

# UNITED STATES PATENT OFFICE.

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ONE-HALF TO HARRY M. GRANT, OF NEW YORK, N. Y.

## BLASTING COMPOUND.

No. 795,825.

Specification of Letters Patent.

Patented Aug. 1, 1905.

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*To all whom it may concern:*

Be it known that I, FREDERICK G. DOKKENWADEL, a citizen of the United States, residing at Coshocton, Ohio, have invented certain new and useful Improvements in Blasting Compounds, of which the following is a specification.

The invention relates to blasting compounds and the method of producing the same.

The invention consists of a quickly-burning blasting compound and the method of producing the same.

I take of sheets of paper, and preferably old newspapers, books, wrapping-paper, and the like, and cut the same into pieces, which are placed in a vat. To sixteen pounds of shredded newspaper I add about an equal weight of water and also substantially about one-fourth the weight of silicate of soda. To this may be added three-fourths of a pound of glucose and, say, four ounces of glue, if the powder is to be granulated. The paper is allowed to stand in this solution some twelve to twenty-four hours. The paper will then have assumed a pulpy consistency. Any excess of water is then pressed out, leaving the pulp damp and slightly sticky. To forty pounds of the moist paper, thus saturated with silicate of soda, nine pounds of nitrate of potash, thirty-eight pounds of nitrate of soda, and thirteen pounds of sulfur should be added. This is thoroughly stirred or mixed into the damp pulpy mass and is then placed in a vat or "sweat-box" and permitted to stand for about twenty-four hours in order that the nitrates may thoroughly penetrate the pulp, the moisture of the pulp being sufficient to secure solution or at least a thorough mixture.

After the mass shall have become assimi-

lated and substantially uniform it may be granulated by pressing through perforated plates and then drying and cutting into grains, or the mass may be rolled or otherwise formed into sheets and dried at a temperature of 180° to 220° Fahrenheit until all moisture is expelled. The sheets may then be broken into lumps of convenient size. The granulation is not considered necessary, but adds to the appearance of the compound.

I do not confine myself to the precise proportions specified, but give the above as a good practical working formula. The glue is unnecessary if the material is not desired to be granulated. The color of the compound is gray.

As the chemicals are thoroughly incorporated with the pulp, it is believed the materials make a chemical combination of an unstable nature which explodes with force if ignited in a confined space.

What I claim is—

1. A blasting compound composed essentially of paper-pulp, mixed nitrates of soda and potash in excess of the weight of paper-pulp, and a quantity of sulfur approximating one-third of the weight of the pulp, all thoroughly incorporated.

2. A granulated blasting compound composed of paper-pulp, nitrates of soda and potash in excess of the weight of the pulp and sulfur of about one-third of the weight of the pulp, and a binding mixture of glucose and glue, all incorporated and formed into grains substantially as described.

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

FREDERICK G. DOKKENWADEL.

Witnesses:

CHAS. J. GUNTHER,  
A. J. CRONHARDT.