S. B. VAN RANST.

INCANDESCENT ELECTRIC LAMP SOCKET.

APPLICATION FILED OCT. 5, 1910.

979,608. Patented Dec. 27, 1910.

Fig. 2.

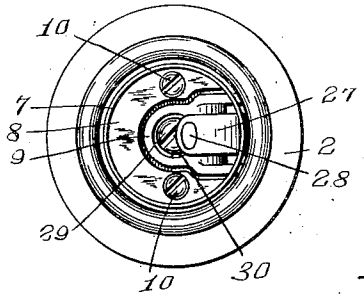


Fig. 3.

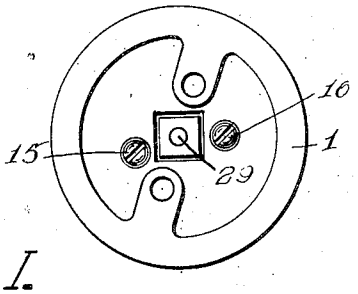


Fig. 1.

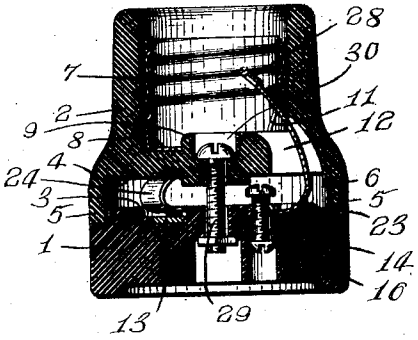


Fig. 6.

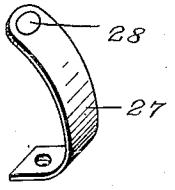


Fig. 7.

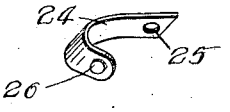


Fig. 4.

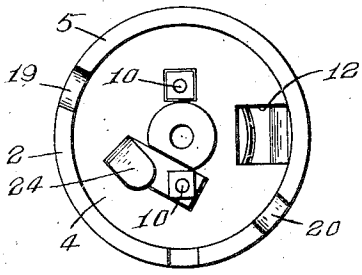
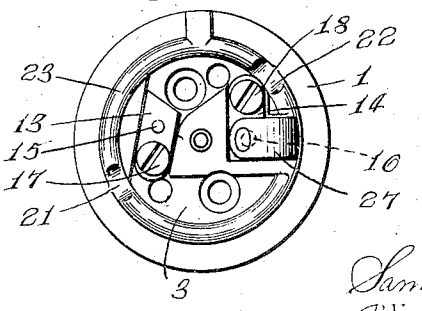


Fig. 5.



WITNESSES:

Chas. H. Young.

J. B. Smith.

INVENTOR.

Samuel B. Van Ranst

BY

Parsons Hall & Bodell

ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL B. VAN RANST, OF SYRACUSE, NEW YORK, ASSIGNOR TO CROUSE-HINDS COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

INCANDESCENT-ELECTRIC-LAMP SOCKET.

979,608. Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed October 5, 1910. Serial No. 585,468.

To all whom it may concern:

Be it known that I, SAMUEL B. VAN RANST, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Incandescent-Electric-Lamp Socket, of which the following is a specification.

My invention has for its object the production of a particularly simple and efficient socket, especially applicable for supporting incandescent electric lamps in places where there is vibration: and it consists in the combinations and constructions hereinafter set forth and claimed.

In describing this invention reference is had to the accompanying drawing in which like characters designate corresponding parts in all the views.

Figure 1 is a longitudinal sectional view of my lamp socket. Figs. 2 and 3 are, respectively, a top plan and an inverted plan thereof. Fig. 4 is an inverted plan of the receptacle. Fig. 5 is a plan of the base. Figs. 6 and 7 are, respectively, detail views of the spring conductors of the socket.

1 and 2 are, respectively, a base and a receptacle mounted on the base, said elements being formed of insulation and having opposing surfaces 3, 4, and one of said elements as the receptacle 2 having a marginal annular flange 5 projecting toward the other element and together with said opposing surfaces 3, 4 confining a chamber 6.

7 is a terminal for engaging one of the terminals of a lamp, the terminal 7 being the usual screw threaded sleeve having a flange 8 at its bottom which engages a ledge or other surface at the bottom of the receptacle and extends around a central boss or projection 9 at the center of the receptacle. The sleeve terminal is held in position by screws or bolts 10 extending through the bottom of the receptacle and into the chamber 6. Said sleeve terminal is also provided with a suitable opening 11 in one side thereof for the other terminal, to be described, for engaging the central terminal of the lamp, the opening 11 registering with a passage 12 extending through the bottom of the receptacle and communicating with the chamber 6.

13 and 14 are terminals mounted on the surface 3 of the base within the chamber 6 and on opposite sides of the axis of the socket, said terminals 13, 14 being held to the base by screws or bolts 15, 16 and being provided with binding screws 17, 18 by means of which the line wires are connected to said terminals 13 and 14. The wires are admitted to the chamber 6 through cutouts 19, 20 formed in the annular flange 5 and through other cutouts 21, 22 alined with the former cutouts and formed in a bead 23 rising from the surface 3 of the base. Usually said terminals 13, 14 are countersunk in the upper surface 3 of the base.

24 is a spring conductor located within the chamber 6 between said opposing surfaces 3, 4 of the base and the receptacle, said conductor 24 being electrically connected to the sleeve terminal 7 and to one of the wire terminals as the terminal 13 on the base and being usually fixed to one of such terminals and frictionally engaged with the other. As here shown, the spring conductor 24 is in the form of a loop (Fig. 7) having one arm longer than the other and provided with an opening 25 in its longer arm which receives one of the screws 10 which hold the sleeve terminal in position. The shorter arm frictionally engages its contact point 26 with the wire terminal 13.

27 is a spring conductor electrically connected to the terminal 14 on the base and extending upwardly through the opening 12 of the receptacle and the opening 11 in the sleeve terminal 7 into said sleeve terminal, and carrying a terminal 28 at its end for engaging the central terminal of the lamp and making electrical contact therewith when the lamp is but part way in the socket. As here shown, this conductor 27 is a spring arm fixed at one end directly to the terminal 14 on the base.

29 is a fastening member as a screw or bolt for holding the base and receptacle together, said member being located centrally of the socket and extending through the boss 9 and having its head arranged in a recess 30 in said boss 9 so as to be at all times insulated from any of the conductors of the lamp.

This lamp socket is particularly advantageous in places where there is excessive vibration and is especially applicable for head lights, as owing to the spring conductors, electrical connection is maintained when there is any looseness of the parts as when the central screw turns loose or the lamp turns gradually out of the socket.

What I claim, is:

1. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, a terminal for connection with a line wire mounted on the base, a spring conductor between the opposing surfaces and electrically connected to the terminal in the receptacle and to the wire-terminal, and a clamping member for drawing said elements together and compressing the spring conductor, substantially as and for the purpose described.

2. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, a terminal for connection with a line wire mounted on the base, a spring conductor between the opposing surfaces and electrically connected to the terminal in the receptacle and to the wire-terminal, and being secured to one of said terminals and frictionally engaging the other, and a clamping member for drawing said elements together and compressing the spring conductor, substantially as and for the purpose specified.

3. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, a terminal for connection with a line wire mounted on the base, a spring conductor between the opposing surfaces and electrically connected to the terminal in the receptacle and to the wire terminal, and a clamping member arranged centrally of the socket for drawing said elements together and compressing the spring conductor, substantially as and for the purpose set forth.

4. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, a terminal for connection with a line wire mounted on the base, a spring conductor between the opposing surfaces and electrically connected to the terminal in the receptacle and to the wire-terminal, a terminal for engaging the other terminal of the lamp, and an insulated clamping member arranged centrally of the lamp for drawing said elements together and compressing the spring conductor, substantially as and for the purpose described.

5. An electric lamp socket having a terminal for engaging one terminal of a lamp, and a spring conductor extending into the lamp receptacle of the socket and having a terminal at its free end arranged to engage the other terminal of the lamp when the lamp is part way in the socket, substantially as and for the purpose specified.

6. An electric lamp socket having a terminal for engaging one of the terminals of a lamp, and a spring arm fixed at one end and extending into the lamp receptacle of the socket and having its free end projecting into the receptacle in position to be engaged by one of the terminals of the lamp when the lamp is part way in the socket, substantially as and for the purpose set forth.

7. An electric lamp socket comprising a sleeve terminal for engaging the outer terminal of a lamp, and a spring arm fixed at one end outside of the sleeve terminal and extending into the same, and having its free end arranged to engage the inner terminal of the lamp when the lamp is part way in the socket, substantially as and for the purpose described.

8. An electric lamp socket comprising a base and a receptacle mounted on the base, a sleeve terminal within the receptacle for engaging the outer terminal of a lamp, a central terminal for engaging the inner terminal of the lamp, and a spring conductor supporting the central terminal and fixed to the base and projecting into the sleeve terminal for holding the central terminal in position to be engaged by the inner terminal of the lamp when the lamp is part way in the socket, substantially as and for the purpose specified.

9. An electric lamp socket comprising a base and a receptacle, the receptacle supporting a sleeve terminal for engaging the outer terminal of a lamp, a central terminal for engaging the inner terminal of the lamp, and a spring conductor supporting the central terminal and consisting of an arm fixed at one end to the base and having its free end projecting through the receptacle into the sleeve terminal and holding the central terminal in position to engage the inner terminal of the lamp when the lamp is part way in the socket, substantially as and for the purpose set forth.

10. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, terminals mounted on the base for connection with the line wires, a spring conductor between said opposing surfaces and electrically connected to the first-mentioned terminal and one of the terminals on the base and being fixed to one of the terminals it connects and frictionally engaged with the other of said terminals, a spring arm electrically connected to the other wire-terminal on the base and extending into the receptacle and provided with a terminal at its free end for engaging the other terminal

of the lamp, and clamping means for drawing said elements together and compressing the first-mentioned spring conductor, substantially as and for the purpose set forth.

11. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, terminals mounted on the base for connection with the line wires, a spring conductor between said opposing surfaces and electrically connected to the first-mentioned terminal and one of the wire-terminals on the base and being fixed to one of the terminals it connects and frictionally engaged with the other of said terminals, a spring arm having one end fixed to the other wire-terminal on the base and its free end extending into the receptacle and provided with a terminal for engaging the other terminal of the lamp, and clamping means for drawing said elements together and compressing the spring conductor, substantially as and for the purpose specified.

12. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces, a terminal within the receptacle for engaging one of the terminals of a lamp, terminals mounted on the base for connection with the line wires, a spring conductor between said opposing surfaces and electrically connected to the first-mentioned terminal and one of the wire-terminals on the base and being fixed to one of the terminals it connects and frictionally engaged with the other of said terminals, a spring arm having one end fixed to the other wire-terminal on the base and its free end extending into the receptacle and provided with a terminal for engaging the other terminal of the lamp, and an insulated clamping member arranged centrally of the socket for drawing said elements together and compressing the first-mentioned spring conductor, substantially as and for the purpose described.

13. An electric lamp socket comprising two elements, a base and a receptacle mounted on the base, said elements having opposing surfaces and one of said elements having an annular marginal flange projecting toward the other element and engaging the opposing surface of said element, said flange and said opposing surfaces confining a chamber, a terminal within the receptacle for engaging one of the terminals of a lamp, terminals mounted on the base within said chamber for connection with the line wires, a spring conductor within the chamber and located between said opposing surfaces and electrically connected to the first-mentioned terminal and one of the wire-terminals and being fixed to one of the terminals it connects and frictionally engaged with the other of said terminals, a spring arm fixed to the other wire-terminal on the base and extending through said chamber and through the opposing wall of the receptacle and into the receptacle and provided with a terminal at its free end for engaging the other terminal of the lamp, and an insulated clamping member arranged centrally of the socket for drawing said elements together and compressing the first-mentioned spring conductor, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the State of New York, this 30th day of September 1910.

SAMUEL B. VAN RANST.

Witnesses:
C. C. SCHOENECK,
LYNFORD J. WELLS.