

UNITED STATES PATENT OFFICE.

STEWART A. DAVIS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO AMERICAN SHEET & TIN PLATE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

MANUFACTURE OF PLATES AND SHEETS.

941,861.

Specification of Letters Patent.

Patented Nov. 30, 1909.

No Drawing.

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To all whom it may concern:

Be it known that I, STEWART A. DAVIS, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Plates and Sheets, of which the following is a full, clear, and exact description.

My invention relates to the manufacture of metal plates and sheets, and more particularly to a novel method of finishing the same to obtain a highly polished blued surface.

The object of my invention is to simplify the methods heretofore in use by reducing the number of steps necessary to produce the desired finish, thereby materially reducing the time, labor and cost of the operation and increasing the output of the mill.

A further object is to provide a method of this character by which a superior uniform finish is given the sheets and plates.

In the practice of my invention, after the plates and sheets have been hot-rolled in the usual manner, they are placed in an annealing box and brought up to an annealing temperature. The box is then removed from the furnace and steam is introduced therein to cause oxidation of the surfaces of the plates while they are cooling, and producing what is known as a "steam blued" finish. The cooled plates are then given one or more roll passes, preferably two. They are then again annealed, after which they are allowed to partially cool in the annealing box out of contact with the atmosphere.

They are then removed from the box in a partially cool state and are given one or more finishing roll passes, preferably at a temperature of about 350° F. to 1000° F.

I claim:

1. The herein described method of treating metal plates or sheets, which consists in annealing them, and submitting them to the action of steam while they are cooling, then cold rolling them, then again annealing, and then roll finishing, substantially as described.

2. The herein described method of treating metal plates or sheets, which consists in annealing them and submitting them to the action of steam while they are cooling, then cold rolling them, then again annealing, and finally rolling them before they have cooled, substantially as described.

3. The herein described method of treating metal plates or sheets, which consists in annealing them, then submitting them while cooling to an oxidizing atmosphere containing steam, then cold rolling them, then again annealing and allowing them to partially cool in the annealing box, and finally roll-finishing the partially cooled plates or sheets, substantially as described.

In testimony whereof, I have hereunto set my hand.

S. A. DAVIS.

Witnesses:

CLAIR KELLY,
G. C. KIMBALL.