

Sept. 16, 1969

R. A. BUTCHER

3,467,243

CONTAINERS FOR AEROSOL CANS

Filed April 3, 1968

2 Sheets-Sheet 1

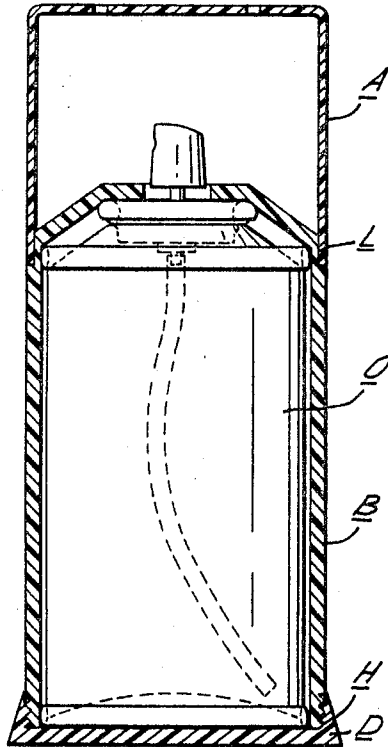


Fig. 1.

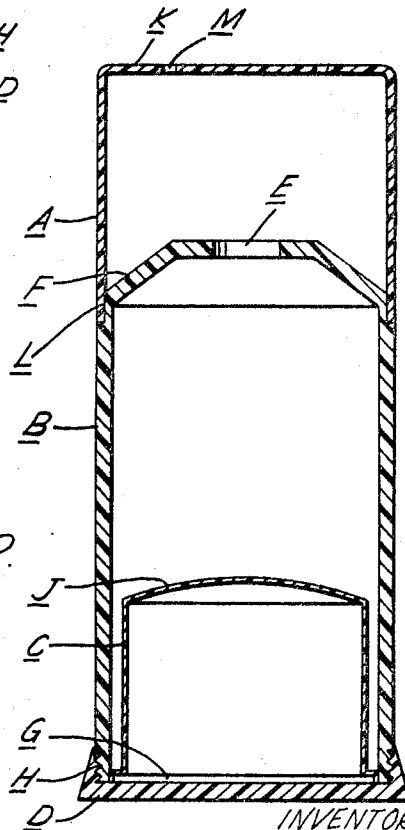


Fig. 2.

INVENTOR
ROGER ANTHONY BUTCHER
BY Woodhams, Blanchard & Flynn
ATTORNEYS

Sept. 16, 1969

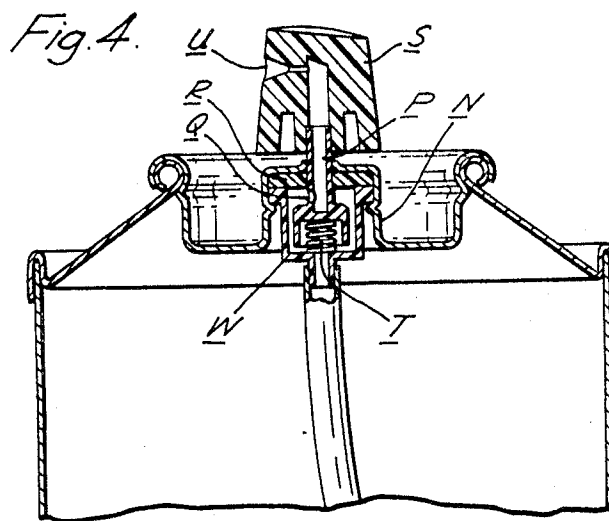
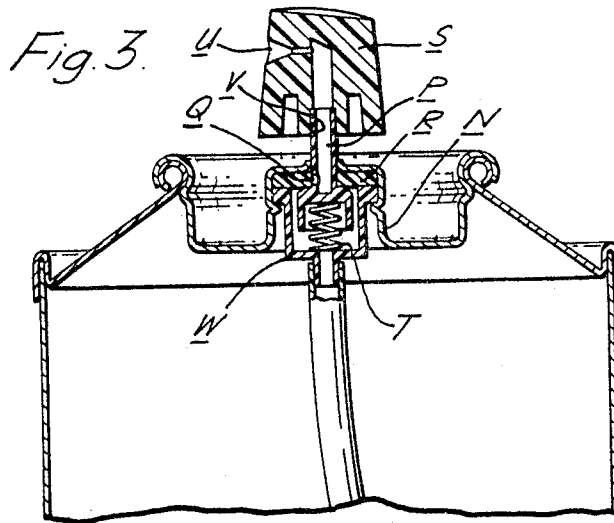
R. A. BUTCHER

3,467,243

CONTAINERS FOR AEROSOL CANS

Filed April 3, 1968

2 Sheets-Sheet 2



INVENTOR
ROGER ANTHONY BUTCHER
BY Woodhams, Blandhard & Flynn
ATTORNEYS

1

3,467,243

CONTAINERS FOR AEROSOL CANS

Roger Anthony Butcher, Cowplain, England, assignor to
Aerosol Inventions & Development S.A. (A.I.D.), Fri-
bourg, Switzerland, a Swiss company
Filed Apr. 3, 1968, Ser. No. 718,473
Int. Cl. B65d 83/14

U.S. Cl. 206—1

2 Claims

ABSTRACT OF THE DISCLOSURE

A decorative outer container for enclosing an aerosol can, the container being designated to accept refill cans of different axial lengths by being provided with a rigid spacer element which can be inserted between the bottom end of the can and the removable base of the container. The spacer element may be formed by an overcap provided on the aerosol can.

The invention relates to a container for an aerosol can.

An aerosol package generally consists of a tinplate, aluminium, glass or other suitable container, the product to be dispensed, the propellant for dispensing, and a valve mechanism for controlling the dispensing.

Each container is usually decorated by printing or with a label and is fitted with an overcap for protection against discharge during transit or in some cases an actuator-cap serving both as a protector cap as well as an operating or actuator cap.

Most products are marketed in several sizes for the same product.

The invention relates to such containers as described above and provide for a unique outer container in which not only can an undecorated container be presented in an attractive economical and hygienic way but the same presentation copes with several refill sizes, and by having the overcap of the refill as the spacer further cost savings are made.

According to the invention a container for an aerosol can comprises a body portion adapted to surround and contain an aerosol can, one end of the body portion being closed and provided with an aperture through which the nozzle of the aerosol can may pass and an open end through which the aerosol can may be inserted into the body portion, and a base member for closing the open end of the body portion, which base member is adapted to be secured to the body, as for example by a screw connection so as to retain the aerosol can in the body portion and a spacer element of a size corresponding to the size of the refill.

The invention thus enables what would be an expensive item if discarded in its entirety each time it was exhausted to be used with either the full size or a smaller refill which can be produced at less cost than the complete article.

Thus the invention may be applied to a garden insecticide pack with a built-in handle attached to the container, which is thrown away complete when exhausted.

The article according to the invention is contained in an outer cover with the handle molded as an integral part of the outer container. When the contents are exhausted only the inner aerosol container is discarded and replaced by either a full size refill pack, or a smaller refill fitted with the required spacer as the outer cap.

The invention may also be applied to paint spray units, upholstery cleaners, surface cleaners, and the like where the outer can may be fitted with a brush, or sponge or the like.

2

The invention is diagrammatically illustrated by way of example in the drawings accompanying the specification, in which:

FIGURE 1 is a cross-sectional side elevation through an aerosol can mounted in a container according to the invention;

FIGURE 2 is a cross-sectional side elevation through a container according to the invention;

FIGURE 3 shows the upper part of the container with the operating or actuator valve closed; and

FIGURE 4 shows the actuator with the valve open.

In the drawings, FIGURES 1 and 2, a container for an aerosol can is shown comprising a body portion B which is shown to be cylindrical but which may be of any desired cross-section, for example, square, the upper end F of the body B being closed and provided with a central aperture E. The lower end G of the body is open and is provided externally with screw-threads at H, whereby it is adapted to retain a correspondingly screw-threaded base member D. If desired, a generally cylindrical spacer C which is closed at its upper end J and may be provided, the spacer taking up the excess space in the container when a short aerosol can is used, and the spacer being removed when a full-size aerosol can is positioned in the container. In addition, a cap A which is of cylindrical construction and closed at its upper end K, is provided and is adapted to be a press fit on an annular recess L at the upper end of the body B so as to close the upper end of the body portion. The cap A is provided with air vents M.

As shown in FIGURE 1 an aerosol can O may be positioned in the body portion and retained therein by means of the base member D. Preferably the container is formed of a plastics material such as polyethylene.

Referring to FIGURES 3 and 4, the valve mechanism may consist of a mounting cup N in which the valve body W which may be made of plastic or metal material is retained and inside which is the stem P of the valve which contains a metering orifice Q which is sealed by the internal sealing gasket R when the valve is in the closed position. When pressure is applied to the actuator button S, the spring T is compressed and the stem P moves downward so uncovering the metering orifice Q and allowing the product to flow through the metering orifice up the hollow stem and be discharged through the terminal orifice U of the actuator button. Instead of a button S, there may be an actuator cap provided with a terminal orifice V and fits on the stem of the valve, but with an outer shroud designed in such a way that it serves as a protective cover as well.

The container provides an attractive, convenient and hygienic container for an aerosol can and offers the additional advantage of increased protection against the hazards such for example as leakage associated with aerosol packages.

I claim:

1. A container for aerosol cans comprising a hollow tubular body portion adapted to surround and contain an aerosol can, the body portion being of an axial length substantially greater than that of at least one size of aerosol can adapted to be received therein, one end of said body portion being closed and provided with an aperture through which a dispensing nozzle on the end of the aerosol can positioned within the body portion will project, the other end of said body portion being open and being provided with base-retaining means, a removable disk-like base adapted to be secured to and close the open end of said body portion by means of said base-retaining means, and a rigid spacer element of substantial axial length and of a size and shape corresponding substantially to the in-

3

ternal dimension of said body portion, said spacer element being separate from said body portion but being freely insertable therein and being of such a length as to fill the space between said disk-like base when it is retained on said body portion and the lower end of said aerosol can.

2. A container according to claim 1, in association with an aerosol can of substantially shorter axial length than said body portion, wherein said spacer element is formed as an overcap capable of fitting onto the end of said aerosol can provided with the dispensing nozzle thereon.

5

10

4

References Cited

UNITED STATES PATENTS

3,080,989	3/1963	Ramshotham	-----	215-12
3,102,650	9/1963	Seaver	-----	215-12
3,388,829	6/1968	Windmam	-----	220-60

JAMES B. MARBERT, Primary Examiner

U.S. Cl. X.R.

215-2, 12