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POWER OPERATED ASH DISPOSAL RECEPTACLE

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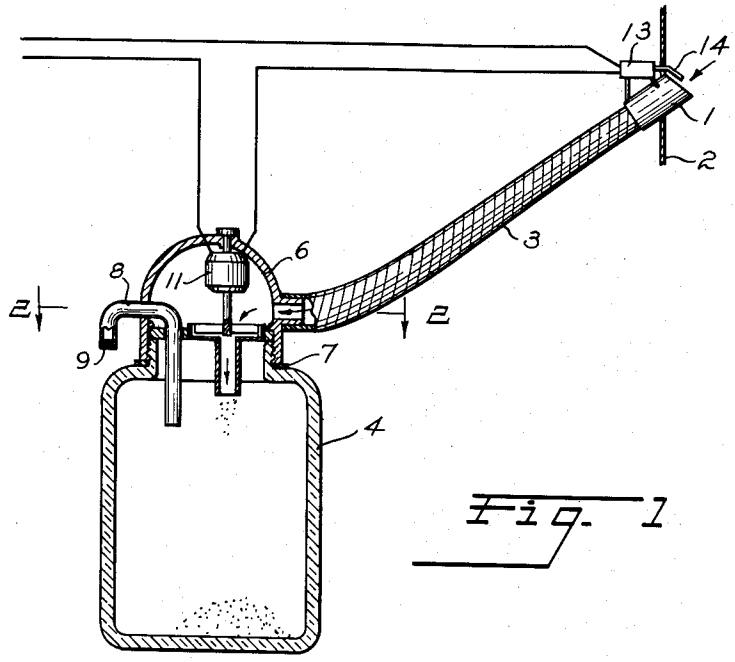


Fig. 1

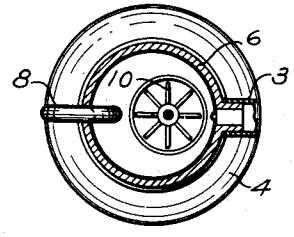


Fig. 2

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POWER OPERATED ASH DISPOSAL RECEPTACLE

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2 Claims. (Cl. 183—36)

This invention relates to improvements in a vacuum type ash and burning material receiver.

The safe and effective disposal of ashes, particularly in a moving vehicle such as an automobile, presents a rather unique problem. Prior art devices have not been effective for a number of reasons, chief among which are that none provide truly dependable and positive acting ash disposal systems. The conventional ash tray, found in the majority of automobiles today, falls short of an ideal solution because it is subject to any and all drafts within the car and thus is relatively ineffective in providing positive ash disposal. Various schemes involving vacuum devices have been suggested which make use of the engine manifold vacuum, or the motion of the car. Such devices are never 100% effective.

Accordingly, it is an important object of this invention to provide a positively operated vacuum type ash receiver, which incorporates its own vacuum producing means.

Another object is to provide a vacuum type ash receiver that will be equally well adapted to a vehicle, home, or office.

Another object is to provide a vacuum type ash receiver which is inactive until the manual contact is made, with a switch controlling the vacuum producing means, and which will dispose of the ashes immediately when this contact is made.

A further object is to provide an ash receiver of the vacuum type that may be operated by a very slight pressure on an electric switch, known in the electrical art as a microswitch. The only pressure required to operate the switch may be applied through the cigarette or cigar itself.

Other objects and advantages will be apparent from the attached drawing and the following description.

In the drawing:

Figure 1 is a side view, partly in section, of a preferred form of the invention; and,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

The ash receiving member **1** may be located in any convenient place, such as attached to the dashboard of an automobile, or in any convenient location in a home or office. In the illustrated embodiment, the member **1** is mounted on a support member **2**. A flexible conduit **3** connects the ash receiving member **2** with the ash disposal receptacle **4**. The ash disposal receptacle conveniently comprises a non-inflammable container, such as an ordinary glass jar, having a cover member **6** preferably threadedly connected thereto. Provision of a gasket **7** between the cover and receptacle serves to maintain an airtight seal at this joint. Extending through the cover **6** and into the container **4** is a vent tube **8** provided with a screen **9** across its outer end, as e. g. at the inner end thereof and within the receptacle **4**. The screen could also function if placed at any point in the vent tube.

The cover member **6** serves to house a small rotary pump which includes an impeller **10** connected to an electric motor **11**. The motor **11** is connected to a source of electricity through a microswitch **13**. The latter is preferably mounted on the ash receiving member **1**, and includes an operating lever **14** extending at least partially across the opening of the ash receiving member **1**.

When it is desired to dispose of ashes from cigarettes, cigars, and the like, the cigarette is pressed lightly against the lever **14** to close the switch **13**, which in turn causes the motor **11** to rotate the impeller **10**. Rotation of the impeller **10** serves to draw the disposed material out of the ash receiving member, through the flexible conduit **3**, and deposits it in the receptacle **4**. The heavier material will settle to the bottom of the receptacle, and the carrying air stream will be vented through the tube **8**. Light inflammable material, such as cigarette ashes that may still be burning, and which may be carried along by the air stream into the vent tube **8**, will be caught and retained by the screen **9**. Any burning ashes will be completely consumed while caught on the screen, eliminating the possibility of starting a fire. The container or receptacle **4** may be partly filled with water to quench any burning ashes.

It is to be understood that the form of the invention herein shown and described is to be taken as a preferred example of the same, and that various structural changes may be resorted to without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A device intended principally for use on a motor vehicle for facilitating the disposal of cigar ashes, cigarette ashes, and the like, comprising: an open ended ash receiving member; an ash disposal receptacle; a screened vent for said receptacle; closed conduit means connecting the interior of said member and said receptacle; an electrically driven air pump housed within said receptacle for effecting a reduction in air pressure within said member and conduit; means for connecting said pump to a source of electricity, said means including a manually operable microswitch; and an arm attached to said switch for operating the same, said arm being positioned to at least partially overlie the open end of said ash receiving member, whereby light contact of said arm with the end of a cigar or cigarette is effective to initiate operation of said motor and pump to draw ashes from said ash receiving member into said receptacle.

2. In a vacuum operated ash tray intended principally for use on motor vehicles wherein an open ended ash receiver is suitably mounted on a vehicle in a location convenient to an occupant of the vehicle, an ash disposal receptacle suitably mounted on said vehicle, an ash conveying conduit connecting said receiver with said receptacle, and an air pump housed within said receptacle for effecting a reduction of air pressure within said receiver and conduit, the improvement that comprises: means for electrically operating said pump; means including a manually operable microswitch for connecting said operating means to a source of electric current; an arm for operating said switch, said arm being positioned to at least partially overlie the open end of said ash receiver, whereby light contact of said arm by the end of a cigar or cigarette is effective to initiate operation of said motor and pump to draw ashes from said ash receiving member into said receptacle.

References Cited in the file of this patent

UNITED STATES PATENTS

1,445,930	Barringer	Feb. 20, 1923
1,992,450	Sporman	Feb. 26, 1935
2,430,448	Breckheimer	Nov. 11, 1947
2,540,919	Vallas	Feb. 6, 1951
2,577,104	Butler	Dec. 4, 1951
2,643,732	Keen	June 30, 1953