W. M. GROSVENOR.

LIGHTING APPARATUS.

APPLICATION FILED JULY 31, 1909.

1,156,477. Patented Oct. 12, 1915.

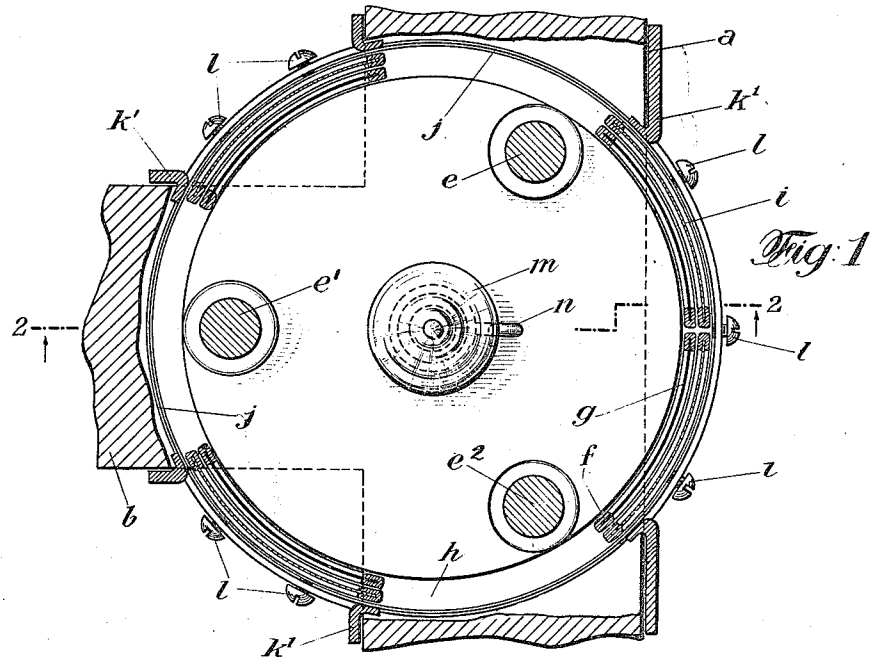


Fig. 1

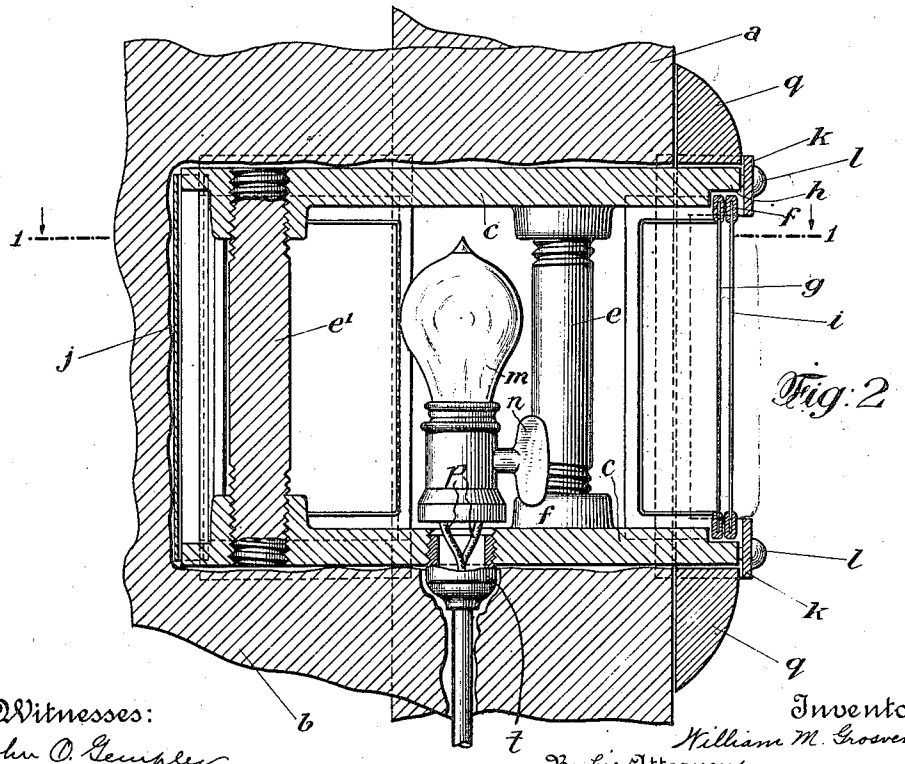


Fig. 2

Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM M. GROSVENOR, OF GRANTWOOD, NEW JERSEY.

LIGHTING APPARATUS.

1,156,477. Specification of Letters Patent. Patented Oct. 12, 1915.

Application filed July 31, 1909. Serial No. 510,659.

To all whom it may concern:

Be it known that I, WILLIAM M. GROSVENOR, a citizen of the United States, and a resident of Grantwood, Bergen county, and State of New Jersey, have invented certain new and useful Improvements in Lighting Apparatus, of which the following is a specification.

The object of my invention, broadly, is to illuminate two or more adjacent rooms, spaces or compartments by a source of light located within the dividing wall or walls; and more specifically to illuminate such rooms, spaces or compartments by a source of light located within such wall or walls and so arranged that light rays may emanate through an opening to any room or be shut off therefrom at will without affecting the illumination of the other rooms or compartments, said openings being provided with artistically arranged windows such that the vision from one room to the other is obstructed.

Where the rooms and hallways of a house, ship or other structure are occasionally used during the evenings or at other times by people passing through the same, it is necessary to have them illuminated to some extent, and at present it is customary to do this by what are known as pilot lights placed in each room, which are of small candle power, or else lights are used which are capable of having their candle power varied. The use of a plurality of such lights gives an inartistic appearance and requires complicated wiring and frequent renewals, due to the low candle power of the lights which are operated on the usual circuits.

By the use of my invention, these lights may be done away with, and a single source of light may be used which may be located within the wall or at the juncture of two or more walls, and from which light rays may be emitted through openings into each of the adjoining rooms. These openings are preferably arranged with artistic windows, which not only give a pleasing appearance, but obstruct the view from one room to the other; shutters being provided for each window so that the light may be excluded from any room, when desired.

My invention will be best understood from the following description taken in connection with the accompanying drawings, in which—

Figure 1 is a horizontal-sectional plan view of two intersecting walls, having a lamp placed within a cavity formed at their intersection. Fig. 2 is a view taken on line 2—2 of Fig. 1.

Within the cylindrical cavity formed at the intersection of the walls is placed a cylindrical frame having top and bottom plates c which are provided with thickened portions having threaded openings, into which are screwed posts e, e', e^2, provided with right and left-handed screw-threads. These plates c protect the lamp from the dirt and particles of the wall which may fall upon it and preferably fit more or less closely the walls of the opening so as to form a frame upon which windows and facing pieces may be secured. By means of the right and left-handed threads on the posts e these plates may be adjusted vertically in order to release the frame from contact with the wall and facilitate its withdrawal through one of the openings therein. By making the frame and the openings higher, changing the shape of the plates, or otherwise modifying the details of construction, it can be made possible to remove the lamp-frame without disturbing the wall. Its attachment to the frames k k', etc., is only a matter of convenience for this stone construction as these pieces might be otherwise arranged. This particular form of adjustable frame within the cavity is, however, only one way of providing a suitable support and protection for the source of light within the cavity, and of making the support so that it can be loosened therein and removed through one of the openings in the wall. The lower plate is preferably provided with a threaded opening, into which an insulating nipple t is screwed, and through which pass the conductors p leading from the lamp m. Each of the plates c has an offset h cut in its circumference, between which window glasses g and shutters i are adapted to slide. The windows and shutters are held within these circumferential offset portions at each opening, preferably by means of an open frame k formed of copper, brass or oxidized metal fitting each opening. These frames are secured to the top and bottom plates by means of screws l and are preferably provided with side flanges k', which are bent so as to fit the wall and protect the same at the openings. These flanges also help to prevent rotation of the frame with respect to the walls.

The side walls of the frame consist of sheet metal parts *j* preferably located outside of the offset portions *h* of the upper and lower plates and extending between each of the frames *k*. These side walls *j* serve to protect the lamp from dust and dirt and have their inner surfaces polished so as to act as reflectors, and they also serve as guides for the shutters and window glasses *g*. In order to fill in the space between the upper and lower plates *c* and the wall, I provide a facing piece *q*, which may be of wood or metal of any desired shape or configuration to form a smooth joint and give a pleasing appearance and finish to the opening.

The window glasses *g* may be carried by a metallic frame *f*, of copper, brass or oxidized metal, and adapted to slide back and forth on the offset *h*, as stated, or they may be clamped rigidly between the offset portions with or without the frames *f*, while the shutters *i* may be arranged to slide back and forth on said offset portions in order to exclude the light or vary the illumination of any room.

While I have shown my invention as utilized in illuminating three rooms or compartments with rounded windows at the openings, it is obvious that it may be used to illuminate any number of adjoining rooms or to illuminate two rooms, one being above the other, or to illuminate upper and lower ships decks and two adjoining rooms, and that the openings into each room or compartment may be of any desired shape. Any suitable material may be used in the window frames, although I prefer to use a frosted or irregular surfaced glass, which will give a pleasing appearance, and at the same time exclude vision from one room to the other.

I have described my invention as being used in cases where a subdued light is desired in different rooms and compartments, either to enable one to find a switch to a lamp of higher candle power or to pass through a room or hallway, but it is obvious that my invention may be equally utilized where it is desired to brightly illumine two or more rooms, hallways or compartments by the use of a common source of light of high candle power.

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

1. The combination of a wall structure having two or more walls at an angle to one another separating three chambers or more and provided with a cavity having three or more openings into the respective chambers, a frame mounted in said cavity having three or more openings corresponding to those in the cavity, a source of light in said frame and cavity adapted to light all three of said chambers or more, closers for all of said openings in said frame adapted to permit the passage of light therethrough, and means whereby one of the closers may be slid back to permit of access to the source of light.

2. The combination of a wall structure separating two chambers or more and provided with a cavity having two or more openings into the respective chambers, a frame mounted in said cavity having two or more openings corresponding to those in the cavity, a source of light in said frame and cavity adapted to light the two of said chambers or more, closers for all of said openings in said frame adapted to permit the passage of light therethrough, and means whereby one of the closers may be slid back to permit of access to the source of light, one or more of said closers being translucent to exclude vision from one chamber to another.

3. The combination of a wall structure having two or more walls at an angle to one another separating three chambers or more and provided with a cavity having three or more openings into the respective chambers, a frame mounted in said cavity having three or more openings corresponding to those in the cavity, a source of light in said frame and cavity adapted to light all three of said chambers or more, and three closers or more, one for each of said openings in said frame adapted to permit the passage of light therethrough, one or more of said closers being translucent to exclude vision from one chamber to another.

4. The combination of a wall provided with a cavity having windows on both sides of said wall, a frame within said cavity having top and bottom members with curved extensions substantially fitting the walls of said windows and provided with guides for window glasses, a lamp within said frame, and curved window glasses for the windows slidably held within the guides between said top and bottom members.

5. The combination of a wall provided with a cavity having openings on both sides thereof, a frame within said cavity having top and bottom members adjustable toward and from each other and substantially fitting against the walls of said openings, a source of light within said frame, a frame fitting each window, a window glass for each opening held between said frame and said top and bottom members, a shutter for each window, and a facing piece between the wall and said top and bottom members.

6. The combination of a wall provided with a cavity having an opening, a lamp within said cavity for emitting light rays through said opening, a frame for said lamp having top and bottom plates provided with threaded holes, a plurality of posts having right and left-handed threads for engaging said holes, whereby the plates may be adjusted vertically, and a flanged frame secured to said plates and fitting against the side walls of said opening.

7. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin provided with windows opening on said rooms or halls, a lamp within said chamber or cavity for emitting light rays to said rooms or halls, window frames for said windows, closures for said windows permitting the passage of light rays therethrough, and sliding shutters for said windows located behind said window frames.

8. The combination of a wall structure having two or more walls at an angle to one another separating three chambers or more and provided with a cavity having three or more openings into the respective chambers, a frame mounted in said cavity having three or more openings corresponding to those in the cavity, a source of light in said frame and cavity adapted to light all three of said chambers or more, three closers or more, one for each of said openings in said frame adapted to permit the passage of light therethrough, one or more of said closers being translucent to exclude vision from one chamber to another, and shutters for said openings adapted to prevent the passage of light therethrough and to be slid back into the wall structure to permit the passage of light therethrough.

9. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin provided with windows opening on said rooms or halls, a lamp within said chamber or cavity for emitting light rays to said rooms or halls, a supporting frame also in said chamber or cavity, window frames for said windows, and closures for the windows supported by the supporting frames at the rear of the window frames.

10. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin and provided with openings on said rooms, a lamp within said chamber or cavity for emitting light rays to said rooms or halls, a supporting frame also in said chamber or cavity, parts of said frame projecting beyond said openings, closures for said openings supported by said projecting parts of the frames and permitting the passage of light rays therethrough to the different rooms, and facing pieces between the wall and said projecting parts of the supporting frame.

11. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin and provided with openings on said rooms, a lamp within said chamber or cavity for emitting light rays to said rooms or halls through said openings, a supporting frame also in said chamber or cavity, parts of said frame projecting beyond said openings, closures for said openings supported on said projecting parts of the frames and permitting the passage of light rays therethrough to the different rooms, and sliding shutters supported on the projecting parts of said frame for shutting off the light rays to the different rooms.

12. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin provided with openings on said rooms or halls, a frame in said chamber or cavity having upper and lower curved projections extending beyond the openings, a lamp within the cavity for emitting light rays to the different rooms or halls, and curved closures for the openings supported between said upper and lower curved extensions and permitting the passage of light rays therethrough to the different rooms or halls.

13. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin provided with windows opening on said rooms or halls, a frame in said chamber or cavity having upper and lower curved projections extending beyond the wall, a curved closure for the windows supported between said upper and lower curved extensions, a lamp within the chamber or cavity secured to said frame and emitting light rays to the different rooms through said windows, and facing pieces between the wall and said top and bottom projecting parts of the frame.

14. The combination of a wall dividing two or more rooms or halls, said wall having a chamber or cavity formed therewithin and provided with openings on said rooms, a frame within said chamber or cavity having upper and lower parts extending to the openings, a lamp secured to the frame within said chamber or cavity for emitting light rays through the openings to the different rooms, closures for the openings supported between the upper and lower frame members for permitting the passage of light rays, and sliding shutters also supported between said upper and lower frame members for shutting off the light to said rooms.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM M. GROSVENOR.

Witnesses:
EDWIN SEGER,
SAMUEL M. WARD, JR.