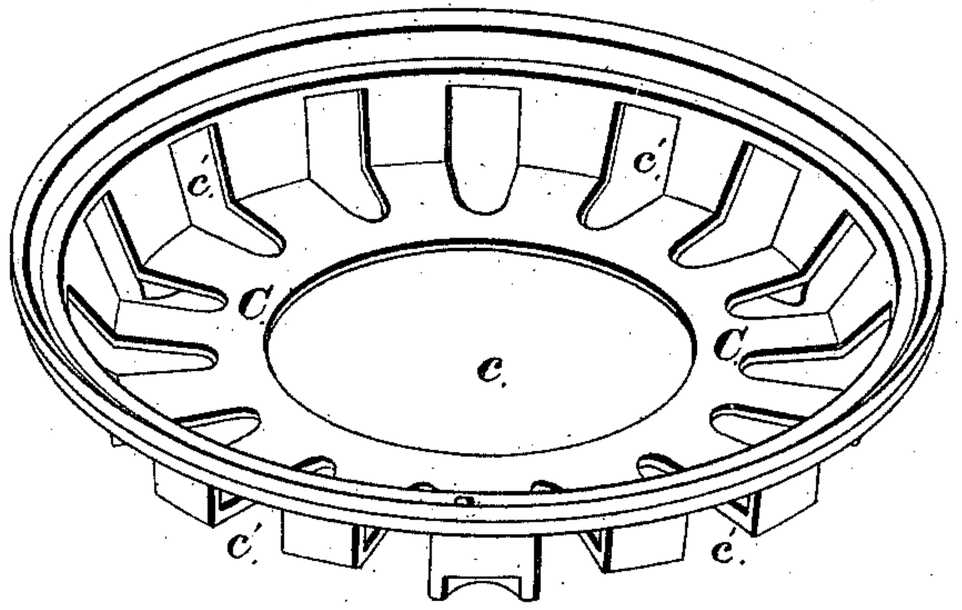
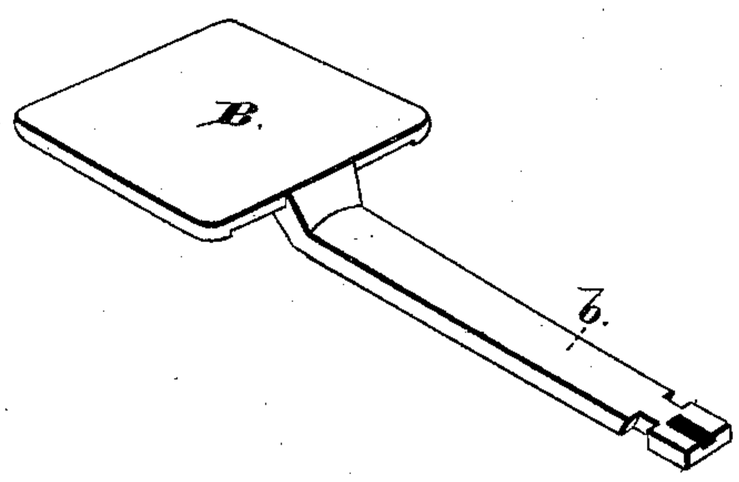
Fig. 3.







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(No Model.) 3 Sheets—Sheet 3.

H. C. BASCOM.

STOVE GRATE.

No. 307,703. Patented Nov. 4, 1884.

Fig. 4.

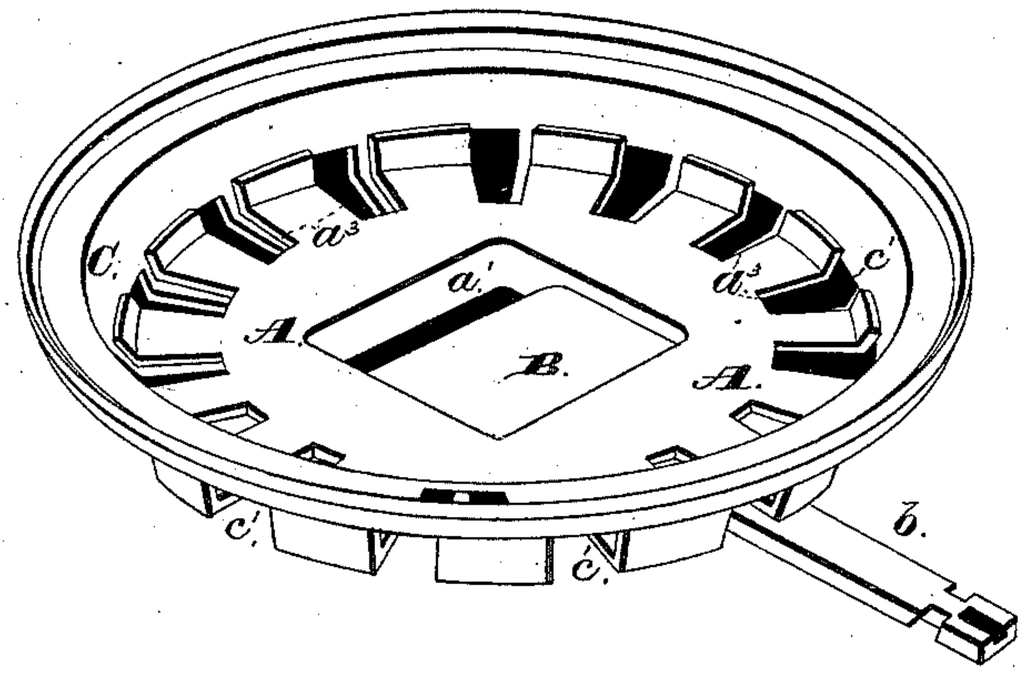
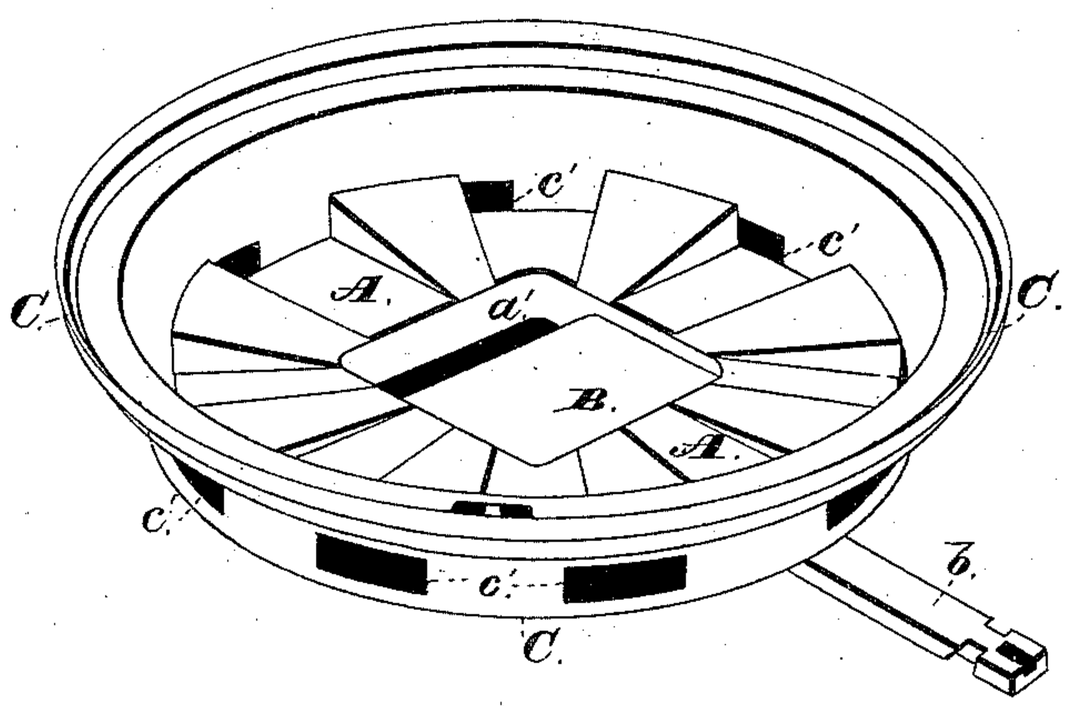


Fig. 5.



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Henry C. Hazard.

Inventor:
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UNITED STATES PATENT OFFICE.

H. CLAY BASCOM, OF TROY, NEW YORK.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 307,703, dated November 4, 1884.

Application filed August 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, H. CLAY BASCOM, of Troy, in the county of Rensselaer, and in the State of New York, have invented certain new and useful Improvements in Stove-Grates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my grate within the grate-section or base of a stove, said grate being closed to shut off the supply of air to the fuel. Fig. 2 is a like view of the same partially opened. Fig. 3 is a perspective view of the parts of said grate separated from each other, and Figs. 4 and 5 are like views of said grate in which are shown modifications in the construction of the same.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable a supply of air to be readily admitted to or cut off from the outside of the fuel-chamber of a stove and the same easily freed from ashes when desired; to which end said invention consists of the construction, arrangement, and combination of parts, as hereinafter described, and more specifically pointed out in the claims.

In the annexed drawings, A represents a circular grate which has at its periphery a flange, *a*, that extends upward and slightly outward for a short distance and thence horizontally outward, as shown.

At the center of the grate A is provided an opening, *a'*, which is preferably square, and is closed by means of a slide or valve, B, that is capable of being moved so as to partially or entirely unclose said opening. Said part B is preferably made to slide horizontally upon suitable bearings, a^2, and its operating-bar *b* is adapted for use in rotating said grate upon or around its axial center, as hereinafter shown.

At suitable points around its periphery the grate A is provided with radial openings a^3, which are preferably formed partly within the vertical portion of the flange *a* and in part within the horizontal portion or body of said grate, and between said openings are preferably provided radial ribs a^4, that extend from or near the central opening, *a'*, to the upper edge of said flange *a*, and serve not only to strengthen said grate, but also to hold ashes and to cause the same to be rotated with the latter when shaken.

The grate thus constructed rests within and is supported by an annular frame, C, which has such form as to cause it to embrace the lower side and periphery of the same, and at its center is provided with an opening, *c*, that has a diameter somewhat less than that of a circle which would intersect the inner ends of the openings a^3. Said frame is also provided with radial openings *c'*, that correspond in size, shape, and relative position to said openings a^3 of said grate, so that by a partial rotation of the latter said openings a^3 and *c'* may be caused to coincide, so as to permit of the passage of air, or each may be caused to come opposite to the solid portion of said grate or frame, and thus cut off the entrance of air.

The grate and frame thus constructed and combined is applied to a stove in the usual manner, and when arranged as shown in Fig. 1 prevents the admission of air to the fuel-chamber, but when arranged as seen in Fig. 2 permits air to enter said fuel-chamber at the lower end around the outside of the fuel, at which point the greatest good and best effect is produced.

When the grate is closed, the ashes which rest upon the solid portion of the same fall over the openings a^3, and, resting upon the frame beneath, effectually seal the same against the passage of air and enable the fuel-chamber to be effectually closed, so as to suspend combustion of the fuel, while upon the opening of said grate said ashes will fall into the ash-pit and leave free passages for the air. By withdrawing the slide B any ashes and cinders which have accumulated upon the central portion of the grate will fall through the same into the ash-pit.

While the central opening for the removal of ashes and cinders is preferably employed, it may be omitted without affecting the operation of the other portions of said grate.

In Fig. 4 is shown a modification in the construction of the grate A, in which is omitted the portion of the flange *a* above the air-passages *c'*, while in Fig. 5 said grate has circumferentially a corrugated form, and the ends of the raised portions are adapted to close said air-passages *c'* of the frame C, which passages

are formed wholly within the vertical portion of said frame.

I do not claim herein, broadly, as my invention a rotary fire-grate provided with a series of openings near its periphery, and resting upon a support also provided with openings with which those in the grate are adapted to come into coincidence as the grate is rotated, said grate and support being also provided with a central dumping-opening.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. A fire-grate adapted to be rotated around an axial center provided with a series of openings near its periphery and with radial ribs between such openings, in combination with the support upon which it rests and rotates, provided with a similar series of openings adapted to be brought into and out of coincidence with the openings in the grate by the rotation of the latter, substantially as shown and described.

2. In combination with the grate-supporting plate provided with a central opening and a series of openings near its periphery, the grate adapted to be rotated around its axial center, and provided with a central opening closed by a suitable slide, and with a series of openings corresponding with those in the supporting-plate, and radial ribs between these openings, and a handle by which the grate can be rotated, and the slide moved to open and close the central opening in the grate, substantially as shown and described.

3. In combination with the dish-shaped grate provided with a series of openings in its bottom around the periphery thereof, and extending up the sides of the grate, the dish-shaped support for the grate in and upon which the grate is adapted to rotate, and which is provided with a series of openings similar to those in the grate into and out of coincidence with which the openings in the grate are brought as the grate is rotated, substantially as shown and described.

4. A circular grate having a flat horizontal portion for supporting the fuel and an upright or standing portion around the edge thereof formed with a series of lateral draft-openings, in combination with the correspondingly-shaped circular grate-support within and upon which the grate is adapted to be rotated to and fro, and which has in its upright or standing portion a series of openings adapted to be brought into or out of register with those in the grate as the grate is rotated, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of July, 1883.

H. CLAY BASCOM.

Witnesses:
GEO. S. PRINDLE,
ROBT. GALBRAITH.