Oct. 4, 1949. E. H. BARMORE 2,483,609

CIGARETTE DISPENSER

Filed Aug. 30, 1946

Fig. 1.

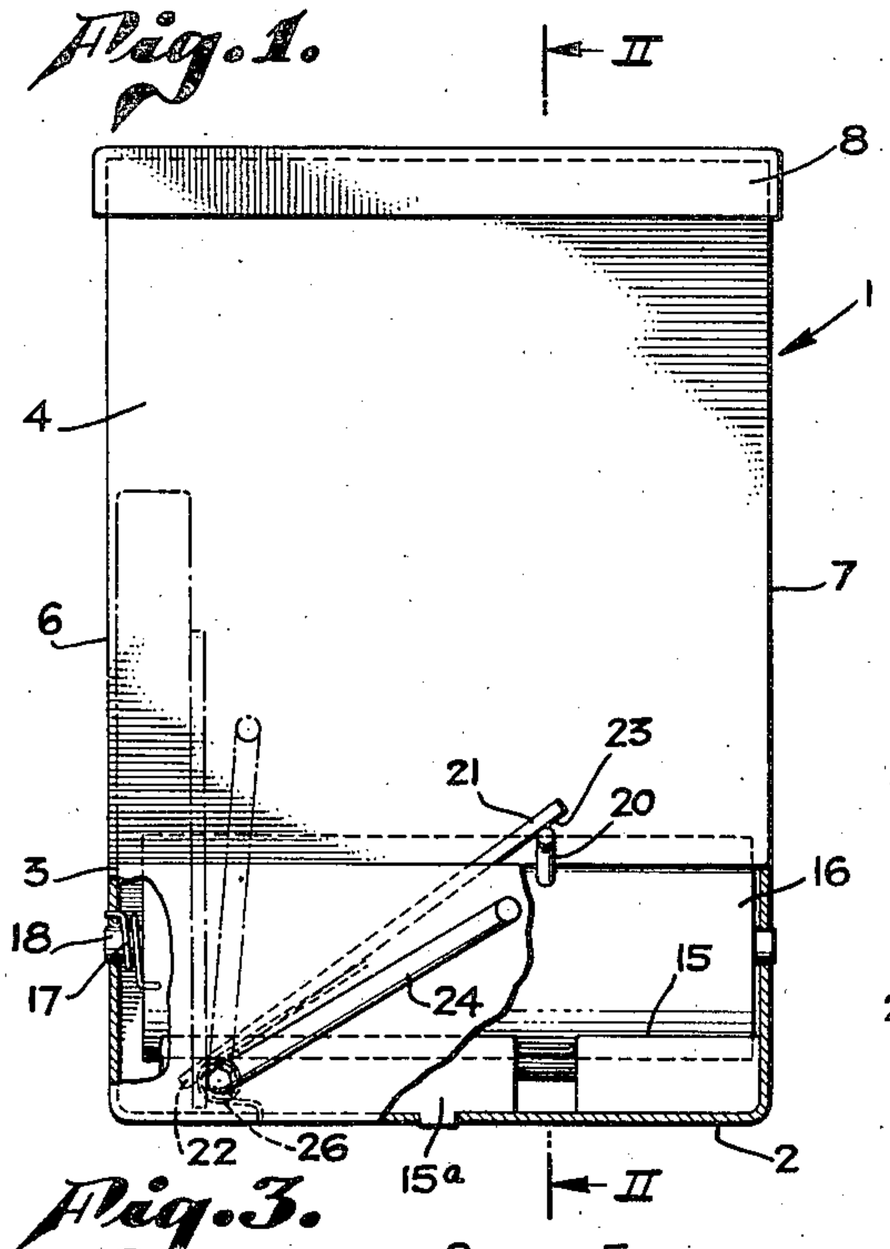


Fig. 2.

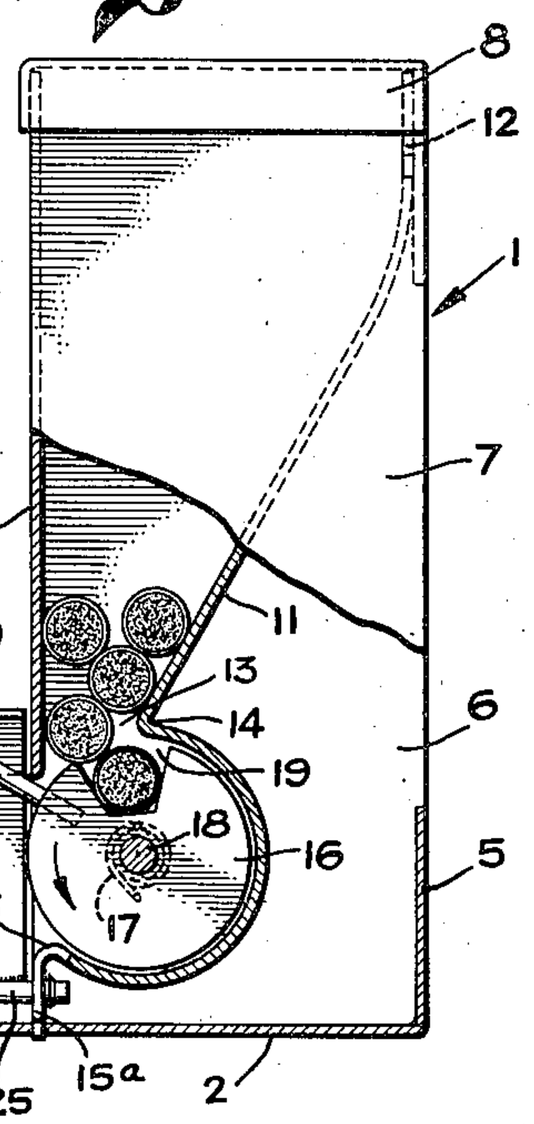


Fig. 3.

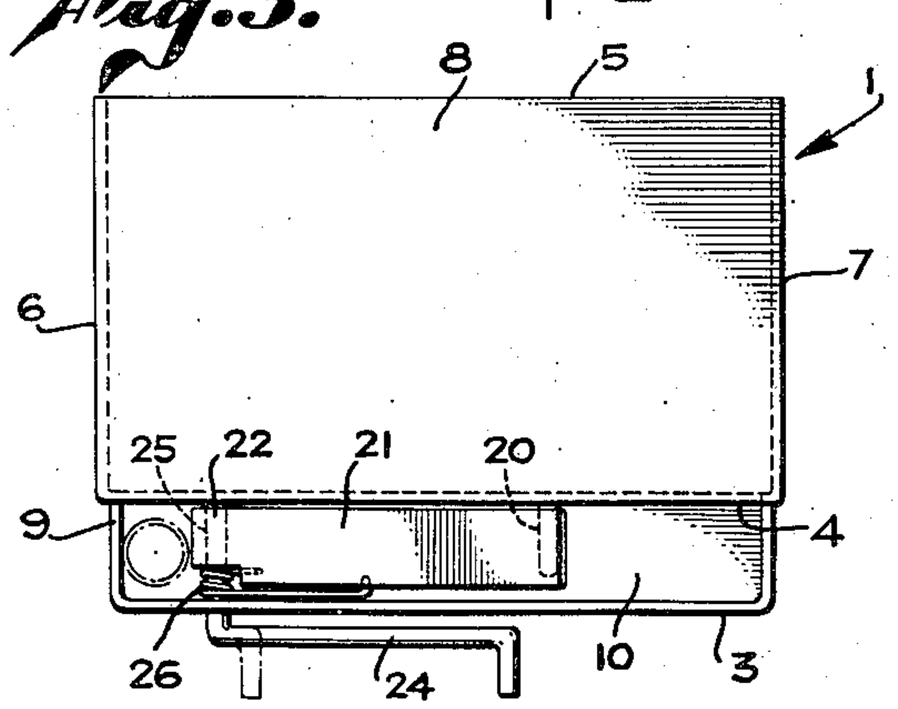


Fig. 4.

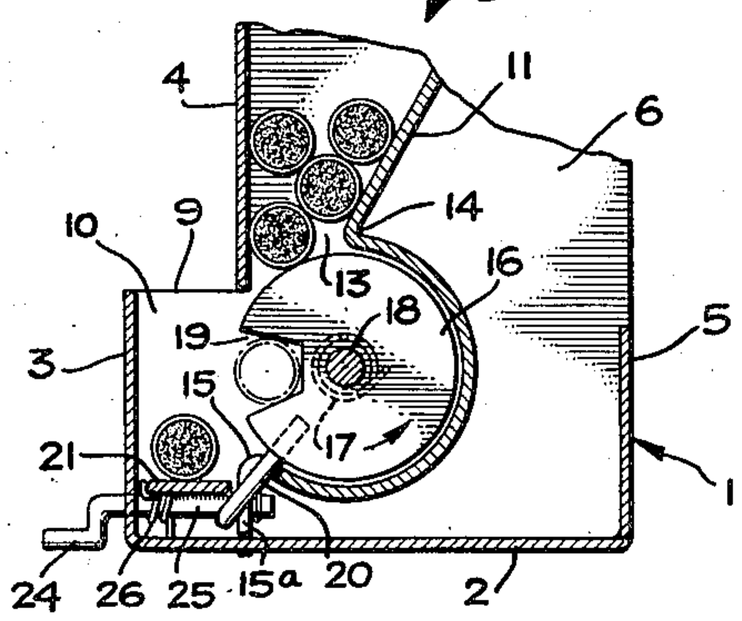
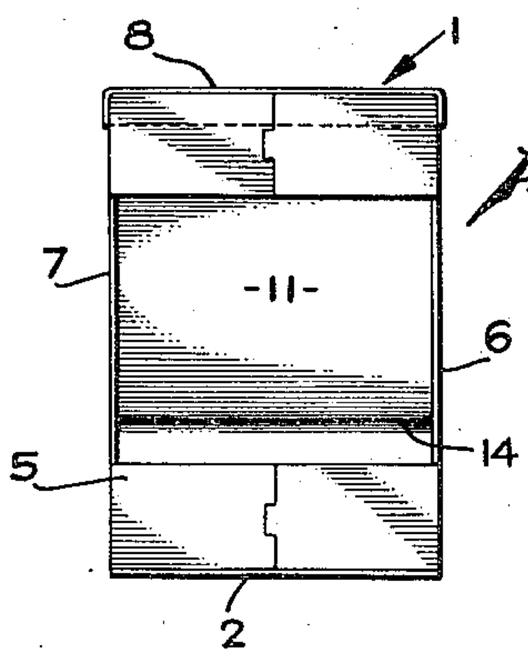


Fig. 5.



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UNITED STATES PATENT OFFICE

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CIGARETTE DISPENSER

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5 Claims. (Cl. 312—84)

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This invention relates to dispensers and more particularly to cigarette dispensers adapted for use in automobiles.

Objects of the invention are to provide a readily available supply of cigarettes for smokers in automobiles; to deliver the cigarettes individually for use; to normally maintain the supply of cigarettes enclosed; to provide a simple, economical and efficient delivery mechanism; to position individual cigarettes conveniently for extraction from the dispenser; to cooperatively arrange the delivery mechanism in the dispenser in such a manner that portions of it serve as a closure for the dispenser; and to provide improved elements and arrangements thereof in a dispenser of the character and for the purposes set forth.

In accomplishing these and other objects of the present invention, I have provided improved details of structure, a preferred form of which is illustrated in the accompanying drawings, wherein

Fig. 1 is a front elevational view of a dispenser embodying this invention, part of the trough portion thereof being broken away to more clearly illustrate the construction.

Fig. 2 is a side elevational view of the dispenser, parts being shown in phantom and parts of the side wall being broken away to better illustrate its construction.

Fig. 3 is a top plan view of the dispenser particularly illustrating the lifter arm and actuating lever.

Fig. 4 is a fragmentary view of Fig. 2 showing the parts in cigarette delivering position.

Fig. 5 is a rear elevational view of the dispenser.

Referring more in detail to the drawing, 1 designates a housing or container that is preferably formed of stamped sheet metal and comprises a bottom wall 2, front wall portions 3 and 4, a rear wall 5, and side walls 6 and 7. A removable cap 8 is provided for the top of the container to close the opening formed by the upwardly extending walls thereof. The front and side walls of the container are offset rearwardly as indicated at 9 to form a trough 10 adjacent the lower front end of the container. Arranged within the container is a partition 11 that is preferably formed of sheet metal and is provided with an upper end 12, Fig. 2, suitably secured at the upper end of the rear wall 5. The partition 11 slopes downwardly and forwardly toward the lower end of the upper front wall portion to provide, in cooperation with the front wall 4, a hopper feed opening 13. From the point 14 of the hopper forming partition, the sheet is turned

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rearwardly in substantially cylindrical shape to the point 15, thence downwardly to form a supporting bracket 15a engaged with the bottom wall 2 of the housing.

Mounted in the cylindrical portion of the hopper partition is a feed roller 16 having journals at its ends mounted in suitable, aligned, bearing seats in the side walls of the container. It has been found desirable to bias the roller against rotation and to this end a coil spring 17 may be mounted on the roller journal 18, one end of the spring being engaged with the roller and the other end of the spring being engaged with an adjacent portion of the container. A longitudinal seat or recess 19 is provided in the roller 16, the seat being of size and shape to adequately receive a cigarette from the opening 13 of the container hopper. The spring bias of the roller normally retains the seat 19 adjacent the hopper opening 13.

It is further desirable to move a cigarette from the hopper to the trough 9 and to this end a control arm 20 is fixed to the roller in radially extending relation thereto, the arm being positioned on the roller in such a manner that it engages the lower edge of the front wall portion 4 in its normal position as shown in Fig. 2.

A lifter arm 21 is pivotally mounted at one end in the lower portion of the trough 9 as indicated at 22. The upper end of the lifter arm extends upwardly and laterally to overlie the control arm 20, as indicated at 23 in Fig. 1. To manipulate the lifter arm 21, and consequently the dispenser roller 16, an actuating lever 24 is arranged exteriorly of the housing at the lower end of the trough 9 adjacent the lifter arm 21. The actuating lever is provided at its inner end with a laterally turned bar 25 extending through the lower front wall 3 and being secured as by welding to the lifter arm 21 at a point upwardly and outwardly of its pivot. If desired, another coil spring 26 may be engaged with the lifter arm 21 and bottom housing wall 2 to normally retain the arm in lifted position.

The operation of a dispenser constructed as described is as follows:

The cap 8 of the container is removed and the container is filled with cigarettes to be dispensed, the lowermost of which drops into the seat 19 of the feed roller 16. The lever 24 is pressed downwardly relative to Fig. 1 which, because of its connection with the lifter arm 21, pivots the latter downwardly in the trough 9. Downward movement of the lifter arm 21 causes counterclockwise rotation of the feed roller 16

through contact with control arm 20. The noted movement of the roller moves a cigarette from the hopper feed opening, Fig. 2, onto the upper surface of the lifter arm, Fig. 4. Movement of the lever, lifter arm and roller is against tension of the springs 17 and 26, the stored energy of which, when the lever 24 is released rotates the roller in a clockwise direction, causing the control arm 20 to lift a cigarette from the trough and position it upright at one end of the trough, as shown in Fig. 1.

It will be apparent that repetition of the operation just described successively presents cigarettes in convenient position to be extracted from the container, the operation being continuous until the hopper needs refilling.

While I have shown but one form of invention, it is susceptible to various modifications without departing from the spirit of the invention.

I claim:

1. A cigarette dispenser including a hopper having a horizontal feed opening in the bottom thereof, a feed roller turnably mounted below said feed opening and having a longitudinal recess therein normally registering with said feed opening, a trough forward of and extending below said feed opening, spring means tending to rotate said feed roller in a clockwise direction, stop means carried by said feed roller and extending into said hopper and limiting the clockwise movement of said feed roller, a lifting arm pivotally supported in said trough and normally overlying said stop means and actuating means for moving said lifting arm into contact with said stop means for rotating said feed roller in a counterclockwise direction for dispensing a cigarette from the said recess into said trough and onto said lifting arm, whereby the dispensed cigarette will be moved to a cigarette-delivering position upon movement of the said lifting arm to vertical position.

2. A cigarette dispenser in accordance with claim 1, wherein the said dispenser includes a housing having the upper portion of its front wall and cooperating portions of its end walls inset to define a lower portion having a forwardly extending trough and a partition carried by the upper portion of the rear wall of said housing and extending downwardly and inwardly to a point adjacent to but spaced from the lower end of said inset upper front wall, the said space between the lower end of said upper front wall portion and the lower end of said partition defining the said hopper feed opening.

3. A cigarette dispenser including a housing having a lower portion and an upper portion, the said housing having a common rear wall and end walls, the front wall of said housing being divided and having the upper portion thereof inset to form a trough forward of said feed opening, a partition in the said upper portion extending from said rear wall downwardly and inwardly to a point adjacent to but spaced from the lower end of the said upper end wall portion and defining a hopper having a horizontal feed opening in the bottom thereof, a feed roller positioned below said feed opening, having a longitudinal recess therein normally registering with said feed opening, spring means biasing said feed roller in a clockwise direction, stop means carried by said feed roller and extending into said trough for limiting said clockwise movement, a lifting arm pivotally mounted in said trough and normally overlying said stop means, means for turning the said lifting arm about a pivot point to lower said stop means and rotate the said feed roller to dispense a cigarette in said recess into said trough and onto said lifting arm and means including the said spring means for turning the said lifting arm about its pivot point to raise the said cigarette to a vertical cigarette-delivering position.

4. A cigarette dispenser consisting of a housing having an upper portion and a lower portion, the front wall of said upper portion being inset from the front wall of said lower portion forming a trough, an inclined partition in said upper portion defining a hopper having an opening in the bottom thereof, a drum rotatably mounted in said lower portion having a longitudinal recess therein, spring means biasing said drum toward clockwise rotation, stop means carried by said drum and extending into said trough for limiting said clockwise movement and normally positioning said recess in registering relation with said opening, a lifting arm pivotally supported within said trough and overlying said stop means and means for turning said lifting arm about its pivot point for lowering said stop means and rotating said drum in a counterclockwise direction for dispensing a cigarette from said recess into said trough and means including the said spring means for raising said lifting arm and cigarette to a substantially vertical cigarette-delivering position.

5. A cigarette dispenser including a hopper having a feed opening in the lower end thereof, a rotatably mounted drum positioned below said feed opening having a longitudinal recess therein registering with said feed opening, a trough forward of said drum having a pivotally mounted lifting arm therein and means including said lifting arm for rotating said drum to bring said recess in dispensing relation with said trough and means including spring means for returning said recess to registering position with said feed opening and elevating a cigarette to a substantially vertical cigarette-delivering position.

EDMOND HOWARD BARMORE.

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