

(No Model.)

L. WALLACH.  
VACUUM TUBE LANTERN.

No. 602,966.

Patented Apr. 26, 1898.

Fig. 1.

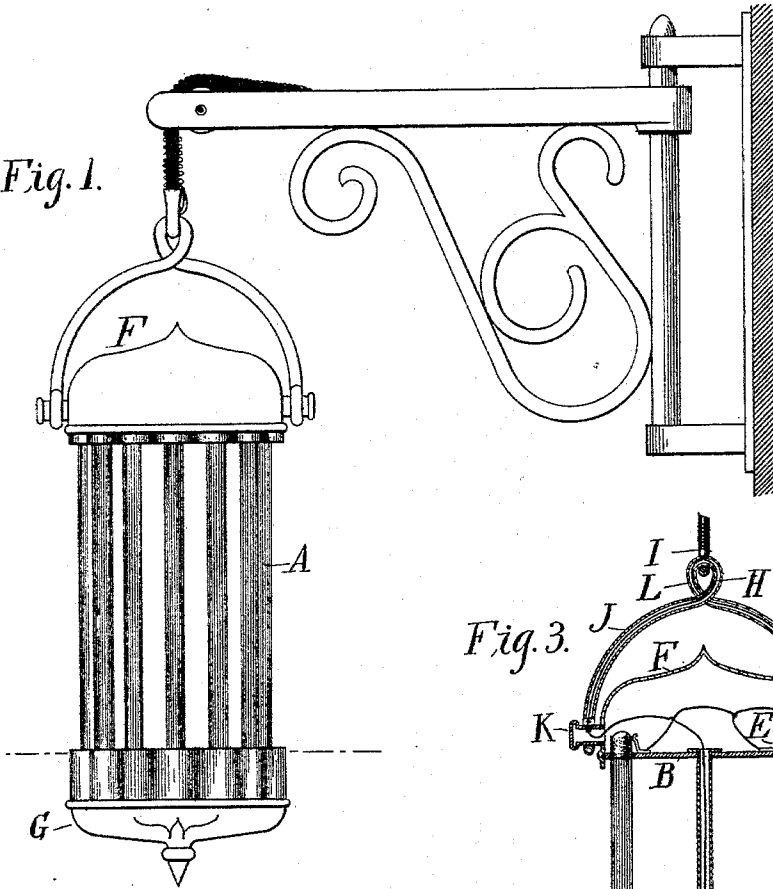


Fig. 2.

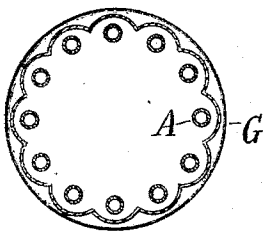
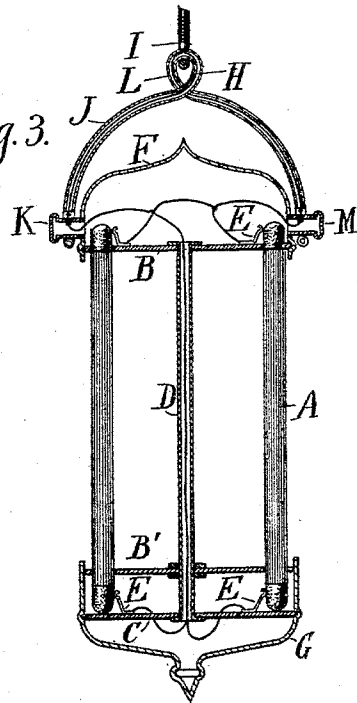


Fig. 3.



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# UNITED STATES PATENT OFFICE.

LEOPOLD WALLACH, OF NEW YORK, N. Y.

## VACUUM-TUBE LANTERN.

SPECIFICATION forming part of Letters Patent No. 602,966, dated April 26, 1898.

Application filed July 20, 1897. Serial No. 645,247. (No model.)

*To all whom it may concern:*

Be it known that I, LEOPOLD WALLACH, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented a certain new and useful Vacuum-Tube Lantern, of which the following is a specification.

This invention relates to vacuum-tube lighting, and particularly to a device for holding such tubes so as to produce a satisfactory luminous effect and at the same time present an artistic and picturesque appearance.

With this object in view the invention consists in the construction, combination, and arrangement of parts, as hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents my invention in elevation. Fig. 2 represents a horizontal section thereof. Fig. 3 represents a vertical central section.

A indicates the vacuum-tubes, which may be tipped at their ends with suitable conducting material, such as aluminium paint, or they may be provided with any other suitable conducting material, as caps of brass. The drawings are intended to represent such tips formed by aluminium paint. These vacuum-tubes are preferably made of clear glass, although they may be made of glass rendered semitransparent or tinted or ground or having a surface finish of any desired design. The present invention has to do with the means for supporting a series of these tubes in an agroupment which may represent a cylinder, as illustrated, or any desired parallelepipedon or other polygonal figure. In the form shown parallel heads are provided, one consisting of the plate B, perforated near its periphery to form sockets for receiving the upper ends of the tubes, and the other consisting of a similar plate B', combined with a suitable support for the tubes, such as plate C. These plates, constituting the heads, as stated, may be connected together by one or more rods. In the illustration but one rod, as D, is shown, and that is centrally located and hollow to furnish a passage for electrical conductors from one head to the other. By this construction a free open space is left between the heads, so that when the tubes are in place the light therefrom may penetrate in all directions. The heads are preferably constructed

from some non-conducting material, such as wood or fiber, and upon the plates C and B or B and B', as desired, are located suitable contact devices, such as springs E, which engage with the metallic tips of the tubes when the latter are inserted. By making these sockets and contacts substantially as shown the tubes may be readily removed and inserted.

Any fanciful caps or shields, such as indicated at F and G, may be provided for inclosing the heads and ends of the tubes, thereby hiding the electric connections and furnishing an artistic finish to the lantern.

The conductors may be led in any suitable manner to the ends of the tubes, one way of so doing being indicated, wherein the conductor H is led from the supporting rope or wire into the left-hand portion of the bail J, thence through the hollow trunnion K into the cap F, thence through the hollow rod D to the contacts E. The conductor L may be led along with the conductor H until it reaches the bail, through the right-hand portion of which it may pass to the hollow trunnion M and into the cap F, where, through suitable branches, it may connect to the contacts E in engagement with the upper ends of the tubes A. The bail J is shown hollow and the conductors led through it. They may, however, be wrapped around it, if desired.

In Fig. 1 the lantern is shown suspended from a fancy wall-bracket, which simply indicates one means of support. Said lantern may be suspended from the ceiling or supported upon a pedestal, as desired, or the bail may be dispensed with and the lantern placed in a horizontal position or in any other position that the decoration of the room where it is to be located may demand.

Many changes may be made in the construction and proportioning of parts and their manner of agroupment without departing from the invention.

What I claim as my invention is—

1. A lamp or lantern consisting of parallel heads connected together by a rod and provided with a series of apertures, electric contacts located at said apertures and concealed within the heads, vacuum-tubes fitted to the apertures in said heads and provided with electrodes at their ends for engagement with

the said contacts, one electric conductor connected to the contacts in one head, the other conductor connected to the contacts in the other head, and caps covering the heads, the ends of the tubes and the electrical connections thereto, substantially as and for the purpose set forth.

2. The electric-light fixture consisting of the perforated plate B, the like perforated plate B', the supporting-plate C, the hollow rod D, connecting said plates together, the spring-contacts E, located above the plate B, and below the plate B', the vacuum-tubes A, inserted in said perforated plates with their electrodes in engagement with said contact,

a conducting-wire branching to the upper contacts, the return conducting-wire branching from the lower contacts and passing through the rod D, and caps F and G, connected to said plates and cooperating therewith to conceal the electrodes, contacts and conductors.

Signed at New York, in the county of New York and State of New York, this 17th day of July, A. D. 1897.

LEOPOLD WALLACH.

Witnesses:

SAMUEL JACKSON,  
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