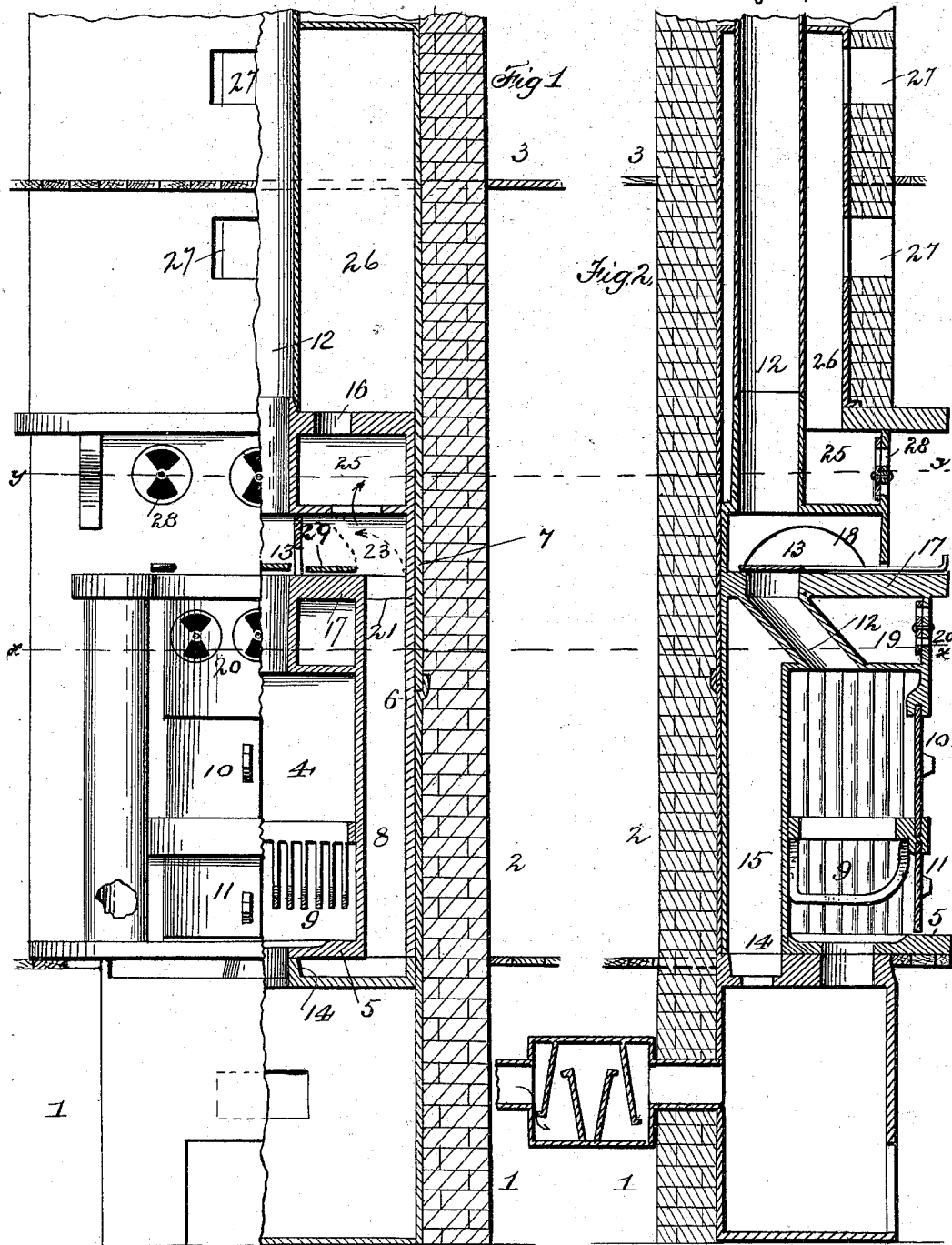


H. HOWE.
FIREPLACE HEATER.

No. 559,487.

Patented May 5, 1896.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

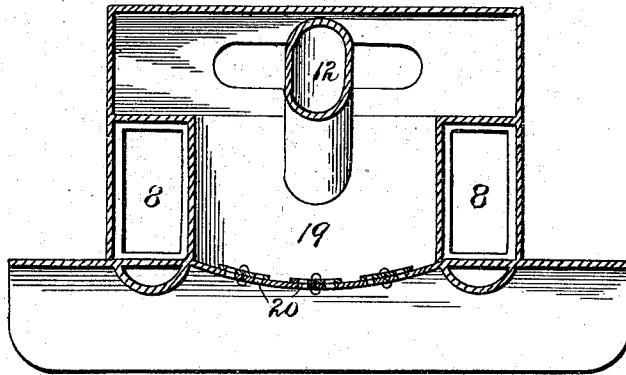


Fig. 4.

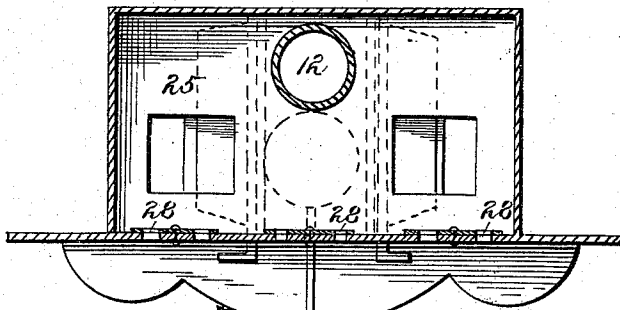
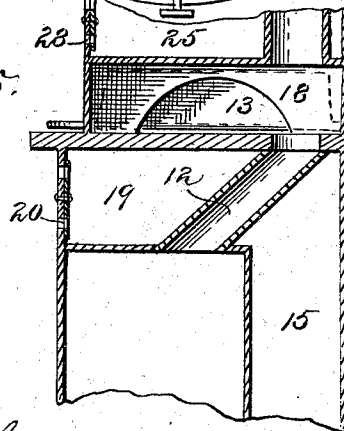


Fig. 5.



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UNITED STATES PATENT OFFICE.

HEZEKIAH HOWE, OF OLEAN, NEW YORK.

FIREPLACE-HEATER.

SPECIFICATION forming part of Letters Patent No. 559,487, dated May 5, 1896.

Application filed July 1, 1895. Serial No. 554,528. (No model.)

To all whom it may concern:

Be it known that I, HEZEKIAH HOWE, a citizen of the United States, and a resident of Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Fireplace-Heaters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in stationary open or closed grate heaters adapted to be inserted in a fireplace or set up as a stove and provided with air-passages at the sides, receiving air under the base of the grate, thus drawing the cold air from the floor, and provided with outlets leading to the room in which the heater is located and with suitable dampers for opening and closing communication between the passages and outlets, and also provided with hot-air passages communicating with the rooms above that in which the heater is located and also with the smoke-pipe, so that the foul air may be drawn off from the room and carried away.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a front elevation, partly in section, of a heater constructed in accordance with my invention. Fig. 2 is a central vertical section of the same. Fig. 3 is a horizontal section on the line *x x*, Figs. 1 and 2. Fig. 4 is a similar section on the line *y y*. Fig. 5 is a detail longitudinal section.

In the said drawings the reference-numeral 1 designates the cellar or basement of a building; 2, the room above the same, in which the heater is located, and 3 a room above this latter room.

The numeral 4 designates a heater comprising the base 5, the inner wall 6, the outer wall 7, the air-passage 8 at each side of the heater, the grate 9, the sliding doors 10 and 11 for the combustion-chamber and ash-pit, respectively, and the smoke-pipe 12, provided with a damper 13. The hearth upon which the

heater rests is provided with a boss 14, so that there will be a space between the base and hearth, as seen in Fig. 1, which communicates with said passages. The opening in this boss registers with an opening in the base, establishing communication between the heater and cellar. Also communicating with the cellar is a hot-air reservoir 15 at the back of the heater. This reservoir at the upper end communicates with a chamber 19 at the top of the heater, provided with registers 20, communicating with the room in which the heater is located and through which the smoke-pipe 12 passes. This smoke-pipe communicates with a chamber 18, provided with dampers, hereinafter described, and from thence it passes through a chamber 26, communicating with the rooms above and provided with registers 27 for opening and closing communication with said rooms. The pipe then extends to the outside of the building. The passages 8 communicate by means of openings 21 with a chamber 23, which in turn communicates with a chamber 25, provided with registers, communicating with the room in which the heater is located. This chamber 25 communicates by means of an opening 16 with the chamber 26. Located in the chamber 23 at each side of the smoke pipe or flue is a damper 29, adapted to open and close openings in the smoke-pipe.

The operation is as follows: A fire being made in the heater, the products of combustion will escape through the smoke-pipe, the draft being regulated by the damper therein. The dampers 29 are closed, so as to close the openings in the smoke-pipe, so that the heated air from the side passages 8 will enter the chamber 26. Air will also be supplied to the air-reservoir at the back of the heater and will escape into the room through the registers 20. By opening the dampers 29 the hot air from the reservoir can escape into the smoke-pipe.

Having thus fully described my invention, what I claim is—

1. In a heater of the character described, the combination with the inner and outer walls, the side air-passages, the chamber with which said passages communicate, the chamber located above the same, and the dampers or registers therefor of the smoke-pipe having

openings therein, and the dampers for opening and closing the same, substantially as described.

2. In a heater of the character described,
5 the combination with the base, the side passages communicating with the room in which the heater is located, and the hot-air reservoir adapted to communicate with a room below the heater and with a chamber above the
10 heater provided with registers of the smoke-pipe communicating with a chamber provided with openings, the dampers for opening and

closing said openings, the chamber above the same provided with registers and the sliding damper for regulating the draft in the smoke- 15 pipe, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

HEZEKIAH HOWE.

Witnesses:

WILLIS D. PARKER,
SAMUEL PASSMORE.