

United States Patent Office.

PORTUS M. HINMAN, OF ROCHESTER, NEW YORK.

Letters Patent No. 70,437, dated November 5, 1867.

IMPROVED MODE OF PREVENTING TIN-WARE FROM RUSTING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, PORTUS M. HINMAN, of Rochester, in the county of Monroe, and State of New York, have invented a new and improved Method or Process for Preventing Tin-Ware from Rusting; and I do hereby declare that the following is a full and clear description of the same, sufficient to enable others skilled in the art to which my invention appertains to fully understand the same.

The nature of my invention consists in providing tin-ware, such as wash-basins, buckets, wash-boilers, tea-kettles, and water-dippers, with zinc bottoms, by means of which a galvanic action is created which effectually prevents the rusting of the aforementioned tin-ware.

Sheet iron has been, and is now, commonly washed with zinc in a melted state, which produces what is called galvanized iron, and for which it is claimed that it cannot rust. Common practice has shown the fallacy of this supposition, for any article made of galvanized iron will, sooner or later, rust. Zinc and tin have been melted and sheet iron washed with the composition to prevent the iron from rusting, but in this case the tin will melt easily, and the iron being between the fluid and the composition, no chemical action takes place.

By my method the tin and zinc both are in constant contact with the water or other fluid in the article of tin-ware, and a constant electro-chemical action takes place, by means of which rust is entirely prevented. And if the article be properly put together, or rather soldered together, this action will be effective as long as the article itself holds out, for the chemical connection will be always effected by the water or fluid contained in the vessel. In case the zinc does not withstand the action of the fire in articles like tea-kettles, &c., I propose to make the bottom of tin as well as the body, but connect the two by a strip of zinc of any suitable width, by means of which the electro-chemical action is produced. Besides increasing the durability of articles of tin-ware, my invention tends also to make them more ornamental. Nothing looks more unclean or untidy than a rusty water-dipper in a bucket, from which the drinking water is filled into the pitcher, or a rusty tea-kettle, wash-basin, &c. By my invention all these articles are kept bright and shining, merely rubbing them off with a cloth sufficing, whilst the constant scouring with sand, &c., of rusty tin-ware never gives it a bright shine, but wears it away very fast.

I am aware that the principle of protecting different metals from decomposition and rusting by means of galvanic action is very old, and this I do not claim; but what I do claim as my invention, and desire to secure by Letters Patent, is—

The herein-described method of protecting common articles of tin-ware from rusting, by providing them with a zinc bottom or rim, substantially in the manner set forth.

Witnesses:

ALEX. A. C. KLAUCKE,
D. OURAND.

PORTUS M. HINMAN.