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FUSEHEAD

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This invention relates to compositions for fuseheads adapted for electrical firing, and its principal object is to modify priming charge compositions for use in such fuseheads so that the said compositions require a smaller electrical current or voltage for ignition. The invention relates particularly to compositions for fuseheads of either the low or high tension type in which the fusehead is prepared by dipping the pole members into a suspension of a suitable priming composition in a solution of nitrocellulose in volatile organic solvents, the bead of suspension being then dried to form the fusehead. In the case of low-tension fuseheads the pole members are joined by a fine wire bridge through which the current is passed for ignition purposes, while in the case of high-tension fuseheads the wire bridge is dispensed with and the fusehead itself acts as the conductor, a suitable conducting ingredient, e. g. graphite, being included in the composition for this purpose.

According to the invention a composition for a fusehead adapted for electrical firing comprises in addition to the primary igniting composition a proportion of tetrazene (guanylnitrosamino-guanyltetrazene) up to 50 per cent. of the total composition. The proportion of tetrazene may vary from a few per cent. up to 50 per cent. according to the nature of the priming charge with which it is mixed.

The invention is particularly adapted for use in connection with priming charge compositions consisting of or containing lead salts of nitro-phenols and the like, e. g. lead salts of trinitroresorcinol, 2-mono-nitroresorsinal, dinitrosalicyclic acid, and di- or trinitrophenol.

Thus in the case of a low tension fusehead comprising a priming charge of basic lead mononitroresorcinate, the firing current was reduced from 0.48 ampere to 0.38 ampere by the inclusion of 10 per cent of tetrazene.

In the case of a high tension fusehead comprising a priming charge of basic lead mononitroresorcinate containing graphite, the firing voltage was reduced from 41 volts to 28 volts by the inclusion of 10 per cent. of tetrazene. In such a fusehead the proportion of tetrazene to lead mononitroresorcinate is about 16:100.

While varying amounts of tetrazene may be used in the composition, I find the results to be very satisfactory when the weights of lead mononitroresorcinate and tetrazene present are in the proportion of 100 to 16, sufficient graphite being present to produce the required electrical resistance.

As many apparently widely different embodiments of this invention may be made without departing from the spirit and scope thereof, it is to be understood that we do not limit ourselves to the specific embodiments thereof except as defined in the appended claims.

I claim:—

1. A fusehead composition adapted for electrical firing which comprises, in addition to the primary igniting composition, a proportion of tetrazene up to 50 per cent. of the total composition.

2. A fusehead composition adapted for electrical firing which comprises, in addition to a primary igniting composition consisting of a lead salt of a nitrophenolic body, a proportion of tetrazene up to 50 per cent. of the total composition.

3. A fusehead composition adapted for electrical firing which comprises, in addition to a primary igniting composition consisting of lead mononitroresorcinate, a proportion of tetrazene up to 50 per cent. of the total composition.

4. A low-tension fusehead adapted for electrical firing, in which the primary igniting mixture consists of 90 per cent. by weight of lead mononitroresorcinate and 10 per cent by weight of tetrazene.

5. A high-tension fusehead adapted for electrical firing, in which the primary igniting composition consists of 100 parts by weight of lead mononitroresorcinate and 16 parts by weight of tetrazene to which has been added sufficient graphite to produce the required electrical resistance.

In testimony whereof he affixes his signature.

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