(Model.)

C. W. TROTTER.

FRAME FOR HOT AIR REGISTERS.

No. 291,428. Patented Jan. 1, 1884.

Fig. 1.

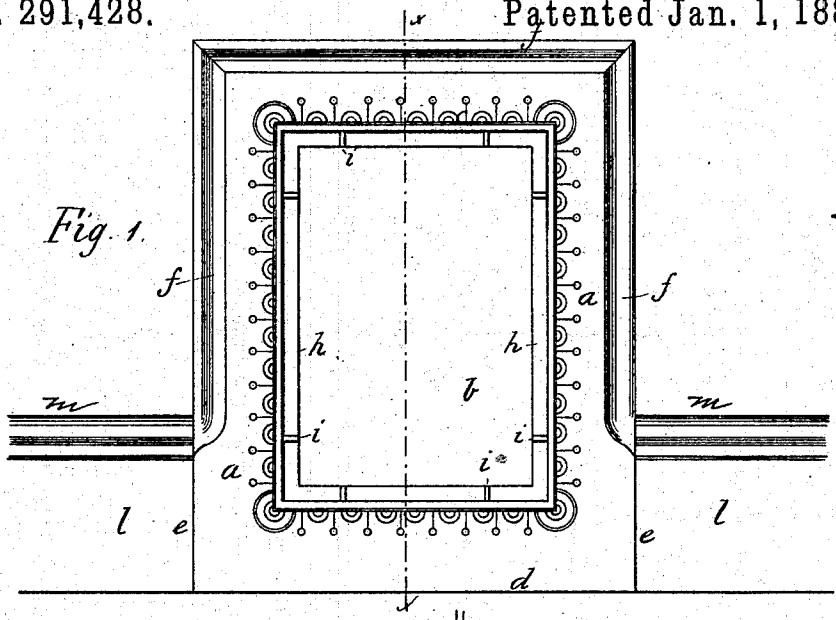


Fig. 3.

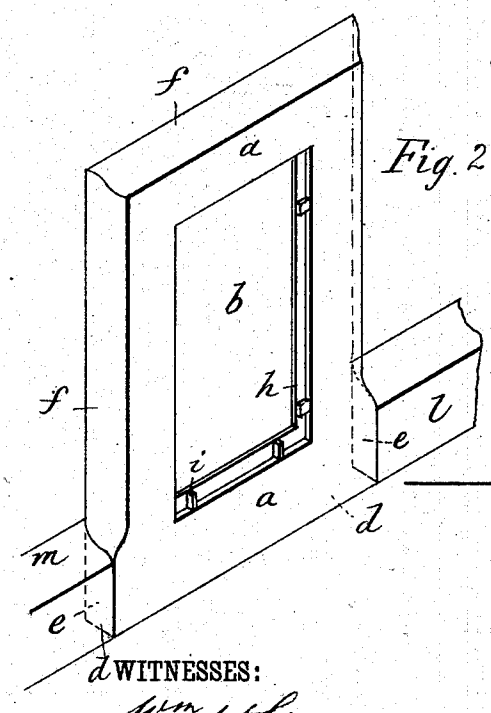
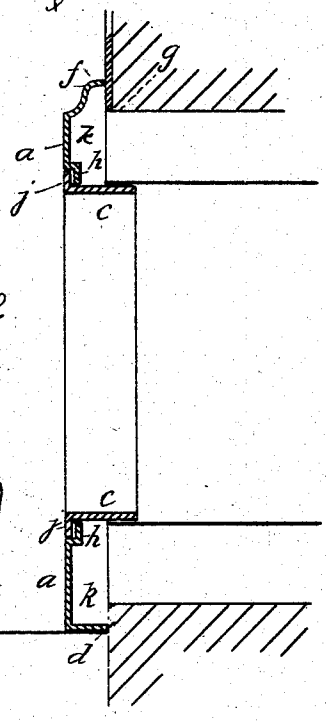


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES W. TROTTER, OF ROCHESTER, ASSIGNOR TO THE TUTTLE & BAILEY MANUFACTURING COMPANY, OF NEW YORK, N. Y.

FRAME FOR HOT-AIR REGISTERS.

SPECIFICATION forming part of Letters Patent No. 291,428, dated January 1, 1884.

Application filed February 24, 1883. (Model.)

To all whom it may concern:

Be it known that I, C. W. TROTTER, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Frames for Hot-Air Registers, of which the following is a specification.

The object of my invention is to provide a simpler, cheaper, and better wall-frame for hot-air registers than the marble or stone frames now employed.

It consists of a cast-metal frame contrived to serve the purposes of the marble frame equally as well as that in all respects, besides affording provision for dead-air spaces around the register-box for protection against fire, and being simpler to fit in its position and cheaper to construct, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a front elevation of my improved hot-air-register frame. Fig. 2 is a sectional elevation of Fig. 1 and a register-box. Fig. 3 is a perspective view of the frame, showing flanges.

I make a cast-metal plate, *a*, with an opening, *b*, suitable for the register-box *c*, which plate is continuous or solid in its entire extent around the said space *b*, which is to be either angular or oval at the top, providing the said plate with flanges *d e* square or at right angles to it, and extending backward as much as the thickness of the mop-board *l*, so that the front face of plate *a* will stand flush with the front of the mop-board, from which a piece is to be cut out, and the frame is to be fitted in its place. From the bottom up a distance equal to the base of the molding *m* of the mop-board I make side flanges, *e*, square to the face *a;* but from there upward to and over the top I make flange *f*, in ogee or other molding, of the front corners to correspond or match with the molding *m*, for conformity of finish; but the inner or back edge of the flange is continuous in the same plane around the whole frame, to fit against the plaster of the wall just outside of the line where the plaster and the lath are cut away at *g*, to make the opening for the register-box, the flanges concealing the cut and matching the surface smoothly. At the opening *b* for the register-box I provide a flange, *h*, with bearing-ribs *i*, to receive the flange *j* of the register-box, the said flange *h* and ribs *i* being set back or depressed sufficiently to allow the register-box to stand flush with the face *a* of the frame.

Marble or stone frames require to be so thick for strength that they occupy the whole space from the front surface of the mop-board to the wall; but the great strength of iron enables the plate *a* to be so thin that my improved frame affords considerable dead-air space, *k*, all round the register-box *c* and between the front plate *a* and the wall, for protection from fire. The cast-metal frame affords the simple and cheap means of ornamental design common to it.

It is to be understood that my improved border-frame differs from those in which a plain flange is made on the front plate back of the edge to fit into and be masoned in the wall, in that the flanges of my frame are flush with the outer edge, to make a suitable form of frame to be set against the surface of the plaster wall and be brought forward flush with the abutting wood-work, making a finish harmonious therewith; while in the other forms the front plate lies upon the surface of the plastering, and the flange, projecting through the thin lath-and-plaster wall, projects into the flue so far that narrow flues are frequently obstructed by them, while my frame relieves the flue from any obstruction, and by its form, while simple and inexpensive and entirely fire-proof, is shaped to form a finish harmonious with the abutting wood-work.

What I claim, and desire to secure by Letters Patent, is—

1. A cast-metal hot-air-register frame consisting of front plate, *a*, having opening *b* for the register-box, and flanges *d e f*, which are flush with the outer edge of the frame and adapted to bear against the surface of the plaster wall and support the front plate flush with the front surface of the mop-board, substantially as described.

2. A cast-metal hot-air-register frame consisting of front plate, *a*, having opening *b* for

the register-box, and flanges *d e f*, to bear against the wall, the bottom flange, *d*, and the side flanges, *e*, being square to the face *a*, and the flange *f* being molded in conformity with the mop-board finish, or substantially so.

3. A cast-metal hot-air-register frame consisting of front plate, *a*, and flanges *d e f*, said front plate having opening *b* for the register-box, with surrounding depressed flange *h*, and bearing ribs *i*, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES W. TROTTER.

Witnesses:
B. J. MOSS,
J. H. JEFFRES.