Feb. 5, 1935. E. R. MARBACH 1,989,938

ASH RECEIVER

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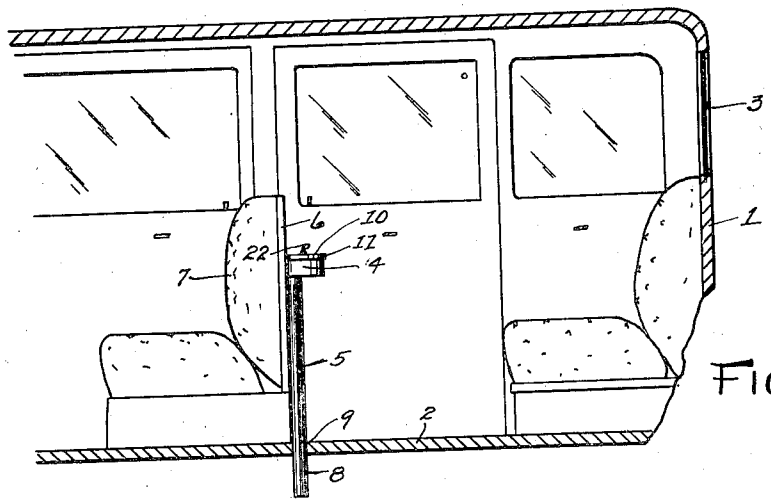


FIG. 1

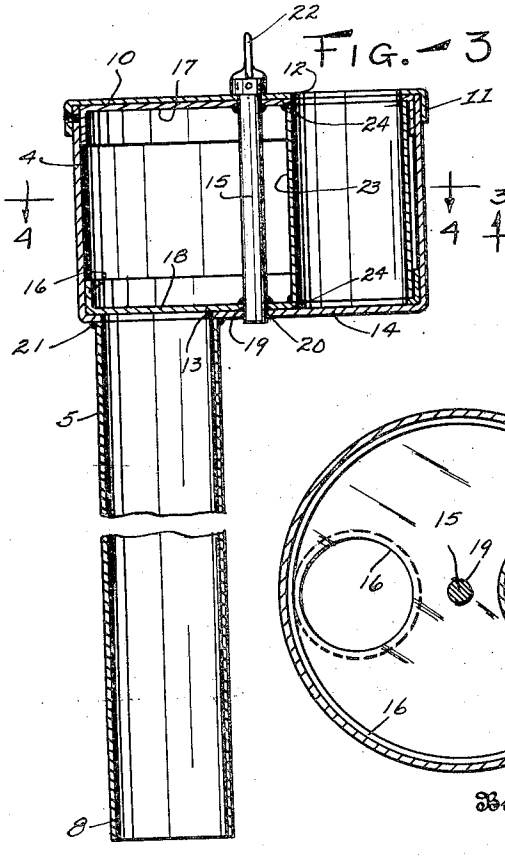


FIG. 3

FIG. 2

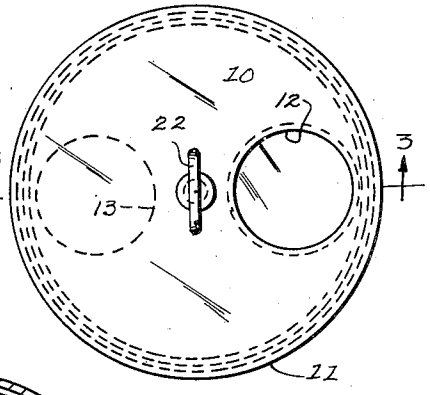


FIG. 4

Inventor

EDWARD R. MARBACH

By Frank D. Gray

Attorney

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FIG. 5

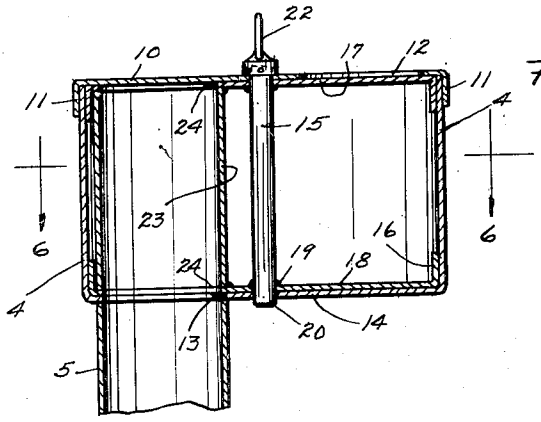


FIG. 6

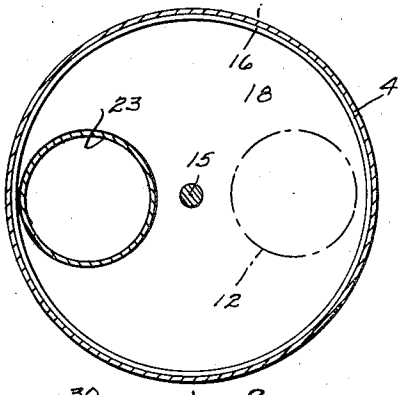
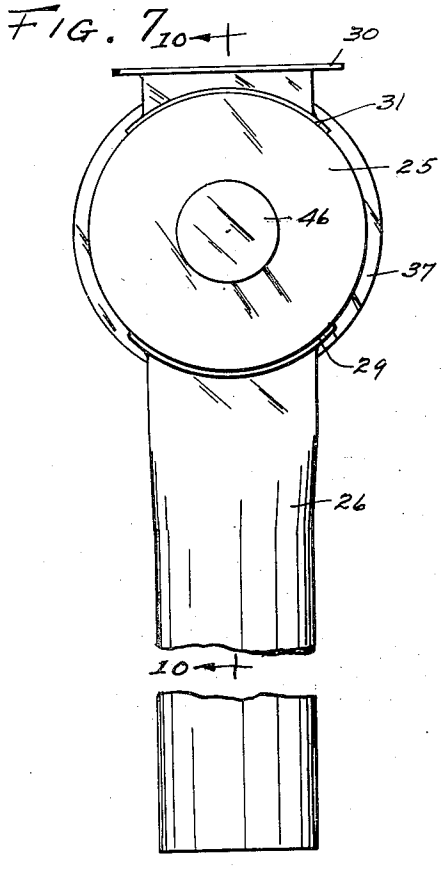


FIG. 7



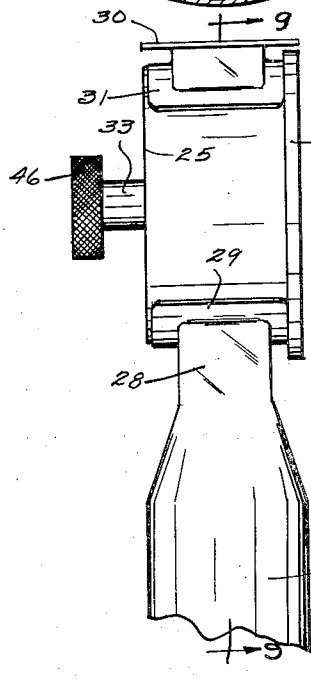


FIG. 8

Inventor

EDWARD R. MARBACH

By Frank D. Gray

Attorney

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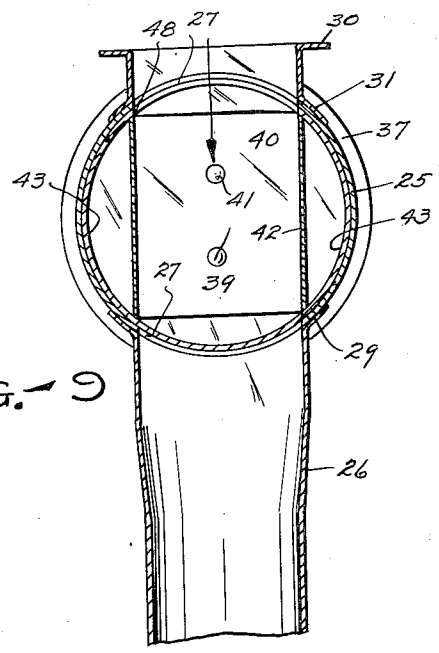


FIG. 9

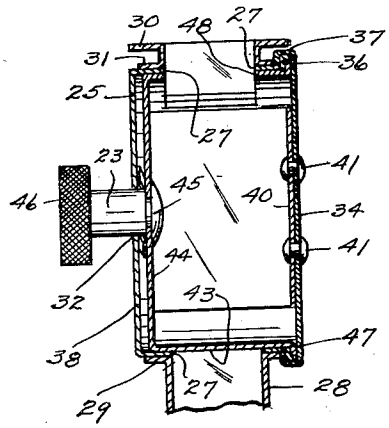


FIG. 10

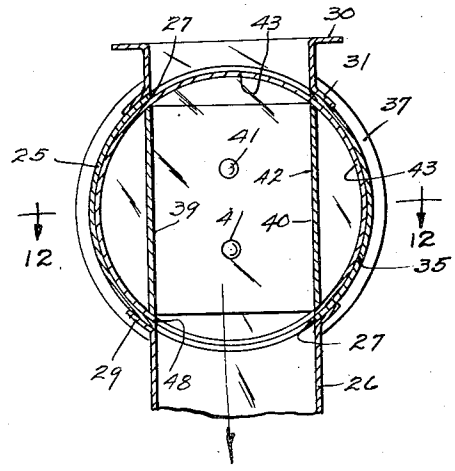


FIG. 11

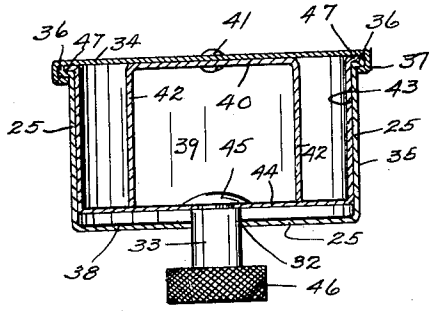


FIG. 12

Inventor

EDWARD R. MARBACH

By Frank D. Gray

Attorney

Patented Feb. 5, 1935 1,989,938

UNITED STATES PATENT OFFICE

1,989,938

ASH RECEIVER

Edward R. Marbach, Cleveland, Ohio

Application October 13, 1930, Serial No. 488,255

3 Claims. (Cl. 206—19.5)

My invention relates to ash receivers, and is especially concerned with such devices intended to be used in vehicles such as automobiles, busses or railway cars. While it is an object of my invention primarily to provide a receptacle that may be attached to some frame member within an automobile or other vehicle, it is especially my purpose to provide such receiver or cuspidor attachment that has a portion designed to receive ashes, cigar stubs or sundry waste articles, such as orange peel or bits of paper, and the said portion being unconnected directly with the upper opening of the device or the exit end of the same.

It is a further object of my invention to provide an ash receiver having a stationary bottom and top having openings therein but cut of alinement, and a rotatable inner body having an elongated opening therethrough with means for moving said body to bring its opening in register with either of the top or bottom openings. This feature answers the purpose of providing a closed cover normally, but provides for emptying the opening into the bottom opening of the receiver while the top opening is closed.

Further objects of my invention are to provide a structure which always supplies a proper cover element for an ash receptacle, and also while permitting the opening of such cover, closes the entrance from the body of the receiver to the lower exit tube until the cover is again closed.

With the foregoing and other objects in view my invention consists of the structural device hereinafter described and recited in the annexed claims, and as illustrated in the accompanying drawings in which,—

Figure 1 is a longitudinal, vertical section of a motor vehicle body with parts broken away, and showing therein an ash receptacle of the character of my invention appearing in side elevation;

Figure 2 is a plan view of the receptacle on a larger scale;

Figure 3 is a vertical central section of such receptacle taken in the plane indicated by the line 3—3 of Fig. 2;

Figure 4 is a transverse horizontal section in the plane indicated by line 4—4 of Fig. 3;

Figure 5 is a vertical section similar to Fig. 3 but showing parts in a different relative position;

Figure 6 is a view similar to Fig. 4 but showing parts in a different relative position;

Figure 7 is a side elevation of a modified form of receptacle having a horizontal axis for rotation;

Figure 8 is a view similar to Fig. 7, but with parts shown at right angles to the view in Fig. 7;

Figure 9 is a vertical section taken in the plane indicated by the line 9—9 of Fig. 8;

Figure 10 is a vertical section taken on the line 10—10 of Fig. 7;

Figure 11 is a view similar to that shown in Fig. 9, but with parts in different relative position, and

Figure 12 is a horizontal section taken in the plane indicated by the line 12—12 of Fig. 11.

The ash receptacle is shown in the drawings as mounted within a motor vehicle 1 having the floor 2 and rear mirror 3, the receptacle 4 of the upright cylindrical type being mounted upon the upper end of a tubular pipe 5 which may be attached to the back 6 of a seat 7, and the lower end 8 extending down through an opening 9 in the floor 2. Other means of mounting may be employed and other character of cabs may readily receive the device which is the subject of my invention.

The receptacle 4 is approximately cylindrical and is mounted on a vertical axis, having a circular cover 10 with peripheral flange 11 and a circular opening 12 positioned eccentrically therein, and having an open-topped cylindrical body integral with a circular bottom 14 which has an opening 13 eccentrically mounted but out of registration with opening 12. The body of the receptacle 4 is secured fixedly upon the upper end of the pipe 5, as by welding or soldering, the opening 13 registering over the pipe end, so that contents of the receptacle 4 may fall directly into the pipe 5 unless by other means prevented from so doing.

Within said body of the receptacle 4 a carrier member 16 is mounted for rotation therein about a vertical spindle 15 which passes through the circular top 17 and the bottom corresponding member 18. This latter opening 19 in the bottom 18 registers with the opening 20 in the bottom 14 of the receptacle 4 itself, thereby holding the member 16 in axial alinement with the bottom 14.

The before mentioned carrier member 16 has therefore, members 17 and 18 spaced apart through a portion of their area, but are rigidly secured to the spindle 15, as by welding or soldering, just as the receptacle 4 is so fastened at 21 to the pipe 5. This construction therefore affords means for rotating the carrier by rotating the spindle, as will be hereinafter explained. The upper end of the spindle extending upward

through a suitable central aperture in the cover 10, has attached to it a thumb piece 22 which upon being manually actuated, will rotate the spindle and thereby the carrier 16.

At an eccentric position in the carrier 16, I have provided a vertical cylindrical member 23 whose ends are secured to the top 17 and bottom 18 respectively, in vertical alinement with openings 24 in the parts 17 and 18, and in alinement with the opening 12 of the cover 10 in one position, but alining with the opening 13 of the bottom 14 when the part 16 has been rotated by the piece 22 into the position shown in Figs. 5 and 6. The open ended cylinder 23 will therefore be open outwardly at its upper end in the position shown in Figs. 2, 3 and 4, but will be closed at the top and open at its lower end into the pipe 5, in the position shown in Figs. 5 and 6.

In Figs. 7 to 12 I have shown my cylindrical receptacle 25 rigidly secured upon the upper end of a hollow pipe 26, but mounted on a horizontal axis at right angles to the length of the said pipe. In this modified form of construction, the receptacle 25 has upper and lower arcuate openings 27 in alinement with the pipe 26, so that the receptacle provides direct opening from above therethrough directly into the pipe, unless by other means such opening is wholly or partially closed.

In this construction, the upper end of the pipe 26 is reduced at 28 somewhat flattened in a vertical plane intersecting the said horizontal axis of the receptacle. The upper end 28 is also provided with an arcuate flange 29 upon which the receptacle 25 is supported, as shown in Figs. 7 and 8 especially, and to which it is fixed, as by welding or soldering. These flanges 29 are outwardly extending and leave the lower opening 27 unobstructed. Above the upper opening 27, is mounted a feed tube 30 having a tubular neck and lower flanges 31 which are secured to the upper portion of the receptacle, as shown in Fig. 8.

This receptacle is formed of an integral cylindrical wall one end of which is closed by a circular plate except by the provision of a circular aperture 32 for receiving an actuating stem 33. The opposite end of the receptacle has a peripherally flanged cover 34 which is substantially parallel with the end integral with the cylindrical part. The means of connecting the said cover 34 to the cylindrical wall or drum 35 of the receptacle, is shown particularly in Figs. 10 and 12 of the drawings in which the drum 35 is disclosed as having an outwardly extending peripheral flange which is in turn deflected outwardly at 36, and receives thereon the said cover 34 whose flange 37 is deflected under the flange 36 of the drum, and thus securing the two parts together.

Since the drum 35 is integral with the apertured plate 38 and has the cover plate 34 secured thereto, it is evident that the feed tube, receptacle and pipe 26 will all be held against relative movement. It is to be further noted that a rectangular form of enclosure 39 is provided within the receptacle and has its intermediate flat portion 40 riveted to the cover 34 at 41, the parallel bent portions 42 being in alinement with certain walls of the pipe 26.

Within the receptacle 25 I have provided a rotatable cup-shaped cylinder 43 whose bottom plate 44 is parallel with the apertured plate 38 but slightly spaced therefrom, and the stem 33 after passing through the aperture 32 in this plate is fixed to the center of the plate 44, as by extending a portion of the stem through a small aperture in the plate 44 and welding or soldering the end of the stem as at 45 to said plate 44. The outer end of the stem 33 is provided with a suitable finger piece 46 by which the inner cylinder may be rotated. The peripheral edges of the cup member 43 outwardly flanged at 47 to fit neatly on the shoulder formed by the flanged edge 36 of the drum 35. Thus the cup member 43 is guided accurately in its rotation on an axis identified by the stem 33.

The cylindrical wall 43 is continuous except at one point where an arc-shaped portion is cut out to provide an opening in said wall designated by the numeral 48, and shown in Fig. 9 adjacent the tube 30, but shown in Fig. 11 at the lower portion of the cylinder and in alinement with the pipe 26. It will thus be seen that both openings 27 are always in substantial alinement, but that they are alternately opened and closed by rotation of the cup member 43 by actuating the member 46. When the parts are in the position shown in Figs. 9 and 10 various waste particles such as cigar stubs, orange peel, or peanut shells, may be dropped into the member 43 from the tubular member 30, and will be retained in a position in alinement with the pipe 26 by the enclosure 39 which is always stationary.

This stationary receptacle 39 is therefore closed at its lower end by the wall of the rotatable cup member 43, when it is open and in communication with the tube 30; but is open and in communication with the pipe 26, when it is closed at its upper end and out of communication with the tube 30.

The pivoting of the stem 33 in the aperture 32 of the plate 38 will result in the relative rotation of the parts 43 and 35 throughout their course, but the contents of the receptacle 39 into which material may fall from the tube 30, will be retained therein by the parallel blades 42 until it drops down into the pipe 26. This has the great advantage of avoiding direct communication between the pipe 26 and the tube 30, and the further advantage that the contents of the receptacle 25 will not permit upward flow of gases from such contents while the latter is in communication with the lower pipe.

The operation of these two forms of receivers which I have termed an ash receiver, though adapted to receive any waste material whatever, is very similar, having the common advantage of alternate opening and closing of an inner receptacle mounted within an outer casing, with an upper aperture and a lower opening leading to a supporting pipe, the rotation of said inner receptacle or carrier being in a vertical axis in the first form, but in a horizontal axis in the second form. Closing of the supporting pipe 5 or 26 is accomplished in either form.

What I claim and desire to secure by Letters Patent is:

1. An ash receiver comprising a cylindrical member mounted vertically and having upper and lower openings through its ends but out of alinement, a vertical receiving pipe mounted vertically upon and extending through the floor of a vehicle, said member being fixed eccentrically upon said pipe, and an inner drum rotatable upon a vertical axis within said cylindrical member, and carrying a tubular member mounted vertically and eccentrically and affording communication through said inner member alternately with said openings

as the drum is rotated, to afford communication of said tubular member with said pipe when said upper opening is closed.

2. An ash receiver comprising a pair of telescoping cylindrical members, a receiving pipe upon which the outer member is fixed eccentrically, said outer member having an eccentric lower opening communicating with said pipe and an upper opening out of alinement with the lower opening, and the inner member carrying a tubular member eccentrically and affording communication through said inner member, said members being rotatable on a common vertical axis whereby rotation of the inner cylinder will position the said tubular member in alinement with the openings in the outer member alternately.

3. An ash receiver comprising a vertical receiving pipe, a cylindrical member mounted fixedly and eccentrically upon said pipe and having upper and lower openings through its ends but out of alinement, and an inner drum mounted within said member and carrying a tubular member mounted vertically and eccentrically and communicating alternately with said openings as the drum is rotated, to afford communication of said tubular member with said pipe when said upper opening is closed.

EDWARD R. MARBACH.