

(No Model.)

W. H. MARSHALL.

METHOD OF ORNAMENTING SURFACES WITH MOLTEN METAL.

No. 406,923.

Patented July 16, 1889.

Fig. 1

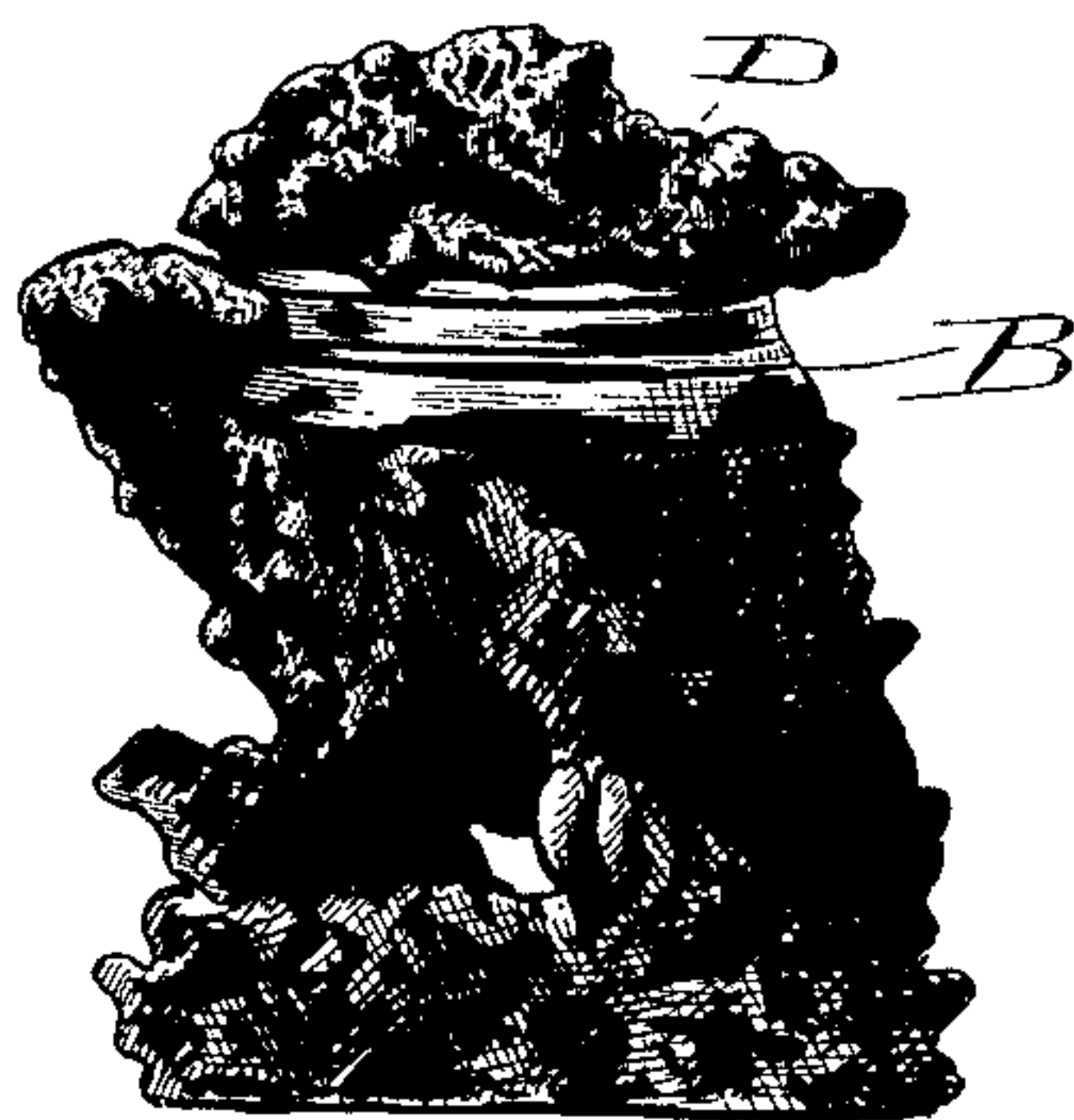
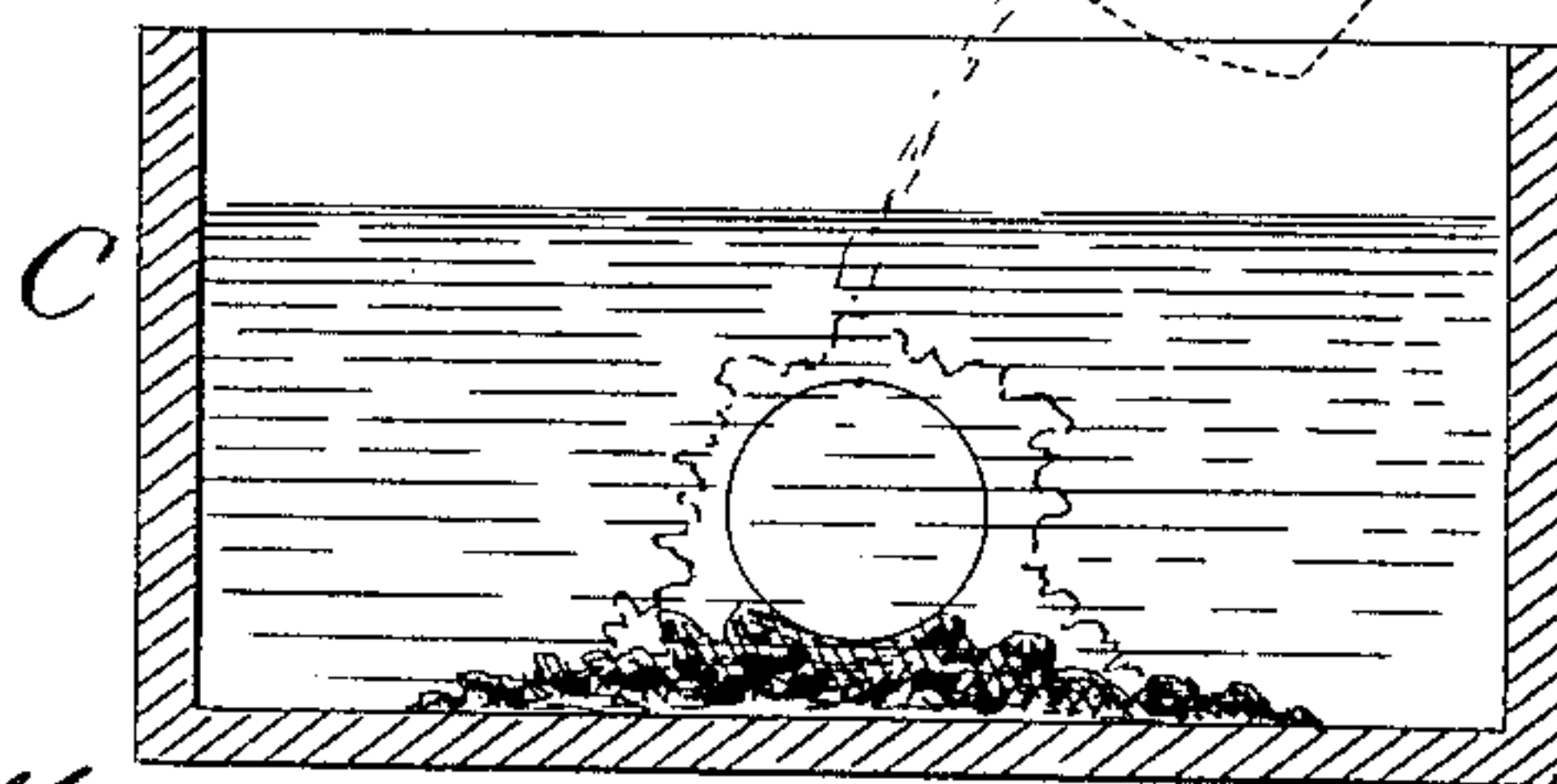


Fig. 2



Fig. 3



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METHOD OF ORNAMENTING SURFACES WITH MOLTEN METAL.

SPECIFICATION forming part of Letters Patent No. 406,923, dated July 16, 1889.

Application filed October 1, 1888. Serial No. 286,914. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY MARSHALL, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new Improvement in Method of Ornamenting Surfaces with Molten Metal; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of an inkstand ornamented by this method; Fig. 2, a vertical central section of the same; Fig. 3, a section through a bath illustrating the method.

This invention relates to a new method for ornamenting articles made from metal or other material adapted to the method, and whereby at a trifling expense artistic and tasteful ornamentation is produced; and the invention consists in immersing the article or surface to be ornamented in a bath of liquid or fluid—such as water, oil, or any other suitable liquid—and then pouring into the liquid metal in a molten state, so that it may fall upon the surface to be ornamented. The metal so poured chills quickly upon the surface, and by such pouring a great variety of ornamentation is produced.

In illustrating the invention I represent an inkstand.

The reservoir A for the ink-well is made from metal, and so as to present a molded neck B. I first prepare a bath, consisting of any suitable vessel or tank C, which is filled with water or other suitable liquid of a depth for the immersion of the surface to be ornamented. In case of an inkstand such as represented in Figs. 1 and 2, the metal is brought to the molten state and is poured into the bath, and, falling upon the bottom, produces a surface for the base, and this pouring is continued until the lower portion of the inkstand is formed. The result of pouring the molten metal into the liquid is, because of the natural agitation of the water under the great heat, to throw the metal into irregular shapes and give to the mass a vermiculated appearance. After a sufficient amount has been introduced to form the lower or base portion of the stand the well or reservoir is

introduced and set in place and other metal poured around it, which unites with the first, and the mass may be held or supported so as to be turned to different positions, that the metal may be deposited at any desired point until the work is completed. Finished portions of the reservoir or article thus being covered are preferably left exposed—say as indicated in Fig. 1—which adds materially to the appearance of the article.

In case of the ink-well, a cover D is provided, which is introduced into the bath and rests upon the bottom or other suitable support. Metal is poured upon the top, which unites therewith, giving to the cover an appearance corresponding to the body of the inkstand.

In Fig. 3, which represents the tank, the illustration shows a clock-case as under the process of ornamentation, a base having been formed, the clock-case cylinder introduced, and other metal poured around it. These illustrations will be sufficient to enable others skilled in the art to ornament other articles. Such articles may be of any suitable material that will not be deleteriously affected by the liquid or metal.

The operator may, with suitable appliances, hold the article supported in the bath, so that it may be turned to any desired position, and thus highly artistic and tasteful results may be accomplished.

Metal of different colors may be employed, either poured together or poured separately, and produce tasteful results.

Variation in the shape of the stream will also produce variety in the shape—that is, a V-shaped stream, a cylindrical stream, or a flat stream, or other shape. Each shape will give a different result.

The variety of ornamentation thus produced is endless, as the duplication of the ornamentation is impossible.

Instead of making the ornamentation directly upon the article itself, in many cases a form may be introduced into the bath and the metal poured upon the form the same as if upon the article itself; then taken from the bath, the form will be removed and the article introduced. For illustration, as a clock-case, cylindrical, and which it would not be desirable to expose to the bath, a corresponding

cylindrical block could be introduced into the bath in place of the clock-case and the metal poured thereon the same as if upon the clock-case itself; then the cylindrical block
5 removed, the cylindrical case would be introduced. I therefore do not wish to be understood as limiting the invention to submerging the article itself; but by the term "submerging" the surface to be ornamented I wish
10 to be understood as including any surface which represents the actual surface to be ornamented.

I claim—

The herein-described method of ornamenting surfaces with molten metal, consisting in 15 submerging the surface to be ornamented in a liquid, pouring the molten metal in a stream into the liquid and onto the surface, substantially as described.

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