

# UNITED STATES PATENT OFFICE.

CHARLES FELHOEN, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND  
ALFRED T. LEWARD, OF SAME PLACE.

## IMPROVEMENT IN EXPLOSIVE COMPOUNDS.

Specification forming part of Letters Patent No. 172,547, dated January 18, 1876; application filed  
October 17, 1874.

*To all whom it may concern:*

Be it known that I, CHARLES FELHOEN, of New York, in the county and State of New York, have invented certain new and useful Improvements in Blasting-Powder, of which the following is a specification:

The object of this invention is to produce an explosive compound adapted to blasting purposes, which will burn quietly and without danger in the open air; but will explode with great violence when confined, the ingredients of which can be combined and mixed in a dry state without the use of water, and the powder made ready for use without granulation, dispensing with the powder-mills and the drying and granulating apparatus commonly employed in the manufacture of powder, and thus greatly lessening the liability to accidents attending the manufacture of ordinary powder.

My invention consists in an improved composition, consisting of nitrate of soda, carbonate of potash, nitrate of potash, sulphur, and charcoal, combined in a dry powder, as hereinafter set forth.

In preparing my improved compound I take nitrate of soda, thirty-six parts; carbonate of potash, three parts; nitrate of potash, (crude,) twenty-four parts; nitrate of potash, (refined,) nine parts; sulphur, fifteen parts; charcoal, thirteen parts.

These ingredients are separately reduced to impalpable powder, after which they are

thoroughly mixed and commingled in a dry state, and the whole allowed to remain for about two hours, after which the powder is ready for use.

The ingredients above mentioned, in or about the proportions set forth, when pulverized and mixed as described, form a powder that will explode properly without granulation, and I am thus enabled to dispense with the water usually employed in the manufacture of powder, and the expensive and dangerous machinery employed for granulating and drying the same. I am also enabled to manufacture the powder much more expeditiously and at less expense than has heretofore been accomplished, and the powder produced is comparatively harmless when burned in the open air, exerting no explosive force until properly confined, materially adding to safety in handling and using the same.

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

The explosive compound or blasting-powder, consisting of nitrate of soda, carbonate of potash, nitrate of potash, sulphur, and charcoal, combined in a dry powder, in or about the proportions substantially as herein set forth.

CHARLES FELHOEN.

Witnesses:

T. B. MOSHER,  
LEX. F. ROBERTS.