A. H. CHASE.

HEATING-STOVES.

No. 193,690. Patented July 31, 1877.

Fig. 1.

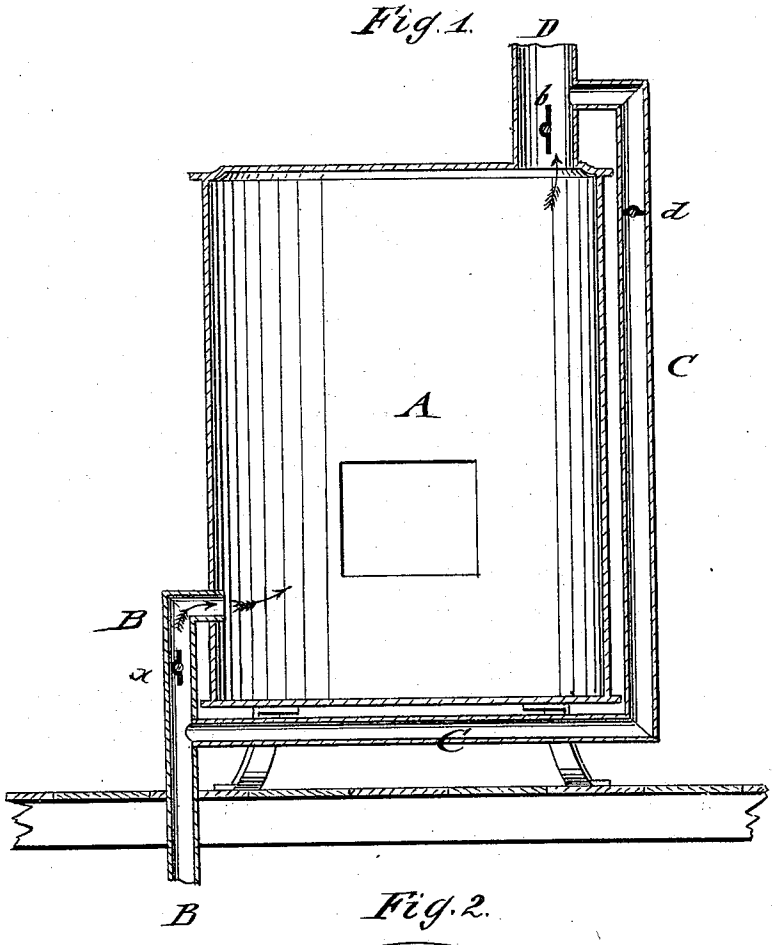
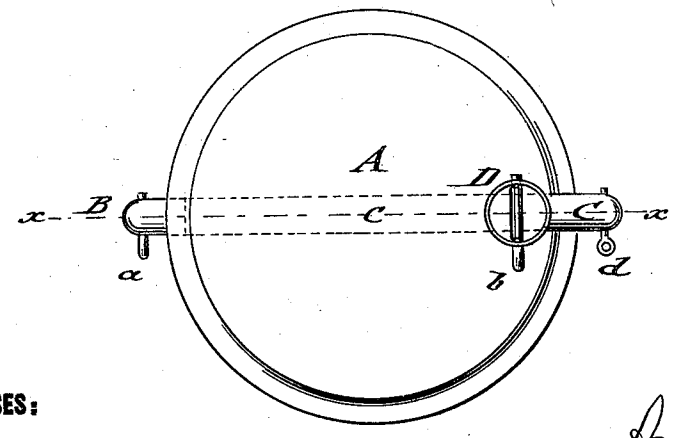


Fig. 2.



WITNESSES:

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ALFRED H. CHASE, OF DOWAGIAC, MICHIGAN.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **193,690**, dated July 31, 1877; application filed January 19, 1877.

To all whom it may concern:

Be it known that I, ALFRED H. CHASE, of Dowagiac, in the county of Cass and State of Michigan, have invented a new and Improved Heating-Stove, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical transverse section of my improved heating-stove on line *x x*, Fig. 2; and Fig. 2, a top view of the same.

Similar letters of reference indicate corresponding parts.

The invention relates to improvements in heating-stoves by which the fuel is economized, a larger percentage of the heat supplied to the rooms, and the sweating of the stove-pipes and chimneys prevented.

The invention consists of a stove connected by a direct-draft pipe with the outside of the room or building, and by a pipe branching off from the same with the stove-pipe, the pipes having suitable dampers to keep up a draft in the stove-pipe and chimney and carry off smoke, while confining the heat in the stove.

In the drawing, A represents a stove of any suitable construction, to which cold air is supplied from the outside of the room or building by a draft-pipe, B, that passes through the floor and prevents the taking up of any of the heated air from the room. The heat in the room is thereby preserved, and no extra fuel required for reheating the air drawn off. The air is drawn by the pipe B into the stove below the grate, and the stove thereby made independent of the atmosphere in the room. The draft-pipe B is connected with a cold-air pipe, C, which branches off from the same below its opening into the stove, and below a damper, *a*, and is extended below the stove, and then in upward direction to the stove-pipe D, entering the same above the damper *b* of the stove-pipe. The cold-air pipe C is also supplied with a damper, *d*, near its upper end, which is closed when the current of air is to be thrown entirely into the stove for keeping up a brisk fire therein.

When the fire is in good heating condition, the draft-damper *a* and stove-pipe damper *b* are closed and the damper *d* opened, by which the heat is confined to the stove and rendered effective for heating the room or rooms, while the cold-air current passes through the cold-air pipe C, and through the stove-pipe D, to the chimney, so as to draw up the smoke and prevent the sweating of stove-pipe and chimney. The heat is emitted into the room, as it is prevented from passing up into the chimney, and thereby the fuel fully utilized and economized.

By changing the dampers the fire may at any moment be restored to the required briskness, so as to keep it up when supplying coal, and without drawing off any of the heated air of the room.

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

The combination of the draft-pipe B, having a valve, *a*, and the cold-air pipe C, having a valve, *d*, with the heating-stove A and exit-pipe D, provided with the damper *b*, all constructed and relatively arranged as herein shown and described.

ALFRED H. CHASE.

Witnesses:
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