S. B. PAINE.

SHOCK ABSORBING ROSETTE.

APPLICATION FILED FEB. 11, 1910.

1,022,797. Patented Apr. 9, 1912.

Fig. 1.

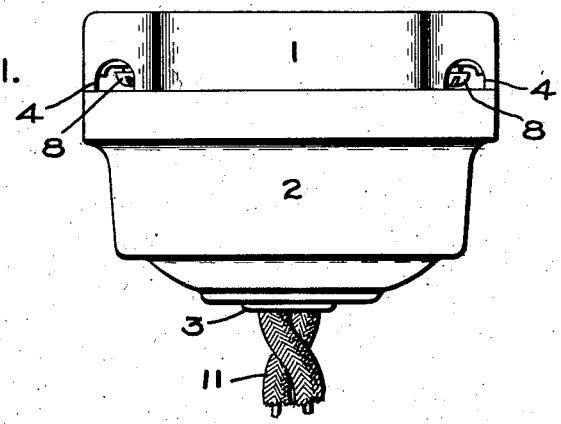


Fig. 2.

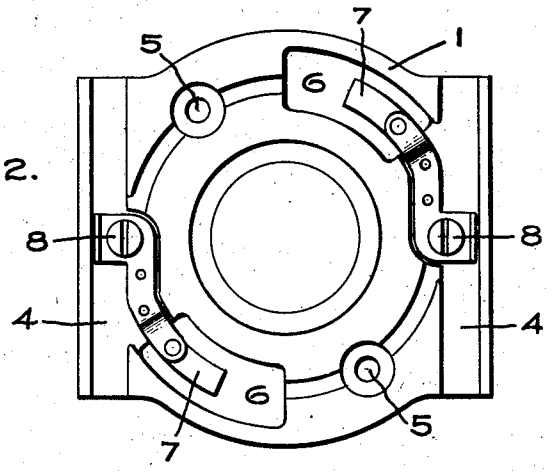
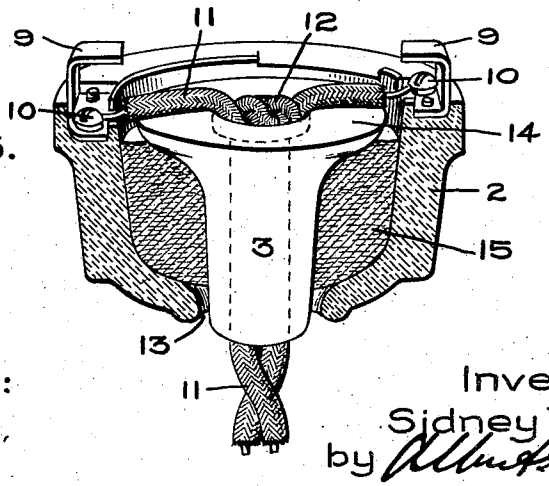


Fig. 3.



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UNITED STATES PATENT OFFICE.

SIDNEY B. PAINE, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

SHOCK-ABSORBING ROSETTE.

1,022,797. Specification of Letters Patent. Patented Apr. 9, 1912.

Application filed February 11, 1910. Serial No. 543,307.

To all whom it may concern:

Be it known that I, SIDNEY B. PAINE, a citizen of the United States, residing at Newton, county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Shock-Absorbing Rosettes, of which the following is a specification.

This invention relates to electric incandescent lamps, and especially to those having delicate or fragile filaments which are liable to be broken by a sudden jar or by constant vibration. It is well known that in mills, moving vehicles and many other situations, incandescent lamps are short-lived because of the constant vibrations and jars to which their supports are subjected. Carbon filaments last fairly well, but the more modern high-powered lamps have filaments made of refractory metals, such as tungsten, which are extremely brittle and liable to fracture. Hence when such lamps are used in mills, or railway cars, or in any situation where vibration occurs, provision must be made for absorbing such vibration to prevent early destruction of the lamp filaments.

Heretofore, anti-vibration devices for incandescent lamps have depended upon metallic springs, but it is found that they do not work well with tungsten and similar fragile filaments, owing to their high elasticity and their tendency to transmit vibrations along their length.

The object of my invention is to avoid these troubles and provide a rosette wherein a cushion of comparatively inert or sluggishly elastic material is used so that lamps suspended thereby from the ceilings of mills will not be affected by the vibrations due to the machinery.

To this end my invention consists in a rosette having a chamber in which is contained a wad or bunch of some slightly elastic material, preferably felt; though cloth, cotton, wool, asbestos or other fibrous material may be used if desired. Passing centrally through this wad of felt is a tubular plug having a tapering flange or head at its upper end. The lamp cord is knotted above this head, and runs down through the plug, so that the weight of the lamp is supported by the flange or head resting on the felt cushion, which absorbs all vibrations and protects the lamp filaments from breakage.

In the accompanying drawing, Figure 1 is a side elevation of a fuseless rosette embodying my invention; Fig. 2 is a plan view of the under side of the base; and Fig. 3 is a sectional perspective view of the body of the rosette.

The rosette may be either fuseless or fused, as desired. The base 1, body 2, and plug 3 are made of molded insulating material, such as porcelain. The base is a flat slab, having grooves 4 for the passage of the line wires, and holes 5 for the screws by which it is fastened to a ceiling or other support. It also has recesses 6 over which project the metallic catches 7, whose other ends intersect the grooves 4, and have binding screws 8 by which the line wires are connected to said catches.

Seated in recesses in the upper end of the hollow body 2 are metallic hooks 9 which are adapted to enter the recesses 6 and engage with the catches 7 by a bayonet-joint movement. The hooks have binding screws 10 for the ends of the flexible lamp cord 11 which is cut into circuit with the line wires when the hooks engage the catches.

A knot 12 in the cord rests in a countersink in the top of a tubular plug 3 which extends down through the opening 13 at the bottom of the body 2; the cord being rove through said plug. At the upper end of the plug is a flange or head 14, whose outer surface is tapering, as shown.

Filling the space between the plug and the walls of the body 2 is a wad or cushion 15 of fibrous material, preferably felt. It supports the tapered head of the plug, so that the weight of the lamp at the end of the cord is sustained by said cushion. The tapered head prevents the plug from being pulled down through the cushion. It also gives a more extended bearing surface on the felt than a plain flange would do, and exerts its pressure laterally as well as vertically, thus obtaining a better cushioning effect.

The felt is slightly elastic but not enough so to oscillate when pressure is relieved, so that it effectually damps all vibrations imparted to it and prevents any injury to the most fragile filament.

I do not desire to restrict myself to the particular form or arrangement of parts herein shown and described, since it is apparent that they may be changed and modified without departing from my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. A shock-absorber for incandescent electric lamps, comprising an insulating body having an aperture, a vibration absorbing cushion supported on said body, and a block supported on said cushion and provided with a central aperture.

2. A shock-absorbing rosette for incandescent electric lamps, comprising a flanged tubular plug and a vibration absorbing cushion of fibrous material supporting said plug.

3. A shock-absorbing rosette for incandescent electric lamps, comprising a tubular plug having a tapering flange and a vibration absorbing cushion of fibrous material supporting said plug.

4. A shock-absorbing rosette for incandescent electric lamps, comprising a flanged tubular plug having a countersink in its upper end, and a vibration absorbing cushion of felt between said plug and the body of said rosette.

5. The combination with a base for a rosette, of a hollow body secured thereto, a flanged tubular plug inside said body and extending down through an opening in the bottom thereof, a vibration absorbing cushion of felt between said plug and said body, and a lamp cord knotted above said plug and rove through the same.

6. An improvement in electric rosettes, comprising a cap provided with an internal recess, and a vibration absorbing cushion of insulating material in said recess, said cushion being provided with an opening for the passage of an electric cable, and a washer of insulating material by which said cable is supported.

7. An improvement in electric rosettes comprising a cap provided with an internal recess, and a vibration absorbing cushion of yielding fibrous material in said recess and provided with an opening for the passage of an electric cable, and a washer of insulating material by which said cable is supported.

In witness whereof, I have hereunto set my hand this 28th day of January, 1910.

SIDNEY B. PAINE.

Witnesses:

KATHERINE WILLIAMSON,

EMIL A. UNTERSEE.