I. M. Mahan.

Stereotype Plate.

No. 7669. Patented Sept. 24. 1850.

Fig. 1.

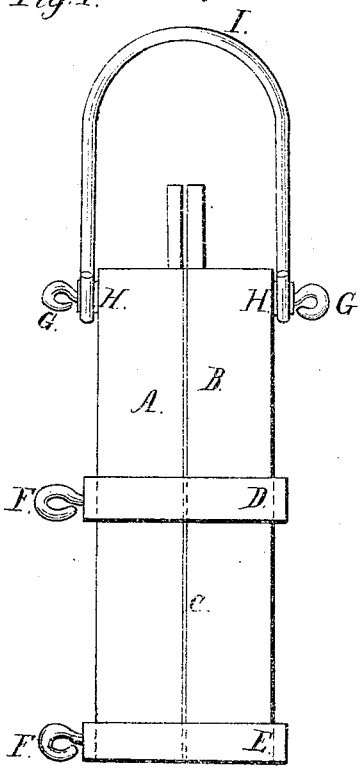


Fig. 4.

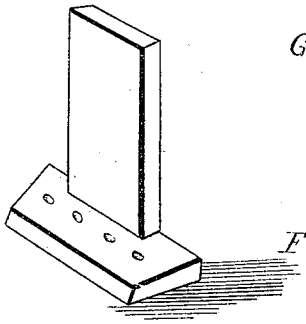


Fig. 2.

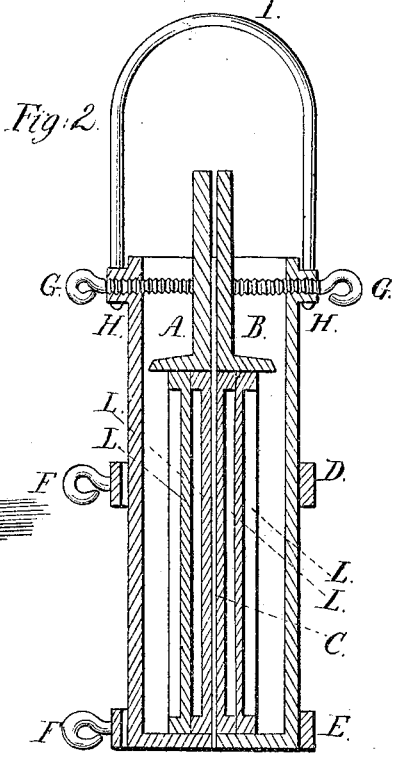


Fig. 3.

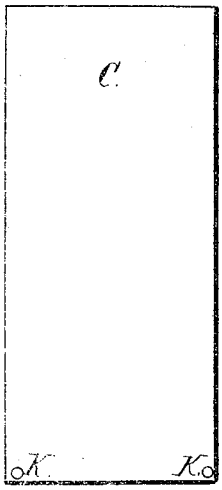
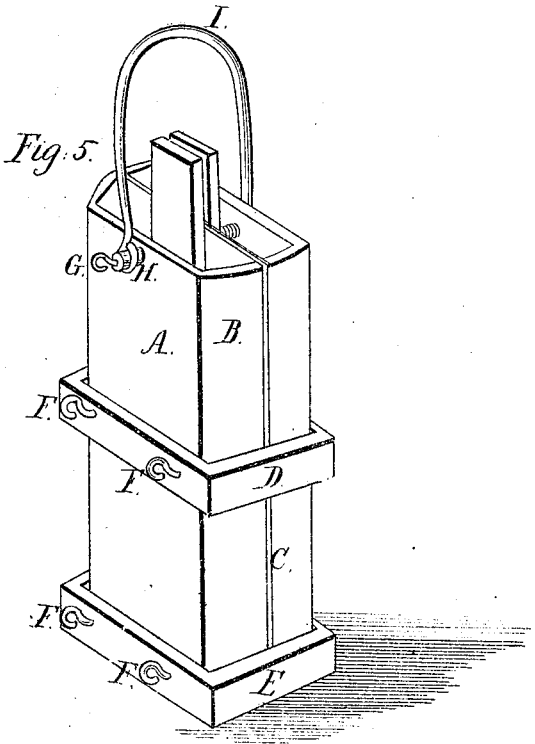


Fig. 5.



UNITED STATES PATENT OFFICE.

J. M. MAHAN, OF NORTHERN LIBERTIES, PENNSYLVANIA.

CASTING STEREOTYPE-PLATES.

Specification of Letters Patent No. 7,669, dated September 24, 1850.

To all whom it may concern:

Be it known that I, JASON M. MAHAN, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved mode of casting stereotype-plates from letter-press, wood cuts, engravings upon metal or other material, also from casts made from any of the aforenamed articles; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in providing a dipper composed of iron, brass or other material, to be used instead of the common dipping pan. This dipper is composed of several parts and so constructed as to receive the molds in a vertical position, or nearly so, with the face of one mold toward the back of another, by which mode any desired number of plates may be cast at the same operation, or at any one operation, being limited only by the number of molds, the quantity of metal employed, the capacity of the melting pan and the size or capacity of the dipper.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my furnace, melting pan, lever, molds, and cooling vessel in any of the known forms, and apply my improvement as hereinafter mentioned, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1 is an elevated view of the dipper, Fig. 2 is a sectional view of the same, Fig. 3 is a perspective view of a thin piece of metal used to prevent the metal from becoming too cool or below a proper casting temperature, Fig. 4 is a perspective view of one of the two pieces used to secure the molds in the dipper, and prevent them from floating, as shown in Fig. 2; Fig. 5 is a perspective view of the dipper when completed.

A, and A in Figs. 1 and 2, is in one piece, and is an end and a part of two sides of the dipper as shown by A, Fig. 5; B and B is also in one piece and is the other end and the balance of the two sides of the dipper, these two pieces are joined as shown by Fig. 5.

C Fig. 3 is a thin plate of metal or other material, the length and breadth corresponding with the length and breadth of A and B, and having small holes through it as shown by K and K, it is to be placed between A and B as shown in Figs. 1, 2, and 5.

D, D and E, E are two bands encompassing the dipper as shown in Figs. 1, 2 and 5.

F, F and F, F, in Figs. 1 and 2, are four screws which screw into the bands, and against the sides of the dipper, as shown by F, F, F and F in Fig. 5, for the purpose of securing the dipper firmly.

I, I and I is a handle, the form of which may be varied to suit the construction of the lever.

H, H, and H, H in Figs. 1 and 2 are two ears or knobs through which a screw is made, to screw the molds in the dipper, and also upon which the handle I is placed, as shown by Fig. 5.

L, L and L, L are molds showing the manner in which the molds are placed in the dipper, as in Fig. 2. The dipper being in readiness, the molds are arranged with the face of the one to the back of another, in an upright position or nearly so. The face of the molds may be either toward the middle of the dipper or the contrary. The molds having been secured as shown in Fig. 2 the dipper with its contents is immersed in the melted metal and melted metal poured into one of the sides of the dipper, which passes through the holes K, K, Fig. 3 and runs over at the top or leaks out at the sides or bottom, this keeps up a flow of metal, through the molds, and drives off that which is becoming cooled by the evaporation from the moisture of the molds, the pouring in of the metal may be from one side to the other alternately, when the moisture has escaped I remove the dipper with its contents into a vessel of shallow water, and replace the quantity that has leaked out or spilled whilst removing it, with metal from the melting pan. The bottom of the dipper being in shallow water becomes first cooled, leaving the upper part longer in a fluid state, which as it gradually cools, settles down and fills up all vacuums which otherwise take place.

If it be desired the cast may be made entirely by pouring in the metal as before mentioned.

What I claim as my invention, and desire to secure by Letters Patent, is—

The employment of the dipper constructed substantially as described in the vertical casting of stereotype plates in the manner herein set forth.

JASON M. MAHAN.

Witnesses:
JOHN THOMPSON,
WM. B. HOOD.