

UNITED STATES PATENT OFFICE.

MILTON SMITH TALBOT, OF DURBAN, NATAL; ALBERT A. SHUTER, OF
DURBAN, NATAL, ADMINISTRATOR OF SAID TALBOT, DECEASED.

EXPLOSIVE COMPOUND.

No. 816,830.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed December 28, 1903. Serial No. 186,910.

To all whom it may concern:

Be it known that I, MILTON SMITH TALBOT, a subject of the King of Great Britain, residing at 73 Alexander street, Durban, Natal, have invented certain new and useful Improvements in Explosive Compounds and in the Manufacture Thereof, of which the following is a specification.

According to this invention I form an explosive from potassium chlorate and camphor, to which is preferably added some body—such as castor-oil or paraffin-wax, for instance—which will prevent deterioration due to volatilization of the camphor or other causes. The proportions should be about fourteen parts of chlorate to one of camphor and, say, one of castor-oil. To these main constituents may be added others capable of facilitating the reaction or of modifying the rate of explosion—such as manganese dioxid, for instance. I have also found that burnt umber enhances the effect of the powder.

A mixture giving a very efficient powder for blasting purposes may be made from the following: potassium chlorate, fifty-six parts; camphor, four parts; castor-oil, four parts; burnt umber, eight parts; manganese dioxid, four parts; potassium bichromate, twelve parts; water, twelve parts.

The method of manufacture is preferably as follows: The umber, manganese dioxid, and bichromate are well mixed with the water, which should be warm, and the camphor, which has been previously well powdered and mixed with the castor-oil, is added. When the whole has been well stirred together, the powdered chlorate is gradually added with

constant stirring until a mixture of even quality and character is produced. The mixture is run out in thin layers and allowed to dry. After drying it can be ground into a powder or cut up and made into cartridges of any size or form which may be desired. It is then ready for use.

The explosive compound so manufactured is very powerful, is extremely safe in manipulation and use, being much less sensitive to friction or percussion than any explosive now manufactured, and is almost entirely free from smoke or noxious fumes on explosion.

What I claim is—

1. An explosive containing an alkaline chlorate, camphor mixed in explosive proportions and castor-oil.

2. An explosive containing fourteen parts of potassium chlorate, one part of camphor and one part of castor-oil.

3. An explosive containing an alkaline chlorate, camphor, castor-oil and manganese dioxid.

4. An explosive containing an alkaline chlorate, camphor, castor-oil, manganese dioxid, burnt umber and potassium bichromate.

5. An explosive consisting of fifty-six parts of potassium chlorate, four parts of camphor, four parts of castor-oil, eight parts of burnt umber, four parts of manganese dioxid and twelve parts of potassium bichromate.

MILTON SMITH TALBOT.

Witnesses:

EDW. THEERES,

DUTTON HARKEY BLYTH.