G. P. Ganster.

Generating Gas.

No. 76182 Patented Mar. 31, 1868

Fig. 2

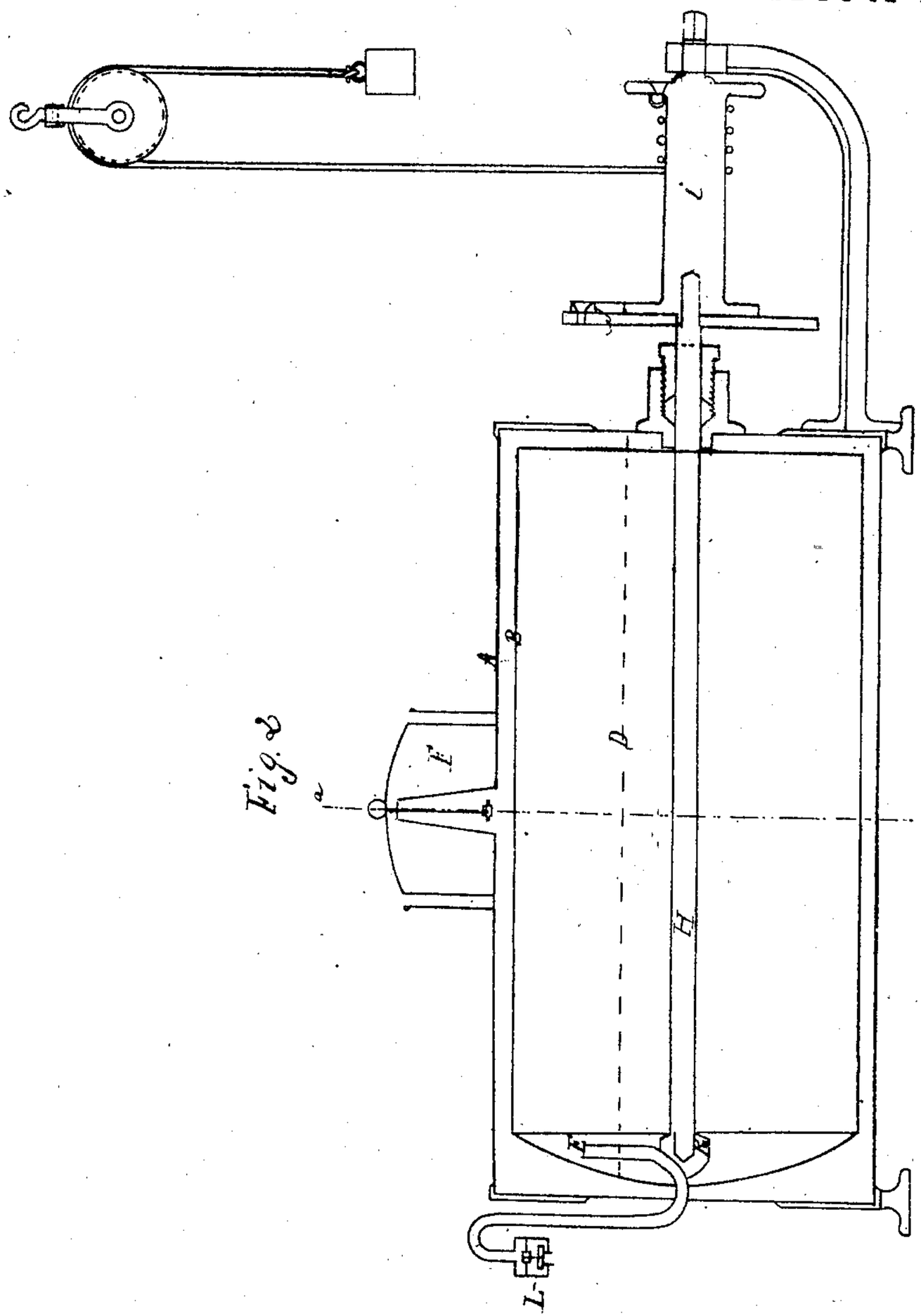

Fig. 1.

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

Letters Patent No. 76,182, *dated March* 31, 1868.

IMPROVED APPARATUS FOR GENERATING ILLUMINATING-GAS.

The Schedule referred to in these Letters Patent and making part of the same.

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 Apparatus for Generating Illuminating-Gas; 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, forming a part of this specification—

Figure 1 of which is a vertical section through the line *a b*, of fig. 2, and

Figure 2 is a longitudinal section of the apparatus employed.

My invention has for its object the production of an illuminating-gas from the vapors of volatile hydrocarbons and atmospheric air, and consists in making an apparatus which, while it serves the purpose of carburetting or mingling the hydrocarbon intimately with the air, also acts as a pump to force in and keep up a supply of air to be charged with the hydrocarbon.

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

The case A is made of suitable sheet metal, and encloses a meter-wheel, so called, B. I prefer to make this meter-wheel in such proportion that its length shall greatly exceed its diameter. If the wheel is one foot in diameter, it should be two feet long, although I do not limit myself to these proportions.

The compartments of this meter-wheel are filled with any suitable capillary material, C, and the case is filled with hydrocarbon up to the dotted line, as shown, D, but should not be filled so full as to come up to the level of the pipe E.

The air enters through the pipe E, and passing through the wheel, becomes charged with the vapor of the hydrocarbon, which saturates the capillary material, C, and escapes at the other end of the wheel, filling the drum and gas-holder F, from which it is supplied to the burners through the pipe G.

The meter-wheel has a shaft, H, connected with the drum I through the means of the ratchet and pawl J, for convenience of winding, and the meter-wheel is revolved by this means, and by its revolutions causes the air to enter and discharge regularly through each of the compartments, as in succession they rise above the level of the hydrocarbon.

One end of the shaft H revolves in the bearing K, which is attached to the pipe E, and the pipe E is soldered to the case A. The inlet-pipe E is provided with a valve, L, which is so arranged as to be always open when the current of air is passing into the meter, but closes instantly in case of any back pressure.

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

1. In an apparatus for generating gas from volatile hydrocarbons, the combination of the air-forcing and carburetting-apparatus in the manner described and shown.

2. Filling the compartments of the meter-wheel with any suitable capillary material, for the purpose of enriching the air with the hydrocarbon with which the capillary material is saturated.

3. A valve, placed on the inlet-pipe of the apparatus, so arranged as to close the opening when not in operation.

GEORGE P. GANSTER.

Witnesses:

J. A. BASSETT,

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