W. F. MINOR & C. W. W. HECK.

SHADE AND SOCKET HOLDER.

APPLICATION FILED NOV. 11, 1908.

924,261.

Patented June 8, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

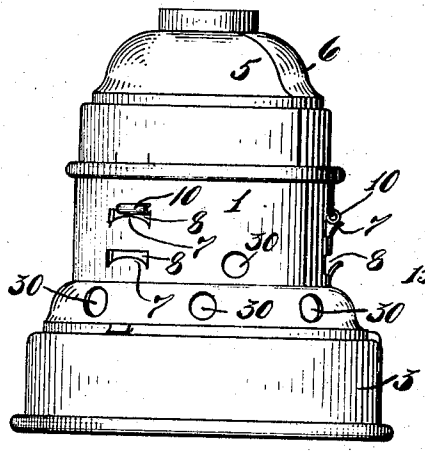


Fig. 2.

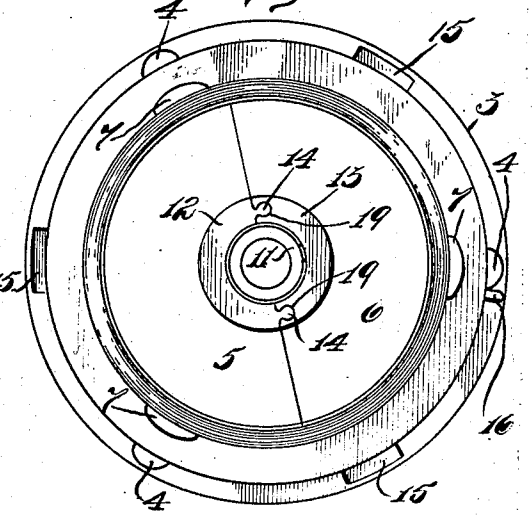


Fig. 3.

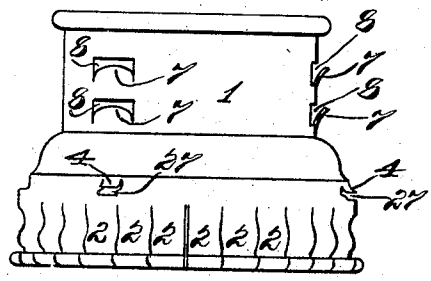
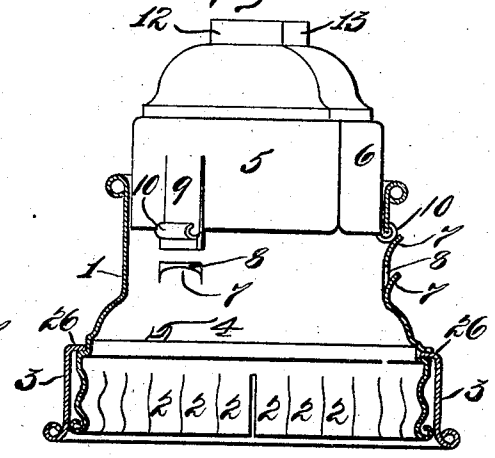


Fig. 4.



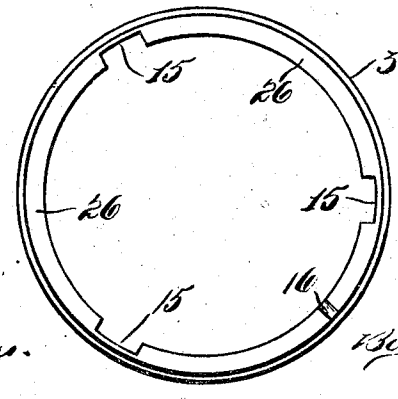


Fig. 5.

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2 SHEETS—SHEET 2.

Fig. 6.

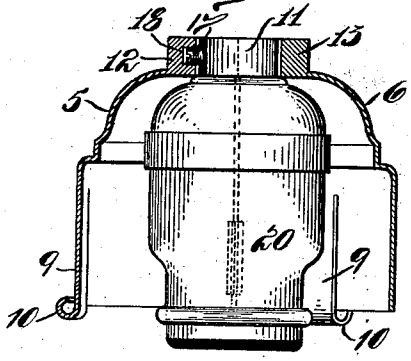


Fig. 7.

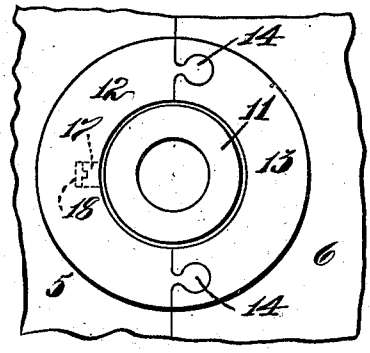


Fig. 8

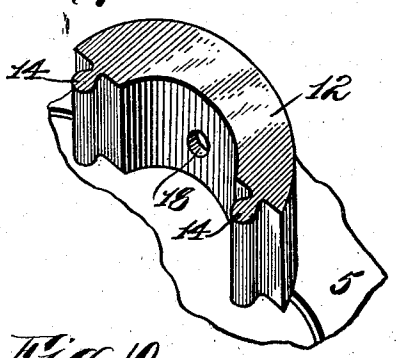


Fig. 9

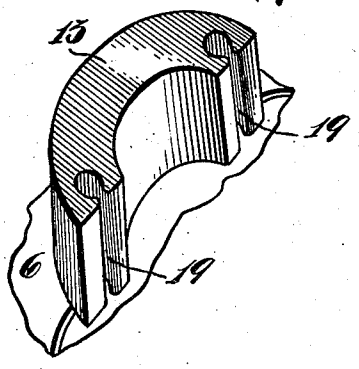


Fig. 10.

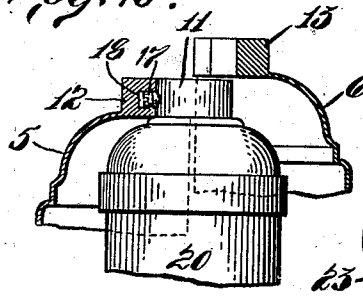
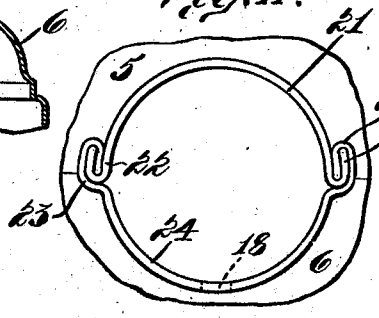


Fig. 11.



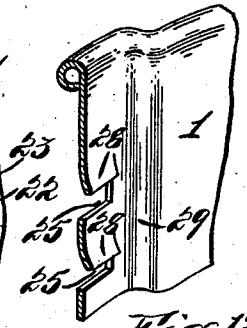


Fig. 12.

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UNITED STATES PATENT OFFICE.

WILLIAM F. MINOR, OF NEW YORK, N. Y., AND CARL W. W. HECK, OF EAST ORANGE NEW JERSEY, ASSIGNORS, BY MESNE ASSIGNMENTS, TO NATIONAL ELECTRIC LAMP COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF NEW JERSEY.

SHADE AND SOCKET HOLDER.

No. 924,261. Specification of Letters Patent. Patented June 8, 1909.

Application filed November 11, 1908. Serial No. 462,037.

To all whom it may concern:

Be it known that we, WILLIAM F. MINOR, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, and CARL W. W. HECK, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Shade and Socket Holders, of which the following is a specification, reference being had to the accompanying drawings, in which—.

Figure 1, represents a vertical elevational view showing all the parts in locked position. Fig. 2, represents an enlarged top plan view of the holder. Fig. 3, represents an elevation of the shade holder with the clamping ring removed. Fig. 4, represents a vertical central section showing a portion of the socket holder in elevation. Fig. 5, represents a plan view of the clamping ring. Fig. 6, represents a vertical central section of the socket holder showing the socket in elevation. Fig. 7, represents an enlarged top plan view of the socket and holder. Figs. 8, and 9, are enlarged perspective views of parts of the top of the socket holder, the remaining parts not being shown. Fig. 10, represents a vertical central section the same as Fig. 6, showing a method of uniting the parts of the socket holder. Fig. 11, represents a top plan view of the socket holder, similar to Fig. 7, and showing a modified form of uniting the parts, and Fig. 12, represents a perspective view of a portion of the holder proper, showing a modified form of means to unite the socket clamps and the holder.

Similar numerals refer to similar parts throughout the several figures.

The object of our invention, among other things, is to construct a simple and efficient holder, which combines within itself other parts necessary for permanently securing shades about incandescent electric lamps and for other uses.

By means of our improved holder with its inclosed electric socket in combination with other devices that will be hereafter described, we secure and lock said socket rigidly within the holder, but render it movable within the holder in a vertical direction. At the same time we provide means for holding the shade within the holder in a rigid position and securely lock the shade within the holder so that it is impossible to loosen or dislodge it under the jars or other disturbing elements to which such holders are ordinarily subjected when used for ordinary incandescent lighting.

In our application for Letters Patent filed July 30th, 1908, Serial No. 446,056, we disclosed a device that combined, in a simple and desirable manner a shade and socket holder, wherein clamping rings were used to secure and lock the shade and socket to our holder. By our present device we attain a greater degree of rigidity and security by the means which will hereafter be described, so that it is impossible to shake and dislodge, either the socket or shade from our holder.

Referring to the drawings, 1 represents the holder proper, constructed of brass or other suitable material and cylindrical in form which in its lower part flares open in a bell-shaped manner and is provided with spring members 2, 2, 2 integral with the holder, and adapted to hold the shade within themselves, when the holder is locked in position. These spring members 2, 2, 2, 2, are shaped so as to catch and hold the beaded flange of the shade and their ends are curled outward and upward as shown in Fig. 4. Immediately surrounding these spring members 2, 2, 2, is the clamping ring 3 adapted, when it is pulled down over the spring members, to contract within itself such spring members so as to secure and lock such spring members about the beaded flange of the shade. Preferably the clamping ring 3 has a bevel on its inner circumference, so as to assist in contracting the spring members about the shade.

Referring to Fig. 5, which shows a top plan view of the clamping ring 3, indentations 15, 15, 15 are cut therein. On the holder itself there are provided an equal number of ears 4, 4, 4, correspondingly separated from each other as are the indentations 15, 15, 15. When the clamping ring is loose and the shade has been placed within the spring members 2, 2, 2, the clamping ring is revolved so that the indentations 15, 15, 15, and the ears 4, 4, 4, are in vertical alinement. This construction enables the clamping ring to descend below the ears 4, 4, 4 and by means of its inner bevel to contract and lock the spring members 2, 2, 2 about the shade. When the upper edge 26 of the clamping ring 3 is passed below the annular plane of the

ears, such as is shown in Fig. 4, the clamping ring 3 is partially revolved so that the upper edge 26 passes below the ear 4 into annular space 27 and is securely locked therein. The catch pin 16 prevents the clamping ring 3 from revolving too great a distance, as will be observed from Fig. 2 when the clamping ring is held by the ears 4; a simple efficient, and absolutely secure lock is thereby formed, so that the beaded flange of the shade is immovably held within the spring members comprising the lower part of the holder.

The upper part of our holder devised to lock the electrical socket may be constructed as follows: Two hemispherical clamping shells 5 and 6 are made of the customary bell-shaped construction with reinforced tops 12 and 13 respectively. These clamping shells inclose within themselves the socket 20 as shown in Fig. 6 and inclose and secure the top 11 of the socket 20 by dovetailing as shown in Figs. 7 to 10 inclusive. The clamping shell 5 has a top piece 12, semi-circular in form and provided at both ends with a projection catch 14, 14 adapted to fit within correspondingly placed grooves 19, 19 in the top piece 13 of the clamping shell 6. The top 11 of the socket 20 is provided with a horizontally projecting screw 17 adapted to be fitted and secured in its circular bed 18 cut in the top piece 12 of the clamping shell 5, as illustrated in Figs. 6 and 10. This device enables us to securely hold and lock the electrical socket 20 within the clamping shells 5 and 6.

Referring to Fig. 10 we show in this figure the method of securing the socket to the clamping shell, the clamping shell 6 being raised out of dovetailing engagement with the shell 5 so as to permit the insertion of the screw 17 within its bed 18 in the top 12 of the clamping shell 5. After the parts are in the position such as is shown in Fig. 10, the clamping shell is lowered about the top of the socket and the parts are then in the positions shown in Fig. 6. Fig. 11 shows another method of uniting these top pieces of the clamping shells 5 and 6, the top piece 21 having the hooked projections 22, 22 at either end and the top piece 24 having similar projections 23, 23, adapted to fit snugly within each other and hold the parts together as shown in the figure.

The lower parts of the clamping shells 5 and 6 are semi-cylindrical in form and are split vertically so as to form a plurality of spring hooks 9, 9, 9 having outwardly curled knobs 10, 10, 10. These spring hooks are preferably placed at equal distances from each other when the clamping shells 5 and 6 are in locked position, and a corresponding number of spring slots 8, 8, 8, are formed in the body of the holder 1 by cutting lips 7, 7, 7, in such holder and bending the same outwardly so as to form the said slots 8, 8, 8. Such slots are of the same distance from each other as are the spring hooks 9, 9, 9, and are adapted to receive and hold within themselves such spring hooks, thereby securely locking the clamping shells 5 and 6 with their inclosed electrical socket 20 to the body of the holder 1.

At times it becomes desirable to raise or lower the electric bulb carried by the socket and we accomplish this by providing a series of slots 8, 8, 8 in vertical alinement in the holder 1, as is shown in Figs. 1, 3 and 4. By sliding the clamping shells 5 and 6 within the holder in an upward or downward direction so that the spring hooks 9, 9, 9 engage and lock with an upper or lower tier of slots 8, 8, 8, the socket is raised or lowered within the shade.

Fig. 12 illustrates a modified form of engagement for the spring hooks of the clamping shells. The slots 25, 25 are formed by having the lips 28, 28 bent inwardly and a bend in the metal of the holder 1 is formed at 29, so as to form a groove for the downward thrust of the spring hooks 9, 9, 9, with their projecting knobs 10, 10, 10.

30, 30, 30 represent ventilating holes for the holder, but said ventilating holes are not essential, nor do they form any part of our invention.

The operation of our shade and socket holder is as follows:—The ordinary lamp shade is sprung within the lips of the spring members 2, 2, 2, 2 so that the beaded flange of the shade fits snugly within such members. The clamping ring 3 is above such spring members and after the shade is sprung within the holder, the clamping ring is so adjusted that the indentations 15 are in vertical alinement with the ears 4 in the holder. Then the ring is pressed downwardly so that its upper rim 26 will pass horizontally in the annular space 27 below the ears 4. This enables the clamping ring 3 to contract the spring members 2, 2, 2, 2, about the top of the shade, the beveled inner surface of the ring assisting in the operation. Fig. 4 illustrates the ring in its final position.

The electric socket is attached to the clamping shells 5 and 6 as shown in Figs. 6 and 10 and as heretofore described. Such clamping shells with their inclosed socket comprise the dome of the holder and such dome with the spring hooks 9, 9, 9, is revolved until they are in vertical alinement with their corresponding slots 8, 8, 8. The clamping shells are then pressed downwardly within the holder until the spring hooks engage with a series of slots in the holder and thereby all the parts forming our improved device are inwardly and rigidly held in operative position.

We do not limit ourselves to the size and general contour of the parts herein shown and described for it is obvious that many

modifications of our device may be used without departing from the spirit and scope of our invention. We have illustrated one form of our device which we have found to be simple, strong and efficacious for the purposes for which it was devised.

We claim:—

1. A holder of the class described which consists of a circular holding member, whose lower parts comprise a plurality of spring members, a clamping ring entirely surrounding said spring members and adapted to contract and lock said spring members about a shade, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, said clamping shells being provided with means to secure and hold said shells to said holding member, substantially as described.

2. A holder of the class described which consists of a circular holding member, whose lower parts are divided into a plurality of spring members, a clamping ring entirely surrounding said spring members having an inner beveled circumference to contract and lock said spring members about a shade, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, said clamping shells being provided with means to secure and hold said shells to said holding member, substantially as described.

3. A holder of the class described which consists of a circular holding member, having slots cut therein, the lower parts of which holder are divided into a plurality of spring members, a clamping ring entirely surrounding said spring members having an inner beveled circumference to contract and lock said spring members about a shade, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, said clamping shells having at their lower edges a plurality of spring hooks integral therewith, and adapted to be fitted into said slots in said holding member so as to rigidly secure said shells to said holding member, substantially as described.

4. A holder of the class described which consists of an intermediate holding member having slots cut therein, the lower edges of which holder are vertically divided into a plurality of spring members adapted to receive and hold a shade, a clamping ring entirely surrounding said spring members, and adapted to contract and lock said spring members about a shade, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, spring hooks integral with said clamping shells and adapted to fit into said slots in said holding member, so as to rigidly secure said shells to said holding member, substantially as described.

5. A holder of the class described which consists of a circular holding member whose lower edges comprise a plurality of spring members integral with said holding member and adapted to receive and hold a shade, a clamping ring entirely surrounding said spring members, a series of projecting ears extending outwardly from said holding member adapted to hold in locked position said clamping ring about said spring members, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, said clamping shells being provided with means to secure and hold said shells to said holding member, substantially as described.

6. A holder of the class described which consists of a circular holding member having slots cut therein, the lower edges of which holder comprise a plurality of spring members integral with said holding member and adapted to receive and hold a shade, a clamping ring entirely surrounding said spring members, a series of projecting ears extending outwardly from said holding member adapted to hold in locked position said clamping ring about said spring members, two semi-cylindrical clamping shells inclosing and holding within themselves a socket, said clamping shells having at their lower edges a plurality of spring hooks integral therewith and adapted to be fitted into said slots in said holding member so as to rigidly secure said shells to said holding member, substantially as described.

7. A holder of the class described, which consists of a circular holding member, whose lower parts comprise a plurality of spring members, a clamping ring entirely surrounding said spring members and adapted to contract and lock said spring members about a shade, two clamping shells inclosing and holding a socket, means for securing said shells to said holding member whereby said shells and socket are vertically movable within said circular holding member, substantially as described.

8. A holder of the class described, which consists of a circular holding member, whose lower parts are divided vertically into a plurality of spring members, a clamping ring entirely surrounding said spring members having an inner beveled circumference to contract and lock said spring members about a shade, two clamping shells inclosing and holding a socket, and means for securing said shells to said holding member whereby said shells and socket are vertically movable within said circular holding member, substantially as described.

9. A holder of the class described which consists of an intermediate holding member having slots cut therein, the lower edges of which holder are vertically divided into a plurality of spring members adapted to receive and hold a shade, a clamping ring entirely surrounding said spring members and adapted to contract and lock said spring members about a shade, two semi-cylin-

drical clamping shells inclosing and holding within themselves a socket, spring hooks integral with said clamping shells and adapted to fit in said slots in said holding member whereby said shells are rigidly secured to, yet vertically movable within, said holding member, substantially as described.

10. A holder of the class described which consists of an intermediate holding member 1, provided at its lower edge with spring members 2, 2, 2, 2, integral therewith, a clamping ring 3, entirely surrounding said spring members adapted to hold a shade, projecting ears 4, 4, 4, attached to said holding member 1, and adapted to hold in locked position said clamping ring about said spring members, two clamping shells 5 and 6 inclosing and supporting a socket, spring hooks 9, 9, 9, integral with said clamping shells, there being slots 8, 8, 8, in said holding member adapted to engage with said spring hooks to secure and lock said shells with said socket to said holding member, substantially as described.

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