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PACKAGE OF POWDERED INGREDIENTS FOR WATER-BASE PAINT

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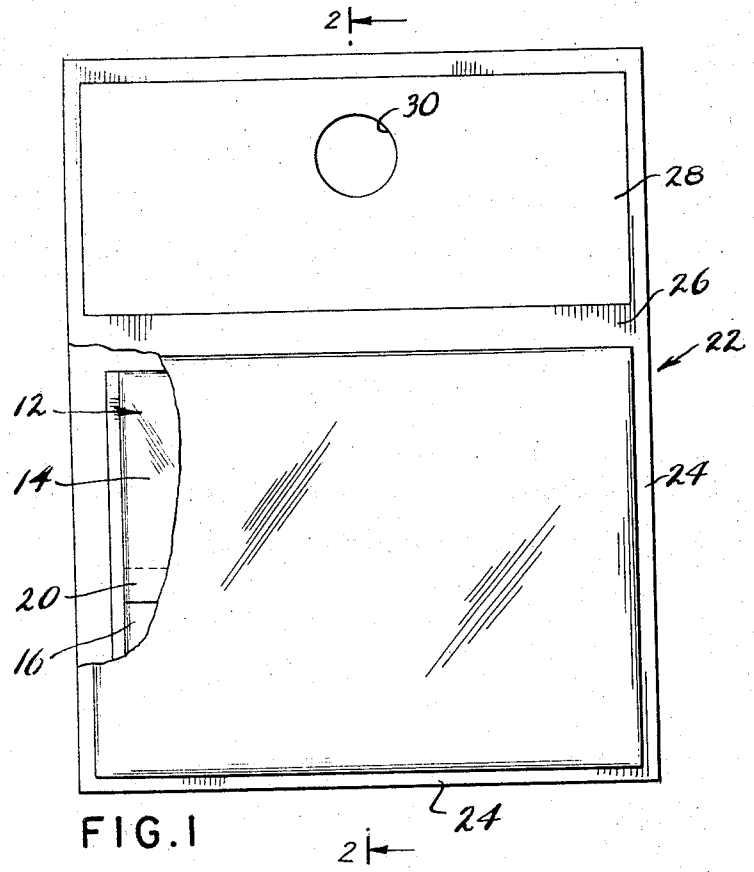



FIG. 1

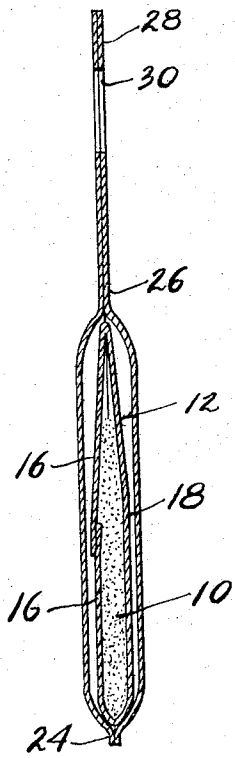



FIG. 2

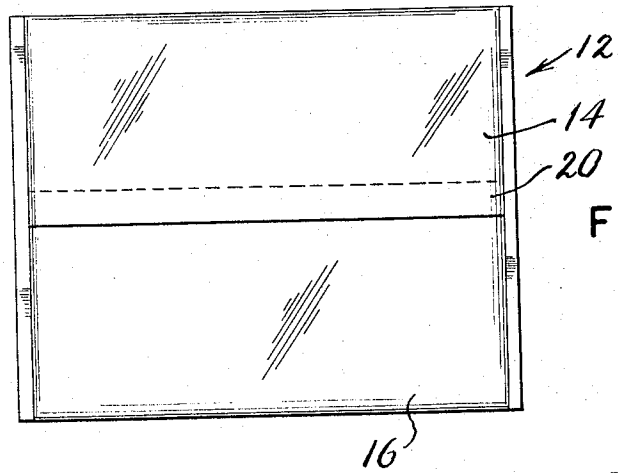



FIG. 3

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# PACKAGE OF POWDERED INGREDIENTS FOR WATER-BASE PAINT

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5 Claims. (Cl. 206—46)

The present invention relates to a paint package, and more particularly, to a package of dry, solid ingredients for a water-base paint.

Water-base paints are formed by the admixture of certain dry ingredients, in powdered form, with water. Such dry, water-base paint ingredients include a powdered paint pigment, a powdered filler substance and a powdered, soluble vegetable glue substance or gum. As such water-base paint may be readily prepared from the dry ingredients at the point and time of use, by admixing them, in desired proportions, with a desired quantity of water at such time and place, it has been a practice, for purposes of economy and convenience of shipping, to provide such paint in dry form; that is, to provide the ingredients of such paint, pre-mixed in the proper, desired proportions, for admixture with water on the site of use.

Heretofore, such dry, powdered, water-base paint ingredients were shipped and supplied in relatively large quantities, in relatively large and heavy containers, from which the powder mixture was measured out for adding to water, as required. Generally, such containers comprised cardboard cannisters. Such practice has not been entirely satisfactory for a number of reasons. Because of the hydroscopic character of vegetable glue substances or gums, the powder mixture tended to cake and solidify upon exposure to the moisture in the air and upon long standing, making the measuring out of smaller quantities of powder from the cannister rather difficult. Also such cannisters are readily permeable by air after having been once opened and are, additionally easily destructible and relatively costly to ship, because of their weight. Further, the removal of measured quantities from a cannister, especially after its contents have caked, generally results in some spoilage of the paint powders and the creation of an unsightly and undesired mess.

It is the general object of the present invention to provide a package of ingredients for a water-base paint which eliminates all of the foregoing shortcomings and possesses additional advantages over the prior practice described above.

It is, thus, one object of the present invention to provide a package of solid ingredients for a water-base paint which may be put directly into the dissolving water, so that it does not require any transference, in loose form, from the package to the water, thereby avoiding any spillage and formation of a troublesome and unsightly mess.

It is another object of the present invention to provide a package of the character described which will protect its ingredient contents from moisture and air to avoid the caking of the contents.

It is still another object of the present invention to provide a package of the solid ingredients of a water-base paint, of the character described, which is relatively economical to produce, which is compact and of light weight, and, therefore, economical to ship and store.

It is a further object of the present invention to provide a package of solid ingredients of a water-base paint, of the character described, which is non-breakable and readily and compactly disposable.

It is a still further object of the present invention to provide a package, of the character described, which may be conveniently arranged in a retail outlet for display and distribution to customers.

It is yet a further object of the present invention to provide a package, of the character described, which is



capable of receiving a substantial amount of advertising display and legend on its surface.

The foregoing and other objects and advantages of the package of ingredients for a water-base paint of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawing, and from the description following. It is to be understood, however, that such embodiment is shown by way of illustration only, to make the principles and practice of the invention more readily comprehensible and without any intent of limiting the invention to the specific details therein shown.

In the drawings:

FIG. 1 is a plan view of a preferred embodiment of a package of solid ingredients for a water-base paint of the present invention;

FIG. 2 is a section taken on line 2—2 of FIG. 1; and

FIG. 3 is a plan view of the package of the invention with the outer wrapper removed.

Generally stated, the present invention resides in the use of an inner and outer wrapper for the solid paint ingredients; the inner wrapper consisting of a film formed of a water-soluble synthetic plastic material; the outer wrapper consisting of an air and moisture-impervious film and being hermetically sealed. I have discovered that the inner water soluble wrapper for the paint powder and its contents may both be readily and easily dissolved in water; the presence of the water soluble glue in the paint powder not interfering with the solubility of the glue, and that both, the glue and the inner wrapper film dissolve rapidly and completely in the water, without any untoward or undesirable effect on the quality or color of the resulting paint preparation.

Referring now, in greater particularity, to the embodiment of the invention illustrated in the accompanying drawing, the same is shown to consist of a paint powder mixture, **10**, consisting, as specified above, of a finely pulverized, water-dispersible filler substance of any type conventionally used for the purpose, such as calcium carbonate; and finely pulverized vegetable glue substance or gum, such as a corn-derived dextrose glue or gum tragacanth or gum arabic. The several powdered ingredients may be present in the mixture in the appropriate proportions required for the purpose.

The mixture of paint powder is enclosed within an inner envelope or bag, generally designated as **12**, which is formed of a film of water-soluble, synthetic plastic material, such as polyethylene oxide, or of other composition, such as are readily available on the market. The water soluble envelope **12** may be formed of an elongated, rectangular strip of film, whose end sections, **14** and **16**, are folded over on a center panel, **18**, with their edges overlapping, as at **20**, with the longitudinal edge portions of the strip and the overlapping edge portions of the ends heat-sealed to enclose the paint powder.

The inner water soluble envelope **12** is enclosed in a hermetically sealed outer wrapper or envelope, generally designated as **22**, which is preferably formed of a strip of air and water-impervious synthetic plastic film that is folded over on itself and has its longitudinal marginal edge portions heat sealed, as at **24**, and is provided with a transverse heat seal as at **26**, to form a hermetically sealed pocket for the inner envelope **12**. If desired the longitudinal ends of the strip forming the envelope **12** may be extended to form a stem portion **28**, of double thickness, in which may be formed an opening **30**, by which the package may be suspended from a hook, for display purposes for ready removal for dispensing.

I have found that the paint powder package of the present invention may be easily and conveniently used by removing the outer envelope **22** and immersing the inner envelope **12** with its contents, in its closed form,

into a vessel containing the desired, measured quantity of water. I have found that the film of the inner envelope dissolves freely and easily in the water, depositing its contents therein, and that the powdered glue component of the contents is likewise dissolved readily and rapidly in such water, without interfering with one another and without affecting the color of the resultant product, leaving the insoluble components of pigment and filler in suspension therein to form a water-base paint of equal, if not improved, quality as compared to the water-base paints formed with the loose, powdered ingredient mixtures heretofore used.

This completes the description of the package of solid ingredients for a water-base paint of the present invention and the method of its use. It will be readily apparent that such package is of light weight and compact and, therefore, easy and economical to store and transport; that it will fully preserve its contents in free-flowing powdered form against the effects of atmosphere elements; that it may be easily and conveniently used without creating a mess in the area of its use, and that it produces a water-base paint of equal if not improved quality as compared with conventionally packaged corresponding water-base paint ingredients.

It will be further apparent that numerous modifications and variations in the package of the present invention may be made by anyone skilled in the art, in accordance with the principles of the invention hereinabove set forth, without the exercise of any inventive ingenuity. I desire, therefore, to be protected for any and all such variations and modifications that may be made within the spirit of the invention and the scope of the claims hereto appended.

What I claim is:

1. As an article of manufacture, a package of material for forming a water-base paint comprising a sealed envelope formed of a water soluble synthetic plastic material, an admixture of powdered ingredients of a water-base paint enclosed within said envelope, and a hermetically-sealed, air and moisture-impervious envelope enclosing said water soluble envelope.



2. As an article of manufacture, a package of ingredients for preparing a water-base paint comprising an admixture of finely comminuted paint pigment, finely comminuted filler material, and finely comminuted water soluble glue, an envelope formed of a water soluble synthetic plastic material enclosing said admixture of powders and an outer hermetically-sealed air and moisture-impervious envelope enclosing said water soluble envelope.

3. The package of claim 2, wherein said outer envelope comprises a thermoplastic synthetic plastic material.

4. The package of claim 2, wherein said outer envelope is formed with an extension, said extension having an opening provided therein whereby said package may be suspended from a hook.

5. The package of claim 2, wherein said water soluble envelope comprises a strip of water soluble synthetic thermo-plastic film, said strip having opposed end portions folded over on a center portion thereof, with the edge portions of said end portions overlapping, the overlying longitudinal edges and the overlapping end portion edges heat sealed to one another.

**References Cited by the Examiner**

UNITED STATES PATENTS

| | | | |
|---|---|---|---|
| 2,349,672 | 5/1944 | Nielson. | |
| 2,750,027 | 6/1956 | Cummings | 206—0.5 |
| 3,072,528 | 1/1963 | Kludas et al. | 206—46 |
| 3,116,827 | 1/1964 | Gilchrist | 206—47 |
| 3,186,869 | 5/1965 | Friedman | 206—84 |


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