D. N. MARTIN.

Stove.

No. 22,963. Patented Feb. 15, 1859.

Fig. 1.

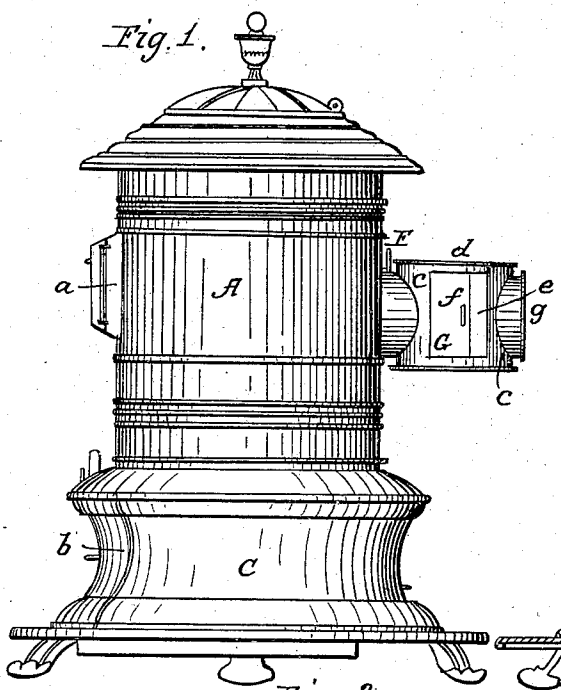


Fig. 2.

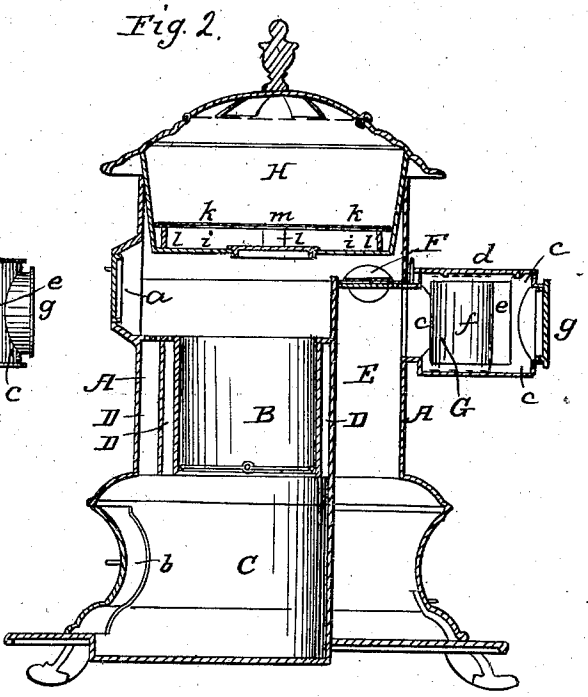


Fig. 3.

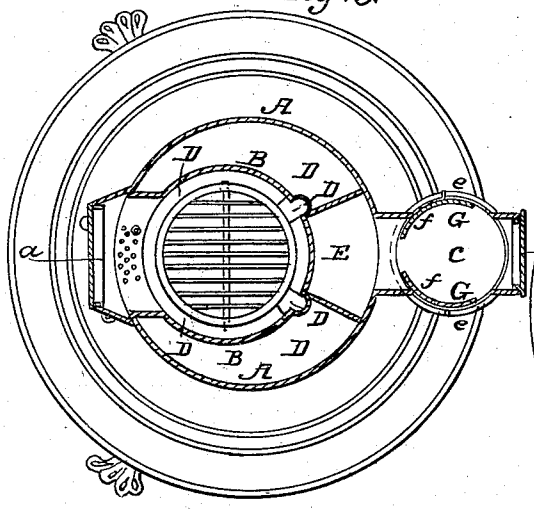
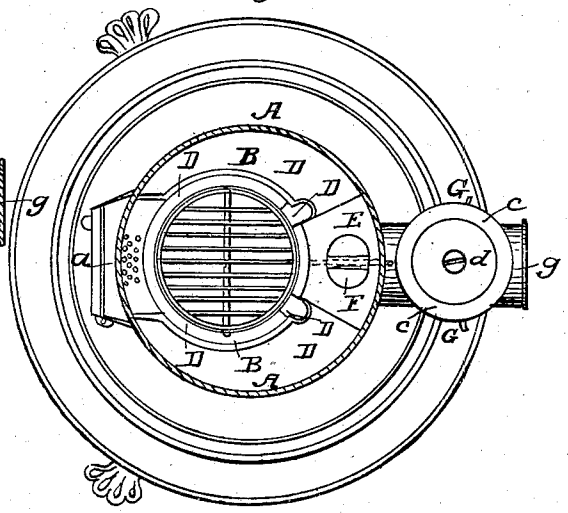


Fig. 4.



Witnesses:
Geo. R. Rowe
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Inventor:
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UNITED STATES PATENT OFFICE.

DAVID N. MARTIN, OF LAWRENCE, MASSACHUSETTS.

STOVE.

Specification of Letters Patent No. 22,963, dated February 15, 1859.

To all whom it may concern:

Be it known that I, DAVID N. MARTIN, of Lawrence, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Stoves for Heating Apartments and for Culinary Purposes; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, denotes a side elevation. Fig. 2, a longitudinal and vertical section of a stove containing my improvement. Fig. 3, a horizontal section taken through the air register of the discharge flue. Fig. 4, is a horizontal section taken just above the direct damper.

In the drawings, A exhibits the outer case of the stove within which there is placed a furnace or fire pot, B, and an ash box or ash receiving chamber, C, the said case being furnished with openings and doors for obtaining access to both ash box and furnace, the same being as shown at *a*, and *b*, in the drawing. Surrounding the furnace and ash box are two spaces, D, D, (within the case A) which serve as descending flues, as at their upper ends they freely communicate with the top of the furnace or firepot which at its upper end is open. Between the said descending flues D, D, and also between the furnace and the rear part of the case, A, is an ascending flue, E, which has a direct damper opening and a damper applied to its upper end as shown at F, in the drawings, the lower end of the ascending flue being made to open freely into the descending flues. Furthermore, at or near its upper end, the flue, E, opens into a vertical drum or cylindrical case, *c*, of an air register, G, arranged with respect to the flue, E, as shown in the drawings. The case, *c*, of the said air register is perforated at top as shown at *d*, or there is a round opening for the reception of a pot or boiling vessel. It is also provided with one or more openings, *e*, made through its sides, each having a curved sliding door or valve, *f*, so applied to it as to enable a person either to entirely close the opening or to uncover the same more or less, and at the same time cover more or less of the passage leading from the vertical ascending flue into the case, *c*. Furthermore, the said case, *c*, is furnished with an opening or pipe, *g*, for leading off the smoke and air, which may be received within it.

In the upper part of the said stove there is a shallow oven, H, the same being circular in horizontal section. Within the said oven, and at a short distance above its bottom, *i*, is a secondary or false bottom, *k*, which is disposed at a short distance from the said bottom, *i*, and supported thereon by a suitable number of legs, *l*, *l*. The said false bottom has a perforation or opening, *m*, through its center, the object of such false bottom made with an opening at its center being not only to cause the heat received into the oven to be equally diffused over the bottoms of articles to be baked, but also over their tops, sides and ends, as by means of said false bottom, the heated currents of air rising up from the main bottom of the oven will be caused to move in convergent lines toward the opening at the center of the false bottom, and after passing through the same, they will diverge therefrom and be spread equally throughout the oven whereby the baking of articles will be uniformly carried on.

By the peculiar arrangement of the air register, viz. at the upper end of the ascending discharge flue and close to the direct damper of the fire place and by arranging the said direct flue within the case of the stove boiling can be done on the air register and the heat necessary to accomplish the same be regulated to excellent advantage. Heretofore, in constructing what is termed a "MaGee stove" or one having an air register, the ascending flue has not only been arranged outside of the case of the stove, but has had the air register disposed at its bottom and far away from the direct draft damper. In this case the register could not be used for the reception of a boiling kettle and regulating the heating thereof, but by my improvement this can readily be accomplished.

In the operation of the said stove, the heat and volatile products of combustion, when the direct damper is open will pass off through its opening and rush directly into and through the air register case, but when the damper is closed they will descend through the flues, D, D, and enter the ascending flue, E, and pass upward through the same, before escaping into the air register. In this way the heat of the volatile products will be absorbed by and radiated from the case of the stove, they will therefore not pass so entirely into the chamber of the air

register as would be the case when the direct damper is open, thus, while the direct damper is open, a vessel in the air register can be heated to better advantage than when it is closed—and this heat can be regulated or diminished more or less by moving the slide valve or valves so as to allow more or less air to rush into the register case and mingle with the smoke and heated volatile products that may be passing through the same.

I claim—

The arrangement of the air register, G, at the upper part of the ascending discharge flue, E, and with respect to the direct damper, F, substantially as described and represented, the ascending discharge flue being arranged between the two descending flues of the stove case substantially as set forth.

DAVID N. MARTIN.

Witnesses:
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