

F. KLEIN.
FLASH LIGHT APPARATUS.
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1,047,243.

Patented Dec. 17, 1912.

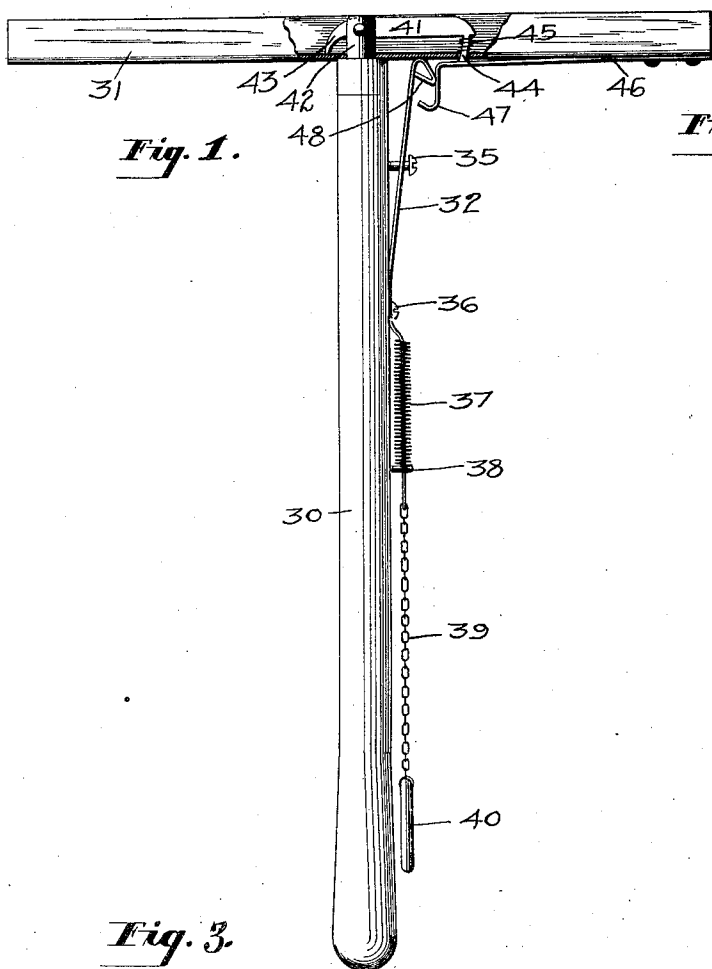


Fig. 1.

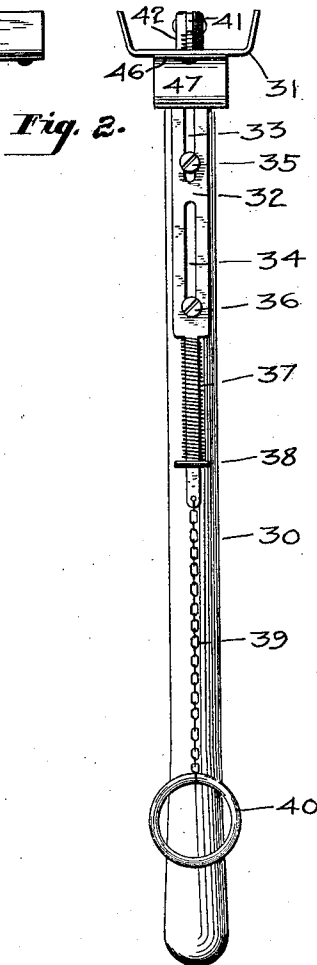


Fig. 2.

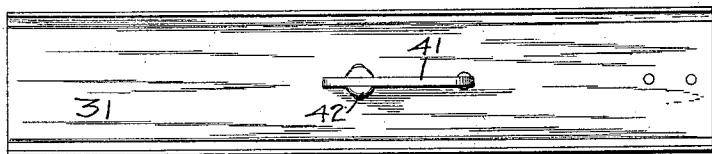


Fig. 3.

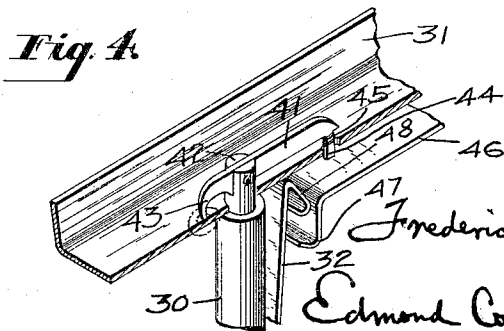


Fig. 4.

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FLASH-LIGHT APPARATUS.

1,047,243.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDERICK KLEIN, a citizen of the United States, and a resident of the borough of Brooklyn, in the city and State of New York, have invented certain new and useful Improvements in Flash-Light Apparatus, of which the following is a specification.

My invention relates to that class of devices which are employed for the purpose of furnishing a more or less intense light for a short period of time for the purpose of photographing interiors or in other cases where natural light is not available or where the same is not at the time sufficiently intense for the purpose. Such devices, as is well known, consist of means for holding a suitable quantity of some substance which when ignited will give an intense light suitable for photographic purposes, and also means adapted to conveniently ignite such light producing material. Many flash light apparatuses are already well known in the art but the object of my invention is to produce an improved form of such apparatus which is cheap, efficient and easily manipulated; in which the mechanism is simple, and which possesses other advantages as hereinafter set forth.

To this end the invention consists of the novel construction, arrangement and combination of various devices and parts as hereinafter more specifically set forth.

In the accompanying drawings I have shown one embodiment of my invention.

In these drawings Figure 1 is a side elevation of an embodiment of my invention showing the pan partly in section or with a portion of its side broken away; Fig. 2 is an end view of the same looking toward the left in Fig. 1; Fig. 3 is a top view of the same; and Fig. 4 is a perspective view showing in detail the mechanism for igniting the flash light composition.

The embodiment of my invention which is shown in Figs. 1, 2, 3 and 4 comprises a handle 30 which supports at its upper end a pan 31, preferably of elongated form. A member 32 bearing a terminal hook 48 and having slots 33 and 34 through which pass screws 35 and 36, is provided, and also in connection therewith a spring 37 and bracket 38, as well as a chain 39 and ring 40.

The hammer 41 is pivoted in a support 42 which projects from the upper end of the handle 30 into the pan 31. The hammer is

provided at one end with a curved toe 43, which normally is in contact with the bottom of the pan 31. At the other end of the hammer is a downwardly projecting pin 44, around which is a short helical spring 45 the lower end of which bears upon the bottom of the pan and the upper end of which bears against the main portion of the hammer 41, and tends to elevate the same. Attached to the bottom of the pan is a spring member 46 having at its free end a downwardly projecting portion at the extremity of which is a hook 47.

The operation of this form of my invention is as follows: A percussion cap or the like is inserted under the pointed end 43 of the hammer 41, the other end of the hammer being slightly depressed for the purpose, and then being allowed to rise again from the pressure of the spring 45. A suitable quantity of flash light composition is then placed upon the bottom of the pan, a portion of which should of course be sufficiently near to the cap to be ignited when the same is exploded. The member 32 is then pulled down, and as it descends the hook 48 engages with the hook 47 of the spring member 46, bending the same downward into a curved form so that finally the two hooks are disengaged and the spring member 46 flies upward and strikes the pin 44 of the hammer 41 with considerable force, thereby exploding the cap and igniting the flash light composition, the member 16 is then allowed to ascend, being pushed upward by the spring 37, and as it ascends the hook 48 passes behind the hook 47 and into the position shown in Fig. 1, whereupon the operation may be repeated if desired.

The advantages of my invention will be obvious from what has been above said with regard to its construction and operation.

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

In a flash light apparatus, the combination with a pan and a supporting rod or handle therefor; of a hammer pivotally secured to said pan, the firing end of said hammer being inside said pan and the other end of said hammer extending below the bottom of the pan; a trigger slidably mounted upon said rod or handle; a spring member one end of which is secured to the bottom of said pan and the other end of which is provided with means adapted to engage

the said trigger and be depressed thereby,
said spring member being adapted when re-
leased by said trigger to spring upward and
operate said hammer; and means adapted
5 to automatically reset said mechanism after
the same has been operated.

In witness whereof I have hereunto signed

my name this 20th day of March 1912, in
the presence of two subscribing witnesses.

FREDERICK KLEIN.

Witnesses:

EDMOND CONGAR BROWN,
JULIUS W. MANNEBACH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
