P. MIHAN.

Gas Stove.

No. 19,114. Patented Jan. 12, 1858.

Fig: 2.

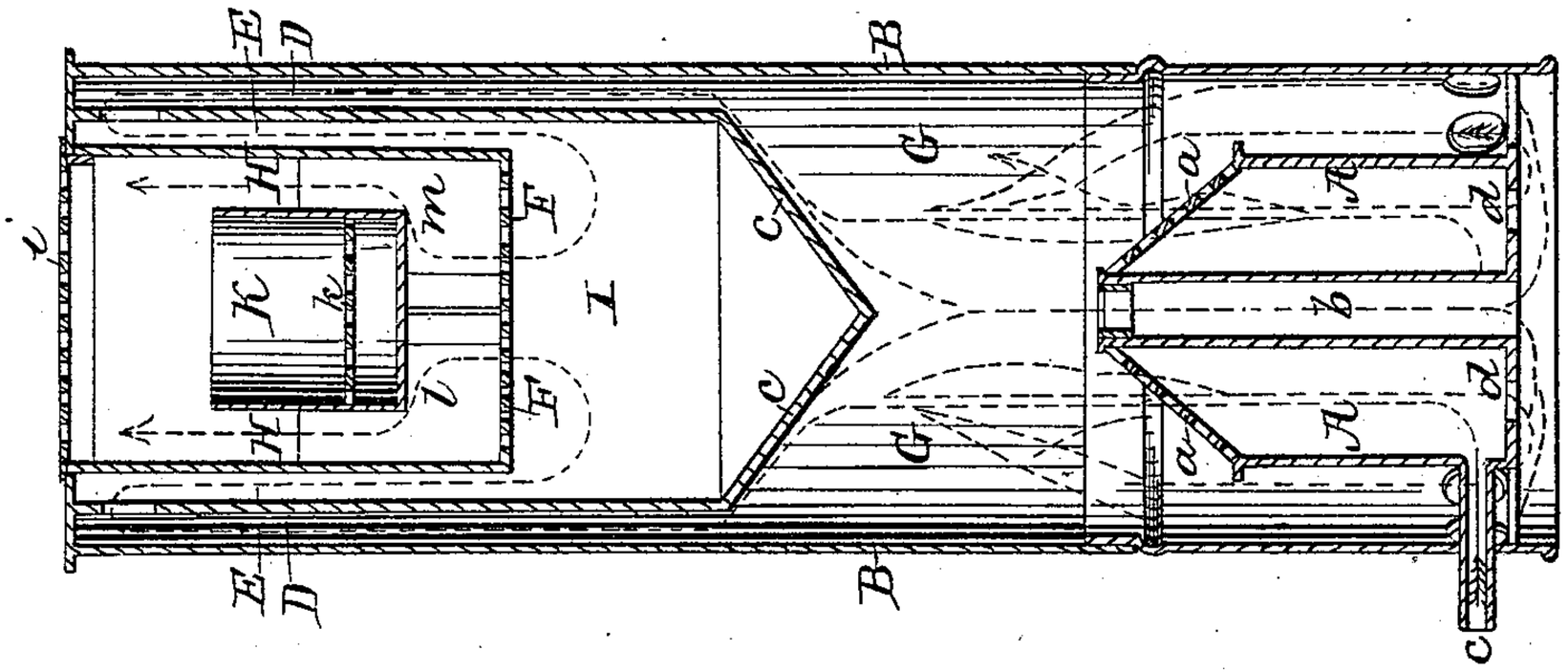
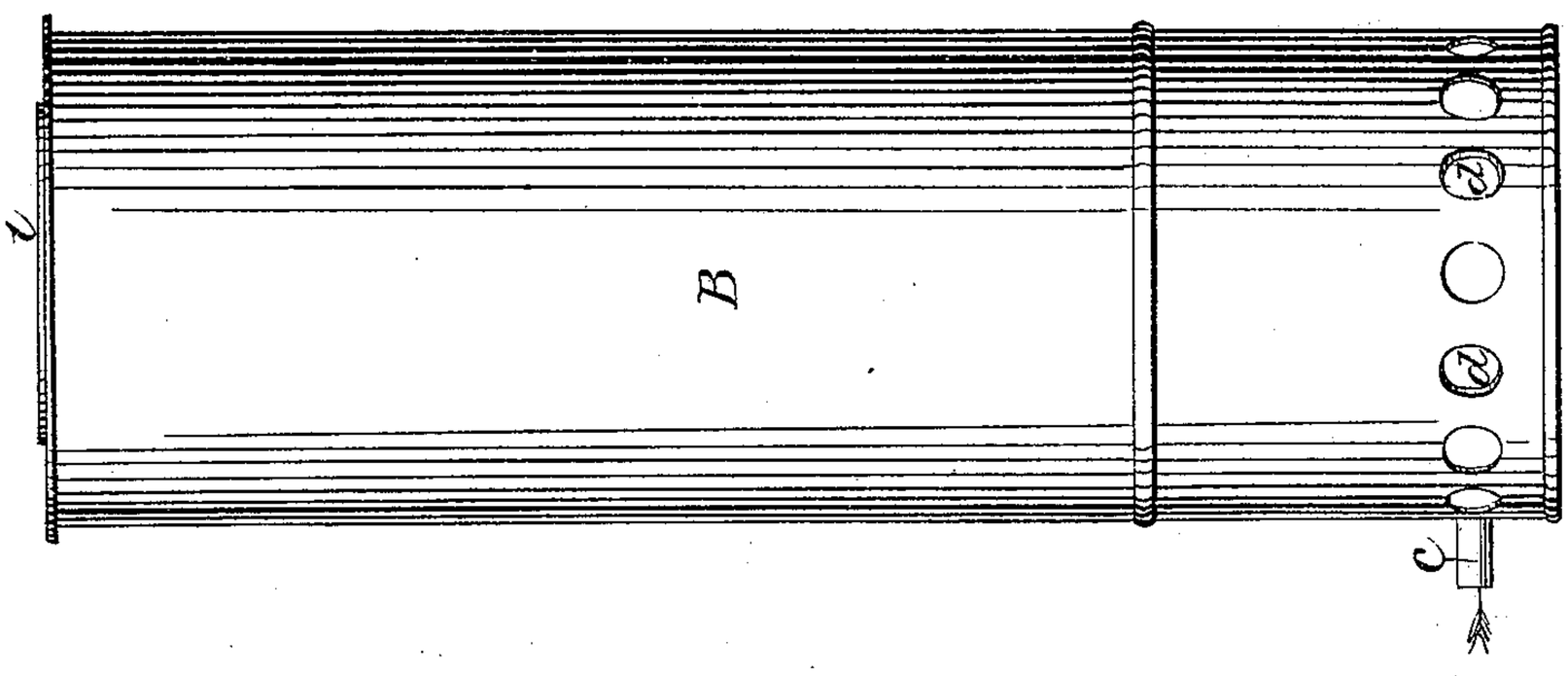


Fig: 1.



UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND GILMAN DAVIS, OF SAME PLACE.

GAS-STOVE.

Specification of Letters Patent No. 19,114, dated January 12, 1858.

To all whom it may concern:

Be it known that I, PATRICK MIHAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful or Improved Air-Perfuming Gas-Stove; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, denotes a front elevation, and Fig. 2, a transverse and vertical section.

One objection to the use of what are termed gas stoves or those employed for burning gas and air, consists in the disagreeable odor which is emitted from the products of combustion when they are allowed to flow into the apartment in which the stove may be situated.

The object of my invention is to overcome the unpleasantness of such odors by means of those of a more powerful and agreeable nature. And for this reason I combine with an air and gas stove, an apparatus for generating perfumed or disinfecting vapors and intermixing such with the escaping products of combustion.

In the drawings, A exhibits an air and gas burner furnished with a wire gauze distributer *a*, *a*, a central air tube *b*, air inlets *d*, *d*, and a gas inlet pipe *c*, the same being arranged together and placed within a chamber of combustion G, G, disposed within a stove case B, as seen in Fig. 2. Concentrically within the upper part of the case B, two flues D, E, are arranged, they being made to communicate together at or near their upper ends, the flue D, D, leading out of the chamber of combustion G, G, while the flue E, E, is caused to enter a concentrating chamber I, furnished with an inverted conical bottom C, and arranged directly over the air and gas burner. The top F of the concentrating chamber I, which also forms the bottom of the perfuming chamber H, is a diaphragm or partition perforated throughout its superficial area with numerous fine holes. The said perfuming chamber, H, is arranged directly over the concentrating chamber I, and surrounded concentrically by the flue E, and has a cap-plate or diaphragm *i*, perforated with or having numerous fine holes. Within the chamber H, there is arranged and supported on two crossed plates *l*, *m*, a cylindrical vessel K, open at its top and provided with a perforated partition or diaphragm *k*, extended across it a short distance above its bottom.

When the stove is in use that part of the vessel K which is above its partition *k* is to contain some perfuming material or a disinfectant and a suitable amount of water, the water at the same time filling the space or part of said vessel which is below the partition *k*.

In the operation of this stove, the air and gas which may enter the burner A and pass through its distributer *a*, *a*, will be burned within the chamber G, G, from whence the heated volatile products of combustion will escape upward through the flue D and into the descending flue E, E, passing from thence into the concentrating chamber I, where they will receive from the conical vessel C a fresh accession of heat and with increased velocity will pass upward through the perforated diaphragm F, and into the perfuming chamber H, H. While therein, they will impinge against the vaporizer and perfuming vessel K, and heat the same so as to cause vapor charged with perfuming or disinfecting matter (according to circumstances) to arise therefrom and mix with them in the chamber H, H. From thence the mixture will escape through the perforated plate *i* and into the surrounding apartment, the said plate *i* in the meantime performing the office of thoroughly intermixing the gaseous products of combustion and the perfumed vapors.

The mode of constructing the perfuming vessel prevents its contents from being burned by the heat which may impinge against its bottom, as the water below the partition *k* will be an effectual barrier against such action of the heat.

From the above it will be seen that my air and gas stove not only answers the purpose of warming an apartment, but at the same time it will agreeably perfume or disinfect the air therein and destroy or overcome the unpleasant odor that there may be in the spent products of combustion.

I am aware of the gas stove of Price, as patented in Great Britain in the year 1852; I am also aware of the gas stove of Kimberley, as patented in Great Britain in the year 1853. My stove differs essentially from

these, for in each of the said stoves of Price and Kimberley, ordinary Argand gas burners are used; whereas, my stove is constructed to burn air and gas in mixture, and when they are burned together, on a wire gauze or perforated cap or disseminator, the volatile products of combustion differ materially from those resulting from the combustion of ordinary gas alone in air. Aldehyde and formic acid and other disagreeable vapors result from the combustion of the air and gas when mixed preparatory to being burned. My stove combines with these vapors a perfumed vapor in order to render them agreeable or to overcome their disagreeable effluvia.

I claim—

The combination of the perfuming chamber and apparatus with the air and gas burner and the chamber of combustion.

In testimony whereof I have hereunto set my signature this fourteenth day of October, A. D. 1857.

PATRICK MIHAN.

Witnesses:
R. H. EDDY,
F. P. HALE.