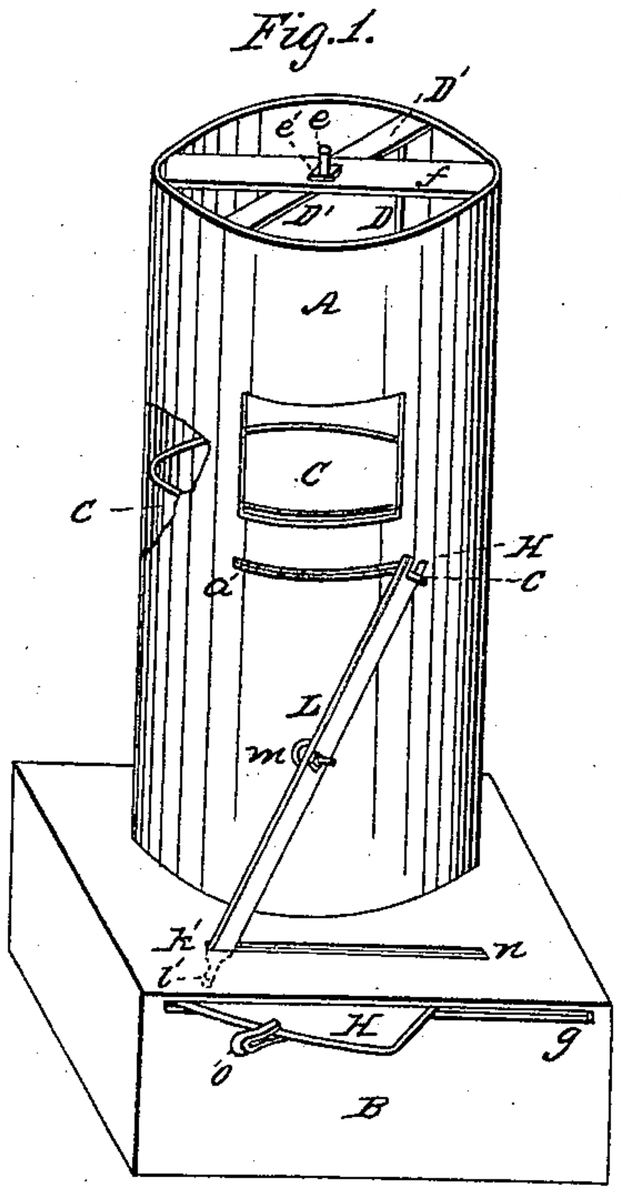
W. VAN DE SANDE.

Heating Stove.

No. 54,233. Patented April 24, 1866.

Fig. 1.



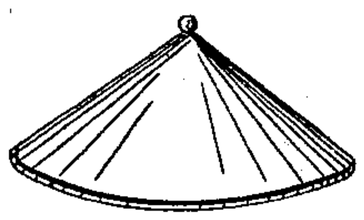


Fig. 2.

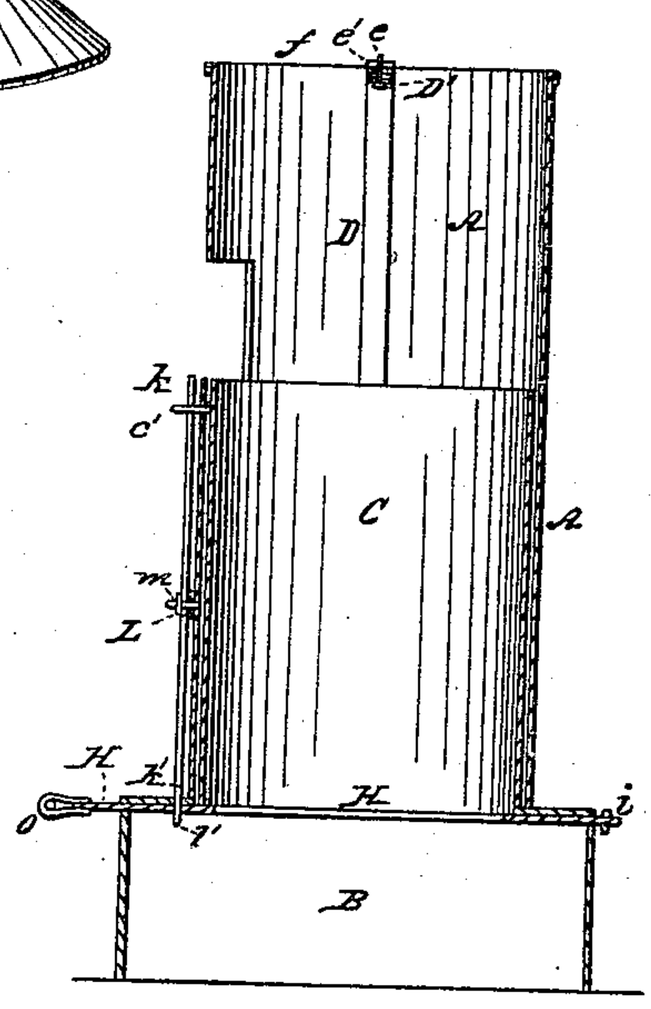


Fig. 4.

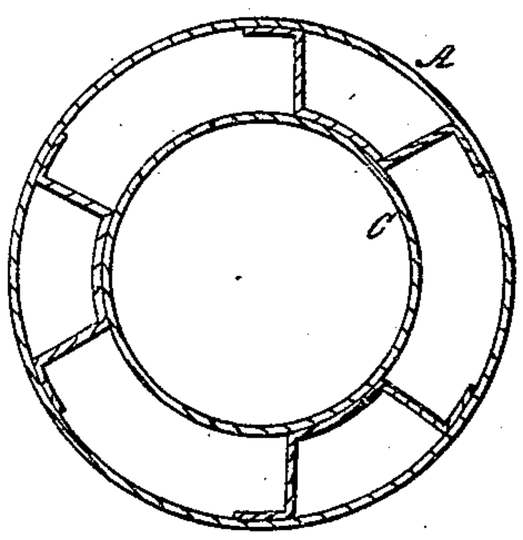
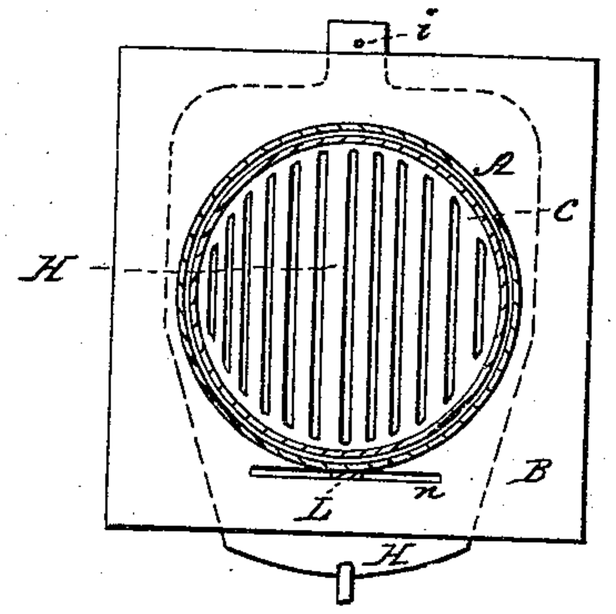


Fig. 3.



Witnesses:

A. O'Neill

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UNITED STATES PATENT OFFICE.

WILLIAM VAN DE SANDE, OF NEW YORK, N. Y.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **54,233,** dated April 24, 1866.

To all whom it may concern:

Be it known that I, WILLIAM VAN DE SANDE, of the city, county, and State of New York, have invented a new and useful Improvement in Coal-Stoves; and I do hereby declare the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is a perspective view of a stove with my invention applied to it. Fig. 2 is a vertical section; Fig. 3, a horizontal section; and Fig. 4 represents a modification of my invention when used for heating the upper rooms of a dwelling-house.

This invention relates to a peculiar construction of a stove, in which a movable cylinder is placed within the outer drum or stove for reception of the coal, and partially revolves on a pivot which is sustained by a brace attached to the outer drum at the top of the stove. This stove has also a grate which moves horizontally from side to side, the movements of the said grate and movable cylinder being actuated at one and the same time and in opposite directions by a lever connected with both, tending thereby to remove the ashes from the cylinder and grate as well as to prevent the adherence of calcined matter to either. The said cylinder and grate can be easily removed from the stove when they require cleaning.

Furthermore, by placing the inner cylinder at any desirable distance from the outer drum or casing, so as to leave a hot-air space between, (as shown in Fig. 4,) my invention can be used as a furnace for heating the upper rooms of a dwelling-house.

Having described the nature of my invention, I will now describe its construction and mode of operation.

In the drawings, A represents the drum or outer cylinder; B, the ash-box; C, the inner cylinder, with its arms D D and brace D′. The brace D′ has a pivot, *e*, and nut or collar *e′*, said pivot being introduced through another brace, *f*, attached to the top of the outer casing, A, the latter brace sustaining the inner cylinder, C, and permitting it to revolve on the pivot *e*.

The ash-box B has a slot, *g*, in which the grate H slides freely from side to side. A portion of the said grate projects in rear of the stove for reception of a pin, *i*, which holds the same in position during the movements of the grate.

The inner cylinder, C, has a pin, *c′*, which plays in a slot, *a′*, in the outer casing, A. Said pin receives the bifurcated end *k* of a lever, L, whose fulcrum is attached to the outer casing at *m*. The other end, *k′*, of the lever L has a journal, *l′*, which passes through a slot, *n*, in the ash-box B, and enters a corresponding hole in the grate H.

To operate my invention is merely to lay hold of the grate-handle *o* and move the grate from side to side, when motion will be imparted through the lever L to the fire-pot or inner cylinder, C, but in an opposite direction in relation to the movements of the grate. The movements of the grate and cylinder, being reverse in relation to each other, tend to free the burning coal from ashes, as well as to prevent the accumulation of calcined matter to the fire-pot or grate, either or both of which can be removed from the stove for cleaning when desired.

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

The movable fire-pot or cylinder C, the lever L, and movable grate H, when, in combination with a coal-stove, A, operating in manner substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature.

WM. VAN DE SANDE.

Witnesses:

A. NEILL,

LOUIS HIPEDEN.