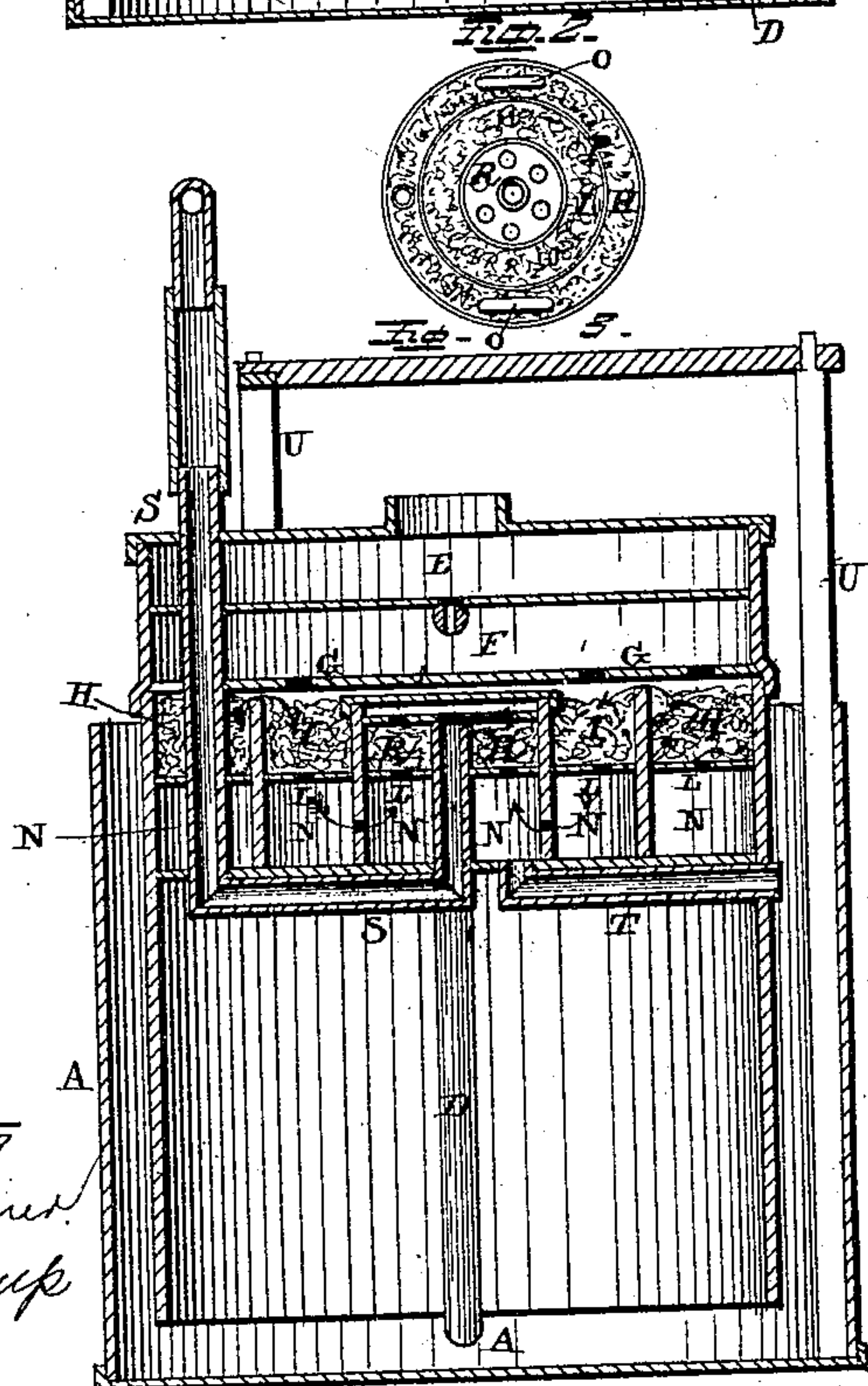
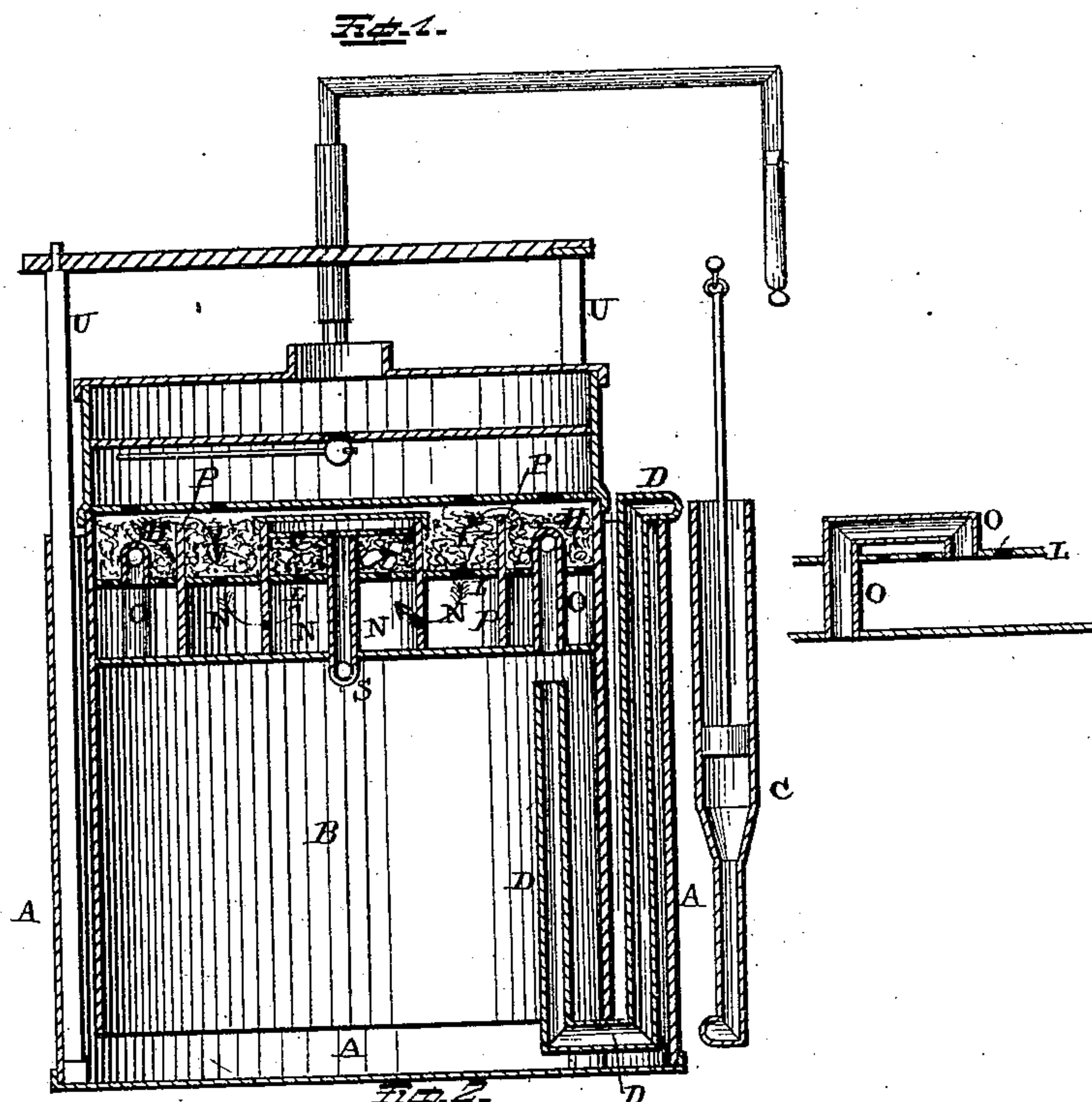


(No Model.)

J. T. GUTHRIE.  
Carbureter.

No. 238,386.

**Patented March 1, 1881.**



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# UNITED STATES PATENT OFFICE.

JAMES T. GUTHRIE, OF LEESBURG, OHIO.

## CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 238,386, dated March 1, 1881.

Application filed October 2, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES T. GUTHRIE, of Leesburg, in the county of Highland and State of Ohio, have invented certain new and  
5 useful Improvements in Gas-Generators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying draw-  
10 ings, which form part of this specification.

My invention relates to an improvement in carburetors; and it consists in the peculiar construction of parts, whereby air is pumped  
15 into the air-holder, from whence it passes, under pressure, through two or more chambers which are filled with alternate layers of sponge and cotton which have been saturated with gasoline, and thence through a purifier  
20 to the burners.

Figure 1 is a vertical longitudinal section of my invention. Fig. 2 is a plan view of the chambers which are filled with cotton and sponge and a purifying compound. Fig. 3  
25 is a vertical section taken at right angles to Fig. 1.

A represents the cistern, which is to be filled with water to any desired extent, and B is the air-holder, which is filled with air to any  
30 desired pressure by means of the air-pump C through the bent pipe D. Upon the top of this air-holder is formed a gas-generator, which consists of a top chamber, E, into which the gasoline or other gas-making substance is poured, and from which chamber  
35 the gasoline passes, through a pipe provided with a stop-cock, into the chamber F just below it. This chamber F has a perforated bottom, G, so that when the gasoline is poured into the chamber it will be equally distributed over the two chambers H I just below  
40 it. These two chambers H I are separated by means of a partition, P, from each other, and each one of them is filled with alternate layers of sponge and cotton, or other absorbent material, which will absorb the gasoline as it is dropped upon it from the chamber F. These two chambers have perforated bottoms  
45 L, and are placed just above the air-chambers N, into which the air passes from the air-holder

through the pipes O. The air passes upward through the pipes O into the outer air-chamber, H, from which it passes through the perforated bottom, up through the saturated sponge and cotton, and then over the partition P, down  
55 through the sponge and cotton in the inner chamber into the inner air-chamber and from this inner air-chamber the air passes up through the perforated bottom of the purifying-chamber R, which is filled with charcoal and gum-  
60 camphor. This charcoal and camphor serves to purify the gas and to rob it of odors of all kinds, so that a perfectly odorless gas is produced. After the gas is passed up through the purifying compounds and the perforated  
65 plate which is placed upon their top, the gas passes down through the pipe S, which is connected, by means of a suitable rubber tube, with the gas pipes and burners. The rubber tube is used for connecting this pipe S with  
70 the gas-pipe, so that the movement of the air-holder will not be interfered with as it rises and falls in the cistern. This pipe S, and the pipe which connects the air-pump  
75 with the air-holder, are provided with suitable stop-cocks, for the purpose of controlling the flow of air and gas at will. Any gasoline which may not have been vaporized by the passage of air over or through it will be caught  
80 in the pipe T, which extends outside of the generator, and from which it can be drawn off at any time.

Secured to the cistern and extending any suitable distance above its top are suitable guides, U, for controlling the movement of the  
85 generator.

By means of the construction above described the gas produced from gasoline is purified to such an extent that a beautiful clear illuminating-flame is produced and an  
90 ever-steady light.

As soon as the air-holder is filled with air, the weight of the air-holder will cause an even, steady flow of air through the saturated sponge and cotton, and a flame is produced  
95 which will not vary in size as long as there is any air left in the holder.

Having thus described my invention, I claim—

In a gas-generator, the combination of an 100

air-forcing apparatus, a chamber, B, to hold  
the air under pressure, the pipes O, the two  
chambers H I, the air-chambers N, the cen-  
tral purifying-chamber, R, and the conduct-  
5 ing-pipe S, the chambers H I being filled with  
a substance that is saturated with gasoline,  
substantially as shown.

In testimony that I claim the foregoing I  
have hereunto set my hand this 27th day of  
September, 1880.

JAMES T. GUTHRIE.

Witnesses:

J. F. LAZENBY,  
J. S. STARN.