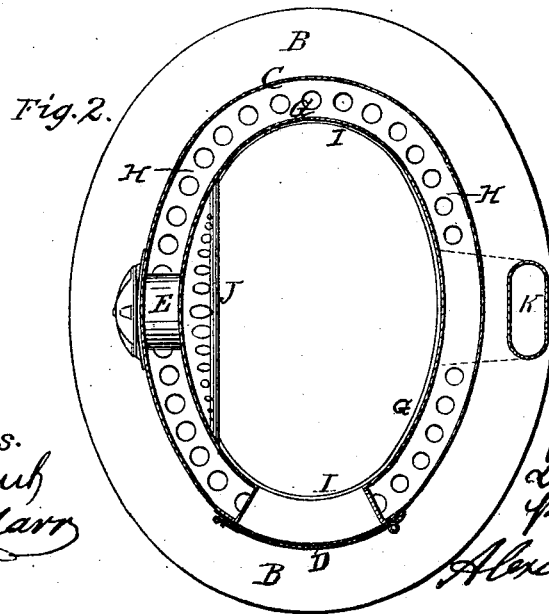
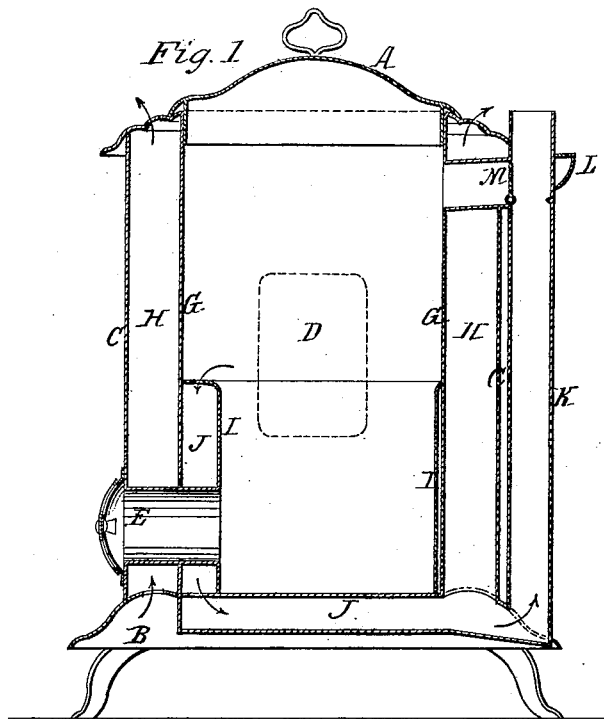


L. A. MORSE.

Heating Stove.

No. 109,749.

Patented Nov. 29, 1870.



Witnesses.
C. L. Smith
A. H. Marr

Inventor.
L. A. Morse
per Alexander Marr
attys.

UNITED STATES PATENT OFFICE.

LYMAN AYRAULT MORSE, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **109,749**, dated November 29, 1870; antedated November 21, 1870.

To all whom it may concern:

Be it known that I, LYMAN AYRAULT MORSE, of Battle Creek, in the county of Calhoun, and in the State of Michigan, have invented certain new and useful Improvements in Stoves; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the arrangement, within the outer cylinder of a parlor-stove, of an inner cylinder, which forms a hot-air chamber, which communicates with the perforated top plate of the stove; also, in the employment of a cast-iron lining within the inner cylinder, which is curved and perforated at the top, communicates with the draft-flue and with a chamber which carries the products of combustion between a chamber formed in the hollow base-plate of the stove, and thence through the stove-pipe parallel with the exterior cylinder.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a transverse vertical section, and Fig. 2 is a horizontal section, of my stove.

The top A and base B of my stove are of cast-iron, the same as any parlor-stove. The outside shell, C, is Russia sheet-iron, beaded and ornamented to suit the taste. The door D, to put in the fuel, and the draft E in front, are the same as in other sheet-iron stoves.

Inside of the outside shell, C, is another sheet-iron shell, G, enough smaller to make a space or flue, H, between the two of about one and a half or two inches all around the stove, which space or flue opens at the top and bottom to the room through apertures in the top and bottom castings.

Inside of the inside shell, G, is a cast-iron lining, I, forming a diving-flue, J, in front, down under the base of the stove and up the

back pipe, K, connecting with the top casting, A, by a bonnet, L, provided with a damper, M. This damper will turn back and make a direct draft from the inside of the stove to the upper end of the pipe K, or the damper will turn up and throw the smoke around the diving-flue J, thereby saving fuel.

The great object of my stove is to heat by circulation instead of radiation, thereby warming the room quicker, with less fuel and more pleasant and even heat, the room being warmed to the floor and the farthest corners.

On building a fire the air in the air-flue H becomes heated, and, there being no obstruction, it passes out at the top of the stove, said flue or chamber being filled from the bottom of the stove, and by the cold air in the lower part of the room, thereby causing the air in the room to pass through the stove, being heated in a few minutes.

These stoves may be made of the same size as other parlor-stoves, and not cost any more. They may be made oval or round to suit the trade.

The inside shell, G, is to be connected with the door by a cast flange, and the door to be fastened with bolts, the same as the register for the draft.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the perforated top plate, A, and base-plate B, the outer cylinder, C, and inner cylinder, G, forming the chamber H, all substantially as set forth.

2. The combination of the perforated top A, hollow base B, cylinders C G, chamber H, lining I, draft-flue E, flue J, pipe K, bonnet L, and damper, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of February, 1870.

L. A. MORSE.

Witnesses:

J. C. BARBER,
M. B. RUSSELL.