

*Patented Dec. 1. 1863.*

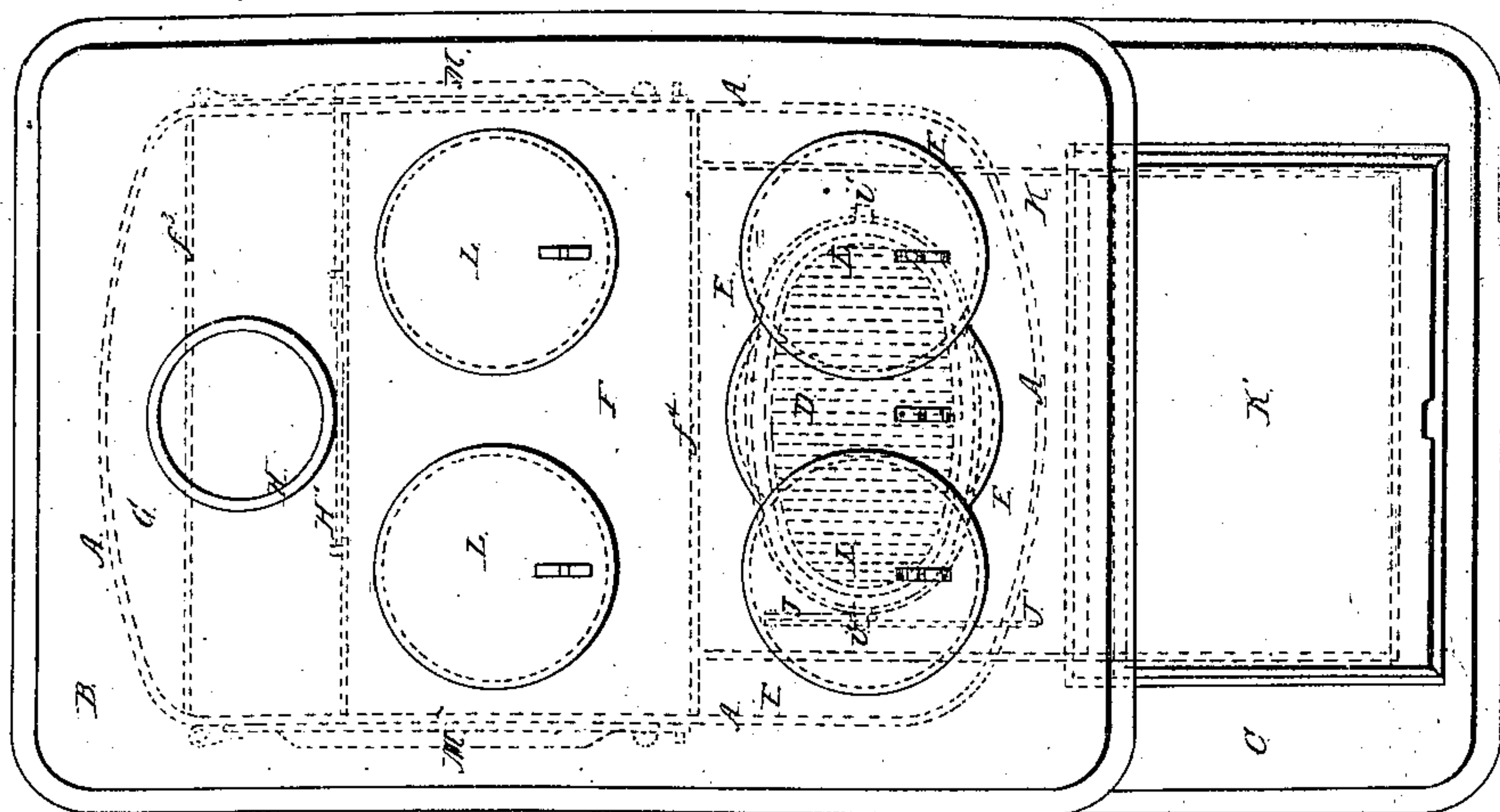


Fig. 2.

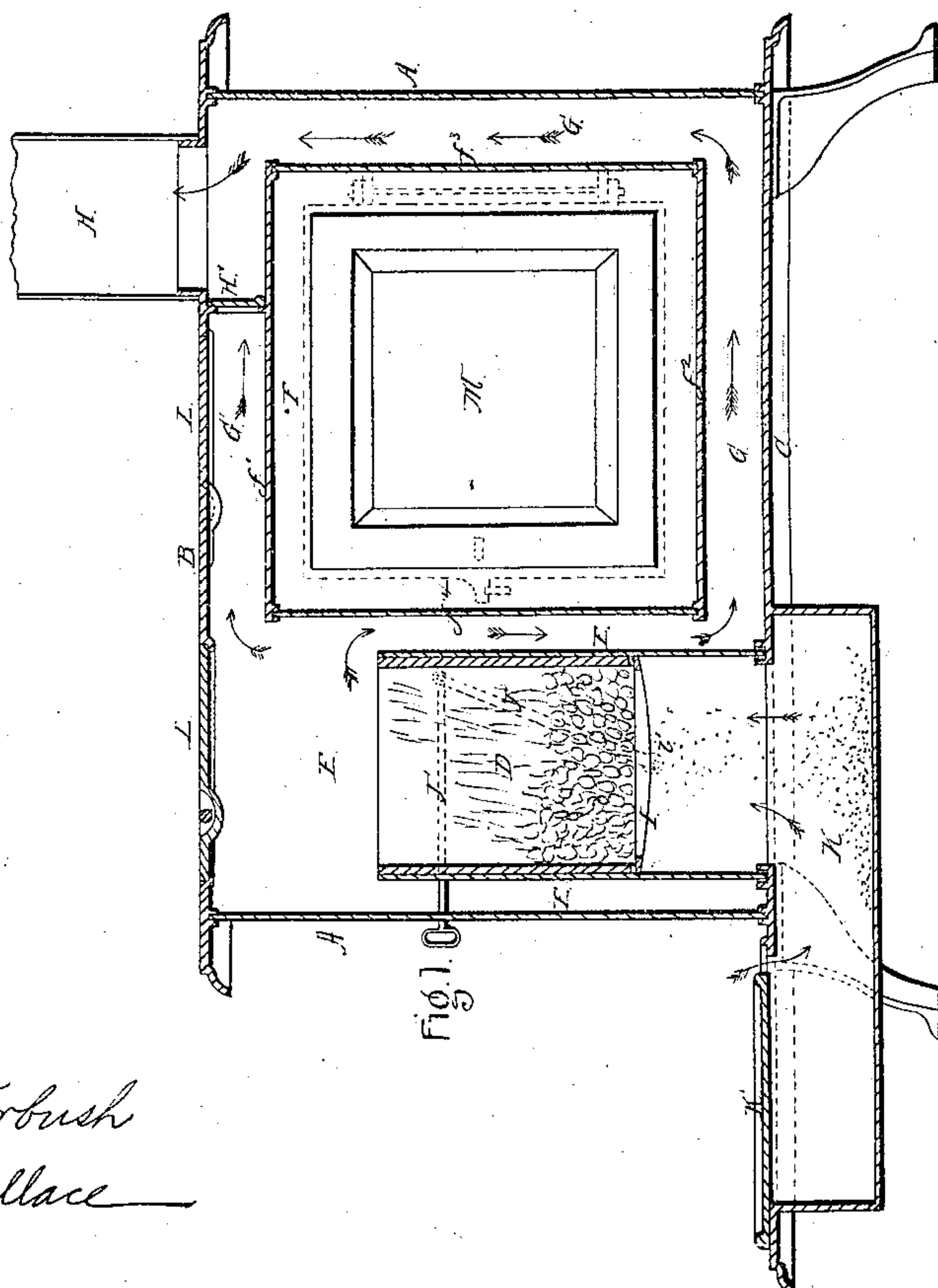


Fig. 1.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 40,788, dated December 1, 1863.

*To all whom it may concern:*

Be it known that I, HERMAN G. WOOD, of the city of Buffalo, county of Erie, and State of New York, have invented a certain new and Improved Cooking-Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, in which—

Figure I is a longitudinal section, and Fig. II a plan.

The nature of my invention relates to the arrangement of the fire pot or chamber within an air-chamber, and the combination therewith of an oven in such manner that the heat from the fire will be received in the air-chamber and conducted thence over or under and around (or both) the oven.

Letters of like name and kind refer to like parts in each of the figures.

A represents the outside shell or casing of the stove.

B represents the top plate, and C the bottom plate.

D represents the fire-pot, which may be oval or cylindrical in form. It is supported upon the bottom plate, C, inside of the shell or casing A, leaving a space, E, between it and the casing, which forms the air-chamber.

E represents the oven, which is formed by the top and bottom plates,  $f'$   $f''$ , and end plates,  $f^3$   $f^4$ .

A flue-space, G, is left below and behind the oven, and a flue-space, G', above the oven. These spaces communicate with the air-chamber E, and the heat and smoke from the fire passes through them to the smoke-pipe H, as shown by the arrows.

H' represents a damper placed across the upper flue, G', in front of the smoke-pipe, by means of which the direction of the currents

of heated air and smoke may be changed so as to pass in under and behind the oven, as shown by the red arrows, when it is desired to use the full force of the fire for baking, or over the oven, as shown by the black arrows, when it is desired to use the same for cooking on top of the stove.

I represents the grate of the fire-pot. It is hung on journals, as shown at  $i'$ , so that by means of the lever J and rod J' it may be vibrated to shake down the ashes from the fire or to "dump" the coal.

K represents the ash-pan, connected to the bottom plate of the stove, and K' the cover to the ash-pan and draft damper or regulator.

L represent the holes in the top plate of the stove, to receive the furniture and utensils.

M represent the oven-doors.

The advantages which I claim for my improvement are as follows: First, the placing of the fire-pot within the air-chamber prevents a great portion of the loss of heat from radiation, and consequently the economy of the stove is much increased; second, the fire-pot is free to expand or contract with the state of the fire without straining or injuring the stove, thus adding much to its durability.

What I claim as my invention, and desire to secure by Letters Patent, is—

The fire-pot D, suspended or supported in an air-chamber, E, which surrounds the fire-pot on all sides, except underneath it, in combination with an oven having flue-spaces G G', leading from the air-chamber and surrounding the oven, arranged substantially in the manner set forth.

H. G. WOOD.

Witnesses:

W. H. FORBUSH,  
GEO. W. WALLACE.