

UNITED STATES PATENT OFFICE.

W. DEWEES WOOD, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN PROCESSES AND COMPOSITIONS FOR FINISHING SHEET-IRON.

Specification forming part of Letters Patent No. **186,969**, dated February 6, 1877; application filed December 18, 1876.

To all whom it may concern:

Be it known that I, W. DEWEES WOOD, of Pittsburg, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Process and Composition for Finishing Sheet-Iron; and I do hereby declare the following to be a full, clear, concise, and exact description thereof.

My present invention relates to that part of the process of finishing sheet-iron in which heretofore the sheets, after being scaled, have been coated with carbonaceous and oleaginous matter, preparatory to the final heating and rolling or hammering.

I have found that the finish and glazing upon the surface of the iron may be greatly improved by the use, in this part of the process, of an admixture of sal-ammoniac, or any suitable salt or solution of ammonia.

The use of carbon and oil in finishing sheet-iron is described in patents granted to me May 14, 1861, July 1, 1873, and January 11, 1876; and in my present invention the sal-ammoniac may be used in connection with the carbon and oil, as the use of the same is described in any of these patents, as also in connection with a substantially-similar use of the same ingredients, or their equivalents, by mixing with the carbonaceous and oleaginous mixture about ten per centum, by weight, of sal-ammoniac, either pulverized and mixed in by stirring or grinding, or dissolved in the oil, and mixed in like manner, the mixture being of about the consistency of the carbon-and-oil mixture, as heretofore employed, and the application to the iron being made in like manner; but instead of using oil for dissolving and mixing, the sal-ammoniac may be dissolved in the proper amount of water, spirits, or other suitable fluid, for giving to

the carbonaceous matter the proper consistency, and then be mixed with the carbon, or the fluid may consist partly of oil and partly of water, grinding being preferred as a means of mixing.

While I consider sal-ammoniac as the best for the purpose, I include in my invention other compounds and solutions of ammonia adapted for the purpose.

The carbon employed along with the ammonia need not necessarily be a solid, since, by coating the sheets with a mixture of oil and ammonia, and reheating the sheets carefully, so as not to go beyond, say, a cherry-red, or thereabout, the carbon of the oil baked or burnt onto or into the sheets, will, in connection with ammonia, give an improved finish and quality of surface to the iron.

If solid carbon be used, the finer qualities are preferred, such as plumbago, ivory black, &c., though others may be employed with advantageous results.

I claim herein as my invention—

1. The mode of finishing sheet-iron by coating the sheets in the process of rolling with a mixture of carbonaceous matter, ammoniacal salt or solution, and suitable fluid, for the purpose of giving the surface a finely-glazed appearance, substantially as described.

2. As a coating for sheet-iron in the process of finishing, a plastic mixture of carbonaceous matter, and a solution or compound of ammonia, substantially as set forth.

In testimony whereof I have hereunto set my hand.

W. DEWEES WOOD.

Witnesses:

J. J. McCORMICK,
CLAUDIUS L. PARKER.