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UNITED STATES PATENT OFFICE.

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PRIMING MIXTURE FOR PROPELLENT EXPLOSIVES.

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To all whom it may concern:

Be it known that I, CLARENCE I. B. HENNING, a citizen of the United States, and a resident of Wilmington, in the county of New Castle and State of Delaware, have invented a certain new and useful Priming Mixture for Propellent Explosives, of which the following is a specification.

This invention relates to priming mixtures for propellent explosives, and comprises a priming charge containing as an essential constituent trinitrobenzene.

I have found that trinitrobenzene has properties which make it specially valuable as a constituent of igniting or priming mixtures for modern progressive-burning smokeless powders, the other ingredients of the priming mixture comprising, for example, potassium chlorate and antimony sulphide.

These igniting or priming mixtures, which are intended for use in small arms ammunition, are characterized by containing trinitrobenzene, by becoming ignited but not detonating when struck lightly, and by being adapted to ignite a propellent explosive.

Compositions made according to my invention may be illustrated by the following examples:—

	Parts by weight.		
	I.	II.	III.
Potassium chlorate	48	50	40
Lead sulpho-cyanide	25	21	
Mercury fulminate			30
Antimony sulphide	20	13	25
Trinitrobenzene	7	16	5 to 15

It will of course be understood that my invention is not limited to the exact proportions given in the above examples, or to the particular combination of substances, other than trinitrobenzene, therein mentioned.

I claim:—

1. An igniting mixture for small arms ammunition containing trinitrobenzene, said mixture being ignited but not detonated when struck lightly, and being adapted to ignite a propellent explosive.

2. A priming mixture comprising potassium chlorate, antimony sulphide, and trinitrobenzene.

3. A priming mixture comprising potassium chlorate, antimony sulphide, and from about 5 to 15% of trinitrobenzene.

4. A priming mixture comprising potassium chlorate, antimony sulphide, lead sulpho-cyanide, and trinitrobenzene.

5. A priming mixture comprising 50 parts of potassium chlorate, from about 20 to 13 parts of antimony sulphide, from about 25 to 21 parts of lead sulpho-cyanide, and from about 5 to 15 parts of trinitrobenzene.

In testimony whereof I affix my signature.

CLARENCE I. B. HENNING.