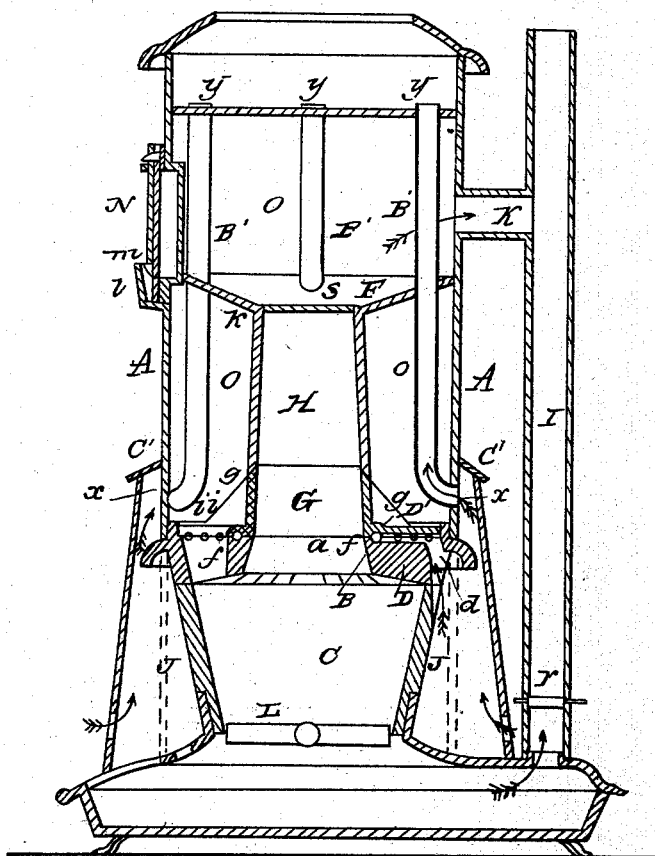


W. E. LANE.

Magazine Stove.

No. 47,649.

Patented May 9, 1865.



Witnesses  
A. F. Smith.  
Geo. C. Lambright.

Inventor  
William E. Lane  
by T. F. Lambert  
Att.

# UNITED STATES PATENT OFFICE.

WILLIAM E. LANE, OF PEEKSKILL, NEW YORK, ASSIGNOR TO GEO. P. MARSHALL, OF SAME PLACE.

## IMPROVEMENT ON KINGSBURY'S COAL-STOVE.

Specification forming part of Letters Patent No. 47,649, dated May 9, 1865.

### *To all whom it may concern:*

Be it known that I, WILLIAM E. LANE, of Peekskill, Westchester county, New York State, have invented a new and Improved Heater; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon.

The nature of my invention consists in providing a semi-jacket for a heater, with tubes leading from its sides up through the products of combustion to its top, as in the Empire heater, or G. J. Kingsbury's heater, patented April 12, 1859, which semi-jacket extends from, or nearly from, the bottom of the heater to a point above the holes leading into the aforesaid tubes, where the semi-jacket joins the sides of the heater, thus directing the ascending air into the said tubes, where it will be heated to a high degree and delivered above more effective for warming purposes.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I take a heater aforesaid, the outside of which is represented by A, with tubes, B' B', extending through A at *x*, up through the top at *y*, and surround the lower part with a semi-jacket reaching from near the bottom and about two inches from A to a point opposite *x*, above which it is connected with a rim or cap, as represented by C'. The operation of this semi-jacket is to direct the air passing up and heated partially against the lower part of the heater into the mouths of the tubes B' B', over which it will otherwise chiefly pass.

In the stove or heater of G. J. Kingsbury the products of combustion pass up through spaces formed in the double ring B D D' that forms at the same time the upper part of the

fire-pot, a cap for it, and a support for the central reservoir. Between the upper and lower parts of this double ring are channels, as *ff*, communicating with the air outside the pot near its summit or its juncture with B D, as shown by the arrow above J, and also communicating by small orifices *ii* with the spaces through which the products of combustion pass. Thus the air supplied at this point becomes intensely heated, and is in a favorable condition for completing the process of combustion already begun, and producing an intense glow of heat directly at and immediately above these orifices and precisely where the curved tubes *xxyy* are inserted. The knee, elbow, or curve of the tube being thus presented to the impinging heat, becomes itself glowing hot, and against its inner surface the cap C of the semi-jacket, already described, directs the current of air pressed up from below, causing it to dash against and sweep over the inner surface of the most exposed part of the tubes aforesaid. Now, Mr. Kingsbury having claimed and received a patent for the construction and combination of the double rings, their channels, orifices, &c., by which the more perfect combustion is produced, I do not wish to claim them; but as the application of my semi-jacket with the tubes utilizes and economizes more completely the results of combustion,

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

The combination of the semi-jacket C' with the Empire heater of G. J. Kingsbury, for the purpose and in the manner substantially as set forth.

WM. E. LANE.

Witnesses:

T. S. LAMBERT,  
WILLIAM P. MARSHALL.