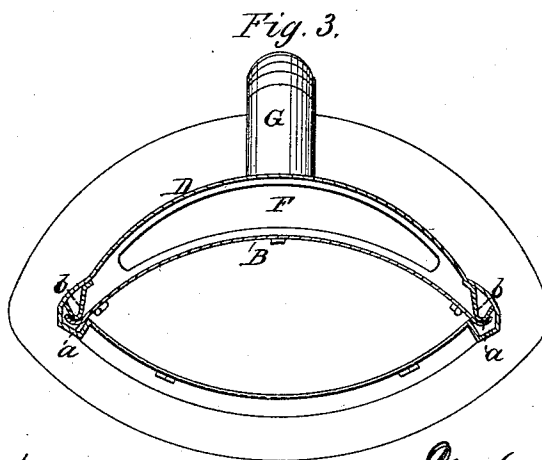
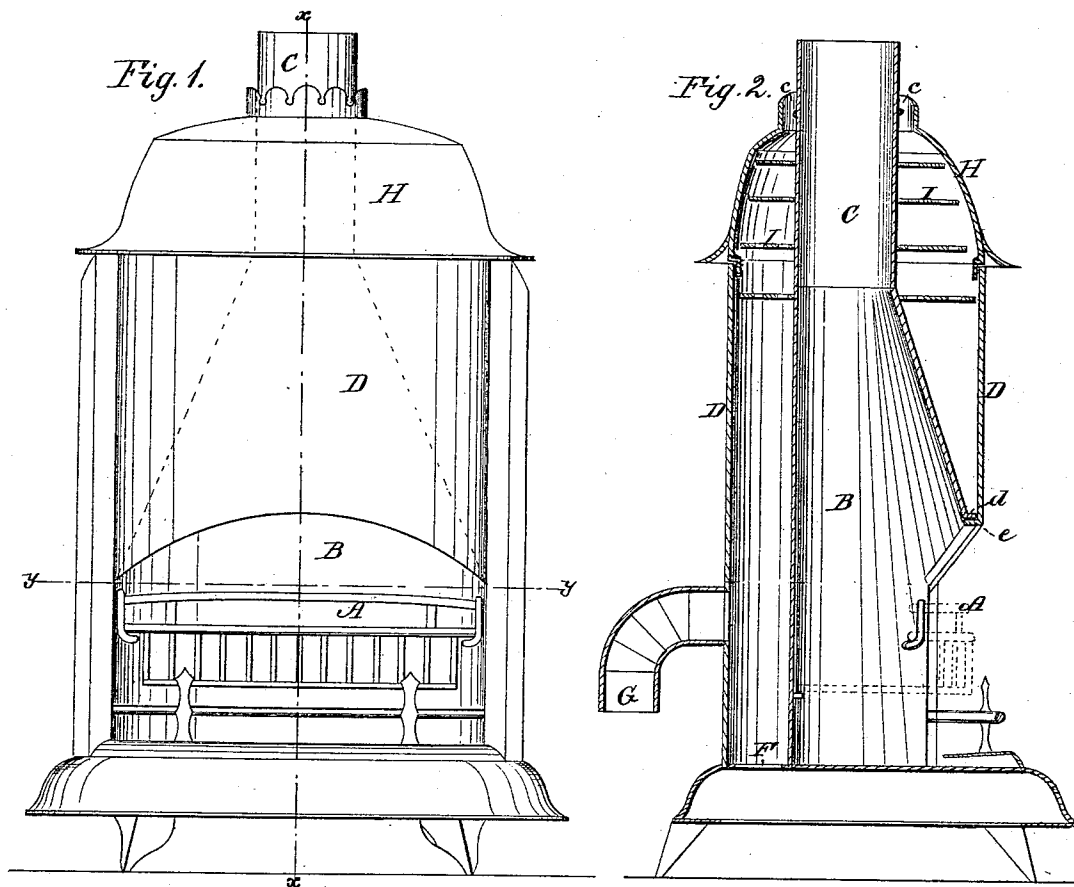


M. C. C. CHURCH.
Heating-Stove.

No. 167,497.

Patented Sept. 7, 1875.



WITNESSES:

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John C. Kemmer

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UNITED STATES PATENT OFFICE.

MARIUS C. C. CHURCH, OF PARKERSBURG, WEST VIRGINIA.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **167,497**, dated September 7, 1875; application filed July 15, 1875.

To all whom it may concern:

Be it known that I, MARIUS C. C. CHURCH, of Parkersburg, in the county of Wood and State of West Virginia, have invented a new and Improved Heating and Ventilating Stove; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a vertical front elevation; Fig. 2, a vertical section through line *xx*; Fig. 3, a horizontal section through line *yy*.

This invention relates to certain improvements in heating-stoves; and it consists in a detachable fire-pot back, having flanged sides that slide vertically into guideways in the outer casing.

It also consists in the particular construction of the smoke-flue ascending vertically from the stove, and having metallic partition-plates attached thereto, in combination with a detachable cover above the heating-chamber, so constructed as to leave an annular outlet for the heated air, which, passing up in columns adjacent to said pipe, heats the room better by affording a more perfect connection.

In the drawing, A represents an open grate, and B the detachable fire-pot back, which is drawn inwardly as it ascends to form the smoke-pipe C. The said back B is made with side flanges *a a*, which slide vertically into guideways *b b* in the sides of the outer casing D, and lip or flange *d*, which closes with *e* of the outer casing, the connection between the said flanges *a a* and *d* and the outer casing being made tight, so as to prevent the escape of gases from the fire-pot to the heating-chamber, and yet allow the back B to be readily detachable. Behind the back B is formed, by the outer casing D, an air-heating chamber, into which the air is admitted from the room through the bottom opening F, and atmospheric air through the pipe G. H is a detachable cover to the outer casing, which forms, with the same around the smoke-pipe C, a heating-chamber, in which are located a series of perforated horizontal partitions, I, which, by reason of their conductivity, receive heat from the pipe C, and heat the air passed therethrough. The smoke-pipe C passes vertically and centrally through this heating-chamber, and emerges vertically from

the stove through a hole in the top of the cover H, which is so arranged as to leave an annular outlet, *c*, from the heating-chamber to the room.

By means of this arrangement the heated air ascends in columns adjacent to, and in contact with, the hot smoke-pipe, and, producing thereby a more perfect connection, facilitates the heating of the room.

The detachable character of the cover, moreover, secures important advantages for having a large central hole that forms the annular outlet around the pipe. The said cover may be readily raised for the introduction of plates of water upon the partition, as shelves, for moistening the air, or the insertion of dishes of food to be kept warm, the cover screening them from the eye, so as to avoid any unsightly appearance.

I am aware of the fact that it is not new to extend the smoke-pipe of a fire-place heater vertically, and to surround the same with a jacket, so as to form an annular column of heated air, and I, therefore, confine my invention to the combination of the smoke-pipe having the partition-plates attached thereto, and arranged to ascend vertically from the stove, with the detachable cover of the stove constructed as described.

Having thus described my invention, what I claim as new is—

1. The detachable back B, having flanges *a a*, in combination with the outer casing D, having guideways *b b*, as and for the purpose described.

2. In a heating-stove, the smoke-pipe C, ascending vertically from the heating-chamber, and having the partition-plates I attached thereto, in combination with the detachable cover H having a hole therein of greater diameter than the smoke-pipe, so as to leave, when placed around the latter, an annular outlet, *c*, as and for the purpose described.

3. The combination of the detachable back B having flanges *a a*, the outer casing D having guideways *b b*, the perforated partitions I, the smoke-pipe C, and the detachable cover H having an annular outlet, *c*, substantially as described, and for the purpose specified.

MARIUS C. C. CHURCH.

Witnesses:

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B. MASON AMBLER.