

N^o 4321



A.D. 1898

Date of Application, 21st Feb., 1898—Accepted, 7th May, 1898

COMPLETE SPECIFICATION.

Apparatus for Igniting Flash Powder in Taking Photographs by Artificial Light.

I, AUGUST WEISS, Photographer, of 3, Meisengasse, Strassburg, Alsace, Germany, 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:—

- 5 The object of my invention is to provide means by which the igniting of flash powder is effected instantaneously from the interior of the body of powder without any danger, and without preambulatory noise or development of light for the purposes and by the reasons fully explained in my British Patent Specification filed 16th December 1897 No. 29832.
- 10 I attain this object by the apparatus represented in the accompanying drawings, of which
Figure 1 is a top view and Figure 2 a sectional view on line *x, x* of Figure 1, and Figures 3 and 4 similar views of a modification thereof.
Figures 5, 6 and 7 are a top view, a broken front view, and a sectional view
15 respectively of a detail of the latter.
- The essential feature of my present invention consists in that a priming composition or a lucifer match is ignited and at the same time introduced into the flash powder by a rapid turning movement of a carrier pivoted to the supporting plate of the flash powder.
- 20 Referring to Figures 1 and 2 a plate 62 is provided with a stud 64 and a bell crank lever 65, 66, pivoted to a headed pin 67 fixed to the said stud. Lever arm 65, carries a slotted end piece 68, and a screw 69 for receiving and holding the match 23, the rear end of the latter being guided in a socket 70 of lever arm 66 and adjusted by an adjusting screw 71. Lever 65, 66, is actuated by a spring 72 coiled on its nave and
25 fixed with one end to the head of a pin 67 and bearing with its other end against a pin 73 of lever arm 65. The lever is caught against the pressure of spring 72 by a spring catch 74 entering a slot provided in the rear wall of plate 62.
A rubbing surface 75 is secured by means of holders 76, 77, 78, to a flat spring 79 coiled on a fixed stud 80 and limited in its stroke by a stop pin 81.
- 30 By these means, when depressing the projecting end piece 82^x of spring catch 74, lever 65, 66, will be released and rapidly carried round by spring 72, igniting the match by rubbing action on the yielding rubbing surface 75 and introducing the same through a slot 82 in the front wall of plate 62 into the flash powder 27 placed in front thereof.
- 35 The stroke of lever 65, 66, is limited by arm 66 and a stop provided with a cover 83 of soft material in order to avoid noise and the lever may be restored again to its initial position by means of a string 84 attached to a projecting stud 85.
In order to lengthen the supporting plate of the flash powder for taking large groups I make use of two movable plates 86, 87 provided with bent edges 88, 89
40 90 and 91, 92, 93 and of a guide channel 94 fixed to the front wall of plate 62.
The movable plates are guided in the said channel by means of bent guide

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strips 95, 96, 97, 98 allowing thus of lengthening the supporting table by more or less pulling out the movable plates.

The box or casing of the apparatus has been provided for carrying the same, whilst the cover 63 may be polished on its inner side thus serving as a reflector in its upright position 63¹ Figure 2, when using the apparatus. 5

Referring to the modification of my invention represented, Figure 3 in top view and Figure 4 in sectional view on line *y, y*, of Figure 3, a spring actuated frame 75¹ is pivoted to a pin 76¹ and provided with edge borders 75^x for receiving the outer part of a match box, not shown on the drawing. Frame 75 is held in position against the pressure of spring 79¹ by a stop pin 81¹ the rubbing surface of 10 the match box thereby yieldingly entering the circular path of the head of match 23. The latter is supported by a square channelled receptacle 65¹ fixed to a plate 66¹ the bent ends of which are pivoted to a stud 67¹. The match is introduced into the said channelled receptacle through a slot 83^x of the rear wall of plate 62¹ and kept in position by a cover plate 69¹ and a flat spring 68¹ its rear 15 end bearing at the same time against the rear wall 65^x of the channelled receptacle. The fastening screw is dispensed with in the present modification as the match when passing on the rubbing surface is pressed inwards and towards the abutment 65^x.

The match carrier 65¹, 66¹, is actuated by a spiral spring 72¹ and caught against 20 the pressure thereof by a tooth 82¹ of a flat spring 74¹. A string 74^x, is connected to the latter passing outwards through an opening of plate 62¹. By pulling the string the channelled receptacle 65¹ will be released and rapidly carried round to the position represented in dotted lines until arrested by pin 83¹ the match thereby being ignited on the rubbing surface of the match box and introduced 25 into the flash powder 27.

Parts 67¹, 74¹, 83¹ are preferably mounted on a plate 62^x fixed to the bottom plate 62¹. A screw nut 77¹ is provided to the latter for screwing and fastening the apparatus to a stand or support.

When taking large groups the supporting table of the flash powder is lengthened 30 by channel plate to be mounted on its ends and represented as concerning the left hand channel plate in Figures 5, 6 and 7 in top view, broken front view and sectional view on line *y, y*, of Figure 5 respectively. The said channel plate consists of a bottom plate 86¹ provided with edge borders 88¹, 89¹, 90¹. Border 88¹ is cut away at 91¹ and a tongue piece 92¹ is provided to the right hand underside 35 of the bottom. By these means the channel plate can be put upon the edge of the table and kept in position by the tongue piece. A similar channel plate serves for lengthening the table on the right hand end.

It has been observed that the box or casing form of the apparatus represented in the drawings serves for carrying the same as the additional plates for the powder 40 supporting table can be placed within the box and the latter easily carried about in the pocket. However the invention is not restricted to that special feature. The box or casing and the cover can be dispensed with and the igniting device simply be mounted on a supporting plate as represented in my above mentioned specification if such special purposes be out of question. 45

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

1. In an apparatus for igniting flash powder in taking photographs by artificial light, the combination of a supporting plate for the flash powder, a stationary 50 elastically yielding support for a rubbing surface or a match box, a spring actuated carrier for a priming composition or a lucifer match pivoted to the supporting plate for the flash powder; a catch for locking the said carrier, and means for releasing the same from the catch substantially as and for the purposes described.

2. In an apparatus for igniting flash powder in taking photographs by artificial 55

Apparatus for Igniting Flash Powder in Taking Photographs by Artificial Light.

light the combination of a supporting plate for the flash powder, a stationary elastically yielding support for a rubbing surface or a match box, a spring actuated carrier for a primary composition or a lucifer match pivoted to the supporting plate for the flash powder, a catch for locking said carrier, means for releasing
5 the same from the catch, and an additional plate or additional plates to be applied to the said supporting plate in order to lengthen same, substantially as and for the purposes described.

3. In an apparatus for igniting flash powder in taking photographs by artificial light, the combination of a supporting plate for the flash powder, an igniting
10 device and a box or casing provided with a cover and covering the apparatus substantially as and for the purposes described.

Dated this 21st day of February 1898.

H. GARDNER,
Patent Agent, 166, Fleet Street, London,
Agent for the said A. Weiss.

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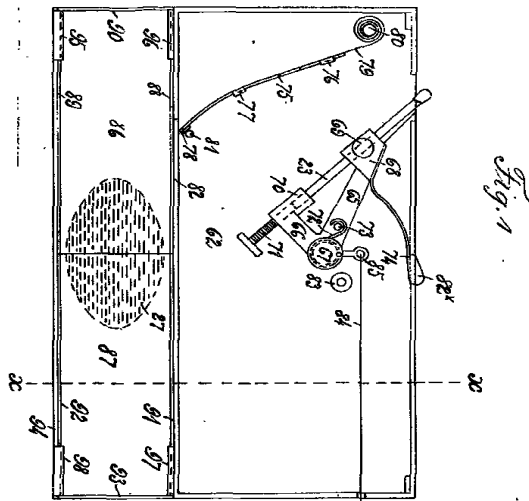


Fig. 1

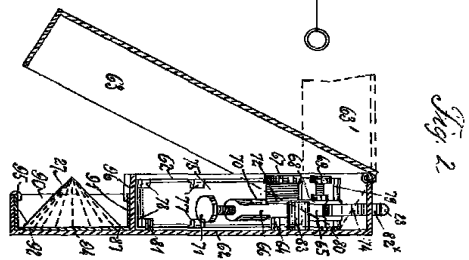


Fig. 2

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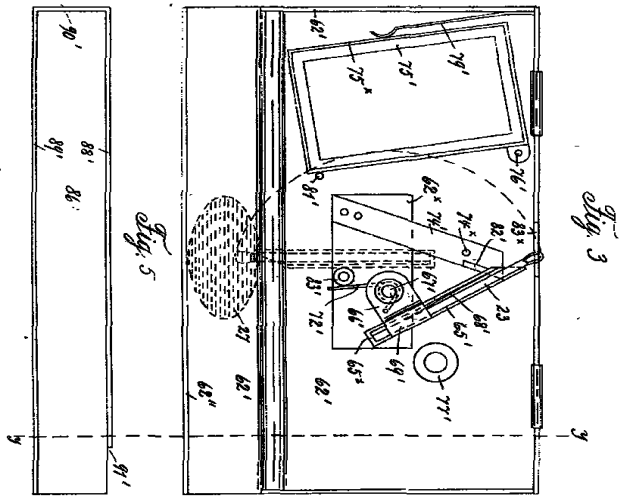


Fig. 3

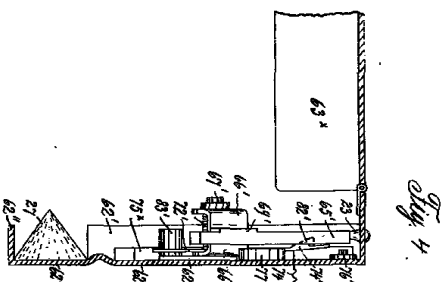


Fig. 4

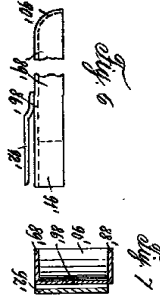


Fig. 5

Fig. 6

Fig. 7

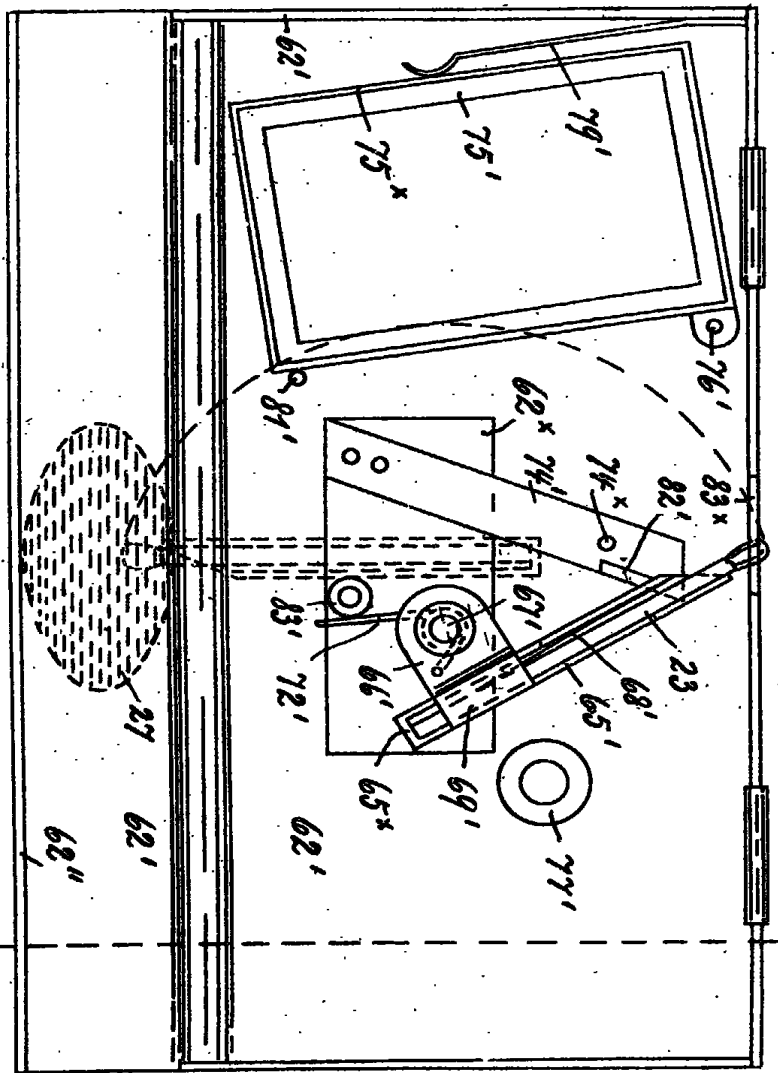


Fig. 3

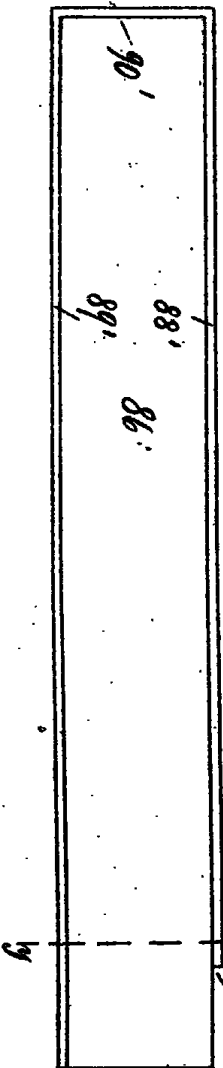


Fig. 5

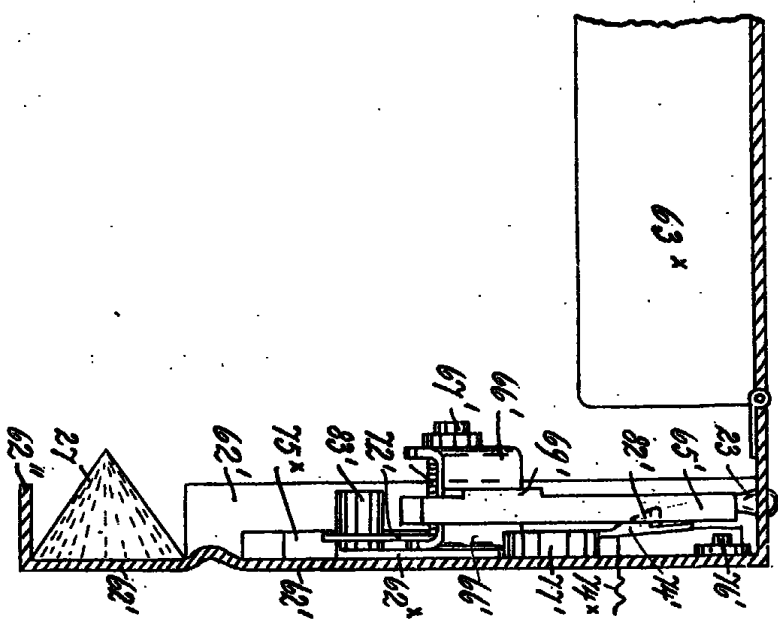


Fig. 4



Fig. 6

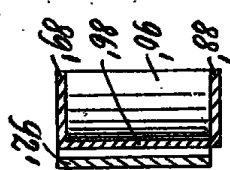


Fig. 7

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