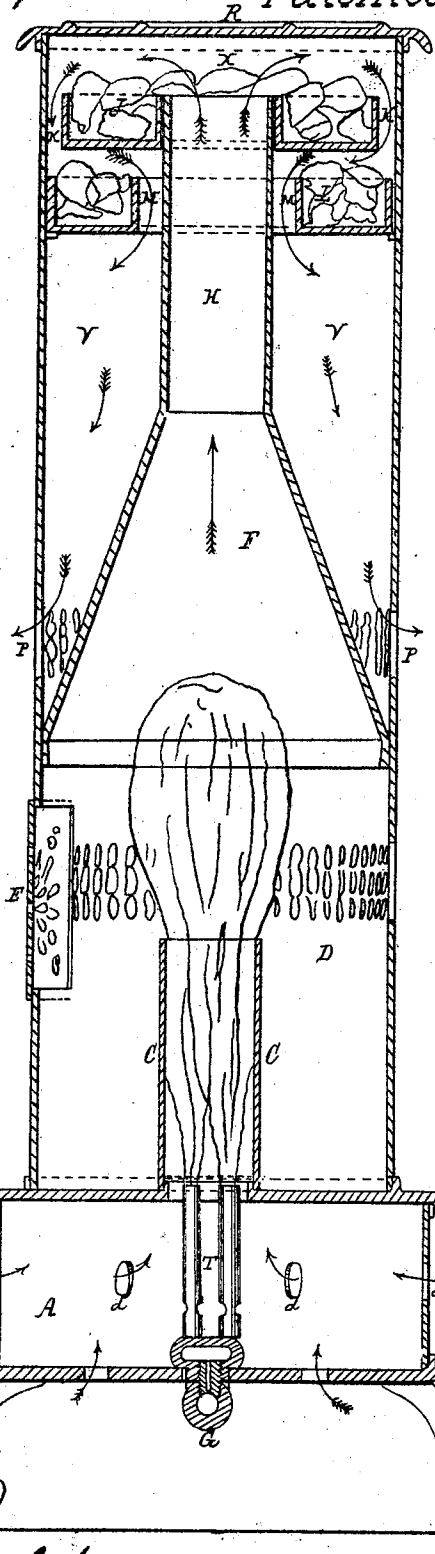
A. L. Bogart.

Gas Stoves.

No. 71269 Patented Nov. 26, 1867.



Witnesses

Wm. H. Ridgway

H. Gengenbre Hubert

Inventor

A. L. Bogart.

United States Patent Office.

A. L. BOGART, OF NEW YORK, N. Y., ASSIGNOR TO H. C. BOGART AND J. P. KENNEDY, OF SAME PLACE.

Letters Patent No. 71,269, *dated November* 26, 1867.

GAS-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. L. BOGART, of the city, county, and State of New York, have invented certain Improvements in Gas-Stoves; and I do hereby declare that the following is a full and exact description thereof, which will enable others skilled in the art to construct and use the same, reference being had to the accompanying drawings, forming part of this specification, in which I have represented a vertical section of my improved stove through its centre.

This invention relates to that class of stoves in which inflammable gas is used as fuel for the purpose of heating apartments, and which, not being provided with stove-pipe or flue, discharge in the said apartments, along with the heated air, the vitiated air resulting from the products of combustion; and the improvements consist in the arrangement of flues, combined with other parts, and the employment of quick-lime or other chemical, by means of which the heated air and products of combustion are purified previous to being emitted into the apartment to be heated by said stove.

A is the base of the stove, mounted on feet *a a*. The side and bottom of the base A are provided with holes *d d d*, for admitting air. G is the gas-pipe. T is the burner, of any kind which will produce a perfect combustion, and project the flame upward. B is a partition-plate, having only one hole, just above the burner T. C is the fire-flue or combustion-tube. D is the combustion-chamber, having a door, E, and open-work left in the casing of the stove, to supply fresh air to the flame, and to allow of the fire being visible. F is a funnel or conical division in the stove, which will collect all the heated air and products of combustion, and cause them to ascend through the pipe or flue H to the top part X of the stove. At the top part of the pipe H is fitted an annular tray, J, the diameter of which is smaller than the size of the stove, allowing all around the tray J an annular channel or flue, K K. At a small distance immediately below the tray J, a second tray, L L, is placed. This tray is also annular, but of larger dimensions, fitting snugly to the outside casing of the stove, and leaving a space or flue, M M, between its inner sides and the pipe H. P P P, &c., are holes or ornamental openings left in the casing of the stove, to allow the heated air and purified products of combustion to escape in the apartment. The top R of the stove is closed; if it has a hole for convenience of boiling water, &c., that hole must remain closed when it is required that the stove work to perfection. The trays J and L are filled with quick-lime, or any other chemical agent or agents capable of absorbing the impurities of the products of combustion of the gas used.

From the above description, the operation and advantages of my improved gas-stove will be readily understood. The gas and air injected upwards by the burner T, mixing in the combustion-tube C with an additional amount of heated air, a lively and perfect combustion will take place at the top of the tube C, fill the chamber D with flame, heat, and heated air. The vertical flue H, provided with its funnel, F, will conduct all of the above to the part X of the stove, where, finding no other outlet, and getting condensed by the contact with the top R and outside casing, the air and product of combustion will find their way over the tray J in a diverging horizontal direction, down the channel K, over the tray L in a horizontal converging direction to the flue M, thence down said flue M to the space V, and exit by the holes P P P, &c., into the apartment.

I have represented in my drawing a one-burner stove; but I make them with two, three, or more burners; and in that case the plate B has as many holes and as many combustion-tubes C as there are burners, all other things being the same as in my drawings and specification.

I claim as my invention—

1. The combination of the burner T and vertical tube C with the funnel F, pipe H, trays J L, openings P, arranged substantially as herein described and for the purpose set forth.

2. In parlor or heating gas-stoves, the use of quick-lime or other suitable chemicals in the trays J and L, for the purpose set forth.

A. L. BOGART. [L. S.]

Witnesses:

GEORGE SIMONS,

H. GENGEMBRE HUBERT.