Sept. 25, 1923. 1,469,034

R. B. BENJAMIN

ELECTRIC LIGHTING DEVICE

Filed Dec. 19, 1919

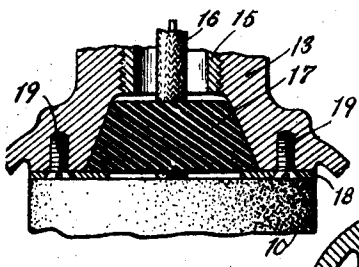


Fig. 3.

Fig. 1.

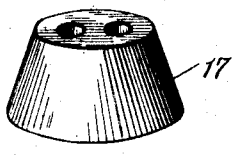


Fig. 2.

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UNITED STATES PATENT OFFICE.

REUBEN B. BENJAMIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO BENJAM ELECTRIC MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ELECTRIC-LIGHTING DEVICE.

Application filed December 19, 1919. Serial No. 346,029.

To all whom it may concern:

Be it known that I, REUBEN B. BENJAMIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Electric-Lighting Devices, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to electric lighting devices and more specifically to those which are designed for use where they are exposed to the action of vapors, acids and the like.

One of the objects of my invention is to provide an improved lighting device which will be suitable for use where it is exposed to the attack of vapors, acids and so forth and which device will be simple in construction, cheap to manufacture and durable and efficient in use.

Another object of this invention is to provide means for preventing fumes and the like getting into the conduit line when the globe of a lighting unit is accidentally broken.

In the drawings in which one embodiment of my invention is shown—

Fig. 1 is a vertical sectional view showing a lighting device;

Fig. 2 is a detail perspective view of a conical packing member; and

Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

The construction shown comprises in general a lamp socket 10, a lamp 11 supported in the socket 10, a globe 12 enclosing the lamp 11 and a holder or supporting member 13 which supports the socket 10 and the globe 12 and together with the globe 12 forms a moisture-proof and vapor-proof enclosure for the socket 10 and associated parts.

The socket 10 is secured to the holder 13 by means of a pair of screws 14 which extend through openings in the insulating base of the socket 10 and are threaded into the holder 13. The holder may be screwed on to the threaded end of the conduit 15 in which the feed wires 16 are enclosed, the threaded connection between the holder 13 and the conduit 15 being moisture and vapor-proof and the conduit itself being of some acid resisting material such as lead. To further insure against the entrance of vapor, moisture and so forth into the interior, a conical packing member 17 is provided through which the conductors 16 pass, this packing member being of rubber or other suitable material and being seated in a conical recess in the holder 13.

Should the globe 12 be accidentally broken and the socket 10 damaged, ordinarily vapors, moisture, etc., will get past the same and penetrate into the conduit system. This packing member 17, therefore, further insures against the entrance of the vapors, moisture, etc., into the conduit system which includes besides the conduit 15, a system of outlet boxes, switch boxes, and other elements.

For holding the conical packing member 17 in place and forcing it tightly into the conical recess in which it is seated, an annular washer 18 is provided which bears against the packing member 17 and is secured to the holder 13 by means of a pair of screws 19 (Fig. 3).

To insure a vapor-proof and acid-proof connection between the holder 13 and the globe 12, an annular packing member or washer 20 is placed therebetween, the holder 13 being provided with an internally threaded skirt portion 21 in which the neck of the globe screws as shown in Fig. 1.

The holder 13 may be of any suitable metal or alloy best suited to resist the particular chemical action to which it may be exposed, such as zinc or an alloy of tin, lead and so forth.

The entire construction is such that there is no exposed part which is of a material which can be readily attacked by the vapors or acids to which it is exposed. The packing members 17 and 20 prevent moisture, vapor and acids from getting into the interior of the construction.

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

1. A gas-tight lighting device comprising a socket, a socket holder having a passage therethrough for the feed wires for said socket, a yielding packing in the feed wire passage, and means secured to said holder for forcing said packing into gas-tight contact with the feed wires and said holder, said means forming a seat for said socket.

2. A gas-tight lighting device comprising a holder having a passage for feed wires, a

packing in said passage arranged to form a gas-tight connection around the wires and with said holder, a lamp socket, a supporting means for said packing forming a seat for said socket, and means for removably attaching said socket without disturbing said gas-tight connection.

3. A lighting device comprising a lamp socket, a socket holder having a passage therethrough for the feed wires for said socket, a yielding gas-tight packing in said feed wire passage, and an annular member bearing on said yielding packing for forcing said packing into gas-tight contact with said feed wires and holder, said annular member forming a seat for said socket.

In witness whereof, I have hereunto subscribed my name.

REUBEN B. BENJAMIN.