No. 818,656. PATENTED APR. 24, 1906.

H. BARTH.

PROCESS OF PRODUCING PRINTING SURFACES.

APPLICATION FILED JAN. 20, 1905.

Fig. 1.

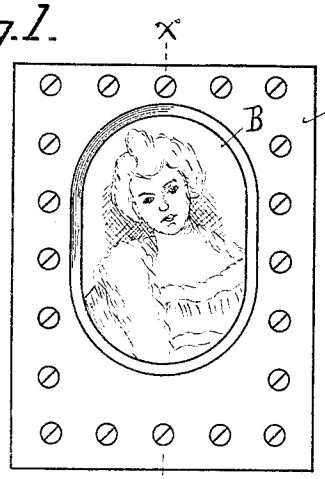


Fig. 2.

Fig. 3.

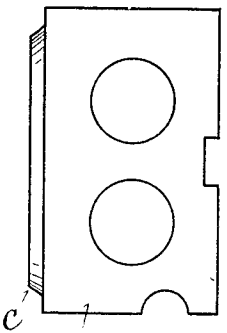
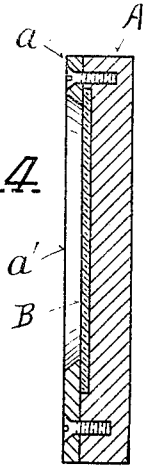


Fig. 4.



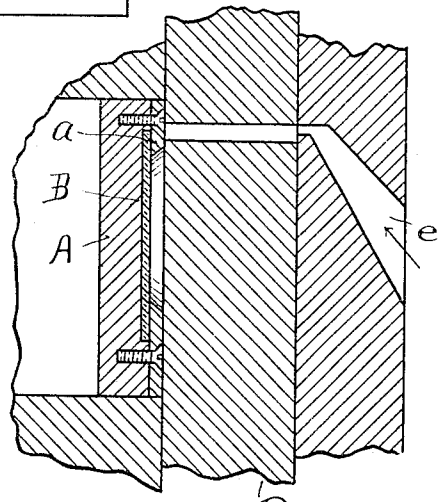


Fig. 5.

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PROCESS OF PRODUCING PRINTING-SURFACES.

No. 818,656. Specification of Letters Patent. Patented April 24, 1906.

Application filed January 20, 1905. Serial No. 241,928.

To all whom it may concern:

Be it known that I, HENRY BARTH, a citizen of the United States of America, and a resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Process of Producing Printing-Surfaces, of which the following is a specification.

The objects of my invention are a printing-surface for reproducing photographs, wash-drawings, paintings, pictures, line-drawings, &c., and a process of making the same.

The process is described in the specification in connection with the accompanying drawings, which illustrate the apparatus and the type.

Figure 1 is a detail plan view of the matrix for forming the printing-surface. Fig. 2 is a front elevation of the printing-surface embodying my invention. Fig. 3 is a side elevation of the printing-plate. Fig. 4 is a central sectional view of the matrix upon line x x of Fig. 1. Fig. 5 is a similar view taken through the mold in which the printing-plate is formed.

Referring to the parts, the matrix consists of a block A, having secured thereon a frame a, having a central opening a'. Between plate A and frame a a way is left in which is seated the face-plate B of the matrix.

Upon the face of plate B the image to be reproduced has been impressed. This may be done by any of the well-known processes, such as etching or by printing from a photographic negative upon a sensitized metal plate and then etching in acid, producing a plate known to the trade as a "half-tone." The plate so formed is then inserted in the way in the matrix, so as to form the face-plate thereof. The matrix having been set in the mold, the molten metal is forced into the mold, and the face c of the printing-plate C will contain projections corresponding to the minutest depressions in the face-plate of the matrix.

The mold I have illustrated in Fig. 5 is the one which is described in Letters Patent No. 708,010, granted to me September 2, 1902—that is, when the plunger D is drawn downward the molten metal flows into the vacuum thereby produced through the channel e.

This printing-plate may be used in printing in the same manner that the ordinary printers' type is used.

What I claim is—

1. The process of making a printing-surface which consists in etching an image upon a metal plate, inserting the plate as the matrix in a mold and then bringing the molten metal into the mold.

2. The process of making a printing-surface consisting of forming a negative of a picture upon a metal plate, inserting the plate as a matrix in a mold and bringing the molten metal into the mold.

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Witnesses:

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