

UNITED STATES PATENT OFFICE.

THOMAS G. HITT, OF SEATTLE, WASHINGTON.

FIRE-CRACKER.

1,253,597.

Specification of Letters Patent. Patented Jan. 15, 1918.

No Drawing.

Application filed August 27, 1917. Serial No. 188,362.

To all whom it may concern:

Be it known that I, THOMAS G. HITT, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Fire-Crackers, of which the following is a specification.

This invention relates to fire-crackers. Heretofore, the powder used in fire-crackers has usually been made of chlorate of potassium mixed with various organic substances, but such compounds using chlorate as a base, are dangerous in mixing, dangerous from percussion, dangerous in handling, and liable to spontaneous combustion in storage. Therefore, the object of this invention is to produce a fire-cracker that shall be entirely safe under the conditions above stated, and yet possess equal or greater detonating power.

To this end, my invention consists in the construction and combination of parts forming a fire-cracker hereinafter more fully described, and particularly stated in the claims. The construction of this fire-cracker may be in any usual form, though I prefer that described in my application filed August 2, 1917, Serial No. 184151.

To make the powder, I take of the following ingredients, first pulverized:

Perchlorate of potassium	16	parts
Aluminum	14	"
Sulfur	5	"

and mix them thoroughly. Then secure in

the cracker body a charge of this powder proportionate to the loudness of detonation desired. If the charge be as large as that of other powders commonly used, this cracker will produce a very much louder detonation than others, and, when fired in the dark it will give a broader and more brilliant flare.

Perchlorate of potassium combined with the ingredients stated, or their equivalents, in about the proportions described, has never, to my knowledge, been exploded in mixing or by percussion, or by spontaneous combustion, yet, with all these advantages for safety, there is no material difference in the cost of manufacture.

I claim:

1. A fire-cracker body and fuse in combination with a charge of powder comprising powdered perchlorate of potassium, aluminum and sulfur combined in about the proportions stated.

2. In a fire-cracker, a charge of powder composed of potassium perchlorate and the equivalent of aluminum and sulfur combined in about the proportion stated.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS G. HITT.

Witnesses:

H. H. A. HASTINGS,
ZELMA TELLEFSON.