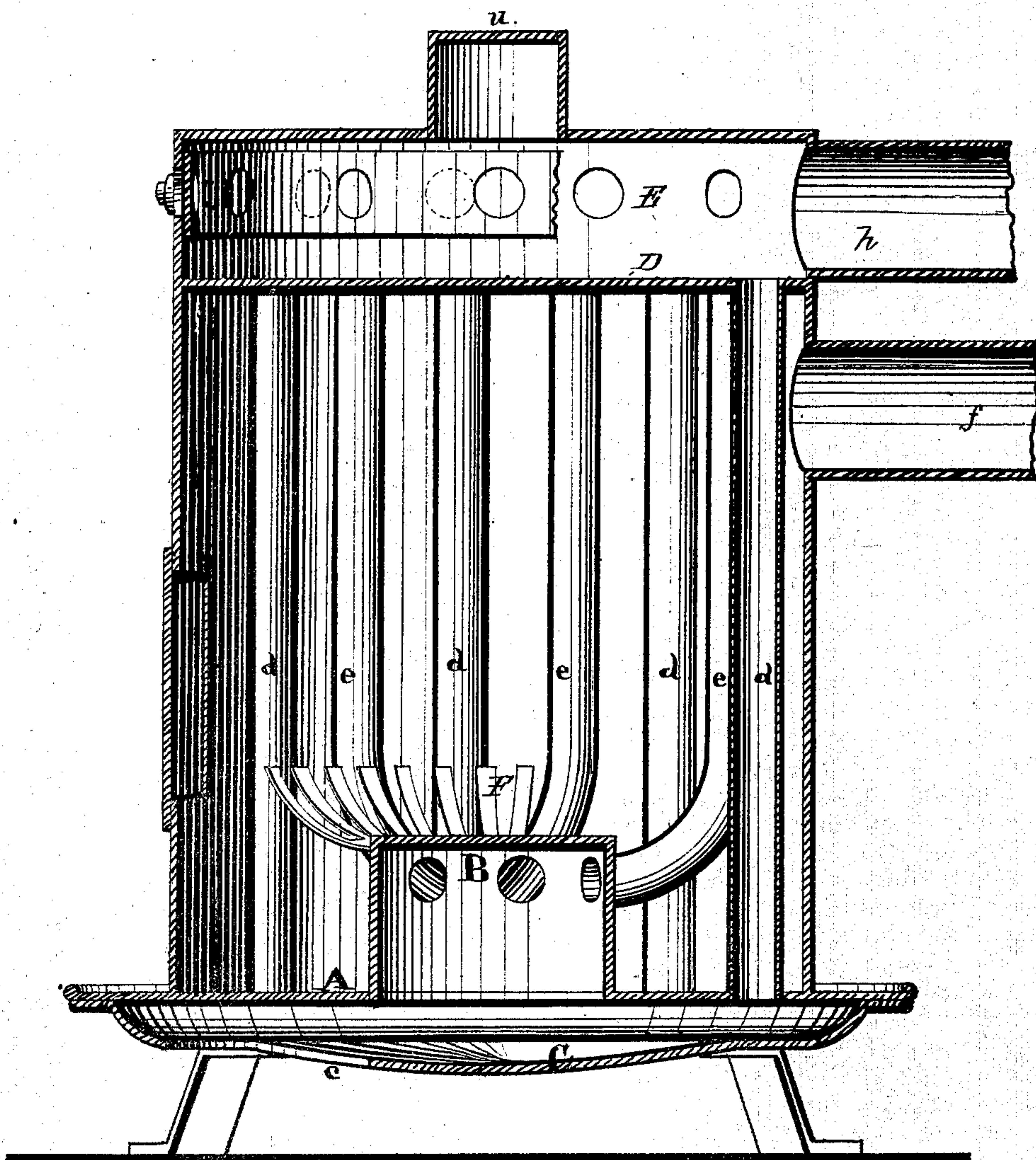


D. N. MASON.
Heating Stoves.

No. 139,256.

Patented May 27, 1873.



Witnesses.

A. Newman
J. J. Weston

Inventor,

Darwin N. Mason.

UNITED STATES PATENT OFFICE.

DARWIN N. MASON, OF INDIANOLA, IOWA.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **139,256**, dated May 27, 1873; application filed January 10, 1873.

To all whom it may concern:

Be it known that I, DARWIN N. MASON, of Indianola, in the county of Warren and State of Iowa, have invented certain Improvements in Heating-Stoves, of which the following is a specification:

My invention consists of a combination of air chambers and tubes in such a way that the air of a room to be warmed is made to flow in regular currents through them, and for the purposes of more economical and uniform warming, together with a more perfect and healthful ventilation of dwellings. This apparatus may be accommodated, in its form and size, to any of the ordinary shapes of stoves or furnaces. That herein described is accommodated in form and dimensions to an upright cylindrical stove of the ordinary parlor size.

The accompanying drawing shows the arrangement and combination of parts which I claim as my invention.

A is a circular cast-iron fire-bottom. It is pierced with holes around the outer edge. These holes should be one and a half inch in diameter and six inches apart. B is a hollow cylindrical turret of cast-iron rising three or four inches through a perforation in the center of the fire-bottom A. It is closed at the top and pierced with holes around the upper edge, except on the side toward the door admitting the fuel. These holes are one and a half inch in diameter, and in number one less than those in the fire-bottom A. The diameter of the turret should not exceed one-third of the diameter of the fire-bottom A. C is a shallow sheet-iron pan or false bottom, corresponding in shape and size to the fire-bottom A, and perforated at one end with an eight-inch circular hole, *c*. This false bottom is fastened to the under side of the plate A, so as to make a space of two inches between the two, thus forming an air-chamber into which the cold air freely flows through the hole *c*. *eee* are tubes of wrought or cast iron fitted to the holes in the turret B, and projecting outward to within half an inch of the

inclosing-shield, and thence upward through the iron plate D. *ddd* are straight tubes piercing the plate A and the plate D, alternating with the bent ones, thus making free communication between the air-chamber below and the air-chamber above. E is a hollow cylindrical cap eight inches deep, which, fitted over the plate D, forms the upper air-chamber. In the side is a row of holes two inches in diameter, corresponding in number to the pipes piercing the plate D, through which the air escapes into the room after it has passed into the lower air-chamber and through the heated tubes. These holes may be opened or closed at pleasure by means of a slide. In the top of this cap is a ten-inch hole, *n*, to which a pipe may be fitted, when it is desirable, to conduct the hot air to an adjacent room. In like manner a pipe may be fitted to the hole *c* of the lower air-chamber, by means of which the cold air of an adjacent room may be drawn off while hot air is flowing in. F is the grate made to contain the fuel and resting on the turret B, the upper edge bearing on the perpendicular tubes. The smoke-pipe *f* pierces the shield on the side opposite the door and just below the plate D. The ventilator *h* enters the upper air-chamber through the side of the cap, and is opened or closed by a slide or close-fitting damper. By closing all the apertures in the upper air-chamber and opening the ventilator the bottom air of a room may soon be drawn up the chimney, thus accomplishing the most perfect and healthful ventilation possible.

I claim as my invention—

The combination of the air-chamber below the fire, formed by the turret B and the false bottom C, and the tubes *eee d d d*, with the upper air-chamber, formed by the plate D and the cap E, and the ventilator *h*, substantially as and for the purposes hereinbefore set forth.

DARWIN N. MASON.

Witnesses:

ALEXANDER NEWMAN,
JOHN T. WESTON.