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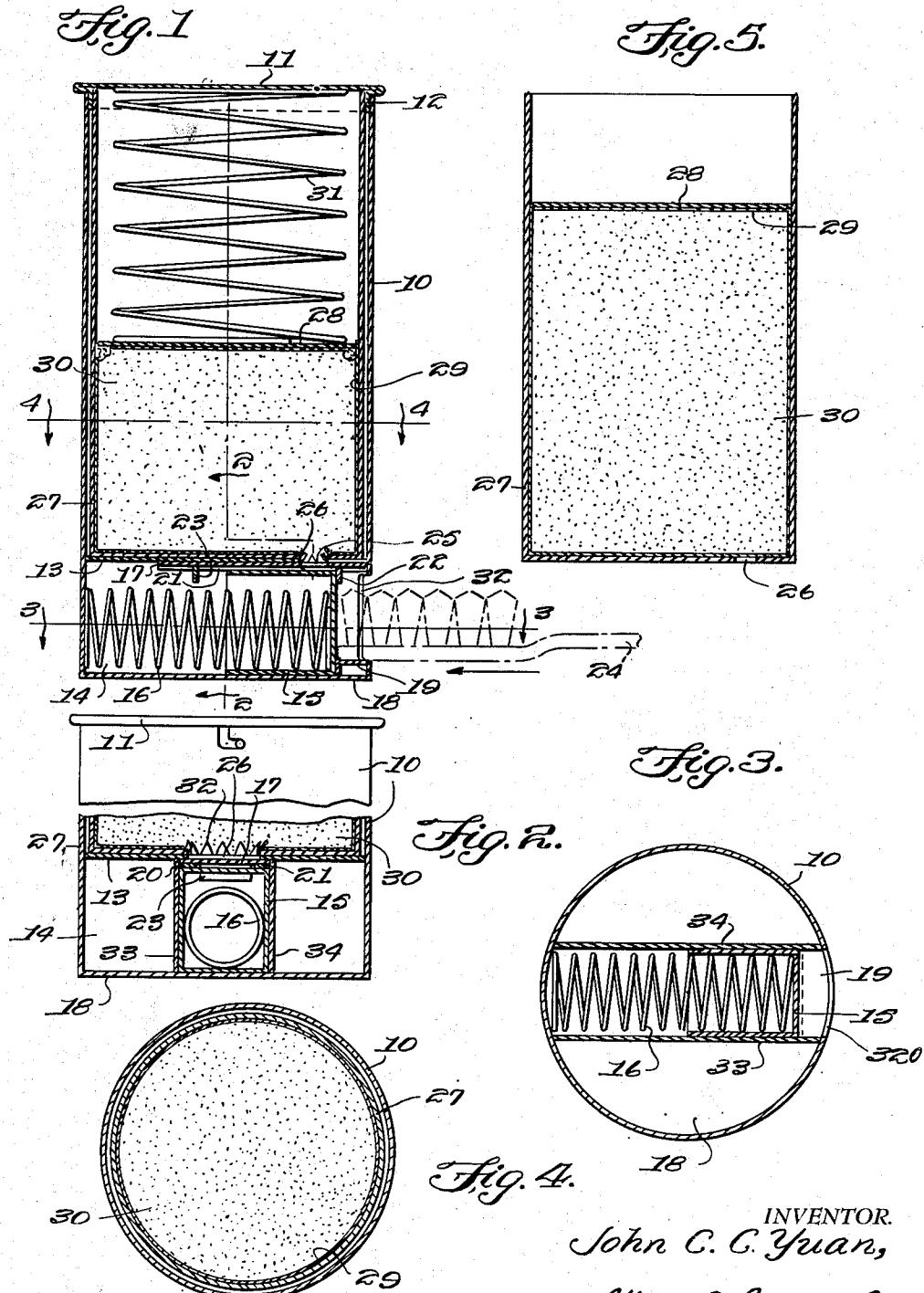
J. C. C. YUAN

2,634,026

AUTOMATIC COSMETIC DISPENSER

Filed March 21, 1949

2 SHEETS—SHEET 1



INVENTOR.
John C. C. Yuan,
by Victor J. Evans & Co.

ATTORNEYS

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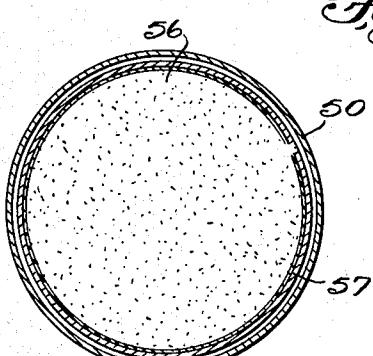
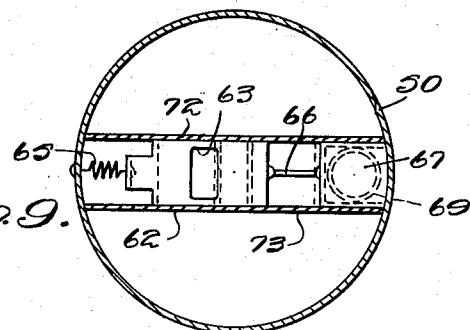
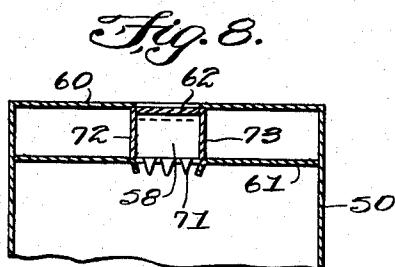
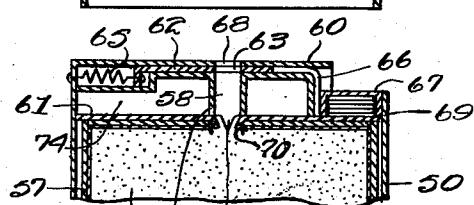
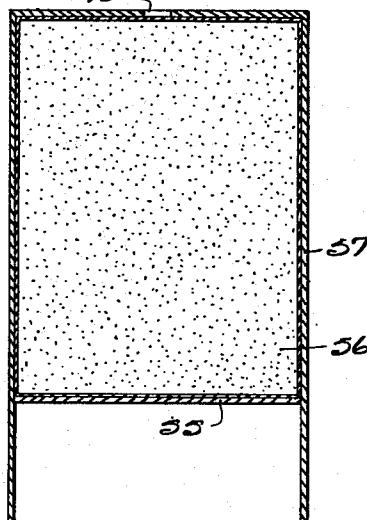
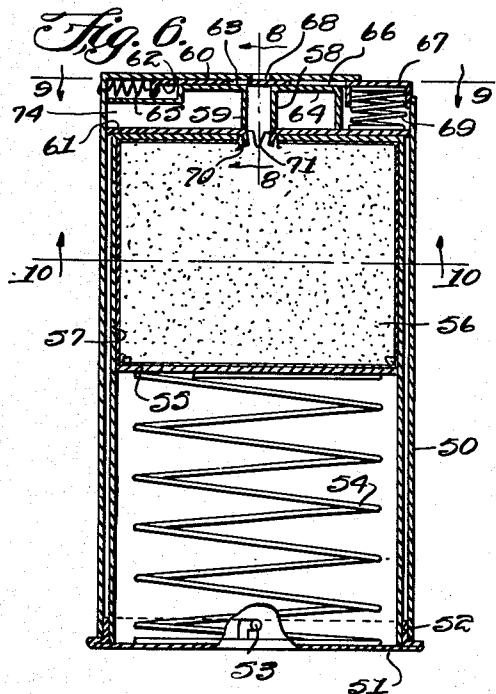
J. C. C. YUAN

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AUTOMATIC COSMETIC DISPENSER

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2 SHEETS—SHEET 2



INVENTOR.
John C.C. Yuan,

BY *Victor J. Evans & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE

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AUTOMATIC COSMETIC DISPENSER

John C. C. Yuan, Washington, D. C.

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5 Claims. (Cl. 222—127)

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This invention relates to dispensers of the type used for depositing and extruding tooth paste, shaving cream, face creams and other cosmetics from cartridges or magazines in a casing, and in particular a dispenser of the refillable type and in which a paper cartridge of paste, cream or the like is inserted and from which small amounts of the material may readily be dispensed.

The purpose of this invention is to provide a comparatively inexpensive dispenser for ejecting cosmetic preparations and the like in which the product is contained in removable and replaceable cartridges.

Various types of dispensers have been provided, particularly for tooth paste, cosmetics, and the like but it is difficult to use refills in devices of this type. With this thought in mind this invention contemplates a dispenser having a spring actuated slider and a closure wherein as a tooth brush or the like is inserted in an opening in the dispenser a small quantity of a cosmetic is deposited thereon.

The object of this invention is, therefore, to provide means for constructing a dispenser for cosmetic preparations and the like so that the product being dispensed is readily replaceable and so that small quantities, only, are dispensed with each operation.

Another object of the invention is to provide a dispensing container that operates automatically as a brush or the like is inserted therein.

A further object of the invention is to provide a dispenser container for face creams, tooth paste, shaving cream and other similar products which is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a tubular shell having a spring actuated slider for operating a gate in one end and a removable cap with a spring extended therefrom on the opposite end.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a vertical section through the dispenser with a tooth brush as indicated in dotted lines being inserted therein.

Figure 2 is an end elevational view of the dispenser with the lower part broken away on line 2—2 of Figure 1 and with the said lower part shown in section.

Figure 3 is a sectional plan taken on line 3—3 of Figure 1.

Figure 4 is a sectional plan taken on line 4—4 of Figure 1.

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Figure 5 is a vertical section through the casing showing the movable paper partition therein.

Figure 6 is a vertical section through the dispenser illustrating a modification wherein the gate is actuated by a resiliently held button.

Figure 7 is a similar section through the upper end of the dispenser showing the gate in the open position.

Figure 8 is also a section through the upper end of the dispenser taken on line 8—8 of Figure 6.

Figure 9 is a sectional plan through the upper end of the dispenser taken on line 9—9 of Figure 6.

Figure 10 is a similar sectional view looking upwardly taken on line 10—10 of Figure 6.

Figure 11 is a vertical section through a paper cartridge adapted to be used in the dispenser.

Referring now to the drawings wherein like reference characters denote corresponding parts the automatic cosmetic dispenser of this invention includes a tubular casing 10 having a cover 11 with a depending flange 12 which is secured in the upper end of the casing 10 by means of a conventional bayonet joint, as shown in Fig. 2, and a horizontally disposed partition 13 spaced from the lower end providing a compartment 14 for a slider 15 that is actuated by a spring 16 and that is positioned to operate a gate 17.

The casing 10 is provided with a lower end 18 and a ledge 19 extended across the lower end provides a stop for the slider 15 which is urged against the stop by the spring 16.

The gate 17 is slidably mounted on rails 20 and 21 and a projection 22 extended downwardly from the gate is positioned to be engaged by the slider 15 in the return movement thereof for closing the gate. Another projection 23 also extends downwardly from the gate and this projection is positioned to be engaged by the inner end of the slider as the slider is pushed inwardly by a tooth brush as indicated by the numeral 24.

With the parts arranged in this manner an opening 25 in the partition 13, which registers with a similar opening 26 in the cartridge 27 is not opened as soon as the slider starts inwardly but, as noted in Figure 1 the brush moves the slider until the end of the slider engages the projection 23 and then upon continued movement of the brush the outer end of the gate passes over the opening 25 releasing paste from the cartridge 27 and the paste drops upon the tooth brush. Upon the return movement the slider follows the tooth brush outwardly, being

urged by the spring 16 and the slider again engages the projection 22 which carries the gate outwardly to the closed position as shown in Figure 1.

The paper cartridge 27 is provided with a movable disc 28 that is urged against a foil wrapper 29 filled with paste, as indicated by the numeral 30, by a spring 31 on the cover 11 and as the cartridge is inserted prongs 32 extended upwardly from the opening 25 of the partition 13 puncture the foil releasing paste in the package so that when the gate 17 is open the paste is extruded upon a tooth brush extended through an opening 320 in the lower part of the dispenser.

The slider 15 is slidably mounted between partitions 33 and 34 in the lower compartment 14 of the dispenser.

In the modification illustrated in Figures 6 to 11 a casing 50 which is provided with a cover 51 having a depending flange 52 and which is held to the casing by a bayonet joint 53 is provided with a spring 54 which urges a disc 55 upwardly to force paste or the like, as indicated by the numeral 56 in a foil wrapper 57 upwardly through a passage 58 in a tube 59 connecting the upper end 60 of the dispenser through an intermediate partition 61.

In this design the gate 62 having an opening 63 therein is slidably mounted between a flange 64 and the end 60 of the casing and the gate is urged to the closed position shown in Figure 6 by a spring 65, as illustrated in Figure 7.

The gate 62 is provided with a thin strap 66 that is connected to the button 67 and as the button is pressed downwardly to the position shown in Figure 7 the thin strap draws the gate across the end of the passage 58 whereby the opening 63 in the gate registers with an opening 68 in the end 60 of the casing of the dispenser.

The button 67 is urged outwardly by a spring 69 and as the button is released the spring 69 urges the button from the position shown in Figure 7 to that shown in Figure 6 and the spring 65 draws the gate 62 across closing the end of the passage 58.

In this design the cartridge 57 is similar to the cartridge 27 except that an opening 70 in the end thereof is positioned in the center whereby prongs 71 carried by the partition 61 puncture the foil, releasing paste or the like in the cartridge.

In this design the tube 59 and the button 67 are positioned between partitions 72 and 73 in a compartment 74 between the partitions 61 and end 60 of the dispenser.

It will be understood that other modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A dispenser container comprising a tubular casing having a partition spaced from one end thereof providing a compartment in the end, said partition having an opening therein, a gate slidably mounted in said compartment and positioned to close the opening in the partition, a slider also mounted in the compartment and positioned to actuate the gate, a spring retaining the slider in the position of closing the said opening by the gate, a carriage having a movable disc therein positioned in said tubular casing and having an opening positioned to register with the opening in the said partition, a closure mounted on the end of the casing opposite to that in which the compartment is positioned, and

a spring carried by the closure and positioned to engage the disc of the cartridge to urge the disc against the contents of the cartridge.

2. A dispenser container comprising a tubular casing having a partition spaced from one end thereof providing a compartment in the end, said partition having an opening with upwardly extended serrated points around the periphery thereof therethrough, a gate slidably mounted in said compartment and positioned to close the opening in the partition, a slider also mounted in the compartment and positioned to actuate the gate, a spring retaining the slider in the position of closing the said opening by the gate, a cartridge having a movable disc therein positioned in said tubular casing and having an opening positioned to register with the opening in the said partition, a closure mounted on the end of the casing opposite to that in which the compartment is positioned, and a spring carried by the closure and positioned to engage the disc of the cartridge to urge the disc against the contents of the cartridge.

3. A dispenser container comprising a tubular casing having a partition spaced from one end thereof providing a compartment in the end, said partition having an opening with upwardly extended serrated points around the periphery thereof therethrough, a gate having spaced projections extended downwardly therefrom slidably mounted in said compartment and positioned to close the opening of the partition, a slider mounted in said compartment and positioned to engage the projections of the gate to actuate the gate after the slider has traveled a predetermined distance.

4. A dispenser container comprising a tubular casing having a partition spaced from one end thereof providing a compartment in the end, said partition having an opening therein, a gate slidably mounted in said compartment and positioned to close the opening in the partition, a slider also mounted in the compartment and positioned to actuate the gate, a spring retaining the slider in the position of closing the said opening by the gate, a cartridge having a movable disc therein positioned in said tubular casing and having an opening positioned to register with the opening in the said partition, said cartridge having a product with a foil wrapper thereon positioned therein, a closure mounted on the end of the casing opposite to that in which the compartment is positioned, and a spring carried by the closure and positioned to engage the disc of the cartridge to urge the disc against the contents of the cartridge.

5. A dispenser container comprising a tubular casing having a partition spaced from one end thereof providing a compartment in the end, said partition having an opening therein, a gate slidably mounted in said compartment and positioned to close the opening in the partition, a slider also mounted in the compartment and positioned to actuate the gate, a spring retaining the slider in the position of closing the said opening by the gate, another spring for returning the gate in the closed position, a cartridge having a movable disc therein positioned in said tubular casing and having an opening positioned to register with the opening in the said partition, a closure mounted on the end of the casing opposite to that in which the compartment is positioned, and a spring carried by the closure and positioned to engage the disc of the cartridge

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to urge the disc against the contents of the cartridge.

JOHN C. C. YUAN. Number 435,465
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