

M. A. McKEE.
ART OF ELECTROTYPING.
APPLICATION FILED NOV. 19, 1910.

1,033,435.

Patented July 23, 1912.

Fig. 1.

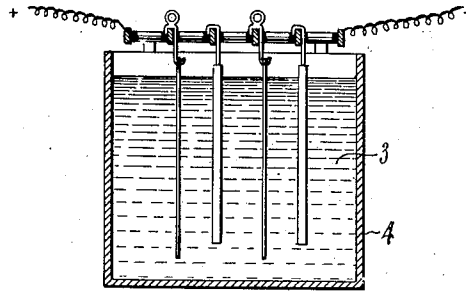


Fig. 2.

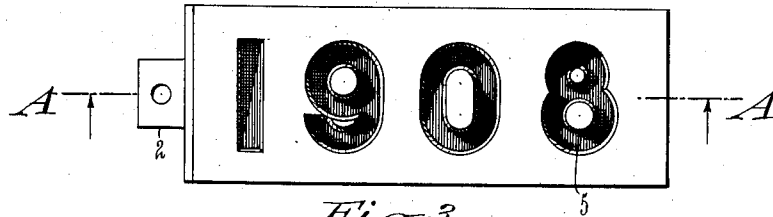


Fig. 3.



Fig. 4.

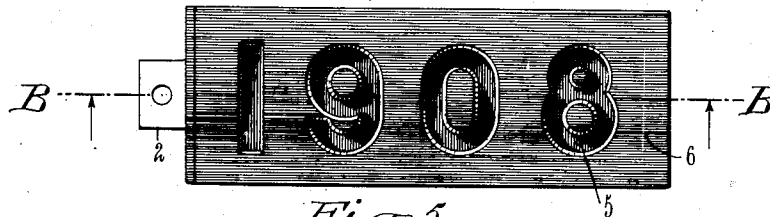


Fig. 5.



Fig. 6.



Fig. 7.

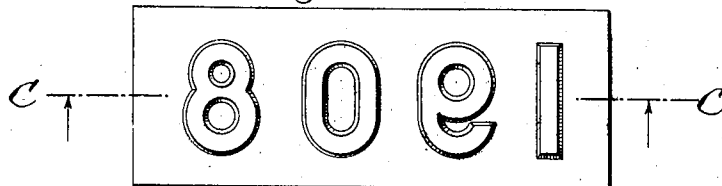


Fig. 8.



Witnesses:
F. George Barry.
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By Robert B. Edward

UNITED STATES PATENT OFFICE.

MILTON A. McKEE, OF WESTERLY, RHODE ISLAND, ASSIGNOR TO C. B. COTTRELL & SONS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

ART OF ELECTROTYPING.

1,033,435.

Specification of Letters Patent.

Patented July 23, 1912.

Application filed November 19, 1910. Serial No. 593,269.

To all whom it may concern:

Be it known that I, MILTON A. McKEE, a citizen of the United States, and resident of Westerly, in the county of Washington and State of Rhode Island, have invented a new and useful Improvement in the Art of Electrotyping, of which the following is a specification.

This invention relates to the art of electrotyping and consists in the process of so forming electrotype printing plates that an additional amount of copper may be deposited onto the backs of the raised or printing portions of the plate for strengthening the plate at these points.

In the accompanying drawings, Figure 1 illustrates an ordinary electro deposit bath tank in section, Fig. 2 is a face view of a mold after a thin coating of copper has been applied thereto in the bath, Fig. 3 is a longitudinal section taken in the plane of the line A—A of Fig. 2, looking in the direction of the arrows, Fig. 4 is a face view of the mold after a coating has been applied thereto on that portion upon which no further deposit of copper is desired, Fig. 5 is a longitudinal section through the same in the plane of the line B—B of Fig. 4, looking in the direction of the arrows, Fig. 6 is a similar section showing the mold after the same has been subjected to a further treatment in the bath tank for depositing an additional amount of copper on the back of the raised or printing surface of the shell, Fig. 7 is a view of the printing face of the completed plate, and Fig. 8 is a longitudinal section taken in the plane of the line C—C of Fig. 7 looking in the direction of the arrows showing the plate provided with the usual filling.

In carrying out my improved process of forming electrotype plates, the mold 1 on its board 2 is first immersed in the liquid 3, contained by the bath tank 4, a sufficient time to permit the deposit of copper coating of a desired thickness thereon. The mold is then removed from its bath and those portions of the shell 5 upon which it is desired to prevent a further deposit of copper are coated with a deposit resisting material 6, such, for instance, as lithographers' ink. The mold, with its partially completed shell 5, is then again immersed in the liquid bath 3 and a further deposit of the copper is permitted on the uncoated portions of the shell which, in

the present instance, would be upon the backs or under the raised or printing portions of the plate. After a requisite amount of copper has been deposited on these uncoated portions of the shell, the mold is again removed from its liquid bath and the shell removed in the usual manner from the mold. The back of the shell may then be provided with the usual metal backing or filling 7.

In a plate formed according to this present invention, the low portions of the plate which make no printing impression may be made very thin and thus effect a large saving of copper while the portions which are to make the printing impression may be made much thicker and stronger, thus providing a firmer body for the impression strain.

What I claim is:

1. The process of forming electrotype plates comprising depositing the copper in one step onto the mold uniformly and depositing additional copper in a subsequent step into the backs of the printing portions of the shell being formed.

2. The process of forming electrotype plates consisting in depositing the copper onto the mold to a required thickness, then applying a coat of deposit resisting material onto those portions of the shell to be left at such thickness and finally depositing an additional amount of copper onto the unprotected portions of the shell.

3. The process of forming electrotype plates consisting in depositing the copper onto the mold to a required thickness, then applying a coat of deposit resisting material onto the exposed back of the shell at the raised portions which are to be the low portions of the shell and then depositing the copper to the desired thickness onto the exposed back of the shell at the uncoated portions which are to be the high or printing portions of the finished plate.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this 16th day of November 1910.

MILTON A. McKEE.

Witnesses:

F. GEORGE BARRY,
HENRY C. THIEME.