

C. WEEKE.
Heaters.

No. 205,018.

Patented June 18, 1878.

Fig. 1.

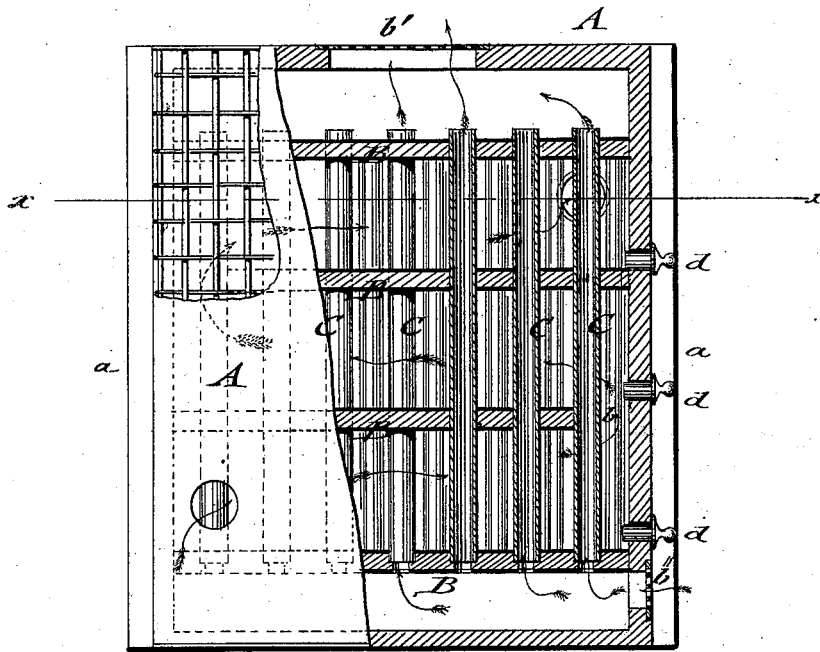


Fig. 2.

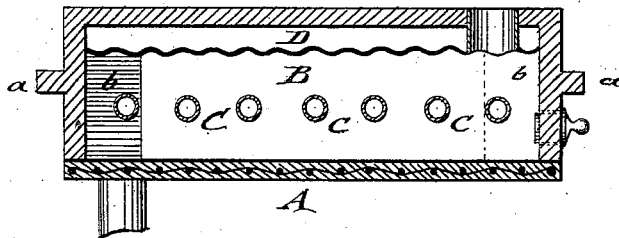
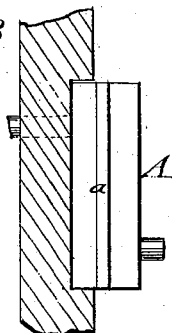


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHRISTOPH WEEKE, OF ST. CHARLES, MISSOURI.

IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. **205,018**, dated June 18, 1878; application filed April 5, 1878.

To all whom it may concern:

Be it known that I, CHRISTOPH WEEKE, of St. Charles, in the county of St. Charles and State of Missouri, have invented a new and Improved Heater, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a sectional front elevation of my improved heater; Fig. 2, a horizontal section on line *x x*, Fig. 1; and Fig. 3, a side view of the same, shown in smaller scale as set into the wall.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved heater that is to be used in connection with a stove for the purpose of heating the same room by the heat that would otherwise pass off through the chimney, or for the purpose of heating upper rooms, the entire heater being either set entirely into the wall or partly into the wall, and partly projecting into the room.

Referring to the drawing, A represents the outer casing of the heater, which is either entirely or partly set into the wall at a suitable height from the floor. When only set partly into the wall, the front projects four or five inches into the room, end flanges *a* being then employed to retain the heater against the wall. The casing of the heater may be made of sheet metal, or of sheet metal and wire netting filled with clay, as shown in Figs. 1 and 2, so that it may be plastered, and the same appearance imparted to it as to the walls of the room.

The heater is divided by horizontal partitions B into a number of compartments or chambers, of which the middle ones communicate with each other by shortening the horizontal partitions at alternate ends, so as to leave openings *b* for the passage of the fire-gases. The lower and upper partitions are extended throughout the casing, and form a lower chamber with an air-inlet register, *b''*, for the cold air, and an upper chamber with an outlet register, *b'*, for the heated air.

The partitions are constructed of sheet metal, filled up with clay or common brick, and are from one to two inches in thickness. Through all the partitions B pass vertical conducting-pipes C, through which the air passes from the lower air-chamber to the upper chamber, so as to be heated in its passage by the heating action of the fire-gases that are admitted from a stove-pipe at the lower corner of the lower middle chamber, and passes off into the chimney through an opening at the upper corner of the uppermost middle chamber. The fire-gases and products of combustion pass around the vertical pipes in their circuitous route from one compartment to the other, so as to heat the air in the same, which is finally thrown either into the same room or into the room above. The middle chambers are cleaned from time to time of dirt and soot by means of removable plugs and side openings *d*.

From the lower horizontal to the uppermost partition a corrugated plate, D, extends, that forms an additional air-chamber at the interior of the heater next to the wall, and serves for the purpose of heating a larger quantity of air.

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

A heater made of a casing divided by horizontal partitions into compartments, of which the upper and lower compartments are provided with air-registers and connected through the partitions by air-conducting pipes, while the middle compartments communicate with each other by openings at alternate ends, and have also openings connecting with stove-pipe and chimney, and a vertical corrugated plate extending from the lower partition to the uppermost partition, substantially as specified.

CHRISTOPH WEEKE.

Witnesses:

LOUIS H. BREKER,
ALBERT H. EDWARDS.