

J. Hamilton Brown's
Imp^d *Gas Lamp.*

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PATENTED DEC 13 1870

Fig. 1

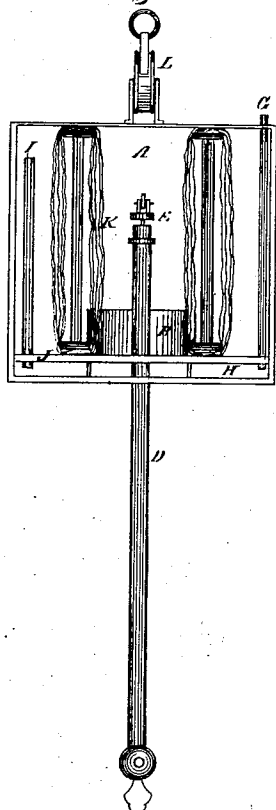


Fig. 2.

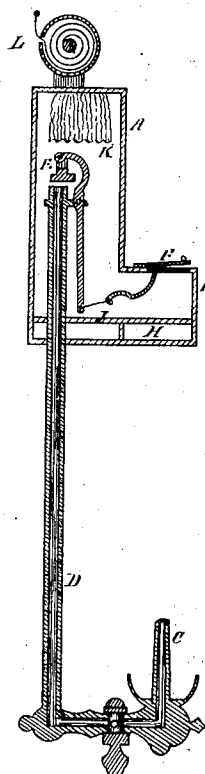
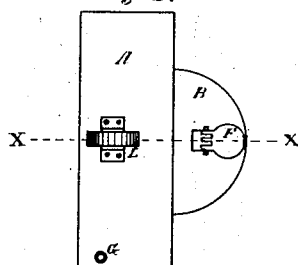


Fig. 3.



Witnesses
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J. HAMILTON BROWN, OF NEW YORK, ASSIGNOR TO HIMSELF AND CHARLES E. BALL, OF JAMAICA, NEW YORK.

Letters Patent No. 110,005, dated December 13, 1870.

IMPROVEMENT IN GAS-LAMPS.

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, J. HAMILTON BROWN, of the city of New York, in the county and State of New York, have invented an Improved Gas-Lamp; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing forming a part of this specification, and to the letters of reference marked thereon.

The object of my invention is to construct a gas-lamp in such a manner that the gas generated from gasoline may be utilized and consumed for illuminating purposes in a perfectly safe and economical manner, and that the lamp may be filled with the material from which the gas is made without danger of explosion.

The nature of my invention consists, first, in constructing a chamber for the material from which the gas is to be generated, through which chamber a tube passes in a vertical direction down through the said chamber into another chamber or narrow space directly under the chamber. The dividing partition between these two chambers is made of non-conducting material, so as to prevent any heat communicating with or passing into the gasoline-chamber. At the opposite end of the small space before mentioned is another tube which passes from the said space upward to near the top of the gasoline-chamber, which forms a communication from the outer atmosphere into the said chamber.

It further consists in the combination and arrangement of the valve which closes the orifice or opening through which the lamp is filled with levers and another valve that closes the upper end of the gas-pipe.

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

Figure 1 represents an elevation of my improved gas-lamp, the back being removed to show the interior arrangement.

Figure 2 represents a transverse vertical section of the same, taken through the line X X in fig. 3.

Figure 3 shows a plan view of the lamp.

Letters of like name and kind indicate like parts in each of the figures.

A, in all the figures, represents the main oil-chamber, which I make of sheet metal, rectangular in form, and of any suitable dimensions.

Upon the rear side of the main chamber A is an additional or auxiliary chamber, B, made in the form of a crescent, and located so as to come, at a proper distance, directly over the gas-jet and burner C, which burner is connected with the gas-pipe D, the latter of which extends upward and some distance into the main chamber A.

At the top of said pipe D is located and operated a valve, E, which fits and closes tightly over the mouth of the said pipe.

To this valve E are connected levers which also connect with another valve, F, located upon the outer surface of the auxiliary chamber B which closes the opening through which the chambers are filled.

The object and purpose of these valves is that the valve F is always closed, so as to retain the gas material within the chamber, and is not designed to be opened except when the chamber is being filled.

When the valve F is opened through the medium of the levers the valve E is closed, so that, as will be observed, the flow of gas is cut off from the burner, and all danger of an explosion avoided.

G represents a pipe or tube passing from the outer atmosphere down through the chamber A into a narrow space, H, directly underneath the said chamber A.

At the opposite side of this chamber is another pipe or tube, I, that passes upward into the oil-chamber, so that a communication is made with the outer atmosphere and the oil-chamber.

J is a partition between the oil-chamber and the space H, made of any material which is a non-conductor of heat, such as wood, zinc, plaster, or other well-known substance, so that the heat from the burner shall not come so directly to the oil-chamber.

K K are bunches or hanks of any fibrous material to hold the gas material by absorption, so as to facilitate the generating of gas.

L represents a spring-hanger, by which the lamp may be suspended and elevated and lowered, for convenience in filling.

The flame from the burner will gently heat the air as it passes through the tube and space H, which greatly facilitates the generating of gas.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The non-conducting partition J, in combination with the space H, substantially as and for the purposes set forth.

2. The arrangement of the valves E and F with the pipe D and chamber A, substantially as herein shown and described.

3. The pipes G and I, for the purpose of admitting air into the oil-chamber, in combination with the heating space H, substantially as shown and described.

J. HAMILTON BROWN.

Witnesses:

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