March 6, 1962 A. L. SCHWARTZ 3,023,884

PALETTE WITH PAINT CONTAINER

Filed March 21, 1958

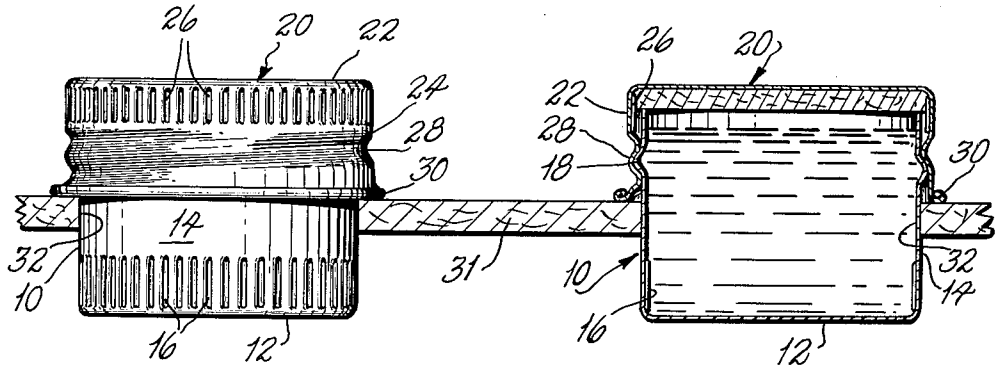


Fig. 1

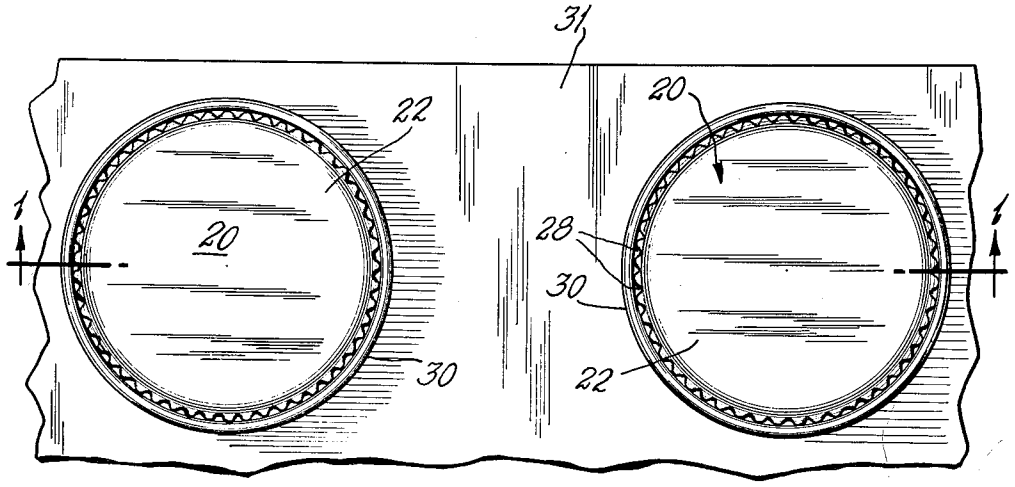


Fig. 2

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United States Patent Office 3,023,884 Patented Mar. 6, 1962

3,023,884

PALETTE WITH PAINT CONTAINER

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Filed Mar. 21, 1958, Ser. No. 723,007
4 Claims. (Cl. 206—1.7)

The present invention relates to packages for small quantities of material, and especially to expendable packages for small quantities of material that is relatively perishable and requires to be covered when not in use to make possible a number of intermittent uses of its contents.

The present invention is particularly directed to the provision of small volume packages for oil paints for use in oil painting kits, such as "Paint by the Number" painting kits, in which a plurality of small, differently numbered or identified oil paint packages each containing a differently colored oil paint are set into suitable openings formed in a flat body, such as a cardboard or a pallet where they are held together, both, during storage and use.

Numerous and various types of expendable packages have been attempted for the purpose aforesaid. Many of these have been in use. However, all such packages as previously used for oil paints in oil painting kits have had certain disadvantages or drawbacks. They were either expensive to make; difficult to fill; difficult to close or seal after filling; not convenient to use; or difficult to recover or re-seal after the initial use in a manner to preserve the contents for any length of time in suitable condition for re-use. Those oil paint containers of the prior art which possessed the least number of the foregoing disadvantages were generally too expensive to be expendable or to be practical to provide in adequate numbers in any kit at a reasonably low price. Those containers of the prior art which were sufficiently cheap to produce exhibited the greatest number of the other disadvantages.

It is an object of the present invention to provide packages for small quantities of material, such as oil paint, of the character and for the purpose described above which may be so economically mass produced so that they may be used in great numbers in any single kit without materially enhancing the cost of such kit.

It is also an object of the present invention to provide containers for small quantities of material of the character described which may be easily and rapidly and conveniently mass produced in the larger quantities required.

It is another object of the present invention to provide containers of the character described which may be easily and securely assembled with a supporting board or pallet.

It is still another object of the present invention to provide containers of the character described which may be easily and conveniently and rapidly filled by the simultaneous filling of large numbers of them.

It is yet another object of the present invention to provide containers of the character described which may be easily, quickly and mechanically closed by automatic mechanical equipment to provide a superior initial closure for the container to adequately preserve its contents.

It is a further object of the present invention to provide containers of the character described which may be readily opened or unsealed for use and then may be readily and effectively and safely resealed or reclosed for further later uses.

It is a still further object of the present invention to provide containers of the character described which, though, readily expendable because of their low cost are yet strong and sturdy and will stand up to and will not be easily damaged or distorted by even rough handling.

It is yet a further object of the present invention to provide containers of the character described which are of attractive appearance and enhance the appearance of any painting kit with which they are used.

The foregoing and other objects and advantages of the containers of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawings 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 fragmentary sectional and partly elevational view, on an enlarged scale, showing a pallet or similar device holding a pair of the packages of the present invention; one of the packages being shown in full elevation and the other of the packages being shown in section and filled; said view being taken on line 1—1 of FIG. 2; and

FIG. 2 is a top plan view of the fragment of the pallet and two containers shown in FIG. 1.

Referring now in greater detail to the embodiment of the invention illustrated in the drawings, each of the packages comprise a cup-shaped receptacle or container, 10, of preferably cylindrical shape. The container 10 is preferably formed of thin sheet metal, or similar rigid material suitable for the purpose that may be stamped or molded by mass production means. The container 10 is preferably of substantially uniform diameter and is formed with a bottom wall, 12, that is preferably flat and with a cylindrical upright wall 14, the lower portion of which is preferably ribbed or corrugated as at, 16, to provide adequate rigidity for the relatively thin wall of the container, and the upper portion of which is provided with a thread, 18, for receiving, in threaded relation, a cover or cap generally designated as 20. The cap 20 may be of relatively conventional cup shape, having a flat top wall, 22, and depending cylindrical wall, 24, the upper end of which is knurled, as at 26, and the lower portion of which is threaded as at 28, and is provided with a flaring flange 30 at its edge.

In use, the receptacle 10 and cap 20 may be separately stamped or molded, as may be desired. A plurality of the containers 10 may then be arranged in regularly spaced order, in upright position, on a suitable rack, for simultaneous filling by a filling machine, such as described in U.S. Patent No. 2,784,745. After the containers 10 are filled, they may be put through an automatic capping machine which threads the caps 20 on the containers. Thereafter, selected containers holding different colored paints may be automatically set into a board or pallet, 31, in its openings, 32, that have previously been formed therein, in which holes the containers 10 fit snugly and in which all of the containers will be evenly inserted due to the effect of the flange 28 of each container cap 20, that will retain all of such containers at an even level within the pallet 30.

This completes the description of the small quantity packages for oil paint, or the like, of the present invention and the manner in which they are filled, assembled and used in an oil painting kit. It will be readily apparent that such paint packages may be formed, at low cost, of very thin metallic sheet material by economical mass production methods; that such packages although light-bodied and of light weight are relatively rigid and durable by reason of the vertical ribbing on the portions immediately adjacent the flat walls thereof which renders the upright walls vertically rigid and by reason of the

threading provided adjacent their edges which reinforces them against bending or caving inwardly.

It will also be apparent that the packages of the present invention may be easily, conveniently and economically filled, a great number at a time, and may have their component parts threaded upon one another by automatic, economical means at great speed. It will additionally be apparent that multiple of such packages may be easily assembled with a palette, where they will be retained in uniform arrangement, by the lips on their caps, and that they may be repeatedly opened and reclosed for repeated use, to preserve their contents against evaporation and drying during the periods between uses.

It will be further apparent that numerous variations and modifications may be made in the packages of the present invention by anyone skilled in the art, in accordance with the principles of the invention hereinabove set forth and 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. A reusable package for small quantities of material, comprising, in combination, an open top, thin-walled cylindrical container of rigid sheet material, said container having a bottom wall and an upright wall and having vertically extending corrugations formed in the lower portion of said upright wall and spiral threads formed in the upper portion of said upright wall, and a thin-walled cap comprising a top wall and a depending cylindrical wall, said cylindrical wall vertically knurled at its upper portion and having spiral threads on its lower portion engageable over the spiral threads of said container.

2. A reusable package for small quantities of material, comprising, in combination an open top, thin-walled cylindrical container of rigid sheet material, said container having a bottom wall and an upright wall and having vertically extending corrugations formed in the lower portion of said upright wall and spiral threads formed in the upper portion of said upright wall in spaced relation to said vertically extending corrugations, and a thin-walled cap having a top wall and a depending cylindrical wall, said cylindrical wall vertically knurled at its upper portion and having spiral threads on its lower portion engageable over the spiral threads of said container, said cap having an outwardly extending lip on the edge of the opening thereof.

3. A palette for a painting kit comprising a plate having a plurality of openings of uniform shape formed therein and a paint package snugly disposed within each of said openings, said paint packages each comprising an open top, thin-walled, cylindrical container of rigid sheet material, said container having a bottom wall and an upright wall and having vertically extending corrugations formed in the lower portion of said upright wall and spiral threads formed in the upper portion of said upright wall, said threaded portion of said upright wall projecting above said plate and said corrugated portion of said upright wall projecting below said plate, and a closure cap, including a threaded cylindrical portion engageable over the threaded portion of said container, said cap having an outwardly extending lip on the edge of the opening thereof, said lip engageable against the marginal edge portions of the opening within which the package is disposed.

4. A palette for a painting kit comprising a plate having a plurality of openings of uniform shape and a paint package disposed within each of said openings, each of said paint packages each comprising an open top, thin-walled cylindrical container of rigid sheet material, said container having a bottom wall and an upright wall and having vertically extending corrugations formed in the lower portion of said upright wall and spiral threads formed in the upper portion of said upright wall, said threaded portion of said upright wall projecting above said plate and said corrugated portion of said upright wall projecting below said plate, and a thin-walled cap having a top wall and a depending cylindrical wall, said cylindrical wall vertically knurled at its upper portion and having spiral threads on its lower portion engageable over the spiral threads of said container, said cap having an outwardly extending lip on the edge of the opening thereof, said lip engageable against the marginal edge portions of the opening within which the package is disposed.

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