

R. ELMENDORF.  
Heating Stove.

No. 3,058.

Patented April 25, 1843.

Fig. 2.

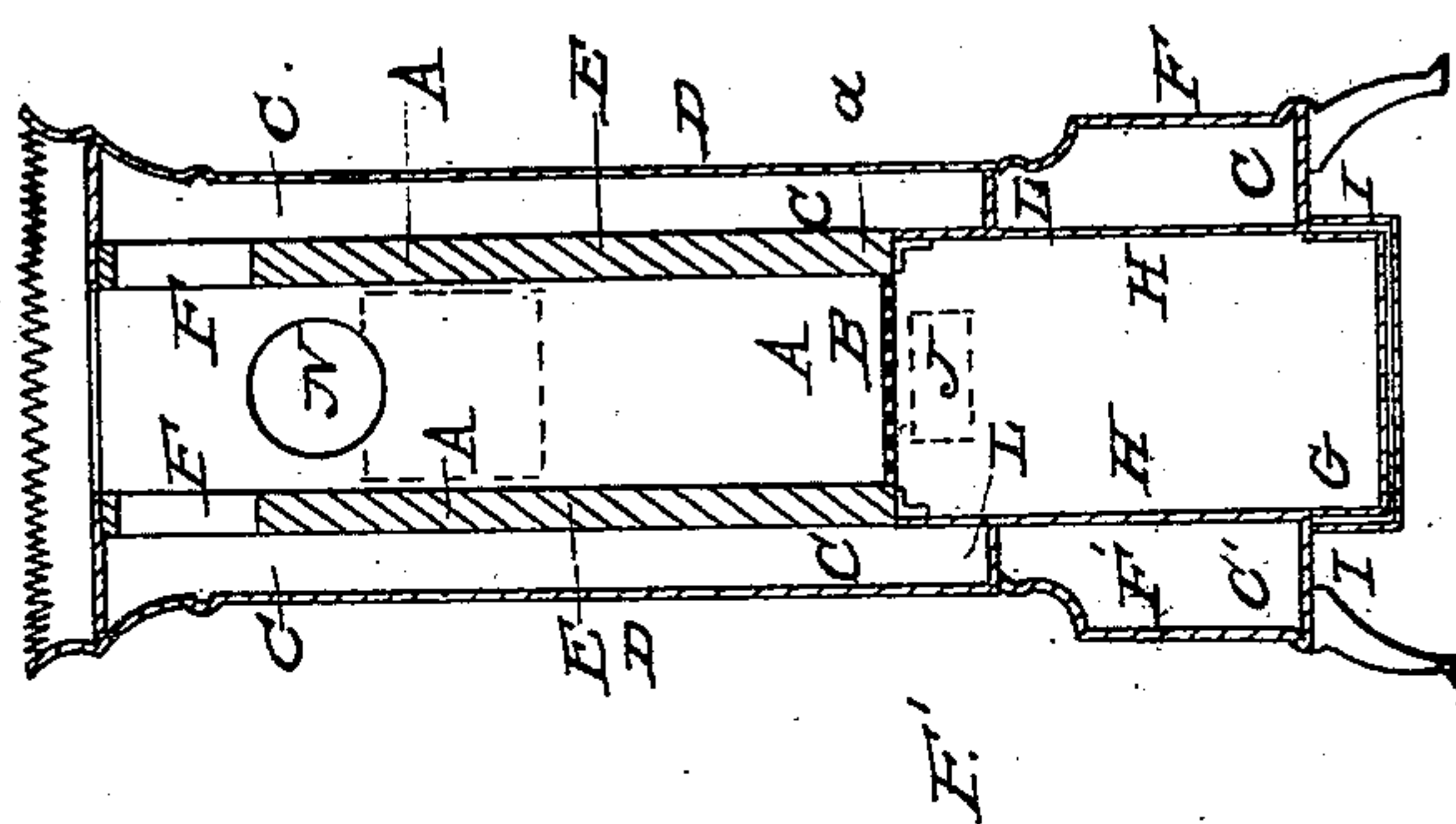


Fig. 3.

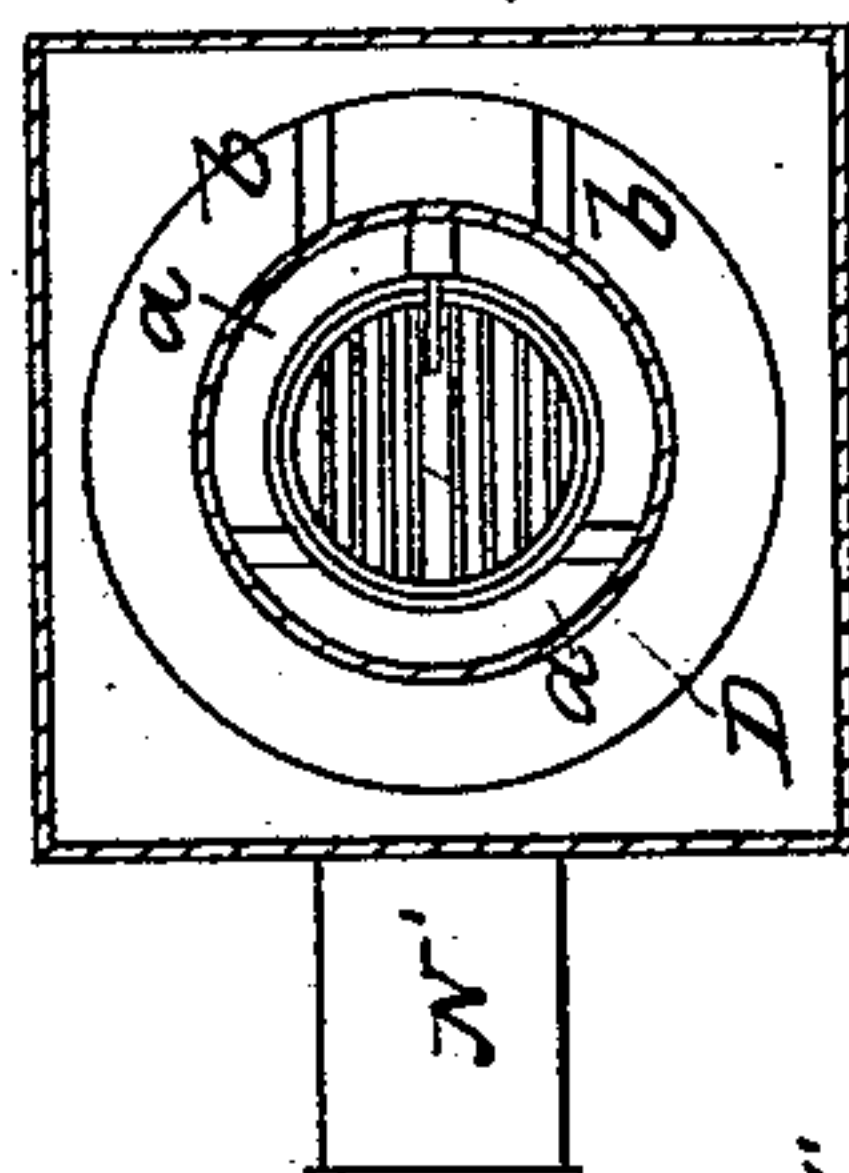
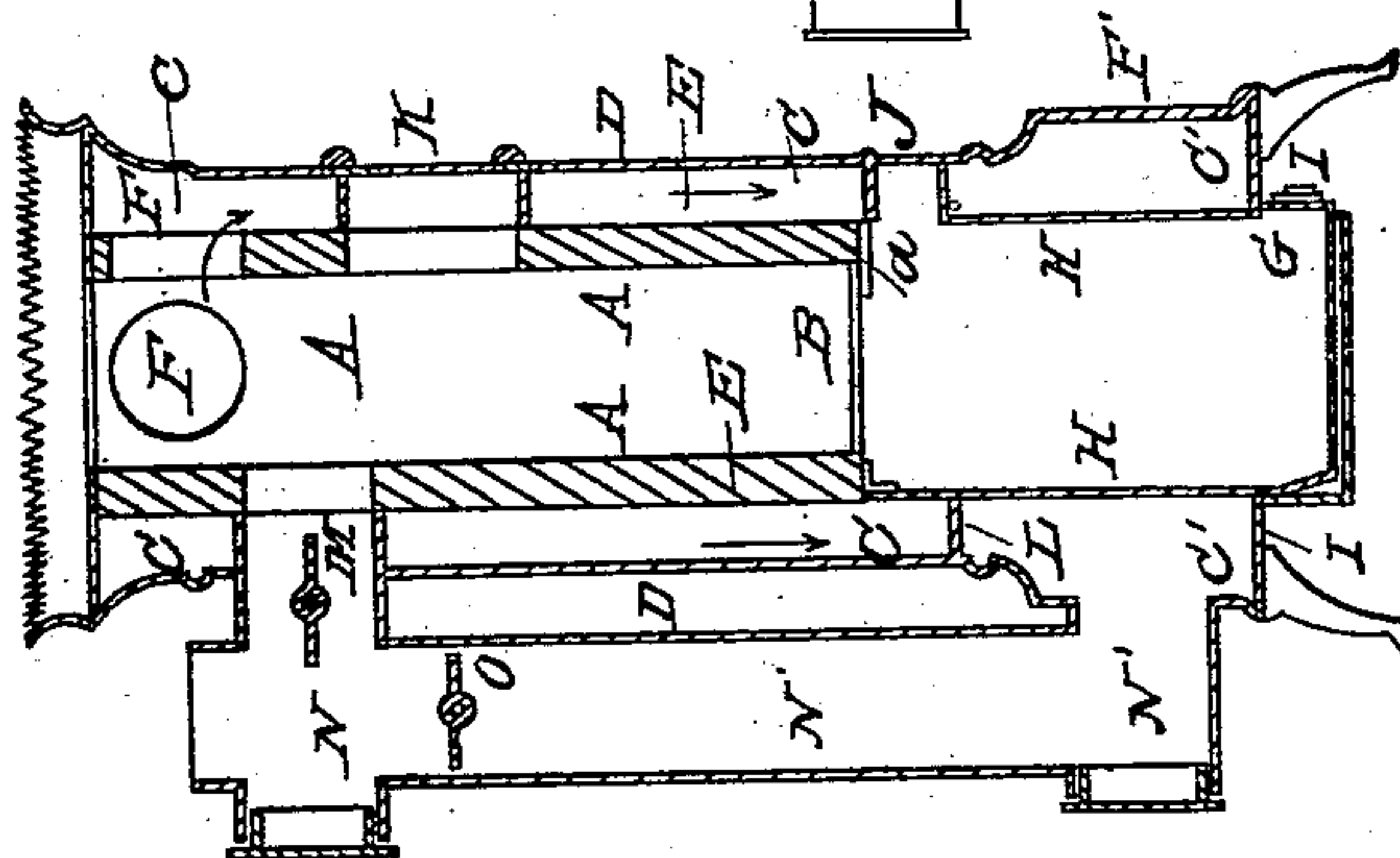


Fig. 1.





# UNITED STATES PATENT OFFICE.

REUBEN ELMENDORF, OF KINGSTON, NEW YORK.

## STOVE.

Specification of Letters Patent No. 3,058, dated April 25, 1843.

*To all whom it may concern:*

Be it known that I, REUBEN ELMENDORF, of Kingston, in the county of Ulster and State of New York, have invented certain  
5 Improvements in the Manner of Constructing Stoves for Heating Apartments; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawings, Figure 1,  
10 is a vertical section of my stove, from front to back. Fig. 2, is a similar section from side to side; and Fig. 3, is a representation of the interior of the cylinder and pedestal, looking upward from the bottom, toward  
15 the grate, the ash drawer and bottom plate being removed for the purpose.

In each of these figures the same parts are designated by like letters of reference.

A, A, is the inner cylinder of fire clay,  
20 soap stone, or other bad conductor of heat; which cylinder, or lining, I extend entirely up from the grate to the top of the stove, so that no portion of the metallic cylinders which surround it is exposed to the direct  
25 action of, or radiation from, the fire. This lining rests upon a flat, metallic ring, or plate, *a, a*, surrounding the grate B.

C, C, is a heated air space between two cylinders of iron, the outer cylinder D, D,  
30 forming the exterior of the stove, and the inner E, E, the support of the lining.

F, F, F, are three circular cavities through the lining and through the cylinder E, allowing a free passage to the heated air from  
35 the fire chamber to the space C, C. The pedestal of the stove F', F', I usually make square, and under it I place an ash drawer, G, G, and the sheet iron cylinder, H, H, which is a continuation of that marked E, E,  
40 and extends down so as to be connected closely with the bottom plate I, I, of the pedestal, cutting off all communication of the external air admitted by the ash drawer, and the heated air space C', C', within the  
45 pedestal, which is a continuation of the space C, C, in the cylindrical part.

J, is a small doorway, or inclosed opening, just below the grate, for the admission of  
air.

50 K, is a door for the admission of fuel.

L, L, is a flat ring, or plate, which fills the space between the cylinders E, and D, excepting the openings at *b, b*, shown in Fig. 3, on each side of the casing of the door J, or in any other part of said plate that may  
55 be preferred; these openings are to allow the heated air to pass from the space C, C, into the space C', C'. The plate L, L, may be omitted altogether, but the heat is better applied when such a plate is used, so as to pre-  
60 vent a too free passage of the heated air from one to the other of these compartments.

The draft may be directed downward, and is intended in general to be directed through the spaces C, C'; or, the smoke and heated  
65 air may be allowed to escape directly from the upper part of the fire chamber into a chimney. M, is a valve which, when open, allows such direct passage into the escape pipe N; but when this valve is closed, and a  
70 valve, O, in the pipe N', opened, the heated air will pass down through the spaces C, C', into the pipe N', from the upper or the lower part of which it may be conducted into a  
75 chimney, as may be preferred. There may be two such pipes as that shown at N', one on each side of the stove, and these may be connected at the upper ends, so as to combine the draft through them; other changes,  
80 also, may be made in the particular arrangement, while the general principle of construction and operation may remain as described.

Having herein fully set forth the manner in which I construct my stove for heating  
85 apartments, what I claim therein as new, and desire to secure by Letters Patent, is—

The combining of the fire chamber A, A, having a nonconducting lining, extending up to the top of the stove, with the heated  
90 air spaces C, C, and also with the metallic cylinder H, H, as herein described, so that the various parts may cooperate under the arrangement set forth, and for the purposes above made known.

REUBEN ELMENDORF.

Witnesses:

WM. MASTEN,  
R. N. BALDWIN.