

UNITED STATES PATENT OFFICE.

ASA P. MEYLERT, OF NEW BRITAIN, CONNECTICUT.

IMPROVEMENT IN THE MANUFACTURE OF WHITE LEAD.

Specification forming part of Letters Patent No. **151,497**, dated June 2, 1874; application filed March 10, 1874.

To all whom it may concern:

Be it known that I, ASA P. MEYLERT, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Manufacture of White Lead, of which the following is a specification:

By my process carbonic-acid gas is taken from the chimney of an ordinary limekiln to the corroding-rooms, all as hereinafter described.

Ordinary limekilns are of two kinds, known as perpetual and intermittent. The former is so arranged that fresh fuel and limestone may be added from time to time and the burnt lime removed without putting out the fire, whereby the kiln may be kept in operation an indefinite time. In the intermittent kiln, when the limestone has been burned, the fire is allowed to die out, and when the kiln has become sufficiently cooled off the burnt lime is removed and the kiln recharged with a fresh supply of limestone and fuel for another burning.

In case two of this class of kilns are near each other, one may be cleaned out and recharged while the other is burning. The time necessary for corroding lead is greater than the time required to burn a kiln of lime; therefore, if the intermittent kiln is employed, two or more are necessary in order to keep up a continuous supply of carbonic-acid gas.

I place a hood or cap over the top of the chimney of one or more limekilns, and connect said chimney or chimneys and the corroding room or chamber of a white-lead works by means of a pipe provided with a blower or pump to draw the gas from the chimney and force it into the corroding-room. If, however, the corroding-room is located sufficiently above the limekiln, the gas will rise and flow into the corroding-rooms without the aid of a blower. The pipe or pipes should also be provided with a damper to regulate the amount of gas flowing into the corroding-rooms.

The carbonic-acid gas generated from burn-

ing limestone, marble, chalk, &c., is so pure that it needs but little if any purification before introducing it into the corroding-room. A small jet of steam let into the pipe to precipitate particles of lamp-black, or other particles that may flow from the limekiln, is all the purifying that will ordinarily be required. Acetic or other acid may be placed or introduced into the corroding-room in any desired manner, and the corroding room or rooms may be of any ordinary construction.

The operation is as follows: Metallic lead is placed in the corroding-room, and limestone or marble is burned in one of the kilns, and the carbonic-acid gas generated in said kiln is taken to the corroding-room, as before described. When the limestone in the kiln first fired is sufficiently burned, or nearly so, fire is started in kiln number two, and the carbonic-acid gas arising therefrom is taken to the corroding-room in like manner. The kiln number one is then cleared out, and the lime saved as in the ordinary manufacture of lime, and the kiln recharged ready to ignite as soon as the kiln number two is exhausted, and so on, thus keeping up a continual supply of carbonic-acid gas so long as may be desired; but, as before stated, if a perpetual kiln is employed, only one kiln is necessary. After corrosion, the lead is treated in the usual manner.

By thus combining the manufacture of marketable lime and white lead in one and the same process, the cost of the lime is not increased, while the cost of producing the white lead is materially decreased.

I claim as my invention—

The process of corroding lead herein described, by conveying carbonic-acid gas from one or more limekilns to the corroding-rooms, all substantially as described.

ASA P. MEYLERT.

Witnesses:

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