

F. D. LIVERMORE.
Heating-Stove.

No. 197,644.

Patented Nov. 27, 1877.

Fig. 1.

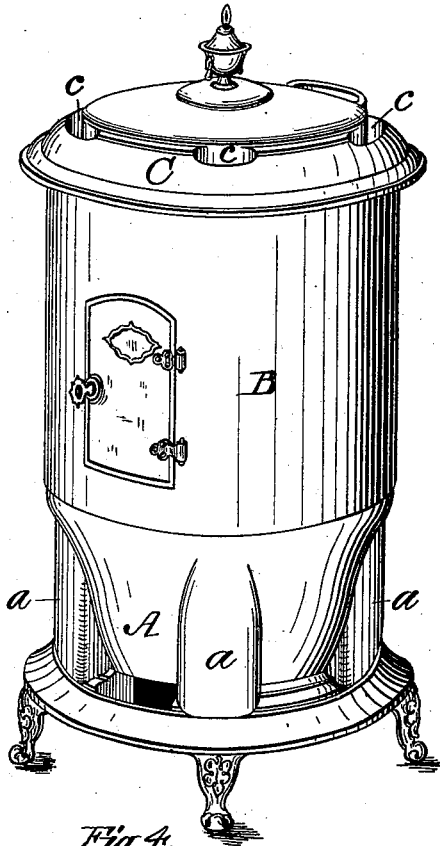


Fig. 2.

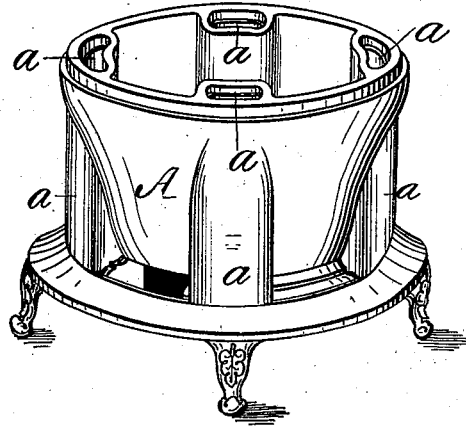


Fig. 3.

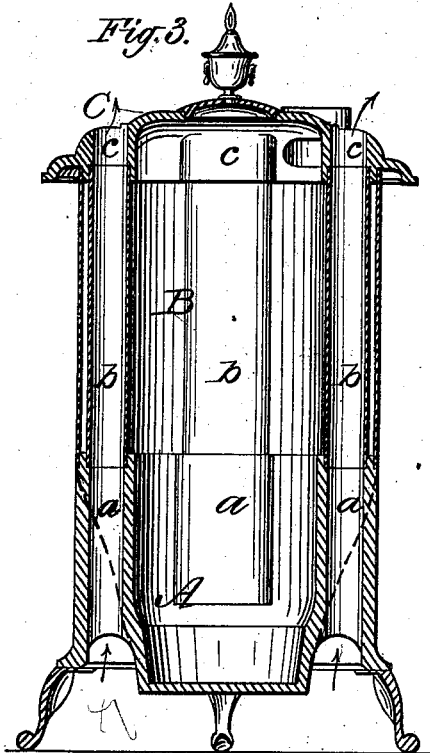
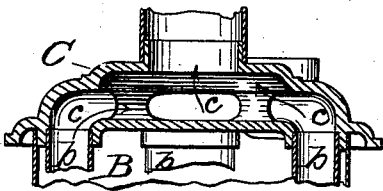


Fig. 4.



Witnesses:
Mill H. Dodge
Dann A. Tutchell.

Inventor:

F. D. Livermore
By his atty
Dodge & Son

UNITED STATES PATENT OFFICE.

FREDERICK D. LIVERMORE, OF ROCHESTER, MINNESOTA.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **197,644**, dated November 27, 1877; application filed May 21, 1877.

To all whom it may concern:

Be it known that I, FREDERICK D. LIVERMORE, of Rochester, in the county of Olmsted and State of Minnesota, have invented certain Improvements in Heating-Stoves, of which the following is a specification:

My invention relates to that class of heating-stoves having air-flues through them from top to bottom, which are made with a sheet-metal body and a cast-metal top and base; and the invention consists in a base of peculiar form cast complete with the air-flues therein; in the use of internal sheet-metal flues, in combination with the top and bottom, adapted to receive them, and in casting the top with converging flues, as hereinafter described.

Figure 1 represents a perspective view of my stove; Fig. 2, a perspective view of the base; Fig. 3, a vertical central section through the stove; Fig. 4, a vertical central section representing the top with its converging flues.

A represents the cast-metal base; B, the sheet-metal body; and C, the cast-metal top. The base is cast complete in about the usual form, with a contracted bottom to serve as a fire-pot; but, unlike those hitherto in use, it has four vertical flues, *a*, the lower ends of which protrude on the outside, and have their mouths open to receive air, while their upper ends terminate inside of the bottom and are recessed to receive the lower ends of sheet-metal flues *b*, one of which is seated in each of them, as shown.

Upon the base A, which is shouldered to receive it around the flues *b*, I mount a sheet-metal body, B. The top C is shouldered to fit upon the body B, and has cast with it four open flues, *c*, the lower ends of which are adapted to receive and form a continuation of the flues *b*.

The flues *c* may be arranged to open separately and directly through the top plate; but it is preferred to extend them across the under side of the same, and merge them at the center in a single flue, as shown in Fig. 4.

By extending the flues upward through the interior of the stove in the manner shown a very large heating-surface is obtained, and by the peculiar construction of the parts the cost of manufacture is rendered very low.

I am aware that stoves have been provided with air-flues passing through them from top to bottom, and that cast-iron bases and tops have been combined with sheet-iron bodies, and I make no claim broadly thereto; but

What I do claim is—

The combination of the base A, cast with the flues *a* therein, the flues *b* and body B, of sheet metal, and the top C, cast with the flues *c* therein, and applied as shown.

FREDERICK D. LIVERMORE.

Witnesses:

S. W. EATON,
J. A. LEONARD.