

UNITED STATES PATENT OFFICE.

JOHN F. EARHART, OF COLUMBUS, OHIO.

PROCESS OF CASTING A PLATE FOR DECORATIVE PRINTING, &c.

SPECIFICATION forming part of Letters Patent No. 282,866, dated August 7, 1883.

Application filed October 20, 1882. (Specimens.)

To all whom it may concern:

Be it known that I, JOHN F. EARHART, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a new and useful Process of Casting a Plate for Decorative Printing of Irregular Designs, of which the following is a specification.

The object of my invention is to produce an irregular surface upon the face of a printer's block or plate for decorative printing.

Heretofore it has been customary to use a matrix in stereotype casting-boxes in making printing-plates for ordinary printing, and it has also been customary to dispense with a matrix in making a smooth-faced printing-plate for the purpose of printing solid backgrounds—such, for instance, as tinted or plain surfaces for label-work, &c.

In making the plate for ordinary printing the casting-box and matrix are heated to almost the temperature of the molten metal, so that they cool slowly, and a smooth surface is formed on the plate. To obtain the effect which I desire I dispense with the matrix and pour the molten metal directly into the stereotype or other casting-box while cold; or before pouring the molten metal in the casting-box the box may be slightly wet or dampened with water or other liquid. By this process

the metal becomes chilled, forming irregular depressions, indulations, or seams upon the face of the plate, but leaving enough smooth surface to form a plate of irregular design. After using the casting-box for several castings it becomes somewhat heated, and the chilling effect is not so good, and to overcome this I drip the melted metal into the box slowly, thereby partially chilling it before it enters the box, but not enough to destroy the continuity of the plates. Cylindrical or flat plates may be thus formed by varying the form of the casting-box.

I do not claim, as new the use of the stereotype casting-box, nor do I claim as new the casting of the metals in chills; but

What I do claim, and desire to secure by Letters Patent, is—

The process of producing a plate with irregular depressions formed in its printing-surface without the use of a matrix by pouring the molten metal directly into a casting-box, and at the same time chilling the metal, either by pouring it into a cold casting-box or by slowly pouring the same into a box somewhat heated, substantially as described.

JOHN F. EARHART.

Witnesses:

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