N° 15,118 A.D. 1900

Date of Application, 24th Aug., 1900

Complete Specification Left, 30th Apr., 1901—Accepted, 24th Aug., 1901

PROVISIONAL SPECIFICATION.

Improvements in Flash-light Apparatus for Photographic and similar Purposes.

I, GEORGE HICKSON FAGAN, of Arlington, Hudson County, New Jersey, United States of America, Electrical Engineer, do hereby declare the nature of this invention to be as follows:—

This invention relates to a cheap, simple and reliable apparatus for producing flash lights for photographic and similar purposes, such as photographing interiors and making pictures at night.

The following apparatus is constructed in accordance with the present invention.

From a post or suitable upright is suspended a trough or pan which is preferably long and narrow and provided with flanges to retain the flash-light powder or material. This material is spread along the pan in proper quantity and proportion for the purpose in view. The forward edge of the pan is supported by a wire ball which engages a pin or shoulder upon the post. When the apparatus is packed up, the ball can be placed wholly within the pan. To hold the latter in place its middle portion is passed under an inturned lip at the back of the pan, and at the rear it is supported by arms which hook over pins upon the post. The pan is preferably strengthened and stiffened by attaching to its bottom a strip of wood or other suitable material. Above the pan on a suitable bracket is a stationary anvil or firing-pin. In the bottom of the pan, below this anvil or firing-pin is a receptacle in which may be placed a percussion cap. This receptacle may be formed by a circular opening in the bottom of the pan and a plate beneath the pan, said plate being preferably integral with the arms hooked to the post-pins.

The pan is sufficiently flexible that it may be depressed slightly in the middle to permit of a cap being placed in the receptacle below the firing-pin. Below this pin also is a hammer carried by a pivoted lever which is in the form of a yoke, the branches of which are pivoted on opposite sides of the post. To the rear end of the lever is connected a suitable spring. This may be a spiral spring or might be a rubber band.

On the forward end of the hammer lever is a detent which is adapted to engage a trigger. The latter may be in the form of a hollow rectangle pivoted beneath the hammer. A small cord is provided to drawn down the forward end of the trigger and release the hammer. Another cord attached to a spring is preferably provided for convenience in drawing the spring down. When the spring is distended a loop on its lower end is engaged with a pin on the post.

The operation will be somewhat as follows:—

The apparatus is fixed in position in any suitable manner. For instance, the post may be mounted on a clamp which is securely attached to a table or other support. The pan is suspended from the post. The flash-light powder is placed in an elongated heap upon the pan and a cap is inserted in the receptacle under the firing-pin, care being taken to have some of the powder in the vicinity of the cap. The trigger is then engaged with the hammer and the hammer is put under tension. At the proper moment the cord is pulled, releasing the hammer and permitting it to fly up under the influence of the spring. The blow drives

the firing pin into the cap and explodes the latter instantaneously igniting the flash-light powder.

Dated this 24th day of August, 1900.

For the Applicant,
GEDGE & FEENY,
Chartered Patent Agents, 60 Queen Victoria Street, London, E.C.

COMPLETE SPECIFICATION.

Improvements in Flash-light Apparatus for Photographic and similar Purposes.

I, GEORGE HICKSON FAGAN, of Arlington, Hudson County, New Jersey, United States of America, Electrical Engineer, 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 a cheap, simple and reliable apparatus for producing flash lights for photographic and similar purposes, such as photographing interiors and making pictures at night.

The accompanying drawings illustrate the form in which I prefer to carry out the invention. Upon these drawings, Fig. 1 is a perspective view of the apparatus mounted upon a table.

Fig. 2 is a side elevation of an enlarged view of the upper portion of the apparatus, the hammer being cocked ready for use.

Fig. 3 shows the position of the parts after firing the charge.

Fig. 4 is a longitudinal section through the post and operating parts.

Fig. 5 shews a side elevation of a modified form of the device and a plan view of the pan; these views show the apparatus taken apart and ready for packing.

A trough or pan 1 is suspended from a post or suitable upright 5 by means of a wire bail or the like 3. The pan 1 is preferably long and narrow and provided with flanges 2 to retain the flash light powder or material. This material is spread along the pan in proper quantity and proportion for the purpose in view. The bail engages a pin or shoulder 4 upon the post 5. When the apparatus is packed up, the bail can be placed wholly within the pan, see Figure 5, and to hold the bail in place its middle portion is passed under an inturned lip 6 of the pan. At the rear the pan is supported by two arms 7 which hook over pins 8 upon the post. The pan is preferably strengthened and stiffened by attaching to its bottom a strip 9 of wood or other suitable material.

Above the pan on a suitable bracket 10 is a stationary anvil or firing pin 11. In the bottom of the pan, below this anvil or firing pin is a receptacle 12 in which may be placed a percussion cap of any ordinary and suitable make. This receptacle may be formed by a circular opening in the bottom of the pan and a plate beneath the pan said plate being preferably integral with the arms 7 hooked to the post-pins.

The pan is made flexible so that it may be depressed slightly in the middle to permit of the cap being placed in the receptacle 12 below the firing pin 11. Below this pin also is a hammer 14 carried by a pivoted lever 15 which is in the form of a yoke, the branches of which are pivoted at 16 on opposite sides of the post. To the rear end of the lever is connected a suitable spring. This is shown as a spiral spring 17, Figures 2, 3, 4 and as a rubber band 17^a on Figure 5.

On the forward end of the hammer lever 15 is a detent 18 which is adapted to engage a trigger 19. The latter may be in the form of a hollow rectangle pivoted at 20 beneath the hammer. A cord 21 is provided to draw down the forward end of the trigger and release the hammer.

Another cord 22 attached to spring 17 is preferably provided for convenience in drawing the spring down, and when the spring is tensioned a loop 23 on its lower end engages a pin 24 on the post 5.

In use the operation is as follows:—

Thr apparatus is fixed in position in any suitable manner. For instance, the post may be mounted on a clamp 25 which is securely attached to a table 26 or other support or it may be inserted into a fixed socket. The pan is suspended from the post and the flash-light powder is placed in an elongated heap upon the pan and a cap is inserted in the receptacle 12 under the firing pin 11, care being taken to have some of the powder in the vicinity of the cap. The trigger is then engaged with the hammer and the hammer is cocked as shown in Figure 2. At the proper moment the cord 21 is pulled, releasing the hammer and permitting it to fly up under the influence of the spring. The blow drives the cap against the firing pin and explodes the cap, instantaneously igniting the flash-light powder.

It is to be understood that any suitable percussion cap may be employed and the flash powder is any convenient mixture which can be exploded by the cap, thereby affording the desired actinic light.

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:—

1. A flash light apparatus, in which a hammer drives a percussion cap against a fixed anvil, the explosion of said cap igniting a suitable flash-light powder spread upon a pan around the cap, substantially as described.

2. A flash-light apparatus, comprising a post to which is secured a pan passing under an anvil, a spring-impelled hammer arranged to strike the lower side of the pan underneath said anvil, and a trigger engaging said hammer and holding it in the cocked position, substantially as and for the purposes described.

3. A flash-light apparatus, comprising a supporting post, an elongated pan arranged transversely of the post and connected therewith, a fixed anvil above the pan, a hammer arranged to strike the under-side of the pan opposite the firing pin, a receptacle for a percussion cap under the firing pin, a trigger engaging a projection upon said hammer and pivoted below the same, and a spring for throwing the hammer upward when released by the trigger, substantially as above described with reference to the accompanying drawings.

Dated this 30th day of April, 1901.

For the Applicant,
GEDGE & FEENY,
Chartered Patent Agents, 60 Queen Victoria Street, London, E.C.

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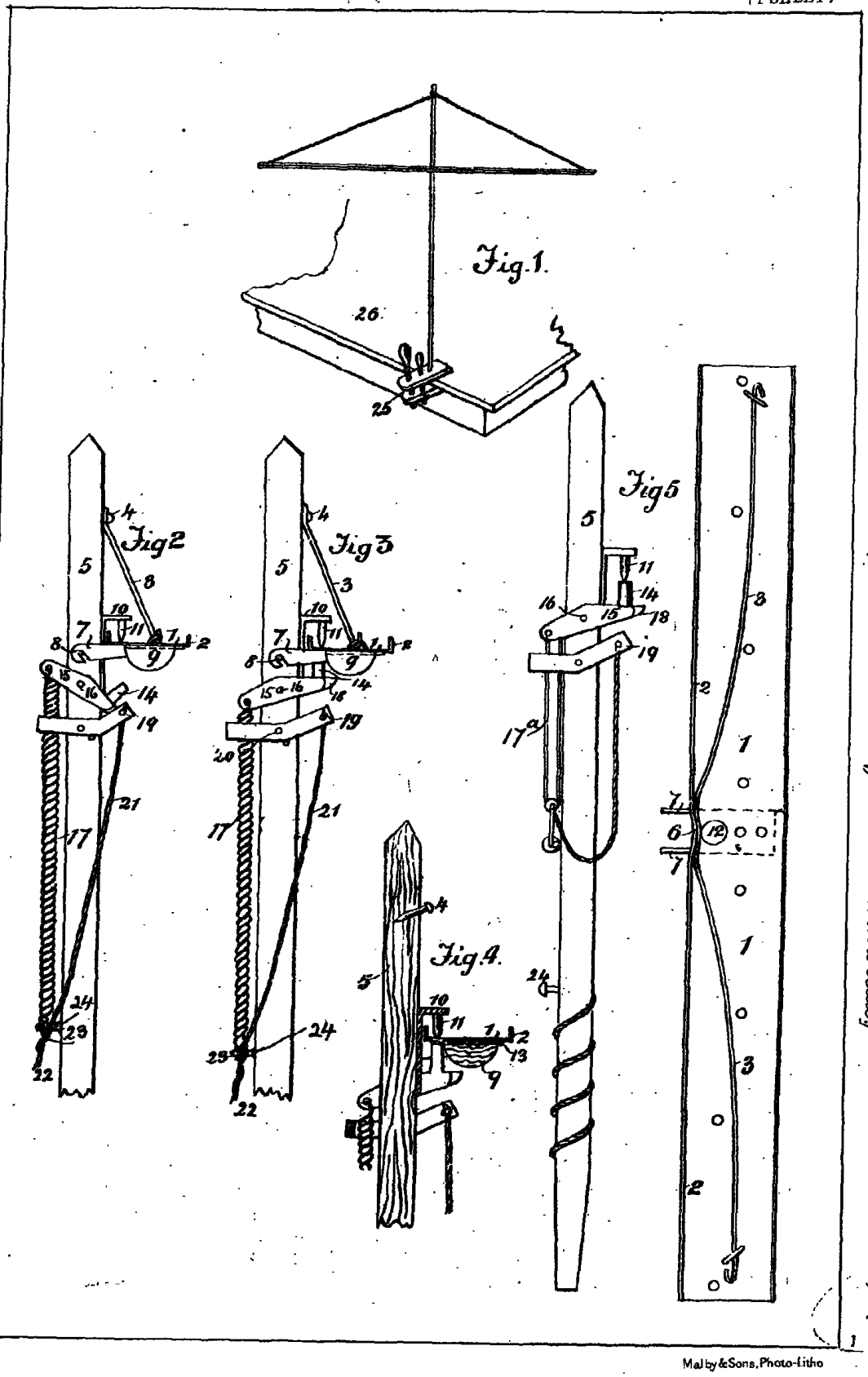
FAGAN'S Complete Specification. (1 SHEET)



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

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