(No Model.)

J. M. LAUBE.

STOVE.

No. 371,465. Patented Oct. 11, 1887.

Fig. 1.

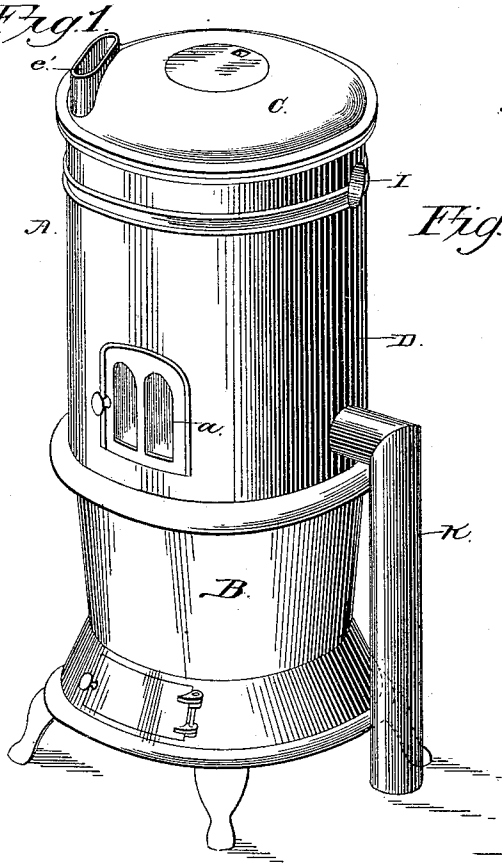


Fig. 2.

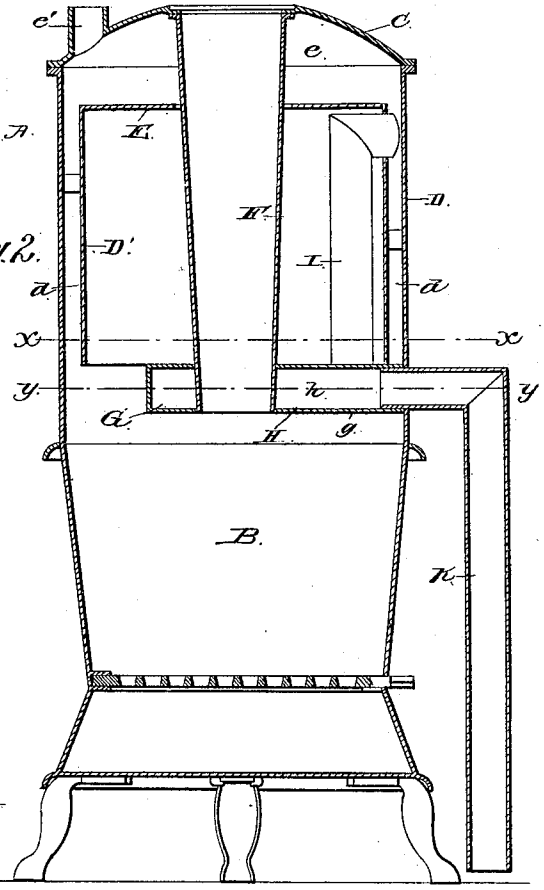


Fig. 3.

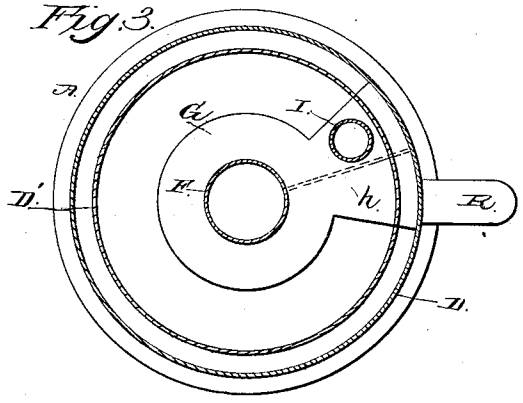
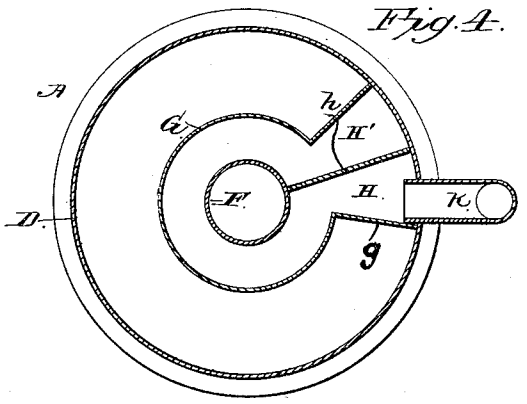


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH M. LAUBE, OF BRODHEAD, WISCONSIN.

STOVE.

SPECIFICATION forming part of Letters Patent No. 371,465, dated October 11, 1887.

Application filed April 19, 1887. Serial No. 235,404. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. LAUBE, a citizen of the United States, residing at Brodhead, in the county of Green and State of Wisconsin, have invented new and useful Improvements in Stoves, of which the following is a specification.

My invention relates to improvements in stoves, the objects being to produce a more rapid radiation of heat from the shell of the stove and to cause hot air from the immediate vicinity of the fuel to ascend into the room. These objects I accomplish by means of an air-heating chamber and a circumferential hot-air space constructed and arranged substantantially as hereinafter described, embraced in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a stove embodying my invention. Fig. 2 is a central vertical section of the same through the air-heating chamber and flues opening therein. Fig. 3 is a horizontal section on line *x x* of Fig. 2. Fig. 4 is a horizontal section on line *y y* of Fig. 2.

The stove may be formed to burn different kinds of fuel, the one shown and described being arranged to burn coal.

In the drawings, A designates the stove-cylinder, B the fire-box, and C the top plate, *a* being a door of usual construction opening into the cylinder immediately above the fire-box.

The cylinder A is provided with the outer shell, D, and the inner shell, D′, concentric with and but a short distance from the outer shell, and forming therewith a narrow air-space, *d*, open above and below. The shells are connected by narrow strips on each side of the door.

E is a plate closing the upper end of the cylinder, formed by the inner shell, D′, which plate forms with the top plate, C, a chamber, *e*, for hot air and the products of combustion, provided on the top plate with the pipe-collar *e′* for the escape of said products.

F is a self-feeding tube of ordinary construction, which passes through the top plate and plate E.

G is an annular air-heating chamber surrounding the lower end of the feeding-tube immediately above the fire-box. The said chamber is provided with the neck *g* on one side, which neck is divided longitudinally into two compartments or flues, H H′, respectively, by the partition *h*, which passes across the interior section of the annular chamber, so that the flue H communicates with said chamber on one side of the partition, and the flue H′ communicates therewith on the other side thereof.

I is a flue extending upward from the flue H′ to a point just below the plate E, and under which it bends horizontally, and, passing through the shell D D′, opens outside of the stove.

The casing or shell D′ acts in the capacity of a heating-drum. Having the bottom thereof left open, as shown, the heat enters the same, and is deflected downward on the top portion of the annular air-heating chamber G. The closed top E of said casing aids in the downward deflection of the heat, and also of the retention of the heat within the said casing.

The flue H opens outside the stove, but has preferably connected to its orifice a tube or flue, K, the open lower end of which is near the floor.

In a stove arranged to burn wood the air-heating chamber is preferably cylindrical.

In operation the cold air flows up through the tube K and through the flue H into the chamber G, and is intensely heated while passing around inside the latter. It then flows out through the flue H′ and up through the flue I and escapes into the room, so that the heat therein is equalized, currents being formed upward and downward in the room. The air-space between the shells D D′ causes the hot air and products of combustion inside the stove to be directed against the outer shell, D, as they pass up to the stove-pipe. The said shell is consequently heated more than in stoves of ordinary construction, and therefore radiates more heat into the room.

Having described my invention, I claim—

1. In a stove, the combination, with the outer shell of a stove-cylinder, of the inner shell or casing, D′, having the upper closed top, E, and the open bottom, the annular chamber G, having the neck *g*, the divisional partition *h*, internally arranged in said neck

g, and forming the flues H and H′, and the pipes K and I, substantially as described.

2. The combination, with the stove-cylinder, of the casing D′, the annular chamber G, having the neck *g*, the divisional partition *h*, dividing said neck into two flues, H and H′, and the pipes K and I, connecting with said flues, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSEPH M. LAUBE.

Witnesses:
J. W. STUART,
JAMES D. DAVIS.