June 30, 1964 J. T. DARCY 3,139,220

PAINT DISPENSER

Filed Jan. 10, 1962

Fig. 1

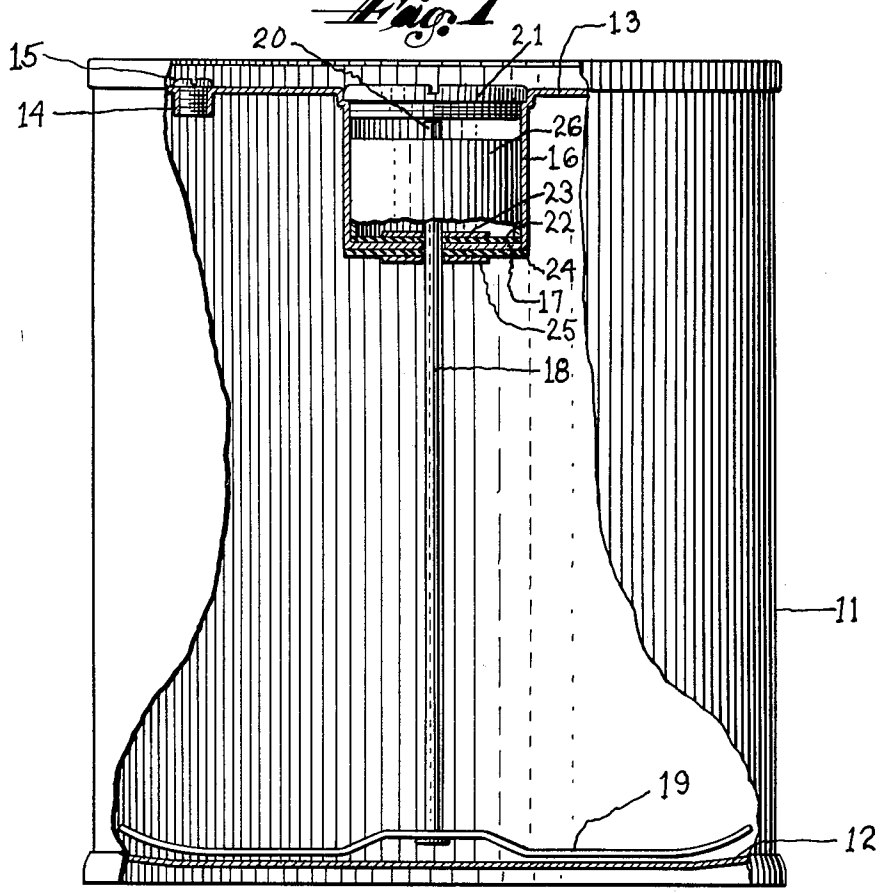


Fig. 2

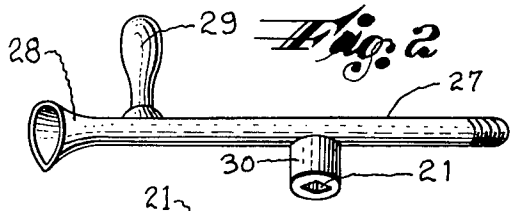
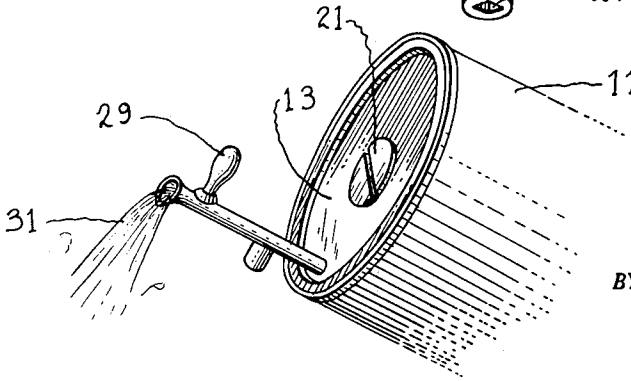


Fig. 3



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3,139,220
PAINT DISPENSER

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My paint dispenser relates generally to shipping containers for paints, and particularly to containers having provisions therein for mixing and dispensing the paint in the container.

It is among the objects of my invention to provide a shipping container which will seal the paint contained therein against deterioration through exposure to the atmosphere, against leakage, and evaporation of the fluid vehicle.

It is yet another object of my invention to provide a paint dispenser including means for agitating the paint in order to thoroughly homogenize it.

Yet a further object of my invention is to provide a paint dispenser which includes provision for pouring the paint.

Yet a further object of my invention is to provide a paint dispenser which preserves the paint contained therein for use at repeated intervals, and protects it during those intervals from deterioration, while enabling the paint to be homogenized for usage after a lapse of time.

These objects and advantages as well as other objects and advantages may be attained by the device shown by way of illustration in the drawings in which:

FIGURE 1 is a vertical sectional view of a paint dispenser, with a portion of the front wall exploded away to show the interior construction;

FIGURE 2 is a view in perspective of a combination crank and pourer; and

FIGURE 3 is a view in perspective of the container with the pourer attached.

The purchase of paint invariably involves the homogenizing of the paint composition, since there is separation and settling of the various components. This frequently results in deterioration of the paint, due to excessive exposure to the atmosphere, or the spilling of quantities of paint, or the depositing of paint in the lid channels of the paint container; when the container is resealed by application of the lid, the subsequent removal of the lid is very difficult. In addition, after the paint is mixed, to pour the paint into a suitable container so that it may be conveniently applied to a surface, may involve the spilling of paint. In order to avoid these problems, the present invention provides a paint dispenser in which a mixer or paddle is arranged so that the paint may be mixed and conditioned for use without excessive exposure to the atmosphere. In addition, the crank for mixing the paint serves the dual function as a convenient pourer for the discharge of the paint.

Referring now to the drawings in detail, the figures show a housing **11**. This housing **11** is preferably tubular and provided with a bottom **12** and a top **13**. The top **13** is provided with a discharge aperture **14**, which is threaded and which receives a threaded plug **15**. Disposed concentrically with the central axis of the housing **11** is a generally tubular cup **16** or depression formed integrally therewith, and closed at the bottom **17**. This cup **16** has a central aperture in the bottom **17**, through which passes the mixer shaft **18**. A mixer or paddle **19** is attached to the bottom of the shaft **18**. The top of the shaft is provided with a generally squared key-portion **20**, dimensioned to fit a generally squared socket **21** hereinafter referred to. The top of the cup **16** is threaded to receive a threaded plug **21**. Surrounding the mixer shaft **18** at the point where it passes through the bottom **17**, there is a tightly fitted seal-ring **22**. Lying over the seal-ring **22** is

a retainer **23** which frictionally engages the mixer shaft **18** so as to hold the seal **22** close to the bottom **17** and the paddle **19** suspended just above the bottom **12**. Immediately below the bottom **17**, and surrounding the mixer shaft **18**, there is another seal-ring **24**. This seal-ring **24** is held in place by the washer **25** which frictionally engages the shaft **18**. The seal-rings **22**, **17** prevent the paint from the container from leaking out along the shaft **18**.

A thimble **26** is attached in the cup **16**. This thimble is open at the bottom, and closed at the top, except for a central aperture, through which the top of the shaft **18** passes. The thimble **26** serves to hold the shaft **18** for rotation in strict axial position within the housing **11**.

A tubular crank **27** is provided. This crank **27** is externally threaded at one end and has a flared pouring lip **28** at the other end. Extending radially from the crank **27**, is a handle **29**, and extending downwardly from the crank **27** is an enlargement **30**. The enlargement **30** has a key-socket **21** on its lower face which key-socket **21** is dimensioned to receive and to engage the top **20** of the shaft **18**.

In use, the plug **21** is removed from the center of the container **11**, and the socket **21** applied to the top **20** of the shaft **18**. Using the handle **29**, the shaft **18** is rapidly rotated, causing the paddle to create convection currents in the paint in the container, and after a time, mixing that paint thoroughly until it is ready for use.

The cap **21** is then reapplied, and the cap **15** removed. The threaded end of the tubular crank **27** is then inserted in the threaded aperture **14** and engaged therewith. The housing **11** is then tilted, supported by one hand, and governed by a grip on the handle **29**. The paint **31** then pours forth in a controlled manner.

The foregoing description is merely intended to illustrate an embodiment of the invention. The component parts have been shown and described. They each may have substitutes which may perform a substantially similar function; such substitutes may be known as proper substitutes for the said components and may have actually been known or invented before the present invention; these substitutes are contemplated as being within the scope of the appended claims, although they are not specifically catalogued herein.

What is claimed:

1. A paint dispenser comprising,
   (*a*) a housing having a discharge orifice,
   (*b*) a generally tubular depression in the housing having a central aperture for a shaft,
   (*c*) a rotatable shaft extending from outside into the housing through the central aperture in the depression,
   (*d*) an inverted generally tubular thimble attached to the shaft near the top and rotatable in the depression with the shaft,
   (*e*) a paddle in the housing mounted on the shaft,
   (*f*) a tubular crank having a passage extending therethrough attachable to the shaft outside the housing,
   (*g*) the tubular crank attachable at one end of the passage, to the discharge orifice of the housing.

2. A paint dispenser comprising,
   (*a*) a housing having a discharge orifice,
   (*b*) a rotatable shaft extending from outside into the housing,
   (*c*) a paddle in the housing mounted on the shaft,
   (*d*) a tubular crank having a passage extending therethrough,
   (*e*) a central bottom enlargement on the tubular crank with a key-socket dimensioned to closely receive and engage the top of the shaft,
   (*f*) the tubular crank attachable at one end of the passage to the discharge orifice of the housing,

(*g*) the other end of the passage in the tubular crank having an outflared pouring lip.

3. A paint dispenser comprising,

(*a*) a tubular housing having a top discharge orifice,

(*b*) a generally tubular, coaxial, depression in the top of the housing with a central aperture for a shaft,

(*c*) a rotatable shaft extending from outside into the housing through the aperture in the depression,

(*d*) a fluid resistant seal on the shaft at the point where it passes through the aperture in the depression,

(*e*) a key on the top end of the shaft,

(*f*) a paddle in the housing mounted on the bottom of the shaft and rotatable in close conformity with the bottom thereof,

(*g*) an inverted, generally tubular thimble attached to the shaft near the top below the key and rotatable in the depression with the shaft, whereby the shaft is coaxially centered for rotation,

(*h*) a tubular crank having a passage extending therethrough,

(*i*) a central bottom enlargement on the tubular crank with a key-socket dimensioned to closely receive and engage the key on the top end of the shaft,

(*j*) one end of the tubular crank attachable at one end of the passage to the discharge orifice of the housing,

(*k*) the other end of the passage in the tubular crank having an outflared pouring lip.

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