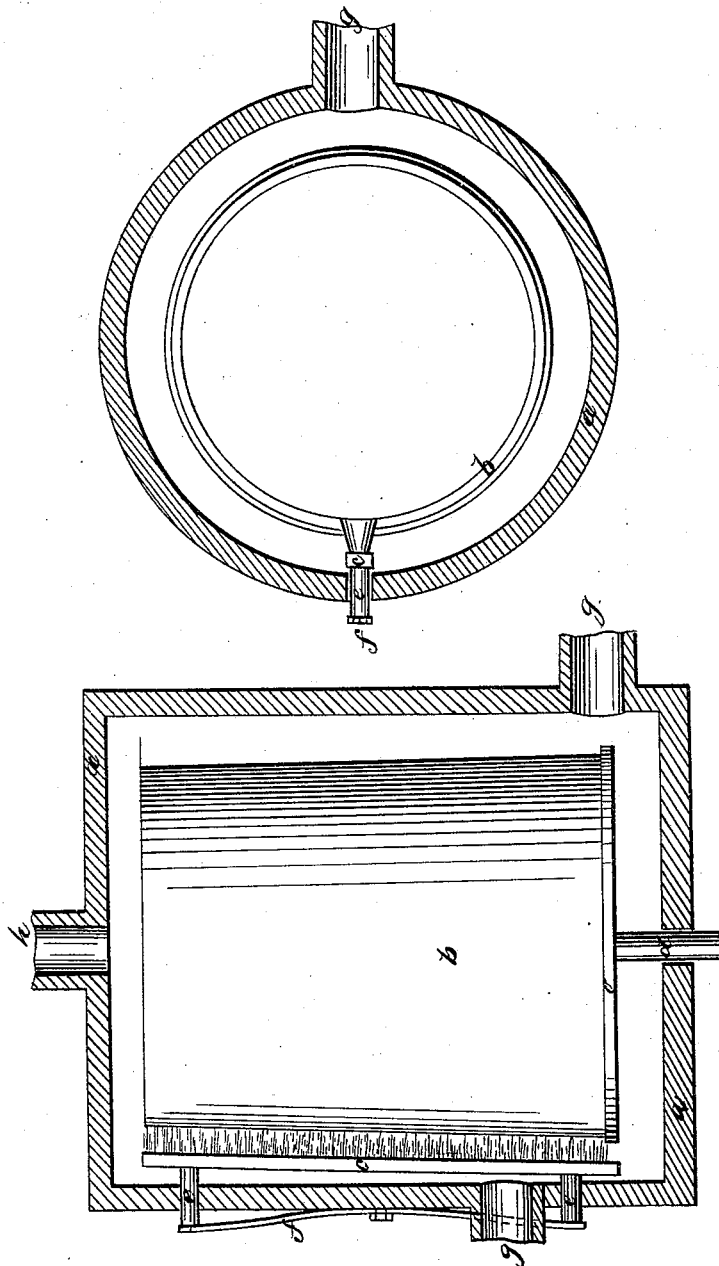


ARCHER & RICE.
Making White Lead.

No. 46,706.

Patented Mar. 7, 1865.



Witnesses:

Samuel L. Hayes
James McMahon

Inventor:

William Doxey
Calvin Rice

UNITED STATES PATENT OFFICE.

WILLIAM ARCHER AND CLINTON RICE, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF WHITE-LEAD.

Specification forming part of Letters Patent No. **46,706**, dated March 7, 1865.

To all whom it may concern:

Be it known that we, WILLIAM ARCHER and CLINTON RICE, both of the city, county, and State of New York, have invented a new and Improved Method of Manufacturing White-Lead; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention consists in providing an apparatus by which the continuous corrosion or carbonization of metallic lead by the action of proper gases and the constant removal of the consequent accumulation of white-lead is accomplished automatically.

To enable others to make and use our invention, we will proceed to describe its construction and operation.

First, we construct all parts of our apparatus which may come into contact with the gases employed of wood, or other material or composition not liable to become corroded or so discolored as to affect the product desired; second, we construct a close chamber of any convenient shape and size, (see letter *a*, which represents one form of the same,) which we provide with one or more inlets, (see letters *g g*,) for the admission of carbonic or acetic acid gases, or other proper vapors, and with the outlet (see letter *h*) for the ejection of spent gases. These inlets and outlet are provided with stop-cocks to regulate the passage of the active and spent gases. Within this chamber we provide a drum, (see letter *b*,) which may be made in any desirable shape, either cylindrical or pyramidal. This drum we support and rotate by the shaft *d*, and the same may be ranged perpendicularly or horizontally. When the drum is ranged perpendicularly, we provide it with the flange *o*, upon which the lower edge of the metallic lead to be converted rests. We then provide the brush or scraper *c*, which we make of any suitable anti-corrosive material. This brush may be continuously pressed upon the surface of the drum *b*, or its pressure

may be intermitted by a lifting-cam, endless screw, or any of the usual devices for producing pressure at measured intervals.

When we wish to operate our invention, we cover the drum with segments or sheets of metallic lead of any convenient thickness and aggregate weight. The necessary gases or vapors are then admitted into the chamber by one or both of the inlets *g g*, and the drum is then slowly rotated or may be allowed to remain stationary until the surface of the exposed metal has become sufficiently converted into white-lead. This product of white-lead is then removed by the action of the brush or scraper *c*, applied, as aforesaid, intermittently or continuously. The white-lead thus produced will be precipitated to the bottom of the chamber, and removed therefrom by an aperture in the lower part thereof without retarding the operation of the apparatus.

We do not confine ourselves to rotating the drum or frame upon which the metallic lead is placed on a perpendicular shaft, or even in rotating them at all, as the same effect desired may be accomplished by placing them horizontally, and the brush or scraper may be made to move around reciprocatively or in close contact upon a stationary, perpendicular, or horizontal drum or frame.

We do not claim the rotating of the metallic lead or any means of doing so; but as similar devices have been heretofore used.

What we do claim, and which we desire to secure by Letters Patent, is—

The continuous or intermittent removal of the white-lead from the surface of metallic lead as fast as desirable by means of a stationary, revolving, or reciprocating brush or scraper, applied in combination with a revolving or stationary drum or frame, substantially as described.

WILLIAM ARCHER.
CLINTON RICE.

Witnesses:

SAML. S. HARRIS,
CORS. J. ROONEY.