June 26, 1962 N. T. BALDANZA 3,040,447

PAINTING BY NUMBERS DEVICE

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Fig. 1.

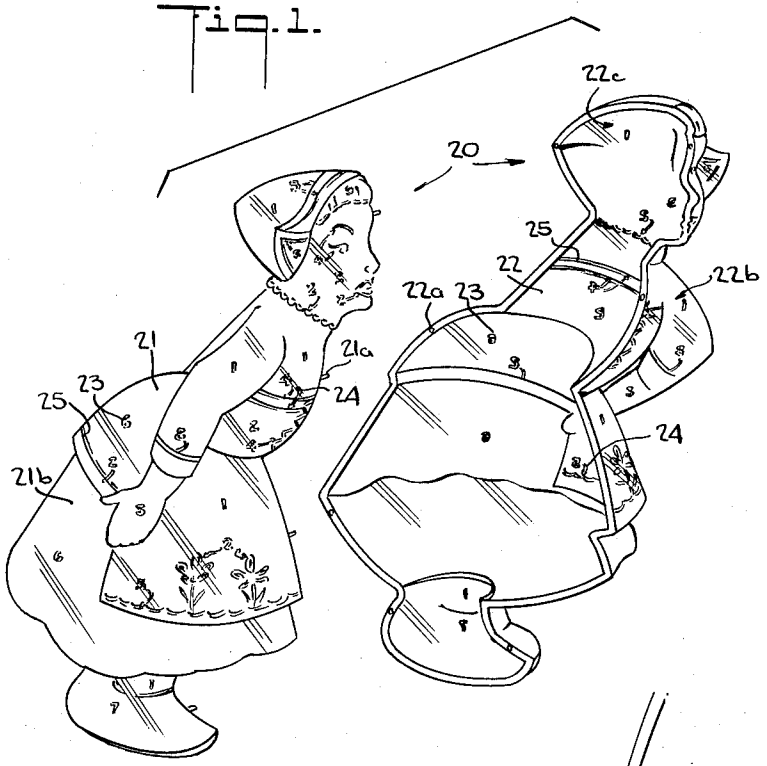
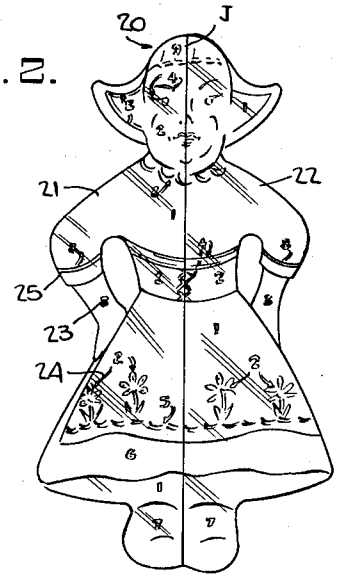


Fig. 2.



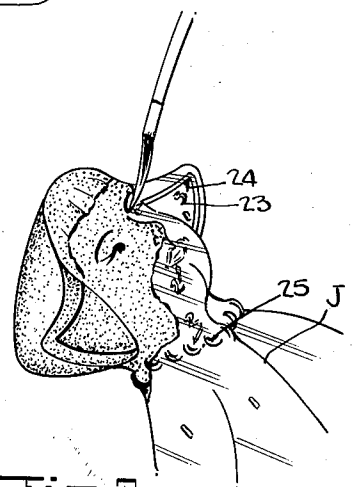


Fig. 3.

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Fig. 4.

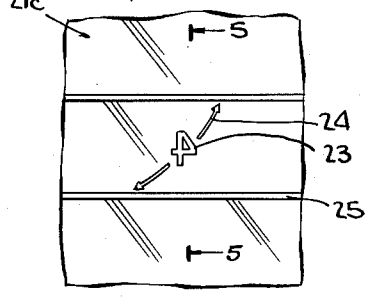
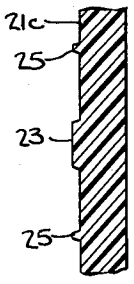


Fig. 5.



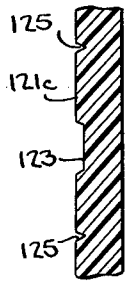


Fig. 6.

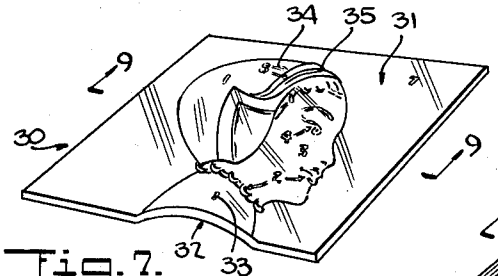


Fig. 7.

Fig. 8.

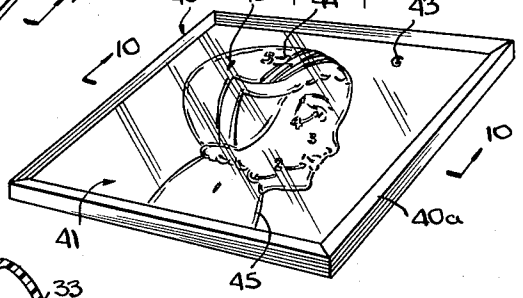


Fig. 9.

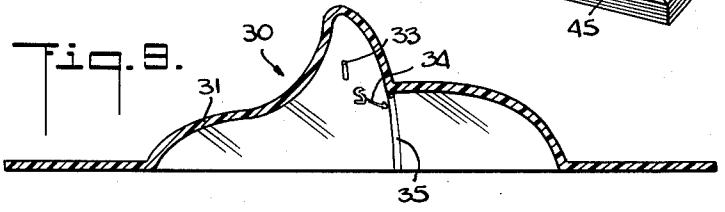
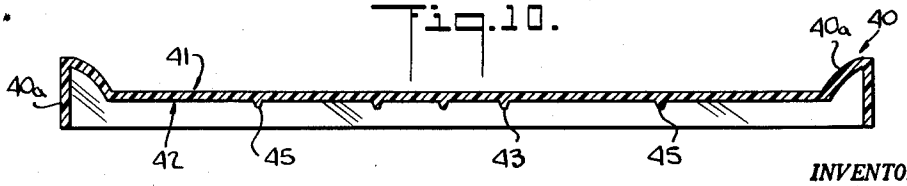


Fig. 10.



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3,040,447

PAINTING BY NUMBERS DEVICE

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Filed Jan. 9, 1961, Ser. No. 81,532
5 Claims. (Cl. 35—26)

This invention relates to hobbies and more particularly is directed to painting and coloring aids for three-dimensional objects such as plaques, figurines, statuettes and the like.

Among the objects of the invention is the application of so-called painting by the numbers technique to three-dimensional art forms by the provision of a transparent sectionalized shell in a knockdown condition for assembly into a hollow figurine, each shell section being formed of transparent plastic having color code indicia and color area lines embossed on or engraved into the interior surface thereof as an inverted image visible as a readable indicia from the exterior side of the figurine after assembly, which shell sections shall be inexpensive to manufacture in quantity production by injection molding methods complete with the integrally formed color code indicia and color area lines, which indicia and area lines shall be completely concealed by the paint coating in the finished condition, which technique shall also be applicable to relief figures and plaques and plane surface painting, the latter being particularly useful in providing a decorative picture frame effect as an integral border, which plastic molded pieces shall be practical to supply with the required paints in kit form in subject matter varying in intricacy for children of corresponding age levels as well as for adults, which shall be practical and efficient to a high degree in use.

Other objects of the invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists of features of constructions, combinations of elements and arrangements of parts which will be exemplified in the constructions hereinafter disclosed, the scope of the application of which will be indicated in the claims following.

In the accompanying drawing in which various embodiments of the invention are shown:

FIG. 1 is a perspective view of a sectionalized figurine constructed to embody the invention, the sections being mating halves separated to show the color code indicia and area lines formed on the interior surface of one half and visible from the exterior surface of the other.

FIG. 2 is a front elevational view of the figurine shown in FIG. 1 assembled and ready for painting.

FIG. 3 is an enlarged fragmentary perspective view of the figurine shown in FIG. 2 partially painted showing the concealment of the color code indicia and area lines by the paint.

FIG. 4 is an enlarged detail view of the interior surface of one of the sections shown in FIG. 1.

FIG. 5 is a section taken on line 5—5 in FIG. 4 showing the embossed color code indicia and area lines.

FIG. 6 is a section taken similar to FIG. 5 but showing an alternative form of engraved color code indicia and area lines.

FIG. 7 is a perspective view of a modification embodying the invention as a relief plaque.

FIG. 8 is a perspective view of another modification as a picture on a plane surface with an integral frame.

FIG. 9 is a section taken on line 9—9 in FIG. 7, and

FIG. 10 is a section taken on line 10—10 in FIG. 8.

Referring in detail to the drawings, 20 denotes a hollow figurine, constructed to embody the invention, molded preferably in sections of suitable resinous plastic, such as, polystyrene, acetate, acetate butyrate or acrylic resins and the like having transparent properties.

Figurine 20 may be molded in a plurality of sections, the number of such sections being dependent upon the size, shape and design of the subject matter and the convenience of molding same, here shown in FIG. 1 as a pair of mating halves 21 and 22 having suitable alignment means around the abutment edges thereof, such as pins 21*a* spaced for interfitting with holes 22*a*. Mating halves 21 and 22 are preferably formed to comprise relatively thin walled molded pieces having sculptured details of figurine 20 on exterior surfaces 21*b* and 22*b*, respectively, the latter being in condition for painting.

A principal feature of the invention resides in the provision of painting aids and simple directions, such as color designation code numerals, color area border lines and the like as an integral part of the molded piece to effect both economy in manufacture and simplicity in use. In molding the piece by injection molding methods, for example, it is contemplated that the male half, core or force of the mold be engraved to mold integral embossing, or be embossed to mold integral engraving in the finished piece.

To this end mating halves 21 and 22 have integrally formed on interior surfaces 21*c* and 22*c*, respectively, thereof color code indicia 23, lead lines and arrows 24 and color area border line 25. All letters and numerals utilized as such indicia 23 or other simple instructions are applied to the interior surfaces 21*c* and 22*c* in mirror-script as is clear from FIG. 4 to be in proper legible perspective when viewed from the exterior of figurine 20 through the transparent plastic walls. Indicia 23, lead lines 24 and lines 25 and other descriptive matter to be visible through the transparent walls are suitably integrally molded therein either as embossing illustrated in FIG. 5 as color code indicia 23 and broken lines 25 projecting from surface 21*c*, or as engraving illustrated in FIG. 6 as color code indicia 123 and border lines 125 recessed from interior surface 121*c*. It will also be understood that a combination of embossing and engraving may be used to obtain desired results.

Color code indicia 23 may refer to the various ready mixed color paints supplied with figurine 20 or may refer to a color chart with instructions for mixing the various colors from black, white and primary colored paints or in any other suitable manner well understood in the art of painting by numbers.

The practical utility of the invention will now be apparent. Mating halves 21 and 22, plastic cement, coded ready mixed colored paints, paint brushes, paint thinner and instruction pamphlet may be supplied in hobby kit form. In use, mating halves 21 and 22 are first cemented together with aligning pins 21*a* engaging holes 22*a* forming cemented joint J. After sufficient hardening time elapses figurine 20 is ready for painting as shown in FIG. 2 with all color code indicia 23, lead lines and arrows 24 and color area border lines 25 visible through the transparent plastic wall or shell. Paint is then applied in accordance with the color code indicia 23 as outlined by color area border lines 25. Lead lines and arrows 24 form color code indicia 23 to small areas or lines 25 for paint color designation may be utilized where necessary. As shown in FIG. 3 the paint coating conceals indicia 23, lines and arrows 24 and border lines 25 resulting in a finished painted figurine 20.

FIGS. 7 and 9 show a modified form of the invention as a relief plaque 30 molded with a relatively thin wall of a transparent plastic resin having a front or upfacing three-dimensional surface 31 for painting in colors and an opposite or rear surface 32 on which is integrally molded or imprinted in mirror-script color code indicia 33, lead lines and arrows 34 and color area border lines 35 in a manner similar to indicia 23, lines and arrows 24 and border lines 25 of mating halves 21 and 22.

FIGS. 8 and 10 show the invention as applied to a plane surface picture 40 which is likewise molded of a transparent resinous plastic to have a relatively smooth and flat front or upfacing surface 41 for painting in colors in accordance with color code indicia 43, lead lines and arrows 44 and color area border lines 45 similarly molded or imprinted in mirror-script on the opposite or rear surface 42. Picture 40, being a molded piece, may have an integrally formed border 40*a* simulating a picture frame or shadow box effect so that the picture is ready for hanging on completion of the painting. Plaque 30 may likewise be molded with a border.

Although picture 40 is illustrated as having a flat front surface 41, it is to be understood that such upfacing surface 41 may be in bas-relief or have embossing or engraving thereon as desired to enhance the finished result. For example, surfaces 41 and 31 may be suitably engraved to render a mosaic effect to the completed work.

The term "painting instructions" is used in the claims in a generic sense to include color code indicia, lead lines and arrows, color area border lines and other simple instructions. The term "integrally molded" is intended to define embossing and/or engraving.

As understood in the injection molding art, the wall of the molded piece should be relatively thin and uniform in thickness as far as possible. The wall thickness of mating halves 21 and 22, for example, may range from about .050 of an inch for small sized figurines to about .090 of an inch for larger sizes. Color code indicia 23, lead lines and arrows 24 and color area border lines 25 may correspondingly be raised as embossing or depressed as engraving from such wall thicknesses about .020 to about .040 of an inch.

It is thus seen that there is provided a painting by numbers device of the character described in which the several objects of this invention are achieved and which are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matters herein set forth or shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

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

1. A hobby medium of the character described comprising a molded piece of transparent resinous plastic having a relatively thin wall formed with design subject matter on an upfacing surface and having an opposite surface integrally molded with painting instructions for said design subject matter, said painting instructions being in mirror-script for viewing in legible perspective from the upfacing surface side through the transparent wall, said upfacing surface being so constructed and arranged with respect to said integrally molded painting instructions to have paint applied thereto in accordance with said instructions for completing said design subject matter and concealing said instructions.

2. A hobby medium of the character described comprising a three-dimensional hollow figurine formed of an assembly of a plurality of molded resinous plastic sections cemented together, some of said sections having a relatively thin wall formed with design subject matter of a three-dimensional exterior surface and having an interior surface integrally molded with painting instructions for said design subject matter, said painting instructions being in mirror-script for viewing in legible perspective from the upfacing surface side through the transparent wall, said exterior surface being so constructed and arranged with respect to said integrally molded painting instructions to have paint applied thereto in accordance with said instructions for completing said design subject matter and concealing said instructions.

3. A hobby medium of the character described comprising a molded piece of transparent resinous plastic having a relatively thin wall formed with a relatively flat front surface for painting a picture and having an opposite rear surface integrally molded with color area border lines defining a picture to be painted on said front surface, and color code indicia integrally molded on said rear surface relative to said border lines in mirror-script for viewing in legible perspective from said front surface through the transparent wall, said front surface being so constructed and arranged with respect to said rear surface integrally molded area border lines and color code indicia to have paint applied thereto in accordance with said color code indicia for completing said picture and concealing said area border lines and color code indicia.

4. The hobby medium defined in claim 3 including an integral molded border for said picture to provide a frame structure upon completion of the painting of said front surface.

5. A hobby medium of the character described comprising a molded plaque of transparent resinous plastic having a relatively thin wall formed with three-dimensional design subject matter on an upfacing surface and having an opposite surface integrally molded with painting instructions for said design subject matter, said painting instructions being in mirror-script for viewing in legible perspective from the upfacing surface side through the transparent wall, said upfacing surface being so constructed and arranged with respect to said integrally molded painting instructions to have paint applied thereto in accordance with said instructions for completing said design subject matter and concealing said instructions.

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