

UNITED STATES PATENT OFFICE.

CHARLES E. HORE, OF BROOKLYN, NEW YORK.

PROCESS OF MAKING LEMON-CHROME.

SPECIFICATION forming part of Letters Patent No. 305,390, dated September 16, 1884.

Application filed January 15, 1884. (Specimens.)

To all whom it may concern:

Be it known that I, CHARLES E. HORE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in the Manufacture of Lemon-Yellow, of which the following is a specification.

This invention relates to the manufacture of a lemon-yellow pigment by the reaction of bichromate or of a neutral chromate of potash upon sublimed lead in the presence of an acid. Sublimed lead, or lead anhydrite, is a substance obtained from galena ores, and it is generally of the following composition:

15 Sulphate of lead.....	65.93
Sulphite of lead.....	1.98
Oxide of lead.....	31.13
Oxide of zinc.....	0.96
20 Total.....	100.00

In carrying out my invention I take five hundred pounds of sublimed lead, place it in a mixer containing a suitable agitator, and add thereto enough nitric acid of 1.334 specific gravity to satisfy the basic lead contained in the sublimed lead—usually from one hundred to one hundred and seventy-five pounds. After the mass has been agitated for a short time I add thereto from fifty to one hundred pounds of bichromate of potash in solution, according

to the shade desired. The reaction is completed when a test shows that all the bichromate has combined with the sublimed lead, which can be ascertained by the absence of bichromate in the mother-liquor. The supernatant liquor is then drawn off, and the coloring-matter is repeatedly washed and dried in the usual way. It constitutes a fine, brilliant, flocculent lemon-yellow color.

Instead of nitric acid, acetic acid may be employed in order to produce this color, and the bichromate or neutral chromate of potash may be mixed with sulphuric acid or alum.

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

The process, substantially as hereinbefore described, for producing a lemon-yellow coloring-matter, said process consisting in mixing sublimed lead with an acid, such as nitric acid, then adding thereto bichromate or a neutral chromate of potash, stirring the mass, and finally separating the insoluble color from the soluble products.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHAS. E. HORE. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.