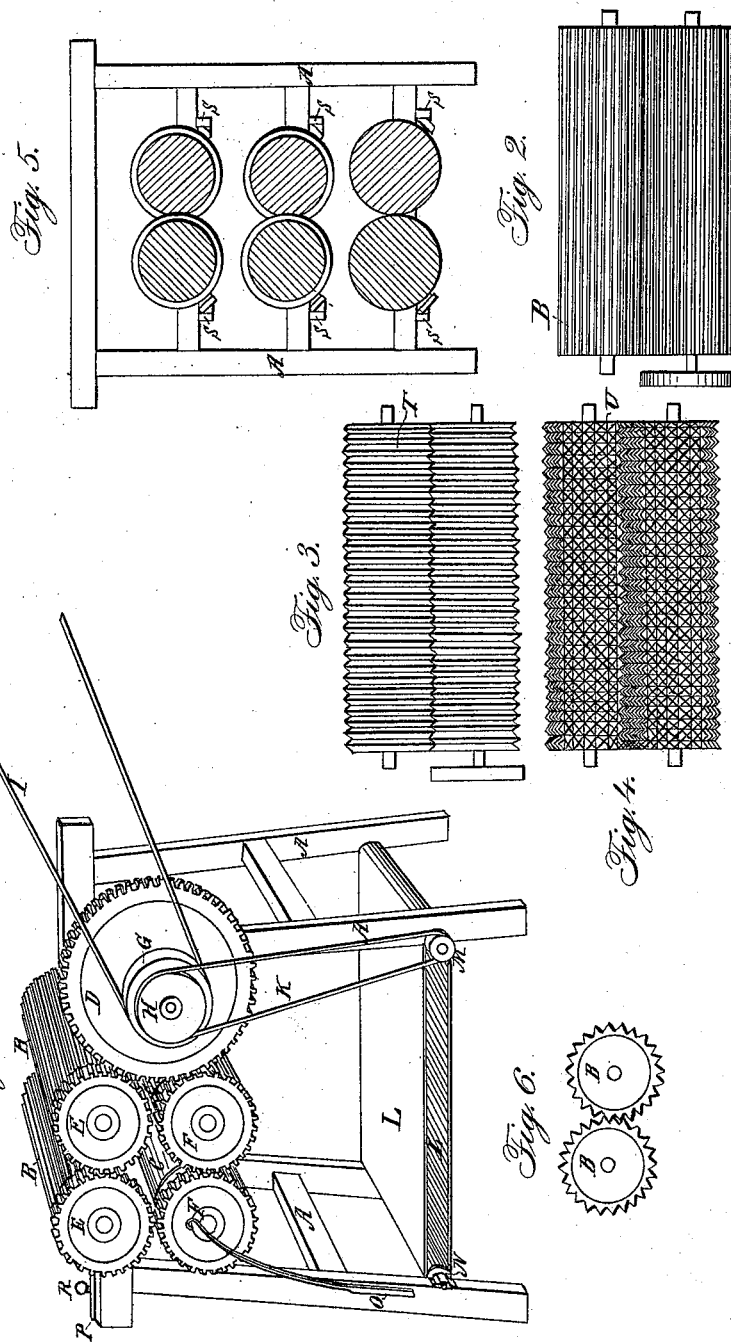
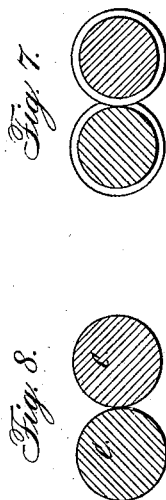
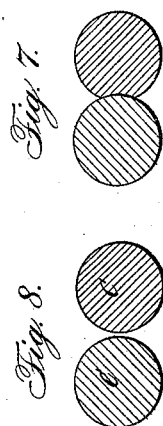


E. CLARK.
Making White Lead.

No. 1,424.

Patented Dec. 5, 1839.



Witnesses:

James M. Smith
John H. Blewett

Inventor:

Edward Clark

UNITED STATES PATENT OFFICE.

EDWARD CLARK, OF SAUGERTIES, NEW YORK.

MODE OF SEPARATING THE OXID OF LEAD FROM THE METAL DURING THE PROCESS OF MANUFACTURING WHITE LEAD.

Specification of Letters Patent No. 1,424, dated December 5, 1839.

To all whom it may concern:

Be it known that I, EDWARD CLARK, of Saugerties, county of Ulster, State of New York, have invented a new and useful machine for separating corroded from uncorroded lead in the manufacture of carbonate of lead, the white lead of commerce, not heretofore known or used; and I do hereby declare that the following is a full and exact description, reference being had to the drawing hereunto annexed and making part of this specification.

This invention is called "Clark's lead parting apparatus." Its nature consists in passing the semicorroded lead between rollers of a peculiar construction so that it will be stretched or bent and again straightened and thus the corroded parts separated from that which remains metallic.

To enable others skilled in the business to make and use my invention I proceed to describe its construction and operation.

I make of metal or any other suitable material one, two or more pairs of channeled rollers and smooth rollers two or three feet in length and six or eight inches in diameter or of any other convenient dimensions and set them in frame-work as shown at Figure 1, in such a manner that the projecting parts of one roller shall play into the depressions of the other without touching it. This is done by the nice arrangement of the pinions by which they are put in motion. I leave a sufficient space between the rollers to allow of the passage of the partially corroded lead in a crimped or bent form without its coming in contact with the rollers except upon their projecting lines. This space is adjusted by slides and screws connected with the journal-bearing, as shown at Fig. 1, P and O. I also place a pair of plain wooden or metallic rollers (C, Fig. 1, and Fig. 8) below the one or more pairs of grooved rollers used in the machine for the purpose of straightening the crimped or bent metal. These rollers are kept closely pressed one against the other by means of springs which act against the shaft of one of them as seen at O Fig. 1. The rollers are kept clean by a brush upon each shown at Fig. 5, S.

Below the rollers near the bottom of the machine is an endless apron passing over rollers and put in motion by a pulley and band; its object is to convey the lead from the machine (see L apron, M the whirl,

and K the band). This apron is extended sometimes so as to convey the lead to and from the machine to any convenient distance which may be required.

This machine is wholly inclosed except directly over the upper rollers where an aperture is left for the purpose of introducing the partially corroded lead. There are also openings left for the apron to pass through, but they are covered by curtains so that the attendants on the machine are effectually protected from the dust of the lead.

The following is a more minute description of the various parts as seen in the drawing.

Fig. 1 is a perspective view of the machine without its covering. Fig. 2, pair of rollers with longitudinal channels; Fig. 3, pair of rollers with annular channels; Fig. 4, two which are channeled both ways, each projection forming a pyramid; Fig. 5, section showing the arrangement when several pairs of rollers are used; Fig. 6, an end view of the rollers seen at Fig. 2; Fig. 7, end of rollers Fig. 3 showing their relative position; Fig. 8, smooth rollers for straightening the lead; they are made either of wood or metal and placed at such distance apart as the lead will permit, without having its surface extended.

The same letters refer to the same things.

A, the frame; B, longitudinally channeled rollers; C, smooth rollers; D, driving wheel; E, pinions on the upper rollers; F, pinion on the smooth rollers; G, main band-whirl or pulley; H, band whirl for driving the apron; I, main band; K, band from H to M, and L, the apron; M, the pulley or whirl on one of the rollers of the endless apron; N, the opposite rollers of the apron; O, a spring which serves to force one of the smooth rollers firmly against its fellow. There is another similar to it, on the opposite side of the machine. P, a slide which holds the shaft of one of the rollers, B, in its proper position; R, a thumb screw by which it is regulated; S, the brushes or scrapers; T, annularly channeled rollers; U, rollers channeled both ways.

Operation: The machine being put in motion so that each individual roller will turn inward upon its fellow and downward, the partially corroded lead is put into the opening in the top of the case and between the rollers, through which it passes in a crimp-

pled state to the next series of rollers, and so on till it falls upon the apron and is conveyed away to be again subjected to the corroding process.

5 What I claim as my invention and desire to secure by Letters Patent is

The method of separating the corroded parts of lead from the metal during the process of manufacturing white lead by means of the combination of plain and

grooved or channeled rollers as herein described, and I also claim the combination of the revolving apron L, brushes or scrapers S, S', and plain and fluted rollers F, F', and E, E', in the manner and for the purpose herein set forth. 15

EDWARD CLARK.

Witnesses:

CHARLES H. WEBB,
ALBERT W. BROWN.