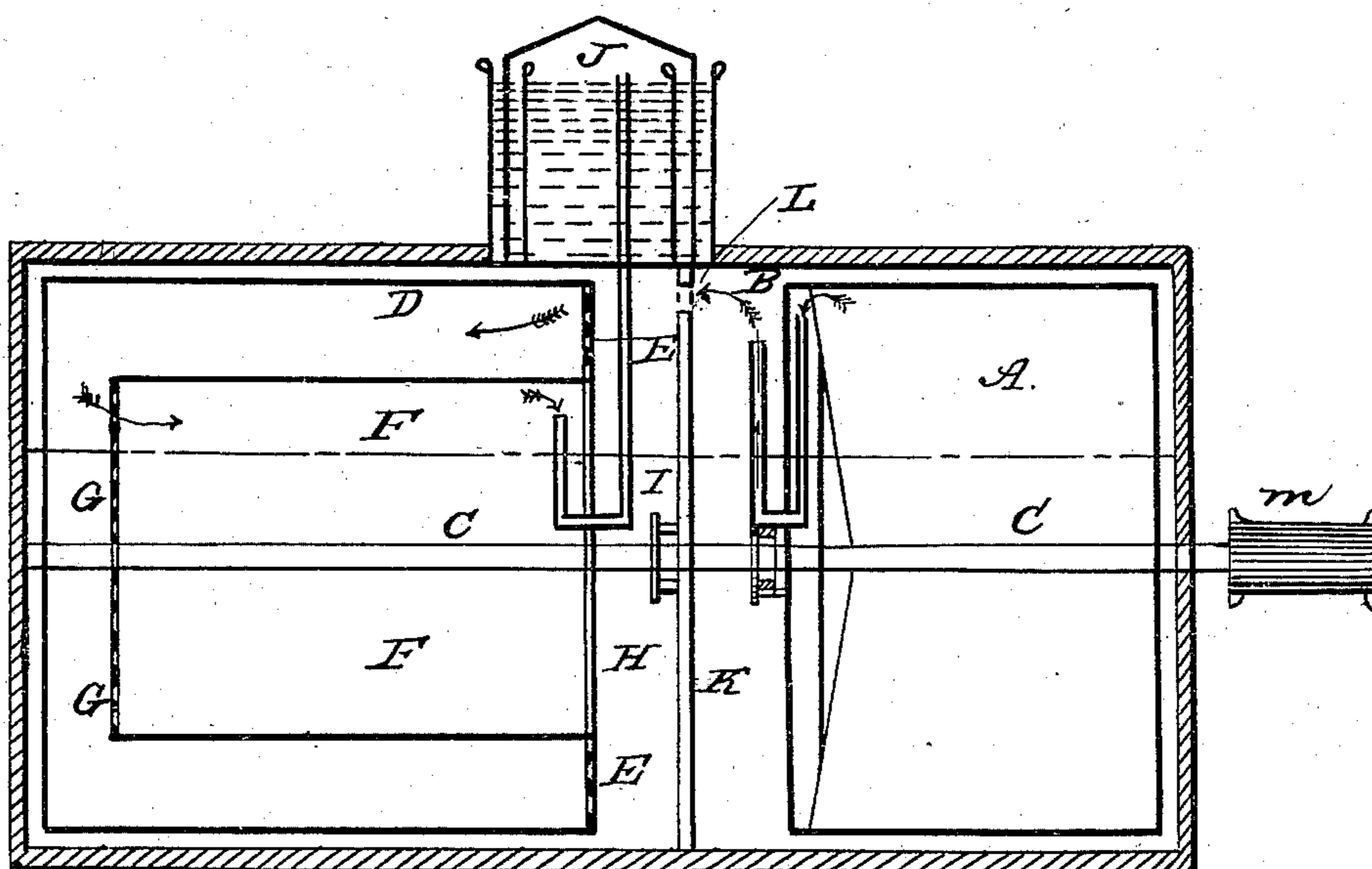


G. P. GANSTER.

Manufacture of Illuminating Gas.

No. 78,870.

Patented June 16, 1868.



INVENTOR
Geo P Ganster

UNITED STATES PATENT OFFICE.

GEORGE P. GANSTER, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF ILLUMINATING-GAS.

Specification forming part of Letters Patent No. 78,870, dated June 16, 1868.

To all whom it may concern:

Be it known that I, GEORGE P. GANSTER, of the city, county, and State of New York, have invented a new and useful Improvement in Manufacture of Illuminating-Gas from Volatile Hydrocarbons; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing.

This invention relates to that class of apparatus in which the gas is produced by impregnating atmospheric air with the vapor of a volatile hydrocarbon.

The drawing represents a vertical section of the apparatus by which my invention is carried out.

A represents a meter-wheel air-pump, by which air is forced into the case B, which incloses both the air-pump and the carbureting apparatus.

The shaft C passes through both the meter-wheel and the carbureter and carries both by the same power. The shaft C has a sheet-metal case, D, which has a perforated head, E. Inside this case D is another circular case, F, which is perforated on the inner head G, and is solid at the other end, H, having an annular space, so that the bent tube or siphon I passes into the case F. The other end of the tube communicates with the gas-holder J. There is a partition, K, which separates the pump from the carbureter. It has an opening, L, at the top, by which the air passes from the pump to the carbureter.

The operation of my apparatus is as follows: The meter-wheel being set in motion by the action of a weight communicating by a cord passing over the drum M, air is forced into the carbureter in the direction of the arrows. It passes

through the perforated head E into the drum D, in the space between D and F, which is filled with any suitable porous capillary material, circulating in this space, when it passes through the perforated head G, through the drum F, and out at the pipe I into the gas-holder J. By its passage through the drums D and F, filled with capillary material saturated with hydrocarbon, kept wet by revolving, the air becomes charged with the hydrocarbon vapor, and is converted into an illuminating-gas.

In the partition K is a stuffing-box, through which the shaft C passes, and by which this joint is made tight. The gland of this box is very liable to leak as it is ordinarily made; but I have found that by filling this gland with hard soap, upon which the hydrocarbon has no action, the joint is made perfectly tight.

By the carbureting arrangement, as shown and described, a very thorough and complete carburation of the air is accomplished in a comparatively small space.

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

1. In an apparatus for carbureting air, the arrangement of the inner and outer drums D and F, through which the air passes from the pump A.

2. The combination and arrangement of the carbureting apparatus shown and described with the air-forcing apparatus in the same case or cylinder, substantially in the manner set forth.

GEO. P. GANSTER.

Witnesses:

H. L. STUART,

W. D. CHESEBROUGH.