Sept. 25, 1934. W. JAY 1,974,462

APPARATUS FOR DISPENSING AND LIGHTING CIGARETTES

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Fig. 1.

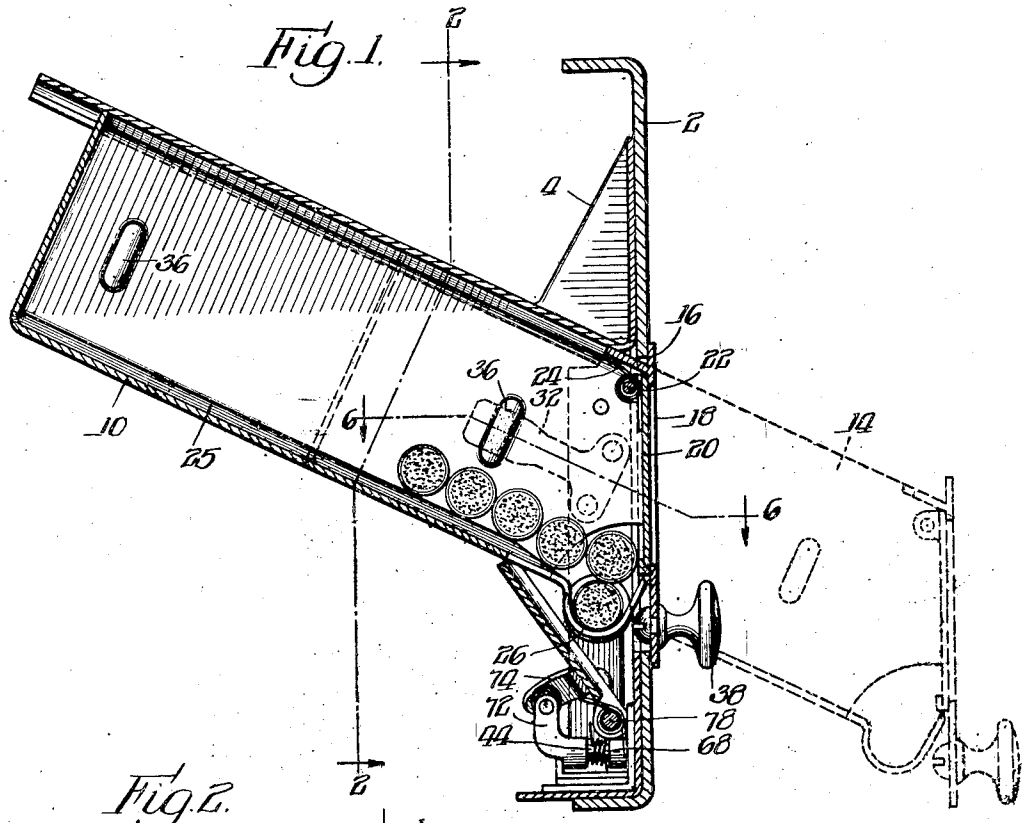


Fig. 2.

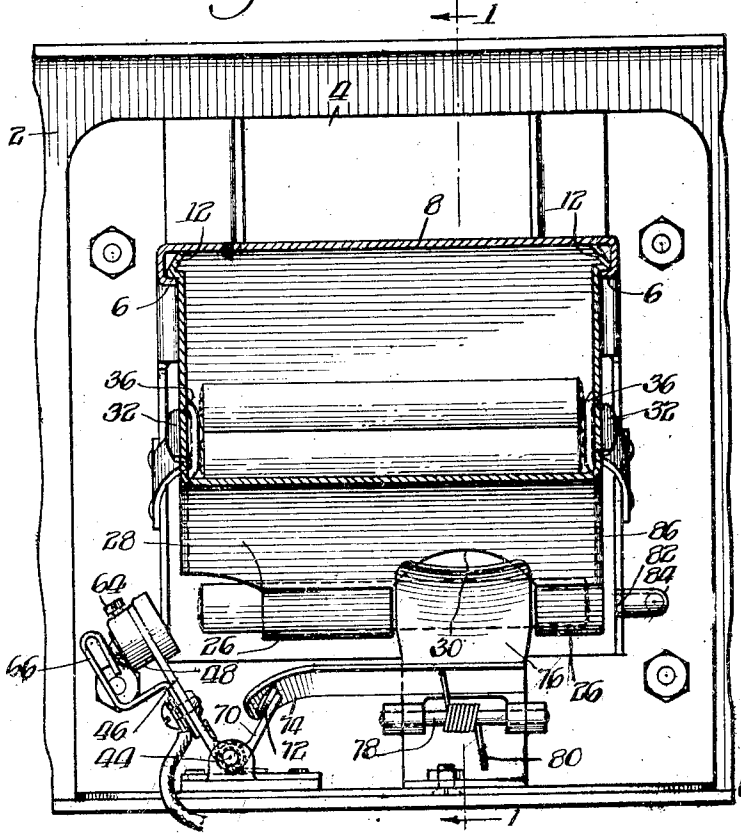
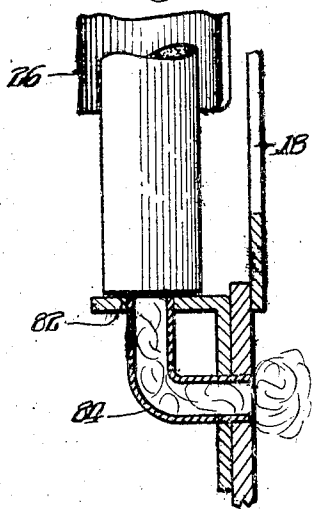


Fig. 3.



Inventor:
Webb Jay

By Wilkinson, Huxley, Bryant & Knight
Attys

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Fig. 4.

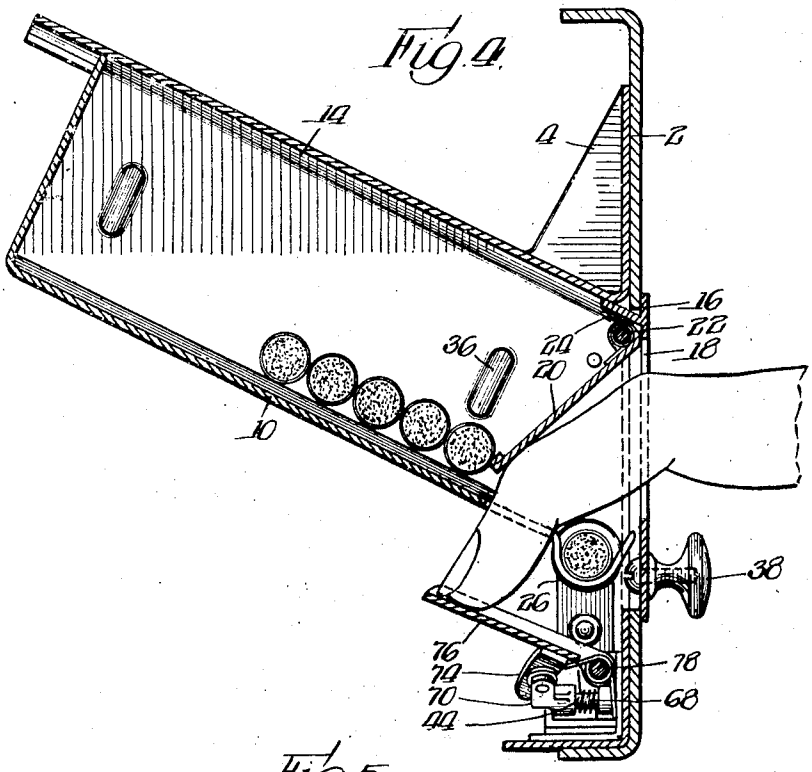


Fig. 5.

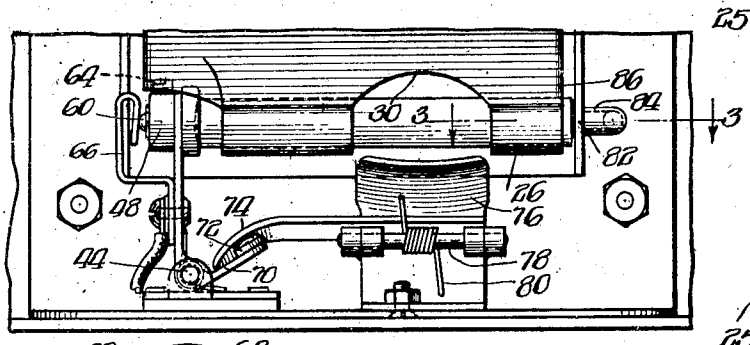


Fig. 6.

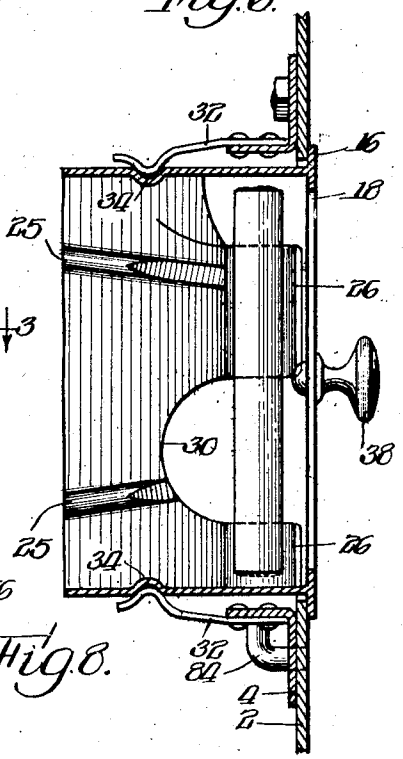


Fig. 7.

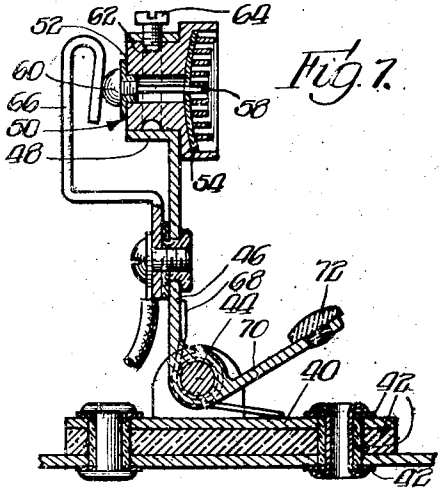
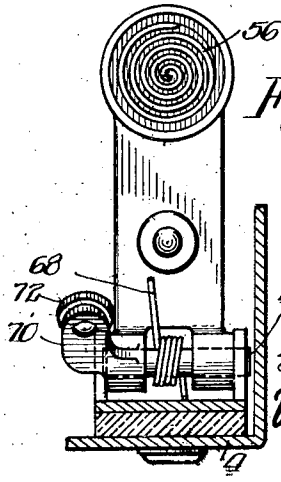


Fig. 8.



Inventor:
Webb Jay
By
Wilkinson, Huxley, Byron & Knight
attys

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UNITED STATES PATENT OFFICE

1,974,462

APPARATUS FOR DISPENSING AND LIGHTING CIGARETTES

Webb Jay, Miami Beach, Fla.

Application February 13, 1931, Serial No. 515,440

8 Claims. (Cl. 312—86)

This invention relates to apparatus for dispensing and lighting cigarettes or the like, and is illustrated as embodied in a form especially suitable for mounting on an automobile dashboard or other panel, though of course in many aspects it would be equally useful in other connections.

This invention accomplishes a number of novel objects. It provides a dispenser and lighter of satisfactory operation and convenient use which, when in its normal position is substantially flush with the panel on which it is mounted. The hole in the panel may be of a minimum size both because of the compactness of the container unit and because the removal opening may be shorter than the length of the cigarette, this invention making the removal of the cigarettes through the shorter opening quite easy. The cigarette may be satisfactorily lit without either suction or careful spacing of the cigarette from the igniter. As the cigarette lights, smoke is forced out of the unlit end, thus clearly showing the progress of the lighting, the smoke being conveyed to a visible position if necessary or desired.

With these and various other objects in view, the invention may consist of certain novel features of construction and operation, as will be more fully described and particularly pointed out in the specification, drawings and claims appended hereto.

In the drawings, which illustrate an embodiment of the device, and wherein like reference characters are used to designate like parts,

Figure 1 is a vertical cross section through the apparatus on the dash board on which it is mounted;

Figure 2 is a section through the line 2—2 of Figure 1, showing the rear view of the ignition apparatus;

Figure 3 is a view partly in section illustrating the smoke vent;

Figure 4 is a view corresponding to Figure 1 but showing the operation of the apparatus;

Figure 5 is a fragmentary view of the ignition apparatus, in the operated position;

Figure 6 is a fragmentary horizontal sectional view showing a cigarette in the pocket of the container;

Figure 7 is a detail sectional view of the igniter and its mounting; and

Figure 8 is a view of the same structure looking toward the face of the igniter element.

Although my invention may take many forms, only one has been chosen for illustration. The apparatus has been shown as mounted on an automobile dashboard 2, through which has been formed a hole of suitable size. Mounted on the inside of the dashboard 2, is a rack 4 which is provided with the ledge portions 6 and the cover portion 8. A container unit 10 is provided of a size just small enough to go through the opening of the dashboard 2 and provided with slide portions 12 adapted to fit onto the ledge portions 6 of the rack. Most of the top of the container is left open to provide the filler opening 14 which is covered by the cover portion 8 when the container is in its normal position, but is exposed when the container is withdrawn. At its front end the container is provided with a face 16 through which is cut a suitable removal opening 18. This opening 18 is normally closed by the closure 20 which is suitably hinged at 22 and provided with a closing spring 24. The container is preferably steeply inclined and its bottom may be provided with raised tracks 25, converging toward the bottom, to reduce friction and keep the cigarettes properly centered and aligned. A pocket 26 is provided on the bottom of the container at its front end, adapted to receive a single cigarette, so that when the closure 20 is opened it will sweep all the other cigarettes away from the cigarette in the pocket or cradle 26. The bottom of the container 10 from which the pocket 26 is supported is slit as at 28, so that the pocket may be flexible with respect to the container. By this expedient, the pocket may be located at a level lower than the bottom of the container 10 but at the same time be pressed through a panel opening which is just large enough for the container as a whole. The bottom of the container 10 and the pocket 26 are provided with a finger hole or slot 30 for the operation of the igniter and for the removal of the cigarette.

Suitable retaining clips 32 are provided, being preferably secured to the rack 4. Formed in the walls of the container, and positioned to be engaged by these retainer clips are the notches 34 for holding the container in its normal position, and the notches 36 for retaining the container in its withdrawn position and resisting complete removal. A knob 38 may be provided for the withdrawal of the container, although this is not necessary, as the container may be withdrawn by putting a finger through the removal opening and pulling on the face 16.

Mounted on the rack or directly on the dashboard, so as to function even in the absence of the container, is the igniter support 40 which is suitably insulated from the other parts of the apparatus by the insulators 42. This support includes the shaft 44 on which is pivoted the ig-

niter mounting, the main arm of which is designated 46. At the end of this arm 46 is a suitable hole with a flange 48 therearound. Into this hole is inserted the igniter unit 50.

The igniter unit comprises a base 52 of steel or other suitable material, the face of which is recessed, as shown best in Figure 7. A sheet of mica 54 or other suitable insulation is inserted next to this base in the recess. A resistance wire 56 is connected to the rim of the recess at one end and coiled as shown in Figures 7 and 8. The other end is connected to a conductor 58 which passes through a hole in the mica 54 and through a larger hole in the steel base 52. The other end of the conductor is held in place by another mica disc 60 fitted in the other end of the hole of the base. The parts are preferably so fitted that a resistance wire 56 is drawn into the shape of a cone, as clearly shown in Figure 7. The resistance wire may conveniently be of the ribbon type, for example, .065 inch wide, and .0165 inch thick. If these dimensions are used, a resistance may be chosen which will be suitable in a coil 7¾ inches long. These dimensions are of course merely suggestive of one suitable resistance wire, and many others may be used. In fact, it is obvious that as to most aspects of the invention, an igniter of any type would suffice.

The base 52 is provided with an annular groove 62 which is adapted to be engaged by a screw 64 in the flange 48. When the igniter unit is in this position, the conductor 58 will be engaged by a contact 66 which is supported by but insulated from the arm 46 as shown, and is connected to any suitable source of supply. A spring 68 is provided for normally pressing the arm 46 to the position shown in Figure 2. The igniter mounting includes an operating arm 70 at the end of which is a button 72 of insulating material. The button 72 is normally engaged by a finger 74 shown in Figure 2, which is rigidly attached to the main operating lever 76. This lever 76 is pivotally mounted on a shaft 78 which is suitably suspended from the rack or the dashboard as shown. A spring 80 is provided for normally maintaining the operating lever 76 in its uppermost position. Under the influence of spring 68 the igniter mounting is normally held in a position shown in Figure 2, being restrained from further movement by abutment of the button 72 against the finger 74. The parts are so shaped that in this position the finger 74 does not contact the arm 70 but only the insulating button 72. When the operating lever 76 is manually pressed, however, as shown in Figure 4, the finger 74 not only shifts the igniter mounting by pressure on button 72, but also so shifts its position as to contact the operating arm 70 directly, as shown in Figure 5. The circuit for the igniter is thereby completed, passing through the contact 66, through the conductor 58, through the resistance wire 56 to the rim of the base 52 and through the base to the arm 46, through the operating arm 70 to the operating finger 74 which is now contacting arm 70 and is grounded to a source of electricity.

It is thus seen that the operating finger 74 and operating arm 70 both complete the circuit for the igniter, and cause the movement of the igniter. When the igniter is thus shifted, it is brought up to and into contact with the end of the cigarette and then shifts the cigarette to the operator's left. The shifting of the cigarette is preferably restricted by a stop 82 which may be formed integral with the rack 4. It is preferred that this stop be located sufficiently far to the operator's left so that the igniter will be shifted into plain view through the removal opening and so that the lighted end of the cigarette will be sufficiently close to the center of the opening so that it may be removed without any danger of knocking off the ashes on the side of the opening.

With the construction above described the igniting element is very easily replaced. The container is first completely removed and then by reaching a finger behind the igniter mounting, it may be swung to its vertical position or further without completing the circuit since the operating lever 76 is left in its normal position and retained therein by the spring 80. It is then merely necessary to loosen the screw 64 to remove the igniter unit.

The stop 82 may very desirably be provided with an opening and a tube or vent 84 connected therewith having an outlet at the front of the dashboard. When the cigarette is lit, smoke will be seen to come out of the vent.

The use and operation of the apparatus is extremely simple. The container is partially withdrawn by the handle 38 and nearly filled with cigarettes, in the mean time being restrained from dropping out of its opening by the notches 36. Next, the container is shifted back into position, where it is held by the notches 34 and the spring catch 32, the device then being ready for operation. In operating it, the user merely presses back the closure 20, thereby sweeping out of the way all the cigarettes except the one located in the pocket 26. Then, with a movement which is hardly more than a continuation of the first movement, he presses down the operating lever 76. This motion swings the igniter into contact with the cigarette, completes the circuit for the igniter, and shifts the cigarette against the stop 82. The operator can watch the lighting take place, or he can watch for the smoke coming out of the vent 82. When the cigarette has been sufficiently lit, he merely withdraws his finger, and the cigarette with it. In view of the displacement of the cigarette, the mouth end will be behind the corner 86 and the container, as shown in Figure 5. That end of the cigarette will, therefore, be restrained from movement until the lighted end of the cigarette has been withdrawn through the opening. As the cigarette is withdrawn, the closure 20 closes and another cigarette drops into the pocket ready to be lit. By locating the finger-hole to the user's left of the center, as shown, the cigarette is grasped at substantially the normal holding point, so that a subsequent shifting of the cigarete in the hand is not necessary, and so that the lighted end of the cigarette is well removed from the user's fingers which are below the cigarette. If the finger hole is in the center, the knuckle of the user's middle finger is in just about the right position to be struck by the lit end of the cigarette as it is withdrawn.

It is to be understood that many other embodiments of the invention, including some in improved form, will be apparent, and in the course of time more will be devised by those skilled in the art. It is not desired that this invention be limited to the details described, for its scope includes all such forms or improvements as come within the spirit of the following claims, construed as broadly as the prior art will permit. Of the many changes which could be made in this apparatus, one of the most obvious would be to attach the pocket 26 to the rack instead of to the container. If that were done

it would be advisable to provide means for latching the closure 20 behind the bottom opening whenever the container was withdrawn.

In practice it will usually be found desirable to provide an ash tray at another point on the dashboard. Such an ash tray may be similar to the container described above, but with only the top opening, this being closed by the cover forming rack when the tray is shoved in.

I claim:

1. A cigarette dispenser and lighter comprising a container having a front wall provided with an opening for the removal of a cigarette from within the opening, a horizontal pocket disposed across the bottom of the container at the front to hold a cigarette to be removed, an igniter mounted for engagement with one end of a cigarete in the pocket, said pocket and the adjacent portion of the bottom of the container having a finger opening and means to actuate the igniter operable by a finger inserted through said finger opening from above.

2. A cigarette dispenser and lighter comprising a container having a front wall provided with an opening for the removal of a cigarette from within the opening, a horizontal pocket disposed across the bottom of the container at the front to hold a cigarette to be removed, an igniter mounted in longitudinal alinement with the pocket beyond one end thereof for movement toward the same for igniting engagement with a cigarette in said pocket, said pocket and the adjacent portion of the bottom of the container having a finger opening, and means engageable by a finger projected through said opening from above for moving the igniter toward a cigarette in the pocket and for placing said igniter in operation.

3. A cigarette dispenser and lighter comprising a container having a front wall provided with an opening for the removal of a cigarette from within the opening, a horizontal pocket disposed across the bottom of the container at the front to hold a cigarette to be removed, an igniter mounted in lohgitudinal alinement with the pocket beyond one end thereof for movement toward the same for igniting engagement with a cigarette in said pocket, said pocket and the adjacent portion of the bottom of the container having a finger opening, a depressible element mounted below the finger opening, and means functioning with the depression of said element to move the igniter toward a cigarette in the pocket and simultaneously place the igniter in operation.

4. A cigarette dispensing and igniting apparatus including a fixed support, a container slidably mounted on the support, a cradle for a single cigarette to be ignited and removed formed in the bottom of the container at its forward end, and an igniter mounted on the support independently of the container for engagement with the cigarette on the cradle when the container is disposed in a predetermined position relative to the support.

5. A device as in claim 4, with manual operating means for actuating the igniter exposable for operation from the front when the container is in such position.

6. A cigarette dispensing and igniting apparatus including a fixed support, a container slidably mounted on the support, a cradle for a single cigarette to be ignited and removed formed in the bottom of the container at its forward end, an igniter mounted on the support independently of the container for engagement with the cigarette on the cradle when the container is disposed in a predetermined position relative to the support, the bottom of the container having a finger hole immediately back of the cradle, and a movable member operable by a finger inserted through the opening, mounted on the support independently of the container for placing the igniter in operation.

7. A cigarette igniting device comprising a holder for a cigarette to be lit, an igniter facing one end of the holder, a support for the igniter depending therefrom and pivoted at its lower end transversely of the holder, an arm projecting angularly from the pivoted end of the support, an insulation button on the arm toward its outer end, a depressible member under which said arm projects, said member and arm being arranged relative to each other so that the member engages the button with an initial depressing movement and engages the arm beyond the button with a further depressing movement; and a circuit for the igniter in which said arm and member are interposed.

8. A cigarette igniting device comprising a holder for a cigarette to be lit, an igniter facing one end of the holder, a support for the igniter depending therefrom and pivoted at its lower end transversely of the holder, an arm projecting angularly from the pivoted end of the support, an insulation button on the arm toward its outer end, and a depressible member below the holder to engage the arm so as to turn the support to move the igniter toward the holder.

WEBB JAY.