4 Sheets--Sheet 1.

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Improvement in Heating-Stoves.

No. 131,774. Patented Oct. 1, 1872.

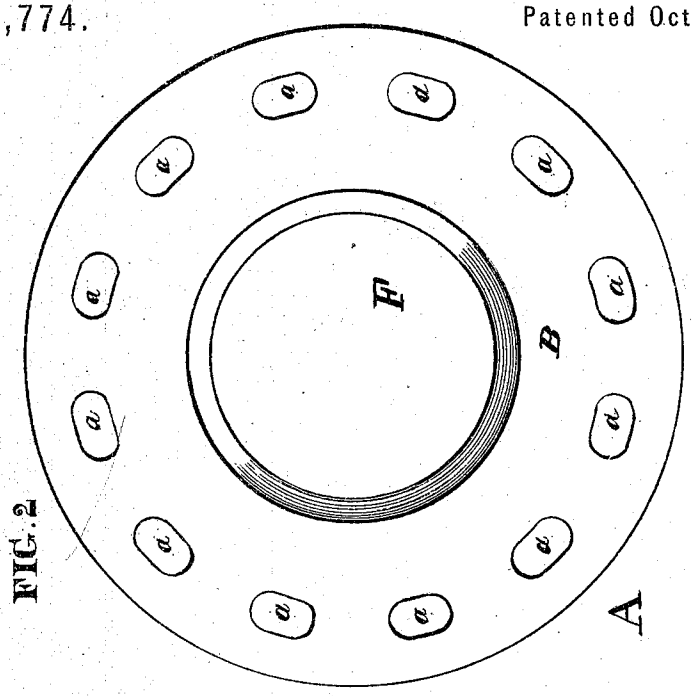

FIG. 2

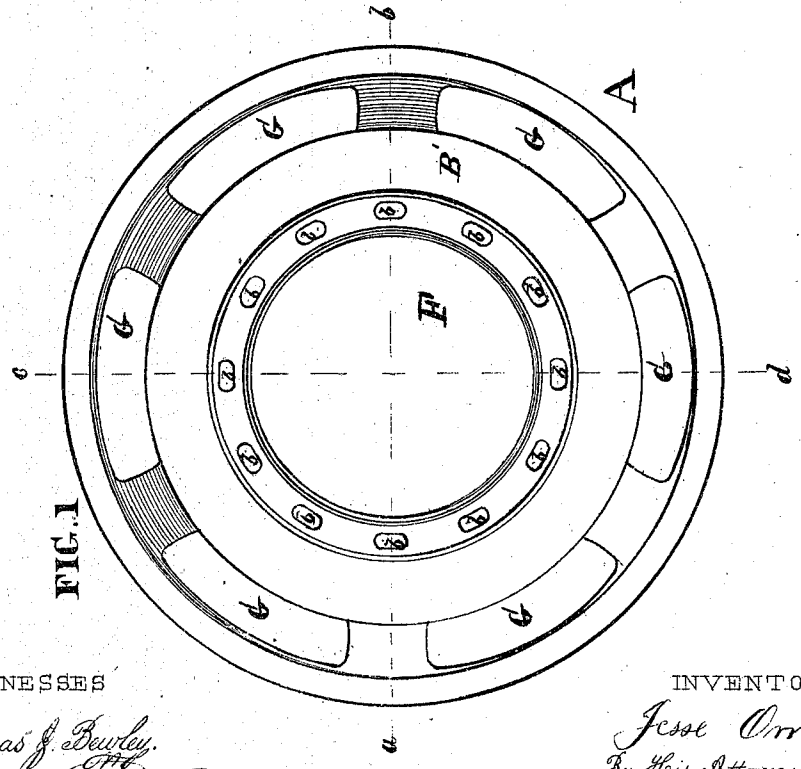

FIG. 1

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FIG. 4

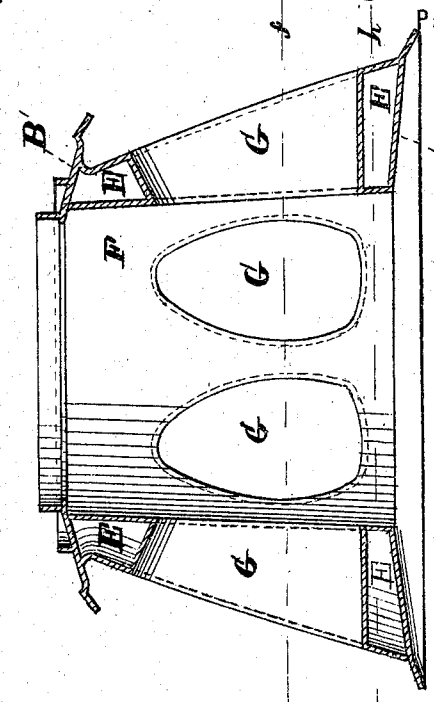

FIG. 3

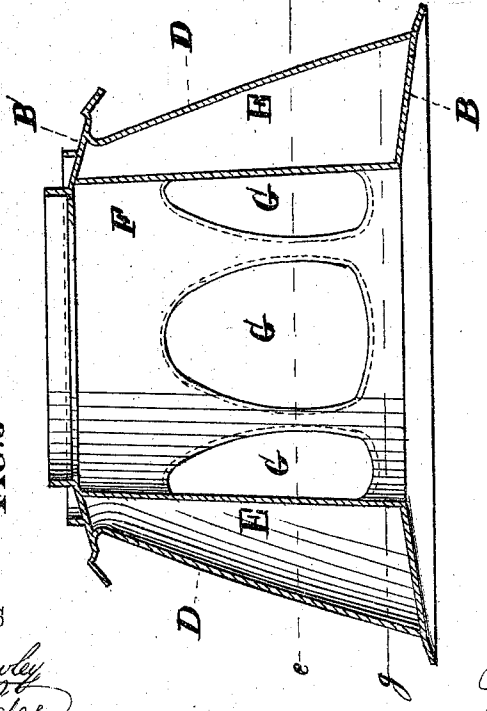

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FIG. 6

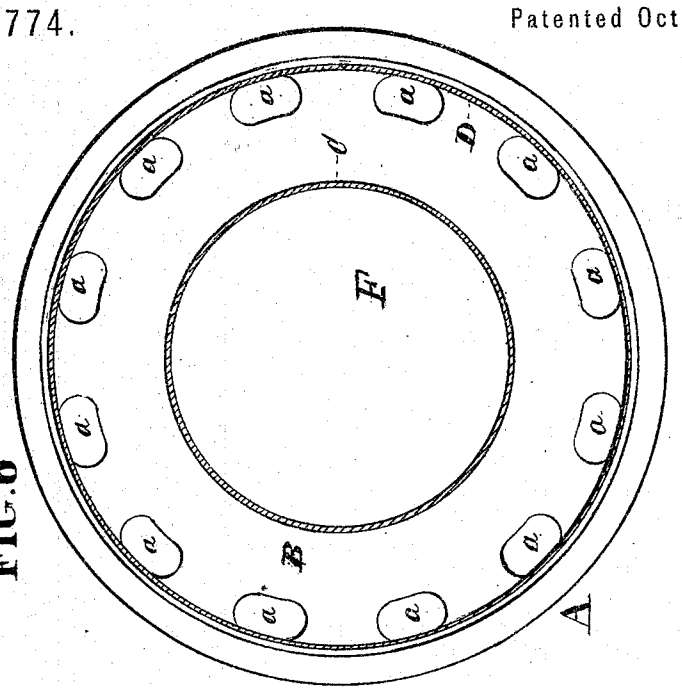

FIG. 5

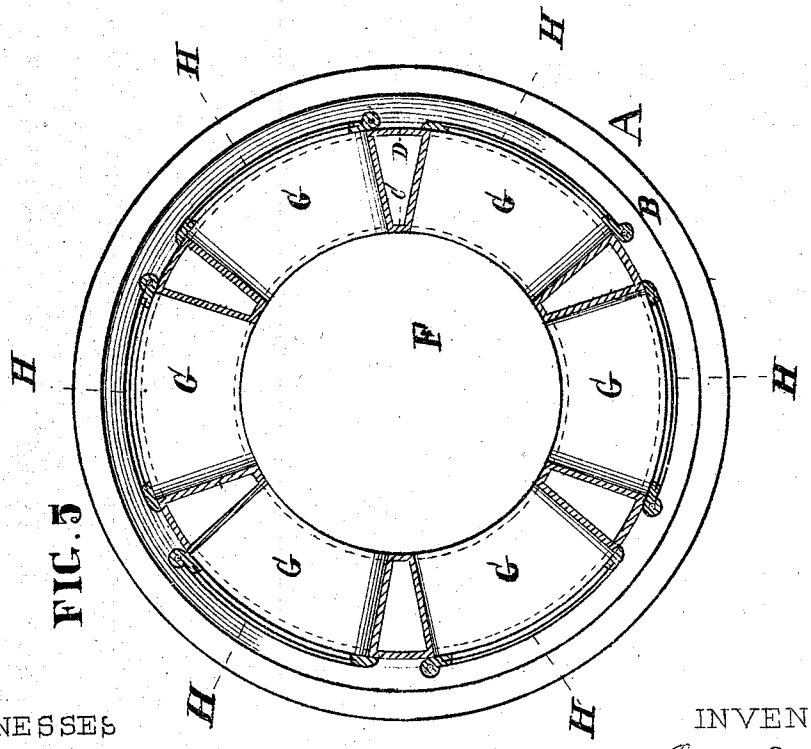

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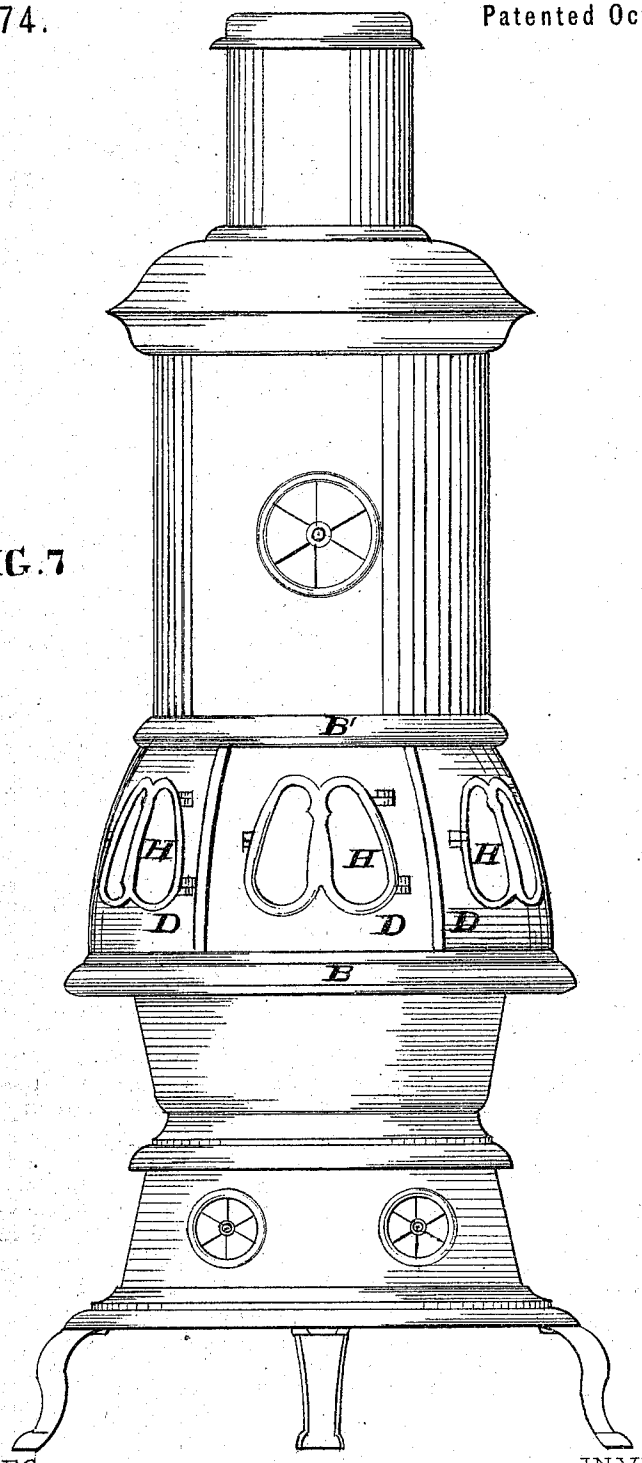
FIG. 7



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UNITED STATES PATENT OFFICE.

JESSE ORR, OF READING, PENNSYLVANIA, ASSIGNOR TO ORR, PAINTER & CO., OF SAME PLACE.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **131,774**, dated October 1, 1872.

To all whom it may concern:

Be it known that I, JESSE ORR, of Reading, in the county of Berks and State of Pennsylvania, have invented certain Improvements in Heaters, of which the following is a specification:

The invention relates to that class of heaters which are used for heating both a lower and upper room; and consists in constructing a section connected with the top of the fire-chamber with double walls, between which is an annular space for the ascent of a portion of the heated air which passes from the fire-chamber through suitable openings in the bottom annular plate of the section. It passes from said annular chamber through openings in the top plate of the same into the top part of the heater, and from thence is conducted in the usual way to the room above. The lower room is heated by means of radiation through the sides of the heater and from the heated air inside of the above-mentioned section, which passes through cross-passages and mica doors of the outside walls which cover said passages.

Figure 1 is a plan view of the section A of the heater. Fig. 2 is a reverse section of the same. Fig. 3, Sheet No. 2, is a vertical section at the broken line *a b* of Fig. 1. Fig. 4 is a like section at the line *c d* of Fig. 1. Fig. 5, Sheet No. 3, is a cross-section at the line *e f* of Figs. 3 and 4. Fig. 6 is a cross-section at the line *g h* of Figs. 3 and 4. Fig. 7, Sheet No. 4, is a front elevation of the improved heater.

Like letters in all the figures indicate the same parts.

A is a section of the heater, whose lower annular plate B connects with the top of the fire-cylinder, (not shown in the drawing.) The upper annular plate B′ connects with the upper section of the heater. C is the inner wall of the section, and D the outer wall. The rest of the heat is radiated through the sides of the stove, or passes out from the interior of the above-mentioned section through cross-passages of the section and mica doors, which cover the same, into the lower room, as hereinafter fully described. The heat which ascends from the fire-chamber into the central space F of the section A passes through the radial spaces G, seen more clearly in Figs. 4 and 5, and the mica doors H, which are hung to the outer wall D and cover the outlet of the spaces, and unites with the heat radiated from the sides of the heater in warming the room in which the heater is situated.

I claim as my invention—

1. The section A, having double walls C D forming the annular space E, with the plates B and B′ having openings *a* and *b*, respectively, the said section being arranged and operating, in relation to the fire-chamber and the upper part of the heater, substantially in the manner and for the purpose set forth.

2. In combination with the walls C D, the radial spaces F provided with mica doors H for the transmission of heated air from the interior of the section A, as and for the purpose specified.

JESSE ORR.

Witnesses:
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F. M. BANKS.