## UNITED STATES PATENT OFFICE.

H. W. LIBBEY, OF CLEVELAND, OHIO.

## IMPROVED INCENDIARY COMPOUND.

Specification forming part of Letters Patent No. 48,187, dated June 13, 1865.

To all whom it may concern:

Be it known that I, H. W. LIBBEY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Incendiary Compounds; and I do hereby declare that the following is a full and complete description of the substances used and the manner of compounding the same.

I take of pure nitric acid two ounces, mascerate it well with one-fourth of an ounce of sulphate of baryta. I then macerate with one and a half ounce of sulphuric ether. When they have become well assimilated I add one ounce of pure spirits of turpentine, and then one and a half ounce of nitrate of potash finely powdered I let all this stand for three days, shaking it occasionally. The first two days there will an oily substance rise upon the surface, leaving a pure sediment at the bottom. This oily substance I cut (combine) with alcohol of ninety-five to ninety-eight per cent. If any remain I remove it with litmus paper. I then add one ounce of hydrocarbon oil, and

half an ounce of good tar that has been freed from water.

I augment the explosive and inflammable qualities of this compound by the addition of collodion. This should be added and tried, making it more or less explosive at will. In its final preparation I saturate rags or any combustible fibrous substance with the compound, and it is ready for use. It does not corrode iron. It ignites readily from the explosion of gunpowder, and remains the same in all temperatures and climates. It is cheap and every way suitable for filling incendiary shells.

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

An incendiary compound, composed of the ingredients herein named, and compounded in the manner substantially as herein specified and set forth.

Witnesses: H. W. LIBBEY.

W. H. BURRIDGE, J. HOLMES.