Jan. 14, 1958 E. H. MARBERG 2,819,738

METHOD OF PREPARING SURFACE COATINGS

Filed May 19, 1951

Fig. 1

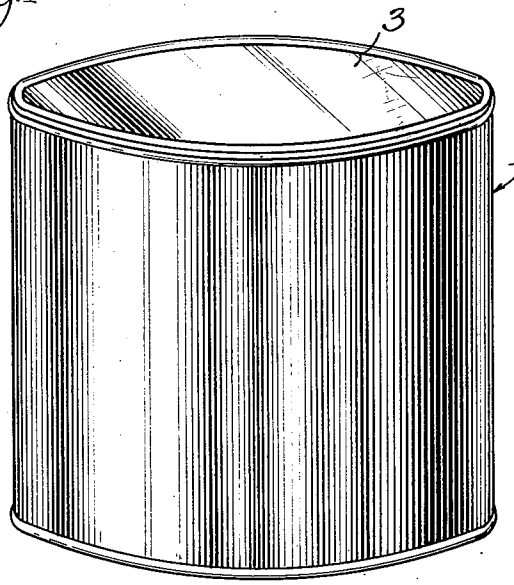


Fig. 3

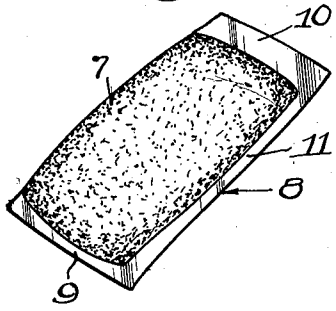


Fig. 4

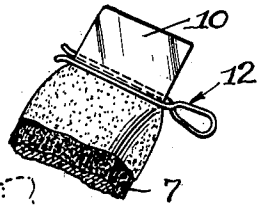


Fig. 2

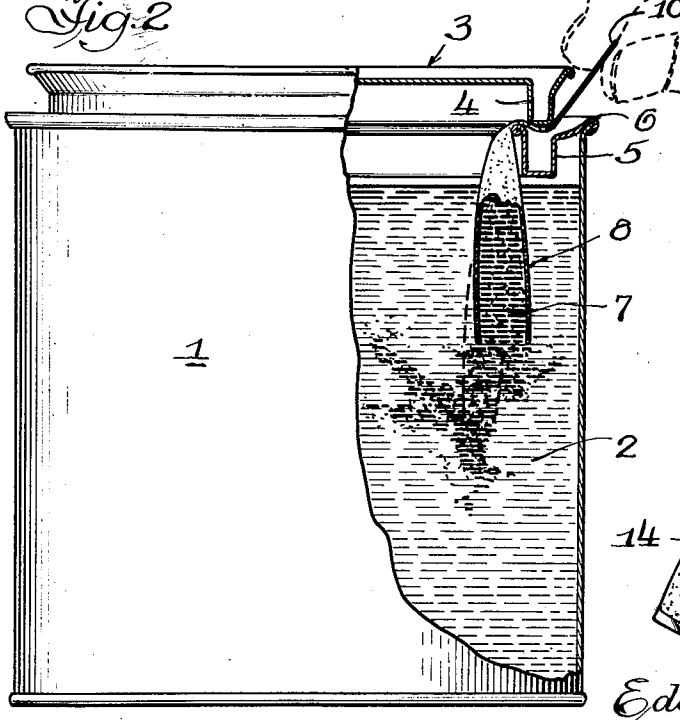
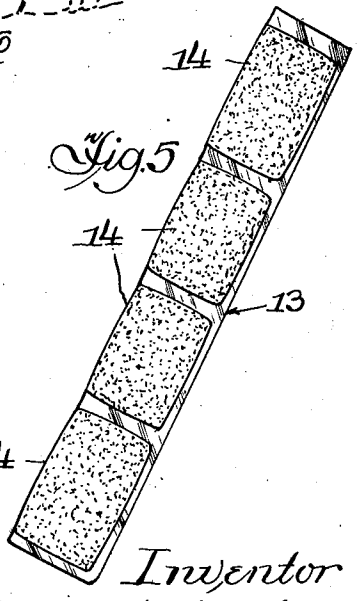


Fig. 5



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METHOD OF PREPARING SURFACE COATINGS

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3 Claims. (Cl. 141—1)

The present invention relates to the preparation of paints, enamels, lacquers, varnishes, stains or other surface covering or coating and more particularly to a novel means and manner of combining or mixing the desired coloring or pigment with the liquid base ingredients by the purchaser or user.

The usual manner of purchasing paints or other surface coatings of the type above referred to is for the prospective purchaser or user to select the desired color or colors from a color chart and then to purchase the required quantity of such pre-mixed or ready-mixed paint or surface coating from the stock of the retailer or dealer. But in order for the retailer or dealer to be able to supply such prospective purchaser with his requirements, necessitates that the retailer or dealer carry in stock each and every color of the charted surface coatings and in cans or containers ranging generally from pint or quart size cans to those containing a gallon or more. In fact, with respect to some paints, enamels and other surface coatings, these are frequently carried in stock in cans even smaller than pint size.

As paint is now supplied in each of the primary colors as well as in many mixtures or secondary colors, tints, shades, etc., the supplier or retailer of ready-mixed paints alone must maintain an exceptionally large inventory of stock on hand. The same is true of enamels and perhaps to a lesser degree with respect to varnishes, lacquers, stains, etc. Furthermore, to accommodate all such surface coatings in the many colors in which they are produced, requires tremendous shelf and storage space.

One of the important objects of the present invention is the provision of a novel method of preparing and packaging the desired color or pigment to be added to the liquid base ingredients of a surface coating or covering such as paint, enamel, lacquer, varnish, stain, etc., as well as a novel method or manner of combining such color or pigment with the base ingredients.

By reason of the present invention, the supplier, dealer or retailer of paints or other surface coatings generally supplied to the purchaser or user in numerous colors and ready mixed, is now only required to stock the base ingredients in cans or containers of the desired or required sizes, and when the purchaser or user orders a desired quantity of a selected surface coating or covering of a particular color, he is supplied with the required quantity of base ingredients devoid of color or pigment preferably in cans or receptacles, and in addition thereto with separate small bags or envelopes each containing a prescribed or measured amount of the desired coloring or pigment to be added to each can of the base ingredients of a predetermined size.

For example, with respect to paint, the stocked basic ingredients which will be common for all colors might be designated as flat, gloss or egg-shell. As the supplier, dealer or retailer is not required to carry in stock large quantities of the cans or containers of different sizes of each color, shade or tint, his stock is very materially reduced and his fire hazard is greatly lessened. In the

present novel embodiment, the dealer, retailer or purchaser when securing the desired quantity of the selected base ingredients, receives therewith the selected color or colors in small bags, envelopes or tube-like receptacles, each containing an accurately measured quantity of the color and in a fluid or paste-like condition in which it can be most readily combined or mixed with the base ingredients to produce the desired product.

In addition to the above mentioned highly important advantages resulting to the supplier of paints and other surface coatings, by thus combining or mixing the color with the base ingredients in the can or container and in the manner prescribed, a most intimate mixing and uniformity of coloring of the surface coating is assured.

Further objects, advantages and capabilities will later more fully appear and are inherently possessed by the present invention.

In the drawing:

Figure 1 is a view in perspective of a can or container of paint or other surface coating.

Fig. 2 is a view, part in side elevation and part in vertical cross section, of the can or container with the lid or cover thereof elevated and showing one way of adding the color or pigment from the bag or envelope into the contents of the can.

Fig. 3 is a view in perspective of one form of bag or envelope containing and supplying the color or pigment to the base ingredients of a paint or surface coating.

Fig. 4 is a perspective view showing another way or manner of discharging the contents of the bag or envelope containing the color or pigment.

Fig. 5 is a perspective veiw of a multiple unit package from which the separate color units are severed.

Referring more particularly to the disclosure in the drawing, the illustrative embodiment therein shown comprises a novel means and manner of supplying the base ingredients of a paint or other surface coating with a selected color or pigment. In Figs. 1 and 2 there is shown a can or receptacle 1 containing the liquid base ingredients of a paint or other surface coating 2 but devoid of color, and a lid or closure 3 for the can. This can and its lid or closure are of standard design adapted to contain and seal the contents when the flange 4 of the lid is pressed into the annular channel 5 at the upper, open end 6 of the can or container.

The present invention comprehends a novel means and manner of adding a predetermined quantity of a desired color to the base ingredients of a paint, enamel, lacquer, varnish, stain or other surface coating. As shown in Fig. 2, the can or receptacle 1 contains the base ingredients 2 susceptible of being combined or mixed with and to which any selected color or pigment 7 may be added. This color or pigment is packaged in a bag or envelope 8 formed of any suitable impervious and moisture-proof material which is preferably but not necessarily transparent. When transparent the particular color, tint or shade is visible through the bag or envelope, although the bag may be formed of an opaque or non-transparent material suitable for the purpose. The color or pigment 7 being in a liquid or fluid state, is readily added to and mixed with the ingredients of the paint base 2 in the can or receptacle 1 upon the contents of the bag or envelope being discharged into the liquid base.

Fig. 3 shows in more detail one embodiment of such a bag or envelope 8 formed of an impervious moisture-proof material capable of receiving and sealing therein a predetermined, accurately measured quantity of color or pigment 7 in a paste or fluid state and readily miscible with the liquid base 2 in the can. This bag or envelope may be of any suitable composition capable of withstanding hard usage and maintaining the contents sealed

until the color or pigment is to be removed and mixed with the ingredients in the can. Such a material or composition may be a web of flexible material such as regenerated cellulose coated or impregnated with a suitable resin, wax or plastic composition rendering the bag or envelope impervious to liquids and plastic under heat and pressure. Or the bag or envelope may be formed of "Pliofilm" or like material that is theremoplastic in character so that the ends or edges thereof may be hermetically sealed by heat and pressure, or by any suitable adhesive.

The bag or envelope 8 may be sealed at the opposite ends 9 and 10 and along an edge 11 in which event the bag may be formed as a sheet that is folded and sealed about the contents along the three edges, i. e. the opposite ends and along one side. Or, the bag or envelope may be made as a continuous, collapsible tube which requires sealing at its opposite ends only. The bag, envelope or tube-like receptacle so formed but with an end or edge open to receive the measured quantity of color or pigment, is adapted to be filled by any measuring means suitable for the purpose.

One method of discharging the contents of the sealed bag or envelope 8 into the liquid base ingredients 2 in the can 1 is to remove the lid or cover 3 and then grasp the end 10 of this bag or envelope 8 with the fingers and hold the other or lower end 9 of the bag in a depending position over the contents in the can. The lower or depending end of the bag or envelope is then severed, slit or opened in any suitable manner to allow for the discharge of the color or pigment 7 contained therein into the contents of the can. With the end 10 still grasped by the fingers in the manner shown in Fig. 2 and the opened end of the bag or envelope projecting into the contents of the can, the lid or cover 3 is placed upon or returned to the top or open end of the can with the depending flange 4 of the lid held down upon the upper end 10 of the bag or envelope adjacent the portion thereof that is grasped by the fingers.

By holding the lid or cover in the position shown, it is a simple matter to completely remove or strip the color or pigment 7 from the interior of the bag or envelope 8 and discharge it into the interior of the liquid contents 2 in the can 1, by merely pulling upon or withdrawing the bag or envelope outwardly from beneath the lid 3. As shown in Fig. 2, the color or pigment in paste or fluid state is discharged into the liquid contents or base ingredients 2 in the can in such manner that the dispersion of the color or pigment throughout this liquid base and its intimate mixing therewith to provide a paint or surface coating of a desired color or tint may be effectively accomplished by subsequent agitation of the color and base ingredients.

Although I prefer to employ the lid or cover to strip the color or pigment from the interior of the bag or envelope 3 into the contents of the can 1, this may be accomplished by employing a clip or clamp member 12 (see Fig. 4) adapted to span and tensionally grip the opposite sides of the bag or envelope, whereby by grasping and holding the end 10 of the bag or envelope and moving this clip or clamp downwardly and away from the end being grasped, the contents from the open end of the bag or envelope are discharged into the liquid base in the can and mixed therewith. Agitation of the resulting mixture causes an intimate dispersion of the color throughout the contents of the can.

Fig. 5 discloses a method and manner of packaging the colors or pigments in the form of a multiple unit envelope or container 13 in which each unit 14 may be of a size adapted to supply the requisite amount of color or pigment for the contents of a specified size can or receptacle. For example, each unit 14 may be a measured quantity of color or pigment for a quart size container of paint or other surface coating, susceptible of being intimately mixed by the purchaser or user. In the event the user purchases a half-gallon can, two of these units are required, or all four units if the purchase is of a gallon can of the base ingredients.

From the above description and the disclosure in the drawings, it will be readily apparent that the present invention comprehends a novel method, manner and means for supplying any desired color or pigment to the base ingredients of paints and other surface coatings such as enamels, varnishes, lacquers, stains, etc. Such reference to base ingredients is meant all of the ingredients, with the exception of the color, that are commonly employed in the preparation of a surface coating.

Although the color may be added by the purchaser or user, it is contemplated that such addition will generally be made by the dealer or supplier upon order or request of the purchaser, especially when such dealer or supplier is equipped with power-actuated means for quickly agitating ad thoroughly mixing the color and base ingredients.

Having thus disclosed the invention, I claim:

1. The method of producing a paint or other surface coating of a predetermined color by the admixture of a predetermined and measured quantity of pigment with a predetermined and measured quantity of non-pigmented base ingredients, which consists in supplying a predetermined and measured quantity of these base ingredients in a container having an imperforate lid removable to secure access to the contents of the container, supplying a predetermined and measured quantity of a selected pigment in a flexible and compressible envelope sealed against leakage, removing the lid of the container to secure access to the contents, slitting one end of the envelope, inserting the slitted end of the envelope into the open container for introducing the pigment from the envelope into the base ingredients in the container, placing the lid on the container in such a manner as to grip the opposite sides of the envelope between the upper edge of the container and the adjacent edge of the lid, stripping the predetermined and measured quantity of selected pigment from the envelope by withdrawing the envelope over the edge of the container and between this edge and the edge of the lid held in contact with the envelope and discharging the pigment into the base ingredients in the container and mixing the pigment with the base ingredients.

2. The method of preparing paints and other surface coatings of a desired color by the admixture of a predetermined and measured quantity of coloring matter with a predetermined and measured quantity of non-pigmented base ingredients, which comprises providing sealed envelopes each containing a predetermined and measured quantity of a selected coloring matter sufficient for coloring a predetermined and measured quantity of non-pigmented base ingredients of the surface coating, providing a predetermined and measured quantity of the non-pigmented base ingredients in a can having a lid removable to secure access to the base ingredients and provided with an annular depending flange adapted to be received in an annular channel in the top of the can, removing the lid of the can, selecting an envelope containing a predetermined and measured quantity of a selected coloring matter and placing it over the open end of the can, slitting the envelope prior to introduction into the can to permit discharge of the coloring matter from the envelope, inserting the envelope into the can with the slitted portion foremost and holding the envelope over the edge of the can, placing the lid on the can in such a manner as to grip the envelope between the upper edge of the can and the depending annular flange of the lid, stripping the coloring matter from the interior of the envelope into the base ingredients in the can by grasping and withdrawing the envelope over the edge of the can and between this edge and the depending annular flange of the lid, and mixing the stripped color with the base ingredients.

3. The method of preparing paints and other surface coatings of a predetermined color by the admixture of

a selected, predetermined and measured quantity of coloring matter with a predetermined and measured quantity of non-pigmented base ingredients, comprising the steps of providing a container with a predetermined and measured quantity of the base ingredients for producing the desired color in the surface coating, providing a selected, predetermined and measured quantity of coloring matter in a flexible, hermetically-sealed envelope sufficient, when mixed with the predetermined and measured quantity of base ingredients in the container, to produce the desired color in the surface coating, opening an end of the envelope, removing the lid from the container to secure access to the contained base ingredients, introducing the opened end of the envelope into said base ingredients, positioning the lid on the container in such manner as to grip the envelope between the upper edge of the container and the adjacent edge of the lid, grasping the other end of the envelope, and withdrawing the

envelope over the edge of the container and between the latter edge and the edge of the lid which applies pressure contact to the envelope whereby the coloring matter is discharged through the open end and mixed with the base ingredients in the container.

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