SAFETY CLOSURE FOR AN AEROSOL CONTAINER

Inventor: Benjamin K. Milbourne, Sr., 7934 W. Third St., Los Angeles, Calif. 90048

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Primary Examiner—Robert B. Reeves
Assistant Examiner—H. Grant Skaggs

ABSTRACT

A safety closure is provided for an aerosol can which is difficult of manipulation except by an adult.

1 Claim, 4 Drawing Figures
SAFETY CLOSURE FOR AN AEROSOL CONTAINER

This is a continuation, of application Ser. No. 298,564 filed Oct. 18, 1972 now abandon.

BACKGROUND OF THE INVENTION

Many products such as paints, insecticides, hair sprays and the like are dispensed in the form of an aerosol. As typically provided, the aerosol is released by a manually operated valve which is moved to open position upon depression of a plunger.

SUMMARY OF THE INVENTION

It is in general the broad object of the present invention to provide a lock for a valve on an aerosol can of such a nature that it is difficult of manipulation except by an adult having adequate strength and dexterity.

An additional object of the present invention is to provide a lock for a valve on an aerosol container which lock is of such a nature that it cannot be readily manipulated by a child.

The invention includes other objects and features of advantage, some of which, together with the foregoing, will appear hereinafter when the present preferred form of embodiment of this invention is disclosed.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing a typical aerosol with the safety mechanism in open position.

FIG. 2 is a section taken through a portion of the aerosol can.

FIG. 3 is a section taken along the line 3—3 in FIG. 2.

FIG. 4 is a section taken along the line 4—4 in FIG. 1 showing the details of the lock.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A typical aerosol can is indicated generally at 6. It includes a tightly fitting cover portion 7 fitting frictionally on the top of the can 6 and separable therefrom. The can 6 includes an annular top 8 engaged by a depending annular skirt 9 on the cover portion 7. The can includes a valve mechanism, generally indicated at 11, and which is operated by an upwardly extending rod 12. A movable plunger 13 is mounted in annular skirt 9 on the top 7. Upon depression of the plunger 13, the rod 12 is depressed to open the valve 11 to release the contents of the can. A discharge orifice 16 is provided in an extension 17 on the plunger 13. The valve 11 is in communication with the orifice 16 through a passageway (not shown) in the plunger 13.

In accordance with this invention, I mount upon a side of the cover 7 a movable door 21, the latter being so fashioned that it normally fits snugly in position over an arcuate side opening 22 provided in the top 7. The cover includes a projection 23 which fits beneath the plug 17 when the door is closed and so prevents the latter and the plunger 13 from being depressed so that the valve 11 cannot be opened to release the contained aerosol. The door 21 is so hinged and fashioned that a child cannot engage and open the door once it is properly closed in which position it conceals the plug 17 and the orifice 16.

I claim:

1. An aerosol dispenser, comprising a cylindrical can having opposite closed ends, one of said ends including a reduced diameter upstanding portion having an axial opening therethrough, normally closed manually operable valve means in said opening, an up-standing valve actuating rod connected with the valve means and extending axially outwardly from said one end of the can, a cylindrical cap of substantially the same diameter as the can removably frictionally secured on said one end of the can and having an axial opening therethrough and a radially extending opening through one side thereof in communication with the axial opening between the ends of the axial opening, a manually operable plunger secured on the valve actuating rod and slidably received and guided in the axial opening in the cap for engagement of the plunger externally of the cap to reciprocate the plunger and actuate the valve means when the plunger is depressed to dispense material from the can, said plunger being elongate in an axial direction and having a substantial side wall portion thereof engaged in the axial opening to prevent tipping of the plunger, a radially extending discharge extension on one side of the plunger and received in the radially extending opening in the cap, a hinged door carried by the cap for swinging movement about an axially extending hinge means into open and closed positions over the radial opening and discharge extension, and a projection on an inner surface of the door engageable beneath the extension to prevent operation of the plunger and valve means when the door is closed.

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