

(No Model.)

O. C. PRASSE.
ELECTRIC LANTERN.

No. 601,758.

Patented Apr. 5, 1898.

Fig. 1.

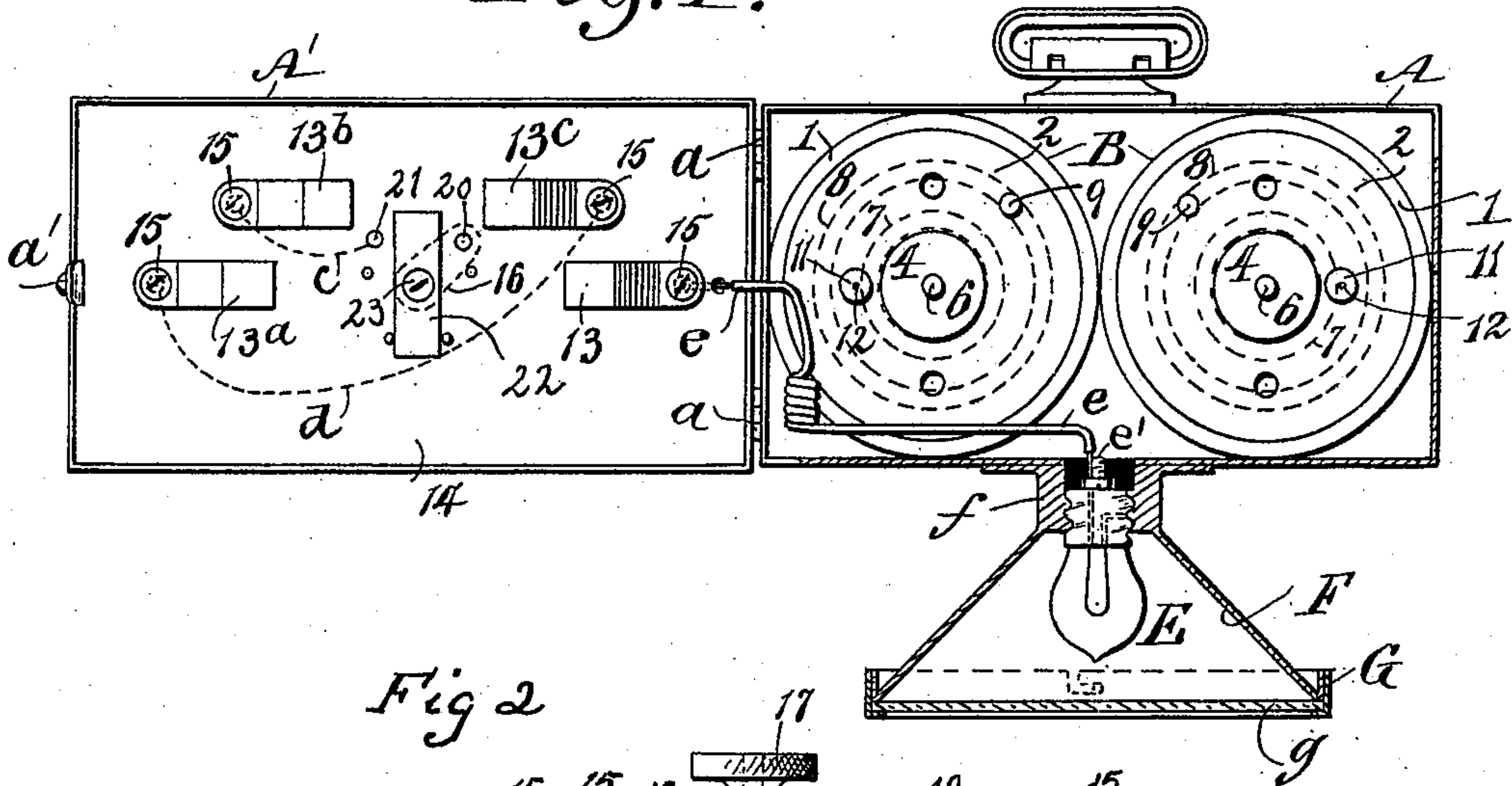
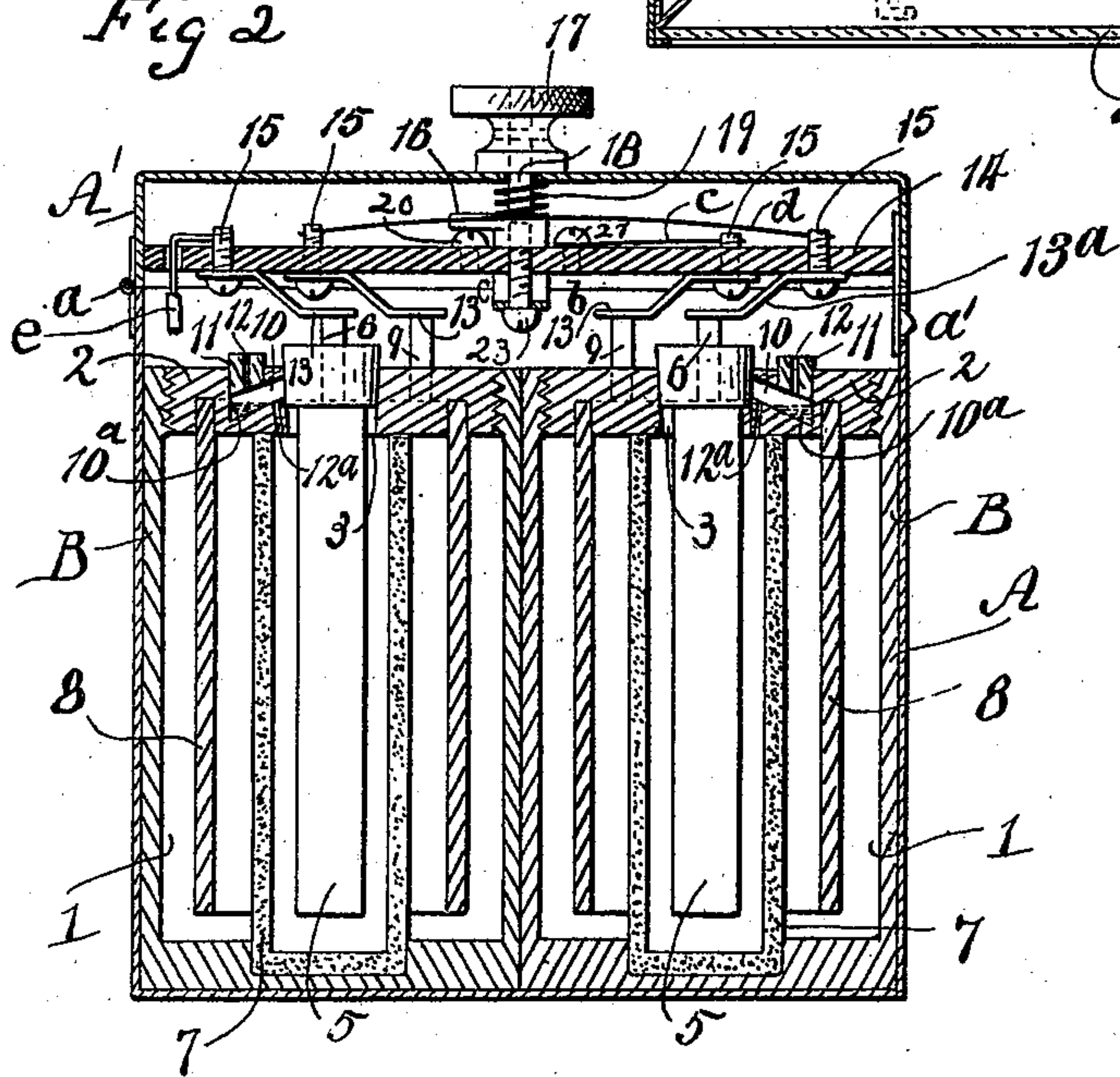


Fig 2



WITNESSES

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OSCAR C. PRASSE, OF WEST NEW BRIGHTON, NEW YORK.

ELECTRIC LANTERN.

SPECIFICATION forming part of Letters Patent No. 601,758, dated April 5, 1898.

Application filed June 28, 1897. Serial No. 642,614. (No model.)

To all whom it may concern:

Be it known that I, OSCAR C. PRASSE, a citizen of the United States, and a resident of West New Brighton, county of Richmond, and State of New York, have invented certain new and useful Improvements in Electric Lanterns, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which
10 similar letters and figures of reference indicate corresponding parts.

This invention relates to improvements in electric lanterns for bicycles or other vehicles; and the objects thereof are to do away
15 with the use of foul-smelling oils and to provide a device of this character that will not smoke and cannot be accidentally put out by the vibrations of the vehicle upon which it is carried.

20 The device is simple in construction, light, and durable, and it can be readily maintained in operative or working position at a slight cost.

25 The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of my improved lantern, showing the
30 lid thereof in an opened position; and Fig. 2 is a longitudinal sectional elevation of the device, showing the lid closed, whereby the lantern is in an operative condition ready for use.

In the practice of my invention I provide,
35 primarily, a sheet-metal casing A of any suitable contour. To the upper edge of this casing a lid A' is attached by means of hinges a, and a spring-catch a' is attached to the lid as a means for maintaining it in a closed position, as illustrated in Fig. 2 of the drawings.

40 Within the casing A, I place batteries B, these said batteries being preferably two in number and they are respectively constructed as follows: comprising a cylindrical box 1,
45 having a removable screw cap or head 2 connected thereto as a means for keeping the box normally closed. This said screw-cap has an opening 3 in the center thereof which engages with a plug 4, composed of rubber or other
50 suitable insulating and flexible material. Depending from this rubber plug is a zinc 5, which is in electrical connection with a post

6, which extends upwardly beyond the outer surface of the plug 4 for the purpose of making electrical connections, as will be herein-
55 after described. This said zinc is surrounded by a cup 7, composed of porous clay, the cup being of cylindrical contour.

Connected to the cap or head 2 and surrounding the cup 7 is a cylindrical carbon 8,
60 and this carbon is in electrical connection with a post 9. Leading into the head 2 at a downwardly-extended angle from the aperture 3 is a recess 10, which is normally closed by means of a plug 11, said plug having a
65 small aperture 12 leading therethrough, whereby expansive gases may escape from the cup 7 through a small vent 12^a. The recess 10 is partly filled with mercury 10^a to close the aperture 12 in case the device is ac-
70 cidentally tilted or inverted, whereby the fluid compound contained in the cup 7 cannot escape.

As a means for electrically connecting the
batteries I employ a series of spring-metal
75 plates 13, 13^a, 13^b, and 13^c, and they are all mounted upon a hard-rubber plate 14 by means of screws 15. These said screws extend through the plate 14 and act as posts for connection with wire conductors for making
80 the circuit.

Mounted centrally upon the inner surface of the insulating-plate 14 is a switch 16, which is adapted for opening and closing the circuit and is connected to a handle 17 by means of
85 a spindle 18. A spiral spring 19 is used to maintain electrical connection between the said switch and the metallic lid A', forming part of the casing. This said switch is adapted for alternate engagement with posts 20
90 and 21, and secure connection therewith is maintained by means of a plate-spring 22, which is held in place by a screw 23.

In operation the post 21 is connected to the plate 13^b by means of a conductor c, and the
95 plates 13^a and 13^c are connected by means of a conductor d. The plate 13 has a conductor e leading therefrom, which is in electrical connection with one pole of an electric lamp E by means of a screw e', which is insulated
100 from the metallic casing A, the other pole of the lamp being in electrical connection with the casing A by means of the metallic collar f, which surrounds the lamp. Extended out-

wardly from this said collar is a reflector F, which is normally closed by means of a cap G, having a glass face *g*, whereby the rays of light from the lamp E can be reflected outwardly, while at the same time the said lamp is thoroughly protected from all danger of being accidentally broken.

When the case is opened, as illustrated in Fig. 1 of the drawings, all connection between the batteries is broken; but when the lid A' is closed the poles 13 and 13^a connect with the zines 5, and the poles 13^b and 13^c connect with the carbons 8, whereby through the medium of the conductors *c* and *b* electrical connection is maintained between the batteries and the circuit is carried through the conductor *e* to the lamp-film, and thence through the metallic casing to the switch 16, whereby when said switch is thrown into engagement with the post 21 the circuit is completed and the lamp will burn as long as the batteries are charged.

When the switch is brought to bear upon the post 20, the circuit is broken and the lamp is therefore normally maintained in an unlighted condition; but it is evident that it can be instantly lighted by simply turning the switch 16 until it engages with the post 21.

For charging the batteries I use a solution of sulfuric acid and water in the porous cup 7, and a solution of bicromate of potash, sulfuric acid, bisulfate of mercury, and water in the cylindrical casing 1 of the battery, and it is evident that any excess of expansive gas arising from the solution will escape through the vent 10, whereby all danger of injury to the battery-casings is obviated.

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

1. A battery, comprising a casing having a removable head thereon and a depending cy-

lindrical carbon attached to said head, an inclosed porous cup and a removable zinc contained within said cup, the said cup and the said casing adapted for respectively containing chemical compounds, the said head having a diagonal vent containing mercury leading therethrough for escape of gases, substantially as shown and described.

2. In a battery, the combination of a porous cup containing a suspended zinc, and a cylindrical carbon surrounding said zinc, and a casing inclosing the said parts, said casing having a removable head to which the said carbon is attached and from which the zinc is suspended, and a recess formed in said head for containing mercury, said chamber adapted as a vent from the battery and the mercury therein adapted for closing the outlet when the battery is tilted or inverted, substantially as shown and described.

3. A battery comprising a porous cup containing a suspended zinc, a cylindrical carbon surrounding said zinc, a casing inclosing said parts, said casing having a removable head to which the carbon is attached and from which the zinc is suspended and a recess in said head for containing mercury, said chamber adapted as a vent from the battery and the mercury therein adapted for closing the outlet when the battery is tilted or inverted; in combination with an electric lantern projected from the side of said casing and connected to the battery, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 24th day of June, 1897.

OSCAR C. PRASSE.

Witnesses:

C. SEDGWICK,
B. McCOMB.