

PROCESS FOR THE MANUFACTURE OF A PRODUCT FROM WHICH RED LEAD CAN BE BURNT.

1,052,924.

The diagram shows a mechanical setup for measuring the weight of a body in a liquid. A horizontal balance arm is pivoted on a central support. A body is suspended from the arm, and its weight is measured by the displacement of a liquid level in a graduated tube. The diagram is labeled with letters a through f.

Fig. 2

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORG JANSEN, works manager, subject of the Emperor of Germany, residing at 36 Hermannstrasse, Dusseldorf, Germany, have invented new and useful Improvements in Processes for the Manufacture of a Product Suitable for Obtaining Red Lead, of which the following is a specification.

This invention relates to a process for the manufacture of a product from which red lead can be burnt.

The process of producing a product from which red lead can be obtained by calcination and washing is well known. Heretofore this product has been produced with considerable difficulty and with danger of lead poisoning, and the object of this invention is to produce this product in a simple and efficient manner, at the same time eliminating the dangers and difficulties of the old process. Heretofore one of the methods for producing this product was by injecting a jet of steam into a stream of molten lead to convert it into dust and afterward oxidizing the dust. The old method of oxidizing was very slow and imperfect, and the dust was not impalpable and therefore could not be used for the manufacture of red lead if it was desired to possess the necessary covering qualities. By my improved method, I can readily convert the molten lead into an impalpable oxidized powder which is ready to be burnt into red lead. I accomplish this by injecting steam, carbonic acid and acetic acid vapor into molten lead which will simultaneously convert it into an oxidized impalpable powder ready to be burnt into red lead.

The precise nature of my invention will be best understood by reference to the accompanying drawings which will now be described, it being premised, however, that changes may be made without departing from the spirit and scope of my invention as defined in the accompanying drawings, in which:

Figure 1 illustrates a vertical section through a portion of one form of apparatus for carrying out my invention; and Fig. 2 is a plan view of a portion of a plant.

In these drawings, the reference letter *a* designates a pot or crucible in which the

lead is melted. This pot is placed in a furnace of any suitable type and is preferably heated by a coal fire.

b designates a valve which is adapted to open and close an opening through the bottom of the crucible *a*, and is provided with a spindle *c* extending up through the cover of the crucible, and *d* is a handle on the end of the spindle for rotating the valve *b*.

Extending through the wall of the furnace below the bottom of the pot *a* is a pipe *e* which is provided with a flattened nozzle *f* at its end, and which is in line with the opening through the bottom of the pot or crucible. This pipe *e* is connected with a boiler or any suitable steam generator, and *g* is a valve for controlling the steam supply to the pipe *e*.

g and *h* designate carbonic acid and acetic acid vapor generators, respectively. Leading from the carbonic acid generator to the pipe *e* is a pipe *k*, and leading from the acetic acid vapor generator to the pipe *e* is a pipe *l*.

n designates a chamber into which the powdered lead is blown as hereinafter described.

The method of producing the oxidized impalpable lead powder is as follows: The lead is melted in the crucible *a* and the valve *b* is then opened to permit the molten lead to flow from the crucible in a fine stream. The valve *g* is then opened to permit steam to flow from the boiler to the nozzle *f*, the flowing steam in its passage will draw carbonic acid and acetic acid vapor from the generators in its passage to the nozzle. The combined jet of steam, carbonic acid gas and acetic acid vapor will strike the molten stream of lead in the presence of oxygen immediately below the opening in the crucible *a* and convert the stream of molten lead into an impalpable oxidized powder which will be blown into the chamber *n*.

The advantages of my invention result from the method of producing an impalpable oxidized lead powder by one operation, which powder can readily be burnt into red lead.

I claim:

1. The method of producing a product from which red lead can be manufactured,

which consists in simultaneously injecting steam, carbonic acid gas and acetic acid vapor into molten lead to convert the molten lead into an impalpable oxidized powder; substantially as described.

2. The method of producing a product from which red lead can be manufactured, which consists in injecting a combined jet of steam, carbonic acid gas and acetic acid vapor into a stream of molten lead into the

presence of oxygen to convert the molten lead into an impalpable oxidized powder.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORG JANSEN.

Witnesses:

HEINRICH SCHROER,
LOUIS VANDORY.