

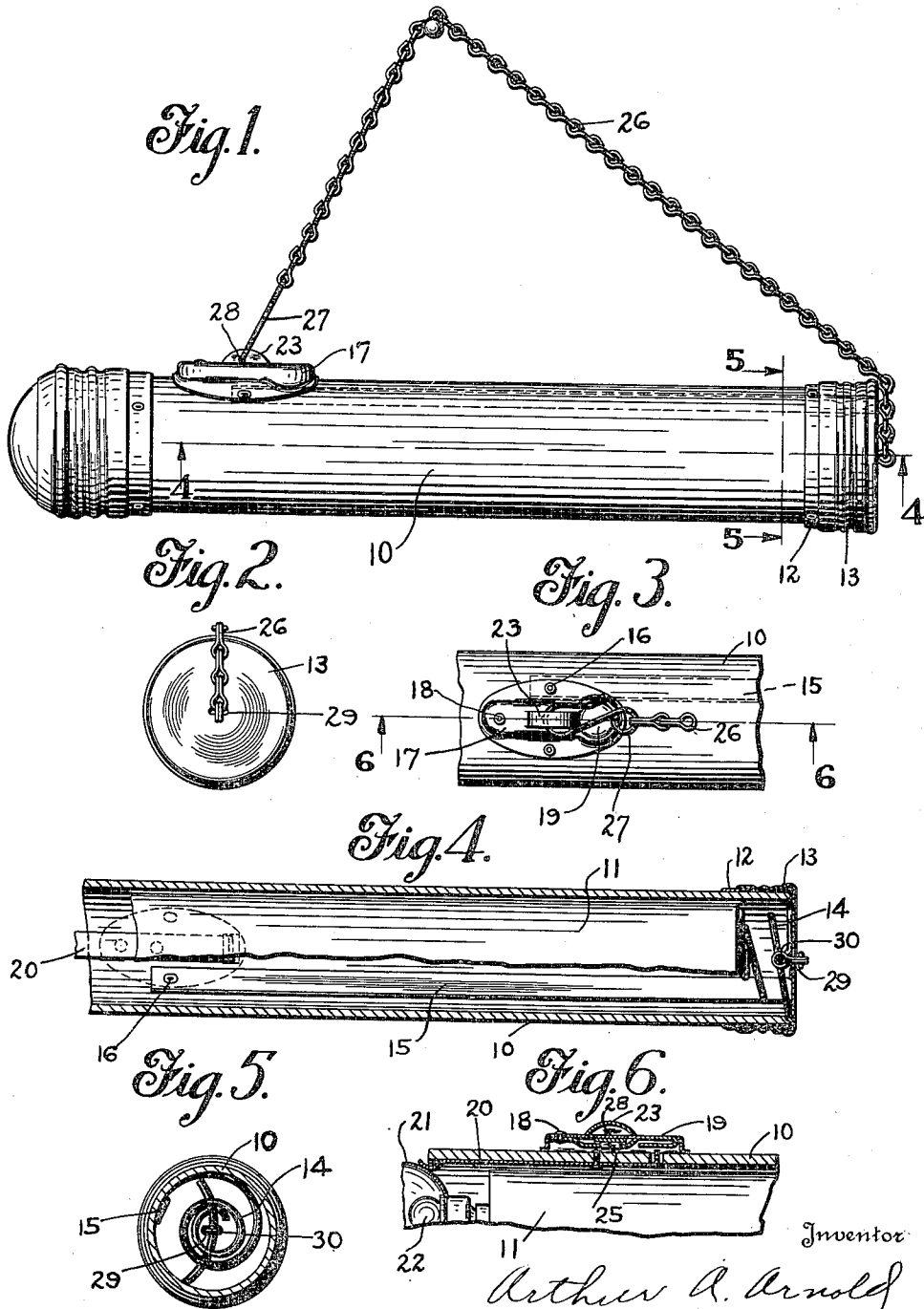
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A. A. ARNOLD

HANGLAMP

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Inventor

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UNITED STATES PATENT OFFICE.

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HANDLAMP.

Application filed April 2, 1921. Serial No. 457,896.

To all whom it may concern:

Be it known that I, ARTHUR A. ARNOLD, a citizen of the United States, residing at Hartford, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Handlamps, of which the following is a specification.

My invention relates to hand lamps and more particularly to electric hand lamps which are usually provided with the ordinary type of light bulb and are adapted to contain a battery of dry cells or some suitable source of electric current. Such lamps are usually called flash lights and the bulb is adapted to be placed in circuit with the cell or cells of the battery by the operation of a switch conveniently located at the exterior of the casing for manual operation.

The invention has more particular reference to a lamp of this type in which a tubular casing is employed to house the batteries or cells and wherein a metallic switch structure is applied to the exterior of the casing member to control the operation of the light.

In the past it has been found difficult at times to carry such a lamp in a convenient manner, due to the shape and size thereof and, moreover, it has been found difficult to place the lamp in a stationary position upon a table or the like so that a satisfactory disposition of the same may be made when not in use. The shape of the lamp usually is such that it is apt to roll when placed upon a flat surface and, moreover, there are no projections or protuberances usually provided by which the lamp may be supported or suspended in a convenient manner. It is to obviate these disadvantages that my invention is particularly designed.

One object of my invention is to provide a means attached to the lamp casing whereby the lamp may be easily carried either in or out of use and may be conveniently disposed of when it is not desired to carry the same. This is accomplished in the particular form of my invention shown in the drawings by the provision of a flexible supporting member which is attached to certain portions of the casing and by which the lamp may be suspended.

A further object of my invention is to attach such a supporting member to the lamp in a convenient, economical, and satisfactory manner so that it will not interfere with the

operation of the lamp or will not cause a short circuiting of the same so as to cause the lighting of the bulb at times when a light is not desired.

A still further object of my invention is to connect such a supporting member to one of the circuit controlling members of the lamp so that this member may be operated thereby in a convenient manner.

To these and other ends the invention consists in the novel features and combination of parts to be hereinafter described and claimed.

In the accompanying drawing:

Fig. 1 is a side elevation view of a hand lamp embodying the principles of my invention;

Fig. 2 is a rear end view of the same;

Fig. 3 is a detail plan view of a portion of the lamp showing the manner of connecting one end of the supporting member;

Fig. 4 is a sectional view on line 4—4 of Fig. 1;

Fig. 5 is a sectional view on line 5—5 of Fig. 1; and

Fig. 6 is a sectional view through the circuit controlling switch mounted upon the lamp casing taken substantially on line 6—6 of Fig. 3.

I have shown my improvements applied to a tubular hand lamp having a casing of any suitable material which, as shown in the drawings, is of fibre or a suitable non-conducting material. The casing contains the usual dry cell or cells 11 and is provided at the rear end with the customary threaded ferrule 12 upon which is threaded in the ordinary fashion the base cap 13 which, as shown in the drawings, is of metal. The usual spiral contact spring 14 is provided between the rear end of the battery and the metal base cap so that the current will be carried by this spring from the usual zinc cup containing the cell to the metal base cap. A contact member in the form of a flat strip 15 is applied to the interior wall of the casing 10, the rear end of this strip being in contact with the metal ferrule 12 or the base member 13, and the forward end of the same being suitably riveted at 16 to a metallic escutcheon 17 provided upon the outer surface of the casing.

The metallic escutcheon 17 serves as a current carrying member and has pivoted thereto at 18 a spring contact member 19

which is adapted to be depressed into contact with a second current carrying contact strip 20 which extends forwardly into contact with the reflector 21 which is mounted
 5 about the light bulb 22. This reflector, as shown, is formed of conducting material and is in contact with one terminal of the light bulb, the other terminal of which rests upon the carbon or positive pole of the battery.
 10 It will be obvious, therefore, when the contact member 19 is depressed in engagement with the contact strip 20 that the circuit will be completed through the battery and lamp and the lighting of the bulb will
 15 result.

The escutcheon 17 has mounted thereon a circuit controlling member in the form of a sliding corrugated thumb piece 23 which may be moved backwardly or forwardly to
 20 control the position of the contact member 19. This slide 23 is suitably mounted upon the escutcheon and has provided below the surface of the same a lug 25 which normally rests within a slot in the contact member 19.
 25 When, however, the contact member 19 is depressed into engagement with the member 20, the sliding thumb piece may be moved forwardly so that this lug 25 will bear upon the surface of the member 19
 30 to retain the same in depressed position and thereby lock this member in circuit closing position to cause a continuous light. When the sliding thumb piece is moved rearwardly, the resilience of the contact member 19
 35 will cause it to assume its normal position and the lighting of the bulb will be interrupted. With the particular form of switch shown, it will be understood that the contact member 19 must be depressed before the
 40 thumb piece 23 may be moved forwardly to lock the same in its circuit closing position, although the exact arrangement of these parts will not be of importance in all aspects of the invention.

45 To provide a convenient method of supporting the lamp while both in and out of use, there is shown in the drawings a flexible supporting member in the form of a chain 26, one end of which is detachably
 50 connected to a contact member of the lamp by the provision of a hook 27 which is adapted to be passed through an opening 28 in the sliding thumb piece 23. This hook member is so arranged that it may be easily
 55 detached when desired. The other end of the supporting member 26 is passed through an opening 29 in the base cap of the case and is provided upon the portion lying within the case with a loop 30 which may be a
 60 portion of one of the links of the chain, in the form shown, through which is passed a portion of the contact spring 14.

This, it is seen, will provide a very convenient and satisfactory manner of securing
 65 this end of the chain to the lamp. As will

be seen, the chain will be connected to circuit carrying members of the casing, but as the base cap and the sliding thumb piece will be of the same polarity the connection
 70 between them formed by the chain 26 will not affect the operation of the circuit closing members.

When the base cap is removed for the insertion of new cells or for any other purpose, the forward end of the chain may be
 75 detached by the removal of the end of the hook 27 from the perforation 28 so that the chain will not be twisted by the turning of the cap. Moreover, this hook may be disconnected from the casing so that, if desired,
 80 it may be secured in the buttonhole when the lamp is carried in the pocket, so that all danger of losing the lamp will be avoided.

The supporting member, it will be noted, is connected to the sliding controlling member 23 so that this member may be operated
 85 thereby, if desired. It is seen, therefore, that when the lamp is lighted, a rearward pull upon the supporting chain will move the sliding control member rearwardly so
 90 that the contact member 19 will be restored to the normal position shown in Fig. 6, and the circuit through the lamp interrupted. In the same manner the circuit may be
 95 locked in closed position by a forward pull upon the chain 26 after the contact member has been depressed.

While I have shown and described a preferred form of my invention with particularity, it is to be understood it is not to be
 100 limited to the exact details shown, but is capable of modifications and variations which will lie within the spirit of the invention and within the scope of the appended
 105 claims.

It is apparent that a hand lamp provided with my improvements may be conveniently suspended from a nail or the like by its supporting member so that a convenient disposition
 110 of the same may be made when not in use. When it is desired to use the lamp, the same may be carried by the chain or suspended from the wrist, if desired. A great many uses for the flexible supporting member
 115 will at once suggest themselves to anyone using the device.

What I claim is:

1. An electric hand lamp having a bottom closure and a contact device in combination
 120 with a chain secured to the said closure and detachably secured to the said contact device.

2. An electric hand lamp having a bottom closure and a contact device in combination
 125 with a chain secured to the said closure and detachably secured to the said contact device by means of a hook attached to said chain.

3. An electric hand lamp having a bottom closure and a contact device, which are of
 130

the same polarity, in combination with a chain secured to the said closure and detachably secured to the said contact device.

4. An electric hand lamp having a bottom closure and a contact device, which are of the same polarity, in combination with a chain secured to the said closure and detachably secured to the said contact device by means of a hook attached to said chain.

5. An electric hand lamp having a collar mounted at its bottom end, a cap mounted on the said collar and provided with an aperture, a battery contact spring mounted within the said cap, in combination with a chain, a link of which extends through the said aperture into the interior of the said cap and embraces said spring.

6. An electric hand lamp having a threaded metal collar mounted at its bottom end, a threaded metal cap mounted on the said collar and provided with an aperture, a metal battery contact spring mounted within the said cap, an aperture in the said cap in combination with a chain, a link of which extends through said aperture into the interior of the cap and embraces the said spring and a hook mounted upon the other end of the said chain.

7. An electric hand lamp having a casing, a contact device mounted thereon, a removable metal cap mounted on one end of the said casing and provided with an aperture, the said cap and the said contact device being of the same polarity, a battery contact spring mounted in the said cap and a carrying chain, one end of which passes through an aperture in the said cap and is attached to the said spring, and the other end of which is provided with a hook whereby it may be detachably secured to the said contact device.

8. A hand lamp having a casing provided with a base cap, a contact device mounted thereon, and a flexible supporting member connected to said contact device and to said cap.

9. A hand lamp having a casing, a contact device thereon, a base cap for said casing, and a flexible supporting member connected to said base cap, and provided with a hook at a point remote from the cap for connection to the control device.

10. A hand lamp having a casing, a battery contact spring within the casing and a flexible supporting member passing through the casing and embracing said spring.

11. A hand lamp having a casing, a flexible supporting member passing within the casing and provided with a loop therein, and a battery contact spring embraced by said loop to prevent withdrawal of the member from the casing.

12. A hand lamp having a cylindrical casing and a switch, a control member for said switch mounted on the curved surface of the casing and a flexible member connected to said control member.

13. A hand lamp having a switch, a locking control member for said switch and a flexible operating member detachably connected to said control member and to another portion of the lamp.

14. A hand lamp having a switch, a thumb piece for controlling said switch and a flexible supporting member of contacting material connected to the lamp body and to said thumb piece whereby the latter may be operated from a remote point.

In witness whereof, I have hereunto set my hand on this 30th day of March, 1921.

ARTHUR A. ARNOLD.