J. McFARLAN.

Gasometer.

No. 25,607. Patented Sept. 27, 1859.

Fig. 1.

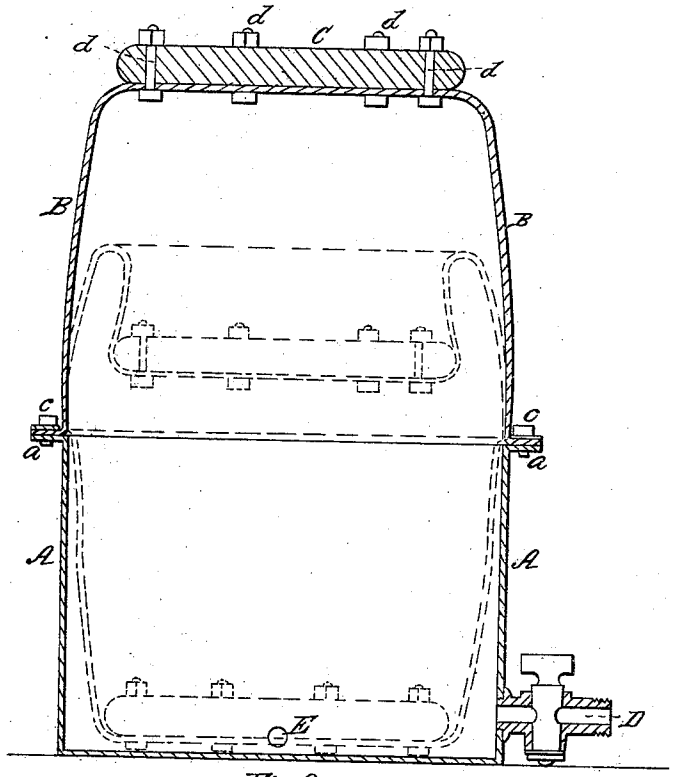
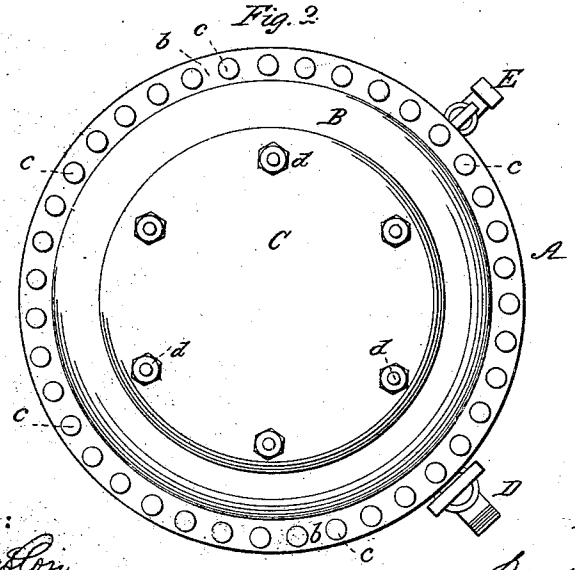


Fig. 2.



Witnesses:

M M Livingston

Mich Hughes

Inventor:

James M Farlan.

N. PETERS. Photo-Lithographer. Washington. D. C.

UNITED STATES PATENT OFFICE.

JAMES McFARLAN, OF BROOKLYN, NEW YORK, ASSIGNOR TO JAMES McFARLAN, JR., AND E. McFARLAN, OF SAME PLACE.

PORTABLE GAS-HOLDER.

Specification of Letters Patent No. 25,607, dated September 27, 1859.

To all whom it may concern:

Be it known that I, JAMES McFARLAN, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Gasometer; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central vertical section of the improved gasometer. Fig. 2 is a plan of the same.

Similar letters of reference indicate corresponding parts in the several figures.

My invention is principally intended for use on a comparatively small scale, as for receiving and conveying, for the illumination of ferry boats, or other vessels, or of other conveyances, gas which has been generated on shore or in stationary works, or for the reception of illuminating gas generated in dwelling houses, or other places where it is to be used.

It consists in the construction of a gasometer with its upper portion of conical form, having sides of india-rubber, india-rubber cloth, or other suitable flexible material combined with a head of stiff material, and of such size that it may be introverted within the lower tank-like portion to expel the gas therefrom by pressure mechanically applied to its head.

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

A, is the stationary tank-like lower portion of the gasometer, of cylindrical form in its transverse section, and furnished around its upper margin with an external flanch *a*, *a*.

B, is an india-rubber bag of conical form, having its mouth of about the same diameter as the tank-like portion A, but diminishing considerably in size from the mouth, and having the margin thereof clamped between the flanch *a*, and a metal ring *b*, which is secured to the said flanch by screw bolts *c*, *c*.

C, is a head of wood, or other stiff material secured to the end of the bag B, by bolts *d*, *d*, rivets, or other equivalent means. This stiff head serves the two purposes of keeping the bag B, in shape and of supporting weights which may be applied to produce the necessary pressure to force the gas from the gasometer to the burners as fast as it is required for consumption. It should not be larger than the smallest portion or end of the bag.

D, is a cock in the lower part of A, to which is to be connected the inlet pipe for filling the gasometer. E, is another cock also in the lower part of A, intended for the connection of the service pipe.

When the gasometer is full the bag or flexible conical upper portion B, C, rises entirely above the tank-like lower portion A, as shown in black outline in Fig. 1. When the gas is turned on to the burners, the necessary pressure for the service is produced by the weight of the head C, with the addition of an additional load placed on the said head if necessary, and as the quantity in the gasometer diminishes, the head C, passes down within the flexible sides of B, which is gradually introverted in the manner illustrated in blue outline in Fig. 1, and passes down into the tank-like portion A, till it arrives at the bottom thereof when the complete introversion of B, is effected, as shown by the red outline in Fig. 1, and all the gas but what little unavoidably remains between the sides of A, and B, is expelled. In the filling of the gasometer the head C, rises, and the operation of B, is precisely the reverse of that above described.

Instead of a complete bag B, of flexible material, as represented, there may be a conical tube of india-rubber, having the margin of its larger end united to the tank-like portion A, of the gasometer in the same manner as the bag B, and the margin of its smaller end united with the rigid head C.

This gasometer possesses great advantages over those in use for purposes such as I have herein enumerated in its extreme convenience, portability and safety.

I do not claim making the sides of a gasometer or any portion thereof of flexible material; but

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

The construction of the gasometer with its upper portion B, C, of conical form with flexible sides and with a stiff head, and of such size that it may be introverted, substantially as herein described, within the stationary tank-like lower portion A, to which its flexible sides are attached.

JAMES McFARLAN.

Witnesses:
M. M. LIVINGSTON,
WM. TUSET.