

A TRIP THRU THE WHITE LEAD PLANT IN CHICAGO
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Up a flight of stairs, over a jack knife bridge, thru a tin door and you stop in the twilight of the stack house of the White Lead plant. You are on a balcony which holds you suspended over a seemingly endless void. As your eyes become accustomed to the dim light you discern mountains of tank bark extending down thru the center of a great barnlike wooden structure with huge stalls flanking either side. A tangy smell cuts into the consciousness of your nostrils and you wonder whether you like it or not. A dampness pervades and a man is cutting fanciful curves thru the air with a large hose. You are in as different a world from Doc Van Stone's Lacquer Plant at the other end of the lot as a little Dutch village would be in contrast to 42nd and Broadway, New York. Call it primitive, basic, fundamental or whatever you wish, the making of Old Dutch Process White Lead goes back to the shadowy beginnings of paint making with a process which persists until today, a process requiring the purist of corrodors, lead, handfilling and loading of stacks and Nature's own sweet time of changing metallic lead buckles into white lead carbonate 90 to 120 days.

The lead buckles now prepare to say farewell to their metallic form. At the bottom of these pots is dilute acetic acid in a small well. The acid does not touch the buckle until vaporized by the heat of the fermenting tan bark. There are 15 layers of pots in a stack. Each tier is covered with a double sheathing of boards and is tucked away under a blanket of tan bark a foot and half thick. A wooden vent permits the generated steam to escape as it works its way up thru the stack. The heat at the mouth of the vent would burn the hand

Lead is received at the White Lead plant in the form of pigs or bars which weight 100 lbs. apiece. They are fed into the furnace at the left and emerge in liquid form which pours into moulds on the traveling belt, goes up over the ladder, by which time the molten metal is cooled and falls in a pretzel-like disc in the heap at the right. It is these discs, called buckles, which are shown filling the corroding pots below.

When the corroded lead buckles are taken from the stack they are crushed and mixed with water. Then the long process of washing, screening and purifying begins. The lead must first pass thru a silk screen which carries 200 threads to the inch. It would seem that so fine a screen as this would remove everything that was removable - and it does. There are no particles of tan bark, uncorroded lead or foreign substance which get by the screen which is on a vibrating table and fairly gives one the shivers to watch it, and yet from the screen the lead must float thru 30 vats of water before it emerges fully purified and capable of passing the rigid tests of the inspector's desk. This makes certain twenty times over, that there is no possibility of any acid remaining, any contamination of tan bark, and it is quite certain that the lead which has floated in the water thru 30 tubs is going to be just about the best word in fineness. The finishing steps of drying the lead in steam-heated pans to drive off the water and the subsequent regrinding with refined linseed oil can be readily enough understood. There are refinements thru every step of manufacture, however, which cannot be explained in so limited a discussion, but which makes S-W ODP White Lead a favorite with the painter. It does not get hard in the package, it is easy to break up and mix into paint, is very white and easy working under the brush.

White Lead is filled by weight. The bucket rests upon a scale and is filled with one throw of the lever. A dash of lead with a putty knife adds the necessary touch to make the scale go down. The man at the left puts in the printed direction sheet for making White Lead Paint with ODP which is enclosed in a waxed envelope. His machine forces and clamps the self-sealing cover.

The large amount of tank bark used and the extreme weight of the lead makes the use of this powerful traveling hoist car indispensable. It is tracked on overhead rails to reach every point in the large building.

Lead and Litharge are made by causing the lead to combine with oxygen under great heat. The pig lead is roasted in these furnaces for three days by which time it has changed to a bright yellow powder, which is litharge. At this time the furnace requires close attention, for the litharge soon begins to change to red lead. If the roasting is continued up to nine days, the change to red lead becomes complete.

Sherwin-Williams Guarantee

"This package is warranted to contain nothing but strictly pure White Lead, ground in strictly pure linseed oil, and we will pay one ounce of gold for every pound of adulteration that it may be found to contain".

Rather a comprehensive guarantee, as the reader will agree, and yet we have every confidence in the absolute purity and supreme quality of our ODP White Lead that we don't hesitate for a moment in going the limit to assure the user of that quality.

RED LEAD AND LITHARGE

An entire book could be written about these two most interesting products. They are used in making such divergent products as glassware and storage batteries, rubber products and varnish, used in oil refining and in linoleum, etc.

All these departments come under the supervision of Mr S W Stevens our Gen'l Supt. of Pigment Products Manufacture. Mr. Stevens came with us in 1910. He is a graduate of the Royal School of Mines, London, as Metallurgical Engineer. His two hobbies are golf and a reported fondness for working 24 hours a day. The portrait is not entirely characteristic because his pipe is missing.