

UNITED STATES PATENT OFFICE.

JAMES WOOD, SR., JOHN WOOD, AND W. W. WOOD, OF WILMINGTON, DEL.

IMPROVEMENT IN THE PROCESS OF MANUFACTURING SHEET-IRON, WHICH IRON IS DENOMINATED
"AMERICAN GLAZED SHEET-IRON."

Specification forming part of Letters Patent No. 2,813, dated October 12, 1842.

To all whom it may concern:

Be it known that we, JAMES WOOD, Sr., JOHN WOOD, and WILLIAM W. WOOD, of Delaware Iron Works, near the city of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in the Manufacture of Sheet-Iron, which, when made by our process, is similar to the Russian sheet-iron in the glaze upon its surface, and is denominated by us "American Glazed Sheet-Iron;" and we do hereby declare that the following is a full and exact account of our process for manufacturing the same.

We roll our iron in the usual manner of performing that process, and when it is intended to receive a glazed surface we leave it thicker than it is designed to be in its finished state, the glazing being effected during a second rolling. We put these plates into an acidulated bath for the purpose of removing the oxide from the surface, using for this purpose a dilute solution of sulphuric, muriatic, or any other acid which will effect this object, the procedure being the same as when plates of iron are prepared to be tinned. When these plates have been cleaned and dried we coat them over on each side with oil or with fatty or resinous matter, preferring to use linseed-oil, which we have found to give good results. We then take two or more plates thus prepared and place them between other rolled plates, either prepared in the same manner or simply rolled, which we place on the outsides of the prepared plates and make

the whole into a pack. This pack we heat in a suitable furnace to a cherry red, or somewhat beyond this, being governed by the nature of the materials used and as experience may dictate. We then roll the pack in its heated state between the rollers ordinarily employed for that purpose. This process of preparing or oiling, of heating and rolling, is to be repeated as often as may be necessary to communicate the required glaze to the sheets and to reduce them to the intended thickness. By this procedure the surface of the iron will be made to assume a black color and a smooth and brilliant surface resembling that possessed by the sheet-iron manufactured in Russia.

What we claim as new, and desire to secure by Letters Patent, is—

The giving to rolled sheet-iron such a glazed surface by the process or in the manner above set forth—that is to say, by covering the surfaces of the plates after they have been freed from oxide with a coating of linseed-oil, or with other oil or fatty matter, or with resinous solutions, making the sheets so prepared into a pack, heating them to redness, and then rolling them in this state, for the purpose and substantially in the manner above set forth.

JAMES WOOD, Sr.
JOHN WOOD.
WM. W. WOOD.

Witnesses:

FREDK. LEONARD,
GEO. W. CHAYTOR.