

H. L. MOREAU.
SCULPTOR'S MOLD.
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996,784.

Patented July 4, 1911.

Fig. 1.

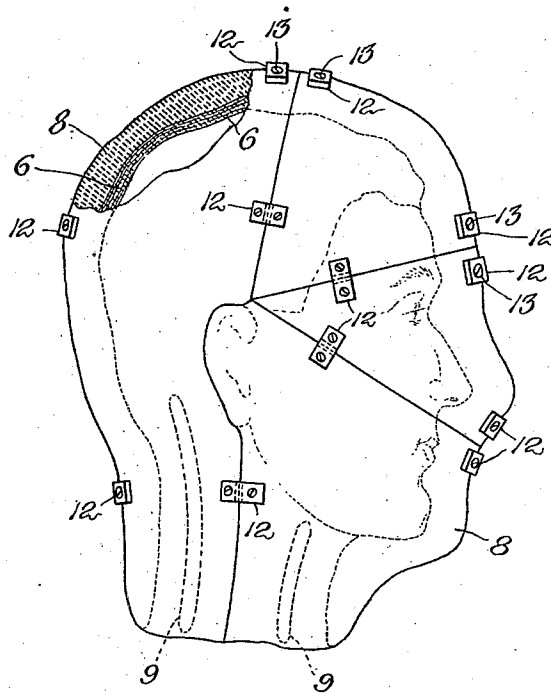


Fig. 2.

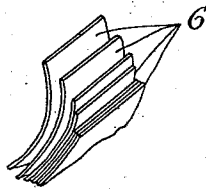
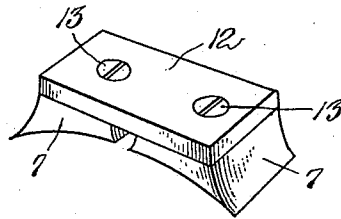


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SCULPTOR'S MOLD.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HECTOR L. MOREAU, a citizen of the United States, and resident of Ipswich, in the county of Essex and State of Massachusetts, have invented an Improvement in Sculptors' Molds, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

As at present practiced, the production from life or otherwise of a bust, mask, or other cast, usually requires not only a plurality of molds but also considerable skilled work in modifying the molds to counteract the inevitable distortions which are produced by the various processes as now practiced. Sculptors commonly use plaster of Paris, poured in mass against and about the subject, said plaster of Paris setting quickly and then having to be cut apart, etc., in well known manner. The weight of the plaster of Paris and the manner of its application tends to depress all soft or yielding surfaces such as the cheek, hair, etc., so that the replica from the mold would present a less plump appearance than the living subject, and it is therefore the custom of sculptors to counteract the same, by the skilful use of the knife on the plaster of Paris, thus requiring not only a first mold, but a casting therefrom, modified as stated, and then another mold from said casting, etc. This is only one of the many features of the common practice which it is the object of my invention to obviate.

A mold constructed according to my present invention has no tendency to press in or distort the features, the mold is necessarily correct at the start, thereby eliminating much of the time and expense heretofore required, the mold is capable of receiving correct impressions of all parts, including those heretofore usually left for subsequent treatment by hand, the mold is readily removed from the subject, the material composing the mold may be used over again repeatedly, the parts thereof are readily separated, and the mold contains within itself the means for rejoining the parts to form the whole mold.

The further features and advantages of my invention will be more apparent from the following description, taken in connection with the accompanying drawings, in

which I have shown a preferred embodiment of the invention.

In the drawings, Figure 1 shows in side elevation and partly broken away and in section a mold constructed according to my invention; Fig. 2 is a perspective view, largely diagrammatic, illustrating the composition of the mold; and Fig. 3 is a perspective view of one of the anchoring means.

For more conveniently describing my invention, let it be supposed that a mold of a head (from life or otherwise) is to be made, and I will describe the mold by setting forth at the same time the manner in which it is made. After having suitably smeared the skin of the subject with oil and similarly oiled or filled in and starched the mustache, eyebrows, and hair with paste or other form of starchy substance, subdividing or separating wires are laid on the surface of the subject in such numbers and direction as required according to the subsequent separation of the whole mold into separable parts. In the illustration being considered, a wire 1 is led up along the neck and around the extreme rim or protruding edge of one ear and thence vertically over the head to the other ear, which it similarly bounds, and then down along the neck, while another wire 2 is laid over the head in a transverse direction and along the middle of the forehead down the nose over the mustache, around the chin and down the neck, and similarly over the back of the head and down the back of the neck. If desired, wires 3 and 4 extending respectively horizontally across the face at the mustache and obliquely across the eye from adjacent the ear are provided in case it is desired to subdivide subsequently the front of the mold in this manner. A fine camel's-hair brush is then dipped into a pot of melting-hot wax-like composition (preferably a mixture of beeswax and rosin) and brushed with a succession of quick, short, delicate brushing movements over the subject until a thin continuous layer 6 of wax has been applied.

The wax-like composition and the manner of its application give an exceedingly delicate and accurate result. As the melting point of the composition is above the heat of the object treated, *i. e.* above blood heat, and as the composition becomes fluid at a temperature which permits its application in thin layers without injury to the skin, the

result is that when it is brushed onto the skin in said thin layers it takes on the minutest details of the object. Moreover, as it is thinned solely by heat, as distinguished from being thinned by a solvent, it gives better results because it is thereby denser and there is no tendency to draw or contract. In this way successive layers 6 are painted over the subject as indicated until a sufficient thickness of said wax has been applied to endure comparatively rough treatment without losing its shape. Thereupon anchor blocks 7, having roughened, corrugated or hollowed-out and undercut edges or sides, for giving a good gripping surface to the wax, are placed on these initial layers 6, and then further plastic wax 8 is applied, preferably more or less in mass, until these blocks finally become embedded immovably in their respective places adjacent the subsequent lines of division of the mold as shown. At such places as are required for any reason, as for instance where the mold tapers to a more or less slender portion, as about the neck, reinforcing shaped strips 9 of wood or other shape-retaining strengthening material are inserted to constitute strength-giving ribs. The wire-ends of the subdividing wires 1-4 are bent outwardly so that when the mold is finally completed they protrude. Connecting plates 12 are provided to connect the pairs of anchor blocks 7 by any suitable securing means, as screws 13. When the mold has been shaped and built up as stated on the head or other member of the subject as the case may be, the projecting ends of the wires are pulled outwardly, thereby quickly cutting the mold into its required parts, so that it can be instantly removed from the subject.

A mold constructed as above described is not only inexpensive, but it is quickly made and is faithful in conformation to the subject. As it consists of successive thin, light layers of a material capable of being applied hot and then setting instantly in strict conformity to the surface on which it is applied, there is no tendency to depress or distort the features of the subject, and yet the successive layers 6 of this readily fluidified composition, although individually incapable of retaining their shape, form in the aggregate a relatively stiff permanently shaped mold, each reinforcing the preceding layers. Moreover, as the mold readily yields to heat, its lines of severance are readily joined together simply by running a hot knife or tool along them after they have been brought together by the connecting devices 12, 13 and block 7. It will be under-

stood that tubes are inserted in usual manner in the nostrils, the ears are preferably plugged, and such other attention given to the subject as may be required and which, being usual and not constituting a part of my invention, are not herein further referred to.

From the foregoing description, it will be evident that my invention is readily applicable to all situations where it is desired to secure an accurate mold of any given object. As the mold material, preferably wax, is applied in exceedingly thin and light layers, it has no tendency to depress a soft part such as the cheek or hair, and yet, by reason of the superposition of layer after layer, a finally rigid mold is built up capable of producing a cast or casting with absolute faithfulness to the original subject. A further advantage of my invention is that after the desired casts have been made from the mold, the mold material and the rest of the parts thereof are all capable of being again used for the manufacture of another mold.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A mold built up of successive thin layers of wax-like composition having a melting point above blood heat and becoming fluid at a temperature which permits the application of the composition in thin layers without injury to the skin, and having embedded therein anchoring devices in pairs capable of receiving connecting plates and fastenings.

2. A mold built up of successive thin layers of wax-like composition having a melting point above blood heat and becoming fluid at a temperature which permits the application of the composition in thin layers without injury to the skin, and having embedded therein anchoring devices in pairs combined with connecting devices removably secured to said anchoring devices.

3. A mold, built up of successive layers of wax-like material, and having anchoring devices arranged in pairs along the lines of separation of the mold, connecting plates in position to span from one anchoring device of a pair to the other, and removable fastening means for fastening said connecting plates to said anchoring devices.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

HECTOR L. MOREAU.

Witnesses:

WEBSTER BARROWS,
GEO. H. MAXWELL.