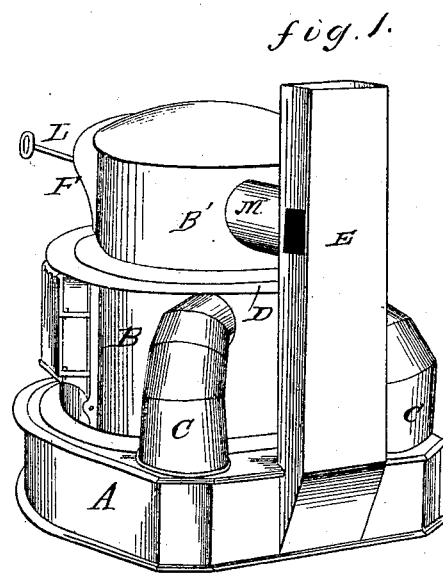


E. S. HEATH.  
Magazine Fire Place Stove.

No. 110,654.

Patented Jan'y 3, 1871.



*Witnesses*  
*John T. Fleckhearty*  
*Frank R. Eldridge*

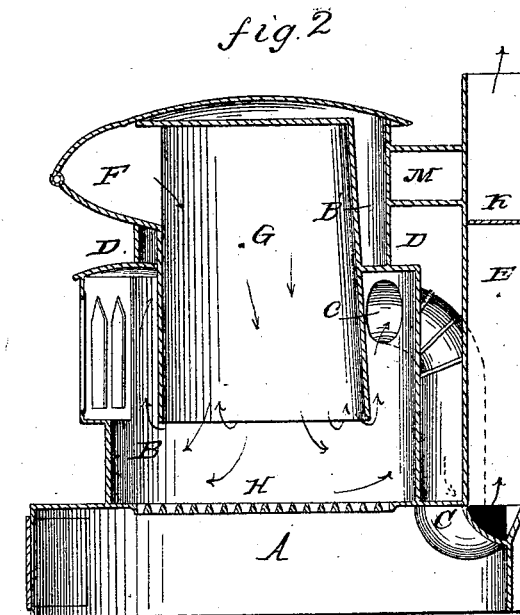
*Inventor*  
*Elisha S. Heath*

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*Witnesses*  
*N. K. Ellsworth*  
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*Elisha S. Heath*  
*by Thell & Ellsworth*  
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# United States Patent Office.

ELISHA S. HEATH, OF BALTIMORE, MARYLAND.

Letters Patent No. 110,654, dated January 3, 1871.

## IMPROVEMENT IN BASE-BURNING FIRE-PLACE HEATERS.

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, ELISHA S. HEATH, of the city and county of Baltimore in the State of Maryland, have invented a new and useful "Fire-Place Heater;" and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1, Sheet I, is a perspective view of my improved heater viewed from the rear; and

Figure 2, Sheet II, is a transverse vertical section of the same.

Similar letters of reference denote corresponding parts.

My invention has for its object to improve the construction of fire-place heaters or stoves whereby the same are rendered more efficient in use, and adapted for fire-places of different sizes.

Heaters of this class have heretofore been constructed with the flue-pipes arranged upon the sides near the front, and surrounded by a sheet-metal casing, which also extends over the top, sides, and rear portions of the heater.

Owing to this construction, and to the fact that the front must be surrounded by a cast-metal frame when the heater is fitted to a fire-place, their application to small fire-places is impossible, and their general use consequently prevented.

To overcome this objection, heaters have been made of various sizes to adapt them to large and small fire-places. This, in a measure, avoids the difficulty; but it is apparent that, if a large area is to be heated and the fire-place is incapable of receiving a heater of sufficient capacity to heat such area, a smaller heater must be employed which cannot supply the requisite amount of heat.

My invention is designed to supply such a heater as shall be applicable to large and small fire-places, at the same time possessing the requisite heating-capacity.

To this end, the invention consists, primarily, in extending the base of the stove to the rear to receive a suitable discharge-flue or pipe, and in arranging the flue-pipes to connect the base with the rear of the stove, in a manner to be hereinafter described, whereby the heater, instead of being set wholly within a fire-place, is projected from the front partially into the room, leaving only its back-flue pipes and discharge-flue within the fire-place, and dispensing entirely with the cast-metal frame.

The invention also consists in certain other details of construction to be hereinafter specifically described.

In the drawing—

A is the base of the stove, extended considerably

to the rear of the cylinder B, and supporting centrally at its back edge, the upright discharge-pipe E.

B' is a second cylinder, supported upon the cylinder B by means of the ring D, and provided upon its front with the coal-spout F.

G is the coal-hopper, suspended eccentrically within the cylinder B', and extending downward within the cylinder B, a short distance below the ring D.

C C are draught-flues, communicating with the cylinder B at the back of the same, and upon each side of the pipe E. Their upper ends enter the cylinder below the ring D, and about on a line with the lower edge of the hopper, or above the same, as shown in the drawing, and their lower ends passing through the base A, communicate directly with the lower end of the pipe E.

Upon the front of the base a suitable door is arranged through which ashes and coal are removed, and within the door of the spout F a register is placed to regulate the draught of the stove.

The draught of the heater is indicated by the direction of the arrows, fig. 2.

The air entering the coal-spout F, through the register, passes downward through the hopper to the grate H, and from thence upward outside the hopper, between the same and the cylinder B, to the upper ends of the flues C. Through these flues it passes downward to the base of the pipe E, which latter discharges it into the chimney.

In fitting the heater to a fire-place, the mouth of the chimney over the fire-place is closed or hooded up by a sheet-metal plate, and the pipe E of the heater passed through a hole in the same.

To the pipe E other sections of pipe are attached, to conduct the products of combustion through the chimney in the usual manner, leaving the chimney proper as the hot-air flue.

In order to heat the rooms of a house, some portion of the heater must be placed within the fire-place, that the heat radiated therefrom may ascend through the chimney to the rooms to be heated.

This result is accomplished by the pipes C and the rear extension of the base A, which parts, together with the pipe E, are within the fire-place, while the cylinders and front of the heater project into the room.

In order to permit the ascent of the heat radiated from the flues C C, &c., through the chimney to the upper rooms to be heated, the hood in the mouth of the chimney is provided with a suitable damper, by the operation of which a greater or less amount of heat is allowed to enter the hot-air flue formed by the chimney.

The pipes C, and the rear extension of the base A, owing to their arrangement for the passage of the

products of combustion into the pipe E, afford sufficient radiating surface for heating the upper rooms, and at the same time occupy but a small portion of the fire-place. For this latter reason, the largest heaters are applicable to the smallest fire-places.

By arranging a damper, K, in the pipe E, the draught through said pipe is regulated, as will be readily understood.

Having thus described my invention,

What I claim as new therein, and desire to secure by Letters Patent, is—

The fire-place heater, constructed with the rear extension of the base A, and with the pipes C O E, arranged with relation to such base and the cylinders of the heater, substantially as herein described, for the purpose specified.

ELISHA S. HEATH.

Witnesses:

J. S. FLEEHEARTY,

FRANK R. ELDEIDGE.