United States Patent Office.

HIRAM TUCKER, OF NEWTON, MASSACHUSETTS.

Letters Patent No. 90,893, *dated June* 1, 1869.

IMPROVEMENT IN ELECTRO-GILDING IRON.

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, HIRAM TUCKER, of Newton, in the county of Middlesex, and State of Massachusetts, have invented an Improvement in Electro-Gilding Iron; and I do hereby declare that the following is a description of my invention sufficient to enable those skilled in the art to practise it.

My present improvement relates to the coloring of surfaces of articles of iron-work, in whole or in part, in imitation of gold, for the ornamentation thereof, the gold being applied by electro-deposition.

In making such application of gold, it is impossible to produce a deposit which will be enduring, provided the surface is to be unprotected, without the use of such depth or thickness of gold as will make the application very expensive, and the object of my improvement is to provide a means for protecting a very thin deposit, or a mere blush of gold, so that the surfaces of iron may be inexpensively gilded with a coating which shall practically have the same value as a deposit, thick enough in itself to be proof against injury from contact or from atmospheric influences.

My improvement consists in coating surfaces of articles of iron, by first making an electro-deposition of gold, either directly upon the iron surface to be gilded, or upon a foil laid thereon, making this deposit only thick enough to effect a gilded or gold-colored coating, and then covering the gold with a varnish, preferably using for this purpose a copal varnish, or a varnish having an oil base.

In practising my invention, I first grind down the parts of the iron to be gold-coated to smooth surfaces, polishing these surfaces, if desirable to do so. I then make the deposition of gold directly upon such smoothed or polished surfaces, and then coat the gilded surfaces with varnish.

The varnish, when skilfully applied, does not detract from the appearance of the gilding, and affords an impermeable, transparent coating, which acts as a perfect preservative or guard to the gold against oxidation or discoloration.

Instead of depositing the gold directly upon the iron, the iron may be first coated with copper or other metal-foil, but generally I prefer to gild directly upon the iron.

I claim the improvement in electro-gilding iron surfaces by outer coating the gold-deposition, substantially as described.

Also, articles of iron-ware so gilded by electro-deposition, and outer coated, substantially as described.

HIRAM TUCKER.

Witnesses:

FRANCIS GOULD,

S. B. KIDDER.