

G. W. CASILEAR.

Methods of Engraving Bank-Note Plates.

No. 138,614.

Patented May 6, 1873.

Fig. 1

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Fig. 2

WASHINGTON DC
COLORES BOSTON
COOPERSTOWN
NEWBURGH
CHESTER
ALBION AUBURN
CATSKILL
ADAMS
MEMPHIS

Fig. 3

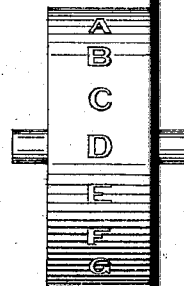
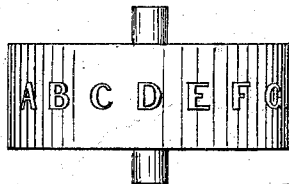


Fig. 3a



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE W. CASILEAR, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN THE METHODS OF ENGRAVING BANK-NOTE PLATES.

Specification forming part of Letters Patent No. **138,614**, dated May 6, 1873; application filed March 29, 1873.

CASE A.

To all whom it may concern:

Be it known that I, GEO. W. CASILEAR, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in the Method of Engraving Bank-Note Plates; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making a part of this application.

My invention relates to a novel method of producing plates for printing bank-notes, checks, bonds, &c., where lettering is used; and has for its object the production of such plates more rapidly and at much less cost than has been heretofore done.

Prior to my invention the usual way of engraving names and titles upon plates for printing bank-notes, &c., has been to cut the same by hand with the customary tools of the workman, the bordering, vignettes, &c., being produced by the transfer-press. Where a large number of plates are required, having different names and titles thereon, the saving of time and money in their production becomes a matter of grave importance, the knowledge of which has led me to this my present invention.

In order that those skilled in the art may fully understand the same, I will describe the various steps taken in my improved method.

I first engrave upon a sheet or plate of steel of the proper size a complete alphabet of any required style, plain, ornamented, or script, in lower or upper case, as may be selected. I then harden this plate and transfer the alphabet to the face of a soft-steel roll by means of the well-known "transfer-press." This produces the alphabet in relief on the face or periphery of the roll.

Figure 1 illustrates the first step, showing the alphabet as first engraved upon the plate; and Fig. 2, a series of words or titles produced from the roll, which is accomplished by "rolling in one letter at the time, the roll being turned to present such letters as are successively required to form the words. Fig. 3^a and Fig. 3^b illustrate the roll with the alphabet taken up upon its periphery.

After the final plate is thus engraved I then lay upon it an etching-ground, such as is used by engravers, and with the ruling-machine rule a shade around the letters, which, when properly treated with acid, connects the letters all together; or they may, after being laid down properly, be treated in any other known manner; or the independent letters of the alphabet on the roll may be shaded or ornamented, as seen in the word "auburn" on the drawing.

It will thus be seen that the first or initial plate of any number and variety may have the lettering engraved by mechanical means in a less number of hours than it would require in days by the present known system; and that any number of plates having varying titles, &c., may be printed or engraved from a single roll.

I am aware that the transfer-press is old, and do not wish to lay any claim to the broad idea of transferring letters or characters from a plate to a roll and back to a plate; I am also aware that bank-note plates have been engraved by means of rolls having movable letters or type inserted in their peripheries, and that "engraving-rollers" with words, signs, and characters produced in relief upon their peripheries substantially in the manner described in my invention have been employed; but neither of these in their respective methods of operation produce results similar to mine, and consequently such I do not claim; but

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

The method herein described of engraving titles and words upon bank-note plates by means of a roll having a partial or complete alphabet produced upon its periphery, as described, and operated substantially in the manner herein set forth.

In testimony whereof I have hereunto set my hand and seal this 27th day of March, A. D. 1873.

GEO. W. CASILEAR. [L. S.]

In presence of—

WM. C. MCINTIRE,
ARTHUR L. MCINTIRE.