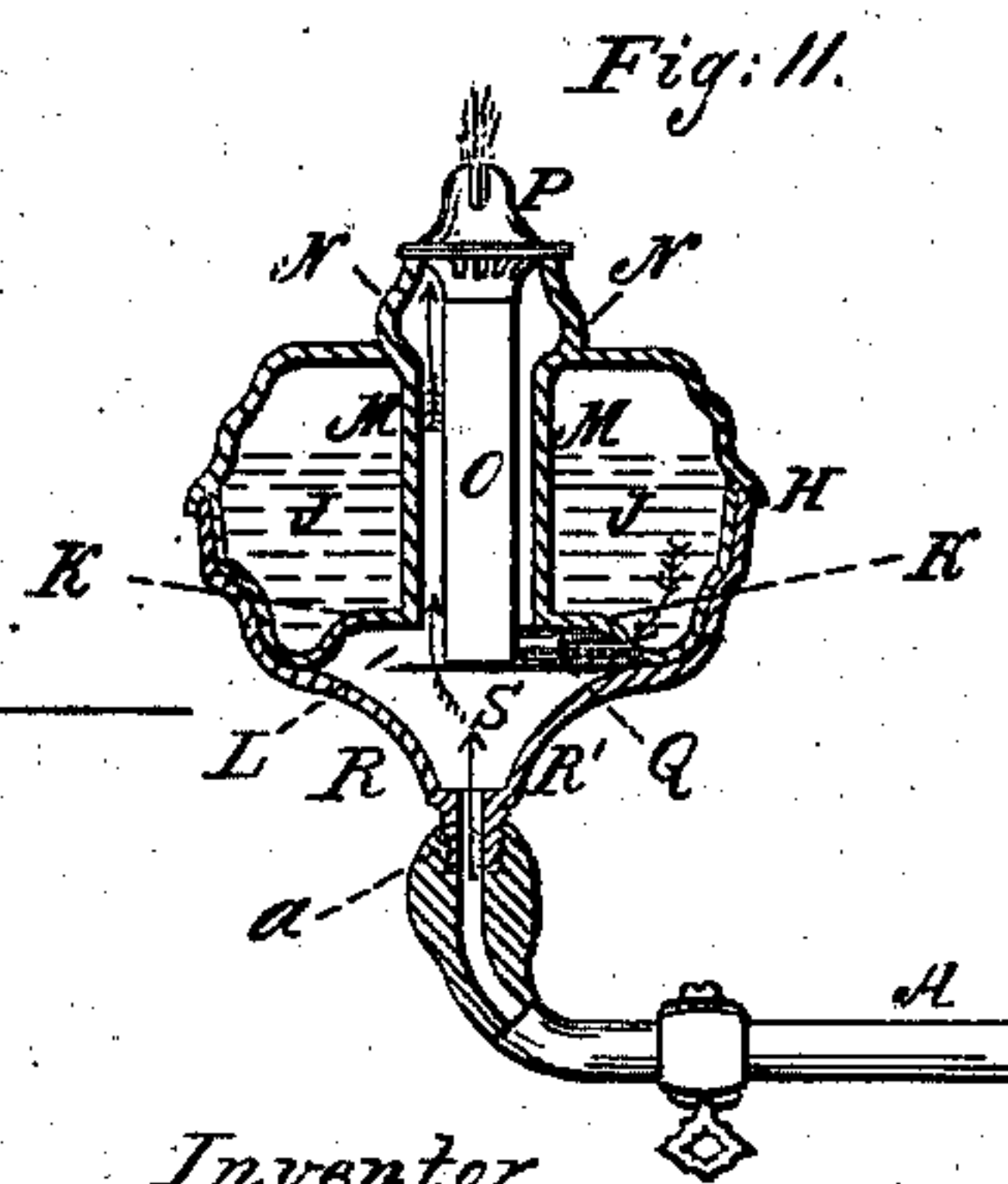
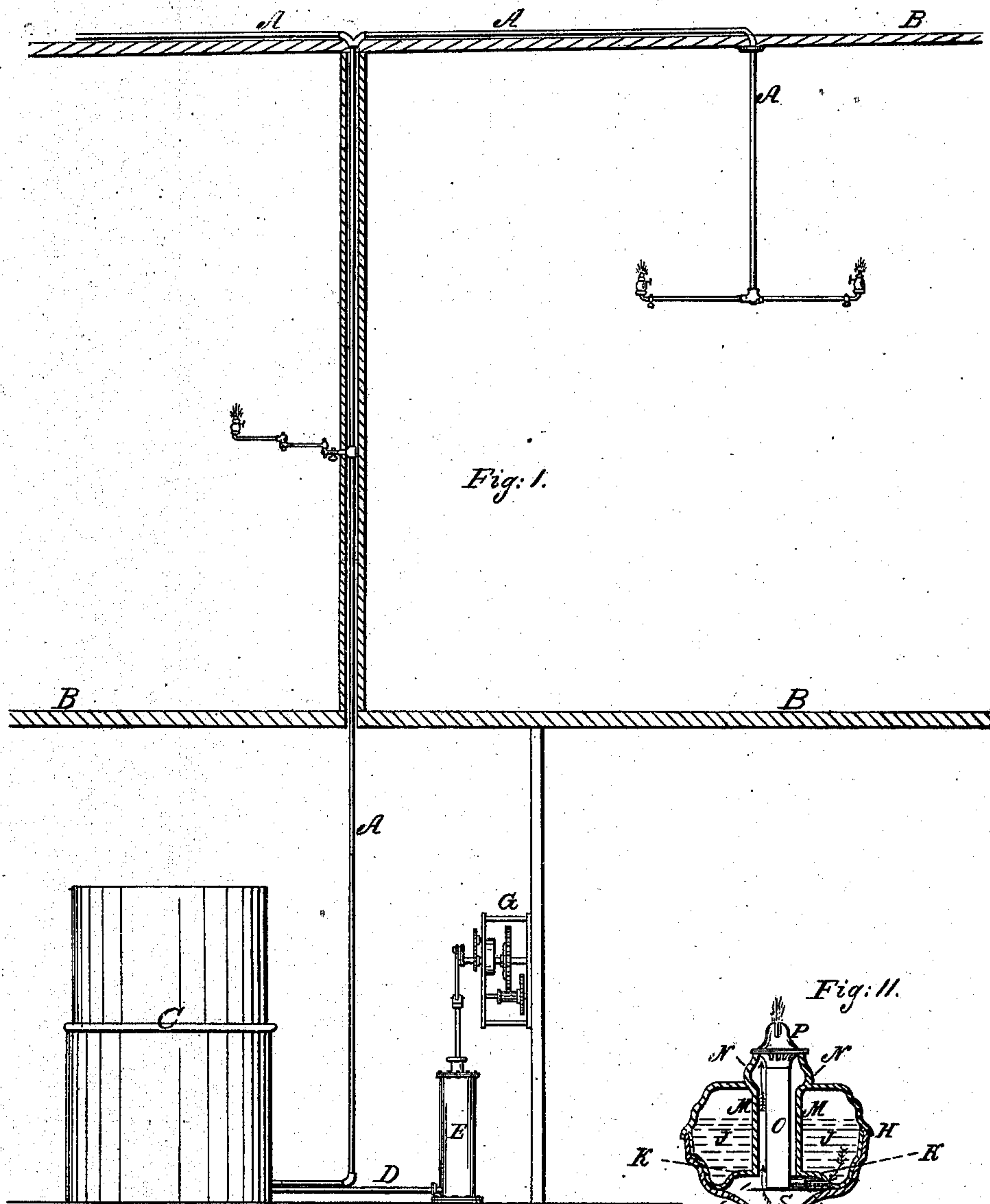


A. BURBANK

Lamp.

No. 103,011.

Patented May 17, 1870.



Witnesses.

R. F. Osgood

Geo. W. Mather

Inventor.

Amer Burbank

UNITED STATES PATENT OFFICE.

ABNER BURBANK, OF ROCHESTER, NEW YORK, ASSIGNOR TO HIMSELF,
HENRY S. JOY, AND GEORGE D. WILLIAMS.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 103,011, dated May 17, 1870.

To all whom it may concern:

Be it known that I, ABNER BURBANK, of the city of Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Lamps, of which the following is a specification:

Nature of Invention.

This invention consists in a lamp of peculiar construction, and connecting the same with a pipe or pipes, through which is forced a current of air from a gasometer or other mechanical arrangement, as hereinafter described.

General Description.

Figure 1 is an elevation showing a portion of a building and my improved arrangement connected therewith; Fig. 2, a section of one form of lamp illustrating my improvement.

A A represent a system of pipes distributed through building B in the ordinary manner of gas-pipes. At the bottom these pipes connect with some arrangement for blowing in air, which may be of any desired kind.

In the drawings is shown a gasometer, C, of common construction, which is fed with air by means of a supply-pipe, D, leading to force-pump E, operated by gearing G, driven by weight or spring.

H represents the lamp. It consists of a reservoir, J, having a struck-up bottom, K, which forms a cavity, L, in said bottom.

A tube, M, extends from the top plate of the lamp to the bottom plate thereof, and forms a central opening, N, through which the current of air is to be passed. In said openings N is placed a tube, O, which forms a chamber for the wick. It will be noticed that said tube is sufficiently small to allow a considerable space between it and the tube M.

P is the cone-burner, which has the usual slot for the wick and flame, but has not the air-openings which exist in the ordinary burners. This burner is supported on the collar which rests on the top of the reservoir, or may be screwed or otherwise secured thereto; and within the collar and cone is a wick-tube, whose lower portion is made to rest snugly on the top of wick-chamber O, or may be screwed or otherwise connected thereto.

It will now be perceived that air passing up through opening N around the wick-chamber continues through the collar and cone inside thereof, and supplies the flame therewith at or about the point of combustion. The communication between the reservoir J and wick-chamber may be made by means of a tube, Q, suitably arranged.

The lamp thus constructed is to be supported on a bracket, R, which is secured to the air-pipe A, and communicates therewith by an opening, a, in its bottom, and this bottom is so struck up at R' as to form a cavity, S, which, with the cavity L, constitutes an air-chamber. The lamp must fit snugly in the bracket R, so that the air cannot escape between them.

When the air comes from the pipe A it enters and fills the air-chamber L S, and then passes with an equalized pressure to the burner. The lamp may be applied to side, drop, and other lights by properly arranging the portion of the pipe A which supports the lamp.

The other part of the pipe need not necessarily be fixtures of the house similar to gas-pipes; but portable pipes of flexible material may be employed for the same purpose.

The bracket R may be soldered to the lamp and the two be screwed to the air-pipes, or the latter may have a conical socket to receive the bottom of the bracket portion. In this case the upper sides of the bracket are unnecessary.

Among the advantages of this method are, that oil may be burned with the same facility as gas, the use of chimneys is avoided, and the flame is greatly superior either to the ordinary lamp-light or to gas; consequently all smoke and offensive smell is obviated.

In addition to the above, the current of cold air coming in contact with the lamp keeps the same always cool, thereby preventing the formation of gas, and obviating the explosions so common in ordinary lamps.

This improvement is not only easily applied to buildings with pipes laid expressly for the purpose, but also to ordinary gas-pipes and fixtures already in place where gas is discontinued. It is only necessary to secure the lamps upon the fixtures and force a blast of air through the pipes in contact with the flame.

I am aware of the ordinary portable gas apparatus, in which air impregnated with naphtha or benzine is forced through pipes to be burned; also with what is called the "mechanical lamp," in which the lamp itself has in its base a clock-work and fan for impelling air upward through the standard to the flame. Neither of these is the equivalent of my invention.

I am aware that it is not new to supply a lamp with an impelled current of air by means of blowing apparatus, such being old and well known.

Claims.

What I claim, and desire to secure by Letters Patent, is—

1. The lamp H, constructed substantially as described, the bracket R, and air-pipe A, combined and operating as set forth.

2. The air-chamber L S, formed by the bottom K of the reservoir and the bottom R' of bracket, substantially as and for the purpose described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ABNER BURBANK.

Witnesses:

R. F. OSGOOD,
GEO. W. MIATT.