R. B. BENJAMIN.

PORTABLE HOLDER FOR ELECTRIC LAMPS.

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1,210,263.

Patented Dec. 26, 1916.

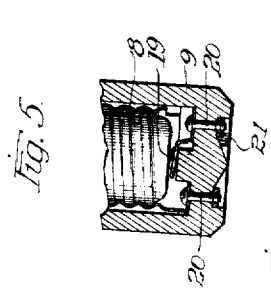


Fig. 5

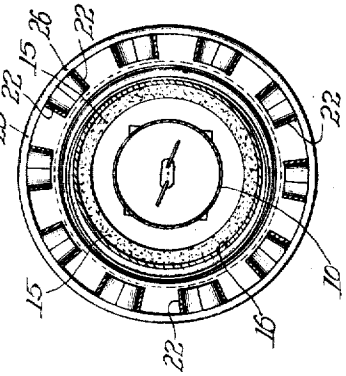


Fig. 4

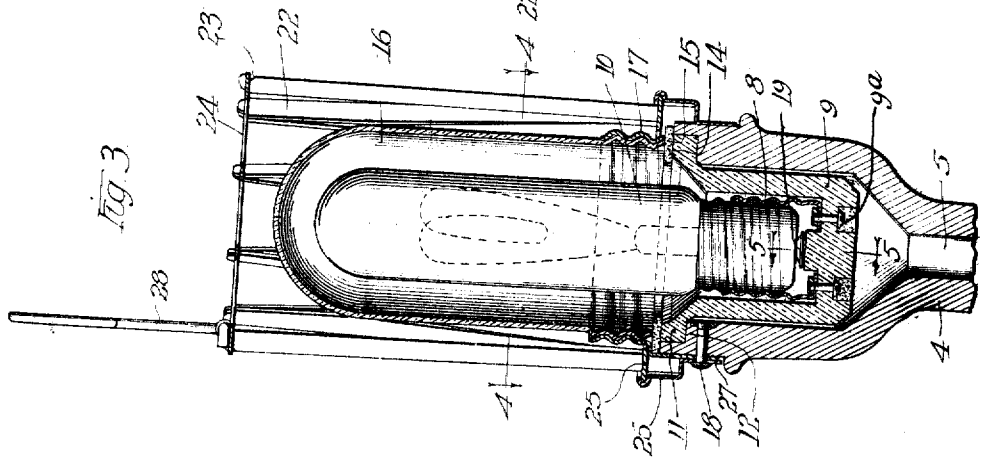


Fig. 3

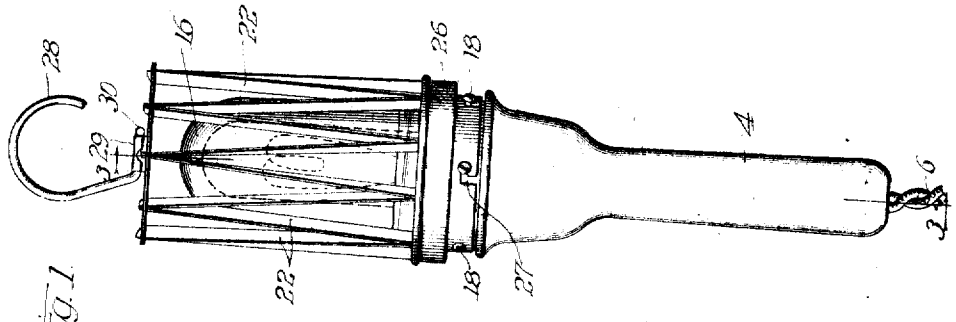


Fig. 1

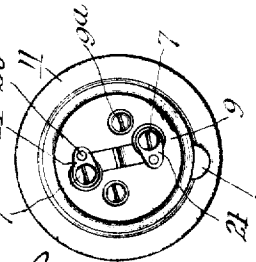


Fig. 2

Witnesses:
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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.

PORTABLE HOLDER FOR ELECTRIC LAMPS.

1,210,263. Specification of Letters Patent. **Patented Dec. 26, 1916.**

Application filed June 17, 1914. Serial No. 845,577.

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 Portable Holders for Electric Lamps, 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.

My invention relates to portable holders for electric lamps.

It is one of the objects of my invention to provide a gas-proof portable lamp holder of such a nature that all danger of access of a circulation of gas to the neighborhood of the lamp is removed so that the light may be safely used in the presence of gases.

It is a further object of my invention to provide such a device in which the glass globe is protected with a minimum amount of obstruction to the light rays.

It is still a further object of my invention to provide a fixture of the sort described which is economical to manufacture, simple in its construction and adaptable to a great variety of uses.

Additional objects and advantages will be apparent from the following specification taken in connection with the appended claims.

A holder constructed in accordance with my invention I have described, by way of example, in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation; Fig. 2 is a plan view of the socket from below; Fig. 3 is a cross sectional view (enlarged) taken on the line 3—3 of Fig. 1 looking in the direction of the arrows; Fig. 4 is a similar view taken on the line 4—4 of Fig. 3, looking in the direction of the arrows; and Fig. 5 is a cross sectional view (reduced) showing a part of the socket, the section being taken on the line 5—5 of Fig. 3, looking in the direction of the arrows.

Referring to the drawings, the device is carried by means of a wooden handle 4 which is provided with an aperture 5 for the entrance of feed wires 6. These wires lead to a pair of binding posts 7 electrically connected with an ordinary lamp shell 8 as will herein after be described.

The shell 8 is seated in a porcelain base 9 and is secured therein by a pair of screws 9^a, the heads of which are soldered or cemented in suitable recesses in the porcelain base. The shell 8 and base 9 form a socket for the reception of an incandescent lamp 10. The base 9 of this socket is provided, near the top thereof with a shoulder or flange 11 arranged to rest on a corresponding shoulder 12 formed in the top of the wooden handle 4 which is enlarged to accommodate the socket. Any rotation of the socket with respect to the handle is prevented by a projection 13 on the socket which fits into a corresponding recess in the handle.

The circular top of the socket's flange 11 is made fairly wide and is in substantially the same plane with the top of the handle 4, forming a seat 14 for a gasket 15 made of asbestos or other suitable yielding material.

The lamp 10 is inclosed by a glass globe 16 which is screw-threaded at its lower and open end to engage a screw-threaded shell 17 secured to the handle 4 by screws 18 passing through downwardly projecting lugs formed on the shell. The shell is so positioned that when the globe 16 is screwed into place it is drawn down onto the gasket 15 and the latter is, by the two opposing forces, clamped tightly between the globe and the socket with the result that a gas-tight joint is provided.

In electrical contact with the shell 8 of the socket and the central contact 19 thereof are screws 20 which pass through plates 21 and clamp them, in suitable recesses, against the porcelain base 9 of the socket. Through these plates pass the binding screws 7, their inner ends extending into blind recesses in the porcelain base. It will be seen that there is no direct passageway from the binding posts to the interior of the socket. The screws 20 clamp the plates 21 tightly in place and gas-tight connections are consequently provided. If desired solder or cement may be applied where the screws 20 protrude through the plates 21. It will thus be apparent that the socket and globe 15 form a chamber for the lamp into which no gas can enter and the device may, accordingly, be used in many circumstances which, owing to the presence of explosive gases, would preclude the use of the ordinary light.

To protect the glass globe a guard is provided comprising a diagonal lacing of metal ribs 22. Each rib is formed at its top with

a notched end 23 to engage a corresponding slot in a spider 24 forming a spacing member which protects the top end of the globe. At their opposite ends the ribs pass through slots in a ring 25 also forming a spacing member and are riveted into a cup member 26 which is secured to the ring 25 by having its edge turned over onto the latter. The upper ends of a pair of ribs engage the same notch in the spider and the opposite ends of that pair enter the slots occupied by the next preceding and next succeeding ribs respectively. This construction gives a lacing effect that provides a guard of great lateral rigidity capable of resisting forces tending to distortion of the ribs. And as the ribs are arranged edgewise to the lamp there is a minimum obstruction to the light rays.

The guard is secured to the handle by means of the screws 18. Bayonet slots 27 are formed in the cup member 26 and slip over these screws and when the latter are tightened the guard is held firmly in place.

A hook 28 is provided by means of which the light may be hung in any place desired. This hook is hinged to the spider 24 by means of a lug 29 formed on the spider and bent over to embrace the hook as shown in Fig. 1. Thus the hook may be turned down flat against the guard when not in use. A projection 30 on the hook engages the guard when the hook is raised to substantially vertical position and prevents its movement beyond such point.

It will be apparent that changes may be made in the form, construction and arrangement of the parts without departing from the spirit of my invention or exceeding the scope of the appended claims, the form of the invention herein disclosed being merely one preferred embodiment thereof.

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

1. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat associated therewith, of a gasket on said seat, a globe, and means for clamping said gasket tightly between said globe and member thereby to form a gas-tight joint.

2. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat associated therewith, of a gasket on said seat, a globe, means for clamping said gasket tightly between said globe and member, and a gas-tight connection associated with said socket for feed wires.

3. The combination with a lamp socket comprising an insulating member and a shell contact supported thereby, said insulating member having a seat thereon, of a gasket on said seat, a globe, and means for drawing said globe down tightly onto said gasket thereby forming a gas-tight joint.

4. In a portable lamp holder, the combination with a handle, of a lamp-receiving socket comprising an insulating member and a shell contact supported thereby, said insulating member associated with said handle, a globe associated with said socket, said globe and member having adjacent opposed portions and sealing means adjacent said opposed portions whereby a gas-tight chamber is formed for the light by said member and globe.

5. In a portable lamp holder, the combination with a lamp socket, of a handle associated with said socket, a seat formed by the top of said socket and of said handle, a gasket on said seat, a globe, and means for drawing said globe down on said gasket thereby forming a gas-tight joint.

6. In a portable lamp holder, a handle having a socket associated therewith, said socket having a shoulder resting on a corresponding shoulder on said handle, a seat on said socket, a gasket on said seat, a globe, means for drawing said globe down tightly on said gasket to form a gas-tight joint and to hold said socket in place.

7. A device of the class described comprising a lamp socket adapted to receive a lamp and a guard for said lamp comprising a spacing member having a plurality of slots therein and a plurality of ribs arranged around and placed edgewise toward the axis of the socket, two of said ribs extending into each of said slots and diverging from each other away from said member.

8. A device of the class described comprising a lamp socket and a guard for said lamp comprising two spaced spacing members, each having a plurality of spaced slots therein, and a plurality of ribs extending between said members and arranged around and placed edgewise toward the axis of the socket, two of said ribs extending into each of said slots.

9. A device of the class described comprising a handle having a cup-shaped portion, a cup-shaped insulating base located in said cup-shaped portion, a shell contact supported in said base, a gasket engaging the edge of said cup-shaped base and a globe for inclosing the lamp engaging the gasket.

10. A device of the class described comprising a handle having a cup-shaped portion, a cup-shaped insulating base located in said cup-shaped portion, a shell contact supported in said base, a gasket engaging the edges of said cup-shaped base and the cup-shaped portion of the handle, and a globe for inclosing the lamp engaging the gasket.

11. A device of the class described comprising a cup-shaped insulating base, a shell contact for said lamp supported in said base, a gasket engaging the edge of said cup-shaped base and a globe for inclosing the lamp engaging the gasket, the walls of said base immediately and closely surrounding said shell contact.

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

REUBEN B. BENJAMIN.

Witnesses:
ELIZABETH R. KING,
H. MONROE HUMASON.