J. & W. W. WOOD.

PROCESS OF MANUFACTURING GLAZED SHEET IRON.

No. 8,048. Patented Apr. 15, 1851.

FIGURE 1.

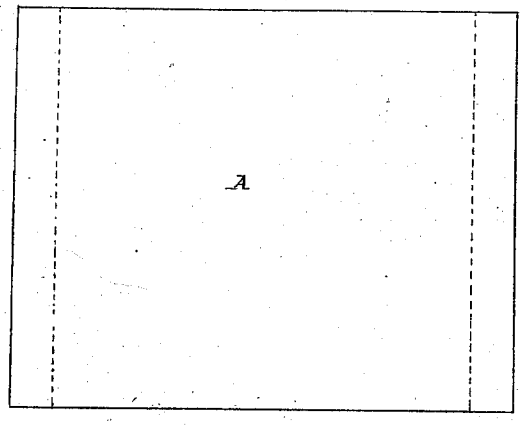


FIG: 2.

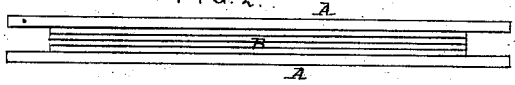


FIG: 3.

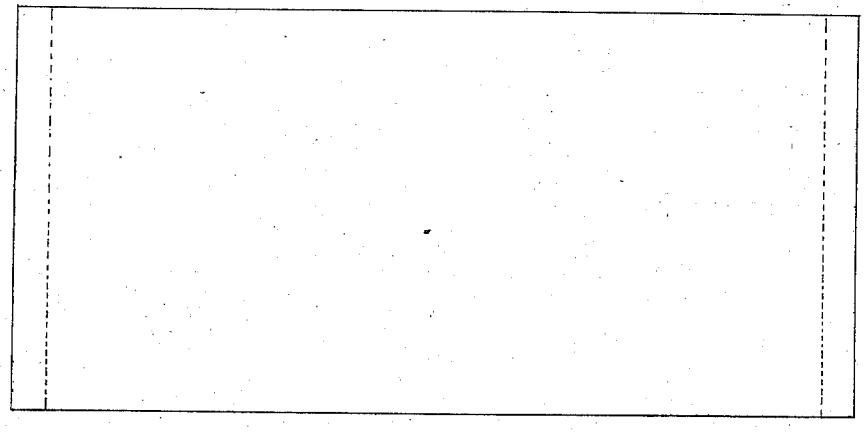
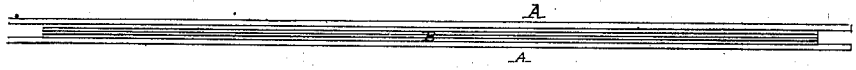


FIG: 4.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN WOOD AND WM. W. WOOD, OF CONSHOHOCKEN, PENNSYLVANIA.

PROCESS OF MANUFACTURING GLAZED SHEET-IRON.

Specification of Letters Patent No. 8,048, dated April 15, 1851.

To all whom it may concern:

Be it known that we, JOHN WOOD and WILLIAM W. WOOD, of Conshohocken, in the county of Montgomery and State of Pennsylvania, have discovered a new and Improved Process in the Manufacture of Glazed Sheet-Iron; and we do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings.

Figure 1, is a plan showing the pack of plates before it is subjected to the rolling process. Fig. 2, is a side view of ditto. Fig. 3, is a plan showing the pack after being subjected to the rolling process. Fig. 4 is a side view of ditto.

This improvement consists in a new and peculiar *modus operandi*, whereby every sheet or plate is finished with fine glazed and lustrous surfaces, equal to the best Russia sheet iron, whereas by the ordinary process, even with our former improvement (for which we and James Wood, Senr., obtained Letters Patent in 1842, and of which the principal feature consisted in coating the surfaces of the plates with linseed oil or other oil or fatty material prior to finishing by heating and rolling them,) nearly one third part of the sheets, namely, the two outside sheets of each pack of six or seven, were left very defective, they having become oxydized beyond remedy. In our new and improved process, after having prepared the plates by deoxidating and oiling as described in our former specification, we place four (more or less) of the plates thus prepared, between two shield plates A A of double the thickness of the inside plates; the two shield plates A being as heavy as the four plates B which are placed between them. The shield plates, prior to being applied as such, are deoxydated by being immersed in sulphuric or other acid, and are also coated with oil. These plates are nearly of equal surface, but a trifle longer than the thin plates. When a convenient number of packs are made up as above described, each containing four thin plates between two shield plates, we submit one to a red heat in a suitable furnace, and pass it between iron rollers, and repeat the process of heating and rolling until all the plates are extended to nearly double the area of the original pack as shown in Figs. 3 and 4. By this process of rolling, the surfaces of the four inside plates are rendered beautifully smooth and glossy; and these thin sheets being removed, the shield plates A are each cut in two, and prepared with acid and oil for constituting the inside sheets of other packs, by being placed between other heavy shield plates. All the shield plates are thus wrought into smooth finished sheets, and the production of defective sheets is avoided. The thin smooth sheets, either before or after being squared and trimmed to the proper size, are straightened by being placed between shield plates, and passed, in a cold state, between the rollers. In this process we place two thin sheets between two shield plates of double thickness, and while they are cold, pass them once or more between the rollers, giving them a heavy pressure, whereby they are rendered smoother and more glossy.

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

The employment of thick plates of iron as shield plates; or, in other words, placing four (more or less) thin plates between two shield plates of double weight, in forming packs for rolling, so that each shield plate will make two plates of proper size to constitute the inside plates of another pack, for the smoothing and finishing process of rolling.

In testimony whereof we have hereunto signed our names before two subscribing witnesses.

JOHN WOOD.
WM. W. WOOD.

Witnesses:
WM. P. ELLIOT,
RUFUS PORTER.