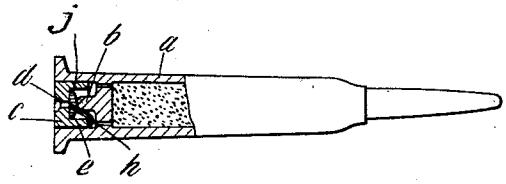
March 4 , 1924. 1,485,404

H. P. MARTIN ET AL

AMMUNITION

Filed Sept. 3, 1920



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Patented Mar. 4, 1924. 1,485,404

UNITED STATES PATENT OFFICE.

HELMUTH PAUL MARTIN AND OWEN DAVID LUCAS, OF WESTMINSTER, ENGLAND, ASSIGNORS TO M. L. EXPERIMENTAL LIMITED, OF WESTMINSTER, ENGLAND.

AMMUNITION.

Application filed September 3, 1920. Serial No. 408,056.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that we, HELMUTH PAUL MARTIN and OWEN DAVID LUCAS, both subjects of the King of Great Britain, residing at Vickers House, Broadway, Westminster, in the county of London, England, have invented certain new and useful Improvements in Ammunition (for which we have filed application for patent in Great Britain March 27th, 1916, Patent No. 124,782), of which the following is a specification.

This invention relates to electrically fired ammunition and has for its object to provide an improved form of primer or detonator for this purpose.

In the accompanying drawings:—

The figure is a longitudinal section of a cartridge according to our invention.

In the said figure *a* is a cartridge of ordinary construction as regards the body portion, provided with the anvil *b*. The ordinary percussion cap is in the improved construction replaced by an insulating plug *c* which serves to insulate a central contact pin *d* which passes through the plug and may be secured by riveting over the ends as shewn or in other suitable manner. The plug *c* is made hollow at *e* to contain the fulminate of mercury *j* which is thus situated between the contact *d* and the anvil *b*.

The construction of the improved primer or detonator cap is such that in case of need it can be fired in the manner of an ordinary primer by percussion; when operated in this way the hammer strikes the pin *d* and drives it and the cap *e* against the anvil *b* and thereby detonates and fires the cartridge.

In the figure we have shown our improved primer or detonator cap arranged for firing by the hot wire method. It will be understood that the contact pin *d* serves as one terminal for connection to a suitable source of electricity while the body of the cartridge and the anvil *b* serve as the other terminal. The wire *h* which becomes highly heated by reason of the passage of an electric current when it is desired to explode the cartridge, is jammed by or otherwise secured between the pin *d* and the side of its hole, the wire passing through the fulminate of mercury *j* and being clamped between the insulating plug *c* and the body of the cartridge; with the hot wire arrangement an ordinary low tension circuit is employed which is completed as before through the pin *d*, the hot wire *h* and the body of the cartridge in a suitable manner.

What we claim and desire to secure by Letters Patent of the United States is:—

In an electrically fired cartridge, the combination of an anvil, an insulating plug in the rear part of the cartridge, an electric contact carried by said plug in alignment with said anvil, a detonating substance between said contact and said anvil and a wire clamped by said insulating plug between it and the body of the cartridge, said wire being electrically connected to said contact and disposed in contact with said detonating substance.

In testimony whereof we affix our signatures.

HELMUTH PAUL MARTIN.
OWEN DAVID LUCAS.