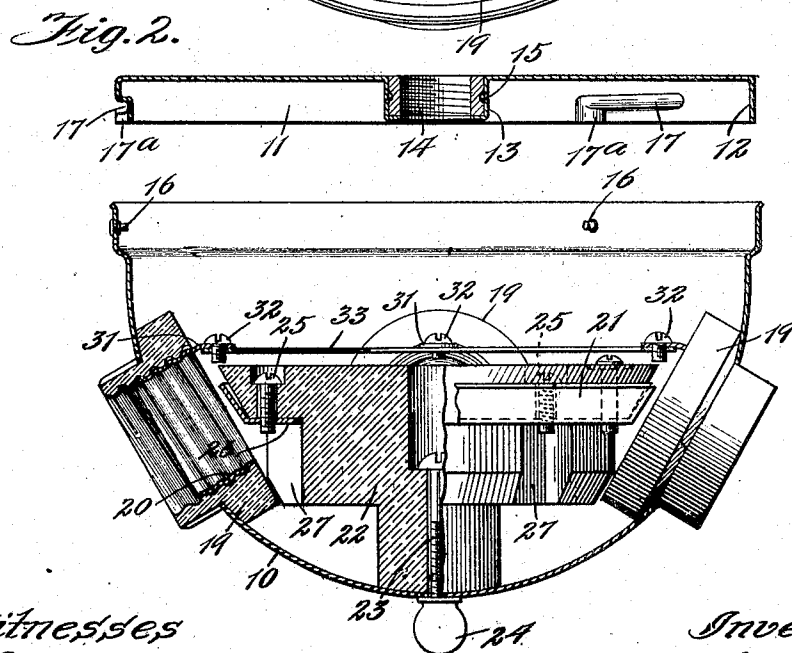
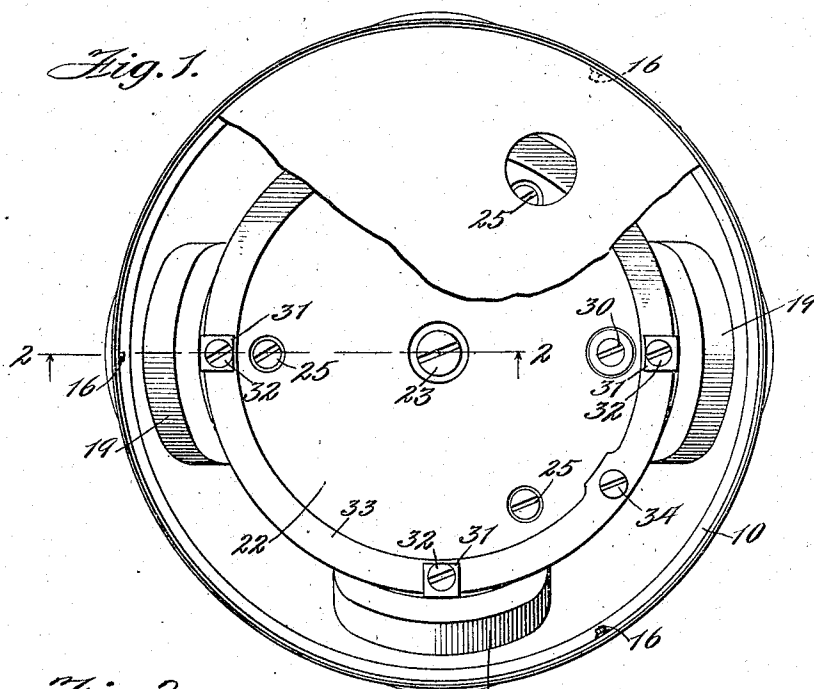


R. B. BENJAMIN.
PLURAL LAMP HOLDING DEVICE.
APPLICATION FILED DEC. 28, 1907.

942,242.

Patented Dec. 7, 1909.

2 SHEETS—SHEET 1.



Witnesses
Wm. D. Perry
C. L. Hopkins.

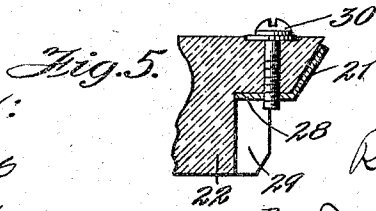
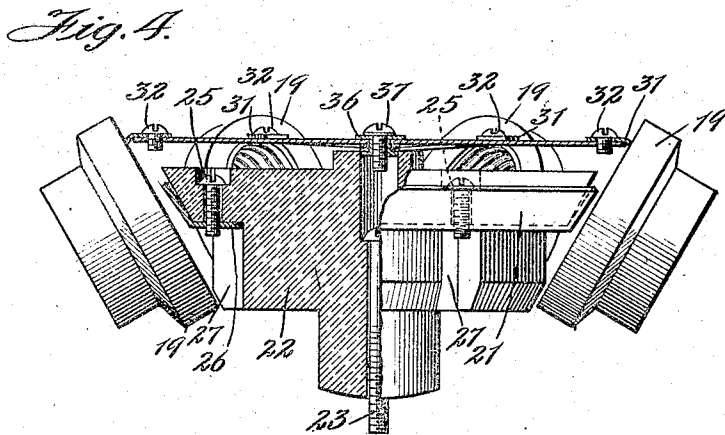
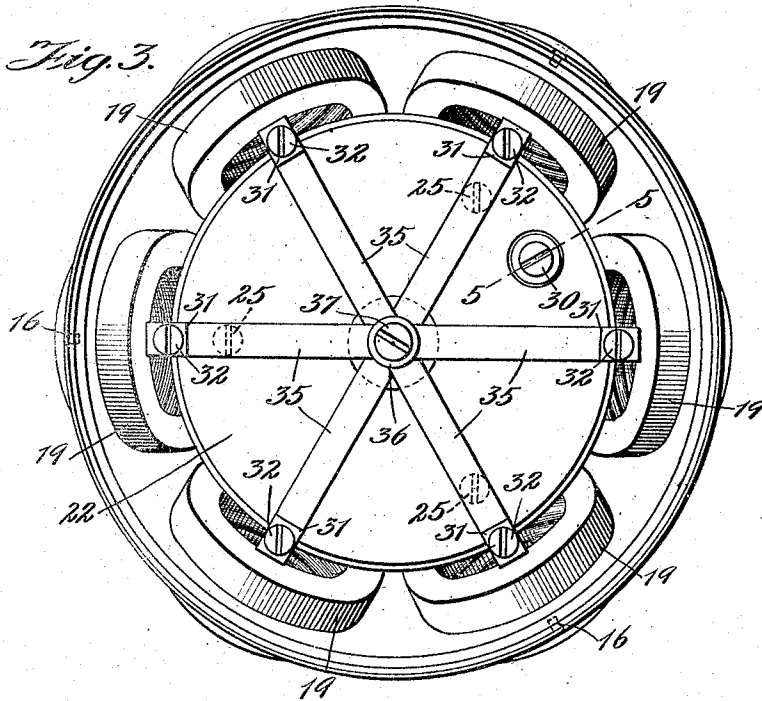
Inventor:
Reuben B. Benjamin
By *Jones, Addington & Ames*

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Attys

UNITED STATES PATENT OFFICE.

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

PLURAL-LAMP-HOLDING DEVICE.

942,242.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed December 28, 1907. Serial No. 408,409.

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 Plural-Lamp-Holding Devices, 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 plural lamp-holding devices, the principal object of the invention being to provide a device of this class which is of simple and economical construction and in which the number of lamps carried by the device may be varied to suit the requirements of the user.

In the accompanying drawings, Figure 1 is a plan view of a device embodying the features of my invention, the back plate which forms the upper side of the casing being partly broken away to expose to view some of the interior construction; Fig. 2 is a view of this form of the device, partly sectional on the line 2—2 of Fig. 1, looking in the direction of the arrows, and partly elevational, the casing being shown in section; Fig. 3 is a view similar to Fig. 1, but showing a slightly different form of the device, the back-plate being removed; Fig. 4 is a view corresponding to Fig. 2, except that the casing is omitted in this figure, illustrating the form of the device shown in Fig. 3; and Fig. 5 is a partial sectional view on the line 5—5 of Fig. 3.

The live parts of the device are inclosed within a casing comprising a substantially hemispherical, preferably metallic, shell 10 and a back-plate 11 having a downturned flange 12 extending around its edge. This back-plate is provided with means for securing the same to the threaded end of a pipe or the like, this means comprising a neck formed by drawing the light material of the back-plate down around a central opening as at 13, and securing therein an interiorly-threaded bushing 14. The method of securing the threaded bushing in place in the back-plate consists in forming the bushing with a groove 15 extending therearound and rolling the metal of the back-plate into this groove. This method affords a cheap yet strong construction. Means are provided whereby the parts of the casing, con-

sisting of the bowl-shaped shell 10 and back-plate 11, may be readily secured together when desired and as readily detached one from the other to afford access to the interior of the device. This detachable securing means consists of a bayonet connection comprising a series of pins 16 on one of these members and a series of corresponding bayonet slots or grooves 17 on the other part. The metal is drawn in to form suitable grooves 17^a running from the edge of the part into the bayonet slots for the purpose of permitting entry of the pins into these slots.

The shell 10 is provided with a plurality of openings arranged around the axis thereof and regularly spaced, each of these openings being adapted to receive a lamp and having suitable lamp-holding means corresponding therewith. As shown, the device is adapted for the reception of Edison lamps, and with this end in view there is inserted in each of the openings an insulating bushing 19, these bushings being interiorly threaded and having screwed thereinto threaded metallic shells 20 for the reception of Edison lamp bases. These shells form the outer lamp-terminal engaging contacts. Corresponding means for engaging the center terminals of the lamps is provided by an annular contact member 21 which extends around the insulating base 22. This base is centrally positioned in the casing and secured in place therein by means of a bolt 23 passing centrally through the casing and carrying a nut 24 upon its outer end. This ring contact 21 is secured to the base by suitable screws 25 passing through the base and into inwardly-bent lugs 26 on the plate 21, these lugs extending into recesses 27 provided therefor in the base 22. Another lug 28 is provided extending into a recess 29 and having a binding-screw 30 extending through the base thereinto. The head of this binding-screw 30 is on the upper side of the base and is accessible when the casing is separated from the back-plate.

Each of the threaded contact shells 20 is provided with an integral tongue 31, these tongues 31 being all secured, by means of screws 32 or other suitable means, to an electrically-conductive structure, this structure having a suitable binding screw for the accommodation of a lead as hereinafter explained. In the form of the device shown

in Fig. 1 and 2 this electrically-conductive structure consists of a ring 33 carrying the binding-screw 34, while in the other form of the device this structure is made up of 5 metal strips 35 secured at their opposite ends to the tongues of the socket shells, crossing or meeting at a central point and secured together by an eyelet 36 passing through all of the strips and interiorly 10 threaded to receive a binding-screw 37. By means of this binding-screw a lead may be connected with all of the contact shells of the device. If desired this conductive structure may be omitted and in lieu thereof the 15 lead would, in such a case, subdivide and extend to each of the lugs 31 separately, the screws 32 serving as binding-screws for connecting these ends of the leads with the sockets.

20 In assembling the parts of a device made up in accordance with the present invention, a bushing 19 will be passed outwardly through each of the openings in the shell 10, being prevented from completely passing 25 therethrough by reason of the fact that these bushings are of larger diameter at their inner than at their outer ends.

It will be seen that in this device the lamps are carried by the shell 10, and that 30 when this shell 10 is detached from the back-plate 11 the body of the device may be taken down, carrying with it the lamps, access being thus afforded to the binding-screws for making connection with the leads. If it be 35 desired to change the number of lamps carried by the device it becomes only necessary to take down the body of the device, remove the lamps from the sockets, withdraw the base and attached parts from the casing, 40 and replace these parts in another casing which may be in every way similar to the casing which was first used except that it is provided with a greater or lesser number of lamp-receiving openings.

45 By carrying in stock a quantity of casings having various numbers of openings, a supply of insulating bushings, and a supply of bases with contacts secured thereto, it is possible for a dealer to readily supply the 50 demand for sockets having any desired number of lamps within the limit of capacity imposed by the size of the device.

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

1. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, 60 an insulating bushing in each of said openings having shoulders for preventing said bushings from passing outward through said openings, a threaded socket-shell in each of said bushings, means supported wholly by said shells, for electrically connecting all of 65 said shells together, an insulating base with-

in said casing, and means carried by said base for conducting current to the center terminals of the lamps, said base being supported independently of said shells and said shell-connecting means.

2. In a plural lamp-holding device, a base, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, a threaded socket-shell in each of said openings, means in each of said openings for insulating the socket-shell from the casing, each 75 of said socket-shells having an integral tongue extending therefrom, means supported by said tongues and located between said base and said back-plate for electrically connecting all of said socket-shells together, 80 means independent of said shells and said connecting means for securing said base in position in said casing, and an annular contact carried by said base for engaging with 85 the center terminals of the lamps.

3. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell supported thereby having lamp-receiving openings, an insulating bushing in 90 each of said openings, a threaded socket-shell in each of said bushings, an insulating base within said bowl-shaped shell, a contact carried by said base for engagement with the center terminals of the lamps, and means for 95 connecting all of said threaded shells together electrically, said base being supported independently of said connecting means.

4. In a plural lamp-holding device, a casing comprising a back-plate and a bowl-shaped shell having lamp-receiving openings, an insulating bushing in each of said openings, an insulating base within said shell engaging said bushings to prevent their moving inwardly in said openings, a threaded 105 socket-shell in each of said bushings, means supported by said socket-shells for electrically connecting said shells together, and means carried by said base for conducting current to the center terminals of the lamps. 110

5. In a plural lamp-holding device, a casing having a circularly-arranged series of openings, a threaded socket-shell in each of said openings, a base within said casing, means carried by said base for conducting 115 current to the center terminals of lamps carried by said shells, and a plurality of metallic strips, each arranged to mechanically and electrically connect a pair of sockets together, a plurality of said strips crossing each other 120 and being electrically connected at their crossing point.

6. In a plural lamp-holding device, a casing circumferentially supported and having lamp-receiving openings, a threaded shell in 125 each of said openings, supported by said shell and insulated therefrom, a tongue extending from each of said threaded shells, means extending diametrically across said casing and electrically connecting the tongues 130

- of oppositely-arranged threaded shells, means for electrically connecting a plurality of said diametrically-extending connectors together at their crossing point, a binding terminal 5 for said connectors, a base within said casing supported independently of said connectors, and a lamp-engaging contact carried by said base.
7. In a plural lamp-holding device, a cas- 10 ing having lamp-receiving openings, a threaded shell in each of said openings, a member electrically connecting each diametrically opposite pair of threaded shells, all of said members crossing at a common point 15 and being secured together at such point, a binding terminal common to all of said connecting members, a contact-carrying base, and means independent of said connecting members for securing said base in position.
- 20 8. In a plural lamp-holding device, a cas- ing having a circularly-arranged series of openings, a threaded socket-shell in each of said openings, means for conducting current to the center terminals of lamps carried by said shells, a plurality of metallic strips, each 25 arranged to connect a pair of sockets together, arranged to cross each other, and a hollow rivet securing two of said strips together, said hollow rivet being interiorly threaded and carrying a binding-screw, a 30 contact-carrying base in said casing, and means independent of said strips for preventing movement of said base in said casing.
- In witness whereof, I have hereunto subscribed my name in the presence of two wit- 35 nesses.

REUBEN B. BENJAMIN.

Witnesses:

I. N. L. FARRAR,
C. L. HOPKINS