

M. A. McKEE.
ART OF ELECTROTYPING.
APPLICATION FILED JAN. 18, 1911.

1,033,604.

Patented July 23, 1912.

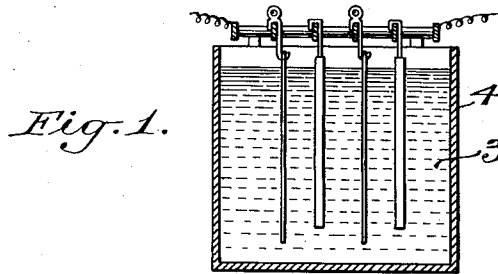


Fig. 2.

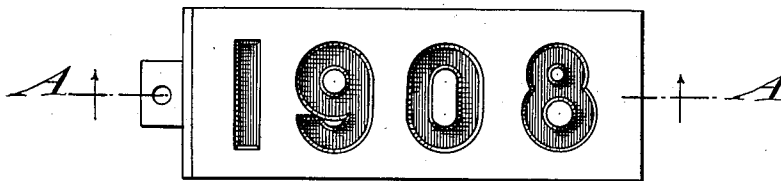


Fig. 3.



Fig. 4.

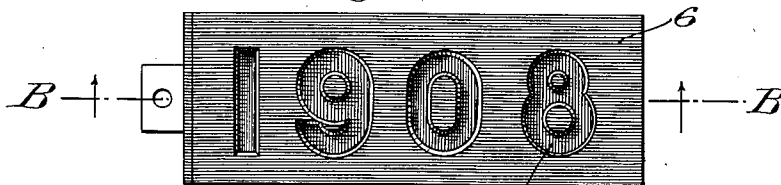


Fig. 5.



Fig. 6.



Fig. 7.

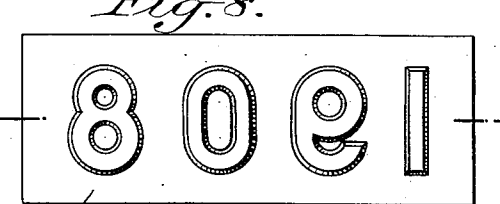
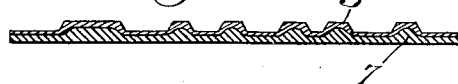


Fig. 8.



Witnesses:
F. George Barry,
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by his attorneys
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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.

1,033,604.

Specification of Letters Patent.

Patented July 23, 1912.

Original application filed November 19, 1910, Serial No. 593,269. Divided and this application filed January 18, 1911. Serial No. 603,297.

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 has for its object to provide an electrotype plate the shell of which has its high or printing portions formed thicker than its low portions, whereby the low portions of the shell which make no printing impression may be made very thin and thus effect a large saving of copper, while the high or printing portions may be made thick for materially strengthening the shell and thereby the plate at such points. This result may be accomplished by depositing an additional amount of copper on to the backs of the raised or printing portions of the electrotype plate. The method of producing the electrotype plate is illustrated in the accompanying drawings, in which,

Figure 1 illustrates an ordinary electrodeposit 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. 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, 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 section similar to Fig. 6, with the mold removed from the shell, Fig. 8 is a view of the printing face of the completed plate, and Fig. 9 is a longitudinal section taken in the plane of the line C—C of Fig. 8.

In producing my improved plate by the

method herein disclosed, the mold 1 on its board 2 is first immersed in the liquid 3 contained in the bath tank 4 a sufficient time to permit the deposit of a 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 shell. 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 shell may then have cast thereon the usual backing of metal 7, to complete the plate.

In a plate formed according to this present invention the low portions of the shell 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:

An electrotype plate having a shell the high or printing portions of which are formed thicker than the low or non-printing portions by the electrodeposit of an additional amount of copper on to the back of the shell in said high or printing portions.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this 16th day of January 1911.

MILTON A. McKEE.

Witnesses:

F. GEORGE BARRY,
HENRY C. THIEME.