J. BERG.

ELECTRIC LAMP.

APPLICATION FILED NOV. 21, 1914.

1,142,548.

Patented June 8, 1915.

2 SHEETS—SHEET 1.

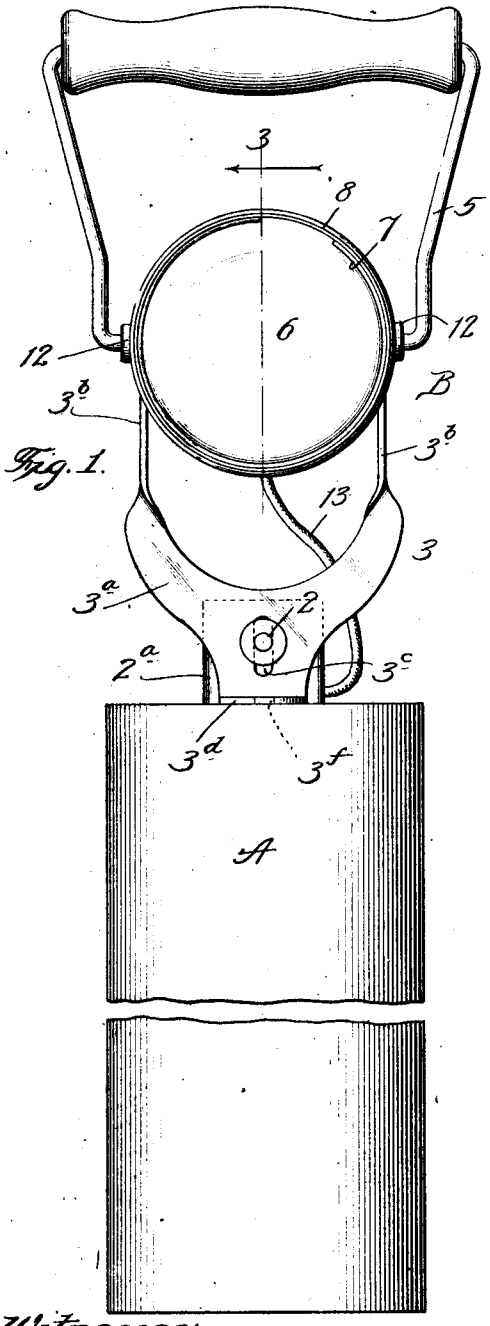


Fig. 1.

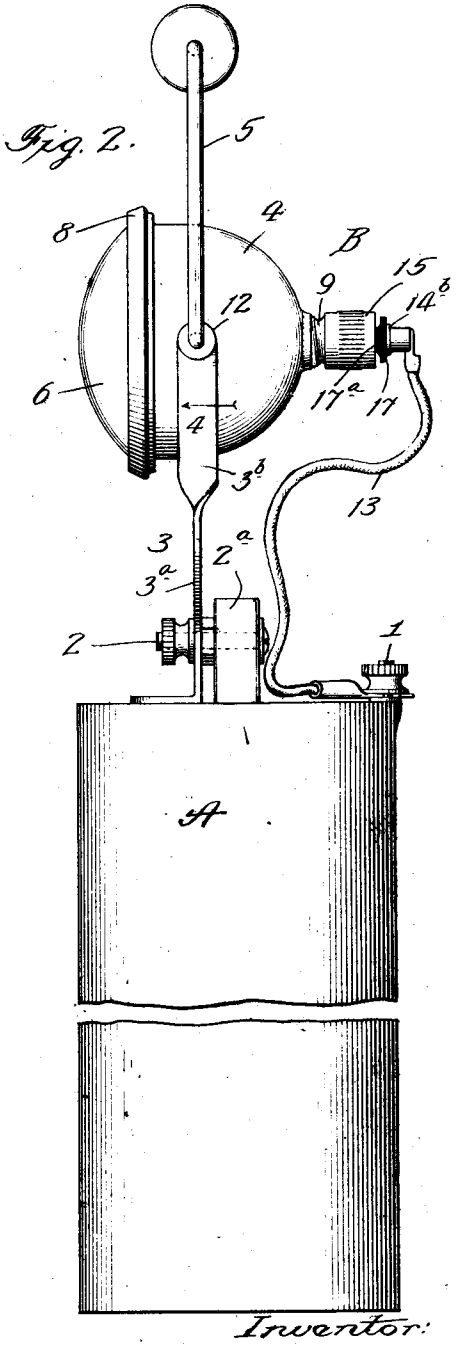


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

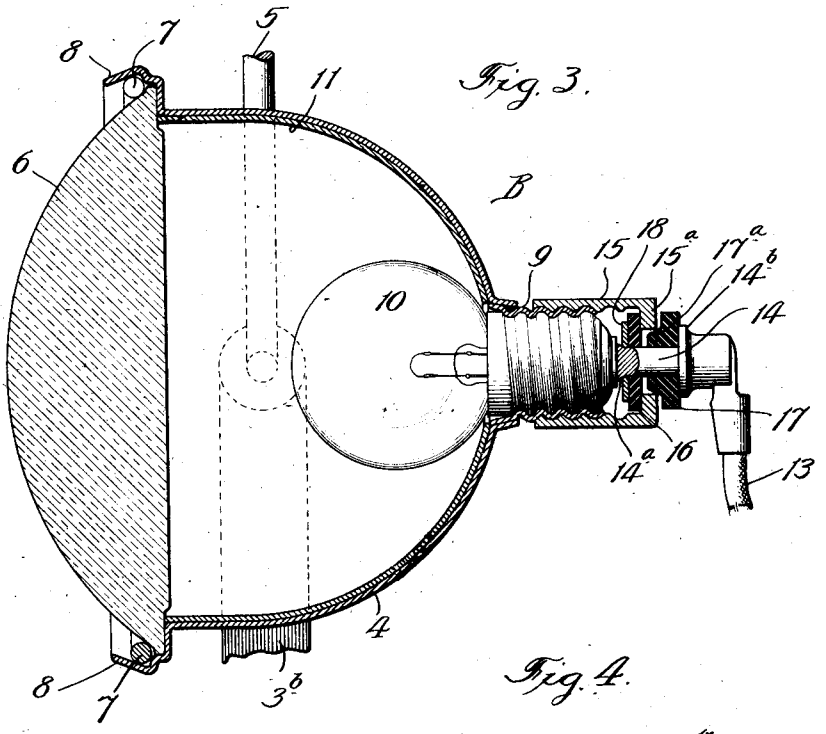


Fig. 4.

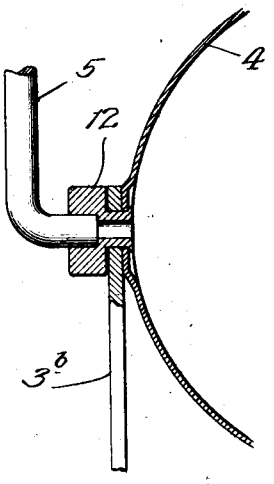
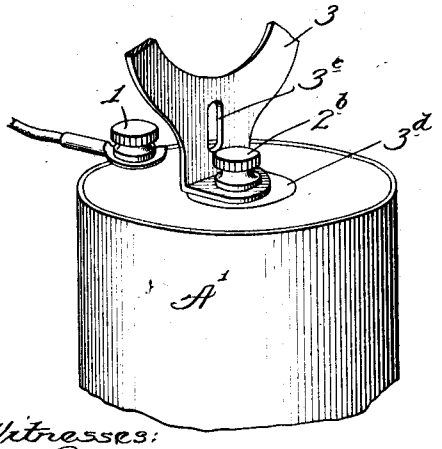


Fig. 5.



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UNITED STATES PATENT OFFICE.

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ELECTRIC LAMP.

1,142,548. Specification of Letters Patent. Patented June 8, 1915.

Application filed November 21, 1914. Serial No. 873,285.

To all whom it may concern:

Be it known that I, JOHN BERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Electric Lamps, of which the following is a specification.

This invention relates particularly to portable electric lamps.

The primary object is to provide an electric lamp of improved construction and result, which can be manufactured at a very low cost.

The invention is illustrated in the accompanying drawings as embodied in a lamp or lantern, wherein a dry-cell forms the base and furnishes the electric current.

In the accompanying drawings—Figure 1 represents a front elevational view of an electric lamp or lantern embodying my invention; Fig. 2, a side elevational view of the same; Fig. 3, an enlarged broken sectional view of the lamp, taken as indicated at line 3 of Fig. 1; Fig. 4, an enlarged broken sectional view, taken as indicated at line 4 of Fig. 2, and Fig. 5, a broken perspective view, showing the lamp adapted to a modified form of battery.

In the embodiment illustrated, A represents a battery in the form of a dry-cell; and B, my improved electric lamp or lantern mounted thereon.

In the form shown in Figs. 1 and 2, the dry-cell is provided at its upper end with an outer binding-post 1 and a central binding-post 2, the latter projecting laterally from the central electrodes or carbon-post 2^a.

The lamp B comprises a bracket or standard 3 which rests upon the upper end of the dry-cell and is firmly secured to the binding-post 2; a lamp-body 4 comprising a lens-equipped reflector pivotally mounted between the upper ends of the arms of the standard 3; and a bail or handle 5 connected with the upper end of the arms of the standard 3.

The standard 3 may be conveniently formed of sheet-metal. As shown, it comprises a vertical base-portion 3^a and upwardly extending arms or furcations 3^b, which are given a quarter-twist, so that the upper ends of the arms will be disposed flatwise adjacent the outer sides of the reflector-body. The vertical base-portion 3^a is provided with a vertical slot 3^c, which receives the binding-post 2, by means of which the standard is securely clamped or fastened to the central carbon-post 2^a. The lower extremity of the base-portion 3^a is bent to lie in a horizontal plane. Thus the base of the standard is provided with a foot-portion 3^d which rests upon the upper end of the dry-cell and which is provided with a vertical perforation 3^f, which may be employed for connecting purposes when a battery of the form shown in Fig. 5 is employed.

The reflector-body 4 is preferably of approximately semi-spherical form, and is equipped at its large open end with a lens 6 which is removably secured in place by a split spring-ring 7 which is confined within a retaining flange 8 with which the front part of the reflector-body is provided. The bottom or rear end of the reflector-body is equipped with a socket 9, which may be of corrugated form, so as to provide inner and outer threads. The socket 9 receives the plug portion of the electric lamp or bulb 10. The reflector-body may be given any suitable exterior finish, such as a nickel-plated surface. To avoid the necessity of buffing and polishing the interior surface of the reflector-body, it is preferred to provide a separately-formed internal-shell or reflector member 11, which fits snugly within the outer shell and is provided in its bottom with a perforation to admit the stem of the incandescent lamp or bulb. The inner shell 11 may be dipped in white enamel and subjected to a baking operation, thus providing a smooth white reflecting surface at very low cost.

The reflector-body 4 is pivotally mounted on the upper ends 3^b of the standard 3, preferably in the manner shown in Fig. 2. As there shown, pivots 12 are employed, which have reduced inner ends extending through the upper ends of the arms 3^b and into the sides of the shell 4, where the ends are secured by spinning or expanding them within the shell. The outer ends of the rivets are enlarged and provided with sockets which receive the inturned lower extremities of the wire forming the bail 5. The wire is sufficiently resilient to enable the pivot-portions of the bail to be sprung into their sockets; and, of course, the bail may be removed or omitted, if desired.

The standards 3, the pivots 12, the shell 4, and the lamp-socket 9 are preferably of metal, so that a circuit from the central post of the battery to the exterior of the stem of the lamp-bulb is provided. The circuit is completed through a conductor 13 connected with the binding-post 1. The conductor 13 is provided with a terminal 14 adapted to make contact with the central terminal of the incandescent lamp. The outer end of the socket 9 is open, thus exposing the outer end of the stem of the lamp-bulb. The terminal 14 has swivelly connected therewith a nut or sleeve 15 which is adapted to screw onto the socket 9. The structure is such that when the sleeve 15 is screwed on a sufficient distance, contact will be established between the terminal 14 and the central terminal of the lamp-bulb; and by unscrewing the sleeve 15 slightly, the contact will be broken. Thus, the connection is such as to serve the function of a switch, rendering unnecessary the use of a separate switch.

The terminal 14 is provided at its inner end with a collar or flange 14^a, and at some distance therefrom with an outer flange or collar 14^b. The member 15 is provided at its outer or rear end with an inturned flange 15^a, which is disposed between insulating washers 16 and 17 mounted on the terminal member 14. The washer 17 has a conical part 17^a which extends within the inner periphery of the flange 15^a. Thus, the central terminal 14 is effectually insulated from the sleeve 15. While of no particular importance, the terminal 14 is shown equipped behind the flange 14^a with a small washer 18.

The connection between the standard 3 and the dry-cell is of such a substantial nature as to enable the dry-cell to be carried about and to serve in effect as the base or main body of a lantern. The lamp may be turned on its horizontal axis to any desired position, thus enabling the light to be directed according to desire. The circuit may be established or broken, at will, by turning the sleeve 15, which is preferably provided with a knurled exterior surface, either to the right or to the left, as the case may be.

In the modification shown in Fig. 5, A′ represents a battery having a vertically-disposed central binding-post 2^b. In this case, the standard 3 has its foot-portion 3^d secured to the vertical post 2^b, the latter extending through the vertical perforation 3^f, which is shown in dotten lines in Fig. 1. In this case, the vertical slot 3^c is not used.

An electric lamp of the character described is simple, cheap, and readily understood and operated, even by those having practically no knowledge of electrical devices. Such a lamp may be used with safety about a house or barn, garage or store-room; and it may serve as a safety lantern, taking the place of oil-lanterns now in common use.

If desired, the lamp proper and its standard or mounting may be used as a bicycle or motorcycle lamp, or for analogous purposes. In such case the bail may be omitted, and the standard or mounting may be secured to the bicycle frame, or to the steering head, and the connections may then be made with the battery which is commonly mounted on the frame of the bicycle or motorcycle.

The foregoing detailed description has been given for clearness of understanding only and no unnecessary limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

What I regard as new and desire to secure by Letters Patent is:—

1. In a device of the character set forth, the combination of a battery, a forked standard mounted centrally on the upper end thereof and having connection with one electrode of the battery, a reflector-body pivotally mounted between the forks of said standard and having its back portion fitted with an incandescent lamp-bulb, and electric connections between the central terminal of the lamp-bulb and the other electrode of the battery.

2. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a standard secured to said central binding-post and affording an electric conductor, a reflector-body pivotally mounted on said standard and serving as an electric conductor, said reflector-body equipped at its rear portion with a socket affording an electric conductor, a lamp-bulb having its external terminal secured in and contacting with said socket, a conductor connected with the outer binding-post and equipped with a terminal adapted to contact with the central terminal of the lamp-bulb, and a sleeve having threaded connection with said socket and having swivel connection with the terminal of said conductor.

3. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a fixed standard mounted on said dry-cell and secured to said central binding-post, a reflector-body having its intermediate portion pivotally mounted on said standard and having its back portion equipped with a lamp-bulb, said standard and pivotally mounted reflector-body affording electrical connections between the central binding-post and the outer terminal of the lamp-bulb, external flexible electric connections between the central terminal of said lamp-bulb and the outer binding-post, and a handle connected with said standard.

4. In a device of the character set forth, the combination with a dry-cell having a

central binding-post and an outer binding-post, of a standard mounted on the upper end of said dry-cell and secured to said central binding-post, a reflector-body having its sides pivotally mounted on said standard and having its rearwardly projecting portion equipped with a lamp-bulb, electric connections between said lamp-bulb and the outer binding-post, and a bail having the lower ends of its arms pivotally connected with the arms of said standard.

5. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a standard mounted on said dry-cell and secured to said central binding-post, a reflector-body mounted on said standard and equipped at its rear portion with an open socket, a lamp-bulb secured in said socket, an external conductor connected with the outer binding-post and equipped with a terminal adapted to contact with the central terminal of the bulb, and a sleeve having threaded connection with said socket and having insulated swivel connection with the terminal of said conductor.

6. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a metal standard secured to said central binding-post, a metal reflector-body pivotally mounted on said standard and equipped at its rear portion with an open-ended metal-socket which is provided with internal and external threads, a bulb screwed into said socket, a conductor connected with the outer binding-post and having a terminal adapted to contact with the central terminal of the lamp-bulb, and a sleeve having an internal thread connected with said socket and having its rear end insulatingly mounted and swiveled on the terminal of said conductor.

7. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a metal standard secured to said central binding-post, a metal reflector-body pivotally mounted at an intermediate portion on said standard and equipped at its rear portion with an open-ended metal-socket which is provided with internal and external threads, a bulb screwed into said socket, an external conductor connected with the outer binding-post and having a terminal adapted to contact with the central terminal of the lamp-bulb, and a bail whereby the device is suspended to serve as a lantern.

8. In a device of the character set forth, the combination of a reflector-body, a mounting therefor provided with arms having pivotal connections with the opposite side of said reflector-body, a lamp-bulb secured in the rear portion of the reflector-body, and a conductor cord leading to the central terminal of the lamp-bulb through the rear portion of the device.

9. In a device of the character set forth, the combination of a reflector-body having its rear portion provided with a socket, a mounting therefor having pivotal connections with the sides of said reflector-body, a lamp-bulb secured in the socket in the rear portion of the reflector-body, an external conductor equipped with a terminal adapted to contact with the central terminal of the lamp-bulb, and an internally-threaded sleeve screwed on said socket and having insulated swivel connection with the terminal of said conductor.

10. In a device of the character set forth, the combination of a reflector-body equipped at its rear portion with an open-ended socket having internal and external threads, a lamp-bulb screwed into said socket, an external conductor having a terminal adapted to contact with the central terminal of the lamp-bulb, an internally-threaded sleeve having insulated swivel connection with the terminal of said conductor and adapted to screw onto said socket, and a mounting having pivotal connections with the sides of said reflector-body.

11. In a device of the character set forth, the combination of a reflector-body equipped at its rear portion with an open-ended socket opening through the rear portion of said reflector body, a lamp-bulb secured in said socket, an external conductor having contact means co-acting with one terminal of the lamp-bulb, means for securing said conductor to said socket, and a forked mounting having pivotal connection with the sides of the reflector-body, said mounting and the reflector-body pivotally connected thereto affording electric connection with one terminal of the lamp-bulb.

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In presence of—
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F. M. RONDEAU.