H. BESSE.

Heating Drum.

No. 101,420. Patented April 5, 1870.

Fig. 1

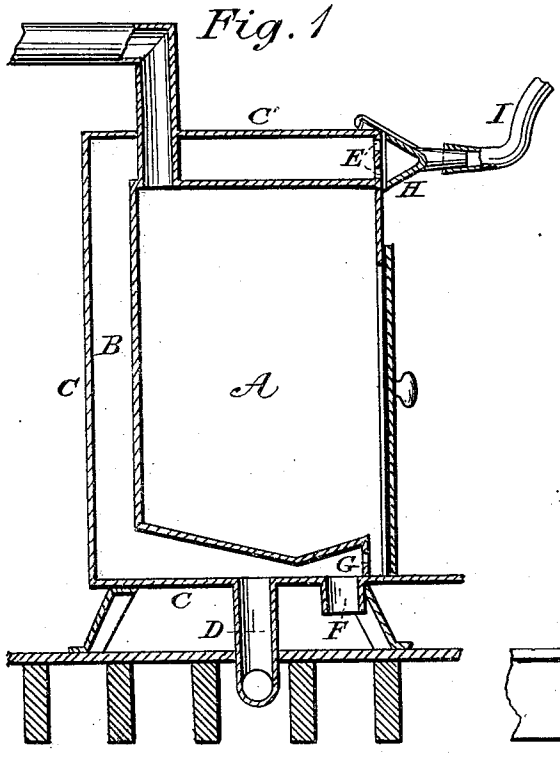
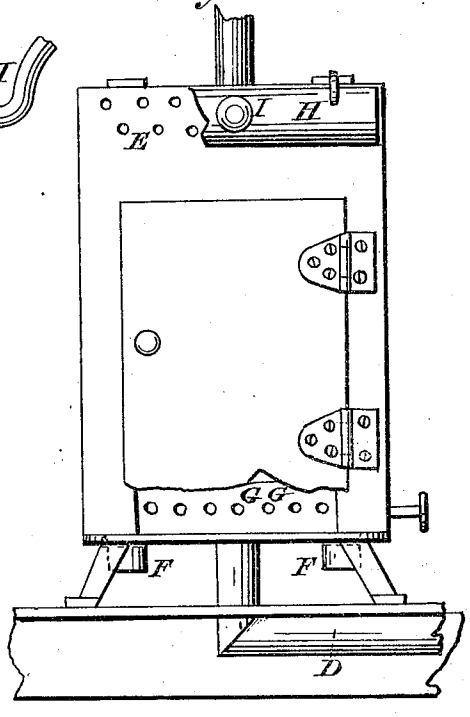


Fig. 2



Witnesses:

Robt Brooks

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attys.

United States Patent Office.

H. BESSE, OF DELAWARE, OHIO.

Letters Patent No. 101,420, *dated April 5*, 1870.

HEATING-STOVE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, H. BESSE, of Delaware, in the county of Delaware and State of Ohio, have invented a new and useful Improvement in Heating-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to improvements in heating-stoves, open grates, and the like, and consists in the arrangement therewith, on the bottom, one or more sides or parts thereof, and the top, of double walls, forming heating-chambers, and in providing, in connection therewith, cold-air pipes, leading from the exterior of the building, under the floor or otherwise, to the said heating-chambers, to supply fresh, cool air to be heated and discharged into the room, whereby it is designed to utilize a greater proportion of the heat developed than can be done by the present arrangement of stoves to give off the heat by radiation alone.

Figure 1 is a sectional elevation of a stove constructed according to my improvement, and

Figure 2 is a front elevation, partly broken out.

Similar letters of reference indicate corresponding parts.

A is the combustion-chamber, which may be made in any approved way, and adapted either for wood or coal.

B is the heating-chamber, formed in this example on the bottom, back, and top, by the addition of the outer walls C, which may be of sheet metal or other suitable substance.

D is the cold-air pipe, leading from the exterior of the building, preferably, under the floor, and up through it to the bottom of the stove, into the heating-chamber, for the admission of cold and fresh air, to be heated by contact with the hot walls of the stove, and to be discharged therefrom through the opening E into the room.

F is a supply-pipe for cold air from the room into the chamber B, and, through the holes G, into the fire-box, to support combustion.

I have found by practical experiments that in this way very much more of the heat may be given off to the room than when radiation through the walls of the stove, or the contact of the air of the room therewith, is depended on. Moreover, it has the effect to prevent the draught into the room, through the cracks and crevices, of the cold air, to take the place of that exhausted by the work of combustion, and which renders the rooms chilly and uncomfortable.

The same plan may be applied to open fire-grates, by the arrangement therewith of heating-chambers at the sides and top with similar air-supply and escape-passages.

I may also utilize the heated air from the chamber B for heating upper rooms, by the application, over the escape-passages, of the hood H, and a flexible or other conducting-pipe, I, leading therefrom to the rooms above.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The heating-chamber B, extending on three sides of a stove, combined with a combustion-chamber, A, cold-air supply-pipe D, pipe F, and escape-passages E, all constructed and arranged as and for the purpose specified.

H. BESSE.

Witnesses:

B. DICKINSON,

E. E. JONES.