

T. SCANTLIN.
Heating Drum.

No. 101,316.

Patented March 29, 1870.

Fig. 1.

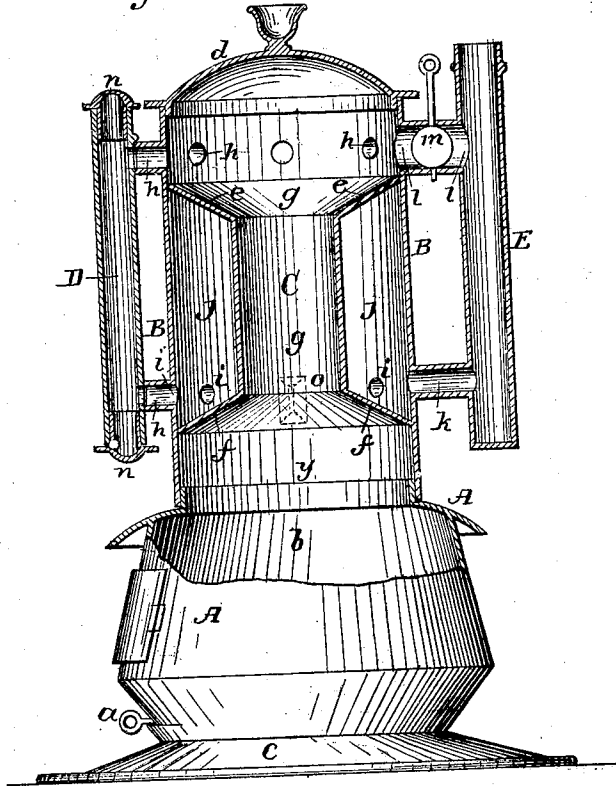
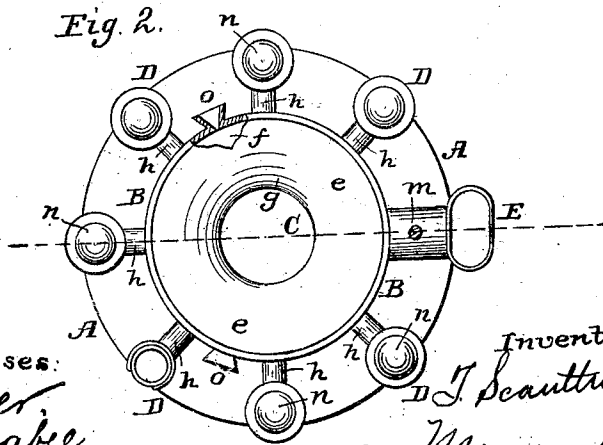


Fig. 2.



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THOMAS SCANTLIN, OF EVANSVILLE, INDIANA.

Letters Patent No. 101,316, dated March 29, 1870.

STOVE-DRUM.

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, THOMAS SCANTLIN, of Evansville, in the county of Vanderburg and State of Indiana, have invented a new and improved Heat-Radiator; 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, in which—

Figure 1 represents a sectional elevation of my improved heating-stove.

Figure 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new heat-radiator, which is constructed with the object of securing more extended radiating surfaces, and unobstructed draught.

The invention consists chiefly in a novel arrangement of pipes and drum for obtaining the desired circulation of smoke, and also in a novel means for letting air into the stove.

A in the drawing represents the base of the stove, containing the grate *a*, the fire-place *b*, ash-chamber *c*, &c.

B is the cylindrical drum placed upon the same.

The drum is covered with a plate, *d*.

Within the drum is arranged a vertical pipe, C, whose ends are, by concave annular plates *e* and *f*, respectively, connected with the sides of the drum.

By the pipe C is formed a direct smoke-passage, *g*, which is enlarged at both ends, as shown, for the detention of the smoke.

From the upper part of the smoke-passage *g* extend horizontal pipes *h h*, which connect with vertical pipes D, on the outside of the drum.

The lower ends of the pipes D are, by horizontal branches *i i*, connected with the lower part of the

drum, so that the smoke, which passes from the top of the central chamber *g* into the pipes D, will enter the annular chamber *j* of the drum, at the lower part of the same.

Thence all smoke escapes through a pipe, *k*, into the smoke-flue E.

Direct draught can be obtained by means of a pipe, *l*, leading from the upper part of *g* into the smoke-pipe.

A damper, *m*, in such pipe, serves to close it to obtain the aforementioned circulation.

The ends of the pipes D D are closed by removable caps *n n*, which permit the thorough cleansing of the pipes.

The lower part of the annular chamber *j* has in its sides one or more slots, which are on the outside of the stove, guarded by funnel-shaped mouth-pieces *o o*. Through these slots air enters the stove from the outside, being sucked in by the upward draught.

The air thus added will serve to reduce the rapidity of draught, and increases, therefore, the heating capacity of the stove, the combustion of the gases contained in the smoke being also assisted by the oxygen in the air, as the same passes over the heated plates.

Having thus described my invention,

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

1. The combination of the drum B with the pipe C, plates *e f*, and pipes *h*, D, and *i*, all arranged substantially as herein shown and described.

2. The guarded slots provided in the smoke-passage of a heat-radiator, for the purpose of drawing air into the same, as specified.

THOMAS SCANTLIN.

Witnesses:

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