(No Model.) 2 Sheets—Sheet 1.

E. W. ANTHONY.

PARLOR AND OTHER HEATING STOVES.

No. 246,995. Patented Sept. 13, 1881.

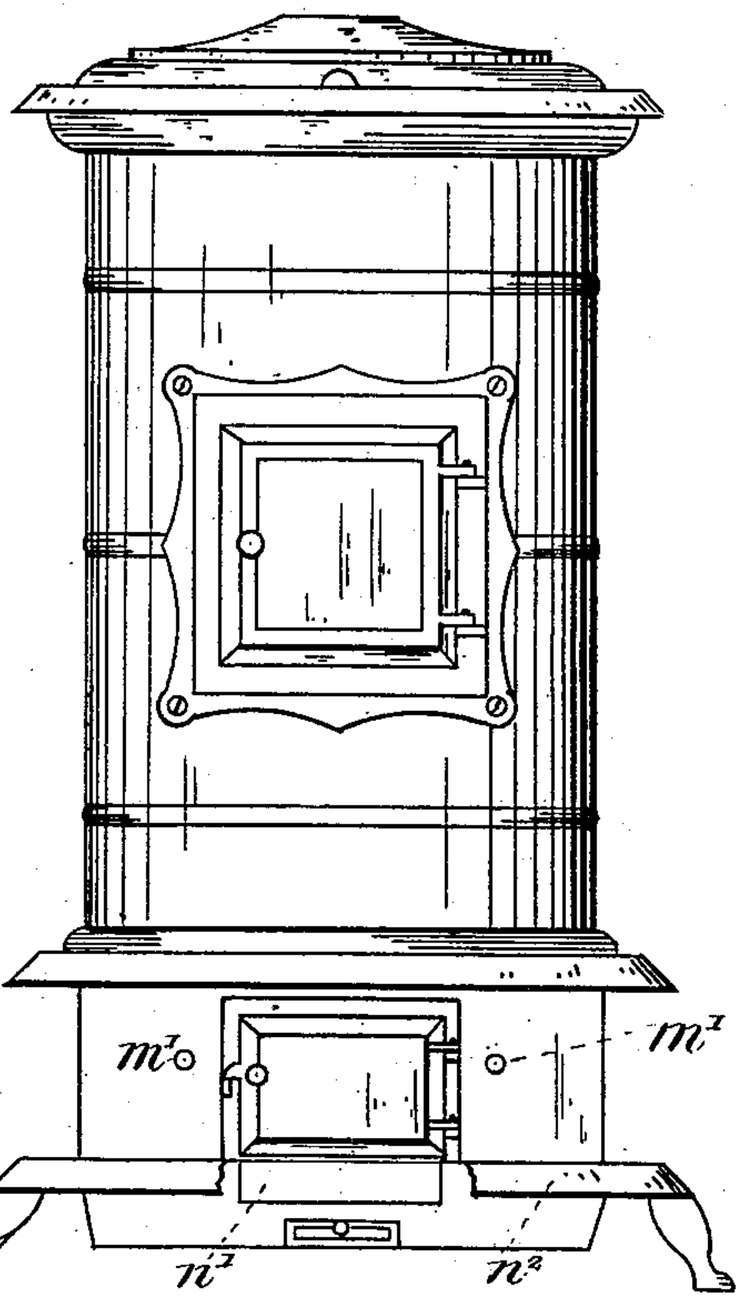

Fig. 1.

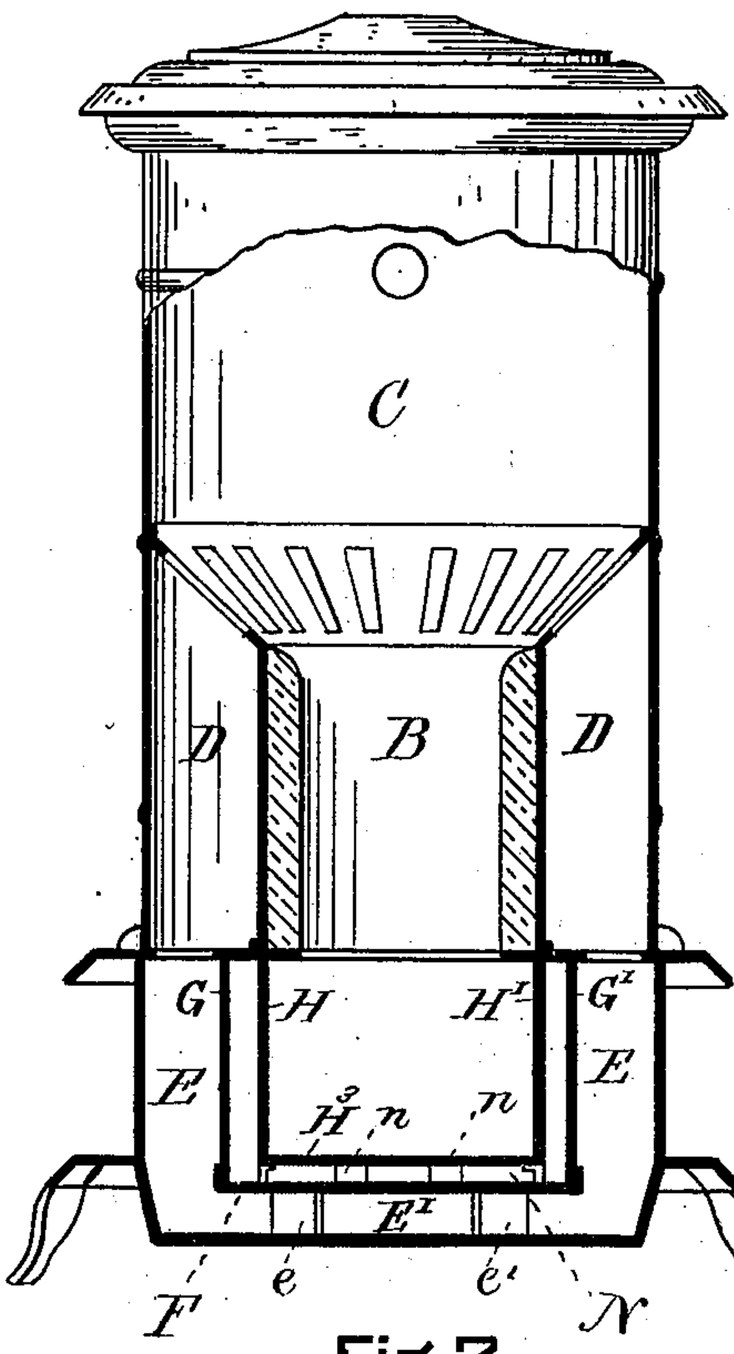

Fig. 2.

WITNESSES

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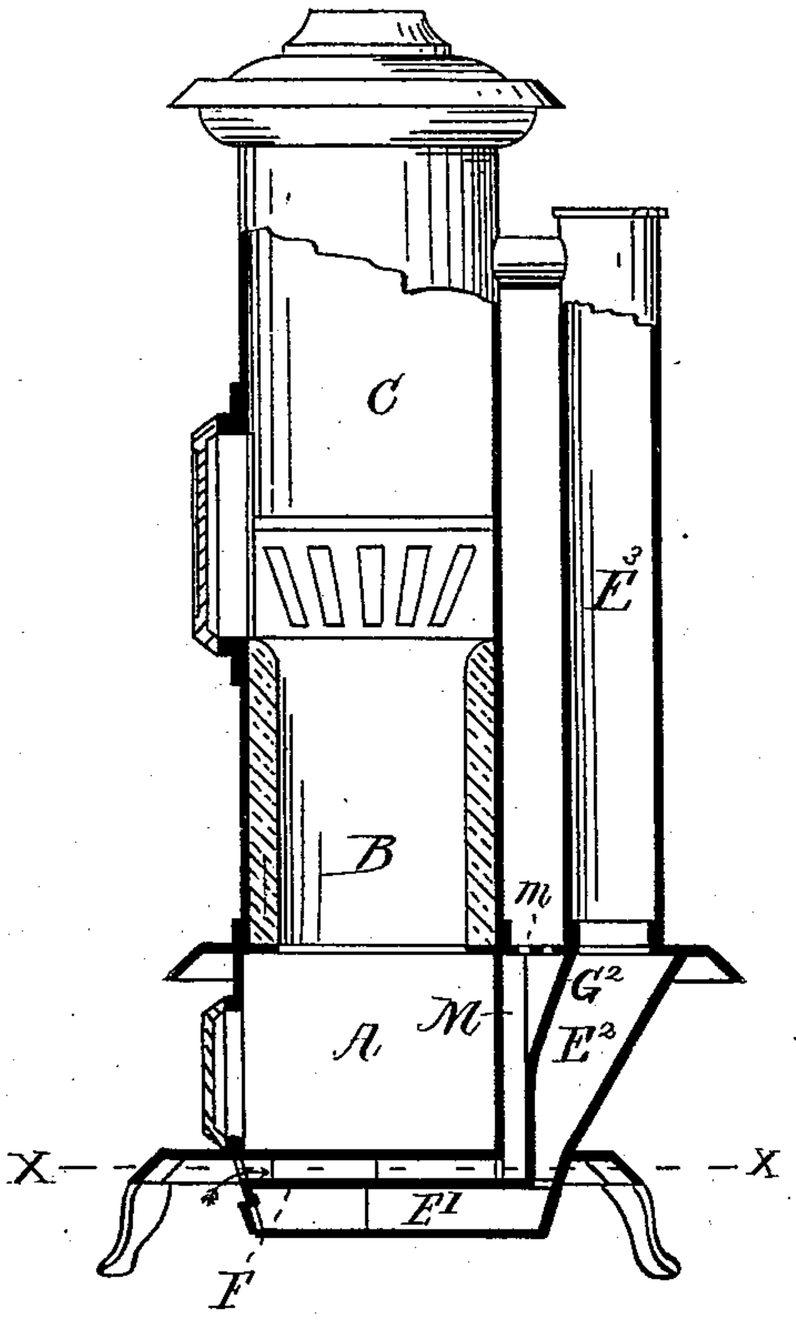

Fig. 3.

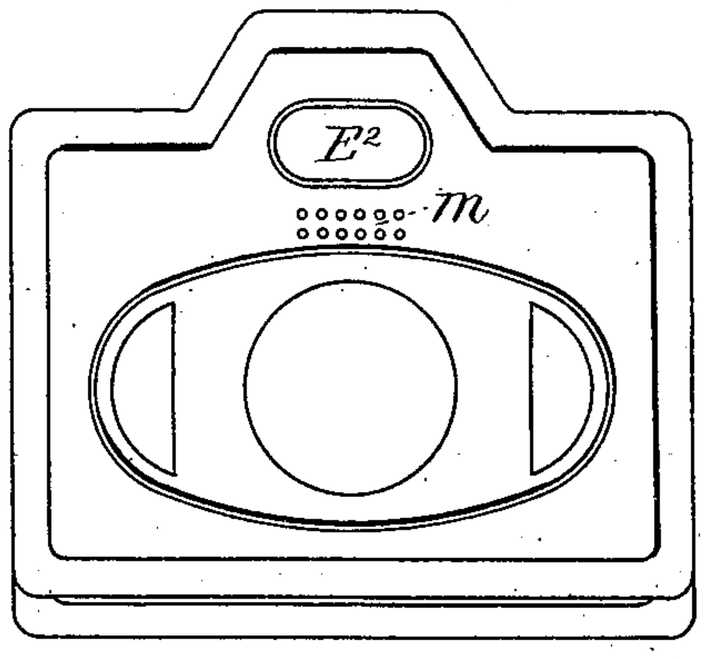

Fig. 4.

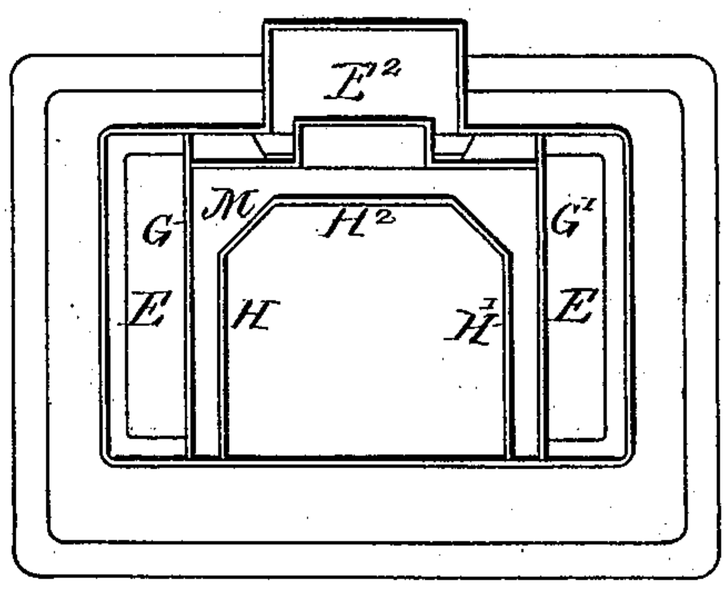

Fig. 5.

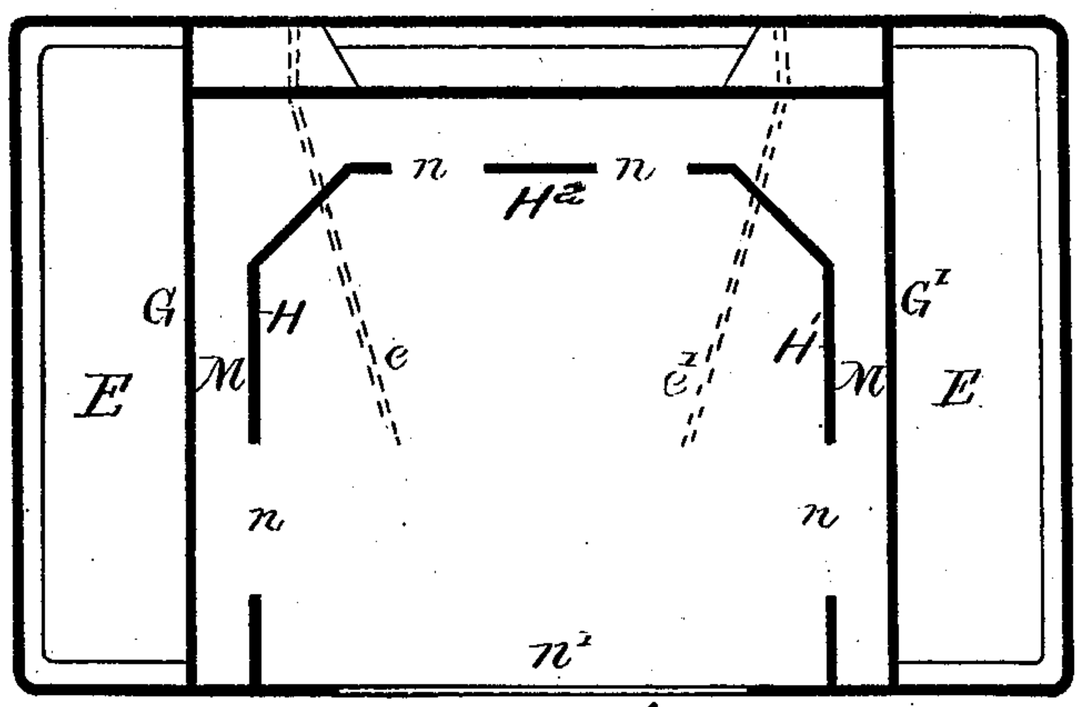

Fig. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

EDGAR W. ANTHONY, OF BOSTON, MASSACHUSETTS.

PARLOR AND OTHER HEATING STOVES.

SPECIFICATION forming part of Letters Patent No. 246,995, dated September 13, 1881.

Application filed June 6, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDGAR W. ANTHONY, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Parlor and other 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 explaining its nature, in which—

Figure 1 is a front elevation of a stove containing my invention. Fig. 2 is a view, part in section and part in elevation, illustrating my invention. Fig. 3 is a view, part in side elevation and part in cross-section, further illustrating my improvement. Fig. 4 is a plan of the base of the stove. Fig. 5 is a plan of the base of the stove with the top plate removed. Fig. 6 is an enlarged horizontal section of the base, on the line *x x* of Fig. 3.

The object of this invention is to increase the heating capacity of a stove, and to also provide means whereby a circulation of air is obtained and maintained about the stove and in the room in which it is contained; and these results I accomplish by surrounding the ash-pit wall with another wall in such a manner that a passage or chamber is provided between the walls of the ash-pit and the auxiliary walls, into which cold air is introduced at the front of the stove, and from which the air which has been heated therein escapes, preferably at the upper portion of the rear part of the base—that is, the ash-pit—instead of being surrounded by a single wall or having a single plate at the sides, end, and bottom, has a double wall at the sides, end, and bottom, with a passage or chamber between the walls, into which air may flow at or near the bottom, and from which it may escape at or near the top.

My invention also relates to the construction and arrangement of flue-plates, whereby this improvement is easily and cheaply adapted for use.

A is the ash-pit. B is the fire-pot. C is the combustion-chamber. D is the side diving-flue connecting the combustion-chamber with the base diving-flue E, and continuation of said diving-flue D. *e e'* (shown in dotted outlines in Fig. 6 and in section in Fig. 2) are flue-plates extending from the rear end of the base toward the front and partially converging, leaving, however, a sufficient space between their front ends and the front of the base for the products of combustion to pass into the flue E', which communicates with the inclined passage E^2 in the rear of the base connecting with the uptake E^3.

The construction so far described is like that of ordinary parlor-stoves of this class, with the exception that the flue-strips *e e'* are made less high if the depth of base is not increased.

To employ my invention the plate F is placed upon the flue-strips *e e'*, and the vertical side and end walls, G G' G^2, are provided. This construction of plate and walls may, however, be the walls of the ash-pit before the application of my improvement, in which case I would add to the stove the inner side walls, H and H', the end wall, H^2, and the bottom plate, H^3, the said plate being cast in one piece with the side and end walls, if desired. Whichever construction is used, whether the wall is built outside the original wall of the ash-pit chamber or whether the wall is built inside of the original wall of the ash-pit chamber, there is located between the sets of walls H H' H^2 and G G' G^2, a vertical passage or chamber, M, upon all sides of the ash-pit excepting the front, and there is arranged between the two bottoms H^3 and F the horizontal passage or chamber N. This horizontal passage or chamber N opens into the vertical chambers by means of the holes or inlets *n* in the lower portions of the side walls, H H' H^2, and it opens to the outer air horizontally by means of the opening *n'*, which may be below the ledge n^2 of the stove or above it, as desired. The vertical chambers M connect with each other, and the rear one preferably is provided with the openings *m* between the uptake E^3 in the top plate and the casing of the stove, through which the heated air escapes. There may also be one or more holes, *m'*, in the front of the base communicating directly with the chambers M, whereby cold air may be admitted to them.

In lieu of the passage *n'* at the front of the stove for admitting cold air to the chamber N, any other suitable inlet may be employed, and bearing any other desirable relation to the said chamber.

It will be noticed that the inner walls of the chambers or passages N and M separate the passages from the ash-pit chamber, and that they are heated by the radiation of heat from the fire, and that a heating-surface which hitherto has been of no account for heating purposes is therefore made of avail.

It will also be observed that the outer and lower walls of the chambers or passages M and N separate them from the base diving-flue E, and that therefore they are heated by the circulation of the heated products of combustion about them. Consequently the cool air introduced into the chamber N and from thence to the chamber M passes between two heated walls, one of which is heated by heat obtained from the ash-pit and the other of which is heated by the heat in the base flue or flues, and that the entire surface of these walls is heated from the cold-air inlet to the hot-air outlets. By heating the air in this manner a circulation of air in the room is obtained, as the hot air rising from the passage causes the cold air in the room to be thrown down and makes a draft in the passages, whereby it is drawn between the heated plates or walls, as described.

By this construction the radiating-surface of the base of a stove is very nearly, if not quite, doubled.

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

1. In a parlor or other heating stove, an ash-pit surrounded upon its sides, back, and bottom by two walls, one of which, in connection with the walls of the ash-pit, forms a passage through which air from the exterior of the stove may pass.

2. The combination and arrangement, in a parlor or other heating stove, of the ash-pit A and the air-flue M N, surrounding the sides, back, or either, and bottom of the ash-pit, and surrounded by the base diving-flue E, substantially as described.

3. The combination of the flue-strips *e e'*, the horizontal plate F, the vertical plates G G' G^2, with the horizontal plate H^3, located above said horizontal plate F, and the vertical plates H H' H^2, all arranged in relation to each other to form the chambers M and N, substantially as and for the purposes described.

4. As an attachment for a parlor or other heating stove, the auxiliary casing consisting of the horizontal plate H^3 and the vertical plates H H' H^2, adapted, as described, to be placed within the walls forming the ordinary ash-pit, and to form therewith one or more chambers or passages, all substantially as and for the purposes set forth.

EDGAR W. ANTHONY.

Witnesses:
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W. C. FOGG.