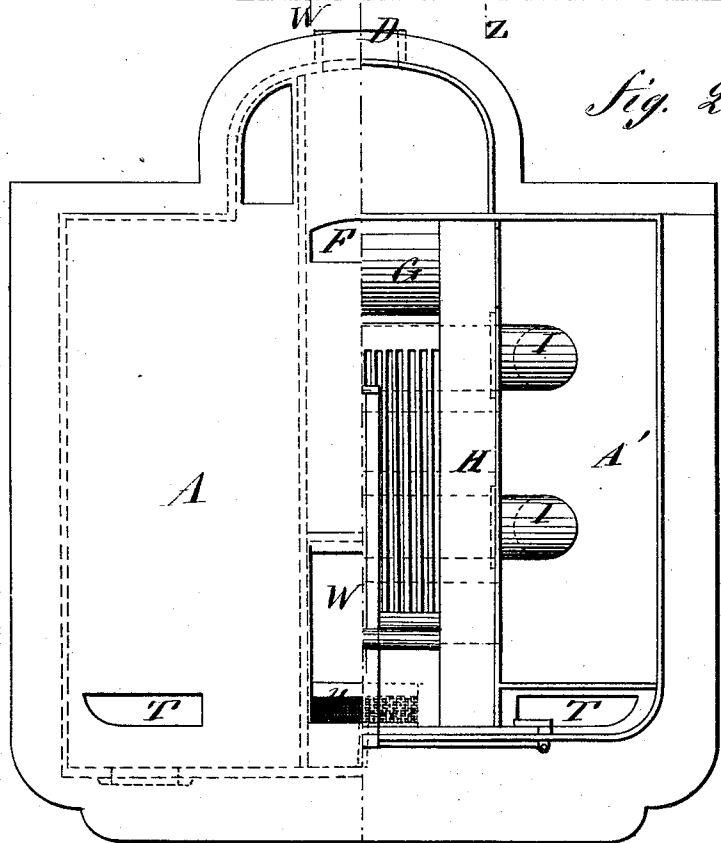
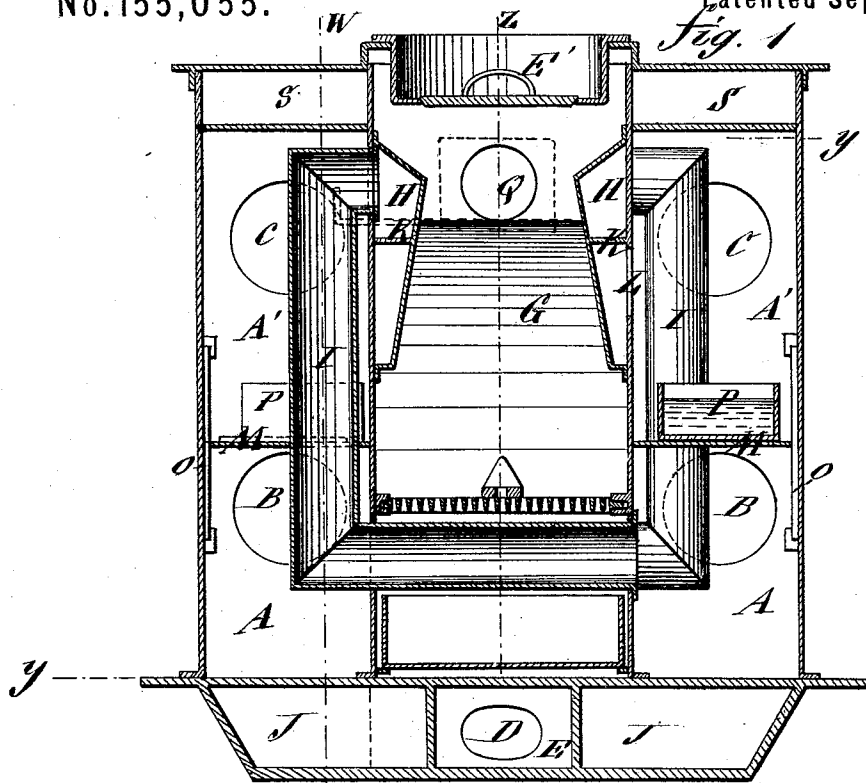


ANNA WHEELER.  
Heating-Stoves.

No. 155,055.

Patented Sept. 15, 1874.



WITNESSES

*C. A. Newell*  
*C. J. Edgwick*

INVENTOR:

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BY

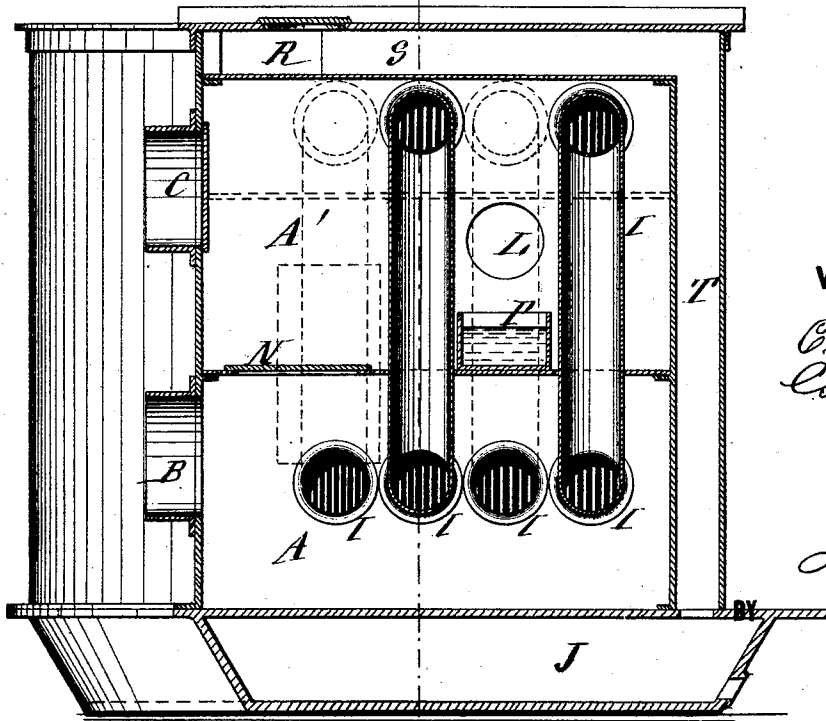
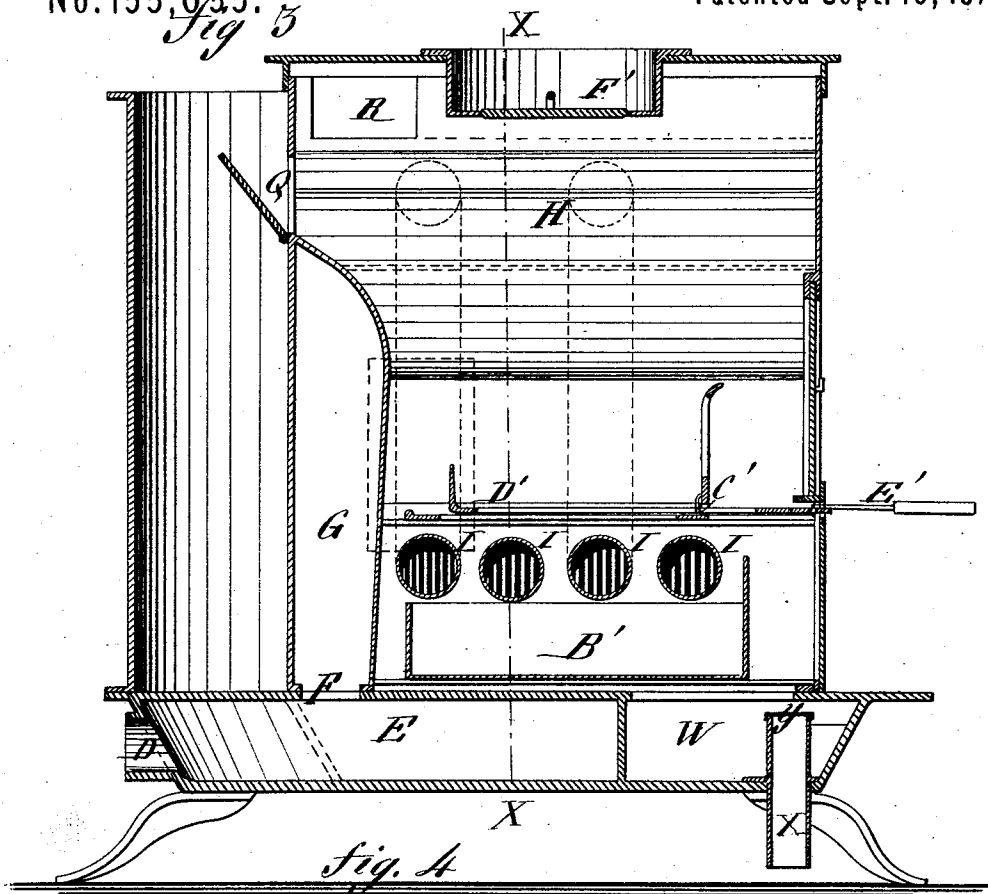
*M. M. L.*

ATTORNEYS.

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WITNESSES

*C. Vermaas*  
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INVENTOR:

*A. Wheeler*

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# UNITED STATES PATENT OFFICE.

ANNA WHEELER, OF BROWNVILLE, NEBRASKA.

## IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **155,055**, dated September 15, 1874; application filed June 20, 1874.

*To all whom it may concern:*

Be it known that I, Mrs. ANNA WHEELER, of Brownville, in the county of Nemaha and State of Nebraska, have invented a new and Improved Heating-Stove, of which the following is a specification:

My invention consists of air ducts and chambers combined and arranged as hereinafter described, with the object of utilizing the greatest possible amount of the heat, and to combine it with air for conducting it to different parts of the house.

Figure 1 is a sectional elevation of my improved heating-stove, taken on the line *x x* of Fig. 3. Fig. 2 is a horizontal section taken on the line *y y* of Fig. 1. Fig. 3 is a sectional elevation taken on the line *z z* of Fig. 1, and Fig. 4 is a sectional elevation taken on the line *w w* of Fig. 1.

Similar letters of reference indicate corresponding parts.

I make two hot-air chambers, A A', on opposite sides of the fire-chamber, from which to take the hot air away for heating different rooms through passages B C, into which I propose to introduce the air for gradually heating it through passage D E F, heaters G H, and heating-pipes I, the passage E being along-side of the smoke-flues J in the bottom of the stove, from which the cold air will receive its first portion of heat, heater G being at the back, and communicating directly with the heaters H at their rear ends. The heaters or flues H are located on the sides, and, to some extent, over the fire, so as to make very direct application, and the pipes I being partly at the sides and partly under the fire when coal is used, but passing directly through it in case wood is used—that is to say, coal is deposited on the grate above the horizontal portion of pipes I, but when wood is used it is placed below them, so as to add materially to the heat.

The chambers H are divided horizontally by a partition, K, and the air from the lower portions, which are more exposed to the heat than the upper portions, is allowed to pass directly into the chambers A' through openings L. There are two sets of pipes, I, each receiving

the air from one heater, H, and conducting it down and through the fire-chamber to the hot-air chamber A of the opposite side.

The partitions M, separating the chambers A and A', have a hole, N, with a damper or cover, to be opened or closed at will, to pass the hot air from one to the other, as may be required in different cases; and the escape-passages B C have dampers to regulate or control the escape of heated air, whereby it can be directed into one or more of the conducting-pipes, as preferred or necessary. There is a door, O, opening through the side of the stove into chambers A and A', for putting in water-pans for moistening the air.

The damper Q shuts off the direct escape of the heat products of the fire into the smoke-pipe, and turns them through passage R, over the top, along passages S, down at the front through T, and along the bottom flues J to the smoke-pipe.

The air for combustion is admitted to the chamber W by a pipe, X, through the bottom, to which a feed-pipe from the outside of the building may be connected to admit fresh cold air; or it may take the air directly from the room, if preferred. The top of this pipe is covered by a wire-gauze spark-arrester, Y, to prevent sparks from falling down through it.

B' is an ash-pan for receiving the droppings from the grate. The fire-grate C' is contrived to slide forward and backward a little to shake the fire, and there is also a poker, D', for stirring it, the poker being a fixture of the stove, but capable of sliding forward and backward, and having a handle, E', which hooks onto it detachably, as shown in Fig. 3, for working it. I propose, however, to make this attachment the subject of separate Letters Patent.

By removing the fire-grate and the ash-pan and covering the chamber W with a plate, the stove will be adapted for burning wood, and I propose to use either wood or coal, as I may prefer.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a heating-stove, the combination, with hot-air chambers H, forming part of the upper

walls of the fire-chamber, of the series of pipes I, passing through said fire-chamber near the bottom, and opening on opposite sides thereof into the chambers A A, as shown and described.

2. In a heating-stove, the combination, with the centrally-arranged fire-chamber, of the air-heating chambers A A and A' A', their horizontal partitions M M, having apertures N, pro-

vided with slides or dampers, and the escape-openings B C, chambers H, having passages L L, the chamber G, and passages D E F, as shown and described.

ANNA WHEELER.

Witnesses:

GEO. B. MOORE,

CYRUS W. WHEELER.