W. H. GREGG.

Apparatus for Washing White Lead.

No. 219,717. Patented Sept. 16, 1879.

FIG. 1.

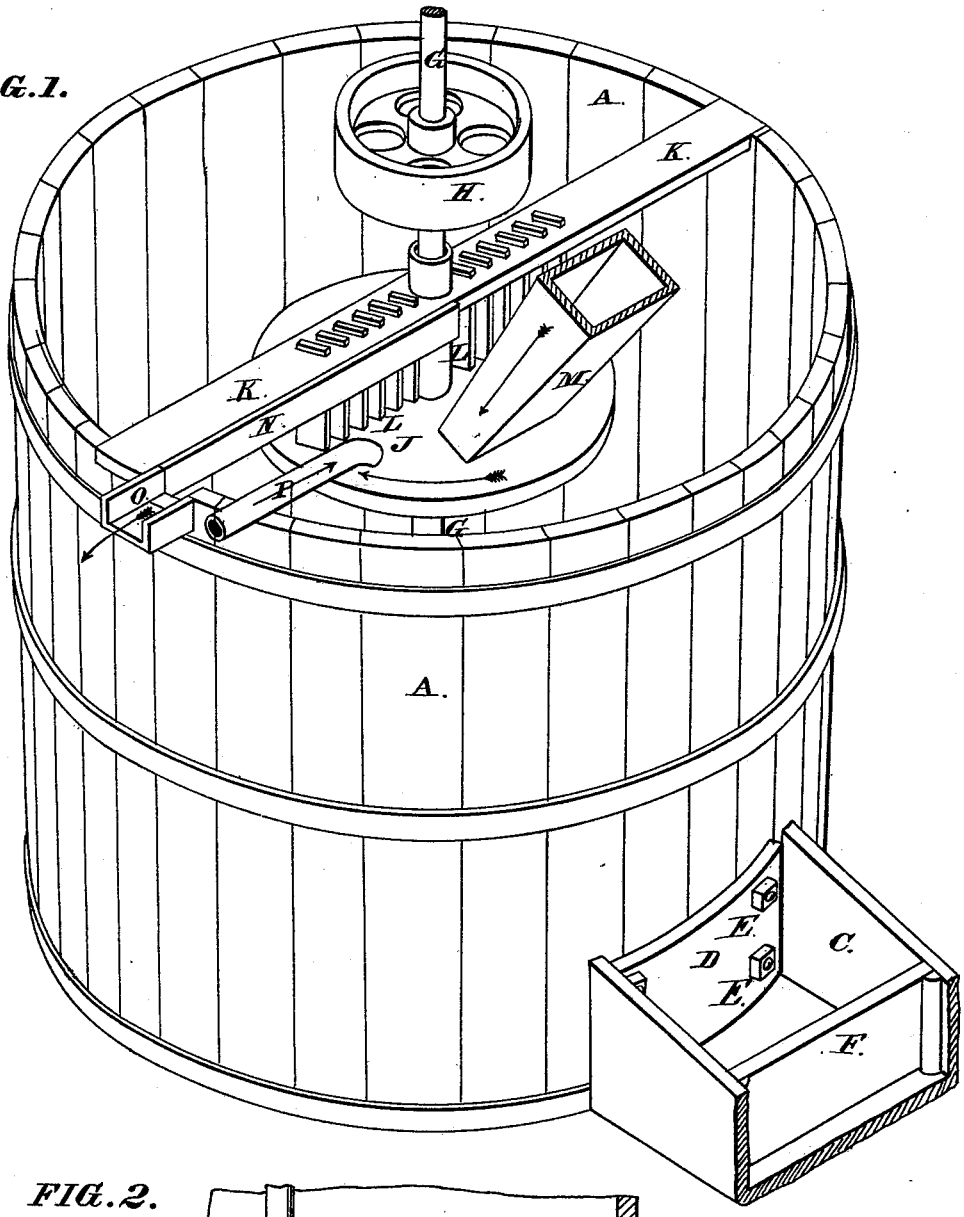
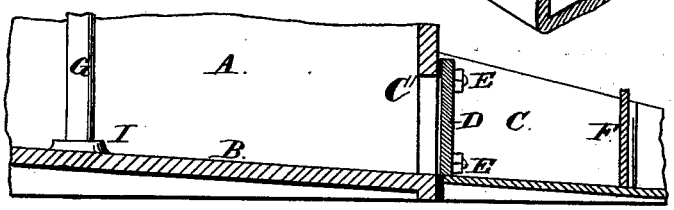


FIG. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. GREGG, OF ST. LOUIS, MISSOURI, ASSIGNOR TO SOUTHERN WHITE LEAD COMPANY, OF SAME PLACE.

IMPROVEMENT IN APPARATUS FOR WASHING WHITE LEAD.

Specification forming part of Letters Patent No. **219,717**, dated September 16, 1879; application filed April 5, 1879.

To all whom it may concern:

Be it known that I, WILLIAM H. GREGG, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Apparatus for Washing White Lead, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement consists in a tub or tank having a downwardly-inclined bottom, and an opening in the lower part connecting with said bottom and with a spout, and adapted to be closed by a suitable door, said spout being provided toward its outer end with a gate to adapt it as a receptacle for the washed lead, a rotary table, a stationary horizontal bar secured to the top of the tub and carrying vertical teeth, a shaft and pulley to rotate said table, a feed-spout to convey the lead to be washed to the table, a skimmer-board arranged to have its lower edge beneath the surface of the water, and an overflow-spout and water-spout arranged at the top of the tub.

In the drawings, Figure 1 is a perspective view of the apparatus. Fig. 2 is a vertical section of part of the bottom of the tub.

A is the tub or tank, having, preferably, a bottom, B, inclined downward to the discharge-spout C, through which the washed lead is taken from the tub. D is the cover or door-plate closing the spout-orifice C′. The cover is fitted with a common gasket and bolted in position, as shown, by bolts E. Any suitable cover may be used in place of D.

F is a gate across the spout C, some distance from the tub, to enable the upper end of the spout to be formed into a receptacle for lead flowing out of the tub.

G is a vertical shaft, turned by a belt on a pulley, H, or by any suitable means. The shaft is stepped centrally on the bottom of the tub at I.

J is a horizontal table, fixed to the shaft G in such a position that the top of the table is some inches below the surface-level of the water, with which the tub is nearly filled. Thus it will be seen that the table J has continuous rotation beneath the surface of the water.

K is a bar, fixed across the tub, crossing over the table diametrically. From the bar K descend a number of conveyer teeth or flights, L, so inclined that they convey the lead gradually outward to the periphery of the table, stirring it meanwhile, so that all parts are subjected to the cleansing action of the water, and all of the lighter extraneous and soluble matters are carried away by the water.

The lead in its crushed or powdered state is fed upon the table near the center through a feed-spout, M, and after being subjected to the action of the conveyer-teeth L falls from the edge of the table in a thin sheet and descends to the bottom of the tub.

The light impurities and a certain amount of foam rise to the surface of the water, and as the water has some revolutionary movement (owing to the rotary movement of the table and shaft) the floating matter is brought in contact with the skimming-board N, whose lower edge is beneath the surface of the water, and this board carries these matters to the overflow-spout O at the top of the tub.

Water to supply the overflow enters through a spout, P.

The cover or door-plate D is kept closed until a proper quantity of lead has settled to the bottom of the tub or vat A, and then the operation ceases, and after the water has deposited all the lead in suspension it is drawn off. Then the cover D is opened and the lead removed through the spout C.

I claim as my invention—

1. The apparatus herein described for washing white lead, constructed of a tub, A, having inclined bottom B and opening C′ at the bottom, spout C, having gate F, to adapt said spout as a receptacle for the washed lead, rotary table J, door D, shaft G, pulley H, feed-spout M, conveyer K L, skimmer-board N, overflow-spout O, and water-spout P.

2. In combination with tub or vat A, turn-table J, conveyer K L, and overflow-spout O, the skimmer-board N, and water-spout P.

WILLIAM H. GREGG.

Witnesses:
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CHAS. W. FERGUSON.