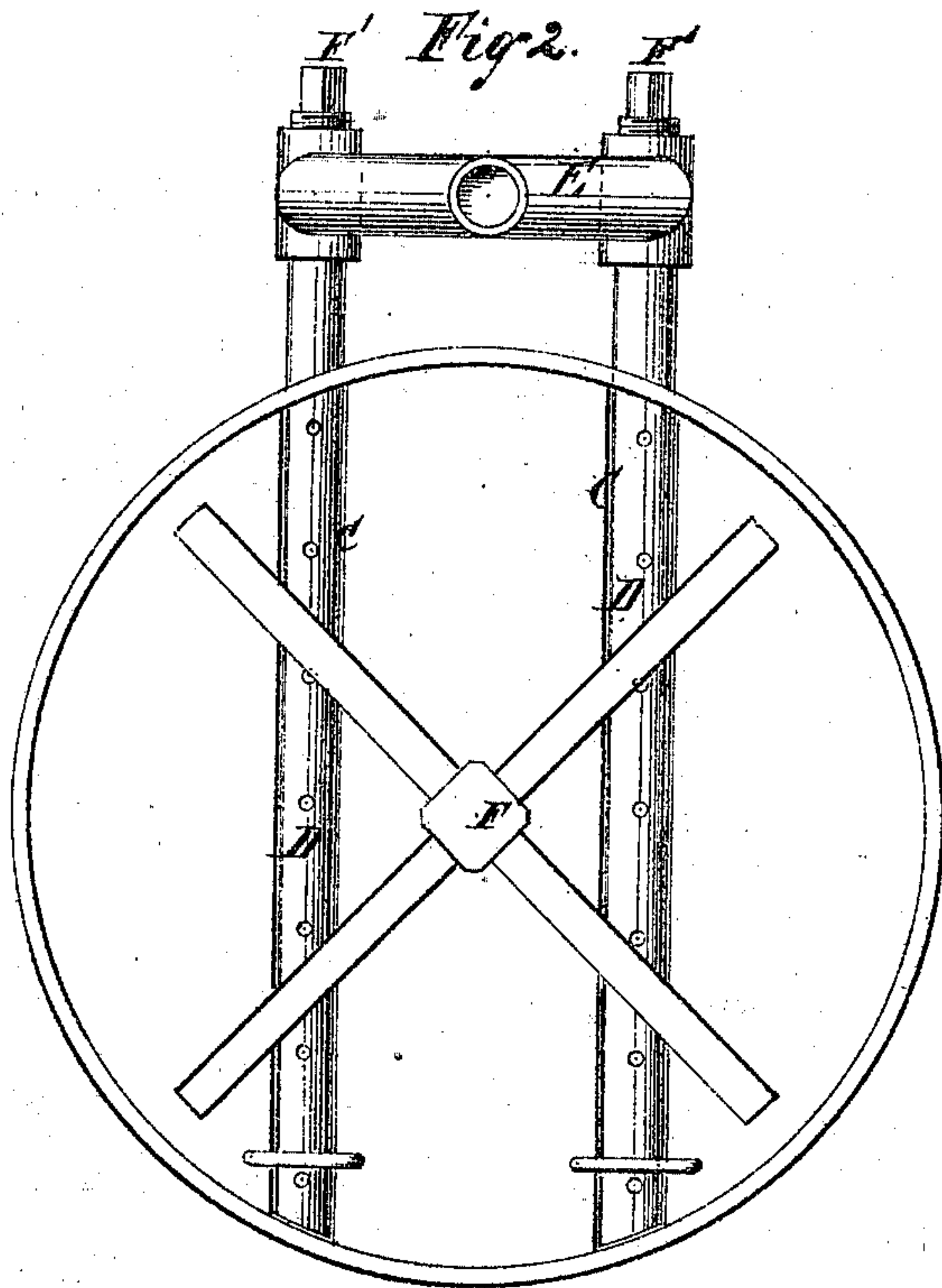
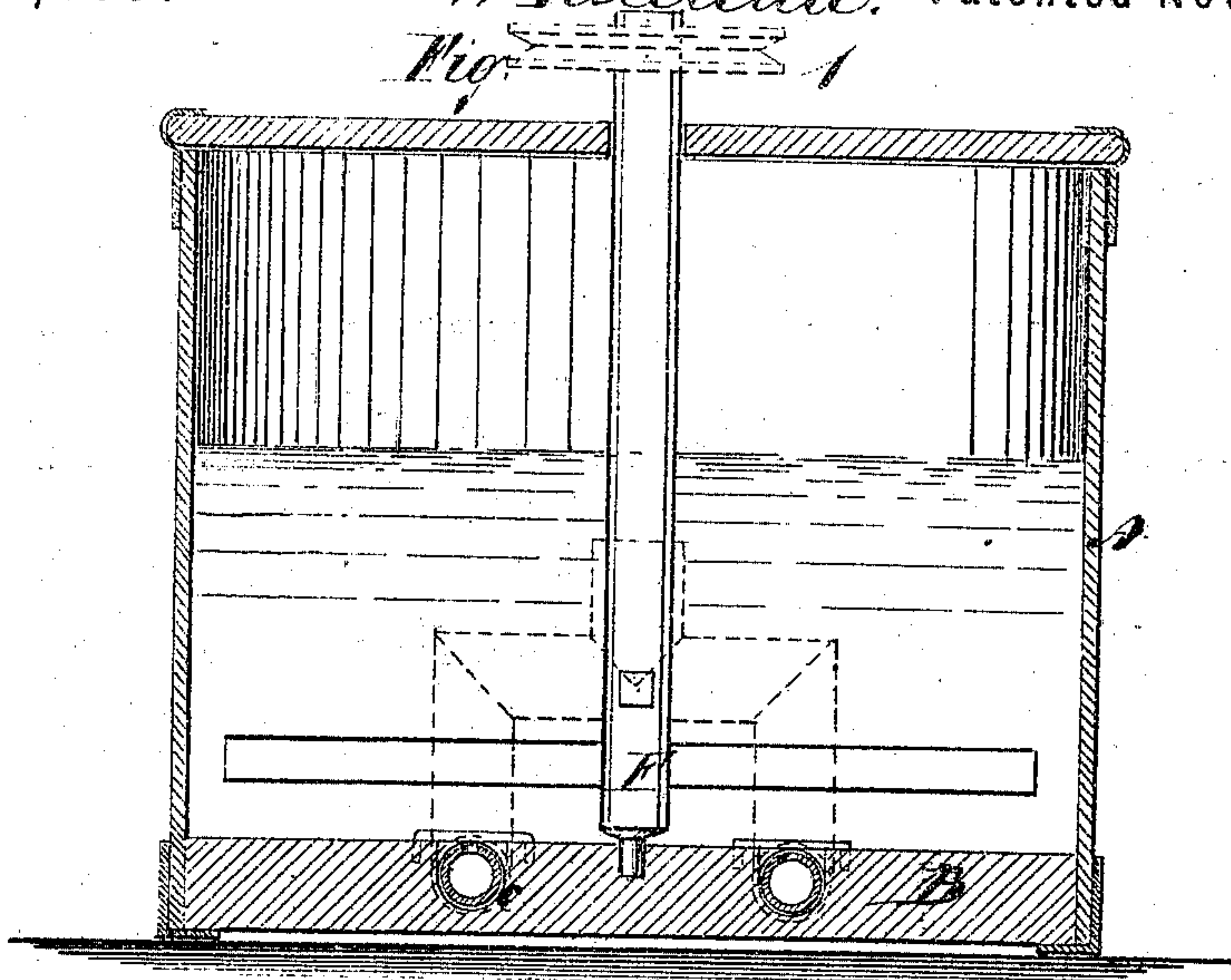


D. Wadsworth, Manufacture of
 No. 120,916. *Whitelead.* Patented Nov. 14, 1871.



Witnesses:

C. Raettig
 Wm. H. C. Smith.

Inventor:

D. Wadsworth

PER

Munn & Co
 Attorneys.

UNITED STATES PATENT OFFICE.

DECIUS WADSWORTH, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN THE MANUFACTURE OF WHITE LEAD.

Specification forming part of Letters Patent No. 120,916, dated November 14, 1871.

To all whom it may concern:

Be it known that I, DECIUS WADSWORTH, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in the Manufacture of White Lead; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to an improved arrangement of means for introducing and distributing the carbonic acid used in the manufacture of white lead in the basic solution of lead for precipitating; and it consists in the application to the bottom of a tank containing a stirrer or agitator of one or more—preferably two—perforated pipes extending across the bottom in a groove or grooves, so that the stirrer or agitator will pass over them, said pipe or pipes extending through the side of the tank and being connected with a main pipe leading from the furnace, in which the gas is generated, and having an air-pump connected with it for forcing the gas into the solution in fine jets at intervals along the pipe, for exposing the whole mass uniformly to the action of the acid. Said pipes are also arranged at the projecting ends, to admit of the introduction of a brush or scraper from time to time, on the removal of a plug, for clearing them of the deposit of lead which enters the holes and obstructs the passage of the air and gas.

Figure 1 is a vertical transverse section of a tank provided with my improved gas-introducing apparatus, and Fig. 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts.

A is the tank, which I provide with a strong thick floor, B, in which I arrange preferably two grooves, C, extending across it, one on each side of the center and parallel with each other; and at one side of the tank I make a hole through it

for each groove, coinciding with said grooves. These grooves are of suitable size to admit perforated tubes—say about three inches in diameter—so that they will not rise above the level of the floor. The tubes D are arranged in the grooves, as shown, with one end projecting through the wall of the tank and connecting with a supply-pipe, E, which is to communicate with the furnace in which the gas is generated and have an air-pump connection for forcing the gas into the tank through the small perforations. F is the agitator, which is kept in motion while the acid is thus introduced, to thoroughly mix the acid with the solution. The said pipes are connected with the main pipe E in such a way that the outer ends F', which are closed by plugs G, may admit, when opened, a brush or scraper for removing the deposit of lead accumulating in them by settling in the holes. The pipes may be made of wood, copper, galvanized iron, or other suitable material.

By this improved means I am enabled to make the necessary uniform application of the acid to the lead with certainty and rapidity.

I am aware that the process above described is old, and that under English patent 8,166 (old law) carbonic acid has been distributed over lead by means of a complicated arrangement of tanks, pipes, and other auxiliary parts; but my improvement upon this device and in carrying out this process is intended to facilitate the operation and render it much more economical.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The peculiar arrangement of perforated pipes in grooves of the floor B of a white-lead manufacturing apparatus, for the purpose of enabling gas to be forced therethrough into the tank, as described.

DECIUS WADSWORTH.

Witnesses:

GEO. W. MABEE,
ALEX. F. ROBERTS.

(107)