

L. B. GRIFFITH.  
ILLUMINATING DEVICE.

No. 175,348.

Patented March 28, 1876.

Fig.1.

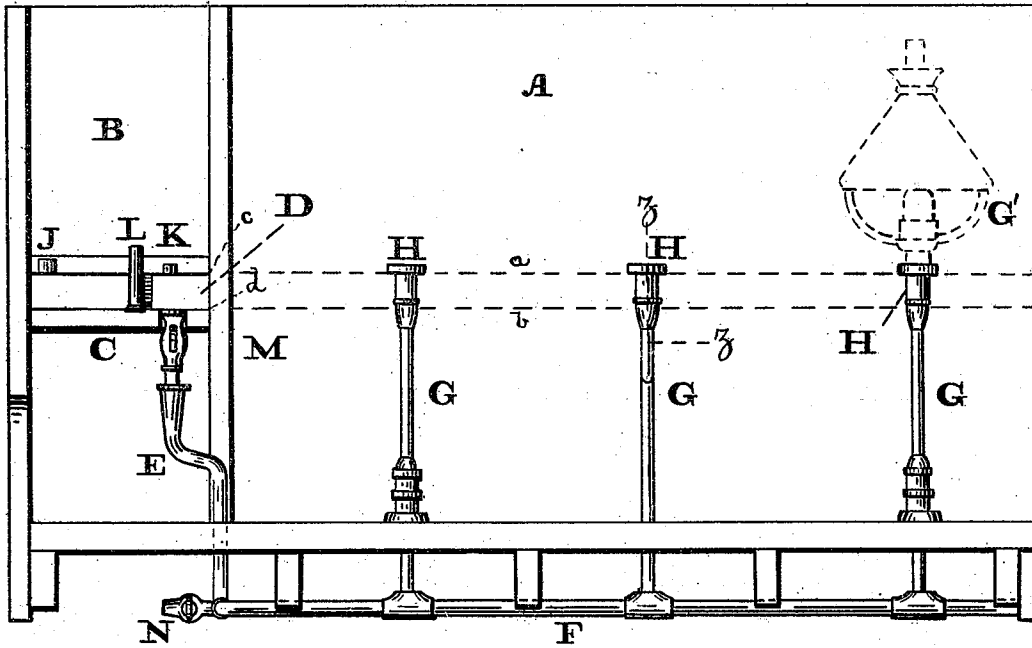


Fig.3.

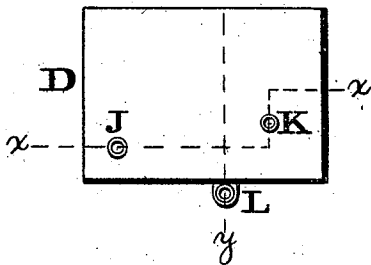


Fig.4.

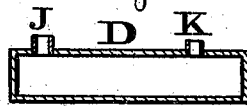


Fig.5.

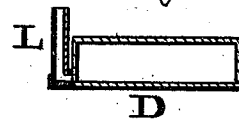
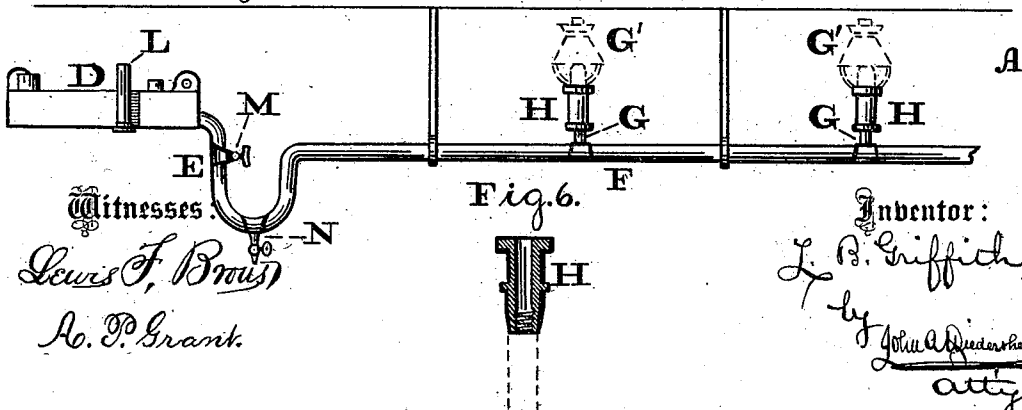


Fig.2.



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN ILLUMINATING DEVICES.

Specification forming part of Letters Patent No. **175,348**, dated March 23, 1876; application filed November 27, 1875.

*To all whom it may concern:*

Be it known that I, LEVI B. GRIFFITH, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Illumination; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation, showing the method of illumination according to my invention. Fig. 2 is a similar view of a modification. Fig. 3 is a top view of the reservoir. Fig. 4 is a longitudinal section thereof in line *x x*, Fig. 3. Fig. 5 is a transverse section in line *y y*, Fig. 3. Fig. 6 is a sectional view (enlarged) of the portion in line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a method of illuminating apartments by means of kerosene or other oil; and it consists of conveying-pipes and a reservoir so constructed that the oil cannot overflow at the burner, and it will reach the lowest point of absorption of the wick, even when the supply in the reservoir is almost exhausted, in combination with an outlet for withdrawing the oil from the burners and pipes in cases of repairs and cleansing, and for purposes of safety against fire.

Referring to the drawings, A represents an apartment to be illuminated, and B a closet or store-room, with a shelf or bracket, C, for support of an oil-reservoir, D. Communicating with the reservoir is a downwardly-extending pipe, E, which is connected to and communicates with a distributing pipe or pipes, F, arranged in the apartment under the floor for low lights, or above the same for ceiling-lights. From the pipe F there extends upward a series of pipes, G, which support the lamps G'. Between the burners of the lamps and the upwardly-extending pipes G there are arranged chambers H, which receive the lower portions of the wicks of the lamps. The reservoir D is preferably a shallow body, its depth being such that when the body is properly elevated, or in operative po-

sition, the oil therein cannot stand higher than a line, *a*, just below the burning-point of the burners of the lamp, and the lowest point will be above the lowest part of the wicks in the chambers H, as shown by the line *b*. For this purpose the top *c* of the reservoir will be on a level with the line *a*, and the bottom *d* with the line *b*. J represents an opening for replenishing the reservoir with oil, and K an opening for passage of air expelled during the filling operation.

In order to exhibit the state of the oil in the reservoir I apply to the latter a gage, L, which is of transparent material.

M represents a cock between the reservoir and pipe E, for feeding and shutting off the oil to and from the distributing-pipe F; and N represents a draw-off cock, which is located in relation to the distributing pipe or pipes F, or at a point at or below the junction of the pipe E and pipe or pipes F.

The operation is as follows: The oil is placed in the reservoir D, and when light is required the cock M is turned so that the oil will flow through the pipes E, F, and G simultaneously to the chambers H, whereby the wick will be properly supplied.

It will be seen that the oil cannot flow above the burning-point of the lamp, owing to the height of the oil in the reservoir never exceeding the level of said point, and as long as there is oil in the reservoir, owing to the lowest level thereof being on line with the lowest point that oil can reach the wicks in the chambers H, the wicks will always be properly supplied, and the lights will not be extinguished.

The state of the oil will be duly indicated by the gage L, and as access is readily had to the reservoir the replenishing thereof may be conveniently accomplished.

It will also be seen that the lamps are in no danger of overturning, &c., and carrying and handling thereof while lighted are avoided.

When the pipes are to be cleansed, repaired, or removed, the cock M will be shut off and the cock N turned on, whereby the oil in the pipes F and G and the chambers H will flow out at said cock N, and it may be replaced in the reservoir D.

The reservoir D and pipe E are attached to

each other by a coupling which admits of their disconnection when required.

The pipe F may be extended to any required lengths, and the oil thereby conducted to distant points of an apartment or dwelling.

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

The reservoir D, constructed of a flat body, with the top and bottom *c d* of the levels, as stated, and with the supply-opening J and

air-opening K, in combination with the downwardly-extending feed-pipe E, distributing-pipe F, and the supporting-pipe G, and with the outlet-cock N intermediate of the feed-pipe and distributing-pipe, all as set forth, and for the purpose specified.

LEVI B. GRIFFITH.

Witnesses:

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