

United States Patent Office.

C. C. HINSDALE, OF CLEVELAND, OHIO.

Letters Patent No. 81,903, dated September 8, 1868.

IMPROVEMENT IN THE MANUFACTURE OF SHEET AND PLATE-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 and Plate-Iron; and I do hereby declare that the following is a full and complete description of the same.

The nature of my invention relates to the process or mode of treating sheet and flat iron, whereby it is rendered more tough, tractable, and tenacious than in the ordinary way.

To enable others skilled in the art to use my invention, I will proceed to describe it.

The bars, from which the sheets are made, are first subject to the action of an acid-bath, composed of sulphuric acid and water, of the ordinary proportion, as used for the purpose of removing the oxide or scale from cast iron. This preparation removes the oxide, and renders the surface clean and bright.

The bars, after leaving the bath, should be washed in clean water. The iron is then covered or smeared over with a preparation composed of clay, (fine clay is preferable,) fifty pounds, lamp-black, one-half pound, (other forms of carbon may be used,) one-fourth pound of prussiate of potash, or its chemical equivalents.

These ingredients are mixed with water to the consistency of flour-paste, but the proportions may be varied as the nature of the case may require; hence, I do not confine myself to the specified proportions set forth.

After the surface of the bar or plate of iron is smeared over with the compound before mentioned, it is again placed in the furnace and heated; then rolled in the usual manner into pairs or plates, which are again coated with the described preparation; then reheated in the ordinary way, and again rolled into sheet or plate-iron. This process may be repeated several times, according to the kind of iron used, and thickness of plate required. The sheet or plate is then annealed by the ordinary process.

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

1. The herein-described compound, and the manner of using the same, in the process or mode of making plate or sheet iron, substantially as and for the purpose set forth.

2. Coating the metal with plastic alloy separately, and in combination with lamp-black, or its chemical equivalents, for the purpose set forth in the process described.

C. C. HINSDALE.

Witnesses:

W. H. BURRIDGE,

E. E. WAITE.