

UNITED STATES PATENT OFFICE.

CARL DITTMAR, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO MARIA DITTMAR, OF SAME PLACE.

IMPROVEMENT IN EXPLOSIVE COMPOUNDS.

Specification forming part of Letters Patent No. **179,688**, dated July 11, 1876; application filed June 28, 1875.

To all whom it may concern:

Be it known that I, CARL DITTMAR, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Explosive Compounds, and in the preparation or mode of making the same; and do hereby declare the same to be fully described as follows:

In order to make an explosive compound of the kind, take a vegetable material or materials, and reduce such to a pulp, (as pulp for the manufacture of paper is made,) and, after removing from it any extraneous matter, and mixing with it or not starch or sugar, and desiccating and reducing it to grains or suitable compact forms, dipping it in a bath of sulphuric acid, in the proportions of ten pounds of acid of commerce to one pound of water, and immediately, or within a minute or two, subjecting it to a washing process with water, to remove the acid. In this way the pulp becomes like parchment, or has characteristics thereof. Next dry the material and subject it to a bath of nitric and sulphuric acids, as cotton is usually treated for being converted into what is termed "gun-cotton."

By "parchmenting," as explained, the grains or masses of pulp before treating the same with the mixture of nitric and sulphuric acids, an explosive compound is produced with grains or masses that are very smooth, and not adhesive to one another—one much better in use than one made without the parchmenting process.

I claim—

1. The mode or process, substantially as described, of making an explosive matter or compound, such consisting in reducing to pulp, in suitable grains or masses, a vegetable material or materials, as set forth, and subsequently parchmenting such by sulphuric acid, and afterward treating the whole by a bath of nitric and sulphuric acids, all essentially as specified.
2. As a new or improved manufacture, an explosive matter or compound, substantially as specified, having its grains or masses parchmented, essentially as explained.

CARL DITTMAR.

Witnesses:

R. H. EDDY,
J. R. SNOW.