July 21, 1953 M. MERMELSTEIN 2,646,164

DEVICE FOR EJECTING CIGAR AND CIGARETTE BUTTS AND ASHES FROM AUTOMOBILES

Filed May 15, 1951 2 Sheets-Sheet 1

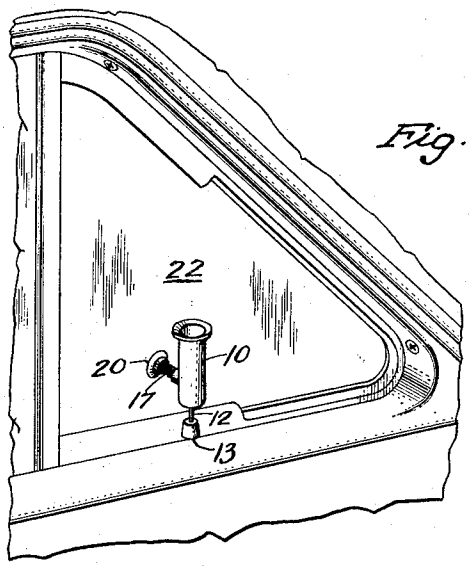


Fig. 1

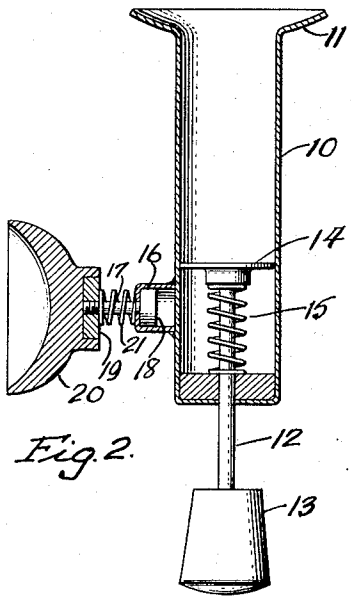


Fig. 2.

Fig. 4

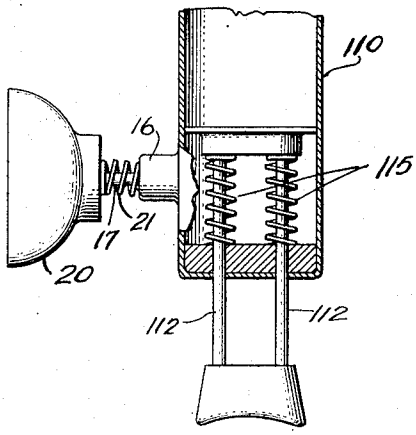
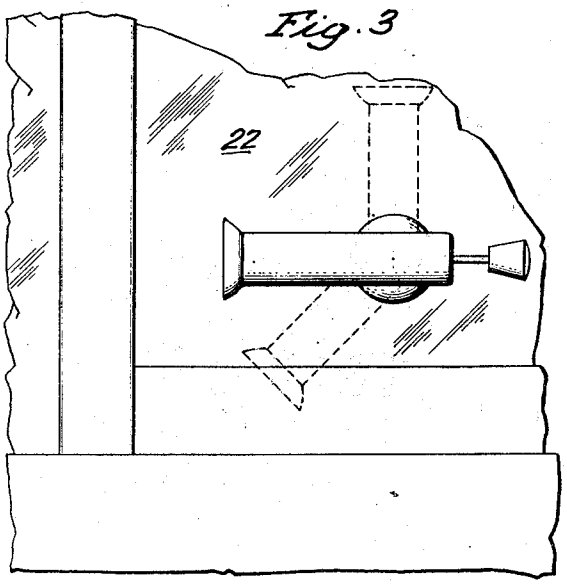


Fig. 3



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DEVICE FOR EJECTING CIGAR AND CIGARETTE BUTTS AND ASHES FROM AUTOMOBILES

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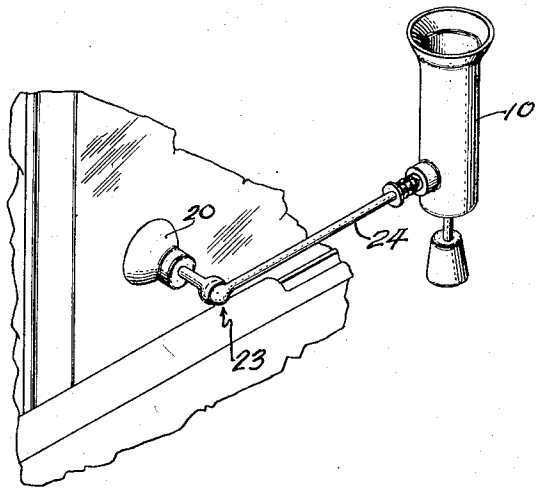


Fig. 5

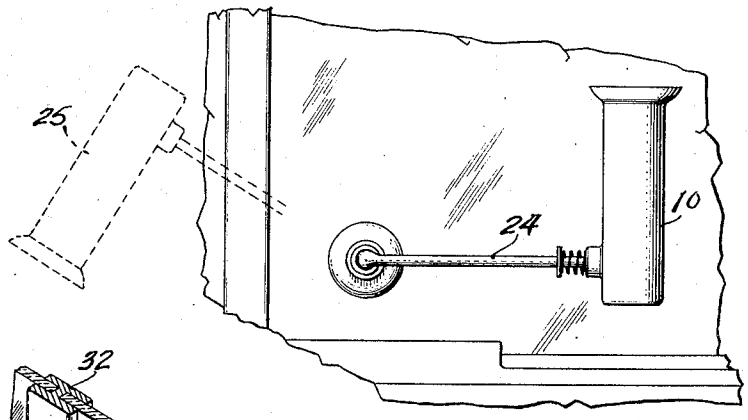


Fig. 6

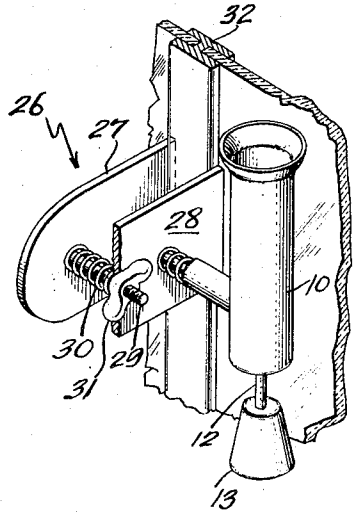


Fig. 7

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UNITED STATES PATENT OFFICE

2,646,164

DEVICE FOR EJECTING CIGAR AND CIGARETTE BUTTS AND ASHES FROM AUTOMOBILES

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Application May 15, 1951, Serial No. 226,516

1 Claim. (Cl. 206—19.5)

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This invention relates to receptacles for cigar, cigarette and ash materials, and the like, adapted to be secured in a position adjacent a window of an automobile for the ready removal of such materials, having particular reference to a device with such a receptacle pivotally connected to a receptacle holding means, especially adapted removably to be secured to draft type windows of automobiles, or to the frame adjacent a window for the removal of such materials, and the provision of such a device is a principal object of the invention.

Generally, it is an object of the invention to provide such an article which is economic of manufacture, simple yet sturdy and durable of construction, and easy and positive in operation.

More specifically, it is an object of the invention to provide such a device adapted for use on automobiles, and particularly in conjunction with draft windows thereon, for ejecting cigar, cigarette and ash materials therefrom, constituting a receptacle for such materials, a receptacle holder adapted removably to be secured to the draft window, whereby the receptacle can be swung to a position out of the confines of the automobile, and means pivotally securing the receptacle to the holder in order that the receptacle, when so positioned, will be adapted to remove the materials therefrom.

Another object of the invention is to provide a device of the type above described in which the receptacle has mounted therein an ejector mechanism, preferably one that comprises a spring-loaded, elongated element mounted to reciprocate axially of the receptacle through the bottom thereof, and having a false bottom at one end thereof within the receptacle, whereby the materials forcibly can be removed therefrom.

Another object of the invention is the provision of such a device for a draft window in which the holder for the receptacle comprises a suction cup adapted to secure the latter in position.

Another object of the invention is the provision of such a device in which the means connecting the receptacle and holder includes a pivotal element frictionally holding them in position with respect to each other in order that the receptacle temporarily can be positioned at any desirable angle.

A further object of the invention is the provision of such a device in which the means connecting the receptacle and holder together constitutes a pivotally mounted extension member of a length adapting it to be moved to a position to place the receptacle beyond the free edge of the draft window in order that the receptacle readily can be emptied of its contents.

A further object of the invention is to provide such a device in which the means connecting the receptacle and holder together constitutes a pivotally mounted extension member of a length adapting it to be moved to a position to place the receptacle beyond the free edge of the draft window in order that the receptacle readily can be emptied of its contents.

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A further object of the invention is to provide such a device in which the means connecting the receptacle and holder together comprises a frictionally engageable ball and socket joint arrangement.

A still further object of the invention is to provide a cigar, cigarette and ash materials ejecting device adapted to be mounted on the frame adjacent the window of an automobile by means of a clamp adapted removably to be secured to said frame.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises an article of manufacture possessing the features, properties, and the relation of elements which will be exemplified in the article hereinafter described and the scope of the application of which will be indicated in the claim.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Fig. 1 is a perspective view of a preferred embodiment of the invention illustrated as being attached to the draft window of an automobile;

Fig. 2 is a transverse sectional view of such a device, somewhat enlarged;

Fig. 3 is an elevational view of the device illustrating various operational positions thereof when the same is in use and the draft window to which it is attached is open;

Fig. 4 is a vertical sectional view of a fragmentary portion of a modification of the invention;

Fig. 5 is a perspective view, somewhat similar to Fig. 1, illustrating another modification of the invention;

Fig. 6 is an elevational view of another modification of the invention, somewhat similar to Fig. 5, and illustrating its operation in dotted line position; and

Fig. 7 is a perspective view of a modified receptacle holding means adapted for clamping the same to the frame of an automobile adjacent a window.

Referring more particularly to the drawings, there is indicated at 10 a receptacle, outwardly flared at 11 at its open end for the reception of such materials as cigar and cigarette butts, ashes and the like.

Passing upwardly through the bottom is an elongated element 12 having a gripping handle or knob 13 at one end thereof on the outside

of the receptacle. On the inside of the receptacle, on the other end of the shaft, is a false bottom 14. A coil spring 15 is positioned around the element 12 between the bottom of the receptacle and the false bottom, or disk 14. It will at once be obvious that this mechanism constitutes an ejector which is movable axially of the receptacle 10 and mounted to reciprocate therein.

Adjacent the bottom of the receptacle is a socket 16 in which is mounted a shaft 17 having a shoulder 18 attached to the shaft. The other end of the shaft has preferably screw-threaded thereon a disk 19 which is embedded in a rubber suction cup 20. Around the shaft 17, between the disk 19 and shoulder 16, is a spring 21, urging the receptacle 10 away from the cup whereby the receptacle which is thus pivotally mounted can be turned to any desired angle with respect to its vertical position. When the receptacle has accumulated a certain amount of cigar, cigarette or ash material, the draft window can be pushed open and by turning the receptacle through an angle of at least 90°, the material can be emptied by gravity. If the receptacle is turned through an angle which is insufficient so as to empty the same of its contents, they can forcibly be retracted by an outward pull of the knob 13 against the action of the spring when the knob is released thereby ejecting such materials from the receptacle. These actions are illustrated in Fig. 3. The suction cup 20 is of a conventional type and can readily be secured in position on a draft window 22 as illustrated.

As illustrated in Fig. 4 the ejector mechanism may be provided with dual acting elements such as a pair of shafts 112 and springs 115 and the receptacle 110 may be double barreled each barrel having a single ejector mechanism.

In either of the modifications above described it will be observed that it is intended to affix such a device to the draft window so that, when the latter is opened, the device will be out of the confines of the automobile proper.

In Fig. 5 it will be observed that the modification there shown differs only in that the receptacle 10 and the holding means or suction cup 20 are connected by a ball and socket arrangement 23, the socket preferably being connected to the suction cup 20 and the ball portion having an elongated shaft 24 connected to the receptacle. With this arrangement a frictional connection is obtained so that the receptacle temporarily can be placed and maintained in any desired position but in such a manner that it extends beyond the free edge of the draft window. This is illustrated, for example, in dotted line position at 25 in Fig. 6, the only difference between the modification shown in Fig. 6 and that shown in Fig. 5 being that there is no ejector mechanism illustrated in Fig. 6, the same being intended to be emptied by gravity by substantially completely upending the receptacle.

In Fig. 7 the receptacle 10 is shown with an ejector mechanism but the holding means indicated generally at 26 is of different construction and intended to be differently secured. That is, this holding means preferably comprises a clamp constituting two plates, 27 and 28, through which passes a threaded stud 29 with a spring 30 around the stud between the plates, the parts being held together by a wing nut 31. The receptacle is secured to one of the plates by means of an arrangement similar to that illustrated and described. The clamp is secured to any window frame portion 32 adjacent a window which can be opened.

It will thus be seen that the objects hereinbefore set forth may readily and efficiently be attained and, since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claim is intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

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

A device of the character described, for use on a draft window of an automobile, for removing cigar, cigarette and ash materials therefrom, comprising an elongated container, open at one end for receiving and holding a substantial quantity of said materials; a reciprocable false bottom spaced inwardly from the closed bottom end of said container; a plunger shaft secured to said false bottom at one end, and extending through said closed bottom coaxially of the longitudinal axis of said container and terminating in a gripping member at its free end exterior of said casing the length of the plunger shaft from the false bottom to the gripping member being equal to at least one half of the interior height of the container; a coil spring surrounding the shaft within the container between said closed bottom and said false bottom normally urging the latter outwardly, whereby compression of said spring by manual retraction and sudden release of said shaft will forcibly eject said materials from said container; means adapted removably to secure said container to said draft window; and means pivotally connecting said container to said last named means in a manner such that said container can be rotated in a plane parallel to said window through an arc from a substantially vertical to a substantially horizontal position and remain so positioned for reciprocation of said plunger.

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