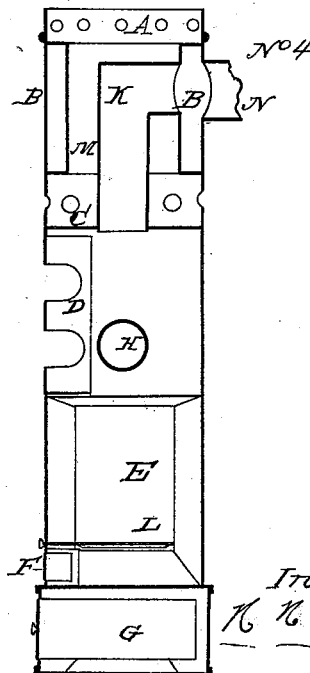
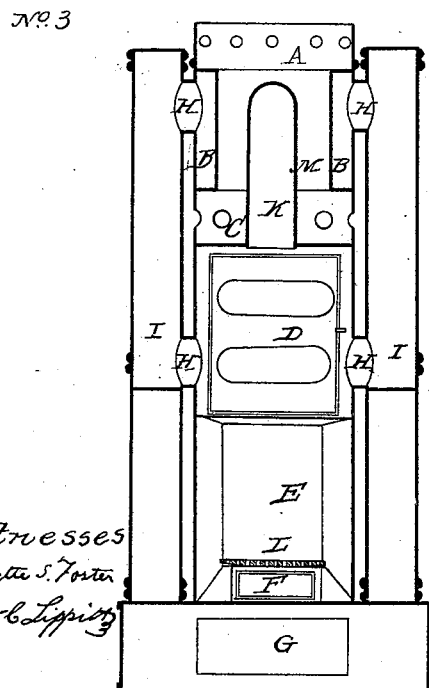
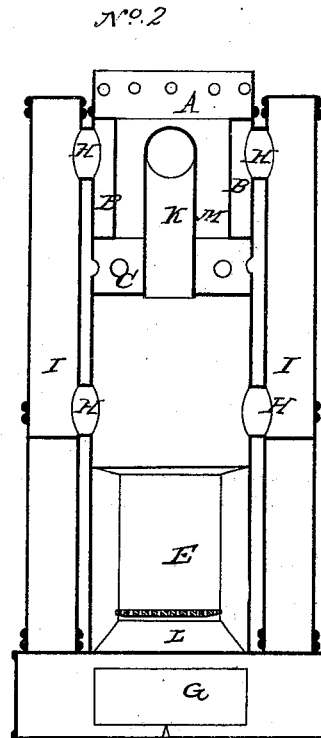
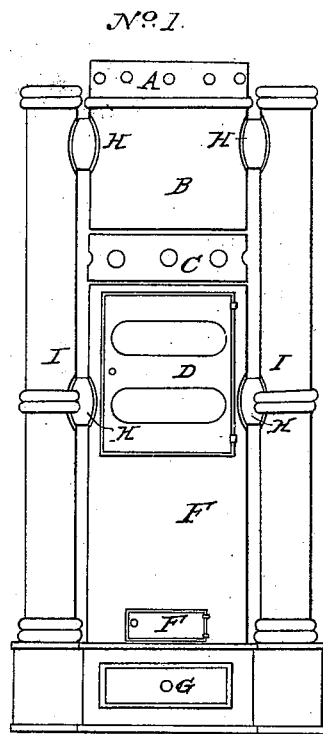


H. H. ROATH.  
Heating Stove.

No. 454.

Patented Nov. 4, 1837.



# UNITED STATES PATENT OFFICE.

HENRY HOBART ROATH, OF NORWICH, CONNECTICUT.

## METHOD OF CONSTRUCTING STOVES.

Specification of Letters Patent No. 454, dated November 4, 1837.

*To all whom it may concern:*

Be it known that I, HENRY H. ROATH, of Norwich, in the county of New London, in the State of Connecticut, have invented a new and Improved Mode of Constructing Stoves; and I do hereby declare that the following is a full and exact description.

It is of cylindrical form, made of sheet or cast iron or other proper metal of any size and height that may be required the lower part being lined with fire brick, soap stone, or other fit substance, the bottom being grated and provided with a drawer (in the drawing marked G) for an ash pan, the whole supported by legs or standing on a pedestal in the usual style. At a convenient height from the bottom on the front side is a door (marked D) through which coal is supplied. Directly above the door is a cover which entirely closes the orifice of the cylinder. Through the center of this cover, a pipe of proper diameter is introduced, which after passing up nearly to the upper extremity of the cylinder leads off the smoke and vapor to the chimney above this cover which is situated nearly midway between the top and bottom of the stove, the cylinder is perforated with holes (marked C) made near each other of a diameter proportioned to the size of the cylinder and extending quite around it. Just above these holes there is another cover perforated in the center into which is fitted another cylinder some few inches smaller in diameter than the external cylinder and of the same height, thus leaving a vacant space between the cyl-

inders; the pipe for conveying off the smoke passing up through the center of the internal cylinder. A cover is then placed on the top (marked A,) fitted air tight over that portion of the space between the cylinder and either partially or entirely open over the internal cylinder (that also being open at the lower end) through which the smoke pipe passes discharging itself into the chimney a little below the upper extremity of the stove. On each side of the cylinder which composes the body of the stove, a pipe or small cylinder (marked H) the diameter of which is larger or smaller according to the size of the stove, leading from the vacant space under the first cover, immediately over the fire and passing out on each side of the stove is connected with the chamber in the upper part of the stove through the small cylinder (marked I) at the upper points (H H).

B, shows the chamber for hot air; F, door to grate; D, door to furnace.

What I claim as my own invention and not previously known in the above described stove is—

The warming of the air within the stove as above described in this specification by means of the pipes on the sides of the stove, the holes or perforations around the surface of the same above the first cover and the internal cylinder.

H. H. ROATH.

Witnesses:

ANDREW C. LIPPITT,  
M. L. STUDLEY.