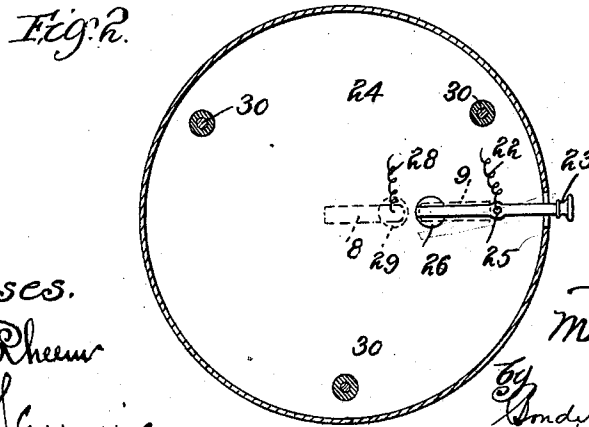
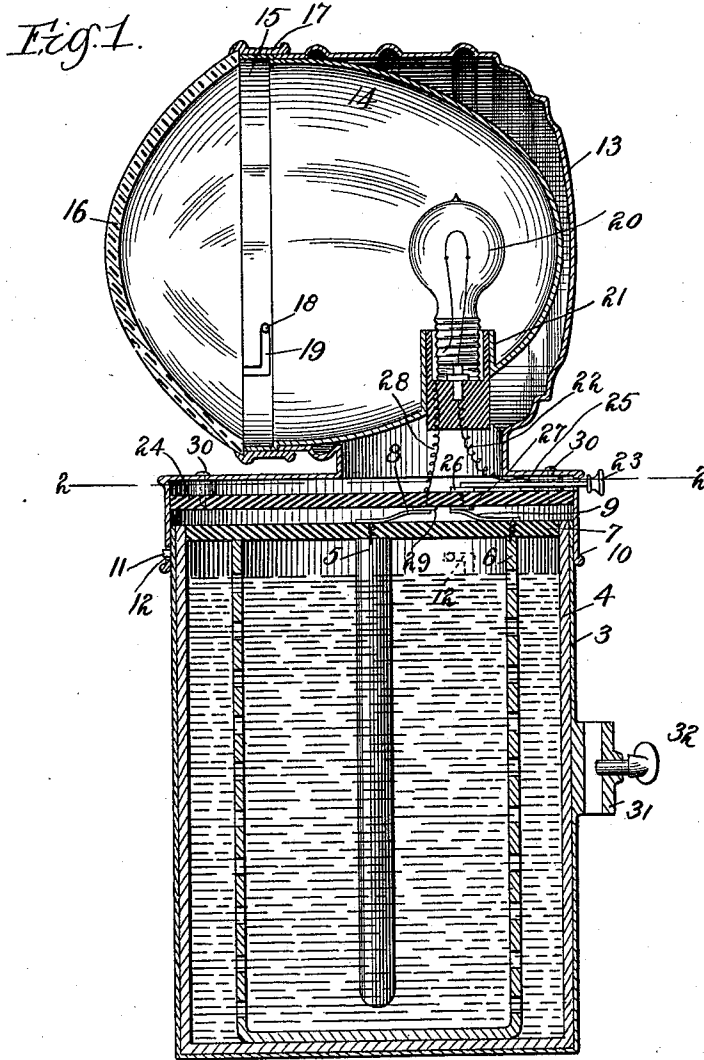


(No Model.)

M. M. KOHN.
ELECTRIC LAMP.

No. 578,107.

Patented Mar. 2, 1897.



Witnesses.

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UNITED STATES PATENT OFFICE.

MILTON M. KOHN, OF CHICAGO, ILLINOIS.

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 578,107, dated March 2, 1897.

Application filed December 4, 1895. Serial No. 571,073. (No model.)

To all whom it may concern:

Be it known that I, MILTON M. KOHN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Electric Lamps, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a
10 horizontal section on line 2 2 of Fig. 1.

This invention has for its object to provide a new and improved electric lamp which is well suited for use as a headlight for bicycles, although it may be used for other purposes.
15 This object is accomplished in the manner and by the means hereinafter described and claimed.

In the drawings, 3 indicates a case, of metal or other suitable material, which is adapted
20 to contain the battery.

4 indicates a battery-cell containing positive and negative elements 5 6, as shown in Fig. 1.

7 indicates a cap for the cell 4, which is
25 adapted to hermetically seal it to prevent the escape of the excitant.

8 9 indicates spring contact-plates connected, respectively, to the positive and negative elements by wires which pass through the cap 7.

30 10 indicates a cover or cap for the casing 3. The cap 10 is preferably secured upon the case 3 by pins 11, which project from the case and are adapted to enter angular slots 12 in the case, as indicated by dotted lines in Fig. 1, the arrangement being such that the cap
35 may be secured in place by inserting the pins 11 in the slots 12 and then giving the cap a slight twist upon the case.

The cap 10 carries a shell 13, arranged to
40 receive a reflector 14, preferably of parabolic form, such as commonly used in locomotive-headlights. The forward portion of the reflector 14 is arranged to fit closely into the shell 13, and is provided with an offset ring
45 15, against which the forward edge of the shell 13 abuts. The reflector is secured in place by soldering or other suitable means.

16 indicates a lens which is secured to a ring 17, adapted to fit over the ring 15. The
50 ring 17 is secured to the ring 15 by pins 18, adapted to enter angular slots 19 in the ring 15, said slots being similar to the slots 12.

By this construction the lens may be readily detached or put in place.

20 indicates an incandescent lamp which 55 is supported by a socket 21, arranged at the rear of the reflector in such position that the light will be at the focus of the reflector, in the usual manner.

22 indicates a wire connecting the lamp 60 with a switch 23, mounted in the cap 10 upon an insulating-plate 24, as shown in the drawings. The switch 23 is pivoted upon a suitable support 25 and may be rocked to move it into or out of contact with the contact-plate 65 26 in said insulating-plate 24, as shown in Fig. 2. The contact-plate 26 is connected with a contact-plate 27 on the under side of the insulating-plate 24; or, instead of two connected plates, as shown, a pin extending 70 through said insulating-plate may be used. The plate 27 contacts with the contact-plate 9 when the cap 10 has been put in place upon the case 3.

28 indicates a wire connecting the lamp 75 with a contact-plate 29, also carried by the insulating-plate 24 and arranged to contact with the contact-plate 8 when the cap 10 is put in place. By this construction the lamp may be cut into or out of circuit by operating 80 the switch 23.

30 indicates a series of connecting-pins which connect the insulating-plate 24 to the cap 10.

31 indicates a clip by which the lamp may 85 be attached to the usual support carried by a bicycle, being secured in place by a binding-screw 32.

By this construction a lamp is provided which is exceedingly compact and which may 90 be lighted and put out at pleasure and which is also unaffected by wind. The connection of the cap containing the lamp with the cell provides a construction whereby the battery and lamp are both easily accessible, while 95 both parts are fully protected when put together.

While my improved lamp is especially designed for use on bicycles and similar vehicles, it may be used for any other purpose to 100 which a portable lamp is adapted, such as for carriages, or bull's-eye lanterns, &c.

It will be evident that instead of making the battery-case round and securing it to the

cap by a bayonet-joint, as above described, it may be made square or of any other suitable shape, the cap being secured by hinges or other suitable means. Furthermore, instead of locating the reflector with its incandescent globe above the cap it may be placed at some other suitable point not inconsistent with its being attached to and being carried by the cap. I do not wish, therefore, to limit myself to the specific means shown for connecting the cap to the case nor to other details of construction, as many modifications may be made without departing from the spirit of my invention.

The battery is entirely independent of said case and is sealed by means which have no connection with the case, so that the battery is readily removed and exchanged without disturbing the parts mounted on the cap.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. In an electric lamp, the combination with a case to contain a battery, of a cap detachably fitted over the top of said case, contact-pieces connected to the positive and negative elements and mounted upon an insulating-plate which forms a seal for the battery, contacts mounted upon the detachable cap and electrically engaged with the contacts upon the seal-plate when said cap is fitted upon the case, and a hand-operated switch pivoted upon the cap to cut the lamp into and out of circuit, substantially as described.

2. In an electric lamp, the combination with a case to contain a battery, of a detachable cap fitting over the end of said case, an in-

sulating-plate forming a permanent seal for the battery and a support for the battery elements, a reflector carried by the detachable cap, an electric lamp mounted in a socket on the reflector, contacts mounted upon said sealing plate and cap, respectively, and brought into electrical engagement by fitting the cap upon the case, and a switch pivoted upon the cap, substantially as described.

3. In an electric lamp, the combination with a case to contain an electric battery, of a detachable cap for said case, a reflector mounted on said cap, an electric lamp carried by said reflector, an insulating-plate in said cap, contact-plates carried thereby, corresponding contact-plates mounted on an insulating seal-plate and connected to the poles of the battery, said contacts being engaged with those carried by the cap when said cap is attached to said case, and a switch pivoted on the cap for cutting said lamp into and out of circuit, substantially as described.

4. In an electric lamp, the combination with a case to contain an electric battery of a detachable cap for said case, a reflector on said cap, an electric lamp carried by said reflector, a switch on the cap, and contacts carried by the cap and by a permanent seal for the battery, automatically engaged with each other when the cap is attached to the case, substantially as described.

MILTON M. KOHN.

Witnesses:

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