

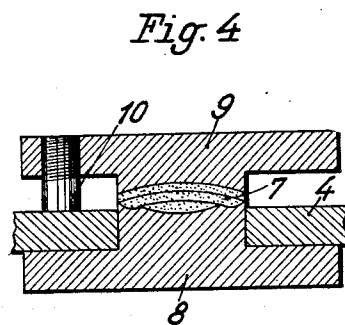
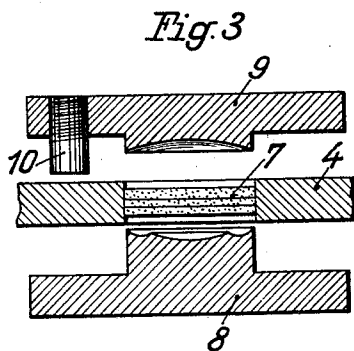
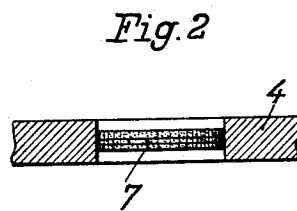
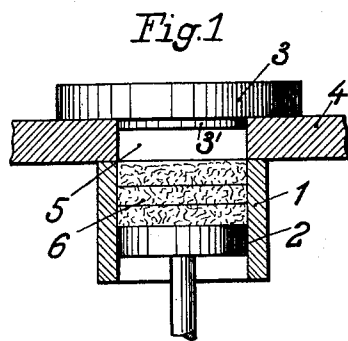
Aug. 1, 1933.

H. OEXMANN

1,920,317

PROCESS OF DECORATING BUTTONS

Filed Feb. 15, 1929



Inventor:

Heinrich Oexmann

Heinrich Oexmann
attorney

UNITED STATES PATENT OFFICE

1,920,317

PROCESS OF DECORATING BUTTONS

Heinrich Oexmann, Berlin-Lichterfelde,
Germany

Application February 15, 1929, Serial No. 340,234,
and in Germany May 14, 1927

3 Claims. (Cl. 18—55.)

For decorating buttons and other articles of horn, celluloid, gallalite and other natural and artificial masses and also of plates of such masses, they have been painted by hand or with the aid of stencils, the painting being preferably done by the squirting.

All such decorations possess the inconvenience that they adhere too much on the surface, this being best perceivable if the decorated article is made of translucent mass.

This invention has for its object to color such articles in such a manner that the coloring looks as if it extended through the article from one surface to the other so that the article makes a genuine impression. With this object in view the lower surface of the article is treated in the same manner and by means of the same stencil with which the upper surface of the article has been decorated or with a mirror reflection of this stencil. If care is taken that the two pictures register point for point, the impression is produced as if the coloring extended through the material from one side to the other. This impression will be evidently the stronger the deeper the paint of the two decorations has penetrated into the mass. If the paint or dye has really penetrated into the mass from each surface to half the height a through coloring from one surface to the other is obtained.

For obtaining this ideal condition all means may be used by which the penetrating of the paint or dye is facilitated, amongst others also the strewing on or strewing in of differently colored masses into the main mass, this being known from the button manufacturing.

The impression of the through coloring is specially well obtained, if the article is not only similarly decorated on the two surfaces but one or several layers of similar decorations are further arranged in the article.

This may be obtained for instance in articles made of powderous mass by filling one layer of powder in the mould, coloring or decorating this layer of powder with liquid or dry coloring substance with the aid of a stencil or in any other suitable manner or applying on the same an ornament or design of colored powder, whereupon another layer of main powder is filled in and decorated accurately like the first layer so that the decorations register accurately. As many layers may be superposed as desired. All these layers are then compressed or molten together and the perfect impression of through coloring is obtained.

The colored powderous mass or the color may

evidently be used as first layer in the mould, a layer of the main mass being then applied onto this bottom layer, whereby the drawing will eventually appear much clearer.

The filling in of the different layers of powderous mass may be effected with or without compressing. With the method described of decorating in several layers the difficulty is connected that the mould in which the coloring is carried out must have a high inner space in order that sufficient filling space be provided. This high inner space prevents however that the stencil be pressed so strongly on the mass, as is necessary for the production of sharp decorations, when the mould is not completely filled.

This difficulty can be overcome by using a mould with movable ram adjustable in vertical directions so that it can be adjusted so that the space between the upper edge of the mould and the upper surface of the ram is only so high that the stencil can be placed directly on the surface of the layer of mass just filled into the mould. The ram is then lowered a distance equal to the height of the fresh layer to be formed. After this fresh layer has been decorated by means of the stencil, the ram is lowered again and so forth.

For carrying out the manufacturing method a preliminary press is used as shown in Figs. 1 and 2 of the accompanying drawing and a finishing mould as shown in Figs. 3 and 4.

The preliminary press consists of a mould 1 with a ram 2 slidable in said mould and of a counter ram 3 having a set off extension 3' on the lower surface of the same diameter as the mould 1. On the mould 1 a ring plate 4 is loosely placed. After the ram 2 has been raised to a short distance from the upper edge of the mould 1 a layer of mass 6 is filled in level with the upper edge of the mould. The surface of this layer is decorated, whereupon the ram 2 is lowered to leave sufficient space between the upper surface of the first layer 6 and the upper edge of the mould. As many layers 6 as desired are placed the one on the other and suitably decorated. When the desired number of decorated layers of mass are in the mould, for instance three layers 6 as shown, the mass is compressed between the ram 2 and the set off projection 3' of counted ram 3 so that a thin disc 7 (Fig. 2) is obtained, composed of three layers, and sitting in the circular aperture of the ring plate 4. The ring plate 4 with the disc 7 is then removed and inserted into the finishing press (Fig. 3) between the ram 9 and counter ram 8. The

facing surfaces of these rams 8 and 9 are formed in accordance with the form to be given to the article to be pressed and decorated on its two surfaces.

5 Fig. 4 shows the position of the rams and of the mass after the pressing has been completed.

In order to force the finished mass from the ring plate 4, the upper ram 9 carries a pin screw 10 by means of which the ring plate 4 is pushed down over the ram 8.

10 At the manufacturing of buttons and other articles, a certain number of which have to be produced at the same time in one mould, the ram might consist of a plate with holes into which the several dies of the mould fit accurately.

15 The adjusting of the plate in vertical direction can be effected by means of adjusting screws or levers or in any other convenient manner, it being further immaterial for the invention whether the mould is lowered or the ram of the same is lifted.

20 The process described is intended in first instance to produce veinings in transparent pressed bodies, veinings of the kind which exist for instance in Buffalo horn and as have hitherto been produced on the Buffalo-horn imitations by squirting on one surface, without however obtaining the impression of a veining extending from surface to surface through the mass.

30 I claim:

1. A process for decorating buttons and other transparent articles made of pressed material in which it is desired to give the impression that the pattern extends right through the article, consisting in filling into a mold a layer of pulverous base material, in applying on this layer color in the form of the desired pattern, in covering this color with a second layer of base material which fills

the interstices between the color pattern, in applying on this second layer color in the form of the desired pattern registering with the pattern of the color applied on the first layer of base material, in repeating this procedure until the desired thickness is attained, and in applying pressure to form the finished article.

2. A process for decorating buttons and other transparent articles made of pressed material in which it is desired to give the impression that the pattern extends right through the article, consisting in filling into a mold a layer of pulverous base material, in applying on this layer dry pulverous color in the form of the desired pattern, in covering this color with a second layer of base material which fills the interstices between the color pattern, in applying on this second layer dry pulverous color in the form of the desired pattern registering with the pattern of the color applied on the first layer of base material, in repeating this procedure until the desired thickness is attained, and in applying pressure to form the finished article.

3. A process for decorating buttons and other transparent articles made of pressed material in which it is desired to give the impression that the pattern extends right through the article, consisting in filling into a mold a layer of pulverous base material, in applying on this layer moist color in the form of the desired pattern, in covering this color with a second layer of base material, in applying on this second layer moist color in the form of the desired pattern registering with the pattern of the color applied on the first layer of base material, in repeating this procedure until the desired thickness is attained, and in applying pressure to form the finished article.

HEINRICH OEXMANN.

40

45

50

55

60

65

70

75

80

85

90

95

100

105

110

115

120

125

130

135

140

145

150