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N° 9952



A.D. 1914

(Under International Convention.)

Date claimed for Patent under Patents and Designs Act, 1907, being date of first Foreign Application (in France), } 23rd Apr., 1913

Date of Application (in the United Kingdom), 22nd Apr., 1914

At the expiration of twelve months from the date of the first Foreign Application, the provision of Section 91 (3) (a) of the Patents and Designs Act, 1907, as to inspection of Specification, became operative

Accepted, 22nd Apr., 1915

COMPLETE SPECIFICATION.

Deflagrator for Pyrotechnic Powders particularly for Photographic Flash Light Powders.

We, the SOCIÉTÉ ANONYME LA LUMIÈRE ARTIFICIELLE, of 69, rue d'Amsterdam, Paris, in the Republic of France, 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 This invention relates to flash light apparatus for photographic and other similar purposes of the type in which the electric current is employed to ignite the flashing powder. Heretofore such apparatus has consisted in the combination of a movable stand provided with electric circuit wires or connections, with a cartridge or powder receptacle having included within itself an electric igniting-wire and being also provided with means for attachment to the circuit wires or connections.

10 The present invention has for its object to provide an improved form of deflagrator for pyrotechnic powders and particularly suitable for photographic flash light powders; it is composed essentially of a base which carries a block carrying both the electric igniting-wire and the deflagrating cup, the ignition being produced by the fusion, or incandescence, of a metallic wire when traversed by an electric current of low voltage.

15 This apparatus may be employed alone, or coupled up with other similar apparatus for the purpose of obtaining, in the latter case, several instantaneous deflagrations simultaneously.

20 The invention is illustrated by way of example in the accompanying drawings in which:—

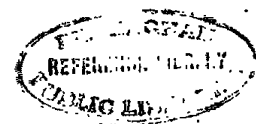
Fig. 1 is a plan view of the base, the block containing the igniting-wire and the deflagrating cup being omitted.

25 Fig. 2 is a section of the base and of the block on the line 1—1 of Fig. 1.

Fig. 3 is a view of the plug of refractory material carrying the fusible wire, or an incandescent wire.

Fig. 4 is a top plan view of the block for carrying the electric igniting-wire and the deflagrating cup.

[Price 6d.]



Deflagrator for Pyrotechnic Powders for Photographic Flash Light Powders.

The base Y carries at its upper part terminals A, A¹, B, B¹, and a neutral terminal N, for the supply of the electric current, the possible attachment of a switch and the connecting together of several deflagrators for operation simultaneously. For the same purpose and at both ends of the base are sockets F, F¹, F², F³, into which plugs may be introduced for the supply of current. It has also a bayonet socket D, for the introduction of the block V carrying the electric igniting-wire and the deflagrating cup, to which the current is supplied by contacts R, R¹, connected to the terminals and the sockets for the supply of the current as shewn by dot and dash lines in Fig. 1. 5

In the lower part of the base Y is a nut S which permits the apparatus to be fixed to a support or to one of the feet of the photographic apparatus. 10

The block V is of any suitable shape and material, and is introduced into the socket D, its two contact pieces C bearing against the contact members R, R¹. The contacts C are fixed to two tongues L which form springs and supply the current to the wire X, which is carried on the end of the two tongues L by the movable rod T of refractory material. The wire X may be fusible or an incandescent wire. In the latter case it permits of several successive deflagrations without requiring to be removed. 15

At its end the block V carries a piece M of refractory material which forms a cup, in which the ignition of the powders is effected, and a collar P, on which may be fixed reservoirs O of suitable shape and size for the instantaneous ignition of any quantity of powder. 20

The working of the apparatus is as follows:—

The fusible or incandescent wire X, is first placed on the end of the rod T. This rod is then introduced into the block V from below, so that the wire X is well in contact with the spring tongues L. The block V is then normally mounted in the bayonet socket D in the base Y, contact being made between the pieces C and the contacts R, R¹. Upon the collar P is placed one of the reservoirs O, selected as to form and size according to the quantity of powder used. 25

The two wires from the source of electricity are next connected to the terminals A¹ and N, and a switch is placed in circuit between the terminals N and B¹. If a switch is already connected up to the supply of the electric current, the two poles of such switch are connected up to the terminals A¹ and B¹ or to the terminals A and B indifferently, the terminal N called the neutral terminal only serving as a connector of two wires of the same polarity. 30

The terminals A, B, or the terminals A¹, B¹, serve also for the joining up together of several apparatus, the instantaneous deflagration of all, or part, of several apparatus working together being obtained by partially rotating the block V thereby moving the contacts C into and out of contact with the members R, R¹, after the manner of a switch. 35

Instead of using terminals there may be used for supplying the current and for using several apparatus at the same time, plugs with flexible conductors which are introduced into suitable sockets F, F¹, F², F³. 40

As hereinabove stated we are aware that flash light apparatus for photographic and other similar purposes have been heretofore proposed and we do not claim the combination of a movable stand provided with electric current wires or connections, with a cartridge or powder receptacle and electric igniting-wires as forming part of our invention, but 45

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, we declare that what we claim is:— 50

1. The improved deflagrator for pyrotechnic powders and particularly for photographic flash light powders, characterised by a base containing electric connections and on which is mounted in a bayonet socket a block such as V carrying the electric igniting-wire and the deflagrating cup, substantially as shewn and described for the purposes specified. 55

Deflagrator for Pyrotechnic Powders for Photographic Flash Light Powders.

2. The improved deflagrator for pyrotechnic powders and particularly for photographic flash light powders as claimed in Claim 1, characterised by the fact that the block carrying the electric igniting-wire and the deflagrating cup is adapted to act as a switch and is movable and the deflagrating cup is interchangeable, substantially as shewn and described for the purposes specified.

3. A deflagrator for pyrotechnic powders and particularly for photographic flash light powders as claimed in Claim 1, characterised by the fact that the apparatus may be employed singly, or may be connected up with several other similar apparatus, permitting various combinations as may be desired and instantaneousness of the single or multiple deflagration as shewn and described for the purposes specified.

Dated this 22nd day of April, 1914.

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THE COMPLETE SPECIFICATION OF SOC. ANON LA LUMIÈRE ARTIFICIELLE.

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

