W. B. CLOSSON.

MODE OF PRODUCING ELECTROPLATE-MOLDS.

No. 195,443. Patented Sept. 25, 1877.

Fig. 1.

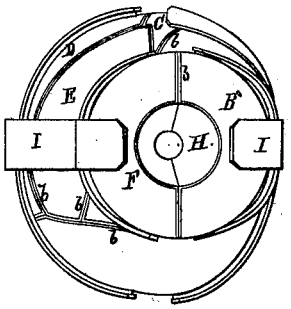


Fig. 2.

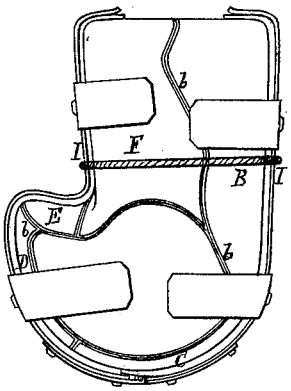
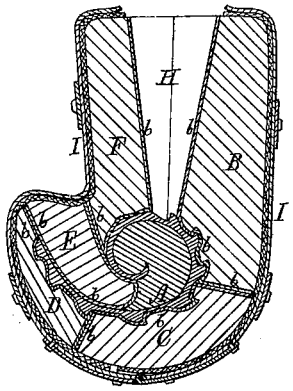


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MODES OF PRODUCING ELECTROPLATE-MOLDS.

Specification forming part of Letters Patent No. **195,443**, dated September 25, 1877; application filed July 17, 1877.

To all whom it may concern:

Be it known that I, WILLIAM B. CLOSSON, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in the Mode of Producing Electroplate-Molds for casting figures or objects; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a vertical section, of a mold made in accordance with my invention.

The article from which the mold is to be formed is represented at A as a marine shell.

In carrying out my invention, such article is to be inclosed in a mass of wax, or some other suitable material capable of resisting the action of an electroplating-bath. Next, a cavity should be made in the mass, so as to thoroughly expose a portion of the surface of the article, the walls or sides of the cavity being usually made perpendicular, or about so, to the surface from which they may project. These walls, as well as the exposed surface of the article, should next be dusted or covered with powdered graphite, after which there should be deposited, by the electroplating process, a metallic coating upon the surfaces so covered with the graphite. Next, another cavity should be made in the wax down to the surface of the article, so as to expose a fresh portion of such surface, the said cavity being arranged against the metallic coating previously formed. This having been done, the exposed surface of the article and the sides of the cavity should be properly covered with powdered graphite, and afterward should be electroplated with metal, the plating being formed against that of the cavity previously formed. This process is to be continued about the entire article, each cavity made answering to form, in manner described by the electroplating process, a metallic section of the mold. A suitable sprue-cavity should be made in like manner in the mass of wax, and its walls only should be electroplated. The concavo-convex metallic sections thus made may be filled or backed with plaster-of-paris or other suitable material. The several sections, when properly laid together, will constitute a mold into which molten metal or other suitable material may be cast to form a fac-simile of the article used in the making of the matrix or mold.

In the drawings the mold-sections thus made are represented at B C D E F, the sprue being shown at H, each section having its inner surfaces, or those next the article A, lined with the electroplating or metal *b*.

By this method of procedure a statue, bust, or other object in metal, plaster, marble, or other material, may easily have a mold prepared from it for the production of like objects.

In order to hold the several mold-sections in juxtaposition, a suitable metallic frame, I, to clasp them may be used, or they may be tied or otherwise fitted to each other, or they may be provided with dowels and dowel-receiving cavities.

In some cases a mold may be produced by electroplating the exposed part of the figure in each cavity and subsequently filling the cavity with a backing of plaster or other suitable material, such, however, being by no means so good as to electroplate the walls of the cavity and the plating, making one or more of such walls.

What I claim as my invention is—

The process, substantially as described, of making a mold from an object, such process consisting in first covering, with a thick coating of wax, the object or the part thereof to be molded; next removing a section of the wax to a portion of the surface of the object; next coating with powdered graphite or other proper substitute therefor the exposed surface and the sides or edges of the cavity thus formed in the wax; next electroplating to a suitable thickness the powdered surfaces of the cavity; and next removing from the wax covering another section thereof and afteward powdering and electroplating, as before, the exposed surfaces of the second cavity, continuing to make cavities and to powder and electroplate their surfaces until the whole surface of the object, or such part thereof as it may be desirable to have molded, may have been duly treated, each section of the mold thus made being formed or resting against one or more of the others, as set forth.

W. B. CLOSSON.

Witnesses:
R. H. EDDY,
JOHN R. SNOW.