

W. G. CAW.
Cook-Stoves and Heaters.

No. 150,654.

Patented May 5, 1874.

Fig. 1.

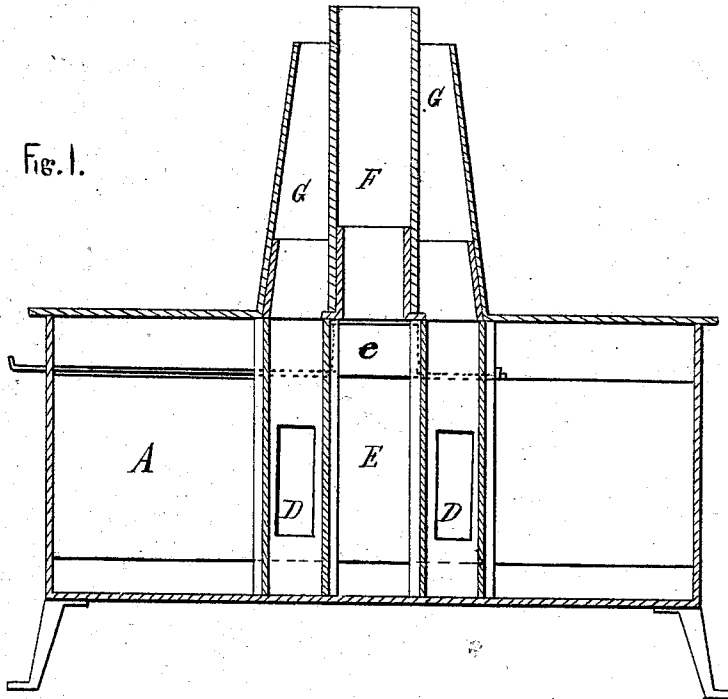
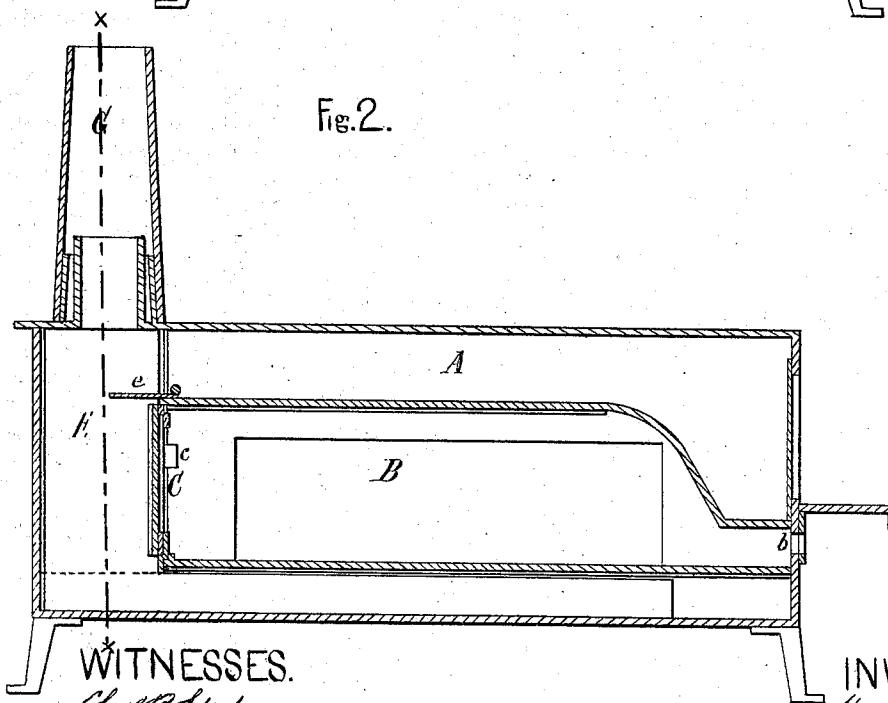


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN COOK-STOVES AND HEATERS.

Specification forming part of Letters Patent No. **150,654**, dated May 5, 1874; application filed February 7, 1874.

To all whom it may concern:

Be it known that I, WILLIAM G. CAW, of Schenectady, in the county of Schenectady and State of New York, have invented a new and valuable Improvement in Cook-Stoves and Heaters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my heating attachment by a vertical section through it and the corresponding part of a cooking-stove. Fig. 2 is a central longitudinal section of the same.

My invention relates to the application of air-tubes to a cook-stove, which communicate with the oven and draw their supply of hot air from the same, and carry it around the stove-pipe up into the higher stories of a building, thereby utilizing the cooking-stove as a hot-air generator and room-heater.

A represents an ordinary cooking-stove, with an oven, B, the back of which is provided with openings, which may be opened or closed by means of a sliding door, C, with corresponding openings and a handle, c. The said openings effect communication between the oven B and two air-tubes, D D, which are otherwise closed at the sides and bottom. A drum or large pipe, G, receives the hot air from the said air-tubes and conducts it to the place of its destination. The oven B generally extends under the ash-pit to the front of the stove, where it may be ventilated by an opening, b, and a door of any description. The fire-course of the stove remains the same above and below the oven. At the back the sectional area is diminished by the insertion of the air-tubes D D, but not so much as to materially affect the draft in that location.

The damper acts between the air-tubes D D in the same manner and with the same result as in the ordinary cooking-stove. The draft takes its course over the oven and damper e, when the same is open, into the pipe F. When the damper is turned up it closes the aperture between the top of the stove, the oven, and the air-tubes D D, and compels the draft of the stove to pass down at the back of the oven, and between the sides of the stove and the air-tubes D D, and thence between the sides of the stove and the usual dividing-plates under the oven; thence between the said dividing-plates into the channel or passage E and into the stove-pipe F. The stove-pipe passes through the drum or air-duct G, and thereby delivers its own surplus heat to the surrounding air. If the room communicating with the stove in the described manner is to be heated gently, the sliding door C is opened, the doors of the oven are closed, and the door at b opened. If a greater amount of heat is required, the side doors of the oven are opened.

What I claim as new, and desire to secure by Letters Patent, is—

The vertical passages in the space between the rear of the oven and the back plate of the stove, formed by means of the air-tubes D and central vertical pipe E, whereby the heated air and products of combustion passing from the fire over the oven may be shut off from the exit-pipe and pass down the outside vertical passages adjacent to the air-tubes, thence passing under the oven and entering the central vertical passage and exit-pipe, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM G. CAW.

Witnesses:

GEORGE E. UPHAM,
D. D. KANE.