## United States Patent Office,

## CHARLES DE LACY, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN EXPLOSIVE COMPOSITIONS.

Specification forming part of Letters Patent No. 184,762, dated November 28, 1876; application filed November 21, 1876.

To all whom it may concern:

Be it known that I, CHARLES DE LACY, of the city of San Francisco, State of California, have invented a new and useful Explosive Compound, which is fully described in the following specification:

This explosive compound is formed by mixing twenty parts sawdust, thirty parts nitroleum, twenty parts nitrate of potash, ten parts pyroxyline, twenty parts chlorate of potash.

Pyroxyline, as understood here, is made by mixing twenty parts nitric acid with forty parts sulphuric acid, to which fifteen parts of common sawdust is added. After having been thoroughly saturated, the sawdust is taken out and left to dry on a smooth wooden plane.

Nitroleum is made by mixing forty parts nitric acid with eighty parts sulphuric acid. With these, fifteen parts stearic oil mixed with fifteen parts honey are mixed, or thirty parts

coarse glycerine. The acids are then left standing, and when the oleic mixture has come to the surface it is carefully skimmed off, after which it is thoroughly washed in water impregnated with soda.

Manufacture of the compound: The saw-dust, nitroleum, and pyroxyline are thoroughly mixed, after which the nitrate and chlorate of potash are added, and stirred around until the whole becomes a smooth and even mass.

I claim-

An explosive compound consisting of pyroxyline, sawdust, nitrate and chlorate of potash, and nitroleum, substantially as described.

Dated at San Francisco this 8th day of November, A. D. 1876.

CHARLES DE LACY.

Witnesses:

S. DE GREAYER, H. DE GREAYER.