

UNITED STATES PATENT OFFICE.

JONAS E. BLOMÉN, OF LANDING, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE UNIQUE POWDER COMPANY, OF NEW YORK, N. Y.

BLASTING COMPOUND.

SPECIFICATION forming part of Letters Patent No. 506,032, dated October 3, 1893.

Application filed January 28, 1893. Serial No. 460,057. (No specimens.)

To all whom it may concern:

Be it known that I, JONAS E. BLOMÉN, of Landing, in the county of Morris and State of New Jersey, have invented a new and useful Improvement in Blasting Compounds, of which the following is a specification.

My invention relates to an improvement in blasting compounds in which an oxidizing agent is covered by a film composed of dinitro-phenol dissolved in a hydrocarbon or nitro-hydrocarbon.

The general preparation of the compound is as follows: The hydrocarbon or nitro-hydrocarbon, such as naphthalene, benzol, nitro-benzol, rosin, paraffine, tolulol, nitro-tolulol, &c., is melted, and a quantity of dinitro-phenol as distinguished from the trinitro-phenol or picric acid is dissolved therein. In this liquid mixture I stir an oxidizing agent, such as the nitrates or chlorates of potash, soda, ammonia, &c., in sufficient quantities to oxidize such carbonaceous matter as the mixture may contain. The particles of the oxidizing agent thereby become covered with films composed of dinitro-phenol and hydrocarbon or nitro-hydrocarbon.

There are various specific methods which might be adopted to produce the compound above referred to. Some of those which I prefer to use at the present time are as follows:

First: I take eight parts of nitro-naphthalene of a low melting point (100° centigrade for example) and melt it in a pan surrounded by a steam jacket. When in liquid form I add eight parts of dinitro-phenol which is quickly dissolved. In this mixture, which is kept at the temperature at which the nitro-naphthalene is melted, I stir eighty-four parts of nitrate of ammonia. The nitrate of ammonia will become thoroughly covered by the nitro-naphthalene and dinitro-phenol and the resulting product will be a granular explosive of great strength.

Second. I take fifteen parts of dinitro-benzol and melt it in the manner before described in connection with the first method and dissolve therein twenty-five parts of dinitro-phenol. I then stir in sixty parts of nitrate of soda until the mass becomes dry.

Third. I take ten parts of rosin and melt it in a suitable pan and then dissolve therein ten parts of dinitro-phenol and stir into that a mixture of forty parts of nitrate of ammonia.

In each of the above methods the product which I secure is a granular mass in which an oxidizing agent is covered by a film composed of the hydrocarbon and dinitro-phenol which film will not absorb moisture.

A blasting compound of this character can be made with great safety, for the reason that the dinitro-phenol is readily dissolved in the melted hydrocarbon while the latter is at a comparatively low temperature and the danger attendant upon heating the nitro-phenol above its melting point is thereby avoided. At the same time, I secure a thorough protection for an oxidizing agent and the compound itself is very safe to handle as it will not explode except under an intentional shock of great power, such for example as a powerful fulminating cap.

The dinitro-phenol has certain advantages in a compound of this character, over the trinitro-phenol or picric acid, among which may be mentioned the following: It does not stain and is more readily dissolved in hydrocarbons.

What I claim is—

A blasting compound comprising particles of granules of an oxidizing agent covered by films or coatings composed of the mixture of a hydrocarbon and dinitro-phenol, substantially as set forth.

JONAS E. BLOMÉN.

Witnesses:

FREDK. HAYNES,
GEORGE BARRY.

It is hereby certified that in Letters Patent No. 506,032, granted October 3, 1893, upon the application of Jonas E. Blomén, Landing, New Jersey, for an improvement in "Blasting Compounds," an error appears in the printed specification requiring the following correction, viz.: In line 81, the word "of" preceding the word "granules" 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, countersigned, and sealed this 10th day of October, A. D. 1893.

[SEAL]

WM. H. SIMS,

First Assistant Secretary of the Interior.

Countersigned:

S. T. FISHER,

Acting Commissioner of Patents.