

PATENT SPECIFICATION

285,266

Application Date: June 18, 1927. No. 7257/27.

Complete Accepted: Feb. 16, 1928.



COMPLETE SPECIFICATION.

An Improved Combined Electric and Magnesium Flash Lamp Apparatus for Photographic Purposes.

I, WILLIAM MURRAY, of 254, Oldham Road, Ashton-under-Lyne, Lancashire, a British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to and consists of an improved apparatus for lighting an electric flash lamp bulb, and for igniting flash powder deposited in a conveniently placed cartridge by means of an electric current from a small battery in a box.

The accompanying drawing illustrates the invention.

Fig. 1 is a front elevation, the door being open.

Fig. 2 a side elevation of the same but with the door shut.

Fig. 3 is a plan and

Fig. 4 a longitudinal sectional elevation of a hand switch.

As illustrated the improved apparatus comprises a wooden box *a* adapted to contain a six volt battery *b* and fitted with a door *c* in front and with a board *d* at the back covering connections *e*, *f*, and *g*. In the top part of the box are terminals *h* and *i* adapted to contact respectively with the positive and negative terminals of the battery, and the positive terminal *h* is connected to the terminal *e*, and from there by the three-flex cable *j* to the terminal *k*¹ of a hand switch *k*.

In the hand switch *k* is a thumb push *l* which when pressed, bridges the contacts *k*¹ and *k*² thereby completing the circuit from *k*¹ to *k*², through the flex *j* to the terminal *g*, from there to the contacting terminals *m* and *n* on the box and door and finally from the terminal *n* to one terminal of an electric lamp bulb *o* the other terminal of which is connected to the negative terminal *i* of the battery *b*.

By pressing the thumb push *l* the lamp bulb is lighted and remains lighted owing to the spring catch *p* holding the contact member *l*² of its thumb push in contact with the terminals *k*¹ *k*², this light being used for focussing the camera. A strap *q* of leather or the like, allows of the

[Price 1/-]

apparatus being hung from a camera or other support during the focussing operation. 55

r is a magnesium cartridge supported by a flange *s* in vertical guides *t* and being held against accidental displacement by spring contacts *u* which contact with the fuse contacts of the cartridge. 60

Current to ignite the cartridge passes from the positive terminal *h*, through terminal *e* and flex *j* to contacts *k*¹ and *v*¹ in the hand switch *k* adapted to be bridged by pressing the finger push *v*. The current passes from *v*¹ back through the flex *j* to terminal *f*, contacting terminals *w*, *x*, and then through the spring contacts *u*, the fuse wire of the cartridge, and the wire *y* to the negative terminal *i*. 65

It will be seen that on pressing the finger push *v*, the spring catch *p* is pushed back and the thumb push *l* released, and owing to the spring *l*¹ breaking contact at *k*¹ *k*², thereby extinguishing the electric bulb *o*. 70

The contacts *h* and *i* are strips of metal secured inside the box, against which the battery terminals may be screwed back so as both to make a good contact and to hold the battery firmly in place. 75

A spring catch *a*¹ is provided to hold the door *c* normally closed.

The flexible cable *j* is secured to the box by means of a strap or clip *z*. 80

The case of the cartridge *r* is made of cardboard, widening out towards the part furthest from the box where it curves over slightly and is provided with a loose paper cover. 85

The contact members *v*² and *l*² are of insulating material and have suitable metal contacts.

The hand switch *k* is in two parts, being secured together by long screws passing through the holes *k*³. 90

The shell of the hand switch is made of wood, and this and also the pushes *l* and *v* may be suitably finished with 100 leather, celluloid or the like.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:— 105

1. An apparatus combining an electric incandescent bulb lamp with an electrically ignited magnesium cartridge flash lamp for photographic purposes, arranged
5 so that either the incandescent bulb lamp or the magnesium cartridge flash lamp, can be operated by a single hand switch.

2. An apparatus as in Claim 1 fitted with attachments to allow it to be attached
10 to a camera, and operated by an electric battery in a box.

3. An apparatus as claimed in Claim 1 fitted with a hand switch constructed and arranged to allow the electric incandescent bulb lamp to be lighted before and

extinguished by the lighting of the flash from the magnesium cartridge lamp.

4. In an apparatus as claimed in Claim 1, the use of a magnesium flash powder cartridge constructed and adapted for use
20 as described.

5. An apparatus constructed and arranged substantially as illustrated in the accompanying drawing.

Dated this 19th day of June, 1927.

For the Applicant.

WILSON, GUNN & ELLIS,
Chartered Patent Agents,
55, Market Street, Manchester.

[This Drawing is a reproduction of the Original on a reduced scale.]

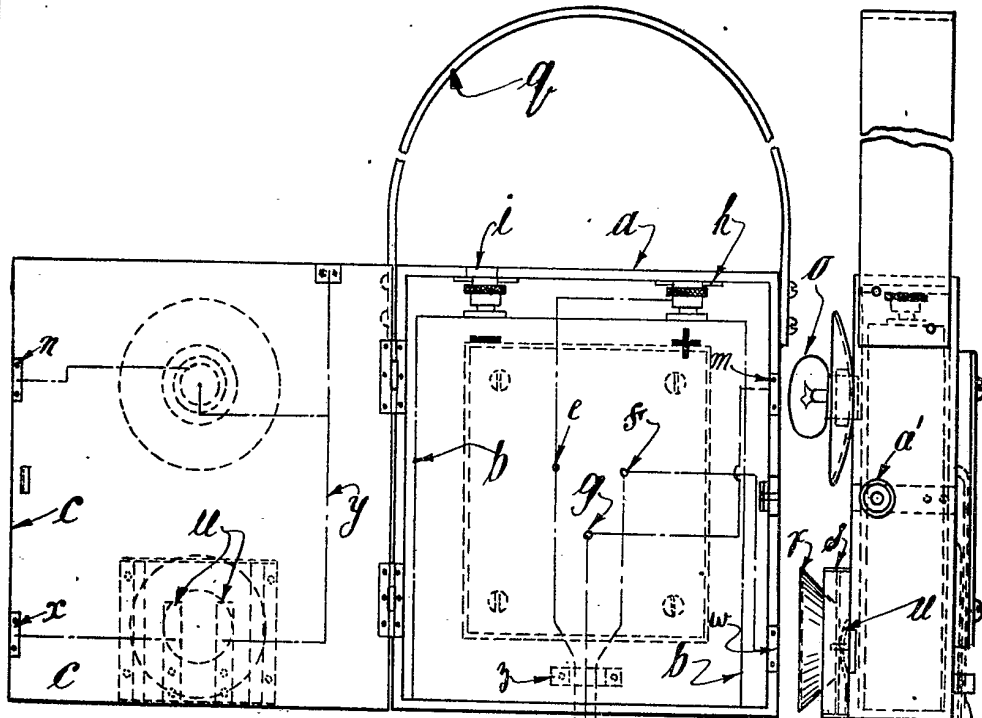


Fig. 1.

Fig. 2.

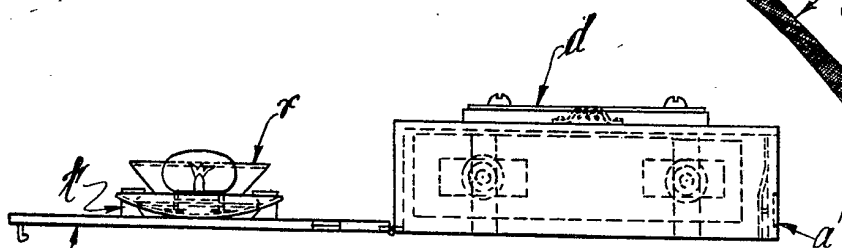


Fig. 3.

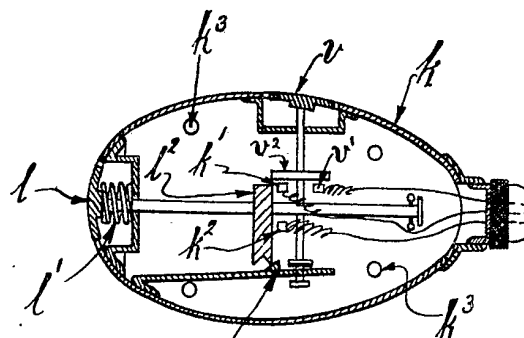


Fig. 4.