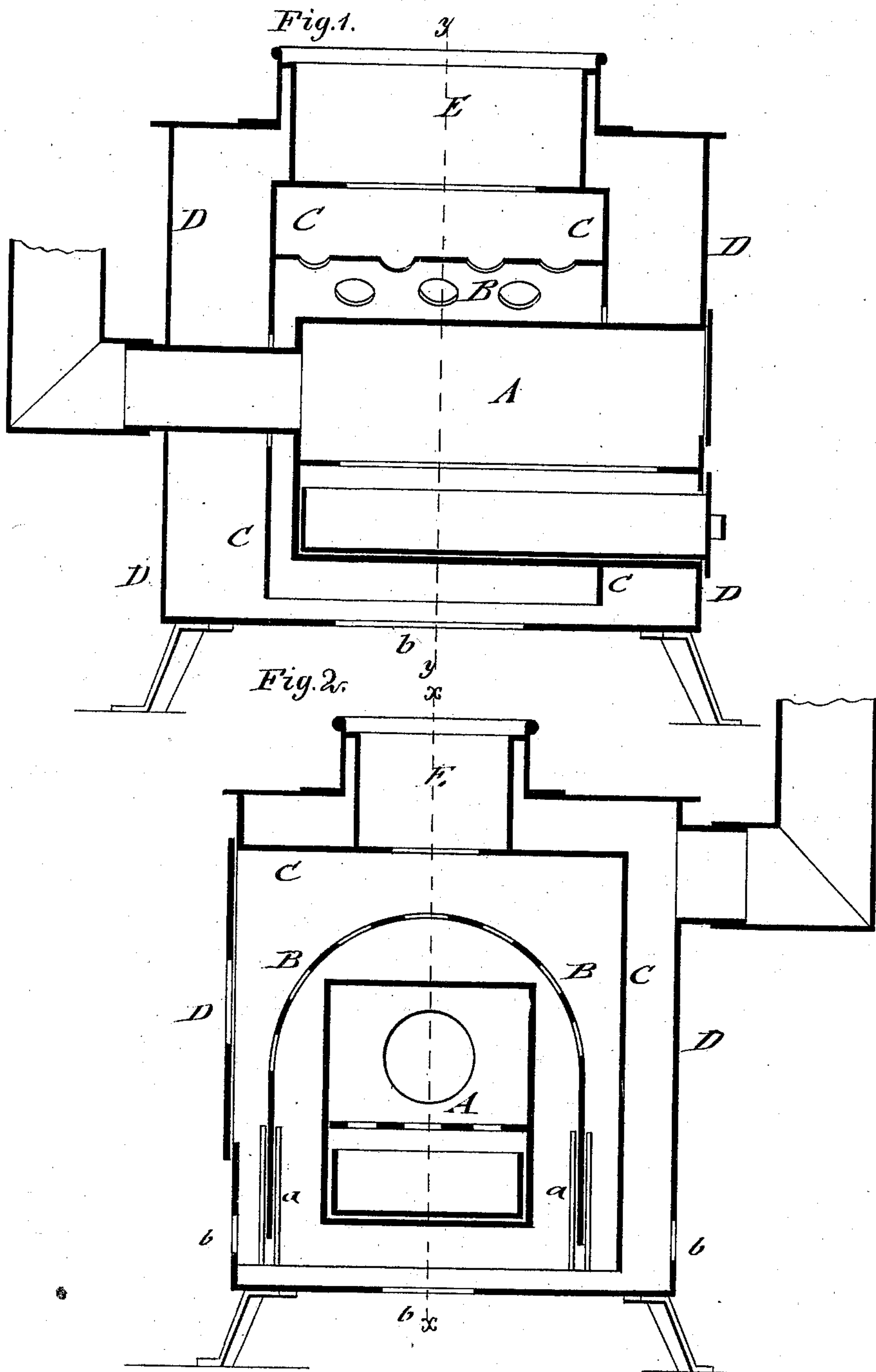


S. SIBBALD.
Heater.

No. 203,659.

Patented May 14, 1878.



WITNESSES:

Henry N. Miller.
C. Sedgwick

INVENTOR:

S. Sibbald
BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEPHEN SIBBALD, OF NELSONVILLE, OHIO.

IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. **203,659**, dated May 14, 1878; application filed April 1, 1878.

To all whom it may concern:

Be it known that I, STEPHEN SIBBALD, of Nelsonville, in the county of Athens and State of Ohio, have invented a new and Improved Heater, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved heater on line *x x*, Fig. 2; and Fig. 2 is a vertical transverse section of the same on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved heater by which one or more rooms may be heated in superior manner, and supplied with a continuous current of heated air from one fire-place, at a considerable saving of fuel; and the invention consists of a heater with an interior fire-place, an inclosing perforated arched plate, and an outer chamber formed by two walls, the cold air being supplied through openings at the bottom and sides, and heated by contact with the walls of the fire-place, and conducted by top openings into the room, and by a conducting-pipe from the surrounding jacket to the room or rooms above.

Referring to the drawing, A represents the interior fire-place of my improved heater, which fire-place is made of suitable size, with a grate, ash-box, and exit smoke-pipe. The fire-place is inclosed by three walls, so as to form three chambers around the fire-place, the inner wall B, next to the fire-place, being arched and perforated at the top part, and fitted at the sides in guides *a* of the end walls of the fire-place. The second wall, C, extends at suitable distance around the arched wall or distributing-diaphragm, while the third or exterior walls, D, are arranged at some distance from the second wall.

The outer chamber as well as the inner chambers are supplied with fresh air through openings *b* at the bottom and sides, the air being heated in its upward passage around the walls of the fire-place, and distributed by the arched and perforated wall into the second chamber, and conducted through a top opening into the room wherein the fire-place is located.

The outer chamber is closed at the top and provided with an exit-pipe, by which the hot air may be conducted to the room or rooms above.

The top heater is provided with a raised box-shaped casing, E, having a shoulder or seat for putting on a vessel with water or other liquid, for supplying the necessary moisture or for heating the same.

By the heat of the fire in the fire-place a continuous circulation of air is kept up through the heater, and thus a sufficient supply of heated air furnished to the room in which the heater is placed, as well as to any room connected thereto by the conducting-pipe.

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

The heating-stove herein described, consisting of the interior fire-place A, the arched and perforated distributing-diaphragm B, extending over the same, the inner wall C, outer wall D, and casing E, all constructed and relatively arranged as herein set forth, for the purpose specified.

STEPHEN SIBBALD.

Witnesses:

F. BARRON,
ISAAC BARRON.