C. WINKLER.

METHOD FOR PRODUCING TRIMMED STEREOTYPE PLATES.

APPLICATION FILED AUG. 19, 1916.

1,318,942. Patented Oct. 14, 1919.

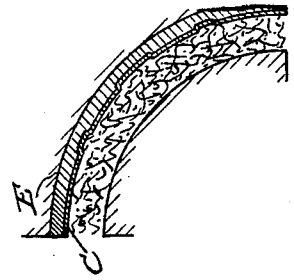


Fig. 5.

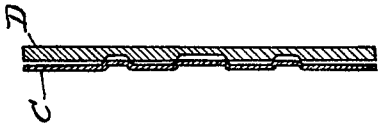


Fig. 4.

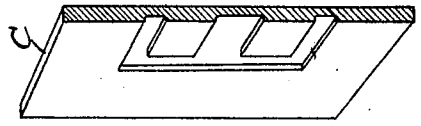


Fig. 3.

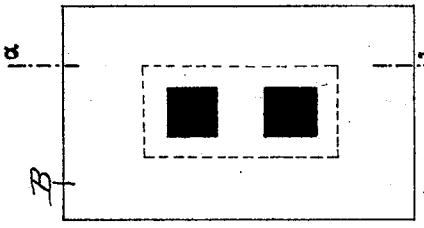


Fig. 2.

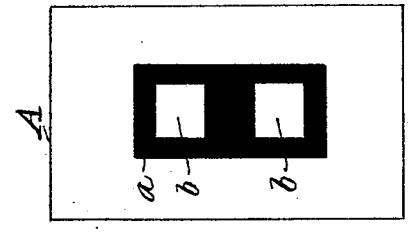


Fig. 1.

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METHOD FOR PRODUCING TRIMMED STEREOTYPE-PLATES.

1,318,942. Specification of Letters Patent. Patented Oct. 14, 1919.

Application filed August 19, 1916. Serial No. 115,898.

To all whom it may concern:

Be it known that I, CARL WINKLER, a citizen of the Swiss Republic, resident at Berne, in the Swiss Republic, have invented a new and useful Improved Method for Producing Trimmed Stereotype-Plates, of which the following is a specification.

According to a known process, stereotype plates are prepared for printing, that is, they are provided with the necessary difference of relief in the lights and shades by applying a make ready to the back of the matrix used for casting the plates. Heretofore these make readies were made by hand, and they were therefore dependent upon the skill of the workman. By my present invention they are produced by mechanical means. This is done by applying color or ink to a cliché, printing block, or the like, designed for type printing, or printing in relief, by means of an inking roll or other means and scraping off the color from the projecting surface of the cliché, or the like, and leaving the color in the depressions, and by then using said cliché or the like to produce a negative impression of the picture or the like on a surface of chalk or other suitable material. This surface is then deepened at the parts not covered by the color or ink by etching or other means. The make ready produced in this way is applied or stuck to the back of the stereotype matrix, whereafter the lead plates are cast in the usual manner.

On the accompanying drawing—

Figure 1 shows the representation of a black rectangle, with two symmetrically arranged white squares;

Fig. 2 shows the negative impression of said rectangle obtained by inking the white portions (in pictures the lights) and leaving the black portions (in pictures shades) without ink, the dotted line therein representing the outline of the black rectangle of Fig. 1;

Fig. 3 is a perspective section through such an impression with exaggerated thickness after the parts not covered with ink in Fig. 2, thus the black portions in Fig. 1, are deepened by etching;

Fig. 4 shows the application of this etched impression to the back of a matrix;

Fig. 5 shows the matrix placed in a mold for casting curved plates, after a plate has been cast. The latter two operations are done in the very well known manner as for instance shown also by Patent No. 885,948.

Referring to the drawing, A represents a cliché or printing block having a black rectangle *a* and white squares *b*; B is the negative produced from A; C is the impression produced from the negative; D is a matrix to which the impression is applied; and E is a curved mold with the matrix therein.

From a comparison of Figs. 1 and 2 it will be seen that the "white" and black portion of the one figure are reversed in the other, and this result is obtained by inking the white portion *b* of Fig. 1, while leaving the black portion *a* without any color, and then making an impression of the cliché or the like on a chalk or other suitable surface which can be etched. By the etching process the parts not inked, thus the part of the chalk impression corresponding with the black portion (in pictures with the shades) of Fig. 1 is deepened as shown in Fig. 3, and this etching is attached to the back of a matrix, as shown in Fig. 4. It is evident that the parts of the matrix corresponding with the black portion of Fig. 1 will have less hold during the casting process and it will therefore be bulged in somewhat, thus producing a projecting part of the plate cast.

By this improvement the finest shades are caused to influence the degree of relief of the matrix and these differences are transferred to the plates cast.

What I claim and desire to secure by Letters Patent of the United States is:

1. The improved method of producing a make ready for application to the back of a matrix in casting stereotype plates, which consists in coloring the depressions and elevations of a printing block for raised or type printing, removing said color from the elevations of the surface of the block while leaving it in the depressions, making an impression of said printing block on a suitable surface, and in deepening the parts of the impression not covered by color, substantially as set forth.

2. The improved method of producing a make ready for application to the back of a matrix in casting stereotype plates, which consists in coloring the depressions and elevations of a printing block for raised or type

printing, removing said color from the elevations of the surface while leaving it in the depressions, making an impression of said printing block on a chalk mass, and in etching the parts of the impression not covered by color, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL WINKLER.

Witnesses:
O. AUERBACH,
W. J. STEHLISS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."