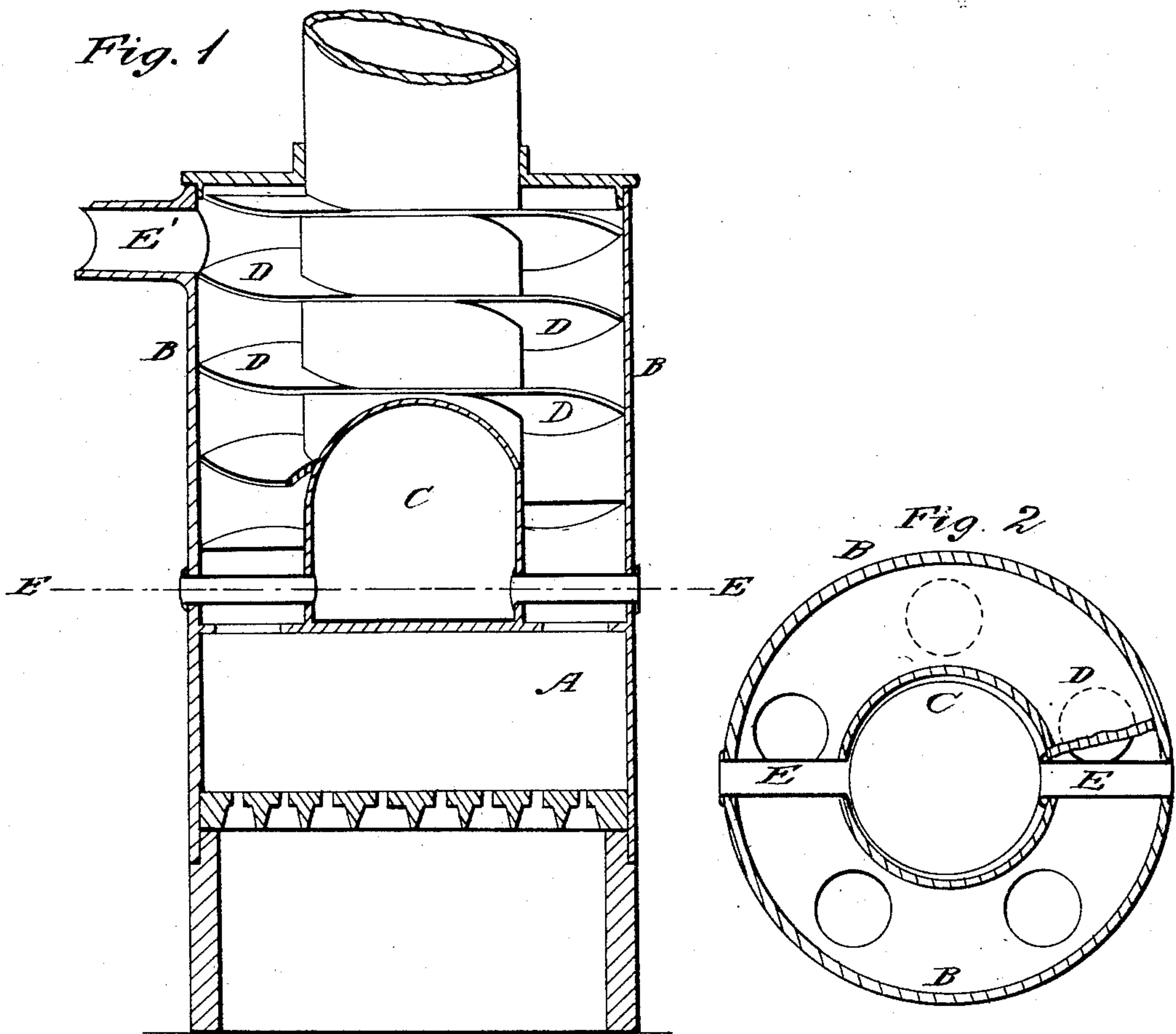


D. J. HAPPERSETT.

Heating Stove.

No. 62,416.

Patented Feb. 26, 1867.



Witnesses
G. W. Boothwell.
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D. JONES HAPPERSETT, OF COATESVILLE, PENNSYLVANIA.

Letters Patent No. 62,416, dated February 26, 1867.

HEATING STOVE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, D. JONES HAPPERSETT, of Coatesville, in the county of Chester, and State of Pennsylvania, have invented a new and useful improvement in Heating Stoves; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the accompanying drawings, which are made a part of this specification, and which represent a vertical central and a horizontal section of a stove embodying my invention.

This invention consists in the arrangement of a winding flue on the exterior of a central air-chamber, around which the heated products of combustion are conducted in passing from the fire-chamber, and into which the air is admitted above the fire-chamber in order to be heated after the heat has had ample time to radiate below; the advantage of which will be presently explained.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe it in connection with the accompanying drawings.

A represents the fire-chamber; and B, an external drum mounted upon the fire-box; C is an internal drum or chamber, between which and the outer drum B, is a winding flue, D, which opens into the fire-chamber and leads to the stove pipe E. The chamber C is closed at bottom, but receives cool air from outside the stove through the pipes E. The effect of this arrangement is obvious. The heated products of combustion first radiate heat at the lower part of the stove, then pass into the winding flue D, about which they circulate in their passage to the chimney, thus heating the air which passes into the chamber C through the pipes E. The air thus heated in the chamber C may be conducted to an upper chamber or other place where it is to be utilized. The winding flue D retards the products of combustion in their passage to the chimney for a sufficient length of time to effect the complete combustion of the gases, which is not the case where the passage is direct. I am aware that it is not new to provide a stove with a winding flue to cause the products of combustion to circulate around a cold-air chamber. In all previous instances, however, the cold air is supplied from the bottom of the heater. In the stove, the subject of this invention, the cold air is supplied to the chamber C immediately above the flue, thus leaving the lower part of the stove free to radiate its full amount of heat. In heaters with winding flue heretofore devised a serious objection is due to the fact that while the draught is on the heat is all carried above, the cold air or draught from below carrying the heat upward instead of allowing the latter to first radiate.

Having thus described my invention, the following is what I claim as new herein, and desire to secure by Letters Patent:

I claim the combination with the central air-chamber C, and winding flue D, of one or more pipes E, for conducting the air into the air-chamber at a point above the fire-chamber, substantially as and for the purpose set forth.

D. JONES HAPPERSETT.

Witnesses:

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S. G. COOK.