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CIGARETTE CONTAINER, DISPENSER, AND LIGHTER

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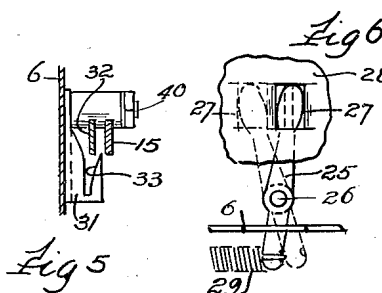
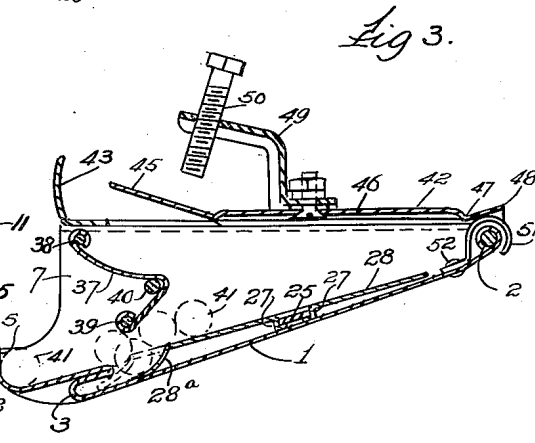
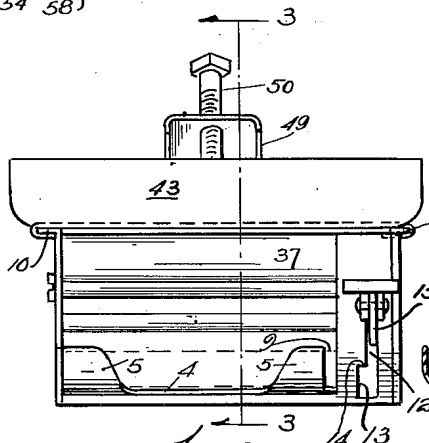
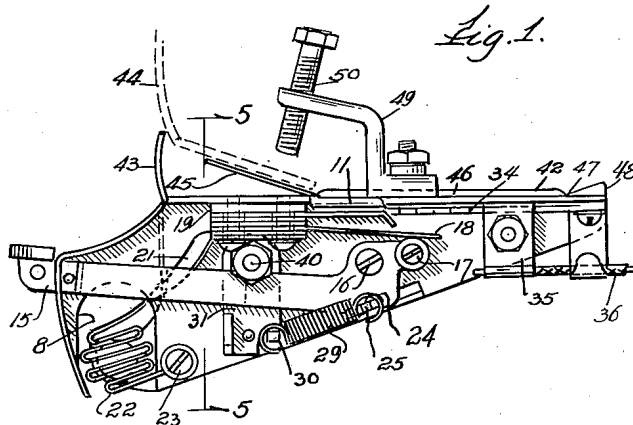
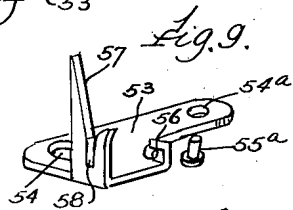
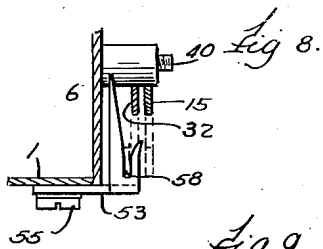


Fig 5

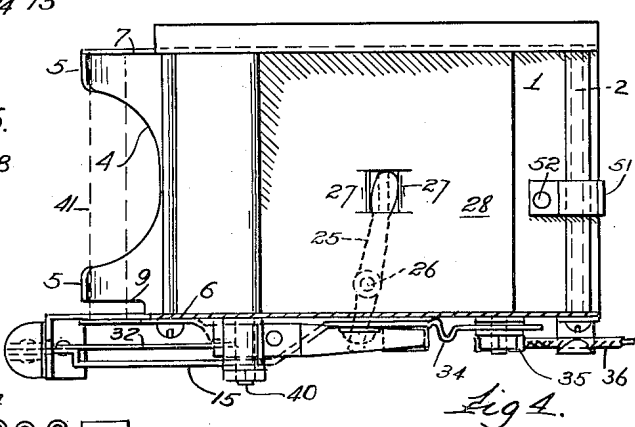
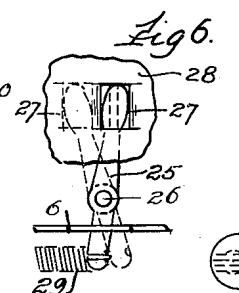


Fig 4.

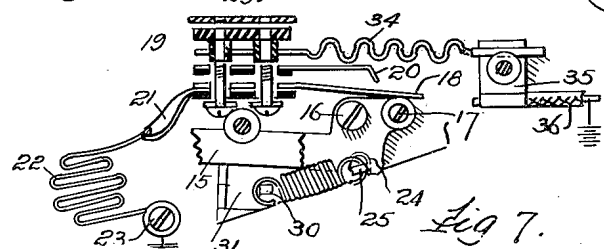


Fig 7.

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UNITED STATES PATENT OFFICE

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CIGARETTE CONTAINER, DISPENSER, AND LIGHTER

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2 Claims. (Cl. 312-78)

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This invention relates to improvements in cigarette containers, dispensers and lighters and more particularly to those adapted to be operatively and removably secured to the dash of the vehicle in handy access to persons in the vehicle front compartment. It is a further development of the invention set forth in my co-pending application for patent, Ser. No. 785,087, filed November 10, 1947. An object of the invention is to provide a cigarette container, dispenser and lighter of very compact structure and of few parts that is inexpensive to manufacture, durable and efficient in use, that is not easy to get out of order and that is neat and attractive in appearance.

A further object is to provide a cigarette container, dispenser and lighter including a container slidably secured to the dash by means of a cover plate in such manner that the container may be moved forwardly to expose the interior to permit filling and thereafter returned to normal closed position ready for further service. A further object is to provide a cigarette container, dispenser and lighter that when manually energized to position and light a cigarette will thereafter de-energize and re-position its adjustable parts to normal ready for the next operation. A still further object is to provide in the invention a rattle-proof vibrationless structure that is free from noise in operation whether the vehicle is at rest or in motion.

Other objects, novel features and advantages of arrangement, construction and design comprehended by the invention are hereinafter more fully pointed out or made apparent from the following description of a preferred embodiment as illustrated in the accompanying drawing wherein like reference characters denote corresponding parts throughout.

In the drawing:

Fig. 1 is a view in side elevation of a cigarette container, dispenser and lighter in accordance with the instant invention, a side plate being removed and a portion of the vehicle dash denoted in dotted lines.

Fig. 2 is a front view of Fig. 1.

Fig. 3 is a longitudinal vertical central sectional view through Fig. 2 on the line 3-3.

Fig. 4 is a top plan view with the cover plate removed.

Fig. 5 is a fragmentary vertical sectional view taken on the line 5-5 of Fig. 1.

Fig. 6 is a detail fragmentary view of actuating levers employed showing connection to the delivery plate, two positions of one lever being shown.

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Fig. 7 is a fragmentary view, enlarged and partially assembled, of the electric circuit and connections.

Fig. 8 is a fragmentary view partly in section and partly in front elevation of a modified form of guide bracket and connections, and,

Fig. 9 is a view in elevational perspective of the bracket of Fig. 8 per se.

Referring now to Figs. 1 through 7 the structure includes a floor 1 which at its rear end is rolled about a pin 2 and therefrom extends forwardly and downwardly at an angle of substantially forty-five degrees throughout the greater portion of its length to a point 3, near its front end, at which it is curved upwardly and rearwardly into parallelism with itself for a short distance and then folded upon itself and again extended forwardly and downwardly to its forward termination which is formed with the recess 4 and upon opposite sides thereof is bent upwardly to form the spaced oppositely disposed rests or stops 5, 5 for a cigarette. Secured to each other and to the rolled rear end of the floor 1 by the pin 2 are the side walls 6, 7, the wall 7 being of the same length as the floor, the wall 6 being of slightly greater extent and formed adjacent the front end of the floor 1 with the large vertical opening 8, one floor terminal 5 being recessed or diminished at 9 to space it from the wall recess 8, the walls 6, 7 being formed with outwardly disposed flanges 10, 11, respectively, the forward portion of flange 11 extending beyond floor terminal 5 and downturned and formed with an elongated slot 12 having a slightly enlarged lower portion 13, said walls and floor defining a magazine. Received in and movable longitudinally of slots 12, 13 and capable of engagement with the shoulder 14 defining the juncture of said slots is the lever 15 fulcrumed at its enlarged inner end upon the pin 16 secured to the wall 6.

The lever 15 carries at its extreme inner tip the pin 17 insulated from the contact member 18 carried by the switch block 19 that also carries the contact member 20 normally spaced from contact member 18, said switch block 19 also being connected by conductor 21 to the lighter or igniter element 22 grounded upon post 23 to the wall 6. The lighter element is disposed in the recess 8 in wall 6 contiguous to the floor recess 9. The inner or heel end of the lever 15 is formed with a notch 24 in which is disposed one end of the lever 25 fulcrumed to pin 26 carried by the floor 1, the inner end of said lever received between the downturned lips 27, 27 partially punched out from

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the oscillating delivery plate 28 operatively received upon the floor, the rear end of said plate spaced from the corresponding floor end and disposed freely thereupon, the forward end of said plate being bent downwardly to form a scoop 28a shaped complementary to the cigarette periphery that gently receives a cigarette from plate 28, said scoop resting upon the floor and in forward position being contiguous to the floor folded portion as clearly shown in dotted lines, Fig. 3. A contractile coil spring 29 has one end secured to the protruding end of the lever 25, the opposite end of spring 29 engaging a lug 30 carried by the guide bracket 31 secured to wall 6 adjacent and very slightly to one side of the lever 15 to which lever one end of the heat expansive bimetallic arm 32 is secured in slight spaced relation, said arm extending parallel to lever 15 rearwardly from the downturned slotted end of flange 11 to a point slightly beyond bracket 31 and in normal position, shown clearly in Figs. 1 and 5, immediately above a vertically disposed downwardly tapered slot 33 in said bracket and in remote spaced relation to the lighter element 22. One wall of slot 33 is curved slightly toward the wall 6 so that a downward movement of the lever 15 will move the bimetallic arm into said slot against this curved slot wall imparting a lateral movement of the arm and lever toward wall 6 and when the lever passes beyond shoulder 14 into the enlarged slot portion 13 disposing the arm in closest relation to the lighter element and when the lever is manually released the spring 29 will ride the lever against the shoulder 14.

The lever will so remain until the arm is heated and caused to expand and force the lever away from this element when it will ride into the upper or narrow portion 12 of the slot. When the lever is in the enlarged slot portion 13 the contact members 18, 20 are in engagement with each other closing an electrical circuit through switch box 19, resistance element 34, conductor clip 35 and wire 36 to the vehicle battery. At the forward end of the container is an angular plate 37 one end of which is secured to a pin 38 and the opposite end to the pin 39, both pins connecting the walls 6, 7, the plate from its ends extending angularly rearwardly and passing about the stay bolt 40 connecting the walls, the lower end of the plate spaced from the forward end of the delivery plate a distance slightly less than the diameter of the cigarette 41 in the forward position of the delivery plate and slightly more than such diameter in the opposite position thereof. A cover plate 42 complementary to the top portion of the container has downturned lateral edges that slidably engage the container wall flanges 10, 11, the cover plate having an upwardly curved front end 43 for abutting engagement with the vehicle dash 44 and spaced rearwardly therefrom a lip 45 partly punched from the plate and disposed obliquely upwardly for engagement with the dash, a narrow scored cover plate portion 46 extending centrally from the lip 45 rearwardly and separated by a slight depression 47 from a flared termination 48, a bracket 49 secured thereto carrying a screw 50 between which and the lip 45 the skirt or end of the dash is received to releasably secure the cover thereto. A resilient hook-shaped stop member 51 has one end secured by rivet 52 to the floor 1 adjacent the rolled floor end, said member extending thereover to yieldingly prevent the container from being moved manually into partially open position and to likewise yieldingly prevent complete removal of the container

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from engagement with the somewhat resilient cover. In use the container is moved into partially open position so that the plate 28 is exposed to permit filling. Thereafter the container is returned to normal closed position.

By now depressing the outer end of lever 15 same will move lever 25 upon pivot 26 to move the delivery plate forwardly, thus moving a cigarette that has been deposited in the space between plates 31, 28 and the fold in floor 1 upon the latter from which it will gravitate to the forward end of the floor against the rest stops 5. At the same time the electric circuit will have been closed energizing the igniter as previously described lighting the cigarette which may now be removed. When the bimetallic arm has caused the return of the lever and connections to normal position the mechanism is in position for repeat use.

Referring now to Figs. 8 and 9 another type of guide bracket for the arm 32 is shown consisting of flat piece 53 having an elongated slot 54 and perforation 54a for screw 55 and pivot pin 55a respectively, the pin 55a securing piece 53 pivotally to floor 1 and screw 55 serving to frictionally lock said piece in adjusted position. A portion of the bracket extends beyond wall 6 in line with stay bolt 40 and is upturned to form finger 56 engaged by spring 29, and to form guide finger 57 having slot 58 identical with slot 33 adapted to receive and guide the arm. This bracket when adjusted with respect to wall 6 will position the arm 32 at greater or less distance from the igniter 22 to vary the length of time required to heat said arm thus selectively prolonging or diminishing the period for lighting the cigarette.

What is claimed is:

1. In a cigarette container, dispenser and lighter, an open top magazine including a floor having a forwardly disposed folded portion terminating in a rest, a closure slidably receiving said magazine, means carried by said closure for releasably securing same to a support, an angular plate in the forward end of said magazine spaced from said folded floor portion a distance slightly greater than the diameter of a cigarette, a delivery plate within said magazine operatively disposed upon said floor and movable toward and away from said angular plate distances varying from less than to greater than the diameter of a cigarette, a downturned scoop at one end of said delivery plate shaped complementary to the periphery of a cigarette and in one position of said delivery plate spaced from said angular plate and said floor fold a distance slightly greater than the diameter of a cigarette, an igniter element carried by said magazine adjacent said rest, switch means for energizing current to said igniter element, and means carried by said magazine for actuating said delivery plate and controlling said switch means in predetermined manner.

2. A cigarette container, dispenser and lighter comprising in combination, a magazine having means to which cigarettes disposed therein move singly by gravity to a supported position ready to be engaged and removed, manually operable means associated with said magazine to engage a so supported cigarette and remove and release same for further movement by gravity to a rest position, an igniter element carried by said magazine in a position contiguous to one end of a cigarette at rest position, switch means controlled through the movements of said manually operable means for providing energizing current to

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said igniter element to light a cigarette, heat responsive means carried by said manually operable means and thereby disposed in contiguity to said igniter element in one position of said manually operable means, and a bracket carried by said magazine for releasable engagement with said heat responsive means, in said one position of said manually operable means, said bracket releasing said heat responsive means when same has been heated to a predetermined degree.

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