

# UNITED STATES PATENT OFFICE.

JAMES C. SMITH, OF LOVINGTON, ILLINOIS

## PROCESS OF MAKING EXPLOSIVES.

No. 795,940.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed March 20, 1903. Serial No. 148,777.

*To all whom it may concern:*

Be it known that I, JAMES C. SMITH, a citizen of the United States, residing at Lovington, in the county of Moultrie and State of Illinois, have invented a new and useful Process of Manufacturing Explosives, of which the following is a specification.

This invention relates to process of manufacturing explosives, more especially to blasting-powder; and the object thereof is to produce an explosive of the character specified which may be cheaply compounded, which will produce but little smoke and that of an inoffensive and non-injurious character, and which may be handled as safely as any similar compound.

In the manufacture of my improved blasting-powder I make use of the following ingredients, incorporated in the manner presently to be described and in the proportions hereinafter given by weight: potassium chlorate, thirty-five per cent.; granulated sugar, twenty per cent.; potassium nitrate of saltpeter, ten per cent.; carbon in the form of pulverized stone-coal, thirty-five per cent.

In manufacturing blasting-powder from the ingredients above mentioned the sugar and saltpeter should be dissolved in a quantity of water just sufficient for the purpose by applying heat until the sugar and saltpeter are completely dissolved. The solution is to be heated to the boiling-point, then removed from the source of heat and the potassium chlorate

added to the heated solution. The chlorate will be thoroughly dissolved by the heated solution, and when the solution of the chlorate is complete the stone-coal in finely-pulverized form is added and mixed thoroughly, so forming a plastic paste. The paste is then dried in a suitable kiln and when thoroughly dried is reduced to grains of the size desired by crushing the dry cake in a mill made of wood.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In the manufacture of granular explosive composition, the process of bringing into aqueous solution specified proportions of granulated sugar and saltpeter, applying heat to the mixture to effect boiling, then adding thereto upon conclusion of the boiling operation specified proportions of potassium chlorate until solution thereof is effected, then adding a specified proportion of powdered stone-coal, thoroughly mixing the ingredients to form a paste, then drying, and finally pulverizing the same, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES C. SMITH.

Witnesses:

BYRON CHEEVER,  
WILLIAM L. COPPLE.

Correction in Letters Patent No. 795,940.

It is hereby certified that in Letters Patent No. 795,940, granted August 1, 1905, upon the application of James C. Smith, of Lovington, Illinois, for an improvement in "Processes of Making Explosives," an error appears in the printed specification requiring correction, as follows: In line 23 the word "of" should read *or*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 3d day of April, A. D., 1906.

[SEAL.]

F. I. ALLEN,  
*Commissioner of Patents.*

It is hereby certified that in Letters Patent No. 795,940, granted August 1, 1905, upon the application of James C. Smith, of Lovington, Illinois, for an improvement in "Processes of Making Explosives," an error appears in the printed specification requiring correction, as follows: In line 23 the word "of" should read *or*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

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F. I. ALLEN,  
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