

(No Model.)

W. H. HENAY.
MOLD FOR RELIEF ORNAMENTATION.

No. 582,821.

Patented May 18, 1897.

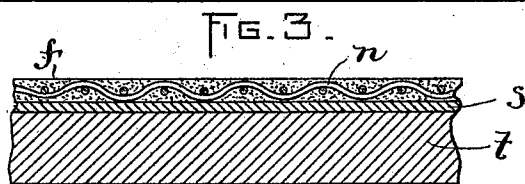
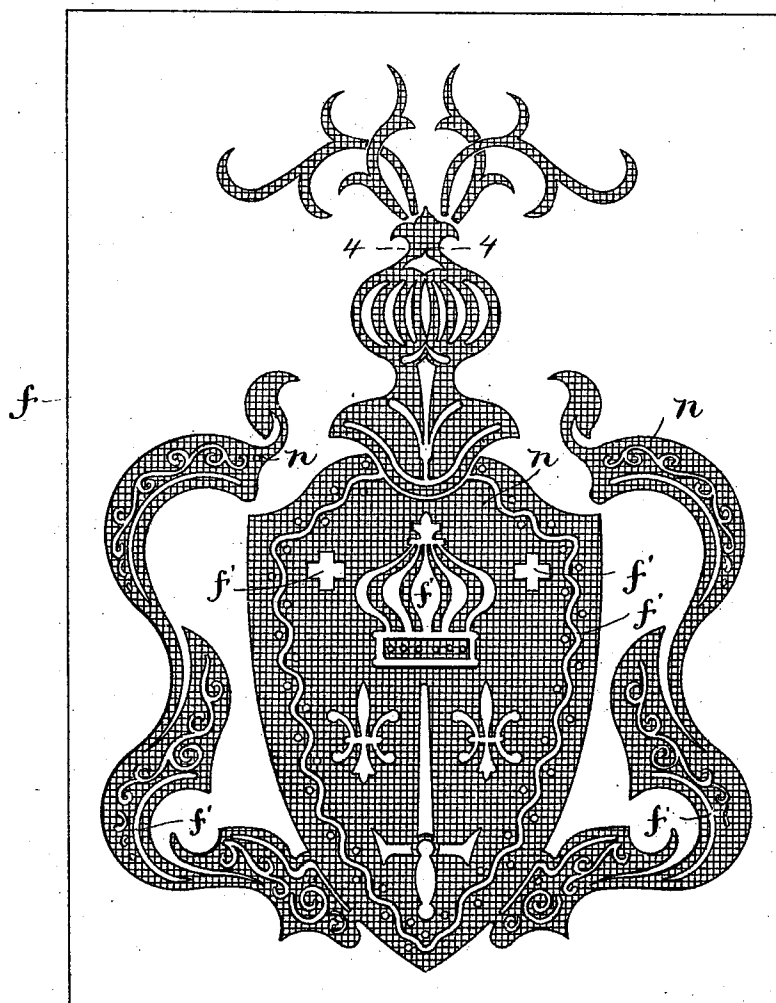


FIG. 1.



FIG. 2.



FIG. 4.

WITNESSES:
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UNITED STATES PATENT OFFICE.

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MOLD FOR RELIEF ORNAMENTATION.

SPECIFICATION forming part of Letters Patent No. 582,821, dated May 18, 1897.

Application filed November 20, 1896. Serial No. 612,875. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HENAY, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Molds for Forming Relief Ornamentation, of which the following is a specification.

This invention relates to a mold adapted to be used for forming relief ornamentation on walls, ceilings, &c., and comprising a flexible body or plate adapted to be placed upon a surface to be ornamented and having openings through which plastic material may be forced to form relief ornaments, the form of which is determined by the form of the openings, said openings being obstructed only by interwoven strands, which tie together the margins of the openings.

The invention has for its object to provide an improved mold-plate adapted to be more readily and conveniently made than those heretofore used and of greater strength, durability, and flexibility.

The invention also has for its object to provide an improved method of making a mold of the character specified.

To these ends the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figures 1 and 2 represent sectional views illustrating the preferred method of making my improved mold. Fig. 3 represents a front view of a mold embodying my invention. Fig. 4 represents a section on line 4 4 of Fig. 3.

In producing a mold of the character to which my invention relates I prefer to proceed as follows: A sheet *s* of wet paper, rather larger than the design to be executed, is smoothed out on a board *t*, (see Fig. 1,) and while still wet a sheet of wire-netting *n*, corresponding in size, is drawn tightly over it, the netting being preferably fastened at its edges to the board *t*. A suitable filling *f*, preferably composed of equal parts of sifted whiting and ground pumice mixed to proper consistency with clear water, is then spread on the netting and pressed firmly through the interstices of the mesh onto the surface of the wet sheet *s*, which imparts a smooth under surface to the filling. The upper surface of the filling

is then smoothed off, and the whole is then lifted from the wet sheet *s*, from which the plastic and wet filling readily draws away. The filling is now equally smooth on both sides, the wire-netting being embedded in the center of the filling.

When the filling is dry, it is ready for further treatment, as follows: The intended design is traced or marked on the dry surface of the filling in any suitable way, and then all parts of the filling which are to be permanently united to the wire sheet *n* are saturated with a liquid binder, which may be any suitable adhesive liquid, a solution of gum or silicate being preferred. The binder may be applied by a brush or in any other suitable way and is preferably colored, so that it contrasts strongly with the natural light color of the filling. The portions of the filling thus treated become tough and adhere firmly to the netting, the other portions, which are to be removed, remaining in a brittle condition, so that they may be readily disintegrated and removed from the sheet.

After allowing sufficient time for the binder to dry all the brittle portions, or those not touched by the binder; can be readily forced out from the meshes of the sheet by a stiff brush or otherwise, leaving an opening or openings through the filling obstructed only by the meshes of the sheet, the form of said openings determining the design made by the use of the mold.

All the parts of the filling that were saturated with the binder remain intact, the gum having permeated the porous ground and combined with the whiting and pumice, forming an adhesive, durable, and comparatively flexible cement lying on both sides of and within the meshes of the sheet. Subsequent treatment of the still porous ground with different combinations of oil, wax, silicate, or shellac will improve the durability and flexibility of the mold-plate thus formed and render it more or less elastic, in accordance with the nature or requirements of the work to be done.

In the figures of the drawings, *ff'f'* represent the portions of the filling that have been hardened and rendered permanent by the binder, the portions *f* including the main body of the filling surrounding the openings,

while the portions f' are strips or small figures within said openings. It will be seen that the portions f' can be made very elaborate and fanciful and may include such lines or markings as the designer may consider desirable to give character and expression to the design. Every touch of the brush used to apply the binder on the porous filling fixes and makes permanent the part touched.

Hence an intricate and delicate design can be wrought out with exactness and rapidity.

The improved mold-plate is alike on both sides, each of which is smooth. Hence either side can be used with equal effect, the plate lying close to the surface to be decorated and producing clean sharp work. The incorporation of the filling into the meshes of the wire-cloth sheet greatly strengthens the filling.

In operating with this improved mold its back side is placed against the surface to be decorated and a suitable plastic composition is forced through the exposed meshes of the wire-cloth, a suitable instrument for this purpose being a broad-bladed knife, which is manipulated to force the composition to place and scrape off the surplus material, leaving the outer surface of the composition about flush with the netting. The strands of the netting therefore indent or emboss the outer surface of the ornament and give the same an imitation of the texture of the wire-cloth resembling mosaic work. The surface thus produced has a pleasing effect and is of great value from a decorative standpoint.

I do not limit myself to the use of the particular cementitious composition herein described in making the improved mold and may use any material, mixture, or composition adapted to be pressed into the meshes of

a wire-cloth sheet, forming a filling which when dry is sufficiently porous to absorb a binding liquid whereby the particles comprising the filling are bonded or united.

I claim—

1. As an article of manufacture, a flexible mold of the character specified, comprising a flexible reticulated sheet, and a flexible filling in the meshes of portions of the sheet and embedding or covering said portions, forming practically smooth surfaces at both sides of the mold, said filling being arranged to expose portions of the sheet and permit the passage of plastic material therethrough.

2. As an article of manufacture, a flexible mold of the character specified, comprising a flexible reticulated sheet, and a flexible cementitious filling bonded in portions of the meshes of the sheet so as to form a pattern.

3. The improved method of making flexible molds hereinbefore described, the same consisting in filling the meshes of a reticulated sheet with a plastic material or composition of the character specified, applying a liquid binder to portions of said filling to toughen said portions and permanently unite them to the corresponding portions of the sheet, and to render said portions of the filling flexible and then removing the remaining portions of the filling from the sheet, thereby forming reticulated openings.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of November, A. D. 1896.

WILLIAM H. HENAY.

Witnesses:

A. D. HARRISON,
P. W. PEZZETTI.