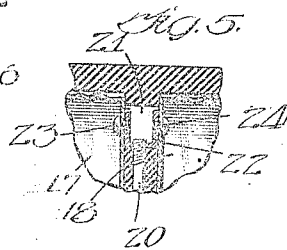
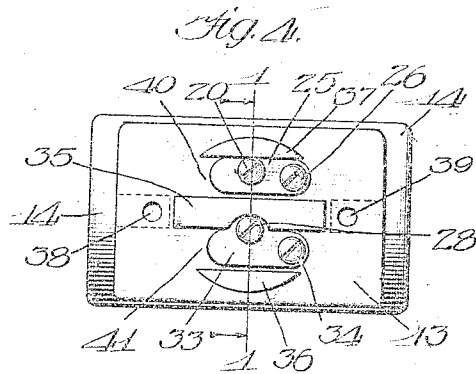
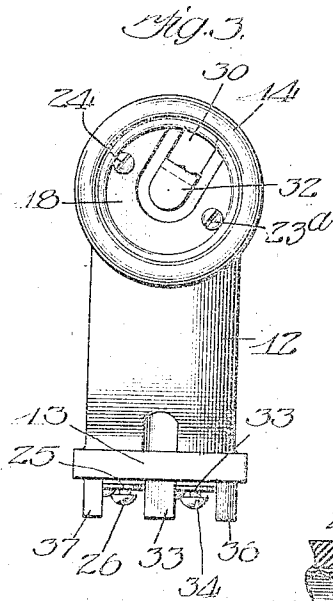
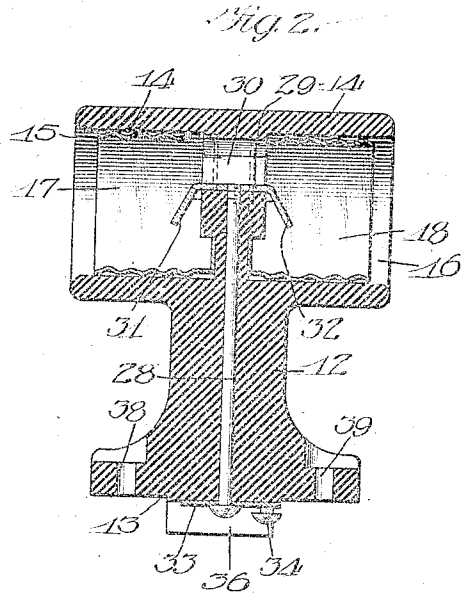
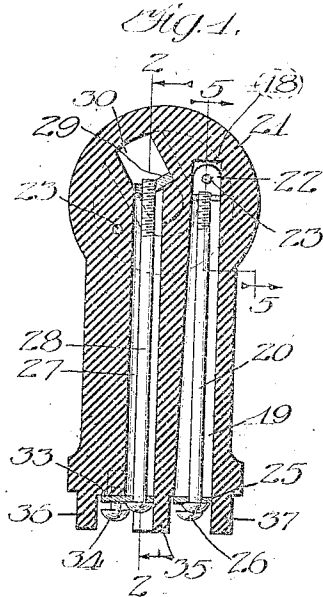


R. B. BENJAMIN.
 WEATHERPROOF PLURAL LAMP SOCKET.
 APPLICATION FILED APR. 8, 1907.

981,241.

Patented Jan. 10, 1911.
 2 SHEETS-SHEET 1.



Witnesses:
 Edw. Perry
 C. L. Hopkins

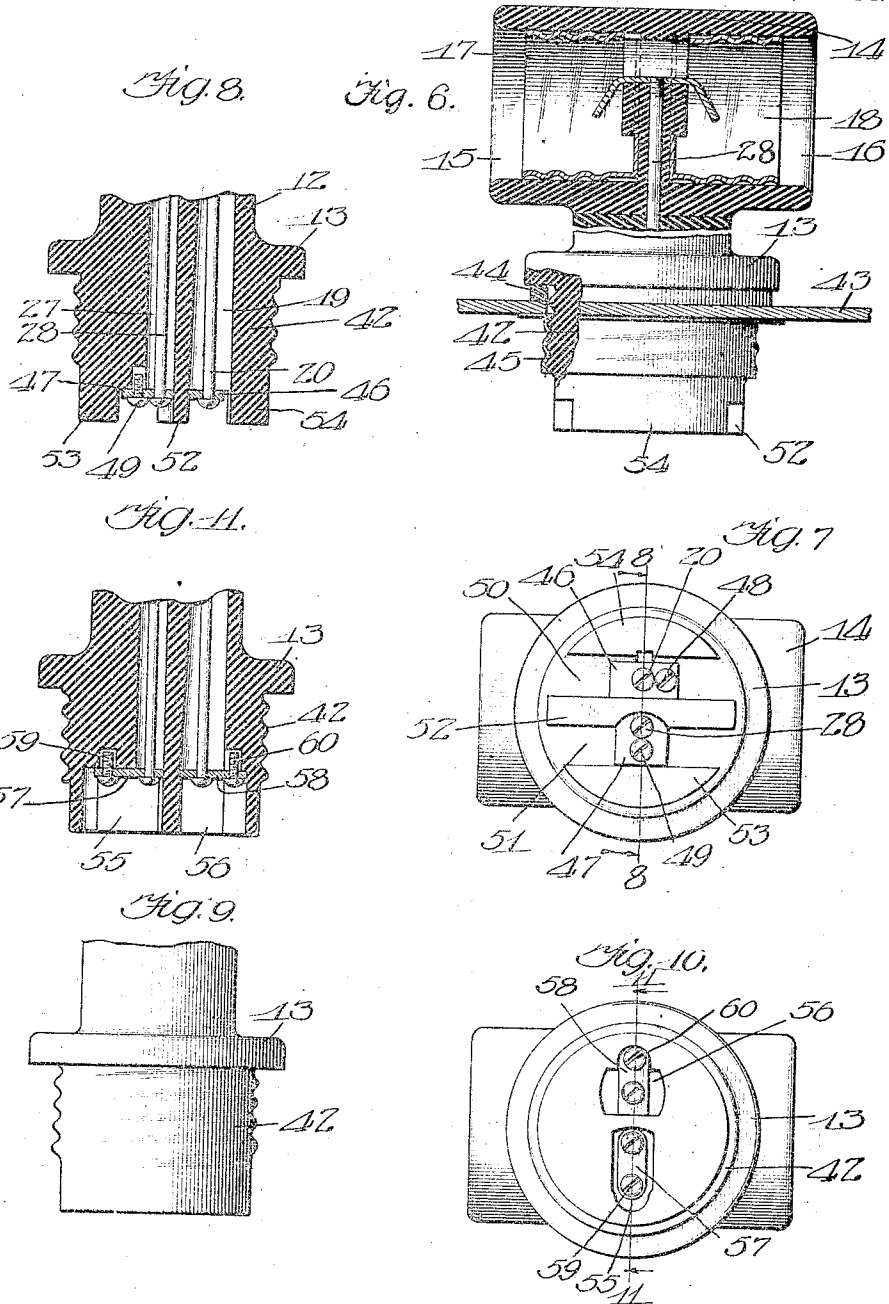
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Witnesses:
Wm. L. Perry
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UNITED STATES PATENT OFFICE.

REUBEN B. BENJAMIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO BENJAMIN ELECTRIC MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

WEATHERPROOF PLURAL LAMP-SOCKET.

981,241.

Specification of Letters Patent. Patented Jan. 10, 1911.

Application filed April 8, 1907. Serial No. 367,096.

To all whom it may concern:

Be it known that I, REUBEN B. BENJAMIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Weatherproof Plural Lamp-Sockets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to improvements in lamp-sockets, and particularly to an incandescent lamp-socket in which the lamp is held with its axis disposed at an angle to the base of the device and substantially parallel with the face of the wall or other support to which the device is secured, the principal object of the invention being to provide a lamp-holding device of this class in which no joints are present into which moisture can find its way.

In the accompanying drawings Figure 1 is a sectional view of one form of my device, the section being taken on the line 1—1 of Fig. 4; Fig. 2 is a section of the same device, the section being taken on a plane at right angles to the plane of the section in Fig. 1 and on the line 2—2 of Fig. 1, looking in the direction indicated by the arrows; Fig. 3 is an elevational view of this device looking into one of the lamp-receiving sockets; Fig. 4 is a bottom plan view of this form of device showing the means for making connection with the supply wires; Fig. 5 is a fragmentary sectional view, the section being taken on the line 5—5 of Fig. 1; Fig. 6 is a broken view, partly in elevation and partly in section, of another form of my device; Fig. 7 is a bottom plan view of the same, showing the means for making connection with the supply wires; Fig. 8 is a section on the line 8—8 of Fig. 7, looking in the direction indicated by the arrows; Fig. 9 is a broken elevational view of the base portion of another form of my device with some of the parts removed. Fig. 10 is a bottom plan view of the form of device shown in Fig. 9; and Fig. 11 is a section on the line 11—11 of Fig. 10.

Referring particularly to Figs. 1, 2, 3, 4 and 5, 12 is a member formed of porcelain or other suitable insulating material and having upon one of its ends a base 13 adapted to be secured to the face of a wall or

other similar support. This member 12 is also formed or provided with a lamp-receiving part 14, this part 14 as well as the base 13 being, in this case, formed integral with the part 12, making a solid porcelain structure. The part 14 is formed with two recesses 15 and 16 extending in opposite directions, and in these recesses 15 and 16 are secured lamp-receiving shells or sockets 17 and 18, these sockets being secured in place and electrically connected by means of a bolt 23^a.

Extending through the member 12 and base 13 is a passage 19 through which extends a bolt 20. A passage 21 extends from the recess 15 to the recess 16, and in this passage is located a plate 22. The end of the bolt 20 projects into the passage 21 and is screwed into the plate 22. This plate 22 is substantially U-shaped, and is secured by screws 23 and 24 to the lamp-receiving sockets 17 and 18. Upon the opposite or outer end of the bolt 20 is a terminal plate 25, this plate 25 being provided with a binding-screw 26. Electrical connection is thus established from the binding-screw 26 through the plate 25, bolt 20 and plate 22 to the lamp-receiving sockets 17 and 18. Extending through the member 12 and base 13 is an opening 27 in which is located a bolt 28. Upon the inner end of the bolt 28 is a plate 29, this plate extending through a passage 30 which leads from one of the sockets 17 to the other socket 18, the ends 31 and 32 of the plate 29 projecting through suitable openings in the sockets 17 and 18 and being bent downward to form the center contacts for the sockets. When the device is adapted for lamps of the Edison type the sockets 17 and 18 will be screw-threaded to cooperate with the threaded outer terminals of the lamps, and the ends 31 and 32 of the plate 29 will engage the center terminals of the lamps when these lamps are screwed into the sockets. Upon the outer end of the bolt 28 is a terminal plate 33 provided with a binding-screw 34 adapted for the reception of one of the supply wires, electrical connection being made with the lamps through this screw 34, plate 33, bolt 28 and plate 29.

The base 13 is provided with a rib 35 projecting from the bottom thereof and adapted to separate the plates 25 and 33 and to prevent the wires secured to these plates from coming in contact with each other. On the

outer side of the plate 33 is a rib 36, a similar rib 37 being located on the outer side of the plate 25. These ribs 35, 36 and 37 are formed so that their outer edges conform to the line of a circle. When the base 13 is to be secured to a wall or other support, a circular opening will first be made in the wall and the device will be applied to the wall with the ribs 35, 36 and 37 projecting into this opening. Holes 38 and 39, passing through the base 13, are adapted to receive screws or bolts to secure the fixture to the wall. The leading-in wires will then be brought in from the opposite side of the wall and will be laid in the channels 40 and 41 between the ribs 35, 36 and 37 and secured to the binding-screws 26 and 34. By this means a weather-proof socket is provided, the connections being made from the rear side of the wall to which the device is secured and being thus wholly unexposed to the weather. This is of particular advantage in outdoor sign work and the like where the device is secured to the exposed side of a board or a metallic plate.

Referring now particularly to Figs. 6, 7, and 8, I have shown therein a form of device in which a different method of securing the socket to the wall or other support is employed. In this device, the base 13 is provided with a circular screw-threaded projection 42 adapted to be inserted through a circular opening in the part to which the device is secured. 43 indicates a thin wall such as the sheet-metal covering of an electric sign. Interposed between the sheet-metal plate 43 and the base 13 of the device is a packing-ring of rubber or similar material 44. Adapted to be screwed onto the threaded projection 42 is a threaded metallic sleeve 45. When this sleeve 45 is firmly screwed up into place, the whole device is firmly secured to the wall 43, and moisture is prevented from finding its way to the inner side of the wall 43, and to the connections of the fixture, by reason of the fact that the packing-ring 44 is firmly secured between the base 13 and plate 43 and makes a tight joint therebetween. The arrangement of contact plates, sockets, etc., may be the same with this form of the device as in the form shown in Figs. 1, 2, 3, 4 and 5, but in this case I make the porcelain structure in two parts, one of these parts constituting the base 13, while the other part 14 contains the metallic sockets 15 and 16. The bolts 20 and 28 secure the parts of the porcelain structure together, as well as conducting current from the binding-screws to the contacts associated with the lamp-receiving sockets. Plates 46 and 47, arranged upon the end of the projection 42, carry the binding-screws 48 and 49. These plates 46 and 47 are located in channels 50 and 51 between the ribs 52, 53 and 54, the arrangement being similar to that de-

scribed in connection with the form of device shown in Figs. 1, 2, 3, 4 and 5.

In Figs. 9, 10 and 11 I have shown still another form of base for the device. In this form of the device the screw-threaded projection 42, instead of being formed with channels extending thereacross and in which the binding-screws are located, is formed with recesses or depressions 55 and 56 in which the terminal-plates 57 and 58 are located, these plates carrying binding-screws 59 and 60.

In the application of the form of socket shown in Figs. 6, 7 and 8 as well as the form shown in Figs. 9, 10 and 11 to a wall, a circular opening will first be formed in the wall and into this circular opening will be inserted the screw-threaded portion 42 of the device, the ring or threaded shell 45 being then slipped on and screwed up so as to securely clamp the device in place. The leading-in wires will then be brought to the binding-screws and secured in place, these wires being, of course, in the case of an electric sign, all contained within the casing of the sign. By the use of such a device the presence of screws or bolts passing inwardly through the wall of the sign and having their heads exposed to moisture is made unnecessary.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a plural lamp-socket, a molded structure formed of insulating material and comprising a base and a one piece portion formed with a pair of lamp-receiving recesses therein disposed with their axes coincident and parallel with the support to which the base is secured.

2. In a plural lamp-socket, a structure composed of porcelain and formed with a plurality of lamp-receiving recesses disposed with their axes in the same plane and parallel with the surface to which the device is secured, contacts in said recesses, binding terminals exterior to said porcelain structure, and permanent connections between said contacts and said terminals.

3. In a weather-proof lamp-socket, the combination of a porcelain structure having a base portion adapted to be secured to a plane support and a cylindrical portion having a lamp-receiving recess disposed with its axis parallel with the plane support, suitable contacts associated with said recess, binding terminals on said base portion, and permanent connections extending through said base portion from said contacts to said terminals.

4. In a weather-proof plural lamp-socket, the combination of a structure formed of insulating material and comprising a base adapted to be secured to a plane support and a pair of lamp-receiving sockets, with suit-

able contacts associated with said sockets, and a circular projection located on the base portion and extending at a right angle with the axes of the lamp-receiving sockets, said projection being formed with channels extending therethrough and adapted for the reception of wires.

5. A weather-proof lamp-holding device having a lamp-receiving socket and base formed of insulating material, said base portion being adapted to be secured to the face of a plane support, a member projecting from said base portion and adapted to extend through said support, and having recesses, plates located in said recesses, and binding-screws carried by said plates.

6. A weather-proof lamp-holding device comprising a member formed of insulating material and having a socket formed therein to receive and support a lamp, suitable contacts adapted for engagement with the terminals of the lamp, a base portion adapted to be secured to a plane support with the axis of the lamp disposed at an angle to such support, a threaded projection on said base portion, a threaded clamping-shell adapted to be screwed onto said threaded projection and thereby to secure the device to said support, binding terminals mounted on said base portion, and permanent connections between said binding terminals and said contacts.

7. The combination of an insulating member formed with a base, lamp-supporting means carried by said base and extending at right angles therefrom, threaded means projecting from said base and adapted to be inserted through an opening in a wall or similar support, and a clamping ring adapted to be screwed onto said threaded portion and thereby to secure the device to said wall with the lamp carried thereby disposed parallel with said wall.

8. The combination of a member formed of insulating material and having a base, a lamp-receiving device carried by said member, lamp contacts for said lamp-receiving device, a corrugated portion formed on said base and extending at a right angle with said lamp-receiving device, a corrugated sleeve adapted to be passed onto said corrugated portion after said portion has been inserted through an opening in a support or wall and thereby to secure the device to said support or wall with the axis of the lamp disposed parallel thereto, binding terminals carried by said member and located at the end of said corrugated portion, and permanent connections between said binding terminals and said lamp contacts.

9. A weather-proof lamp-holding device, comprising a two-part porcelain structure carrying lamp sockets in one of the parts thereof, means on the other part for making electrical connection with supply wires and a

pair of bolts adapted to secure the parts of said structure together and conduct current from the contacts of said sockets to the means for connecting the supply wires.

10. In a weather-proof lamp-holding device, the combination of a two-part structure formed of insulating material, lamp-receiving sockets carried by one of said parts, binding screws upon the other of said parts, suitable contacts associated with said sockets, and a pair of bolts adapted to secure said parts together and to conduct current from said binding-screws to said contacts.

11. In a weatherproof lamp holding device, in combination, a structure formed of insulating material and comprising two separable parts, one disposed at an angle to the other, a lamp receiving socket comprising associated inner and outer contacts, said socket being carried by one of said parts and disposed thereon so as to extend at an angle relatively to the other part, binding terminals carried by said other part and bolts extending from said binding screws to the contacts of said socket and adapted to conduct current to said contacts and to hold the parts of the structure together.

12. In a weather proof lamp holding device, the combination with an insulating structure formed in separable parts, one of said parts having a recess, of an outer lamp-receiving contact arranged in said recess, a center lamp contact arranged in said recess, and bolts extending through the parts of the insulating member at a right angle to the axis of the lamp-receiving contact, and adapted to secure the parts of the insulating member together, said bolts engaging said outer contact and said center contact, respectively, and carrying current thereto.

13. In a weather-proof lamp-holding device, the combination of a structure formed of insulating material and made in separable parts, one of said parts having a base adapted to be secured to the face of a support, another of said parts having a recess, a center and outer contact contained in said recess and adapted for the reception of an incandescent lamp, the axis of said recess being disposed parallel with the face of such support, and means extending through the parts of the insulating structure and engaging said contacts for securing said parts together and conducting current to the contacts.

14. In a weather-proof lamp-holding device, the combination of a porcelain structure formed in separable parts, one of said parts having a base adapted to be secured to the face of the support, another of said parts having a lamp-receiving recess and lamp-terminal-engaging contacts in said recess, said recess being so disposed that the axis of a lamp inserted therein will extend parallel with the face of the support to

which the device is secured and means extending through the parts of said insulating structure and adapted to secure said parts together and also to conduct current to said contacts.

15. In a plural lamp-holding device, the combination of a porcelain structure formed in separable parts, one of which is provided with a base and another of which is formed with a plurality of recesses adapted for the reception of incandescent electric lamps with their axes disposed radially in the same plane, suitable contacts carried within the lamp-receiving recesses, terminal plates on said base, and means adapted to conduct current to said contacts and to secure said plates in position, and also to secure the parts of said porcelain structure together.

16. In a plural lamp-holding device, the combination of a porcelain structure formed in separable parts, one of said parts having a base formed thereon, another of said parts having two recesses therein adapted for the reception of incandescent-lamp bases, suitable contacts carried within said recesses, and means for conducting current to said contacts, said means being adapted also to secure the parts of said porcelain structure together.

17. In a plural lamp holding device, the combination of a porcelain structure formed with two lamp-receiving recesses and with two passages connecting said recesses, outer lamp contacts and center lamp contacts arranged in said recesses, a plate disposed in one of said passages for connecting said outer lamp contacts together, a plate disposed in the other passage for connecting said center contacts together, binding terminals carried upon the outside of said structure, and permanent connection means between said binding terminals and said first and second named plates.

18. In a plurality of lamp-holding devices, the combination of a porcelain structure having upon one of its ends a base and upon its opposite end means for holding a plurality of lamps, suitable contacts adapted to engage the terminals of said lamps, said base portion having a circular projection adapted to extend into a flat support to which said device is secured, recesses in said projection, binding-screws arranged in said recesses, and means for conducting current from said binding-screws to said contacts.

19. In a plurality of lamp-holding devices, the combination of an insulating structure having a plurality of lamp-receiving recesses formed therein, suitable contacts adapted to engage the terminals of lamps, when inserted into said recesses, said insulating structure having a base, a circular projection extending from said base and formed with depressions, binding-screws located in said depressions, and means for conducting current from said binding-screws to said contacts.

20. In a weather-proof plural lamp-holding device, the combination of an insulating structure formed with a plurality of lamp-receiving recesses and having also a base adapted to be secured to a plane surface, a circular projection on said base adapted to extend below the level of said plane surface, said projection having recesses, binding-screws in said recesses, and means adapted to provide electrical connection between said binding-screws and said contacts.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

REUBEN B. BENJAMIN.

Witnesses:

M. L. FARRAR,
C. L. HOPKINS.