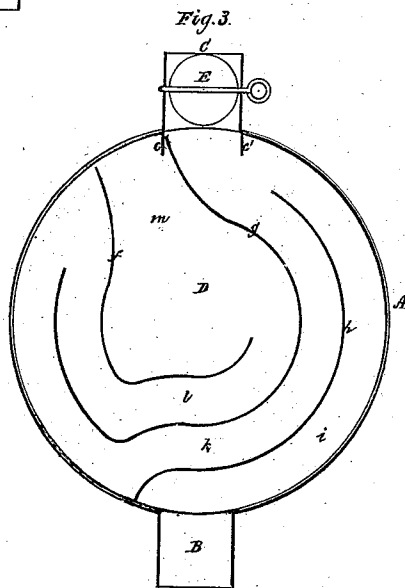
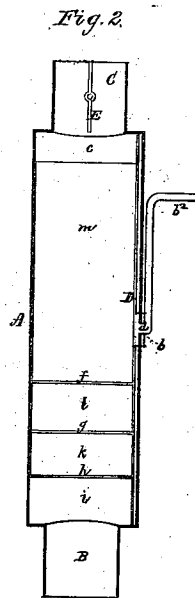
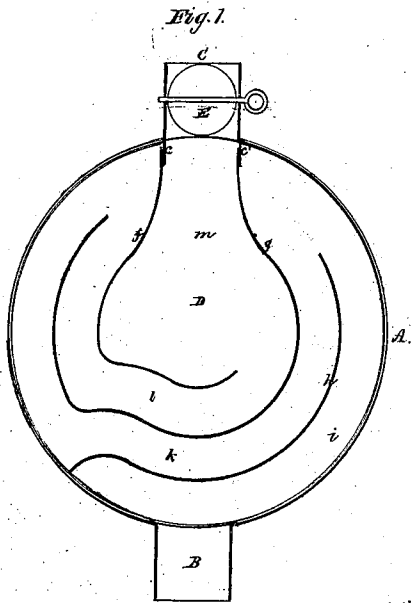


*Dallas Knorrton's Improved Radiator for Stove Pipes*

76779

PATENTED  
APR 14 1868



Witnesses  
*S. K. Piper*  
*J. R. Smart*

D. Knorrton  
by his attorney  
*R. H. Long*

United States Patent Office.

DALLAS KNOWLTON, OF LIBERTY, MAINE.

Letters Patent No. 76,779, dated April 14, 1868.

IMPROVEMENT IN STOVE-PIPE DRUMS.

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

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, DALLAS KNOWLTON, of Liberty, in the county of Waldo, and State of Maine, have invented an Improved Radiator for a Stove-Pipe; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes a longitudinal section, and

Figure 2 a vertical and transverse section of it.

In the said drawings, A denotes a circular drum or case, provided with an induction-pipe, B, and an eduction-pipe, C, arranged so as to project from opposite parts of its periphery, in manner as represented.

Within the said case, and close against one end of it, is a disk, D, whose diameter corresponds with or about the internal diameter of the case A. This disk revolves freely within the case, or projects from an arbor, *a*, having a bearing, *b*, at the axis of and on one side of the case, and being provided with a crank, *b*<sup>2</sup>, as shown in fig. 2.

Two plates, *c c'*, are extended from the upper part of the periphery of the case, and over the disk, and with respect to the eduction-pipe C, in manner as represented in figs. 1 and 2.

Three curved partitions, *f, g, h*, formed and arranged with respect to each other and the induction and eduction-pipes and the plates *c c'*, in manner as represented in the drawings, extend from the inner face of the disk D. These partitions, with the case, form channels, *i, k, l, m*, which, when the two partitions *f g* are in contact with the plates *c c'*, as shown in fig. 1, constitute one long, tortuous channel, leading through the case, and from the induct to the educt thereof.

By turning the disk D, so as to carry the partition *g* against the plate *c*, as the same is represented in Figure 2, smoke, when passing through the passage *i*, will pass from thence into the upper end of the passage *k*, and thence into the escape-pipe C, without going through the passages *l, m*.

If the disk D be turned, so as to bring the partition *g* midway between the plates *c c'*, part of the smoke, coming up through the channel *i*, will pass directly into the escape-pipe C, the remainder going through the channels *k, l, m*, before entering the escape-pipe.

I place a damper, E, in the escape-pipe, to regulate the amount of smoke which may course through the radiator.

In using this radiator, it is intended to so place it in the discharge-pipe of a stove as to cause the smoke, after having escaped from the stove, to pass through the radiator, whose sides will absorb and radiate the heat of such smoke.

I claim the combination and arrangement of the partitions *f, g, h*, with the disk D and the drum or case A, its induct B, educt C, and plates *c c'*, the whole being to operate substantially as specified.

I also claim the combination and arrangement of the damper E, with the partitions *f, g, h*, the disk D, case A, induct B, educt C, and plates *c c'*, arranged substantially in manner and so as to operate as set forth.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.

DALLAS KNOWLTON.