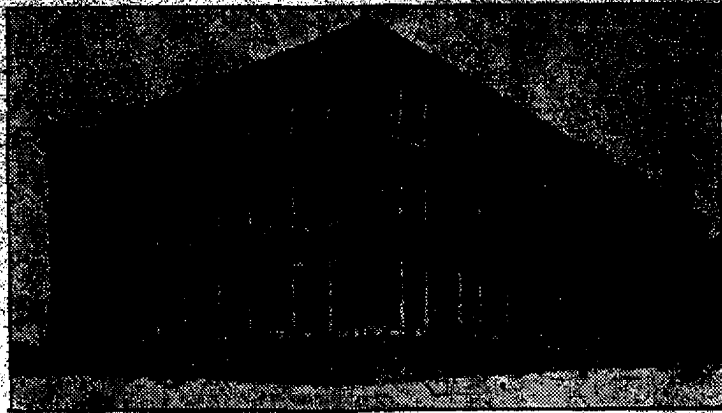


NEW PROCESS OF MAKING WHITE LEAD WORKS GREAT CHANGE IN PAINT INDUSTRY



The New Building of the Acme White Lead & Color Works, in Which White Lead is Made by the New "Mild" Process.

Detroit's latest industry, and by far the most important in the paint line, is the manufacture of white lead by the "mild process," a process which is of recent discovery and which has been acquired by the Acme White Lead & Color Works, and housed in a newly completed brick, steel and concrete building, costing \$100,000. The building itself is a notable addition to Detroit's factory equipment, but the "mild process" of manufacturing white lead is fascinating even to the layman.

For hundreds of years white lead has been made by the old Dutch process, which required 120 days and a large amount of labor. The product itself was all that could be desired, but the process was slow and very expensive. It required 10 men to operate a very small plant and only 75 per cent of the lead laid away carbonated, necessitating a great deal of scrubbing and separating and another 120 days to carbonate the 25 per cent that remained. Under that system the pig lead was melted into "buckles," resembling large pretzels and laid a dozen each in earthen jars in the bottom of which was acetic acid. A great bed of tan bark a foot deep was laid, and these jars, hundreds in number, were buried in the tan bark, which was mixed with horse manure, and over these jars was placed pine lumber over which another layer of tan bark and manure was distributed to receive more jars. In this way a great stack was built which was to remain four months. All of these "buckles" were cast by hand, the jars were filled and handled by hand, the stacks were built by hand and the process was most expensive.

But down in St. Louis was a man named Wilson H. Rowley, who worked out an improvement, and his experimentation went forward for seven years, until success was earned. The "mild process" is so absurdly simple that one wonders how the world blundered along without it so long. Here it is. The pig lead is hoisted to the third story of the plant and melted in a great caldron. In this initial carrying to the caldron is the only need of

appears. The stream of molten lead runs through a pipe in the bottom of the caldron to an atomizer, where it encounters a blow of superheated steam that disintegrates it into the smallest particles—so small are they that assembled they resemble a stove polish, somewhat dried—and this fine, powderlike substance is collected in large tanks of water, from whence it is carried on to broad, troughlike tables, where powerful agitators search it for any small particles of lead that remain unconverted. Air at low pressure is forced through the liquid lead and water, the combined action of air and water converting the lead into what is called a basic hydride of lead. Observe that, in all the processes, no handling has been necessary. From the top story of the building the lead finds its way from floor to floor, through gravitation, and in its liquid form is then pushed down to complete its transformation. There remains to be done the carbonating process, which is completed by placing the lead in carbonators, where it is constantly agitated while it is being subjected to the action of gas pumped in under low pressure. This gas is a product of the plant itself. In 36 hours of this treatment the proper fineness and density is obtained and the finished lead—white as snow—is pumped to the drying beds, which are long strips of duck canvas laid over screens, and here it dries, the finished product. The proof that the lead has been thoroughly converted and deprived of its soluble lead salts is that these duck sheets last a long time. Heat, air, water and gas have changed the pig lead to the white lead of the trade.

Eight men are all that are required to operate the big plant with its enormous capacity of 15,000 tons a year. The "mild process" accomplishes in 10 days what the old Dutch process required 120 days to accomplish. The possibility of lead poisoning, so ever-present in the old process, is banished. Not a particle escapes and not a particle is lost. Instead of losing 25 per cent, as in the old system, the new system makes a chemical gain of 25 per cent, so that for every 100 pounds of lead put in 125 come out. It is one of the most interesting processes in the city, the only one of its kind in the world, and places Detroit in the front

SERVICE LEAGUE BUTTONS READY

PURCHASE GIVEN MEMBERSHIP
IN ASSOCIATION OF BEAUTY
AGE HOME BEAUTY

If you have not yet seen the City Service League, the new one, Buttons signifying membership have been placed on file in the city, and feel our friends who have been placed in without a button, please call to remind everyone that the league

CITY SERVICE LEAGUE BUTTON
exists for the purpose of beautifying Detroit.

By buying a button you become a member. The membership will be divided into district associations, each of which will encourage home beautifying and artistic gardening in the section of the city.

Cups and prizes are offered for the greatest improvement in conditions. All the district associations are to be represented in a city gathering.