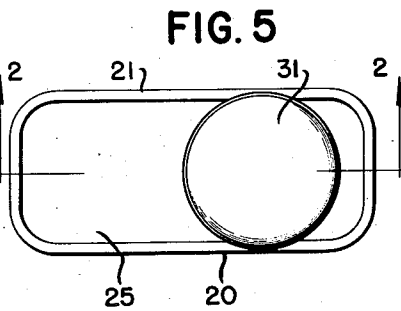
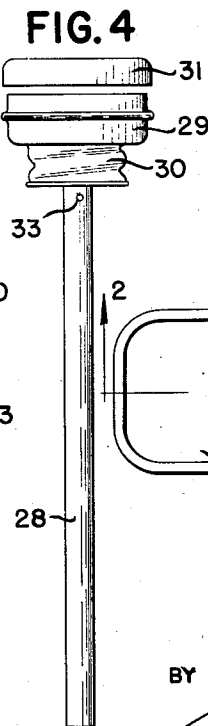
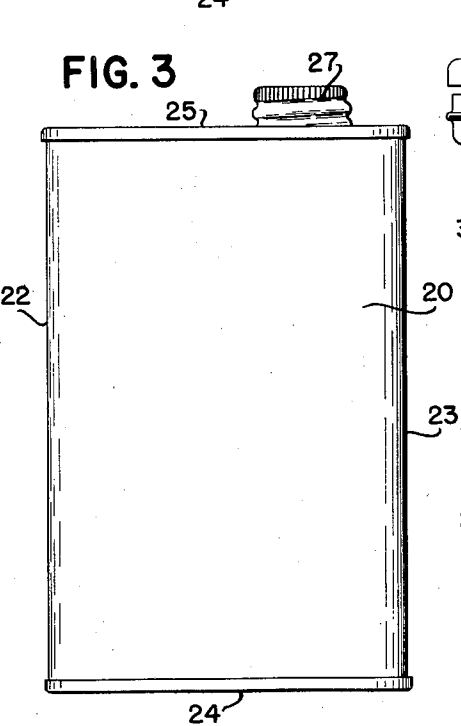
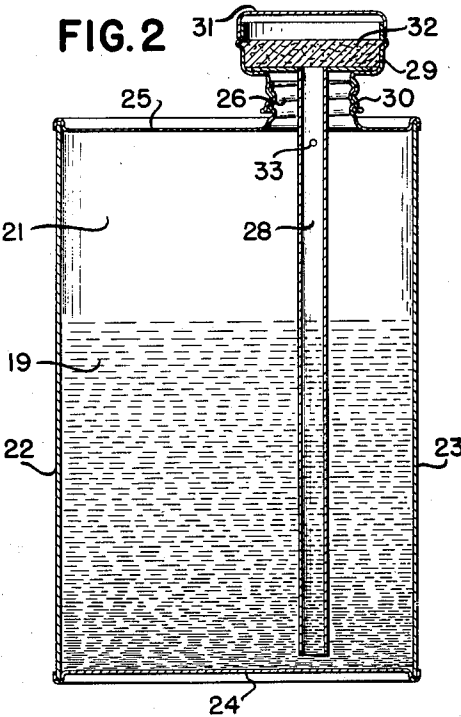
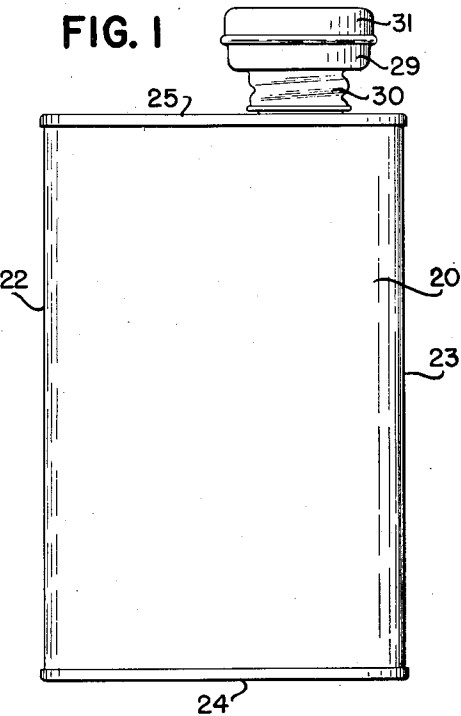


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P. A. MacPHEE
FLUID DISPENSING CONTAINER

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FLUID DISPENSING CONTAINER

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2 Claims. (Cl. 222-205)

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This invention relates to a fluid dispensing container, and more particularly pertains to one having an absorbent pad fed with fluid upon pressure being applied to the resilient walls of a fluid storage chamber thereof.

Although the greatest utility of the dispenser is as a combined ink container and ink stamp pad, it is useful for any purpose where repeated acts of moistening of an exposed absorbent pad is necessary. Any fluid may be used in the container. For example, perfumes or air conditioning fluids may be used, the pad being moistened at required intervals by squeezing the container, the pad acting as an evaporator. Water may be used as a moistener for any desired purpose. The fluid may be a liquid fuel and the device used as a torch by soaking the pad with the liquid fuel and igniting it, the pad being re-soaked at intervals by squeezing the container.

One feature this novel dispensing container provides is a suction drainage of the fluid after the pad has been flooded, leaving only capillary-held fluid in the pad. Rapidly evaporating fluids are protected as the main body of the fluid is not exposed.

Ink-impregnated porous rubber hand stamps are widely used, now, for marking grocery articles in self-serve stores. It is essential that ink applied to such articles dries quickly so it will not come off on customer's clothing. The rapid drying characteristics of such ink cause such hand stamps to dry rather quickly and they must be re-inked at frequent intervals by bringing them into contact with a very moist ink pad. The ink taken from such a pad by porous printing members is considerable and means must be provided to re-ink the pad at intervals. This novel container provides such means.

The container essentially is a resilient-walled can having an opening in which is inserted a drop pipe through which the contained liquid is ejected into a pan secured to its top. The pipe is sealed to the can opening and is sealed to an opening in the bottom of the pan so that liquid ejected into the pan by squeezing the can walls is drawn back into the can as the walls are released and returned to normal except for the liquid which is retained in the absorbent pad placed in the pan.

Therefore, it is an object of this invention to provide a fluid dispensing container having a fluid storage compartment, an absorbent pad, and means to flood the pad with fluid from the compartment.

Another object of the invention is to provide

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such a container with resilient walls, squeezing action on which floods the pad with the fluid.

A further object of the invention is to provide such a container wherein return of the resilient walls to normal position creates a suction which drains excess fluid from the pad.

A still further object of the invention is to provide such a can in which the fluid is ejected through a drop pipe, the lower end of which is below the fluid level in the fluid compartment and the upper end of which ends in a pan holding an absorbent pad.

With these and incidental objects in view, the invention includes certain novel features of construction and combinations of parts, a preferred form or embodiment of which is hereinafter described with reference to the drawing which accompanies and forms a part of this specification.

Of the drawing:

Fig. 1 is an elevation of the dispenser with a cap on the top of the pad-holding pan,

Fig. 2 is a vertical sectional view taken on the line 2-2 of Fig. 5,

Fig. 3 is an elevation of the dispensing can without the drop pipe, pan or pipe, and with a cap sealing the opening for shipping purposes,

Fig. 4 is an elevation of the drop pipe, pan and pan cap unit as removed from the can, and

Fig. 5 is a top plan view of the device shown in Fig. 1.

The can, which has substantially a rectangular cross section, has compressible side walls 20 and 21, end walls 22 and 23, a bottom 24, and a top 25 with a threaded neck opening 26 (Fig. 2) extending upwardly therefrom.

In shipment the can, filled with liquid 19, is provided with a sealing screw cap 27 (Fig. 3) screwed onto the neck opening. In use a dispensing unit (Fig. 4), having a drop pipe 28, a pan 29 into the inner bottom of which the upper end of pipe 28 opens, a screw collar 30 forming an extension of the bottom of the pan and adapted to be screwed on the outside of neck 26, and a lid 31, is inserted into the can after the screw cap 27 has been removed. The inside of pan 29 is furnished with an absorbent pad 32.

Pressure on the sides of the can forces liquid 19 (Fig. 2) up the pipe, flooding the pad. When the liquid forms a pool on top of the pad the sides of the can are released so they return to normal position sucking the excess liquid down the pipe, leaving the pad saturated. To this end, the collar 30 forms an air and liquid seal with neck 26, as does pipe 28 with pan 29.

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Pad 32 preferably is made of felt or other fibrous absorbent material. The can preferably is made of light gauge metal or plastic sheeting.

In use, the cap 27 is removed and the unit of Fig. 4 inserted and screwed down. The lid 31 is removed and the sides of the can squeezed until liquid appears above the pad. The sides are then released to create a reduced pressure in the can to draw the excess liquid from the pan and down pipe 28. As pad 32 is porous the level of liquid in the pipe will seek the level of the liquid outside the pipe. The suction of excess liquid from the pan leaves the pad saturated and ready for use. A porous printing member to be re-inked is merely placed in contact with the pad. The lid is replaced to prevent evaporation of the fluid.

Inasmuch as the ink chamber is closed except for the drop pipe, there may be some danger of the fluid in the chamber being forced out if the container is subjected to high temperatures or if there is an abrupt change of barometric pressure. To prevent such accidents a small bleed hole 33 is provided in the portion of the drop pipe which is inside the container above the fluid level.

A wick (not shown) may be provided within the pipe to aid in elevating the fluid column therein as the fluid reaches a low level.

What is claimed is:

1. A fluid dispensing container including, in combination, a resiliently walled fluid chamber having a fluid receiving space; a pipe extending from the fluid receiving space of the chamber outwardly from the chamber, the outside of said

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pipe being sealed to the chamber wall, said pipe being provided with a bleed hole in the pipe portion within the chamber above the fluid level; and a pan located outwardly of the chamber, said pipe extending into the inside of said pan.

2. A fluid dispensing container including, in combination, a can having resilient walls and a threaded spout; a unit having a pipe, a portion of which pipe may be inserted into the can through the spout and screw-sealed thereto; said unit also having a pan-like container connected to the pipe on the portion of the pipe extending outside of the can, said unit also having a bleed hole communicating between the inside of the pipe and the can above the fluid level in the can.

PAUL A. MacPHEE.

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