

C. COMSTOCK.
Fire-Place Radiators.

No. 156,912.

Patented Nov. 17, 1874.

Fig: 1

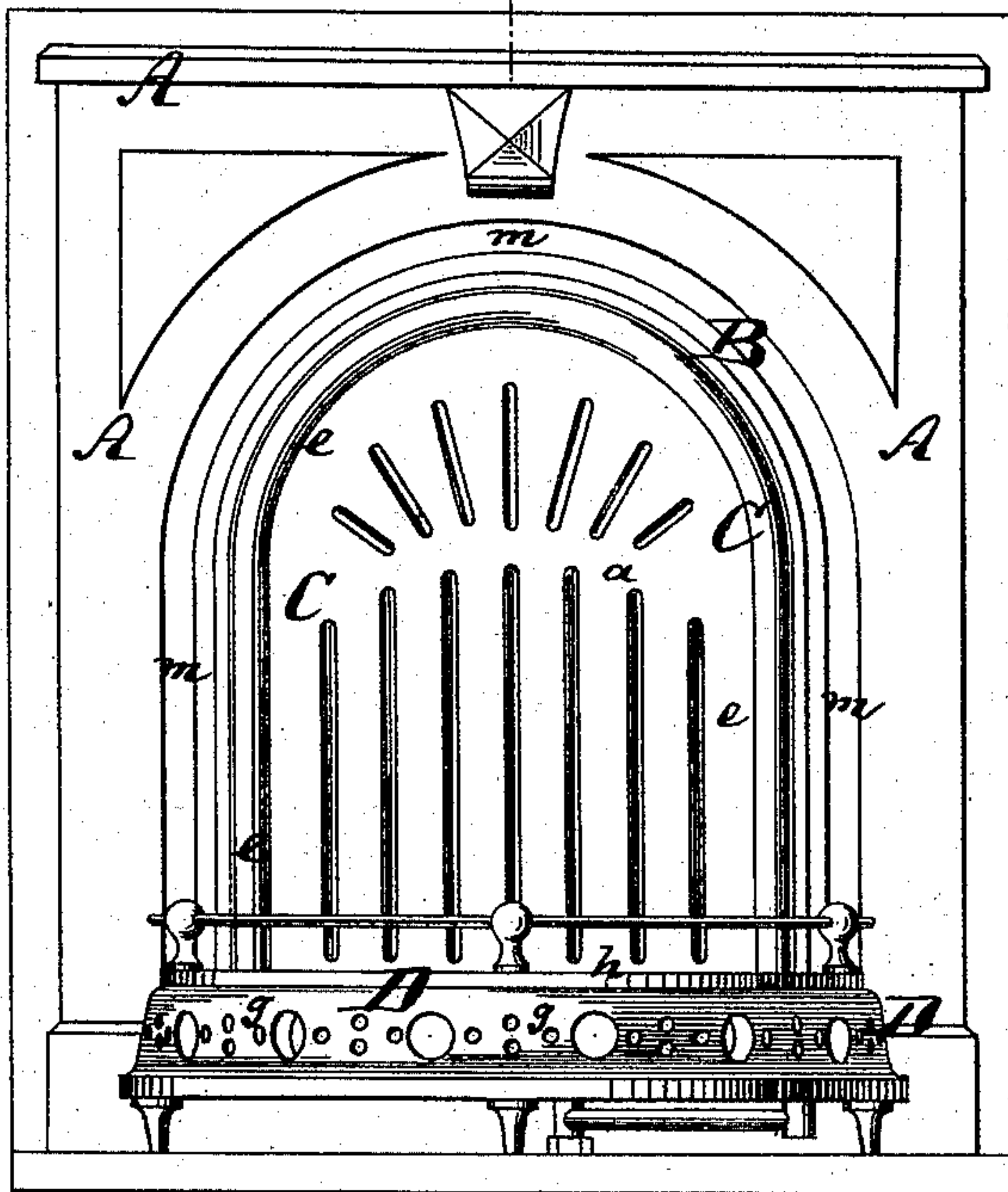


Fig: 2

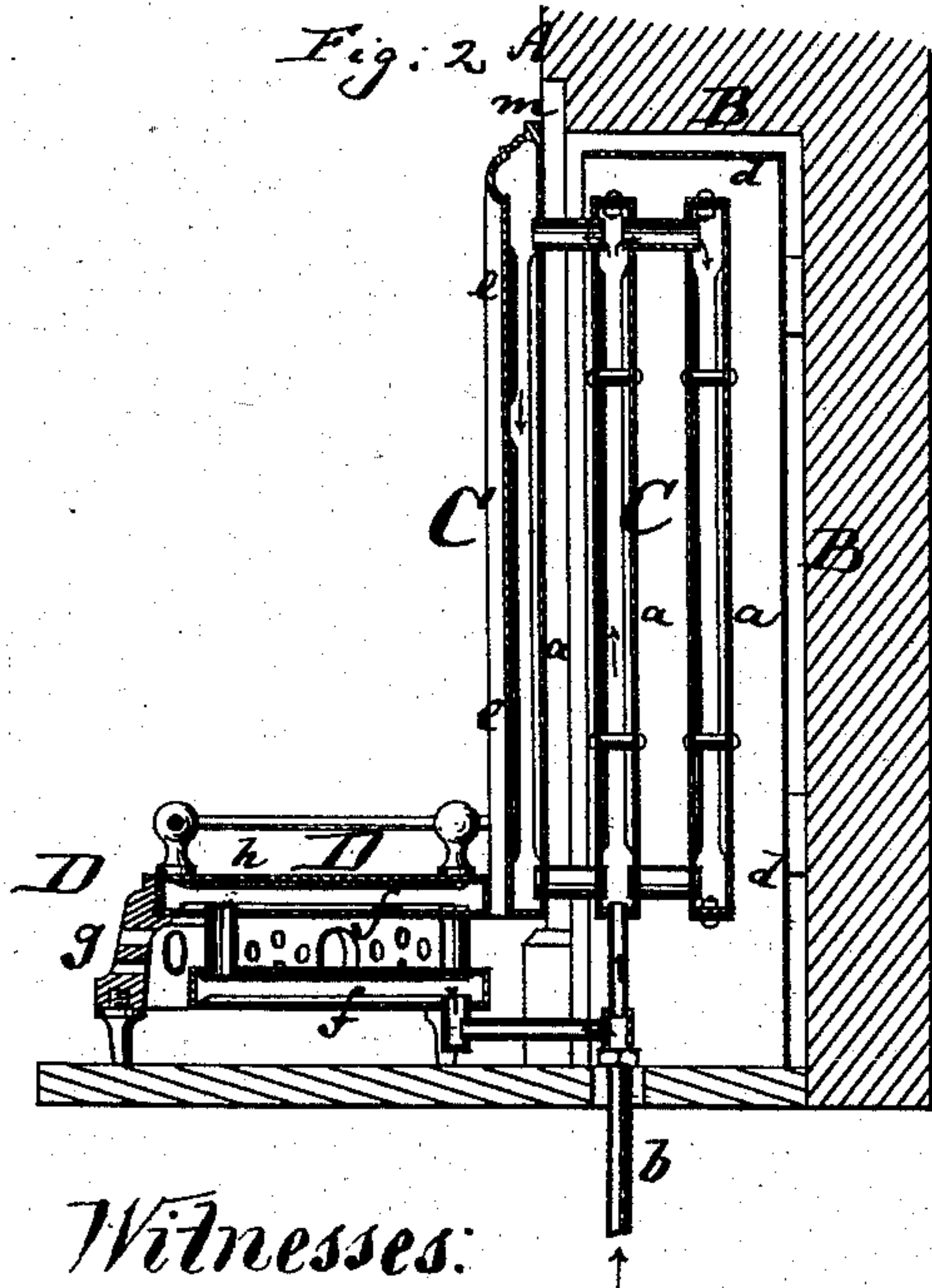


Fig: 3

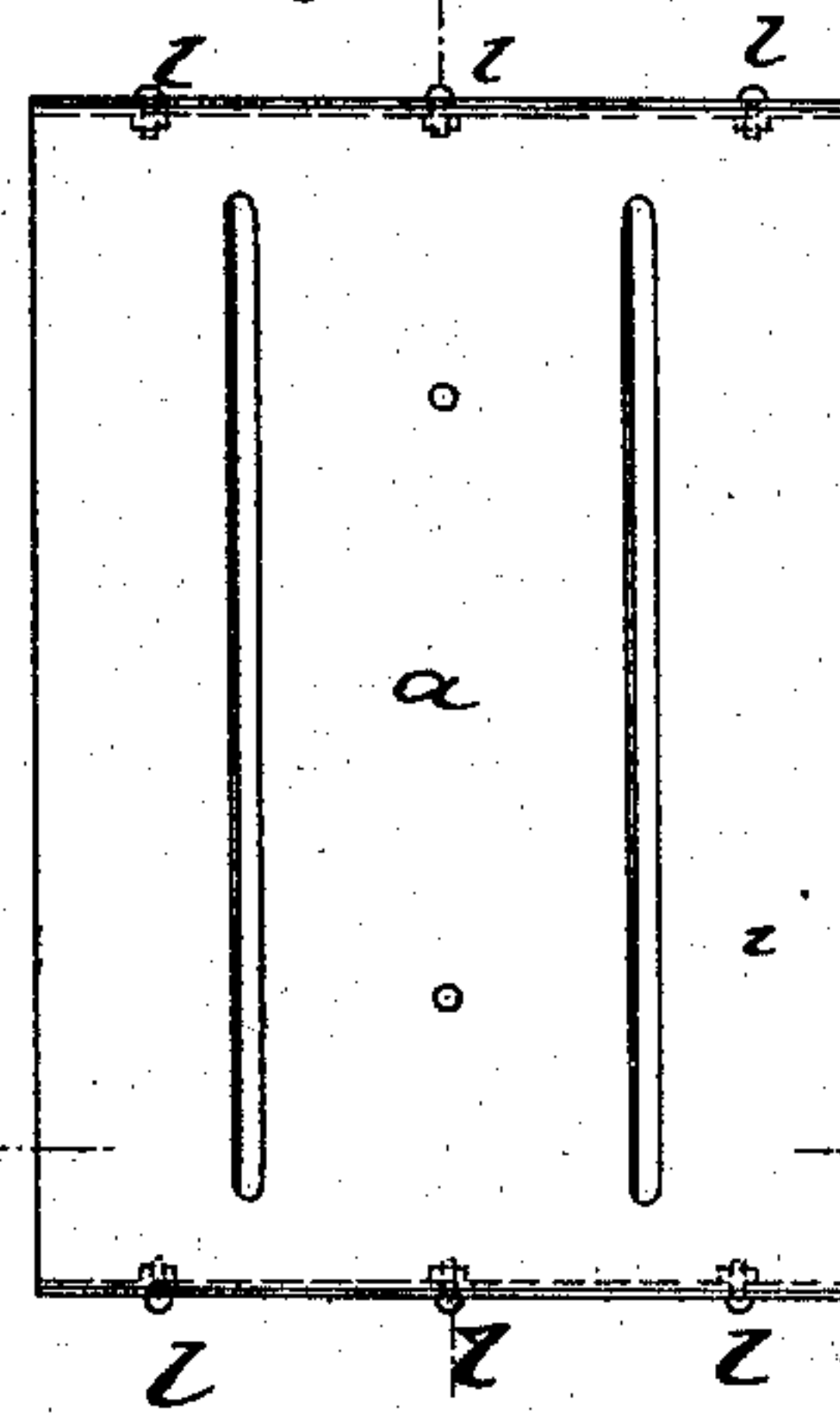


Fig: 4

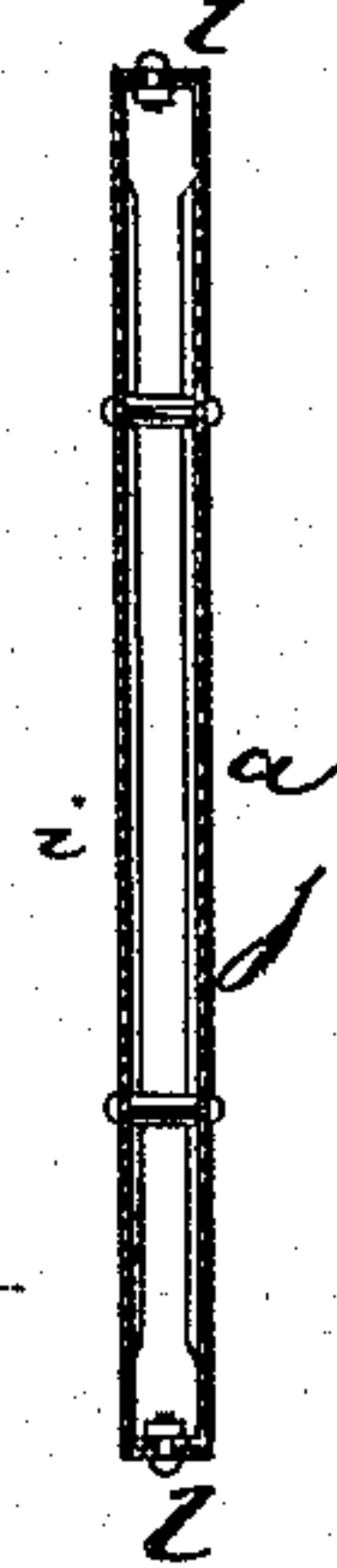


Fig: 5



Witnesses:

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UNITED STATES PATENT OFFICE.

CHESTER COMSTOCK, OF NEW CANAAN, CONNECTICUT.

IMPROVEMENT IN FIRE-PLACE RADIATORS.

Specification forming part of Letters Patent No. **156,912**, dated November 17, 1874; application filed October 1, 1874.

To all whom it may concern:

Be it known that I, CHESTER COMSTOCK, of New Canaan, in the county of Fairfield and State of Connecticut, have invented a new and Improved Fire-Place Radiator, of which the following is a specification:

Figure 1 is a face view of my improved fire-place radiator. Fig. 2 is a vertical central section of the same; Fig. 3, a sectional face view of one of the radiating-chambers; Fig. 4 a longitudinal, and Fig. 5 a transverse, section thereof.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to utilize the fire-places which are built into nearly all dwelling-houses for locating steam or hot-water radiators.

The invention consists in a steam-radiator adapted to the recess and configuration of an ordinary fire-place.

Dwelling-houses that were built in former years were mostly provided with fire-places for useful purposes, but modern arrangements have made nearly all such fire-places useless, and they are now constructed more for the sake of ornament than for actual use. At the same time steam-radiators are largely employed, and take away valuable space in rooms, besides being frequently of a form not in harmony with the furniture that may be selected. By adapting a radiator for insertion into a fire-place, I utilize a space that would otherwise be useless, and at the same time am enabled to make the radiator a constant ornament of a room, and very effective besides.

In the accompanying drawing, the letter A represents the mantel of the fire-place, made in the usual or suitable style, to embrace and embellish a recess, B, within which my improved radiator C is placed. This radiator consists of one or more hollow radiating-chambers, *a a*, which are connected with the steam or hot-water supply pipe *b* and with each other, to insure a proper circulation of steam or hot water through them. A sheet-metal casing or curtain, *d*, may be arranged at the back of the radiator proper, for the purpose of preventing the walls of the house from becoming overheated, and also for radiating purposes. The face-plate *e* of the radiator is shaped to conform to the outline of the recess in the fire-place; but around the edges of

said face-plate *e* is formed an open space, *m*, through which the air may enter the recess of the fire-place and escape therefrom. The air will thus become heated by contact with the radiating-surfaces, and circulate, by the constant change of its temperature, through the recess B. The air of the room also becomes heated by direct contact with the face-plate *e*, which is part of one of the steam or hot-water chambers *a*.

In imitation of the ordinary hearth-piece used in front of grates, I use a horizontal radiator, D, projecting forward from the main fire-place radiator C, and containing one or more chambers, *f f*, for the reception of the hot water or steam from the pipe *b*, as clearly indicated in Fig. 2. A perforated plate, *g*, embraces and forms the edge of this horizontal radiator D, and allows the radiated air from D to escape into the room. Thus the coldest air of the room, which is at the bottom, will be warmed by the horizontal hearth-radiator D, and ascend from it into the room, while the top plate *h* of such hearth-radiator also serves as a direct radiating-surface.

In Figs. 3, 4, and 5 I have represented detail views of the steam and hot-water chambers *a* or *f*, which I prefer to use in my radiator. Every such chamber I prefer to form of two plates, *i* and *j*, which at their edges are bent inward, and joined by bolts *l* passing through them, as clearly shown in Fig. 4. The joint may be made tight by galvanizing the entire chamber, or otherwise.

I claim as my invention—

1. A fire-place radiator, C, adapted for insertion into a fire-place, and constructed of one or more chambers, *a*, of the radiating front plate *e*, and of the metal curtain *d* arranged at the back, all combined substantially as described.

2. In combination with a fire-place radiator, adapted for insertion in a fire-place, and constructed of one or more chambers, and of a radiating front plate, the horizontal or hearth radiator D, composed of the chamber or chambers *f* and perforated face-plate *g*, for use substantially as specified.

CHESTER COMSTOCK.

Witnesses:

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