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V. J. MINCIELI
METHOD OF METAL SPRAYING PLASTER
OF PARIS ARTICLES
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2,467,046

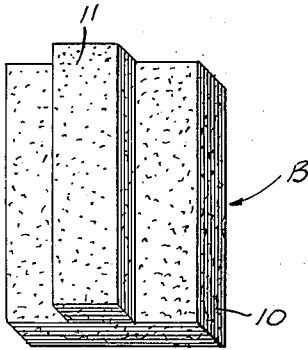


Fig. 1

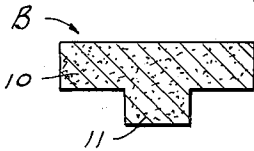


Fig. 2

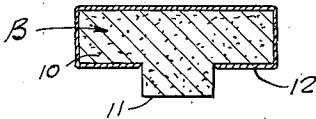


Fig. 3

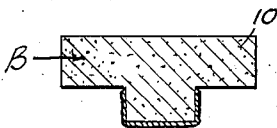


Fig. 4

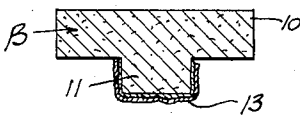


Fig. 5

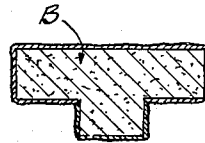


Fig. 6

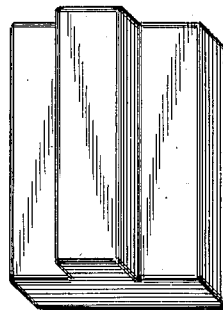


Fig. 7

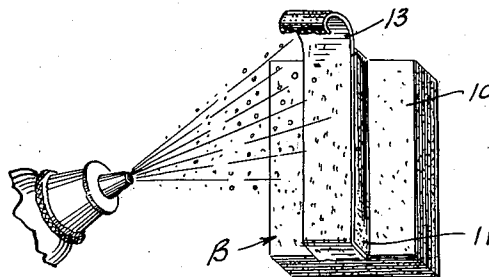


Fig. 8

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METHOD OF METAL SPRAYING PLASTER OF
PARIS ARTICLES

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3 Claims. (Cl. 117—54)

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This article relates to a decorative article and method of making same and has for a broad object the provision of an article and method involving relatively small manufacturing costs compared with the utility and decorative character of the article produced by the method.

Heretofore it has been customary to make a base or body of a work of art such as bookends, lamp bases, statuary and many others from metallic castings. Such works of art in many cases have been relatively costly and heavier than they need to be; these objections have prevented a wider manufacture and use of such articles.

I propose to eliminate the two objections just noted by the use of a base of ceramic material which is relatively inexpensive, when compared with some metals, and which will be relatively light when compared with some of the metals heretofore used in such works of art.

More in detail, I accomplish the broad object of this invention by forming a hard ceramic base in the shape desired and then decoratively coat this base with a metal or metals to simulate the appearance of a metal work of art. I preferably harden the base to provide a less frangible completed work of art as well as to prevent any breakage during the handling and coating operations.

Other objects of this invention will appear in greater detail as this description proceeds in connection with the accompanying drawings in which:

Figure 1 is a perspective view of a ceramic base or body formed in this instance of plaster of Paris;

Figure 2 is a transverse sectional view of the body shown in Figure 1;

Figure 3 is a sectional view of the body shown in Figures 1 and 2 with a mask placed around the larger part of the body and leaving the longitudinal protruding rib thereof entirely exposed for application of molten material thereon;

Figure 4 is a sectional view similar to Figure 3 after molten metal has been applied to the longitudinal protruding rib and after the mask has been removed from the main body of the object;

Figure 5 is a view similar to Figure 4 with the protruding longitudinal rib masked for application of the molten metal to the remainder of the base;

Figure 6 is a sectional view similar to Figure 5, after molten metal has been applied to the main portion of the base and after the mask shown in Figure 5 upon the protruding longitudinal rib has been removed;

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Figure 7 is a perspective view of the completed article with the visible portion thereof covered by a metallic coating; and

Figure 8 is a diagrammatic view illustrating a mask in place and a metallizing spray gun in operation.

Referring now to Figure 1 the base or body, denoted generally at B comprises a main body section 10 of a generally rectangular shape of considerable thickness, from which protrudes a rib 11 which is rectangular in cross section and extends from top to bottom of the main body 10. The base B is formed preferably of plaster of Paris due to its readily forming and quick drying properties but other ceramic materials may be employed.

After the base B, above described, has been formed and dried, sufficiently to retain its shape in ordinary handling, the entire body or cast is dipped into a surface hardening agent such as solution of calcium carbonate and water made up of two parts of calcium carbonate to five parts of water. The cast is then removed for a few minutes of drying time and then successively dipped and removed for other drying periods. After the last drying period which may be extended in an abundance of caution to insure a completely dry and hardened exterior, the body B is ready for subsequent operations.

Referring to Figure 3 the main portion 10 of the body B is covered by masking tape 12 in the well-known manner leaving rib 11 exposed. Thereupon the rib 11 is sprayed with molten metal, in the manner shown in Figure 8, and a metallic coating is deposited upon all exposed portions of the rib 11.

After the rib 11 is completely coated with the desired type and color of metallic spray, the masking tape 12 is removed and the main portion 10 of body B is left exposed for coating operations as shown in Figure 4.

In all cases where it is desired to have contrasting colors or types of metal, such as one color of rib and another color of main body portion, the coated rib is then masked by mask 13 in the well-known manner and the remaining exposed portion of body B is sprayed as shown in Figure 8. Thereupon the mask 13 is removed and a completely coated object, a sectional view of which is shown in Figure 6, is ready for the subsequent polishing and buffing operations which bring it to its completed state represented in the perspective view of Figure 7. Of course, the entire body may be sprayed with one kind of metal in the beginning and then the multi-color effect may be

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obtained by masking off the parts which are desired to remain the uniform color and then spraying the exposed parts with a metal of contrasting color.

While I have shown and described my preferred method and article, I do not wish to be limited to the details shown and described herein, but wish to avail myself of all variations coming fairly within the scope and spirit of the appended claims.

What is claimed is:

1. A method of making a decorative article comprising forming a plaster of Paris body of the shape desired, dipping said plaster of Paris body at spaced intervals of time into a aqueous solution of calcium carbonate, drying said body and coating portions of said body with a molten metallic spray.

2. A method of producing decorative articles which consists in applying a solution of calcium carbonate and water to plaster of Paris material, then permitting said solution to dry, then successively applying said solution to the material and permitting it to dry thereon a predetermined number of times to effect a surface treatment of said plaster of Paris material, and finally spraying the treated surface with molten metal.

3. A method of producing a decorative article, which consists in repeatedly applying a solution of calcium carbonate and water to a plaster of Paris body and permitting the solution to dry thereon after each application, then applying

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masking material to a portion of said body and spraying molten metal of a predetermined color on the unmasked portions of the body, then removing said masking material from the body and applying other masking material to the portion of the body previously sprayed with molten metal, and then spraying the unmasked portion with molten metal of a different color than the molten metal first sprayed.

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