

No. 741,924.

PATENTED OCT. 20, 1903.

M. NORDEN.
ELECTRIC LAMP SOCKET.
APPLICATION FILED JAN. 12, 1903.

NO MODEL.

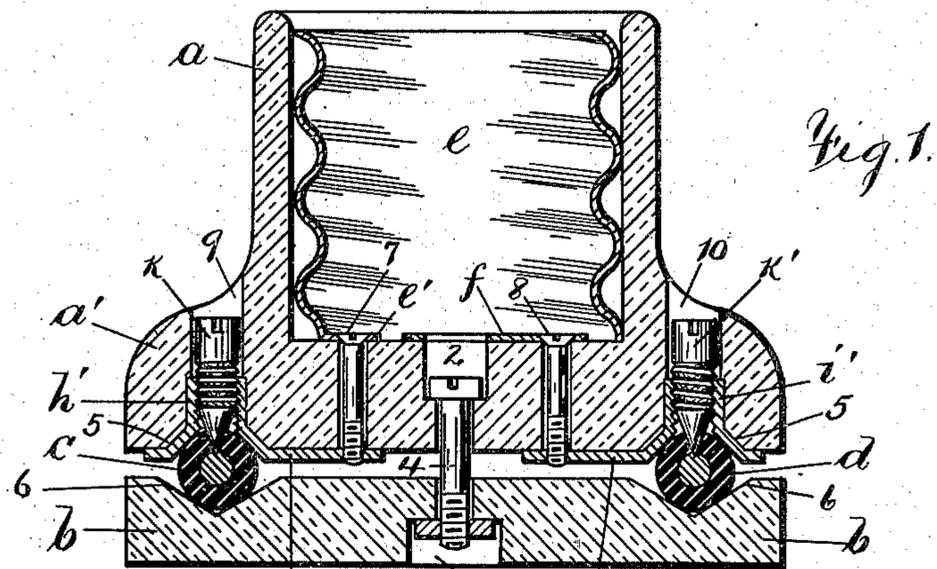


Fig. 1.

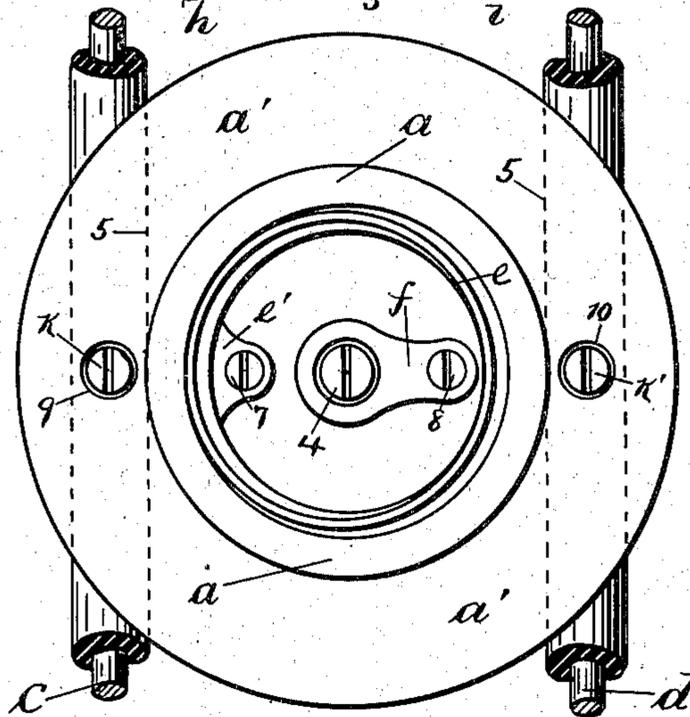


Fig. 2.

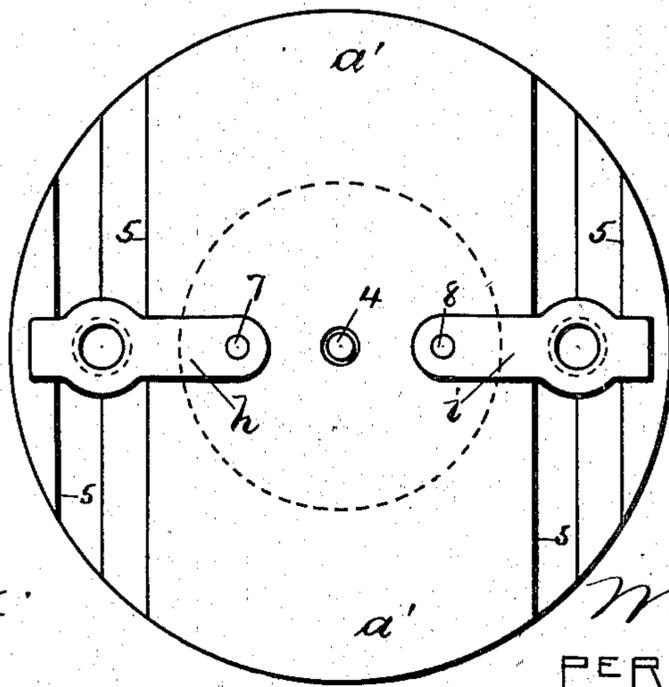


Fig. 3.

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MORTIMER NORDEN, OF NEW YORK, N. Y., ASSIGNOR TO THE NORDEN-BITTNER ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ELECTRIC-LAMP SOCKET.

SPECIFICATION forming part of Letters Patent No. 741,924, dated October 20, 1903.

Application filed January 12, 1903. Serial No. 138,605. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER NORDEN, a citizen of the United States, residing at the borough of Manhattan, city, county, and State of New York, have invented an Improvement in Electric-Lamp Sockets, of which the following is a specification.

My invention relates to sockets for incandescent electric lamps, especially those employed in surface or suspended wiring; and the object of my invention is not only to be able to make metallic and electrical contact and complete the circuit with line-wires, but to break the said contact and circuit even after the parts are connected and the electric lamp is in place and without the risk of contact with live conductors.

In the device of my invention a cup, of porcelain or other similar vitrified material, is made with a flange continuing the appreciable diameter thereof, and this is perforated at opposite points, so as to receive pointed screws, which occupy said perforations and are movable longitudinally in threaded sleeves forming electrical connections with the socket and which screws come in line with recesses adapted to receive and through which pass the conducting-wires, the pointed ends of said screws being adapted to be forced through the insulated-material covering of the conductors, so that the points come into forceful metallic contact with the conductors in making electrical connection. These screws can be removed and the circuit broken or the circuit can be established without moving the electric lamp or the necessity of separating the socket from the base, which is fastened to the support.

In the drawings, Figure 1 is a vertical section representing my invention. Fig. 2 is a plan of the same. Fig. 3 is an inverted plan of the lower portion of the cup.

a represents the cup, of porcelain or other suitable insulating or vitrified material, which is circular in form to receive the base of the lamp and is provided with a flange *a'*, which continues the appreciable diameter of the cup portion.

b is the base, also of suitable insulating or refractory material and of similar material

to the cup *a* and its flange *a'*. This base is to be secured to a support in any desired manner, said support usually being a ceiling, side wall, or molded structure. In the base of the cup *a* there is a hole 2 and in the center of the base a hole 3 for receiving the connecting-bolt 4 employed to secure the cup and its flange to the base. The upper surface of the base and the under surface of the cup and its flange are substantially flat except for a pair of parallel recesses 5 in the under surface of the cup and flange and a coinciding pair of parallel recesses 6 in the base.

The conductors *c d*, usually of a main line, are received in the said recesses, which, by the way, are preferably of slightly V form, so as to suitably engage said conductors between them, the bolt 4 not only holding the cup and flange to the base, but clamping the conductors between the parts.

e represents the sheet-metal screw-socket for the lamp. This is of usual form and is provided with a flat ear portion *e'*. The plate *f*, of sheet metal, occupies a position at the base of the socket in the cup, the same having an aperture concentric with the hole 2, the said plate lying radially in the base of the cup.

I provide plates *h* and *i*, lying against the under surface of the cup *a* and its flange *a'* and also occupying radial positions. These plates are held in position in part by the screws 7 and 8, the screw 7 connecting the plate *h* with the ear portion *e'* of the screw-socket and passing vertically through the base of the cup *a* and the screw 8 also passing vertically through the base of the cup *a* and connecting the plate *f* with the plate *i*, said screws 7 and 8 not only forming mechanical but electrical connections between the parts.

The plates *h* and *i* are provided with threaded sleeves *h' i'*, and said plates are recessed at said sleeves to fit in the recesses 5 of the cup and its base, the sleeve portions extending up within the holes 9 and 10 in said flange *a'*, provided for the screws *k k'*, which screws are made with pointed ends. Said sleeves *h' i'* take a bearing in said holes 9 and 10, which fix the position of the plates

at one end, and their position at the other end is fixed by the screws 7 and 8, hereinbefore described.

From the illustration and foregoing description it will be apparent that the screw-socket, the plate *f*, the screws 7 and 8, the plates *h* and *i*, with their sockets *h'* and *i'*; and the screws *k* *k'* all maintain a predetermined relation to the cup *a* and the flange *a'*, that these parts are connected to the base *b* by the bolt 4, and that the screws *k* *k'* can be operated without removing the incandescent electric lamp or obtaining access to the socket receiving the same, but are operated outside and independent of said lamp and are in their rotation forced through the insulating-covering of the conductors to metallic and electrical contact with the embedded conductor-wires, completing the electric circuit. When the lamp is in position, the circuit is from the conductor *c*, by screw *k*, sleeve *h'*, plate *h*, screw 7 to the screw-socket *e* and to the lamp and from the lamp by the plate *f*, by the screw 8, the plate *i*, the sleeve *i'*, screw *k'* to the conductor *d*.

I do not limit myself to the character of the socket *e*, as the same may be of any form employed in the art.

I claim as my invention—

1. An electric-lamp socket comprising a base of porcelain or other similar vitrified material, a cup and flange therefor of the same material, the flange surrounding and increasing the diameter of the cup portion and having perforations at opposite points through said flange outside of the cup, means for receiving and holding the electric conductors between the base and cup portion, metal sleeves in the perforations of the cup-flange, pointed screws in said sleeves and devices extending from the sleeves and forming mechanical and electrical connections with the lamp receiving and engaging devices of the cup.
2. An electric-lamp socket, comprising a base of porcelain or other similar vitrified material, a cup and flange therefor of the same material, the flange surrounding and increasing the diameter of the cup portion, and having perforations at opposite points through said flange outside of the cup, the base and the under surface of the cup and flange having pairs of parallel recesses to receive the electric conductors, metal sleeves in the perforations of the cup-flange, and pointed screws in said sleeves, a sheet-metal socket within

the cup, devices extending from the said sleeves and forming mechanical and electrical connections with the socket and devices of the cup, and means for holding the cup and the base together with force to grasp the electric conductors.

3. An electric-lamp socket, comprising a base of porcelain or other similar vitrified material, a cup and flange portion of corresponding material, the flange continuing the appreciable diameter of the cup, there being perforations through the flange at opposite points outside the cup and pairs of parallel recesses in the upper surface of the base and the under surface of the cup and flange to receive the conductors, a sheet-metal socket in the cup and a plate in the base of the cup, plates lying against the under surface of the cup and flange, screws connecting the same with the socket and plate of the cup, and devices forming prolongations of said plates and accessible in the perforations of the cup-flange for forming mechanical and electrical contact with the conductors, and a bolt for holding the base and cup portion together with force to clamp the conductors in position.

4. An electric-lamp socket, comprising a base of porcelain or other similar vitrified material, a cup and flange portion of corresponding material, the flange continuing the appreciable diameter of the cup, there being perforations through the flange at opposite points outside the cup, and pairs of parallel recesses in the upper surface of the base and the under surface of the cup and flange to receive the conductors, a sheet-metal socket in the cup, and a plate in the base of the cup, plates lying against the under surface of the cup and flange, screws connecting the same with the socket and plate of the cup, interiorly-threaded sleeves formed with the plates upon the under side of the cup setting over the electric conductors and received in part in the perforations of the cup-flange and pointed screws also in said perforations and in the threaded sleeves accessible from outside of the cup and by which the covering of the conductors is penetrated to form mechanical and electrical connection, and a bolt for connecting the base and cup and so clamping the conductors in position.

Signed by me this 5th day of January, 1903.
MORTIMER NORDEN.

Witnesses:

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