

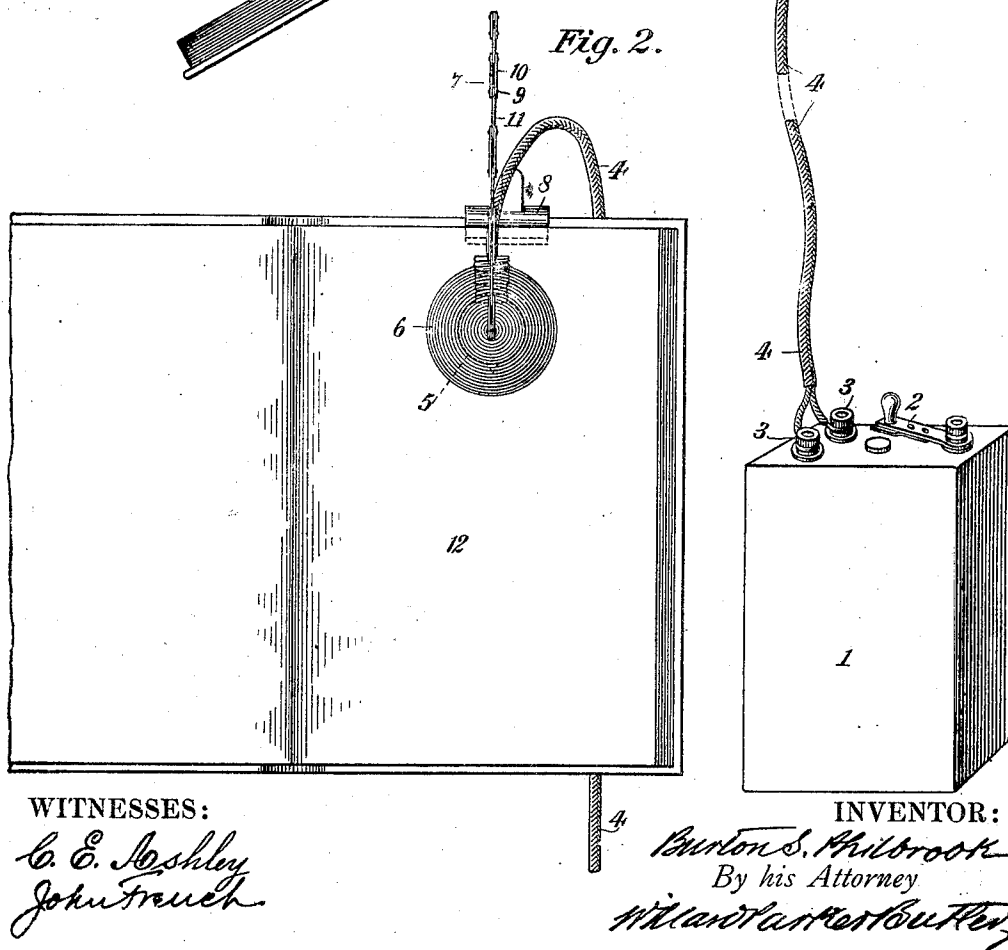
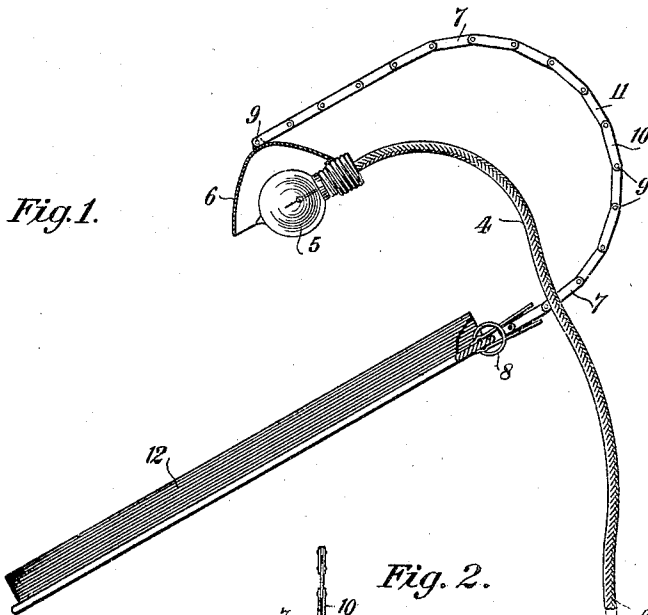
No. 691,071.

Patented Jan. 14, 1902.

B. S. PHILBROOK.
LIGHTING DEVICE.

(Application filed Feb. 4, 1901.)

(No Model.)



WITNESSES:

C. E. Ashley
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INVENTOR:

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UNITED STATES PATENT OFFICE.

BURTON S. PHILBROOK, OF NEW YORK, N. Y.

LIGHTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 691,071, dated January 14, 1902.

Application filed February 4, 1901. Serial No. 45,860. (No model.)

To all whom it may concern:

Be it known that I, BURTON S. PHILBROOK, a citizen of the United States of America, and a resident of the city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Lighting Devices, of which the following is a specification.

My invention relates to an improvement in lighting devices, and particularly to a pocket lighting device which occupies such a small space that it can be readily carried about and which may be readily adjusted to a book or pamphlet, thus enabling the user to read the same without discomfort in places where ordinarily a poor light or no light at all can be had, particularly out of doors on summer nights or in warm climates, on ship-deck at night, on invalid-beds, or in poorly-lighted trains or waiting-rooms.

My invention consists, primarily, in providing a miniature electric lamp which is shielded by a suitable shield and which is connected with any convenient portable source of electrical energy, and which lamp is attached to an adjustable folding arm which will operate to support it and hold it at any desired position above the surface to be lighted and which folding arm is at the same time capable of attachment to any portable body.

In ordinary practice the invention consists in attaching at one extremity of a folding arm an ordinary finger-clip, by means of which the adjustable arm may be readily clamped to any book, pamphlet, or surface, which folding arm is capable of any convenient form of angular adjustment, and in attaching to the other end of the arm a miniature lamp, which may be, if desired, supported under a shield in such manner as not to interfere with the movement and adjustment of the arm. The whole apparatus being of small weight can be packed in a small case or carried about in the pocket. Various alternative constructions can be used to form this device, and I do not confine myself to the constructions shown in the drawings forming part of this specification, nor necessarily to an electric lamp, if at any time a form of lighting equally convenient may be discovered, the gist of the invention lying in the use of a miniature lamp surrounded by a suit-

able shield, which operates by entirely screening the light from the eye to concentrate the light at a desired point, thus giving ample light for the purposes described, and by the insertion between the lamp and the attaching device of an arm, preferably being capable of folding and by means of which the lamp may be readily adjusted at any convenient angle to any class of surface, whether fixed or movable.

My invention will be best understood by reference to the annexed sheet of drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the device attached to a book and ready for use, and Fig. 2 is a plan view of the same.

Similar numerals refer to similar parts throughout both views.

In the drawings, 1 represents the source of electrical energy, which in this case is any convenient form of pocket-battery provided with a switch 2 for switching the current on and off the lamp and the binding-posts 3 for the wires 4, connecting the lamp with the battery.

7 is an adjustable flexible or folding arm of any convenient length, which, as in the form shown in the drawings, is composed of links, one link alternating with two, the whole fastened together by riveted pins, so that the parts shall fold up one upon the other and yet at the same time be sufficiently stiff to support the shield and lamp at any angle from a book or pamphlet of any size and of occupying a very small space after being folded. If desired, the arm can be made of any other material which will permit it to be readily adjusted to bring the lamp over any surface to be lighted. The arm 7 terminates at one extremity in any convenient form of attaching device which will enable it to be readily attached to any movable body or support—such, for example, as the finger-clip 8, to which it may be loosely connected and which may be of any convenient construction capable of being readily clamped or otherwise attached to the cover of a book or some of the pages of a pamphlet. The other extremity of the arm is connected to an ordinary miniature incandescent lamp of small candle-power.

In the construction shown in the drawings

the lamp is first attached to a shield or reflector 6, and this shield is attached to the end of the arm 7, riveted at the point 9, the shield therefore constituting a means of connection.

5 This construction, however, is immaterial, and the lamp itself may be attached directly to the extremity of the arm 7 by the pin 9 instead of being connected as shown. The shield is so attached in place as to entirely shield
10 the light from the eyes of the reader, thus throwing the whole of the light upon the book or pamphlet and allowing the use of a lamp of smaller candle-power than is ordinarily required for reading. In the drawings an ordinary miniature incandescent lamp is shown,
15 which, with the aid of the shield, will give light sufficient for ordinary purposes. The wires 4, connecting the lamp with the battery, are wound with fibrous material in the ordinary manner and are of any convenient
20 length, according to the distance from the battery at which the lamp is to be placed.

The whole device is of little weight and is so constructed as to be capable of being
25 folded up in small compass and to be readily carried around in the pocket or small cases.

When it is desired to use the light, the arm 7, supporting the lamp or shield, is clamped by the clip 8 to the cover of the book or other
30 surface 12, preferably for convenience to the side of the book or pamphlet on which the battery is retained. The arm is then unfolded and adjusted so as to bring the lamp at the proper angle over the page and the
35 light turned on with the switch 2 of the battery, which can be retained in the pocket or disposed of at any convenient place. By substituting for the pin 9 a ball-and-socket joint a still further adjustment with respect to the
40 surface can be effected.

As previously stated, the arm may be constructed differently from that herein shown and described, so that by the term "flexible" as employed in the claims I mean an arm
45 that is flexible at more than one point and preferably one flexible throughout its length. Such an arm may consist of a plurality of sections or links, as described, or it may be of a material which is itself flexible.

50 I claim as my invention—

1. In an electrical lighting device, the combination of an incandescent lamp; an adjustable attaching device, capable of attachment to any suitable support; and a suitable flexible member attached at one extremity to the
55 attaching device and at the other end connected with the lamp, whereby the latter may be adjusted with respect to said support at will.

60 2. In an electrical lighting device, the com-

bination of an incandescent lamp; a suitable shade for screening the same; an adjustable attaching device capable of attachment to any suitable support; and a suitable flexible member attached at one end to the attaching device and at the other end connected with the lamp, whereby the latter may be adjusted with respect to said support at will. 65

3. In an electrical lighting device, the combination of an incandescent lamp, a suitable shield screening the same; an adjustable attaching device capable of attachment to any suitable support; an adjustable flexible arm composed of a series of joints and connected to said attaching device; and means for connecting the lamp and screen to said arm. 70 75

4. In an electrical lighting device, the combination of an incandescent lamp; a suitable shield screening the same; an adjustable attaching device capable of attachment to any suitable support; an adjustable arm flexible at intervals throughout its length and connected to the said lamp and shield; and means for connecting the arm to the attaching device. 80 85

5. A portable electrical lighting device, comprising a movable source of electrical energy; an incandescent lamp; a suitable shade screening the same; an adjustable attaching device capable of attachment to any suitable support; and a suitable folding flexible member attached at one extremity to the attaching device and connected at the other end to the lamp, whereby the lamp may be adjusted with respect to the support at will. 90 95

6. A portable electrical lighting device comprising a movable source of electrical energy; a miniature incandescent lamp supported under a shield and connecting with the source of energy, said shield supporting and screening said lamp; an adjustable arm supporting the shield and lamp; and an adjustable attaching device attached to the adjustable arm. 100

7. A portable electrical lighting device comprising a pocket-battery; a miniature incandescent lamp connected with the battery; a shield supporting the lamp and screening the same; an adjustable arm supporting the shield and lamp; and an adjustable attaching device attached to the adjustable arm. 105 110

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 2d day of February, 1901.

BURTON S. PHILBROOK.

Witnesses:

WILLARD PARKER BUTLER,
JOHN FRENCH.