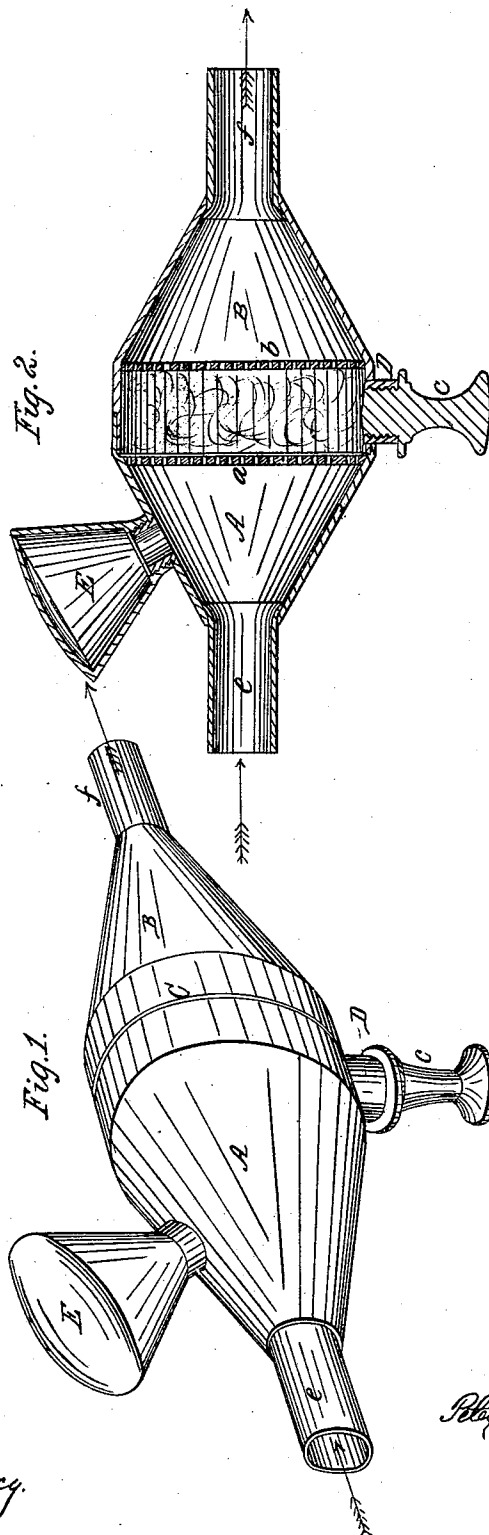


P. FONTAIN.
Gas Regulator and Purifier.

No. 37,500.

Patented Jan. 27, 1863.



Witnesses:
Andrew De Lacy
Michael H. De Lacy

Inventor:
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UNITED STATES PATENT OFFICE.

PETER FONTAIN, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS REGULATORS AND PURIFIERS.

Specification forming part of Letters Patent No. 37,500, dated January 27, 1863.

To all whom it may concern:

Be it known that I, PETER FONTAIN, of New York, of New York county, in the State of New York, have invented a new and useful Improvement in Gas Regulators and Purifiers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My present invention relates to an improvement in the apparatus for which Letters Patent of the United States were granted to me on the 28th day of June, 1859; and my present invention consists in providing the chamber in which the filtering material is placed with an orifice or mouth furnished with a suitable stopper, through which said filtering and regulating medium may be extracted and inserted, substantially as hereinafter more fully explained.

To enable those skilled in the art to make and use my improvement, I will proceed to describe the same, referring by letters to the accompanying drawings, forming part of this application, and in which—

Figure 1 is a perspective view of a regulator and purifier similar to the one on which Letters Patent were granted to me, as above recited, with the addition of my present improvement. Fig. 2 is a longitudinal section through the center of the same.

In the several figures the same letters of reference indicate the same parts of the apparatus.

A and B are two frustumal chambers, which are screwed (or otherwise fastened) together at their bases in such a manner as to form a third chamber, C.

a and *b* are two filtering-disks, which may be made of perforated metal, wire-gauze, or other suitable material, and which impede the flow of gas and check the progress of foreign matters. Between these disks *a b* is arranged in the chamber C a mass of cotton, felt, sponge, or other, suitable substance, (as shown in red lines at Fig. 2,) through which the gas is made to pass and by which any irregularities of velocity are overcome during the percolation of the gas through said body of cotton or other substance.

D is an orifice or mouth in the chamber C, and provided with a screw-stopper, *c*, the object of which will be presently explained.

E is a dirt-receptacle attached to the chamber A in a manner and for a purpose fully described in my former patent. From the opposite ends of the two frustums A B project two extensions in the forms of short pipes *e f*, to which are connected the ends of the pipe which brings the gas to the regulator and that which conducts it from the regulator to the burners. The course or direction of flow of the gas is illustrated by red arrows.

The operation of the apparatus in filtering and regulating the gas is the same as that explained in my former patent, as is also the operation of the removable dirt-receptacle E, and need not be described here.

It will be understood that the two extended portions *e f* of the apparatus are coupled or soldered to the supply-pipe, so that the regulator cannot have its two sections A B detached without detaching the whole apparatus, from which it follows that the contents of chamber C must remain in after the regulator is set up, unless some method of removal is provided for other than a detachment of the two frustums A B. By making an orifice or mouth, D, in the side or periphery of chamber C, as shown, and providing it with a screw-stopper, *c*, I accomplish a simple means for the removal and reinsertion of the filtering and regulating substance contained in chamber C. It will be seen that by simply removing the stopper *c* the cotton or other substance packed in the chamber C may be readily picked or pulled out and replaced.

Experience has shown that it becomes often necessary to renew the filtering and regulating medium, and it will be seen that the mode herein described of accomplishing this desideratum is simple and effective.

Having described the nature of my said improvement on my patented apparatus of June 28, 1862, what I now claim as new, and desire to secure by Letters Patent, is—

The opening or outlet D, (provided with a suitable stopper,) in combination with the chamber C and its contents, substantially as and for the purpose set forth.

P. FONTAIN. [L. S.]

Witnesses:

J. N. McINTIRE,
MICHAEL DE LACY.