Jan. 5, 1932. W. ESCHBACH 1,839,747

FUSE COMPOSITION STREAM MEMBER HAVING REENFORCED IGNITION

Filed March 25 1930

Fig. 1.

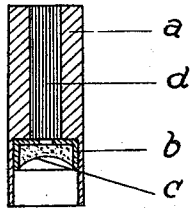


Fig. 2.

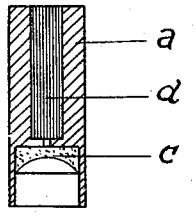
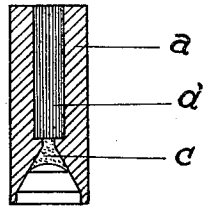


Fig. 3.



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UNITED STATES PATENT OFFICE

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FUSE COMPOSITION STREAM MEMBER HAVING REENFORCED IGNITION

Application filed March 25, 1930, Serial No. 438,891, and in Germany July 25, 1927.

Fuse composition members, which consist as a rule of a metal tube in the bore of which the fuse composition is situated, suffer from the disadvantage that the final ignition flame is not sufficiently powerful. This is to be attributed to the duct which is burnt out preventing a rise in pressure at the conclusion of the combustion time so that the pointed flame which is available for the ignition is only very short.

The present invention consists in this that at the end of the member holding the composition a small casing, preferably of metal, is arranged which is filled with priming composition and is provided with a small opening which communicates with the fuse composition; in this manner, according to the nature of the firing charge an ignition stream is obtained which still ignities at a distance of 50–100 mm. In order to produce a high pressure increase it is necessary to keep the opening of the small casing which contains the firing charge as small as possible. There is also the possibility of using in place of the casing with the small opening a member for holding the composition having bores which are so arranged that the desired pressure rise occurs at the conclusion. In order to obtain a very long pointed flame it is necessary that the layer of firing charge up against the duct is of small thickness.

Figure 1 of the accompanying drawings shows a member *a* for holding the composition which has an inserted casing *b* which serves for the accommodation of the firing charge *c*.

Figures 2 and 3 show composition-holding members in which the bores are so arranged that the firing casing *b* is dispensed with. As the firing charge any priming composition may be used, for instance black powder (potassium chlorate, wood charcoal, lead thiocyanate-perchlorated).

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:

A hollow member open at both ends, having a small main bore and a large counter bore at one end thereof, the main bore containing a fuse composition, a cup-shaped casing inserted in said counter bore and forming the bottom for the main bore, said casing containing a priming composition, the bottom of said casing having a small orifice forming direct communication between the fuse composition and the priming composition.

In testimony whereof I have signed my name to this specification.

WILHELM ESCHBACH.