

Feb. 10, 1948.

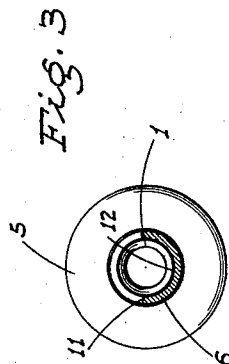
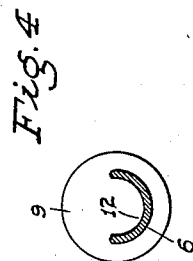
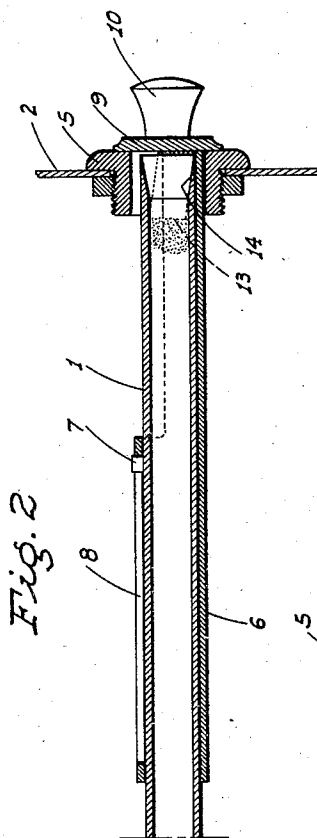
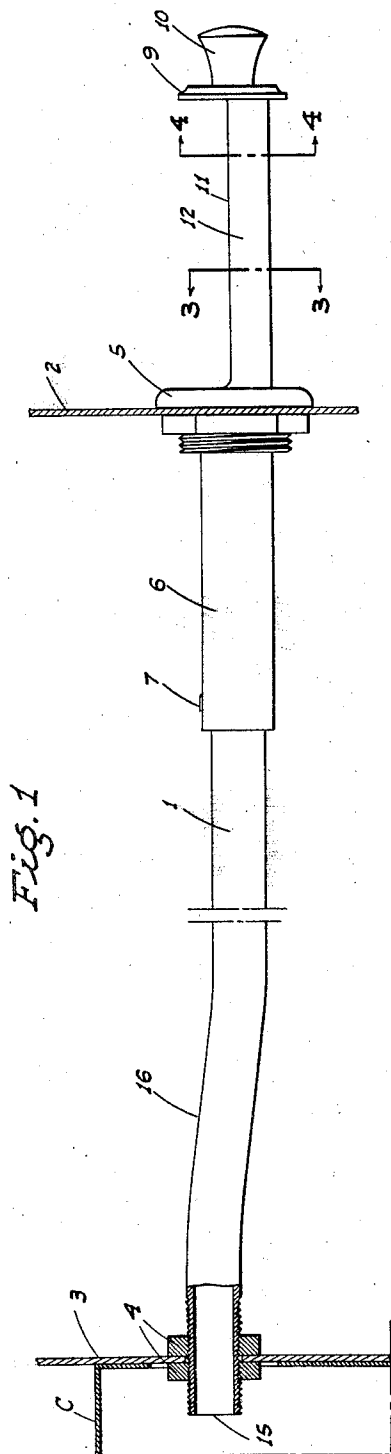
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2,435,687

CIGARETTE EXTINGUISHER AND EJECTOR

Filed Nov. 3, 1944

2 Sheets-Sheet 1



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CIGARETTE EXTINGUISHER AND EJECTOR

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2 Sheets-Sheet 2

Fig. 5

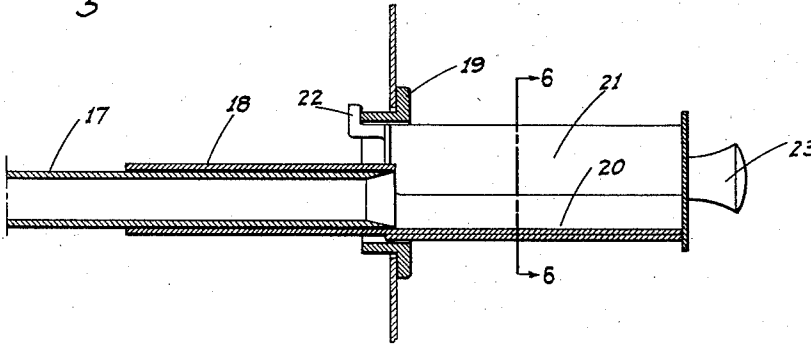


Fig. 6

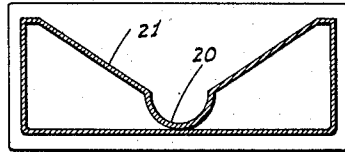


Fig. 7

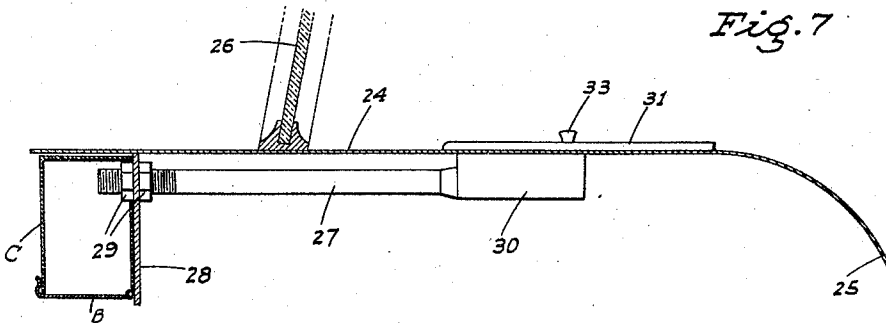


Fig. 8

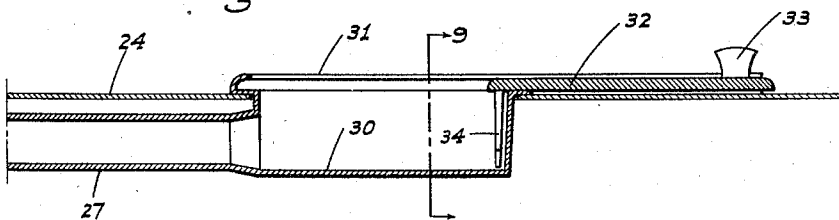
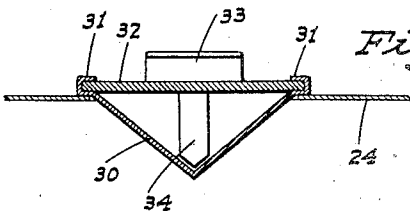


Fig. 9



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CIGARETTE EXTINGUISHER AND EJECTOR

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15 Claims. (Cl. 131—235)

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This invention relates in general to a cigarette extinguisher and disposal device, and in particular the invention is directed to, and it is an object to provide, a novel device of such character especially designed for use in connection with motor vehicles.

Another object of the invention is to provide a cigarette extinguisher and disposal device which comprises an elongated, substantially horizontal tube whose inside diameter is slightly larger than a cigarette, and means to receive a cigarette butt in alignment with and to project the butt into the tube at one end; the butts being extinguished in the tube and accumulating therein in end to end relation until the tube is filled, and thereafter as each new cigarette butt is introduced into said one end of the tube a previously extinguished cigarette butt is discharged from the other end of said tube. As so discharged the extinguished butts fall into a container.

A further object of the invention is to provide a device, as in the preceding paragraph, in which the cigarette butt receiving and advancing means comprises an open topped, cigarette receiving body and a member associated with said body to advance a cigarette therefrom into the extinguishing and accumulating tube; said member being movable back and forth relative to the adjacent end of the tube.

An additional object is to arrange the device in connection with the instrument panel or associated part of the vehicle, with the cigarette accumulating tube extending forwardly through the wall of the engine compartment; extinguished cigarettes dropping from the discharge end of the tube into a container in said engine compartment.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a side elevation, partly in section, of one embodiment of the device.

Figure 2 is a fragmentary sectional elevation of the forward portion of the device.

Figure 3 is a cross section on line 3—3 of Fig. 1.

Figure 4 is a cross section on line 4—4 of Fig. 1.

Figure 5 is a fragmentary sectional elevation of the forward portion of a modification of the device.

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Figure 6 is a cross section on line 6—6 of Fig. 5.

Figure 7 is a side elevation of a further modification of the device.

Figure 8 is an enlarged fragmentary sectional elevation of the forward portion of the device, as shown in Fig. 7.

Figure 9 is a cross section on line 9—9 of Fig. 8.

Referring now more particularly to the characters of reference on the drawings, and at present to the embodiment of Figs. 1—4, inclusive, the cigarette extinguisher and disposal device comprises an elongated tube 1 which extends between the instrument panel 2 of a motor vehicle and the rear wall 3 of the motor compartment of said vehicle. At the end adjacent wall 3, the tube 1 projects through said wall and is locked in engagement therewith by retaining nuts 4; said end of the tube being its discharge end, as will hereinafter appear. Wall 3 of course separates the engine compartment from the driver's compartment of the vehicle.

At the end adjacent the instrument panel 2 the tube 1 projects in loose-play relation into a metal grommet 5 which is fixed in connection with and extends through said panel; the end of the tube terminating closely adjacent the outer face of said grommet.

An elongated sleeve 6 slidably projects through the grommet from the outside thereof and receives the adjacent portion of the tube 1 in telescopic relation; separating movement of the sleeve 6 relative to the tube 1 being limited by a pin 7 on the tube which rides in a longitudinal slot 8 in the sleeve. At its outer end the sleeve 6 is formed with a head 9 on which is an outwardly projecting finger-engaging knob 10.

The outer portion of the sleeve 6 is cut away on top, as at 11, whereby to form said portion of the sleeve as a cigarette receiving cradle 12.

In use of the above described device, the sleeve 6 is drawn out by the knob 10 from its normal position, as in Fig. 2, to open position, as in Fig. 1, when it is desired to dispose of a cigarette butt 13. The cigarette butt 13 is then laid in the cradle 12 with the ignited end facing the tube 1. The sleeve 6 is then returned to its normal position, as in Fig. 2, whereby the head 9 forces the cigarette butt 13 into the adjacent end of the tube 1, which end is flared internally, as at 14, to facilitate entry of the butt 13. As the head 9 is normally disposed immediately adjacent the corresponding end of the tube 1, the butt 13 is completely projected into said tube. When disposed in the tube the cigarette is soon extinguished; one of the reasons for rapid extinguishing of the

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cigarette being the fact that the tube 1 soon dissipates the heat, causing failure of combustion.

As each cigarette butt 13 is advanced into the tube 1 by the head 9, the previous butt is likewise advanced in the tube. It will be seen that after a time the tube will be completely filled with cigarette butts, and when this occurs each additional butt advanced into the tube adjacent its forward end will cause a long previously extinguished butt to be forced out of the discharge end 15 of tube 1. Cigarette butts discharged from end 15 of the tube fall into a suitable receiving container C, mounted in the engine compartment. The container has a hinged bottom B as shown in Fig. 7, and which is capable of being swung down so that the container may be emptied whenever necessary.

The tube 1 intermediate its ends, and preferably adjacent the wall 3, is bent upwardly slightly as at 16, which assures that the row of cigarette butts in tube 1 will not accidentally slide out of such tube when the vehicle traverses a downward grade.

In the embodiment of Figs. 5 and 6 the general assembly remains substantially the same, including a cigarette butt-receiving tube 17 and a sleeve 18 running thereon through an instrument panel-supporting grommet 19. Here, however, the cradle forming portion 20 of the sleeve 18 is formed in connection with a trough 21 whose sides are disposed in converging relation and merge with corresponding upper edges of the cradle 20. The trough 21 engages in symmetrical sliding relation through the grommet 19, and said trough includes at its inner end a stop 22 which limits outward movement of said trough. At its outer end the trough includes a pull knob 23.

The above described embodiment functions in the same manner as described in connection with the embodiment of Fig. 1, except that here the converging sides of the trough 21 facilitate disposal of cigarette butts in the cradle 20 when the trough is in open position.

The embodiment of the invention in Figs. 7-9 inclusive is for a motor vehicle which includes a horizontal deck 24 above the instrument panel 25 and to the rear of the windshield 26. In this embodiment the cigarette extinguishing and receiving tube 27 is disposed substantially horizontal below the deck 24, with the discharge end of said tube projecting through the rear wall 28 of the engine compartment, and being locked to said wall by nuts 29. The receiving end of the tube 27 is disposed rearwardly of the windshield 26 and communicates with the adjacent end and at the bottom of a V-shaped longitudinal extending trough or cradle 30 fixed in connection with and depending through the deck 24. Said trough includes channels 31 along its upper and opposite edges in which a closure slide 32 slidably engages, said slide including an upstanding finger knob 33. A push-out finger 34 depends from the slide into the trough 30 to a termination in symmetrical relation to the bottom thereof; said finger depending from the slide at the end of the latter adjacent the receiving end of the tube 27.

To use this embodiment of the invention the slide 32 is retracted and the cigarette butt is then dropped into the trough 30. Thereafter the slide is advanced or closed relative to the trough 30, whereupon the finger 34 engages the cigarette butt and forces it into the tube 27.

While this invention has been described as used

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in connection with an automobile, it may also be employed on other motor vehicles, or in such other places as convenient and practical.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred constructions of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. A cigarette extinguisher and disposal device comprising an elongated substantially horizontal tube having an internal diameter to receive cigarette butts therein in end to end relation, said tube having a receiving and a discharging end, a cigarette receiving cradle aligned with the receiving end of the tube, and means to advance a cigarette butt from the cradle into the receiving end of the tube.

2. A device as in claim 1 in which the tube has an upward incline therein intermediate its ends.

3. A cigarette extinguisher and disposal device comprising an elongated substantially horizontal tube having an internal diameter to receive cigarette butts therein in end to end relation, said tube having a receiving and a discharging end, a cigarette receiving cradle aligned with the receiving end of the tube, means to advance a cigarette butt from the cradle into the receiving end of the tube; and a sleeve formed in connection with the cradle and slidably disposed on the tube adjacent said receiving end thereof.

4. A cigarette extinguisher and disposal device comprising an elongated substantially horizontal tube having an internal diameter to receive cigarette butts therein in end to end relation, said tube having a receiving and a discharging end, a sleeve slidable on the tube at and adjacent said receiving end thereof, the forward portion of the sleeve being cut away on top to form a cigarette butt receiving cradle, the sleeve being slidable outwardly a distance to position the cradle beyond the receiving end of the tube, and means to advance a cigarette butt from the cradle into said receiving end of the tube upon substantially full telescoping of the sleeve onto the tube.

5. A cigarette extinguisher and disposal device comprising an elongated substantially horizontal tube having an internal diameter to receive cigarette butts therein in end to end relation, said tube having a receiving and a discharge end, a sleeve slidable on the tube at and adjacent said receiving end thereof, the forward portion of the sleeve being cut away on top to form a cigarette butt receiving cradle, the sleeve being slidable outwardly a distance to position the cradle beyond the receiving end of the tube, and means to advance a cigarette butt from the cradle into said receiving end of the tube upon substantially full telescoping of the sleeve onto the tube; said means being a head on the outer end of the cradle portion of the sleeve.

6. A cigarette extinguisher and disposal device comprising an elongated substantially horizontal tube having an internal diameter to receive cigarette butts therein in end to end relation, said tube having a receiving and a discharge end, a sleeve slidable on the tube at and adjacent said receiving end thereof, the forward portion of the

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sleeve being cut away on top to form a cigarette butt receiving cradle, the sleeve being slidable outwardly a distance to position the cradle beyond the receiving end of the tube, a head on the outer end of the cradle portion of the sleeve operative to advance a cigarette butt from the cradle into the receiving end of the sleeve upon substantially full telescoping of the sleeve onto the tube, and a finger member on the outside of the head.

7. A device as in claim 1 in which the receiving end of the tube is internally flared.

8. In combination in a motor vehicle having an instrument panel and an engine compartment wall in advance thereof, a substantially horizontal tube extending from adjacent the panel to and through said wall, said tube having an internal diameter to receive cigarette butts therein in end to end relation, and means supported by the panel adapted to receive and advance a cigarette butt into the receiving end of said tube.

9. In combination in a motor vehicle which includes a driver's compartment, an engine compartment, and a wall separating the same; a cigarette extinguishing and disposal device comprising a substantially horizontal, elongated tube mounted in the driver's compartment and extending through the wall, said tube being adapted to receive cigarette butts therein in end to end relation, and manually actuated means in the driver's compartment arranged to receive cigarette butts and to advance the same into the adjacent end of the tube.

10. A device as in claim 9 in which said means includes a cigarette butt receiving cradle mounted in reciprocating and telescopic relation to the tube; said cradle being closed at the end opposite the tube.

11. A device as in claim 9 in which said means includes a cigarette butt receiving cradle mounted in adjacent aligned relation to the end of the tube in the driver's compartment, a slide cover arranged to move lengthwise of the cradle, and a finger depending from the slide cover into the cradle; said finger being positioned to engage a cigarette butt in the cradle and advance said butt into the tube upon closing of said cover.

12. A device as in claim 1 in which the cradle is formed as the bottom portion of a trough having opposed, downwardly converging side walls.

13. A cigarette extinguisher and disposal device comprising an elongated, substantially horizontal tube adapted to receive cigarette butts

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therein in end to end relation, said tube including a receiving and a discharge end, an upwardly opening cradle aligned and fixed in connection with the tube at the receiving end, and manually actuated means to advance a cigarette butt from the cradle into the tube.

14. A cigarette extinguisher and disposal device comprising an elongated, substantially horizontal tube adapted to receive cigarette butts therein in end to end relation, said tube including a receiving and a discharge end, an upwardly opening cradle aligned and fixed in connection with the tube at the receiving end, and manually actuated means to advance a cigarette butt from the cradle into the tube; said means comprising a slide cover on the cradle, and a finger depending from said cover into the cradle.

15. A cigarette extinguisher and disposal device comprising an elongated, substantially horizontal tube adapted to receive cigarette butts therein in end to end relation, said tube including a receiving and a discharge end, a sleeve slidable on the tube, said sleeve being movable from a substantially fully telescoped position to a position projecting in part beyond the receiving end of said tube, said part of the sleeve being open on top forming a cigarette butt receiving cradle, a head closing the outer end of the cradle portion of the sleeve, and hand means to slide the sleeve on the tube.

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