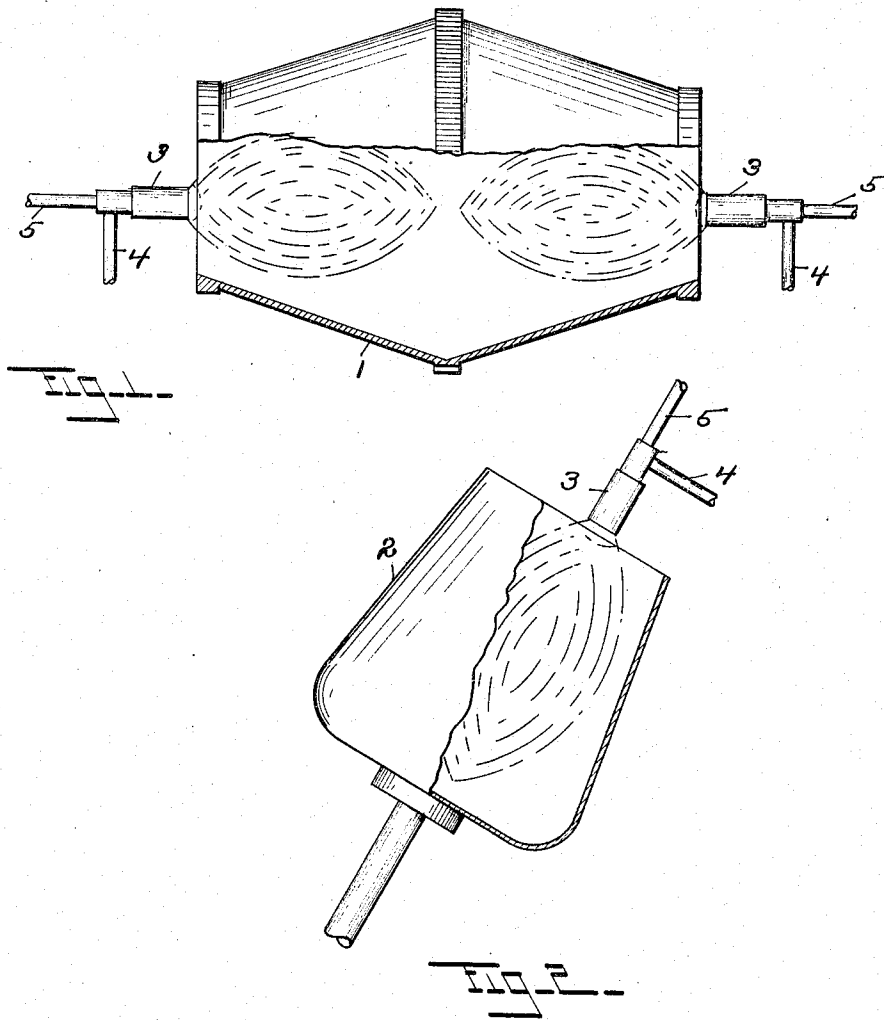


E. S. MOWRY.
 PROCESS OF METAL COATING SMALL METAL ARTICLES.
 APPLICATION FILED FEB. 2, 1907.

933,324.

Patented Sept. 7, 1909.



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UNITED STATES PATENT OFFICE.

EDWARD S. MOWRY, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR TO WILCOX, CRITTENDEN AND COMPANY, INCORPORATED, OF MIDDLETOWN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

PROCESS OF METAL-COATING SMALL METAL ARTICLES.

933,324.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed February 2, 1907. Serial No. 355,413.

To all whom it may concern:

Be it known that I, EDWARD S. MOWRY, a citizen of the United States, residing at Middletown, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Processes of Metal-Coating Small Metal Articles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a new and improved process for coating metal articles, and has for its object, among other things, to provide an economical, simple and quick process for applying metal, such as zinc, to galvanize small articles.

To these, and other ends, my invention consists in the process substantially as herein described.

Referring to the drawings: Figures 1 and 2 illustrate two different forms or rolling barrels that may be used with my new process.

Heretofore in performing operations intended to be accomplished by this invention, the articles with the zinc, or other coating material, and the flux were placed in a horizontal barrel that has been closed at both ends and rotated over a furnace to melt the zinc. This method is objectionable, because much heat is wasted in heating the barrel before the contents thereof are heated, which increases the amount of fuel required; and further, as the work is inclosed, the operator is unable to determine, without great inconvenience and delay, exactly what its condition is prior to removal. Another method is to place the articles in a wire mesh basket with the flux and then plunge the same with its contents into a mass of coating metal maintained in a liquid state. This process is the one now commonly used, but is objectionable, because the large mass of metal required to be maintained in a molten condition produces an excessive quantity of dross which is formed in the melting tank and sold for substantially scrap metal prices.

In my improved process the articles with the requisite quantity of coating metal and the flux, are placed in a rotary barrel which is open at either or both ends. Two styles of this type of barrel are shown in the drawings and designated by the numerals 1 and 2. After the articles and materials have been placed within the barrel the same is rotated and a blast of hot air or a flame is directed inside thereof. This may be accomplished through the burners 3 having the fuel supply pipes 4 and air blast pipes 5 connected therewith. This application of the heat directly to the point where it is required reduces the coating material from a solid to a liquid in a very brief period of time without the waste of heat and the flux immediately attaches the metal to the articles. If desired the coating material may be inserted in the barrel in a molten state. These operations may be observed at all times by the operator and immediately after the articles have become coated the contents of the barrel may be dumped and the barrel is ready for the next operation.

Under my invention all waste of heat is eliminated, and only the exact amount of metal required is used with each batch of articles.

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

A process for coating with metal small metal articles, consisting of placing a mass of said articles, combined with the requisite quantity of coating material and flux, in a receptacle, and applying heat thereto upon the inside of said receptacle.

In testimony whereof, I affix my signature in presence of two witnesses.

EDWARD S. MOWRY.

Witnesses:

H. C. WHITTLESEY,
JAMES P. FAY.