

# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN METHODS OF MARKING AND ORNAMENTS GLAZED WARE.

Specification forming part of Letters Patent No. 207,543, dated August 27, 1878; application filed June 1, 1878.

### *To all whom it may concern:*

Be it known that I, WILLIAM F. NIEDRINGHAUS, of St. Louis, Missouri, have invented a new and useful Improvement in the Mode of Marking and Ornamenting Glazed Ware, of which the following is a full, clear, and exact description.

The present improvement has relation to forming a mark in the enamel or glaze of enameled ware, and is intended more particularly for enameled sheet-iron ware.

Heretofore in marking glazed ware the practice has been to apply the mark directly to the base of the ware—that is, in marking pottery-ware the mark is applied to what is termed the "biscuit," and while the latter is in a dry state, and afterward the enamel is fused upon the base.

My improved mode is as follows: The mark is first printed, with suitable material for fusing, such as oxide of cobalt, upon a piece of paper—say, thin tissue paper. This paper is then gently laid (the printed side down) upon the unfused glaze of the ware just after the latter is taken from the glaze bath and while the unfused glaze is yet moist. The ware, with the paper adhering thereto, then goes to the drying-room. As the glaze dries the paper drops off, leaving the print absorbed in the glaze. The ware is then baked in the ordinary way, whereupon the mark will appear in the enamel and fused therein.

In preparing the material for the mark a flux is preferably used. The mark can be printed without it; but the flux makes it appear brighter.

The mark is suitably arranged upon the paper to appear in proper order when transferred to the glaze.

It will be seen that the second coating of enamel heretofore required is no longer needed, the mark being formed in the first coating. If, however, a second enamel is applied to the ware, the mark can be formed in it as well as in the first enamel.

This improvement can be applied to glazed ware generally, to enameled sheet-iron ware, and to most of the various kinds of pottery—to all, indeed, in which the outer coat of enamel is applied in the form of a paste. Any of the metallic oxides may be used on the print, and thereby different colors produced at will, which enables this process to be used in ornamenting such ware as well as simply printing a mark thereupon.

I claim—

1. The herein-described mode of marking or ornamenting glazed ware, which consists in absorbing the mark or ornament in the moist unfused glaze upon the ware and then drying the mark or ornament in the glaze and afterward fusing it in and with the enamel, substantially as described.

2. Glazed ware having a mark or ornament absorbed, dried, and fused in the enamel of the ware, in the manner described.

WM. F. NIEDRINGHAUS

Witnesses:

CHAS. D. MOODY,  
PAUL BAKEWELL.