

UNITED STATES PATENT OFFICE.

BALTUCE S. WHITNEY, OF TROY, NEW YORK, ASSIGNOR OF ONE-FOURTH
TO EDWARD O. HOUSE, OF SAME PLACE, AND JAMES K. P. PINE, OF
LANSINGBURG, NEW YORK.

PROCESS OF PLATING VESSELS.

SPECIFICATION forming part of Letters Patent No. 580,565, dated April 13, 1897.

Application filed December 18, 1895. Serial No. 572,577. (No specimens.)

To all whom it may concern:

Be it known that I, BALTUCE S. WHITNEY, of Troy, in the county of Rensselaer and State of New York, have invented a certain new and useful Improvement in Plating Vessels, of which the following is a specification.

The object of my invention is to provide a simple, effective, and comparatively inexpensive method of plating marine vessels of steel or iron.

I will describe the invention in detail, and then point out the novel features in the claims.

In carrying out my improvement I first clean the parts of the vessel to be plated, and do this by means of any suitable acid, preferably muriatic. Then I granulate tin, pour upon it a suitable acid, preferably muriatic, add a small quantity of quicksilver, and apply the amalgam thus formed with a pad. This tins the steel or iron and prepares it for a more perfect or decided mixture of tin and quicksilver and a thicker coating of the same applied in a suitable manner.

While the amalgam is still soft or pasty I apply copper which has been reduced to an impalpable powder and mixed with acid, preferably muriatic. The copper and acid may be applied with a pad. This hardens the soft or pasty amalgam and completes the plating. Copper, however, is not necessary under all conditions, as the coating of tin and quicksilver may in some conditions be all that is required.

Without intending to limit my invention I will give a more detailed formula by which it may be carried out.

First apply acid (muriatic preferred) to the steel or iron surface of the vessel to be coated

to loosen scale and dirt, and then scour such surface, clean it with sand and water, and wash it off clean. Then apply the muriate of tin and a mixture of granulated tin and quicksilver with a pad, chamois-skin, buckskin, or any closely-woven substance rubbed on until the surface is perfectly covered—*i. e.*, tinned. Afterward put on an amalgam of tin and quicksilver to the thickness required—*i. e.*, one-sixteenth of an inch. Then put on impalpable powder of pure copper well rubbed in with muriate of tin.

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

1. The process of plating a vessel, consisting in cleaning the same, applying an amalgam comprising tin treated with an acid, and quicksilver to the portions which are to be treated, and afterward applying copper, substantially as specified.

2. The process of plating a vessel, consisting in cleaning the same, applying an amalgam to the portions which are to be plated, and afterward applying finely-powdered copper treated with an acid, substantially as specified.

3. The process of plating a vessel, consisting of cleaning the same, and applying an amalgam consisting of tin treated with acid and quicksilver, substantially as specified.

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

BALTUCE S. WHITNEY.

Witnesses:

E. O. HOUSE,
RICHARD A. HECKER.