

UNITED STATES PATENT OFFICE.

ROBERTS BARTHOLOW, OF CINCINNATI, OHIO.

IMPROVED OIL FOR PAINT.

Specification forming part of Letters Patent No. 47,083, dated April 4, 1865.

To all whom it may concern:

Be it known that I, ROBERTS BARTHOLOW, of Cincinnati, in the county of Hamilton, in the State of Ohio, have invented a new and improved method of treating crude or refined petroleum with sulphuric and nitric acids, so as to make a desirable and economical oil for mixing and combining with white lead, zinc-white, and other mineral paints and pigments, in lieu of linseed-oil and other paint-oils, and for other purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying specimens, and to the letters of reference marked thereon.

The nature of my invention consists in the manufacture, compounding, and preparing of a new and improved oil for mixing and combining with white lead, zinc-white, and other mineral paints and pigments, in lieu of linseed-oil and other paint-oils, and for other purposes, from the following articles, viz: crude petroleum or refined petroleum, (according to the density of the oil required to be produced,) sulphuric acid, and nitric acid, compounded and treated together in the proportions and in the manner hereinafter at large specified.

To enable others skilled in the art to make and use my invention, I will proceed to describe the method of its manufacture and preparation.

I take a vessel composed of material which will resist the action of acids, and sufficiently capacious to contain three times the bulk of the petroleum to be operated on, and put therein one gallon of crude petroleum, and add thereto one-half pint of common nitric acid. I then stir the mixture until the two articles are well incorporated together, and then add

gradually to the mixture one-half pint of common sulphuric acid. Then, if nitrous-acid fumes are given off, no further steps will be necessary; but if nitrous-acid fumes are not given off, upon the addition of sulphuric acid, heat must be applied to the mixture until nitrous-acid fumes do appear. The qualities of the various ingredients employed, as to freedom from impurities and density of the petroleum, determine the question as to whether nitrous-acid fumes will or will not rise spontaneously in any given case, and no rule can be stated beforehand; but the result will be equally good, whether the nitrous-acid fumes rise spontaneously or upon the application of heat, as aforesaid. To make an oil less dense than that produced by the above process, I use refined petroleum instead of crude petroleum, as above.

The quantities of the respective ingredients named above are indicated in order to show the relative proportions; but any multiples thereof may be employed, and said relative proportions may be somewhat varied from the above formula without materially affecting the result.

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

The manufacture and preparation of a new and improved kind of oil for mixing and compounding with white lead, zinc-white, and other mineral paints and pigments, in lieu of linseed-oil and other paint-oils, and for other purposes, composed of the ingredients above named, and compounded, manufactured, and prepared in the manner and for the purposes substantially as set forth above.

ROBERTS BARTHOLOW.

Witnesses:

I. S. DODGE,
J. B. CONKLIN.