April 26, 1927. 1,626,108

P. VAN BOMMEL

SHOCK ABSORBING SOCKET FOR ELECTRIC FILAMENT LAMPS

Filed March 15, 1923

Fig. 1.

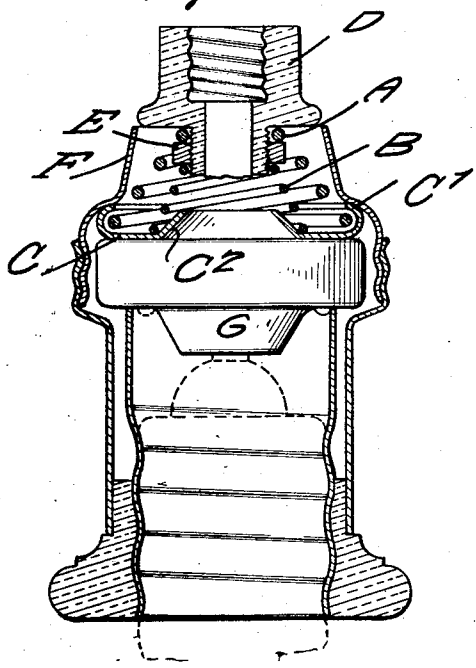


Fig. 2.

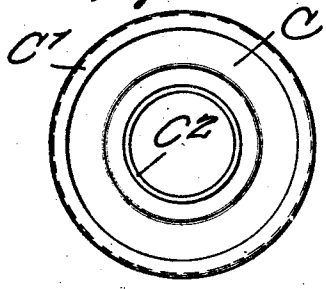


Fig. 4.

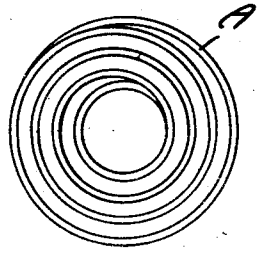


Fig. 5.

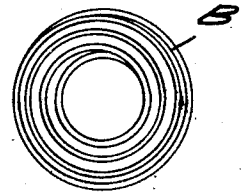


Fig. 7.

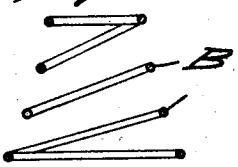


Fig. 3.

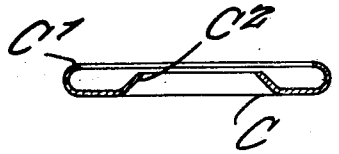
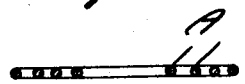


Fig. 6.



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UNITED STATES PATENT OFFICE.

PIERRE VAN BOMMEL, OF ANTWERP, BELGIUM.

SHOCK-ABSORBING SOCKET FOR ELECTRIC FILAMENT LAMPS.

Application filed March 15, 1923, Serial No. 625,334, and in Belgium March 22, 1922.

This invention relates to sockets for electric lamps and has for its object to completely absorb the shocks; so that the filament of the lamps will not break, thus permitting the use of lamps with metallic filament in railway and tramway carriages, and in all the plants where the lamps are exposed to shocks and vibrations.

The invention consists of sockets, the securing portion of which is movable. These sockets are adapted to be mounted on brackets or other supports, furthermore to walls and ceilings. Such sockets can be applied at once to any existing installations without it being necessary to make any modification, that is to say: said sockets can be substituted for the ordinarily used sockets.

The accompanying drawings show by way of example, one form of execution of the socket according to this invention.

Fig. 1 is a vertical section through the axis of the socket.

Figs. 2 to 4 show, in plan view and section respectively, the principal parts of the sockets.

According to the present invention, the cap G of the socket is elastically connected to its nipple or connection D, by means of two springs, one of which acts by compression, the other by expansion, in order to immediately absorb the oscillations and to stop same, when the socket is being oscillated by shocks, which does not occur with the device heretofore used which on the contrary allows of prolongated oscillations.

The socket G, according to this invention, carries at its upper part, a thin metal plate C with flange C′ and is connected to the nipple or connection D by means of the flat spiral spring A and by the cylindrical spring B, also spirally coiled (see Figs. 3 and 4).

The spring A is, on its outer periphery stamped into the flange C′ of the plate C; it is then extended and its central end is secured to the nipple D by nut E, as shown in Fig. 1. The spring B is placed centrally of the spring A and is maintained, at its lower part, by the raised portion C^2 of the plate C and, at its upper end, around the threaded part of the nipple D. F indicates the cap of an appropriate form, covering both the springs A and B, but remaining disengaged from the nipple D in order not to impede the movement of the springs.

The dimensions and forms of said springs are combined so that they may balance each other, which has for effect to absorb very quickly the vibrations caused by the shocks.

The sockets of this type which are only 2 to 3 mm. longer than the ordinary sockets, can be mounted as all other sockets.

The drawing illustrates only the application to the Edison socket, but the invention may be applied to all existing types of sockets, wall sockets, etc.

Claims:

1. A shock absorbing socket having a nipple and a socket proper, an extension spring secured to the socket in coil form and terminally connected to the nipple and to the socket proper, and a compression spring in coil form and bearing between the socket and nipple proper, the tensions of these respective springs in their effect on the nipple and socket proper being in opposition and balanced under normal conditions.

2. A shock absorbing socket having a nipple and a socket proper, an extension spring secured to the socket in coil form and terminally connected to the nipple and to the socket proper, and a compression spring housed within the extension spring in coil form and bearing between the socket and nipple proper, the tensions of these respective springs in their effect on the nipple and socket proper being in opposition and balanced under normal conditions.

3. A shock absorbing socket including a nipple having a threaded extension, a socket proper, a plate secured to the upper end of the socket proper, an extension spring having one terminal secured to the plate and the opposite terminal secured to the threaded extension of the nipple, and a compression spring housed within the extension spring and bearing at one end against the plate and at the opposite end against the threaded extension, and a cover plate for said springs carried by the socket proper and loosely receiving the nipple.

In testimony whereof I have signed my name to this specification.

PIERRE VAN BOMMEL.