

H. E. MEYERS.
DOUBLE FILAMENT INCANDESCENT LAMP.
APPLICATION FILED MAR. 31, 1906.

932,405.

Patented Aug. 24, 1909.

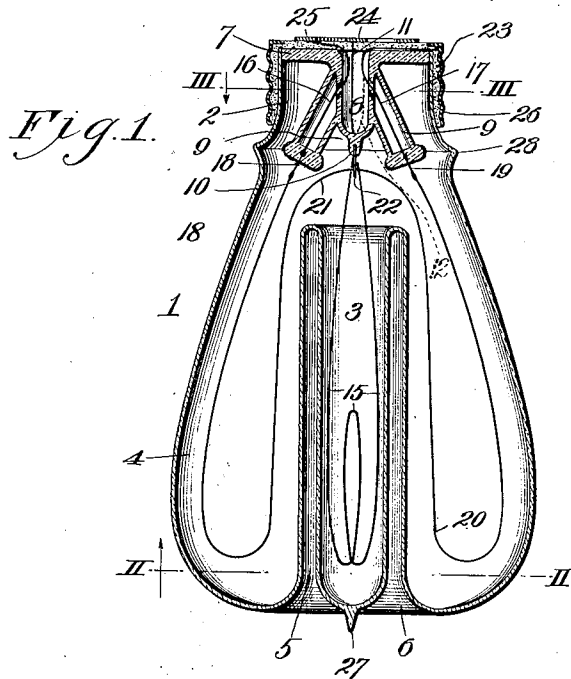


Fig. 2.

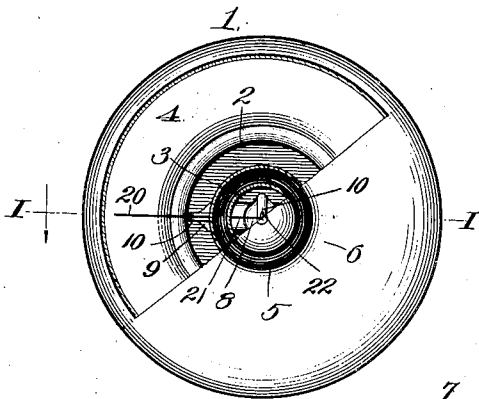
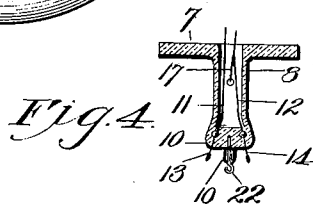
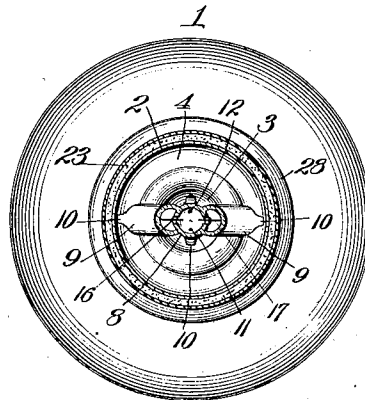


Fig. 3.



Witnesses:

H. C. Rodgers.
Fred V. Griffith

Inventor
H. E. Meyers

By George H. Hoff *att'y.*

UNITED STATES PATENT OFFICE.

HENRY E. MEYERS, OF DENVER, COLORADO, ASSIGNOR OF ONE-FOURTH TO GUSTAV SCHRAGE
AND ONE-FOURTH TO W. E. TALLMADGE, OF SHEBOYGAN, WISCONSIN.

DOUBLE-FILAMENT INCANDESCENT LAMP.

932,405.

Specification of Letters Patent. Patented Aug. 24, 1909.

Application filed March 31, 1906. Serial No. 309,083.

To all whom it may concern:

Be it known that I, HENRY E. MEYERS, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Double-Filament Incandescent Lamps, of which the following is a specification.

This invention relates to double-filament incandescent lamps, and my object is to produce a lamp of this character having a globe provided with a plurality of communicating chambers, a filament for each chamber, and a single seal.

A further object is to produce a globe of the character named having a tubular stem, a central chamber communicating therewith at one end and an outer chamber also communicating with said stem at one end and surrounding and spaced from the first-named chamber.

A still further object is to produce a globe having an annular exterior rib or bead contiguous to and of greater diameter than the threaded collar of the lamp for the purpose of preventing water from flowing along the globe and into the lamp socket.

With these and other objects in view as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

Figure 1, represents a central vertical section of an incandescent lamp embodying my invention, the section being taken on the line I—I of Fig. 2. Fig. 2, is a tip end view of the lamp with half of the globe shown in section on the line II—II of Fig. 1. Fig. 3, is a section taken on the line III—III of Fig. 1. Fig. 4, is a detail central section of the lamp taken at right angles to the section shown in Fig. 1.

In the said drawing, a globe 1, comprises an annular body portion, a tubular stem portion 2 and a hollow cylindrical portion disposed longitudinally of the body portion and forming a central chamber 3; said chamber and chamber 4 of the body portion communicating with each other and with the passage

of the tubular stem at their ends adjacent to the latter, the opposite ends of both chambers 3 and 4 being closed. The inner wall of the annular chamber 4 is preferably spaced from the wall of chamber 3 to provide between them the annular opening or pocket 5 open to the atmosphere at the tip end of the lamp, the open end of said space or pocket having a flaring or funnel mouth 6 in order to facilitate the deposit therein of a liquid or other substance when the lamp is so disposed that said substance will retain its position by gravity.

7 indicates a mount for the neck end of the globe, said mount being provided with a stem which consists preferably of a central tube 8 and two side tubes 9, the side tubes being preferably disposed at diametrically opposite sides of and projecting farther into the globe than the central tube. The side tubes communicate at their base ends with the central tube by preference, and the opposite ends of all of the tubes are sealed in the usual manner as at 10, the sealing tip of the central tube being disposed preferably at right angles to the sealing tips of the side tubes, as shown.

11 and 12 indicate conductors of copper or other suitable material extending through the central tube and secured in the tip thereof to platinum pieces 13 and 14 respectively, and secured to said platinum pieces are the opposite ends of the filament 15 which occupies the central chamber of the globe.

16 and 17 indicate copper or equivalent conductors extending through the side tubes, and, by preference at one end into the central tube, the opposite ends of the conductors being secured in the usual manner to platinum pieces 18 19, which form supports for the opposite ends of the filament 20, said filament being of substantially W-shape when viewed from the side and occupying the outer chamber of the globe, at opposite sides of the inner chamber by preference, the said opposite portions of said filament having a connecting portion 21 in the form of an arch bridging the central chamber and secured about midway its length to an anchor 22 projecting from the tip 10 of the central tube. One of the conductors, con-

ductor 17 as shown, is connected to one of the conductors, 12 as shown, of the central tube.

The mount is sealed in the neck end of the globe by the usual or any preferred method and said end of the globe and mount is incased in cement 23 provided with a central contact 24, and a surrounding contact ring 25, the conductor 11 of the central tube being electrically connected to contact 24 and conductor 16 to the contact ring 25. The lamp is also provided with the usual threaded collar 26 with which is electrically connected the conductors 12 and 17, the connections being as shown or made in any other suitable or preferred manner. The distance between the most remote surfaces of the tubes 9 must be slightly less than the diameter of the neck at its smallest point in order that the tubes may be fitted into the lamp after being equipped with the filaments, the seal being then formed or completed in the usual manner so as to make it an integral part of the globe. After the globe is sealed the air is exhausted at any suitable point, preferably at the tip of the central chamber so that the projection 27 formed by closing the exhaust aperture shall be at the point least objectionable from the esthetic point of view.

In the formation of the globe the wall of the central chamber will preferably be of colored glass though in some cases it may be preferable to form it of clear glass. If formed of clear glass it can be readily colored by dipping it into proper solutions and then if it is desired to change the color the original color can be cut off by dipping the central portion of the globe in wood alcohol. Again the wall of the central chamber can be incased in thin colored paper or a cloth fabric of the desired color or combinations of color. Again if the lamp stands upon its base a colored liquid can be poured into the opening or space surrounding the central chamber, or a colored crystal substance could be disposed therein. Of course the wall of the surrounding chamber could also be formed of colored glass or colored in any suitable manner.

The lamp is adapted to be used as a flash light lamp, that is to say, suitable means are employed to send the current through the filaments alternately. This action of course gives a clear and a colored light alternately, provided the inner wall of the central chamber is colored. Where the lamp is arranged horizontally or with its tip end above its base and is exposed to inclement weather, water collecting on the globe will run toward the base end of the lamp and out upon the rib or bead 28 and will drop from the latter without entering the socket, not shown, and thus avoid short-circuiting the lamp.

The circuit through the filament 15 is as follows: through the contact 24, conductor 11, conductor 13, filament 15, conductor 14, conductor 12, and conductor 17 to collar 26. The circuit through filament 20 is through contact ring 25, conductor 16, conductor 18, filament 20 and conductor 17 to collar 26.

From the above description it will be apparent that I have produced an incandescent lamp of the character outlined possessing the features of advantage enumerated as desirable in the statement of the object of invention and I wish it to be understood that I do not desire to be limited to the exact construction shown and described as various modifications may be made in the form, proportion detail construction and arrangement of the parts without departing from the spirit and scope of the invention.

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

1. A globe having a central chamber and a communicating surrounding chamber, and a filament in each chamber, the filament of the surrounding chamber bridging the central chamber.

2. A globe having a central chamber and a communicating surrounding chamber, a filament in each chamber, the filament of the surrounding chamber bridging the central chamber, and a mount sealed in the globe and common to both chambers thereof and forming a support for both filaments.

3. A globe having a central chamber and a communicating surrounding chamber, a filament in each chamber, the filament of the surrounding chamber bridging the central chamber, a mount sealed in the globe and common to both chambers thereof and forming a support for both filaments, and an anchor carried by the mount for the bridging portion of the filament of the outer or surrounding chamber.

4. A globe having a tubular neck and a hollow body - portion projecting from one end of and communicating with said tubular neck, and provided at its opposite end with a longitudinally extending chamber, and with a cylindrical hollow portion arranged within said chamber and communicating with the hollow body-portion at one end and closed at its opposite end.

5. A globe having a tubular neck and a hollow body - portion projecting from one end of and communicating with said tubular neck, and provided at its opposite end with a longitudinally extending chamber, and with a cylindrical hollow portion arranged within said chamber and communicating with the hollow body-portion at one end and closed at its opposite end, in combination with a mount sealed in said tubular neck and

equipped with a pair of filaments, one of said filaments projecting into the hollow body-portion and the other into the cylindrical hollow portion.

- 5 6. A mount for incandescent lamp globes, having a central stem and a pair of side stems, a filament carried by the central stem, and a filament having its opposite ends con-

nected to the side stems; said last-named filament being anchored to the central stem. 10

In testimony whereof I affix my signature, in the presence of two witnesses.

HENRY E. MEYERS.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.