

UNITED STATES PATENT OFFICE.

EDWARD HARRISON, OF NEW YORK, N. Y., ASSIGNOR TO R. W. W. SIMPSON,
OF SAME PLACE.

IMPROVED COMPOSITION FOR GUNPOWDER, &c.

Specification forming part of Letters Patent No. 41,576, dated February 9, 1864.

To all whom it may concern:

Be it known that I, EDWARD HARRISON, of the city, county, and State of New York, have invented a new and useful Improvement in Gunpowder; and I do hereby declare that the following is a full, clear, and exact description of the component parts of and mode of compounding the same.

This invention consists in the addition of amorphous phosphorus to ordinary gunpowder, by which I obtain a compound which burns quicker and with a more forcible explosion. This compound may be used for fire-arms, for the bursting charges of explosive projectiles, and for blasting purposes.

The compounds may be composed of various proportions of gunpowder and phosphorus; but to produce the quickest combustion and most forcible explosion I use the following proportions by weight: gunpowder, twelve and a half ($12\frac{1}{2}$) parts; amorphous phosphorus, one

(1) part. To make the compound I reduce them separately to fine powder by trituration in a mortar, or by other suitable means, then place them in the desired proportions in a fine sieve, and sift them together into a suitable receptacle as many times as may be necessary to effect a perfect mixture.

This compound is used in the same manner as ordinary gunpowder, according to the purpose to which it is applied.

I do not confine myself to the proportions herein specified; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The gunpowder or explosive compound herein described, composed of ordinary gunpowder and amorphous phosphorus.

EDWARD HARRISON.

Witnesses:

M. M. LIVINGSTON,

R. W. WINFIELD SIMPSON.