(No Model.)

J. V. NICHOLS.

ELECTRIC LAMP.

No. 263,801. Patented Sept. 5, 1882.

Fig. 1.

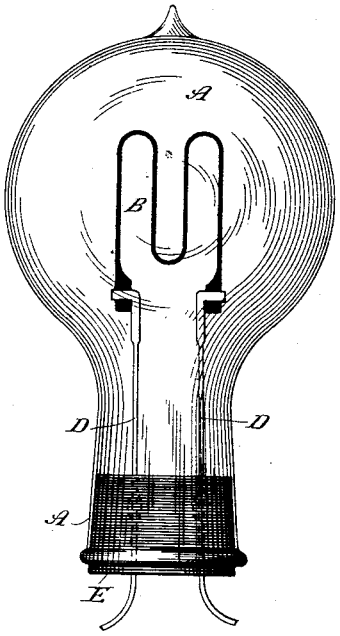


Fig. 2.

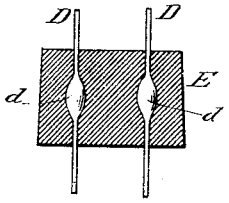
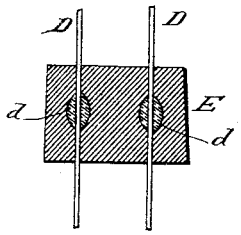


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH V. NICHOLS, OF BROOKLYN, ASSIGNOR TO THE UNITED STATES ELECTRIC LIGHTING COMPANY, OF NEW YORK, N. Y.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 263,801, dated September 5, 1882.

Application filed February 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH V. NICHOLS, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Electric Lamps, of which the following is a specification.

My invention consists in an incandescent electric lamp involving in its construction an open neck, a plug or stopper, and metal conductors passing through the same, and arranged for the support of a conductor of carbon.

The main object of the invention is to produce a lamp in which the carbon may be readily and cheaply renewed when destroyed, for which purpose I employ a plug or stopper, of rubber or similar material, through which the metal conductors are drawn, as hereinafter described, and form the globe with an open neck adapted for the reception of the said plug.

In the drawings, Figure 1 represents in elevation a lamp constructed according to my invention. Fig. 2 is a sectional view of the plug, illustrating the method of securing the metal conductors therein; Fig. 3, a modified form of conductor.

The globe A is formed with an open and slightly-flaring neck, A′, for which is prepared a plug or stopper of hard rubber or similar material, E. This latter is perforated for the reception of the conductors D, which are to be passed through it. In order to secure a tight joint between the conductors and the plug, the conductors are formed with a shoulder or enlargement, as shown in Fig. 3, or small adherent beads of glass or vitreous cement, *d d*, are applied to them. The ends of the conductors are then forced through the perforations and the enlargements or beads drawn up into the stopper, as shown. The carbon B is then attached to the ends of the wires D in the usual manner and the plug inserted in the open neck.

The lamp is exhausted through the sealing-tube. As the air is withdrawn the atmospheric pressure forces the plug tightly into the neck A′ and clamps, as it were, the substance of the plug around the wires D, and the enlargements or beads secured thereon. This prevents any displacement of the wires and insures a tight joint.

When by use the carbon becomes worn out the tip of the sealing-tube may be broken and air admitted into the globe. The plug may then be withdrawn, the globe cleaned, in case a deposit has been formed on its inner surface, and a new carbon inserted.

Lamps thus constructed I have found to be both durable and efficient, and are made at a greatly reduced cost.

I am aware that rubber plugs have been employed with incandescent lamps, and this, therefore, I do not claim broadly; but

What I claim is—

1. The combination of an exhausted globe or receiver, a stopper of rubber or similar material, and metallic supporting-conductors having enlargements, as described, and passing through the stopper, substantially as set forth.

2. The combination of an exhausted globe or receiver, a stopper of rubber or similar material, and metallic supporting-conductors having adherent beads of vitreous material, as described, and passing through the stopper, substantially as set forth.

In testimony whereof I have hereunto set my hand this 30th day of January, 1882.

JOSEPH V. NICHOLS.

Witnesses:

PARKER W. PAGE,

W. FRISBY.