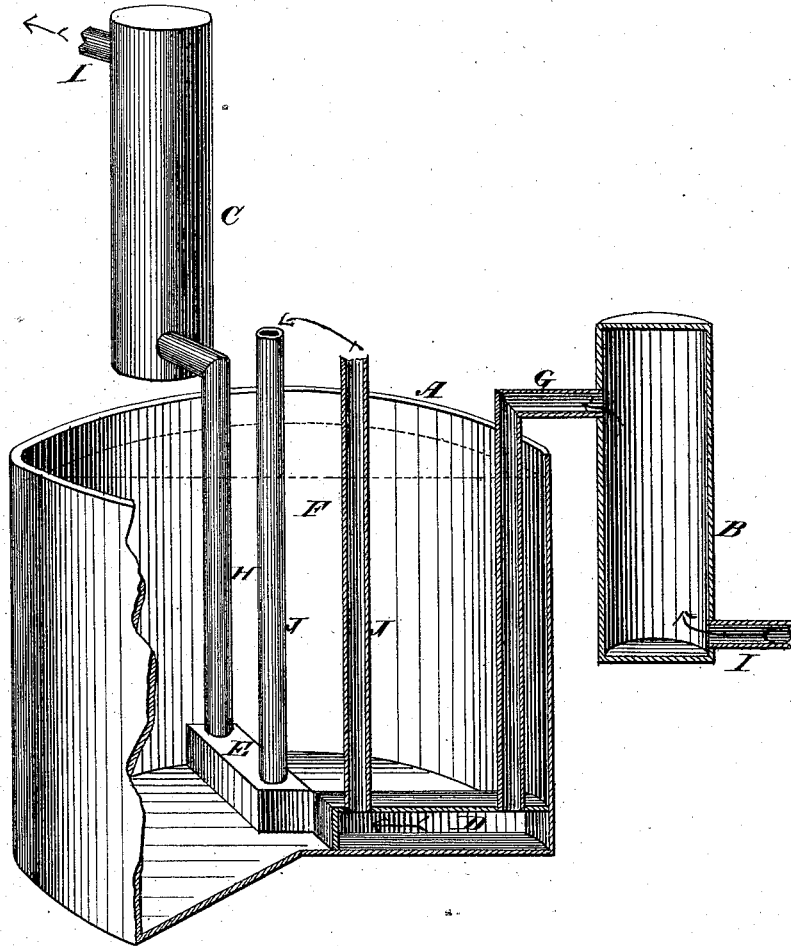


J. D. PATTON.
Gas-Purifier.

No. 162,851.

Patented May 4, 1875.



WITNESSES:

Francis McArdle
Sidgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOSEPH D. PATTON, OF TREVORTON, PENNSYLVANIA.

IMPROVEMENT IN GAS-PURIFIERS.

Specification forming part of Letters Patent No. **162,851**, dated May 4, 1875; application filed March 13, 1875.

CASE A.

To all whom it may concern:

Be it known that I, JOSEPH D. PATTON, of Trevorton, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Purifying Gas, of which the following is a specification:

This invention relates to the construction of apparatus for cleansing illuminating-gas; and consists in connecting one or more vessels called "scrubbers" with purifying-chambers in the gasometer-tank.

The accompanying drawing illustrates my invention.

Similar letters of reference indicate corresponding parts.

A represents the tank; B and C, the scrubbers, one or both of which may be employed. D is the condensing-chamber of the scrubber B, and E is the chamber of the scrubber C. The condensing-chambers D and E are at the bottom of the tank, which is filled with water up to the line F. The scrubber B is connected with the chamber D by the pipe G, and the scrubber C is connected with chamber E by the pipe H. I I are the pipes through which the gas passes to or from the scrubbers. J J are pipes attached directly to the chambers, through which the gas passes to or from the chambers D and E to or from the gasometer. The scrubbers D E may be filled, or partly filled, with perforated diaphragms, or with bars or partitions, or with broken coke, brick, or other material, to increase the surface of contact therein, as may be desired. The scrubber

receives the gas from the retort, which gas is partially cooled by impinging upon and by contact with the interior surface of the scrubber. From this scrubber the gas passes through the pipe G to the condensing-chamber D in the bottom of the tank A, where the effects of a low temperature are added to those of the cooling contact received in the scrubber.

The operation may be reversed as regards the scrubber C, as the gas may be received from the gasometer and condensed in the chamber E before being scrubbed in the scrubber C. In either case the operation is complete in itself, and would probably accomplish the object sought in the scrubber B; or the two may be used in conjunction. The scrubber B and condenser D may be used to purify the gas as it passes from the retort to the gasometer, and the scrubber C and chamber E to more perfectly purify it as it passes directly to the burners.

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

One or more scrubbers located outside of a gasometer-tank, in connection with condensing-chambers beneath the surface of the water within the tank, for removing condensable matter and cleansing the gas, substantially as shown and described.

JOSEPH DESHA PATTON.

Witnesses:

H. Z. RAKER,
G. A. NEWBAKER.