April 5, 1932. A. C. GRUNWALD 1,852,610

ASH RECEPTACLE

Filed March 17, 1930 2 Sheets-Sheet 1

Fig. 1.

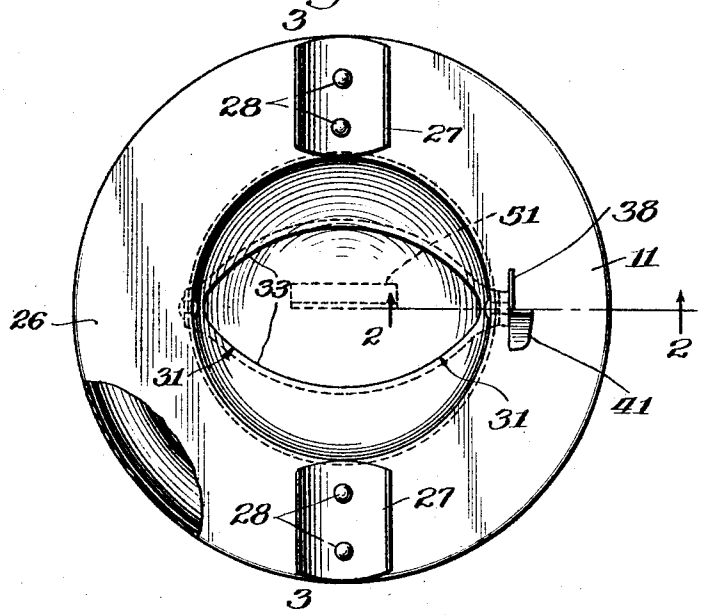


Fig. 2.

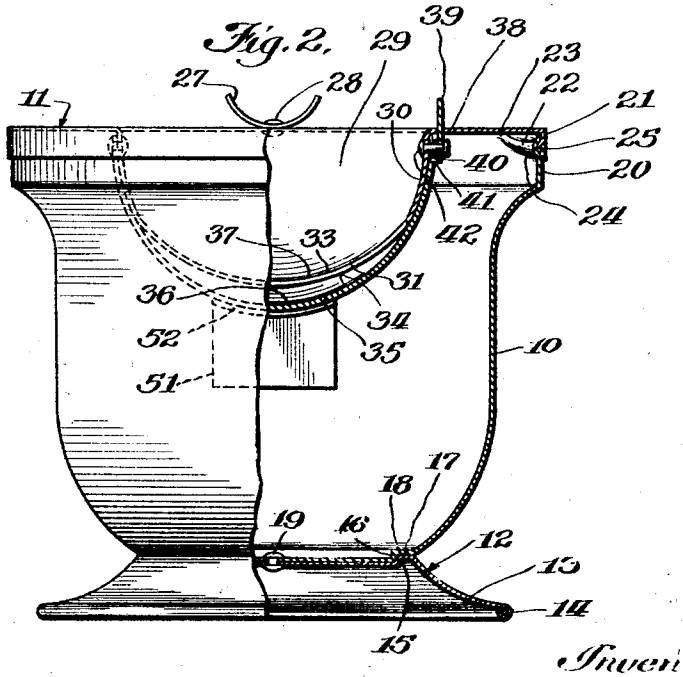


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Fig. 3.

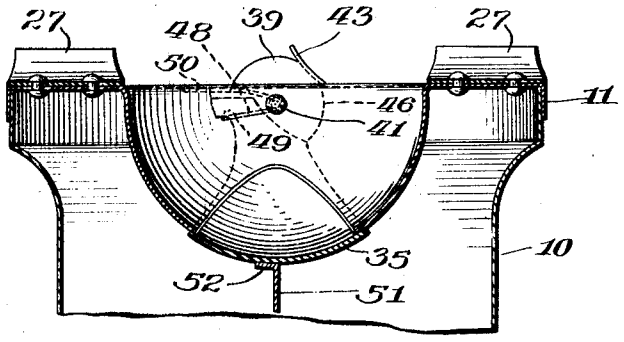



Fig. 4.

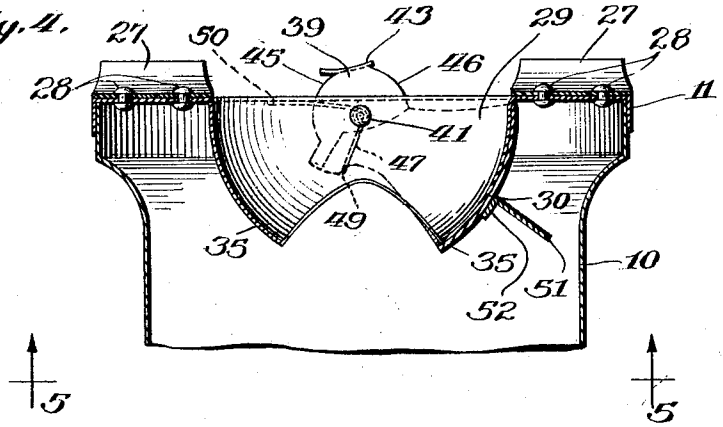
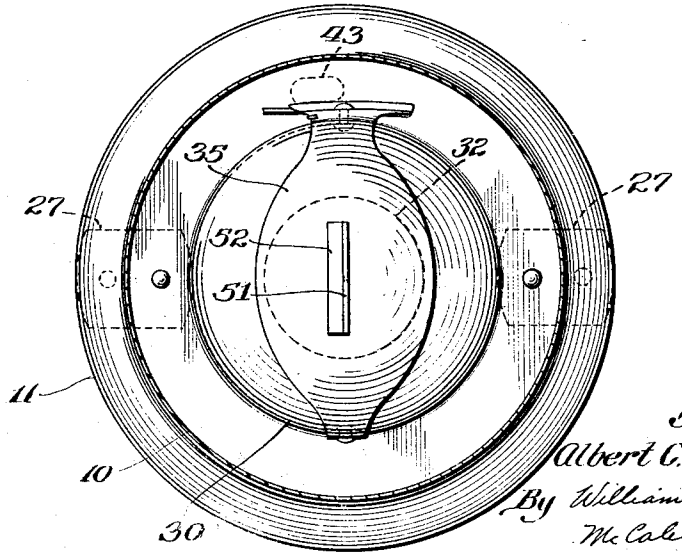



Fig. 5.

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# UNITED STATES PATENT OFFICE

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## ASH RECEPTACLE

Application filed March 17, 1930. Serial No. 436,425.

The present invention relates to receptacles, and is particularly concerned with receptacles adapted to receive ashes, cigars, cigarettes and other forms of light refuse.

One of the objects of the invention is the provision of an improved ash receptacle, adapted to be used in homes or public places, for receiving ashes and other forms of refuse while still maintaining a sanitary and neat appearance.

Another object is the provision of an improved ash receiver which may be maintained in clean condition by constantly discharging the refuse into a larger receptacle or which may be used in the usual manner and discharged at intervals whenever it is desired to empty the receiver.

Another object is the provision of an improved ash receiver which is peculiarly adapted to be actuated conveniently by the hand of the user while still holding a cigar or cigarette in the hand.

Another object is the provision of an ash receptacle of the type having an auxiliary ash receiver or tray, which is provided with a discharge opening and a closure that is substantially self-cleaning to maintain the closure clear of light refuse, ashes, etc. and assure a complete discharge.

Another object is the provision of a cigar holder and ash receptacle which shall be neat in appearance, sanitary in its operation, having a simple yet durable construction, with parts which lend themselves readily to manufacture by dies from ordinary sheet metal.

Other objects and advantages of the invention will be apparent from the following description and from the accompanying drawings, in which similar characters of reference indicate similar parts throughout the several views.

Referring to the drawings, of which there are two sheets, Figure 1 is a top plan view of an ash receptacle constructed according to the present invention.

Figure 2 is a side elevational view in partial section along the plane of the line 2—2 of Figure 1.

Figure 3 is a fragmentary sectional view taken on the plane of the line 3—3 of Figure 1.

Figure 4 is a view similar to Figure 3 with the closure in the open position.

Figure 5 is a sectional view of a modified form taken on a plane corresponding to the plane of the line 5—5 of Figure 4.

Referring to Figures 1 and 2, the present ash receptacle preferably includes a sheet metal receptacle 10 and a sheet metal cover or ash receiver 11. The receptacle 10 is preferably provided with a base 12 which may also be stamped from sheet metal and which is provided with an outwardly flaring part 13 having a curled edge 14 for engagement with any convenient type of supporting surface.

In order to secure the base 12 to the receptacle 10 in a very economical manner, the base 12 is formed with a stamped cylindrical depression 15 capable of receiving a complementary stamped cylindrical projection 16 which is formed on the bottom of the base 10. The top of base 12 is formed with a flat annular portion 17 adapted to engage a similar annular portion 18 on the bottom of receptacle 10 and the receptacle 10 may be secured to base 12 by a single rivet 19, by spot welding or other convenient securing means such as a bolt. The stamped formations 15 and 16 on the receptacle and base automatically locate the base 12 in proper position on the receptacle 10 so that the outer surface of the base 12 and that of receptacle 10 are in substantially perfect registry. The two parts may then be secured together quickly by the use of ordinary machinery with a very low percentage of defective devices, such as might be the case where these parts must be held together and adjusted to their proper relative position by means of the eye of the operator. It should be understood that any forms of complementary formations 15 and 16 may be employed but those illustrated are preferred on account of the simplicity and effectiveness of this arrangement.

The exact shape of the receptacle 10 may take a plurality of different forms depending upon the ornamental effect desired but in the present embodiment the upper part of the receptacle 10 is provided with a substantially

cylindrical portion 20 capable of being received in a complementary cylindrical or annular flange 21 formed upon the cover 11. The cylindrical flange 20 may be formed with a stamped groove 22 formed in each side of the receptacle 10 near the top, the groove extending inwardly from the top downwardly as at 23 and horizontally as at 24. The annular flange 21 carried by cover 11 may also be formed with a stamped inwardly extending protuberance 25 which is adapted to be received in the groove 23 to secure the cover 11 on receptacle 10. The cover is secured upon the receptacle by inserting the protuberance 25 in grooves 22 and turning the cover in clock-wise direction while pushing the cover on the receptacle. The securing device for the cover upon the receptacle 10 is thus made quickly detachable and it is capable of formation in the cover and receptacle by stamping operations thereby eliminating the necessity for other machining operations. It should be understood, however, that other forms of quickly detachable securing devices may also be employed.

The cover 11 is also preferably formed with a substantially flat annular portion 26 for providing space for the securement of cigar holders 27 and for the purpose of a hand rest in the use and operation of the ash receiver.

The cigar holders 27 may consist of curved sheet metal members substantially as shown, which are secured to the flat portion 26 of cover 11 by rivets 28, spot welding, brazing or other convenient fastening means. Any number of cigar holders may be employed.

The cover 11 also forms an ash receiver for receiving ashes and holding them preliminary to their discharge into the receptacle 10, and for this purpose the cover 26 is provided with an inwardly extending stamped depression 29 adapted to receive refuse and direct it into the receptacle 10. The receiver 29 is preferably substantially semi-spherical in form thereby providing inwardly tapering sides 30 which direct the refuse toward a discharge opening 31. The discharge opening may take a number of different shapes such as, for instance, the oval type of opening shown in Figure 1 which gives a maximum discharge area or the circular discharge opening 32 shown in Figure 5 which gives a symmetrical appearance to the top of the ash receiver.

The ash receiver 29 having a substantially spherical formation, the edges 33 of the discharge openings 31, 32 are disposed at equal distances from a common center so that they are capable of slidably engaging any refuse which might remain upon the upper surface 34 of a closure 35 for the discharge openings 31, 32.

The closure 35 also consists of a stamped sheet metal member of substantially spherical shape which has an inner surface 36 complementary to the adjacent surface 37 on the cover 11 inside receptacle 10.

The cover 11 is also provided with a slot 38 located in the flat portion 26 adjacent the ash receiver 29 and the closure 35 is formed with an upwardly projecting operating member 39 which extends through the slot 38. The actuating member 39 is also formed with an offset 41 and the slot 38 is slightly spaced from the edge of the receiver 29, thereby providing space for a spring 40.

The closure 35 is movably mounted on cover 11 by a pair of rivets 42, bolts or other pivotal mode of securement and the rivets 42 are located substantially upon the line of a diameter of the sphere of which the parts 36, 37 may be considered surfaces. The closure 35 is thus pivotally mounted upon a complementary spherical member so that the closure 35 slidably engages the adjacent surface 37 of the receiver 29. The edges 33 surrounding discharge openings 31, 32 are adapted to sweep the relatively light refuse off the closure 35 when the closure is moved from the position of Figure 3 to the position of Figure 4.

The actuating member 39 is preferably provided with a laterally projecting flange 43, which may be curved as shown in Figure 4 to provide an upper concave surface for convenient engagement with the hand or fingers of the operator.

The edges of the actuating member 39 may be curved as at 45 and 46 so as to provide a continuous closure of the slot 38 during the movement of the actuating member. Thus the edge 46 is formed upon a radius with respect to the center of rivet 41, which corresponds to the distance between the center of rivet 41 and the adjacent end of slot 38. The edge 45 is formed upon a radius with respect to the center of rivet 41, which corresponds to the distance between the center of rivet 41 and the other end of slot 38. When the closure 35 is rotated upon the rivet 41 it will be evident that the curved surfaces 45 and 46 are maintained in the same relative position with respect to the ends of slot 38 and the curved edges 45 and 46 of actuating member 39 slidably engage the ends of slot 38 to maintain the slot in closed position.

The actuating member 39 is also preferably formed with a stop 44 for definitely determining the final position of closure 35 and this stop may consist of a laterally projecting flange, the upper edge of which is adapted to engage below the flat portion 26 of the cover 11 at one end of the slot 38. The stop 44 is located on the closure 35 in such position that it will engage the under side of the cover when the closure is in the closed position as shown in Figure 3. The thumb piece or flange 43 is located on the actuating member 39 in such position that the thumb piece is above the cover at the opposite side of the

actuating member 39 from the stop 44. The actuating member 39 is thus provided with a maximum range of movement before the flange or thumb piece 43 strikes the upper part of cover 11.

The closure 35 of the present ash receiver may be made weight actuated or spring actuated but is preferably provided with a spring 47 adapted to urge the closure 35 to closed position. The spring 47 may have one end 48 hooked about the curved surface 46 and engaging the edge 49 of closure 35. The spring is preferably wrapped about the rivet 41 between the actuating member 39 and the curved portion 30 of the ash receiver 29 and the opposite end 50 of spring 47 is extended beneath the flat portion 26 of cover 11 and placed under tension to maintain the closure 35 in the position of Figure 3. The spreading of the portions 48 and 50 of spring 47 urges the closure 35 into closed position and maintains stop 44 in engagement with the under side of cover 11.

The relative sizes of the discharge opening 31 and the remaining curved portions 30 of the ash receiver 29 are preferably such that the closure 35 may completely open the discharge opening 31, so that the edges 33 of the discharge opening 31 may effect the function of cleaning the sliding closure 35 during the opening operation.

The closure 35 is, of course of sufficient width to cover the discharge opening 31 and overlap the edges 33 of the receiver 29 and the closure itself is preferably oblong in shape taking substantially the same form as a segment of the spherical surface. The modification illustrated in Figure 5 is substantially the same as that described except the discharge opening 32 is made circular.

The closure 35 is also preferably provided with a distributing member 51 which also increases the weight of the closure 35 and aids in its return to closed position by gravity. The distributing member 51 may consist of a flat sheet metal member of the shape illustrated or any equivalent shape carried by the under side of closure 35 and adapted to engage the top of a pile of refuse below the discharge opening 31 to sweep the top of the pile toward the side in the receptacle 10 and continuously level off the refuse within the receptacle 10. The distributing member 51 may be secured to the lower side of closure 35 by providing a flange 52 at right angles to the body of distributing member 51 and curved complementarily to the bottom of closure 35. The flange 52 may be secured to closure 35 by spot welding, brazing, riveting or other convenient fastening means.

It should also be noted that every one of the improved features described herein need not be employed in every embodiment of the invention, but the invention includes such modified forms having only those novel features which accomplish the purposes desired of much more simple devices.

The operation of the present ash receptacle is as follows: Ashes may be discharged into the receiver 29 and immediately passed on into the receptacle 10 by simultaneously dropping the ashes and actuating the closure 35 to open position by pushing on the thumb or finger piece 43, in which case the sides 30 of the spherical ash receiver 29 will direct the ashes or other refuse through the discharge opening 31.

If desired the ashes need not be discharged from the ash receiver 29 into the receptacle 10 except at periodic intervals by the movement of the closure 35 from the position of Figure 3 to the position of Figure 4. The ashes or other refuse lying upon the closure 35 will be swept off the closure by the edge 33 of the ash receiver 29 and the ash receiver may thus be maintained in substantially sanitary condition at all times.

The closure 35 may be conveniently moved to open position by resting a part of the hand upon the flat part 26 of cover 11 and applying the thumb or finger to the thumb piece 43, pushing the actuating member 39 to the left in Figure 3. The closure 35 will then be pivoted upon the rivets 41 and will slidably engage the complementary spherical surface 37, moving to the position of Figure 4 against the tension of spring 47.

When the actuating member 39 is released, the closure 35 moves back to the position of Figure 3 by gravity and by virtue of the tension of spring 47.

It should be noted that the surface of the closure 35 need not necessarily engage the surface 37 of receiver 29 provided these two sheet metal members are sufficiently close to each other so that refuse is swept off the closure 35 by edge 33. The ashes or other refuse which accumulates in the receptacle 10 will ordinarily form a pile immediately below the discharge opening 31, but as soon as the ashes reach a sufficient height the top of the pile will be continuously levelled and distributed in the container 10 by the operation of the distributing member 51 which sweeps over the refuse in the receptacle 10 and enables utilization of a greater part of the volume of receptacle 10.

It will thus be observed that I have invented an improved ash receptacle of the type which is provided with an ash receiver for the preliminary reception of ashes and other refuse which may be discharged into the receptacle at will. The present receptacle may be very economically manufactured by stamping its parts from sheet metal and the present receptacle is peculiarly adapted to be maintained in a clean and sanitary condition, effecting a complete discharge of refuse from the ash receiver into the receptacle by the ordinary operation of its mechanism.

While the embodiment which has been selected to illustrate the invention, consists of an ash receptacle it should be understood that the present device is not limited in size or use to ash reception but may be employed for receiving materials of any kind by providing a receptacle of appropriate size.

While I have illustrated and described a specific form of one embodiment of my invention, this is capable of many modifications without departing from the spirit of the invention and I do not wish to be limited to the precise details of the construction set forth but desire to avail myself of all advantages within the scope of the appended claims.

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

1. A refuse receptacle comprising a lower container, a refuse receiving cover carried by said container, said cover having an inwardly extending spherical formation with a discharge aperture, a closure of substantially spherical formation movably mounted on said cover to control said discharge aperture, a spring urging said closure to closed position and a refuse distributing member carried by said closure within said container.

2. A refuse receiver comprising a container, a metal cover member therefor, said cover member having a substantially flat upper border flange and having a hemispherical formation surrounded by said border flange, said hemispherical formation having an aperture in the same, a closure member of spherical shape and of sufficient area to cover said opening, said closure member being formed on a larger radius, means for pivotally mounting said closure member at both sides of said hemispherical formation, said closure member having an integral flange extending upward through a slot in said border flange, and a laterally projecting thumb engaging flange above said border flange.

3. A refuse receiver comprising a container, a metal cover member therefor, said cover member having a substantially flat upper border flange and having a hemispherical formation surrounded by said border flange, said hemispherical formation having an aperture in the same, a closure member of spherical shape and of sufficient area to cover said opening, said closure member being formed on a larger radius, means for pivotally mounting said closure member at both sides of said hemispherical formation, said closure member having an integral flange extending upward through a slot in said border flange, a laterally projecting thumb engaging flange above said border flange, and a spring arranged about one of the pivots of said closure having one end engaging beneath said cover and having the other end hooked about said closure to urge said closure to closed position.

4. A refuse receiver comprising a container, a metal cover member therefor, said cover member having a substantially flat upper border flange and having a hemispherical formation surrounded by said border flange, said hemispherical formation having an aperture in the same, a closure member of spherical shape and of sufficient area to cover said opening, said closure member being formed on a larger radius, means for pivotally mounting said closure member at both sides of said hemispherical formation, said closure member having an integral flange extending upward through a slot in said border flange, a laterally projecting thumb engaging flange above said border flange, a spring arranged about one of the pivots of said closure having one end engaging beneath said cover and having the other end hooked about said closure to urge said closure to closed position, and a refuse spreader comprising a downwardly extending flange carried by said closure and adapted to sweep across a pile of refuse when said closure is opened and to be swept across the discharged refuse by said spring upon release of said closure to distribute the refuse.

5. A refuse receiver comprising a container, a metal cover member therefor, said cover member having a substantially flat upper border flange and having a hemispherical formation surrounded by said border flange, said hemispherical formation having an aperture in the same, a closure member of spherical shape and of sufficient area to cover said opening, said closure member being formed on a larger radius, means for pivotally mounting said closure member at both sides of said hemispherical formation, said closure member having an integral flange extending upward through a slot in said border flange, a laterally projecting thumb engaging flange above said border flange, a spring arranged about one of the pivots of said closure having one end engaging beneath said cover and having the other end hooked about said closure to urge said closure to closed position, and a plurality of curved cigar holding members secured to the upper surface of said border flange.

In witness whereof, I hereunto subscribe my name this 12th day of March, 1930.

ALBERT C. GRUNWALD.