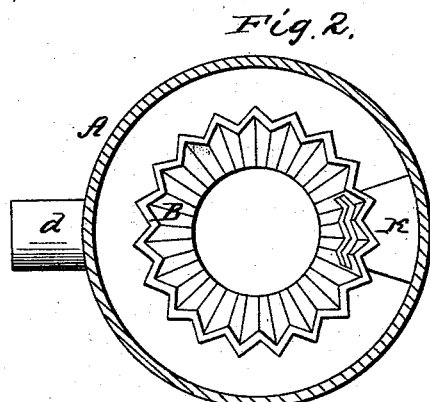
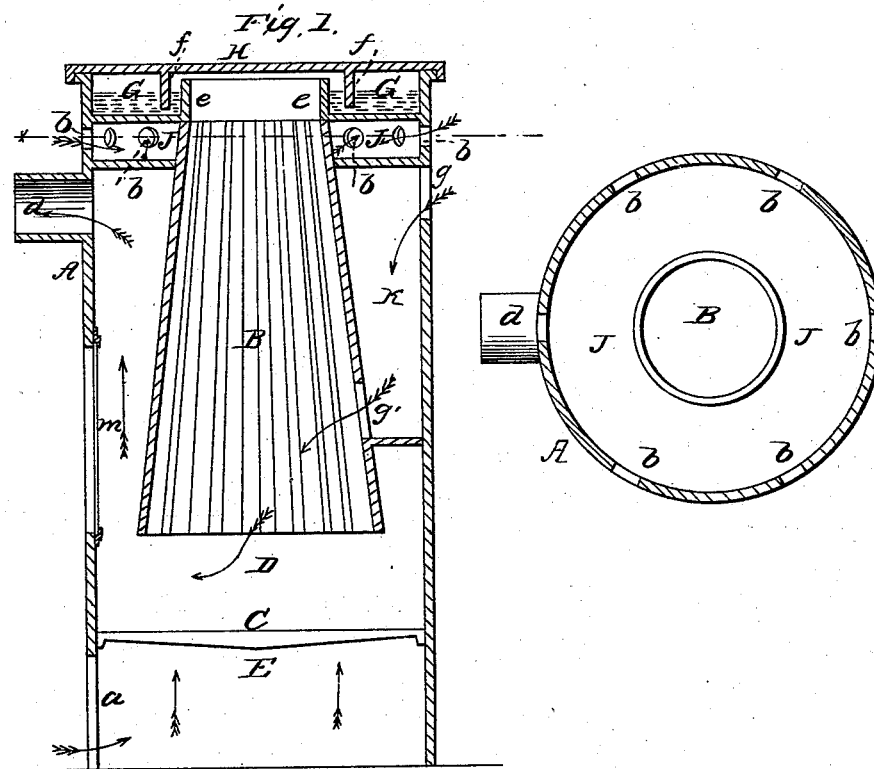


S. H. LA RUE.
Base Burning Stove.

No. 113,535.

Patented April 11, 1871.



Witnesses:
R. Campbell.
for Campbell.

Inventor:
Silas H. La Rue
by his attys
Mason, Shuwick, Lawrence

United States Patent Office.

SILAS HOFFMAN LA RUE, OF ALLENTOWN, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND W. J. HOXWORTH, OF SAME PLACE.

Letters Patent No. 113,535, dated April 11, 1871; antedated April 1, 1871.

IMPROVEMENT IN BASE-BURNING STOVES.

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, SILAS HOFFMAN LA RUE, of Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain novel Improvements in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a diametrical section through a stove having my improvements applied to it.

Figure 2 is a section taken horizontally through the fire-chamber, looking upward.

Figure 3 is a section taken horizontally through the air-chamber near the top of the stove.

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

This invention relates to certain novel improvements on the heating-stove for which Letters Patent were granted to me on the 26th day of July, A. D. 1870.

The improvement which I have made consists—

First, in a corrugated or fluted supply-reservoir, which is provided with an air-inlet passage between its upper and lower extremities.

Second, in the arrangement of a cold-air chamber between a reservoir and the body of the stove, as will be hereinafter explained.

The following is a description of my improvements, and the manner of applying them to a stove.

In the accompanying drawing—

A represents the outer casing of the stove, within which is suspended the fuel-reservoir B.

C is the grate;

E, the ash-chamber; and

d, the outlet-flue.

At the top of the case A is a water-tank, G, which surrounds the upper end *e* of the fuel-magazine B, and which receives into it the annular flange *f* of a cover, H. The cover H is thus water-packed, and prevents the entrance of air into the upper end of the reservoir B.

Below the water-tank G is an annular chamber, J,

which receives the external air through perforations *b*, and thus allows a free circulation of air through it. This air-chamber, being arranged between the water-tank G and the lower heated portion of the stove, will prevent a rapid evaporation of the water in said tank by cutting off the intense heat, and thus obviate the necessity of frequently replenishing the tank with water.

The fuel-reservoir B is suspended above the grate C so as to leave a fire-chamber, D, between this grate and the lower end of the reservoir; and at a suitable point between the ends of the reservoir an air-inlet passage, *g*, is made, which communicates with an air-inlet passage, *g*, by means of an air-conduit, K. Thus, it will be seen that the fuel in the reservoir B, which is below the inlet-passage *g*, will be supplied with air, and will consequently burn.

The reservoir B is corrugated or fluted, as shown in figs. 1 and 2, for the purpose of preventing the coal from becoming so packed against its sides as to prevent a free circulation of air to the entire body of coal between the air-inlet passage *g*, which is important in order to effect thorough combustion of the fuel.

The features herein described of introducing air into a fuel-reservoir above its lower end, and also of employing a water-packed joint for the cover at the upper end of the magazine, are more fully explained in my Letters Patent of July 26, 1870, above referred to, and are not claimed here.

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

1. A fuel-reservoir, B, which is corrugated or internally ribbed, in combination with the air-inlet passage *g* between the extremities of this reservoir, substantially as described.

2. The air-circulating chamber J arranged directly beneath the water-tank G, and its water-packed cover H, substantially as described.

SILAS HOFFMAN LA RUE.

Witnesses:

A. K. WITTMAN,

T. B. LEISENRING.