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TAMPERPROOF ACTUATOR

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2 Sheets-Sheet 1

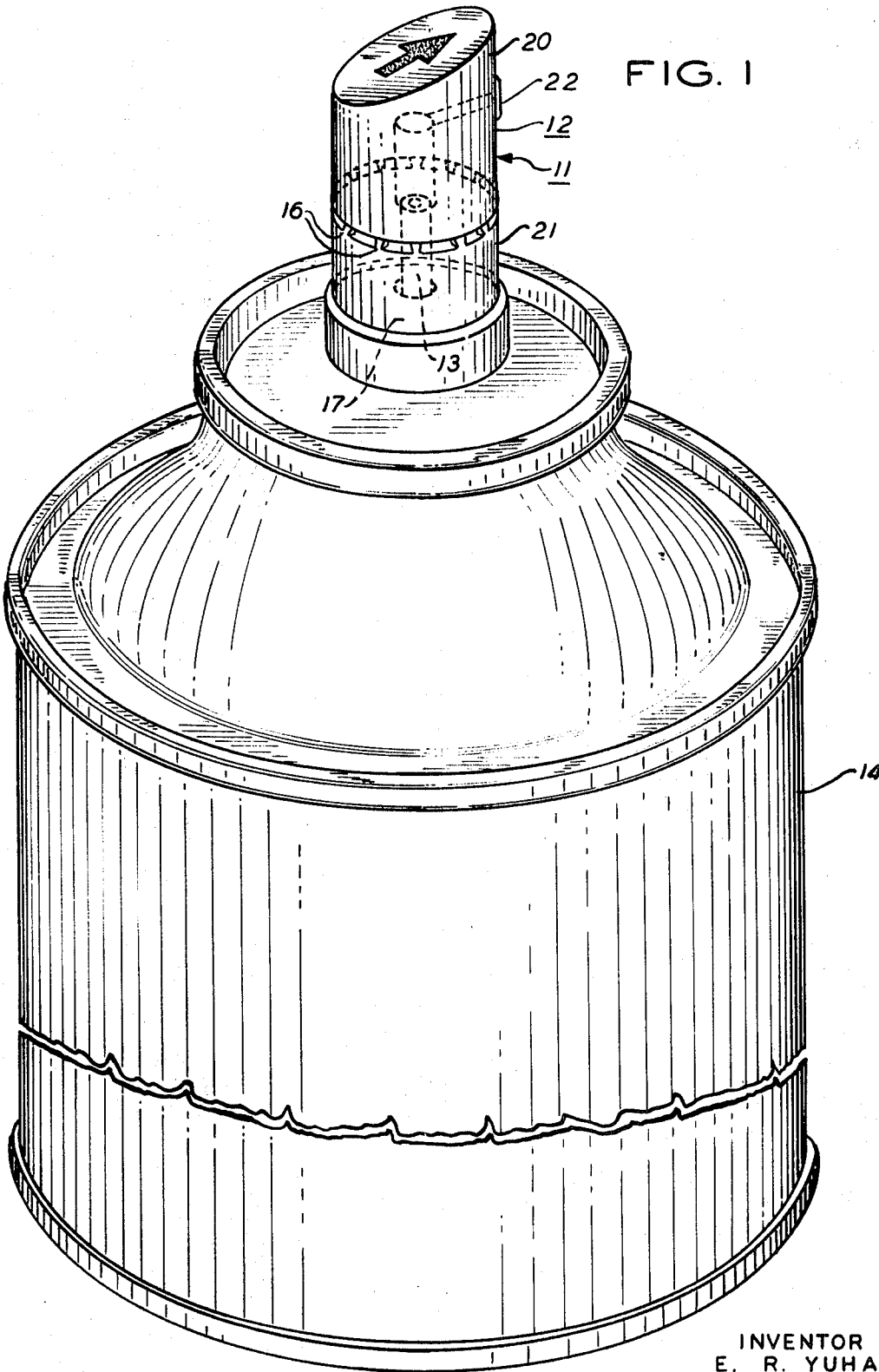


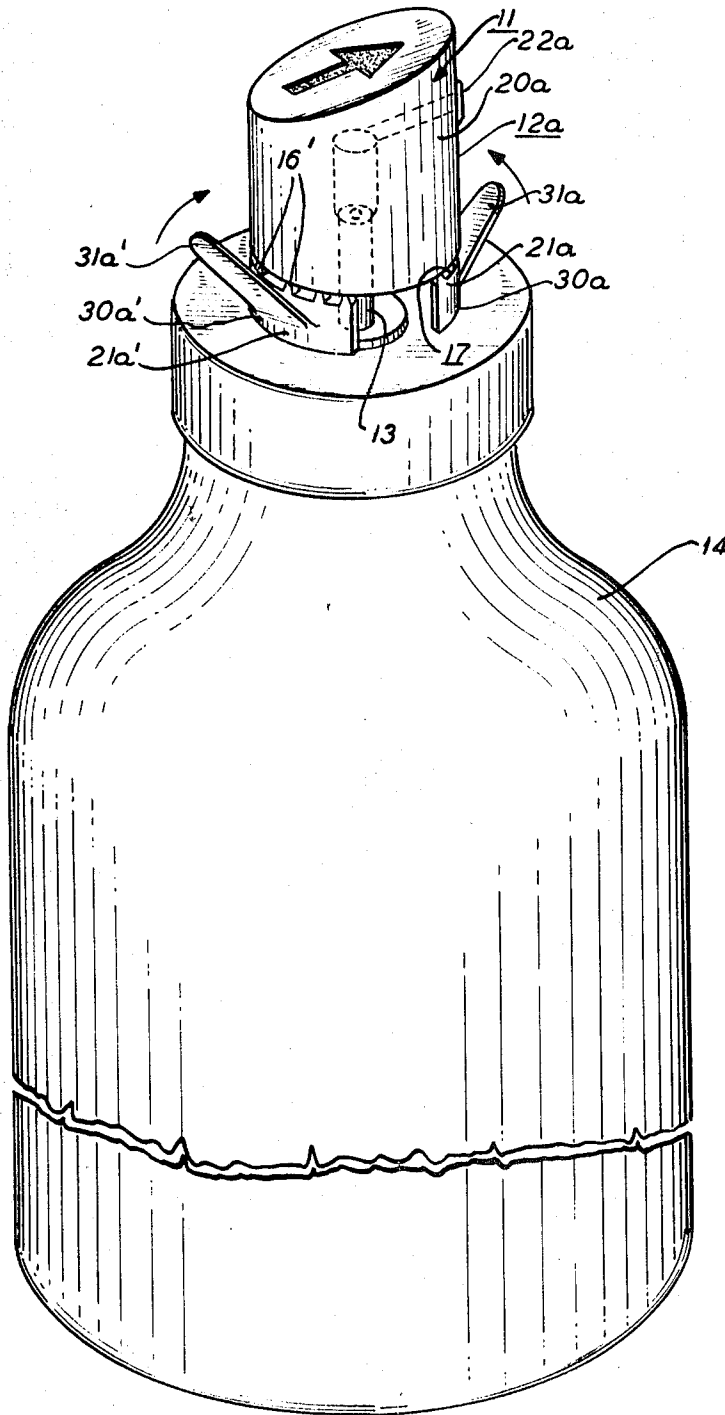
FIG. 1

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FIG. 2



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**TAMPERPROOF ACTUATOR**

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7 Claims

**ABSTRACT OF THE DISCLOSURE**

A tamperproof actuator, for the dispensing of contents of a container, preventing dispensing and loss of contents of the container prior to initial use by the ultimate purchaser thereof.

The tamperproof actuator of this invention assures convenient, simple and efficient protection of the container, by sealing the container in a manner providing a visual check against tampering, readily apparent to the ultimate purchaser. The device of this invention does not require an overcap, affords assurance of sealing the contents of the container against accidental actuation while in transit, and provides assurance that the actual contents of the container will be as marked on the label when the ultimate user initially operates the actuator.

In the drawings, wherein similar reference characters indicate like parts:

FIG. 1 is a vertical, isometric, partly fragmentary, view of an embodiment of the invention, and

FIG. 2 is a similar view of another embodiment thereof.

As will be seen from the drawings, forming part hereof, this invention relates to a tamperproof actuator for dispensing of products and for the prevention of loss of contents by tampering or other actuation prior to purchase and use by the ultimate consumer. Pursuant to the invention, a tamperproof actuator is provided which is inoperative until the ultimate consumer fractures a seal. To this end, the actuator of the invention is constructed with an integral built-in seal which must be fractured to become operative; fracturing of the seal, if done prior to purchase of the article, becomes immediately apparent to and observable by the purchaser.

Pursuant to the invention, a device 11 (FIG. 1) is provided, comprising a tamperproof actuator 12, valve dispenser 13, and container 14 to be controlled hereby. The tamperproof actuator 12 comprises a valve actuator 20, break-off member 21, frangible links 16, and actuator outlet 22.

In a further (FIG. 2) embodiment of the invention, the tamperproof actuator 12a comprises a valve actuator 20a, break-off members 21a, 21a', frangible links 16' unitary with and connecting parts 20a and 21a, and actuator outlet 22a. Break-off members 21a, 21a' comprise break-off body members 30a, 30'a and finger pads 31a, 31a', for example.

In operation, for example, the tamperproof dispensing device 11 will be placed on a retail outlet display counter for sale. As long as the break off member 21 is affixed to the valve actuator 20, one cannot operate the valve dispenser 13, as the break-off member 21 prevents downward movement of the valve actuator.

On purchase of the container, the consumer, by a simple twist motion, may break the frangible connection 16

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(for example, links) unitary with and connecting actuator 12 and break-off member 21 and may thus separate the parts 12 and 21 and remove them from their (friction fitting) position on valve dispenser 13. Break-off member 21 may be discarded, and the valve actuator 20 friction-fitted onto the valve dispenser 13 for operation of the valve dispenser 13 on downward movement of said valve actuator 20.

In a further embodiment of the invention (FIG. 2) the tamperproof actuator 12a need not be removed from the valve dispenser 13; rather, the break-off members 21a, 21a' (or any number thereof) can be removed by finger pressure on the finger pads 31a, 31a', which action will fracture the frangible links 16' unitary with members 20a and 21a. Finger pads 31a and 31a' and the adhering (broken away) frangible links 16' are then discarded and the actuator 12 is pressed down to friction-fit onto the valve dispenser 13. The actuator sections (12, FIG. 1, 12', FIG. 2) are connected, through the frangible links (16, 16') to the spacer sections 21, 21a, which engage the container valve dispenser and space the assembly (12, 13 in FIG. 1, 20a, 31a, 31b, FIG. 2) on ledge 17 at the top of the container 14.

Thus the tamperproof dispensing device of my invention may be simply and efficiently operated to provide a continuous and effective safeguard against loss of contents of the container through tampering or other actuation of the valve prior to purchase and use by the ultimate consumer; and the visual unbroken seal (16 or 16') assures the purchaser that the product is intact and full.

While the foregoing disclosure of exemplary embodiments is made in accordance with the patent statutes, it is to be understood that the invention is not to be limited thereto or thereby, the inventive scope being defined in the appended claims.

The invention claimed is:

1. A tamperproof actuator device, for indicating tampering with a pressurized aerosol container, said device being adapted to be frictionally secured to the container valve which extends from the top of said pressurized aerosol container, comprising:

- (a) an aerosol actuator cap portion, adapted to frictionally engage said container valve,
- (b) an indicator portion, adapted to be positioned intermediate said aerosol actuator cap portion and said container top portion, and
- (c) frangible means, interconnecting said aerosol actuator cap portion with said indicator portion, extending circumferentially about a substantial segment of the bottom of said aerosol actuator cap portion, said frangible means being frangible on relatively moving said aerosol actuator cap portion and said indicator portion by the independent application of breaking force thereto.

2. In a tamperproof actuator device as described in claim 8, said frangible means comprising links.

3. A tamperproof actuator device as described in claim 1, further comprising break-off means, detachably connected to said aerosol actuator cap portion.

4. In a tamperproof actuator device as set forth in claim 3, said break-off member comprising: break-off body members, and finger pads, extending from said members to facilitate moving and breaking said break-off members, for separation thereof from said actuator.

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5. In a tamperproof actuator device as described in claim 3, links so detachably affixing said break-off member to said valve actuator.

6. In a tamperproof actuator device as described in claim 3, said break-off member comprising rim sections 5 and finger pads secured to extend outwardly therefrom.

7. In a tamperproof actuator device as described in claim 3, said break-off member comprising:

rim sections and

finger pads extending therefrom to facilitate separating 10  
the break-off member from said valve actuator.

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