



C. C. HINSDALE, OF CLEVELAND, OHIO.

*Letters Patent No. 89,312, dated April 27, 1869.*

**IMPROVEMENT IN THE MANUFACTURE OF SHEET-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, C. C. HINSDALE, of Cleveland, in the county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in the Process of Manufacturing Sheet-Iron; and I do hereby declare that the following is a full and complete description of the same.

I am aware that the process of cementing has been known and used heretofore, but this I do not claim.

The nature of my invention relates to the process of semi-carbonating sheets of iron, and rendering them susceptible of receiving a smooth and highly-polished surface when passed between rollers.

The iron is first rolled from the common sheet-bar to a sheet, the thickness of which is from No. 18 to 24 wire gauge, more or less, as may be required. It is then thoroughly annealed in the ordinary manner, or by any other suitable means. The sheets are then cleaned in a common acid-bath, or its equivalent, for the purpose of removing all oxides, dirt, and scale.

They are then packed in a cast-iron box or case,

charged with charcoal, or other carbonating agents, which are placed between and around the plates.

The box is then placed in an ordinary muffle-furnace, and submitted to the action of a heat of about 1000°, more or less, as may be found necessary, for two or three hours, for the purpose of semi-carbonating the sheets.

The box is then removed from the furnace, and allowed to cool slowly. The sheets are then heated to a dull red heat, and passed between rollers sufficiently to give them a smooth and polished surface.

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

The herein-described mode or process of preparing sheet-iron for rolling, whereby a highly-polished surface is given to said sheets, by the means and in the manner substantially as set forth.

C. C. HINSDALE.

Witnesses:

W. H. BURRIDGE,  
E. E. WAITE.