United States Patent

Rowland

[15] **3,683,938**

[45] **Aug. 15, 1972**

[54] **ASH TRAY**

[72] Inventor: **David L. Rowland,** 49 W. 55th St., New York, N.Y. 10019

[22] Filed: **Sept. 14, 1970**

[21] Appl. No.: **72,147**

Related U.S. Application Data

[63] Continuation of Ser. No. 675,400, Oct. 16, 1967, abandoned.

[52] **U.S. Cl.**.....**131/240 R,** D85/5, 229/1.5 B, 229/2.5 R, 229/2.5 MF

[51] **Int. Cl.**.....**A24f 19/00**

[58] **Field of Search** ...131/231, 235 R, 240 R; D85/5

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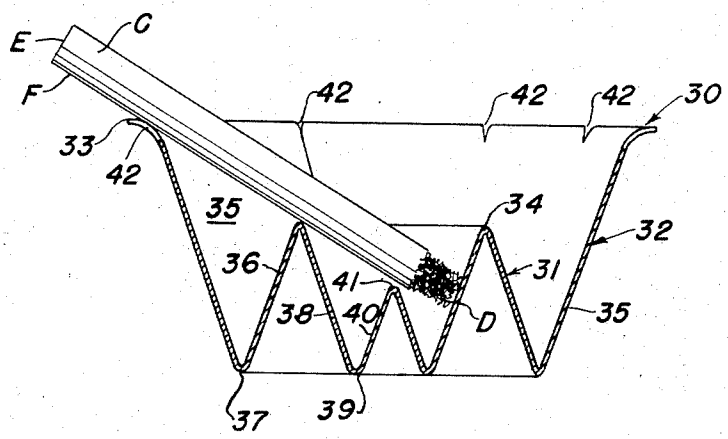
Primary Examiner—Joseph S. Reich
Attorney—Owen, Wickersham & Erickson

[57] **ABSTRACT**

An ash tray comprising an inner cup-shaped receptacle surrounded by an outer cup-shaped receptacle. Both receptacles have an upper smooth edge so that a cigarette can rest on the two edges; the upper edge of the inner receptacle is lower than that of the outer receptacle, so that a line tangent to the two edges is inclined to the horizontal at an angle lying between 10° and 40°. The distance from the upper edge of the inner receptacle to the opposite wall of the inner receptacle (as measured along an extension of the line tangent to both edges) is between one-eight and one-half the length of a cigarette, and the distance between the two edges on the same line of tangency is between one-half and full length of a cigarette minus the distance from the upper edge of the inner receptacle to the opposite wall of the inner receptacle. The inner receptacle may be circular with a downwardly and inwardly sloping inner surface and a downwardly and outwardly inclined outer surface. The outer receptacle has a downwardly and inwardly sloping wall.

2 Claims, 26 Drawing Figures



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8 Sheets-Sheet 1

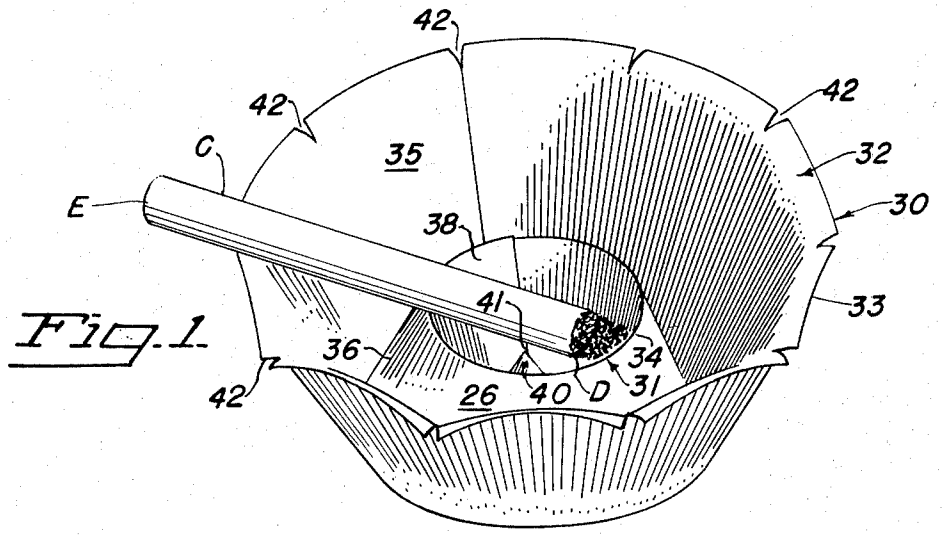

Fig. 1.

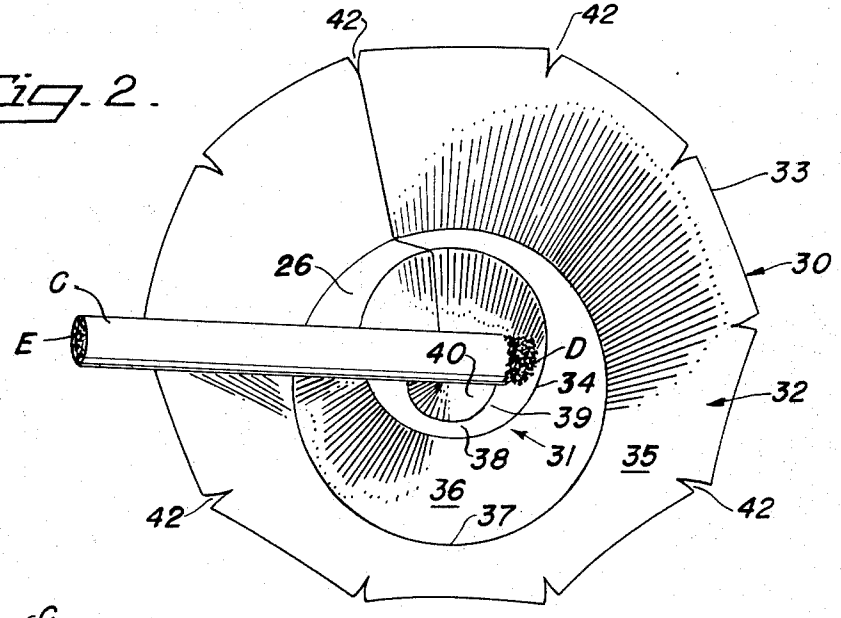

Fig. 2.

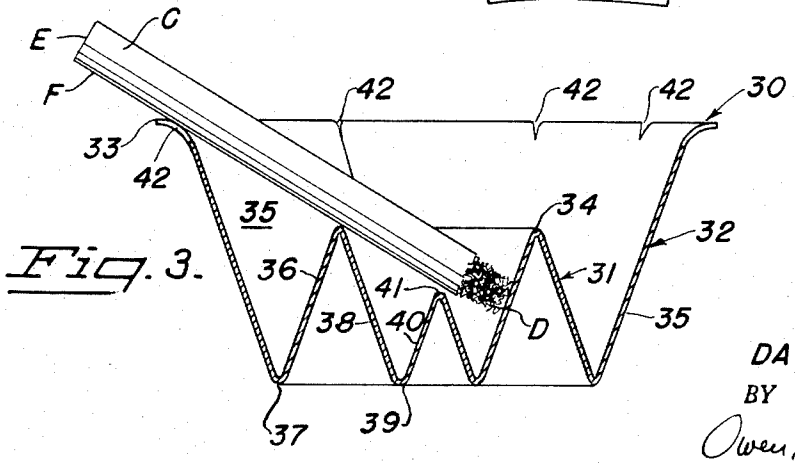

Fig. 3.

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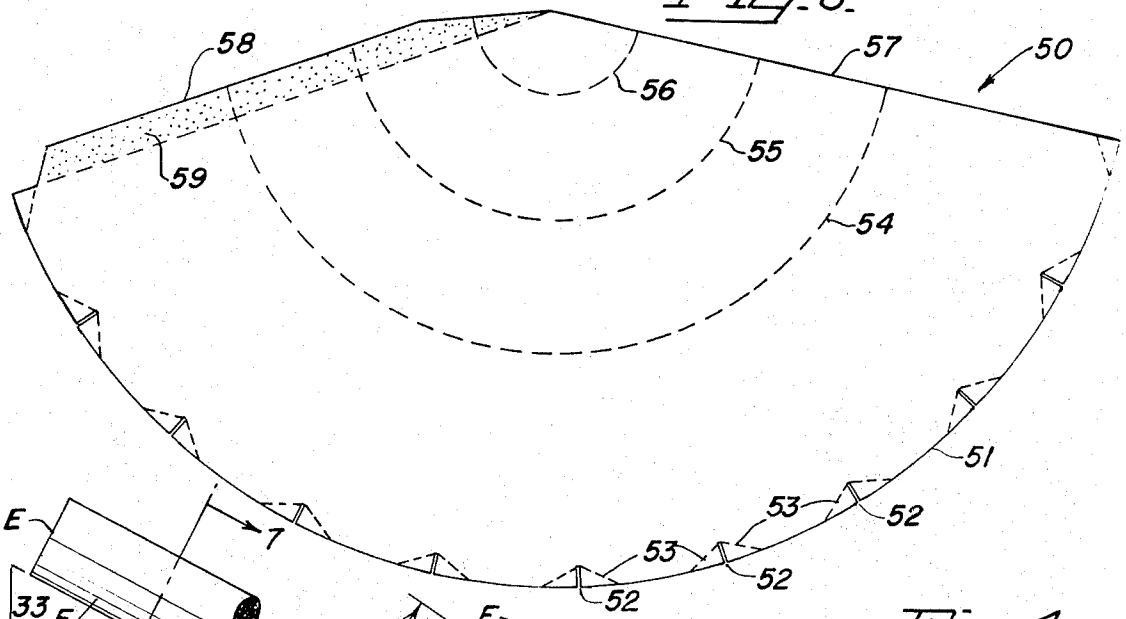
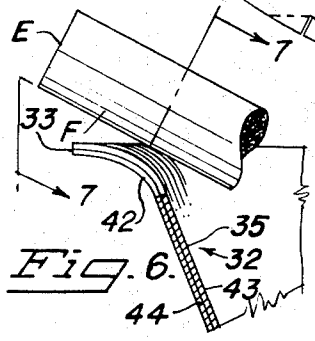
Fig. 8.





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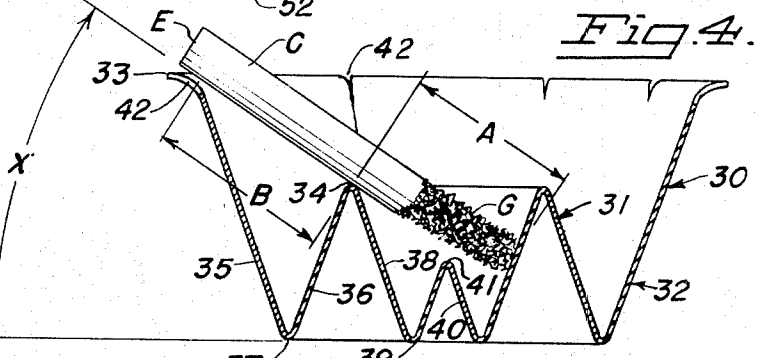

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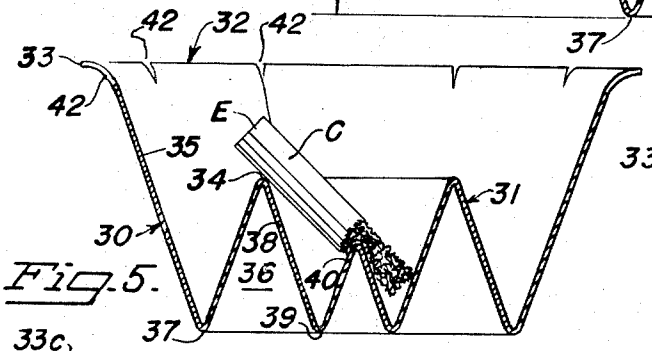

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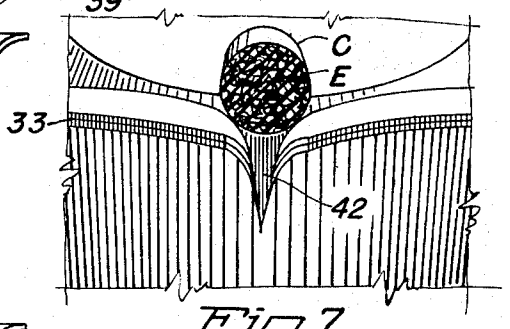

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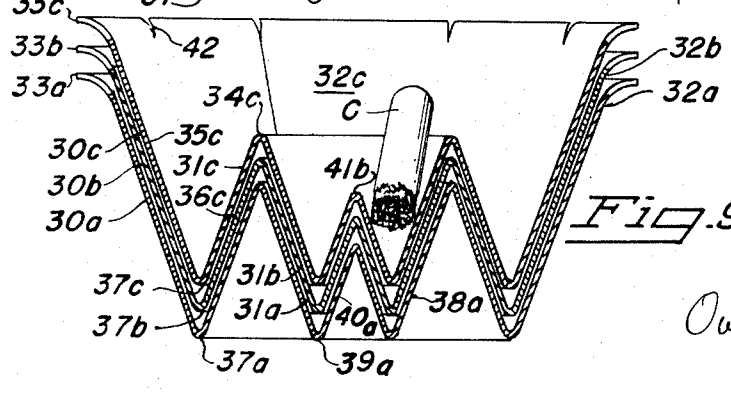

Fig. 9.

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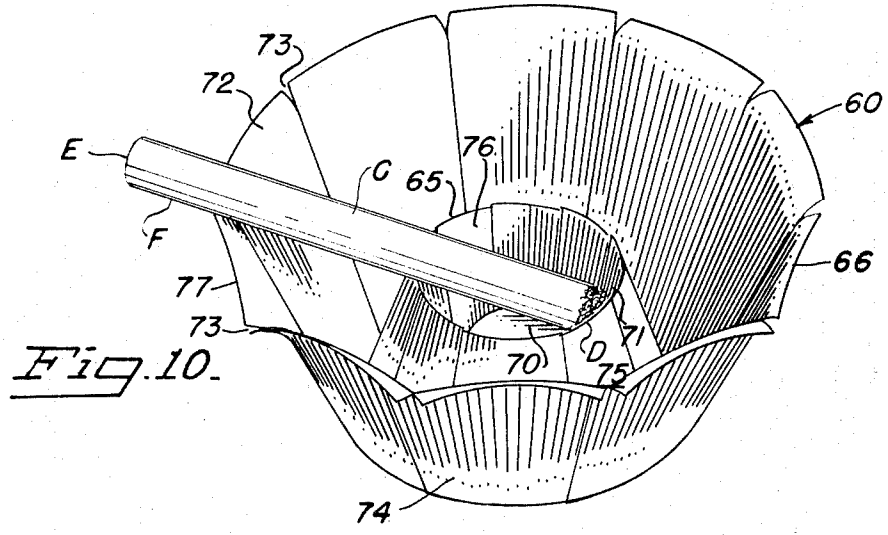

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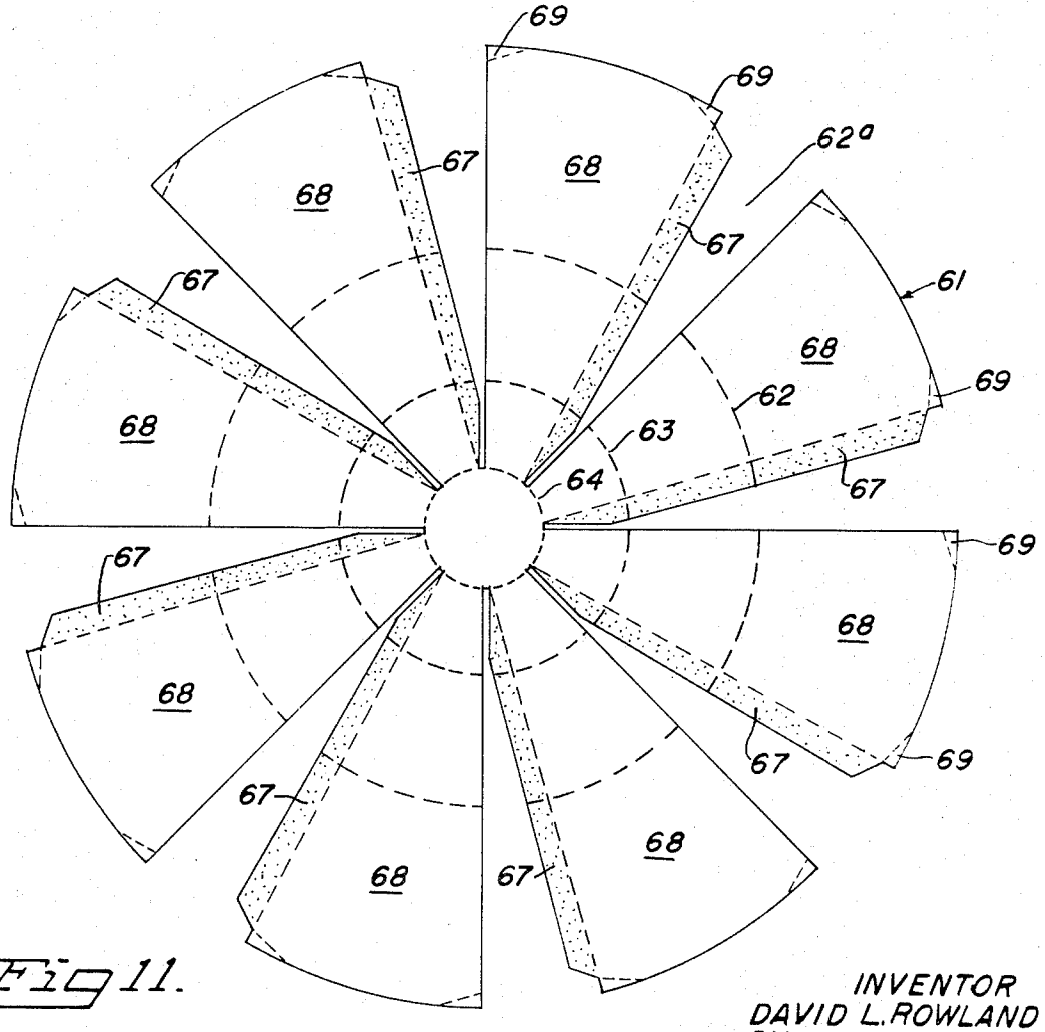

Fig. 11.

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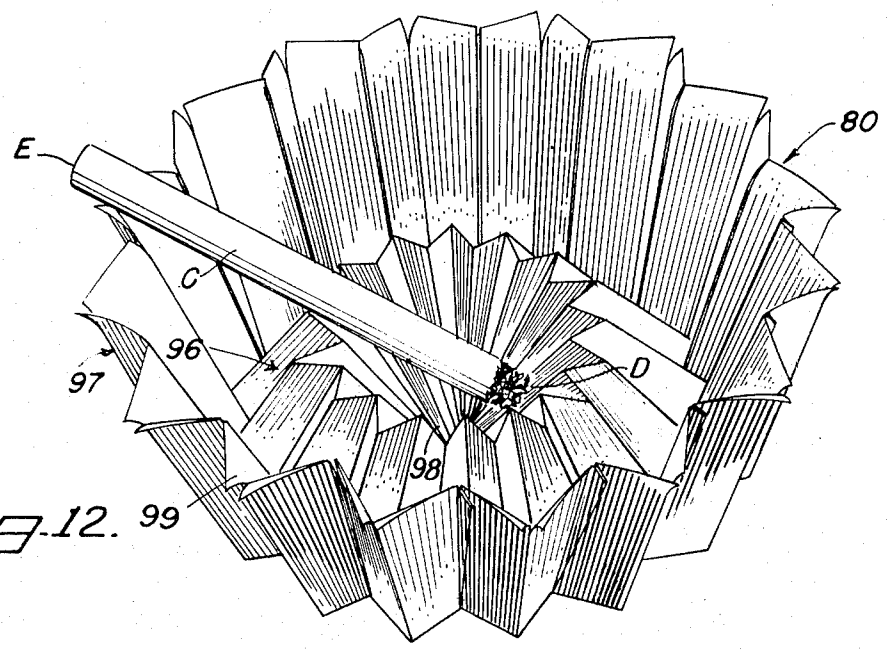

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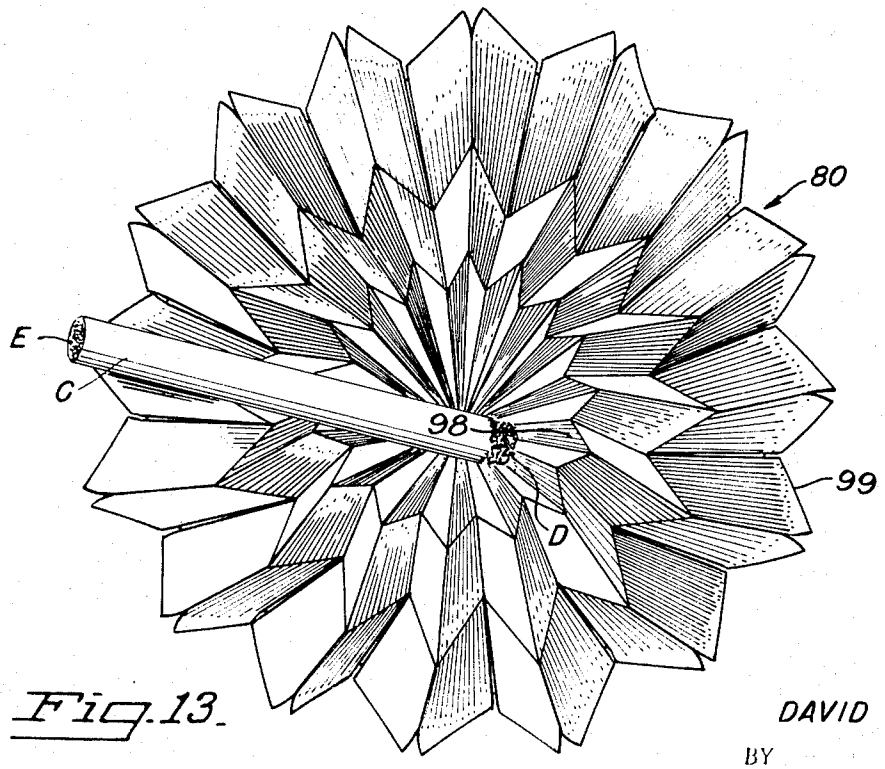

Fig. 13.

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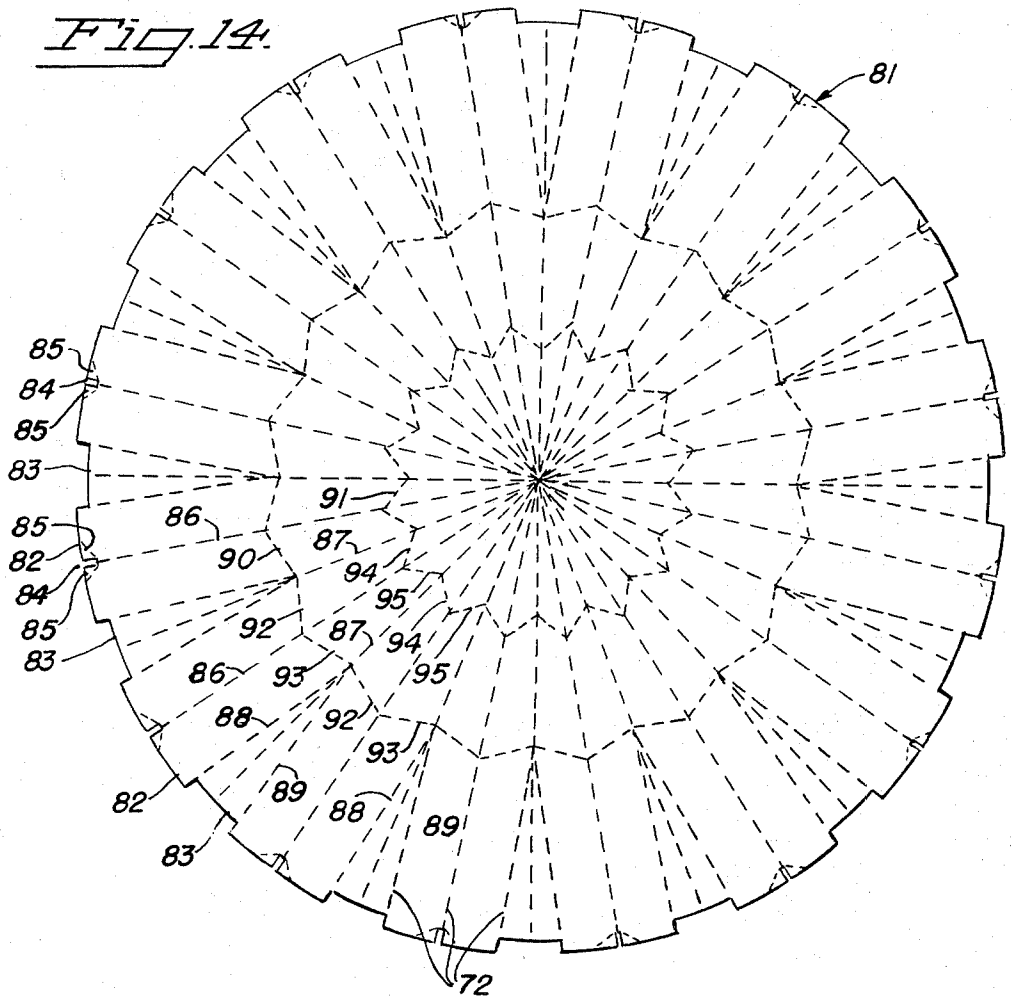
Fig. 14.



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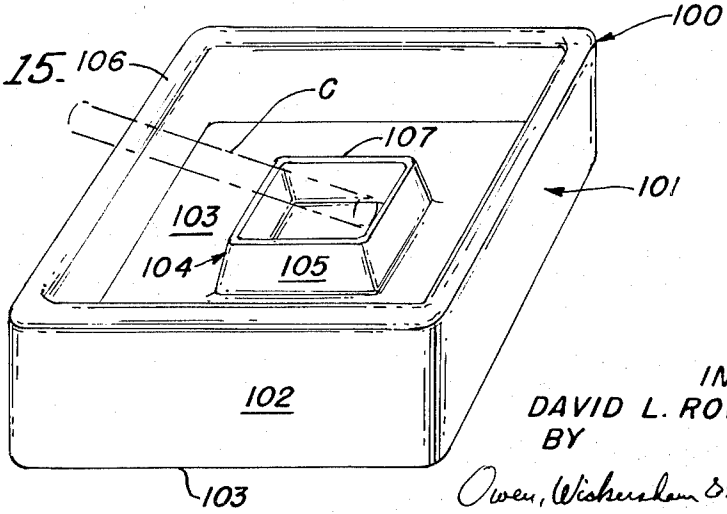

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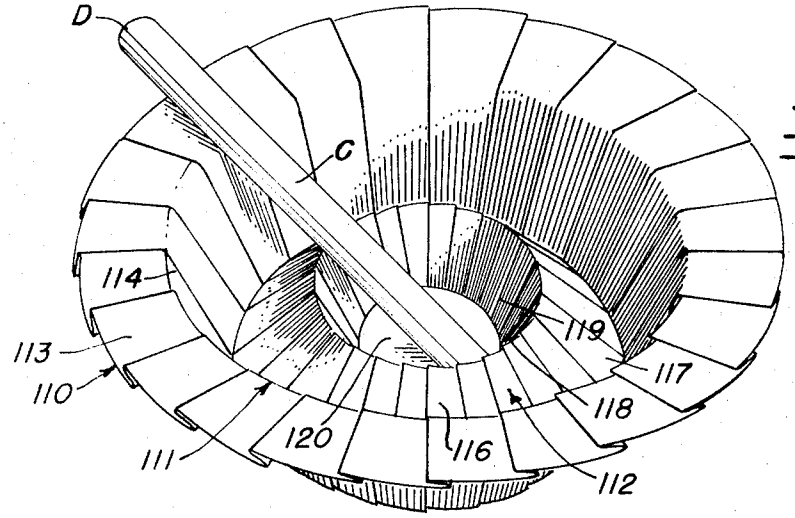

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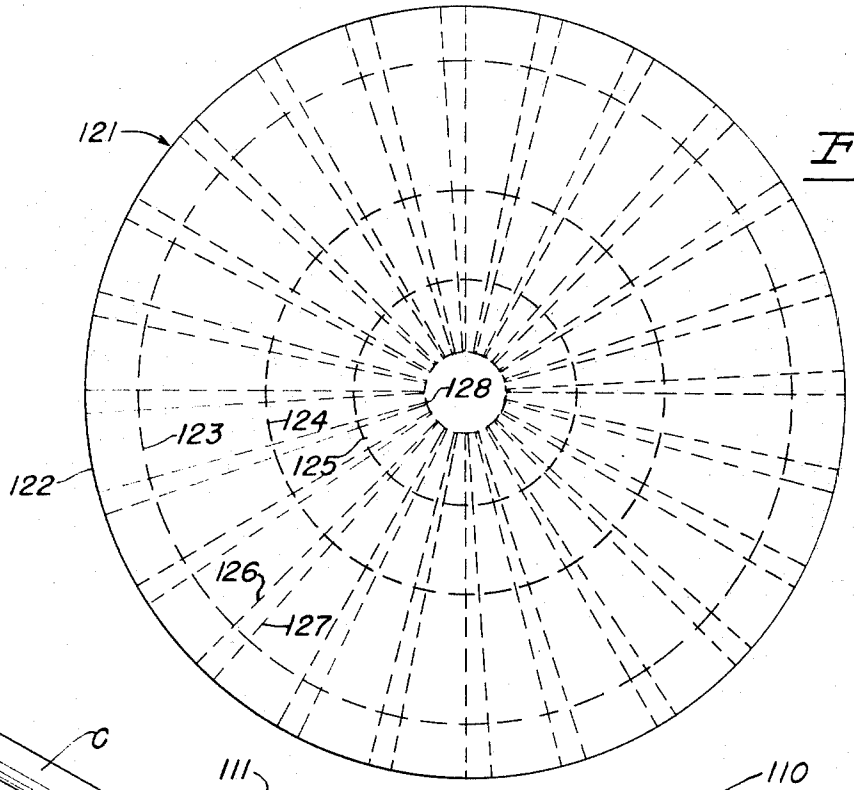

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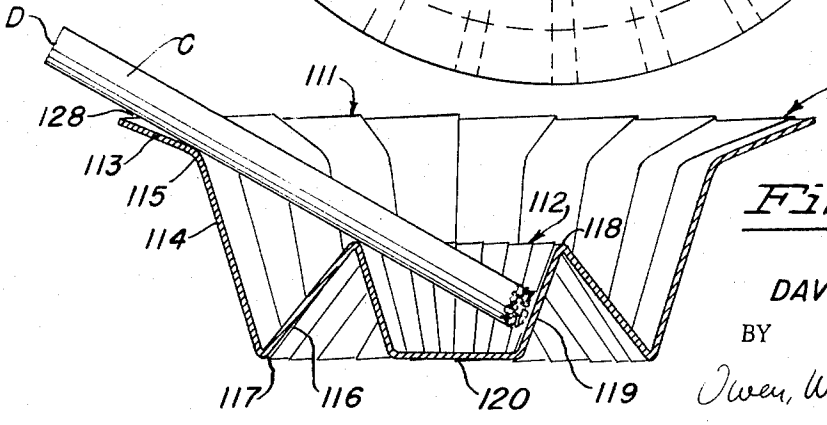

Fig. 17.

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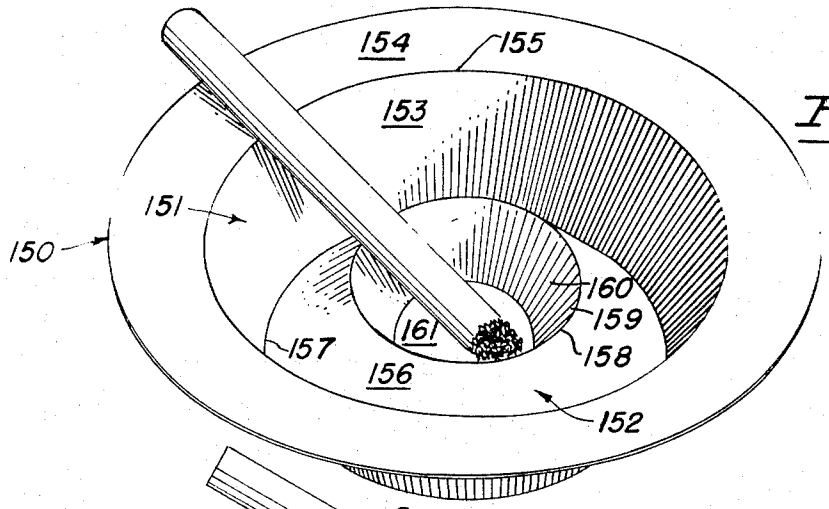

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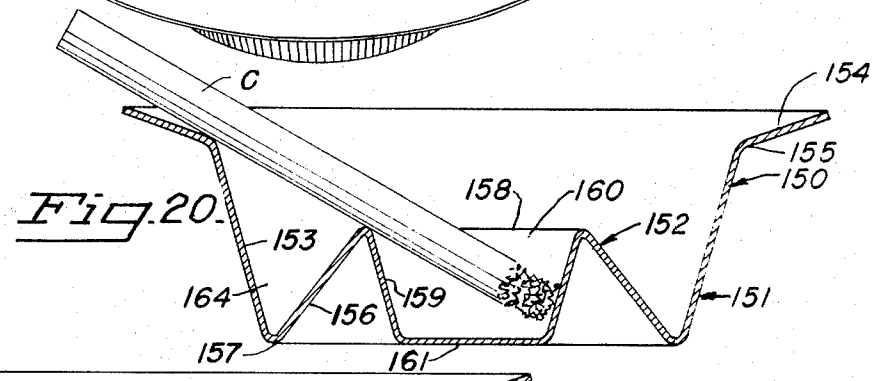

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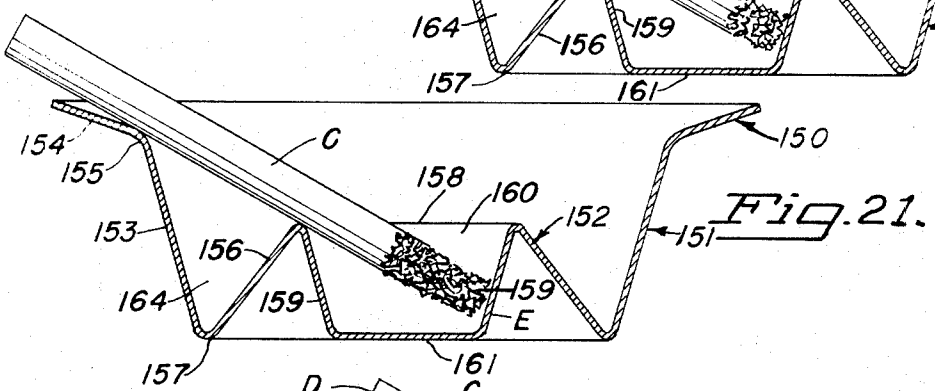

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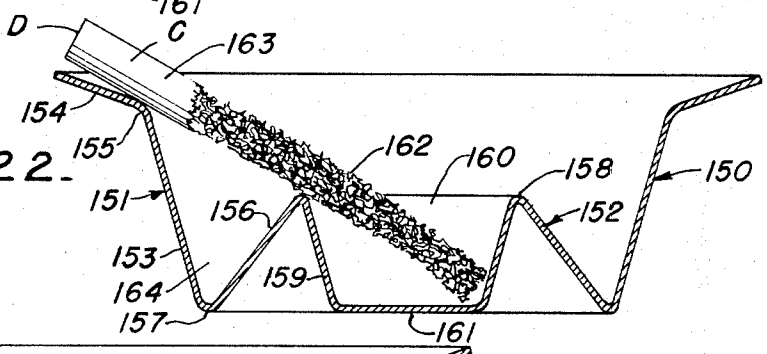

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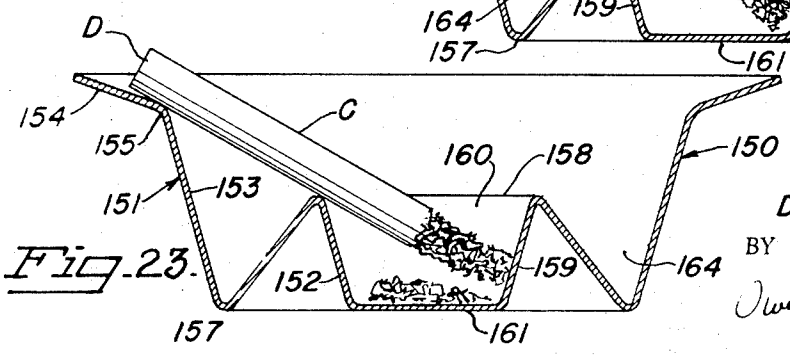

Fig. 23.

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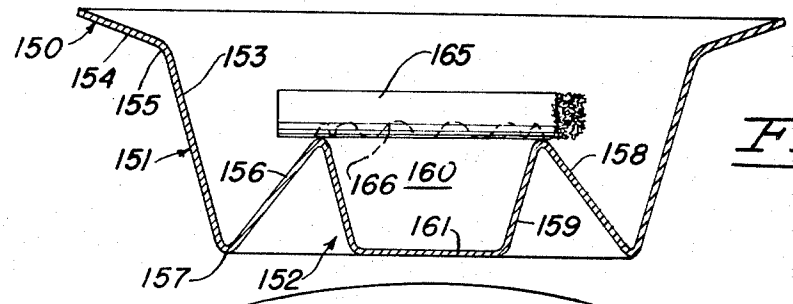

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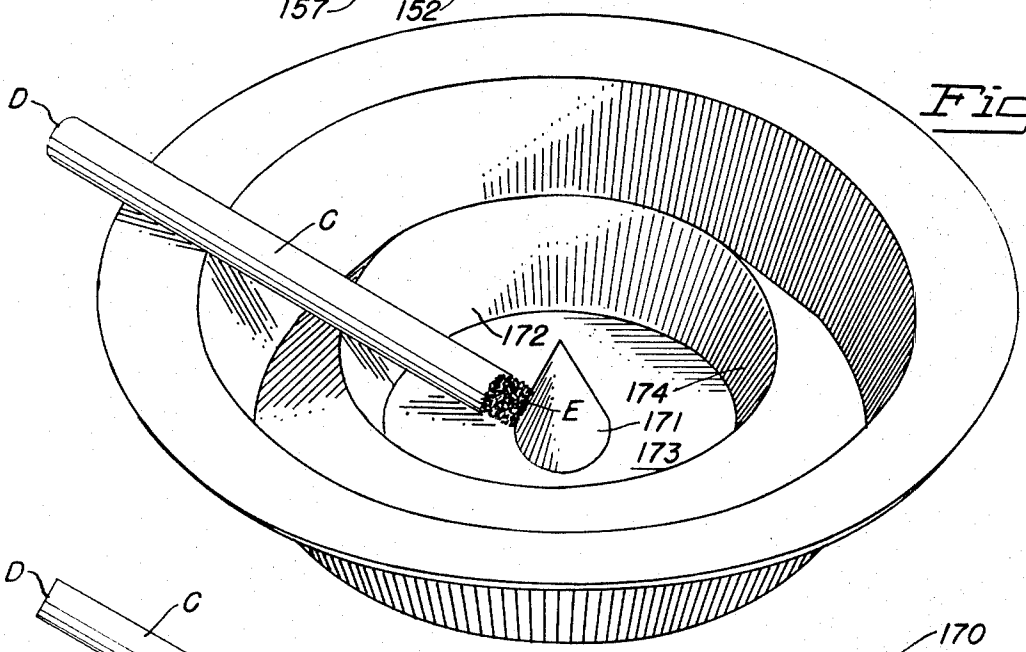

Fig. 25.

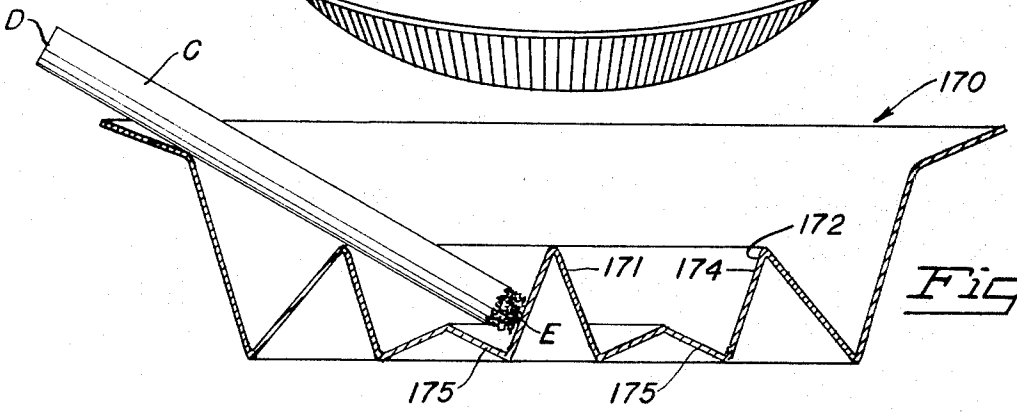

Fig. 26.

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ASH TRAY

This is a continuation of application Ser. No. 675,400, filed Oct. 16, 1967, and now abandoned.

This invention relates to an improved ash tray, and, especially though not exclusively, to an ash tray of the disposable type.

Traditional designs for ash trays provide a dish having one or more notches or smooth arcuate recesses around the periphery, in which the cigarettes are to be rested. Since such ash receptacles become very dirty and provide a distasteful task in cleaning, one object of the present invention is to provide an ash tray which, instead of requiring cleaning, can be easily disposed of at low total expense.

One of the problems with providing a proper ash receptacle for cigarettes has been that a cigarette burning in a predominately vertical position builds up tars within it and this action causes it to smell. The present invention overcomes this by holding the cigarette in a predominately horizontal position.

An even more important object of the invention is to provide a disposable ash tray having a novel protective feature that makes it substantially impossible for a cigarette placed in the receptacle to fall out of the receptacle even though it may burn completely to an end. A major purpose of this structure is to reduce the likelihood of fires. For example, when a smoker leaves a cigarette burning in an ash tray, and falls asleep, conventional ash trays may not provide any really certain means of preventing the cigarette from becoming unbalanced and falling out of the tray. Even though the smoker may have appropriately placed his cigarette in a conventional ash tray, lighted end in, and has rested it in a peripheral notch or recess, it tends to burn until its length has been so shortened that the cigarette becomes unbalanced, with a major portion of the cigarette outside the ash tray. When so unbalanced, the cigarette falls out of the ash tray, unless someone picks it up and snuffs it out beforehand; and, of course, if a lone user has fallen asleep in the meantime, there is no one to do this.

There is currently on the market a type of ash tray, sometimes made of an injection-molded plastic and sometimes made of ceramic, having sharp V-grooves or narrow U-grooves in the edge of the bowl. These grooves are purposely made to be slightly smaller than cigarette diameter. For proper operation the smoker presses his cigarette into the grooves, thereby compressing the tobacco and helping to exclude oxygen from the cigarette in areas where it is in contact with the inside wall of the groove. When the cigarette is properly pushed into such a groove, it will burn only so far as that groove, and will there become extinguished because of insufficient oxygen exposure. The trouble with this structure has been the human element, for smokers have sometimes carelessly placed the cigarette improperly into the groove—or failed to press it down far enough—so that it can still fall out when it is burned a while and the lengths on each side of the groove have become unbalanced. Unfortunately, improper use of such ash trays has often resulted in considerable fire damage.

Another object of the present invention is to provide ash receptacles which are compactly stackable within each other, thus enabling a large number to be handled in a small space. For example, when they are used on a restaurant table, a stack of the ash trays of this invention may be placed on the table, and when the waiter changes tables, instead of dumping out the ash tray, he may simply remove the top tray, leaving the remainder.

Briefly summarized, the ash tray of this invention comprises a receptacle made from thin material which is not inflammable. A receptacle of this invention is so contoured that the cigarette of necessity rests in it and burns normally, and while burning, the cigarette creeps into the dish, and if left unattended, falls inside the dish. The ash tray is so contoured as to provide an inner ring and an outer ring. The inner ring surrounds an inner or central dish, and the outer ring surrounds an outer dish, or circular channel between the inner dish and the outer channel. The positioning of the rings with respect to each other is properly dimensioned and proportioned, and there is also an important angular relationship. These will be explained in the following description of several preferred embodiments. Other objects and advantages will also appear from this description.

In the drawings:

FIG. 1 is a view in perspective of an ash tray embodying the principles of the invention, showing a cigarette resting in it.

FIG. 2 is a top view in perspective, of the ash tray of FIG. 1 with the cigarette resting therein.

FIG. 3 is a view in elevation and in section of the ash tray of FIGS. 1 and 2, showing a freshly lighted cigarette properly resting therein.

FIG. 4 is a view similar to FIG. 3 showing the cigarette as it has been left burning from FIG. 3, and, having built up considerable ash, has shrunk into the ash tray.

FIG. 5 is a view similar to FIG. 4, showing what happens upon further burning of the cigarette of FIG. 4 when left to burn in the ash tray.

FIG. 6 is a fragmentary enlarged view in elevation and in section showing the outer edge of the ash tray of FIGS. 1 through 5 and the position of the cigarette thereon.

FIG. 7 is a view in section taken along the line 7—7 in FIG. 6.

FIG. 8 is a top plan view of a blank by which the ash tray of FIGS. 1 through 7 may be made from a single sheet of noninflammable paper or plastic.

FIG. 9 is a view in elevation and in section of a stack of three ash trays all like that of FIGS. 1 through 8, showing a cigarette in the position shown in FIG. 5, but viewing it and the tray from a different angle.

FIG. 10 is a view in perspective of a modified form of the invention.

FIG. 11 is a top plan view of a blank from which the ash tray of FIG. 10 may be made.

FIG. 12 is a view in perspective of another modified form of ash tray embodying the principles of the invention, with a cigarette shown therein.

FIG. 13 is a top view in perspective of the ash tray of FIG. 12.

FIG. 14 is a top plan view of a paper blank from which the ash tray of FIGS. 12 and 13 may be made.

FIG. 15 is a view in perspective of a modified form of ash tray of the invention, which is square or rectangular.

FIG. 16 is a view in perspective of a further modified form of the invention, with a freshly lighted cigarette resting therein.

FIG. 17 is a view in elevation and in section of the ash tray of FIG. 16.

FIG. 18 is a view on a reduced scale of a blank from which the ash tray of FIGS. 16 and 17 may be made by folding alone.

FIG. 19 is a view in perspective of another modified form of the invention, this one being molded or pressed to shape from metal, plastic, or other suitable material, rather than being folded or glued. A freshly lighted cigarette is shown therein.

FIG. 20 is a view in elevation and in section of the ash tray of FIG. 19 with a freshly lighted cigarette therein.

FIG. 21 is a view similar to FIG. 20 showing the cigarette of FIG. 20 left in the ash tray to burn somewhat more.

FIG. 22 is a view similar to FIG. 21 with the cigarette at a later stage of burning.

FIG. 23 is a view similar to FIG. 21 with a cigarette which has been smoked intermittently since initially being placed in the ash tray as in FIG. 20, having been taken out and put back in several times.

FIG. 24 is a view similar to FIG. 20 showing accommodation for a short cigarette across the inner cup, which has a modified form of edge, having scallops instead of lying only on a single horizontal plane.

FIG. 25 is a view in perspective of still another modified form of the invention, wider and having a different form of stop centered in the inner cup. The ash tray can be molded or formed to this shape.

FIG. 26 is a view in elevation and is section of the tray of FIG. 25 but slightly modified.

The ash tray 30 shown in FIGS. 1 through 9, as well as the other ash trays shown, may be made from noninflammable paper such as metal-foil-backed paper or film-laminated paper. Any nonflammable stiff paper may be used, including some of the clay-finish papers. Also, plastic such as phenolic and melamines and ceramic materials are appropriate, though ceramic ash trays will not stack quite as compactly; nevertheless, as far as design is concerned, the ash tray can be made in ceramic with good results. The ash tray may be made from a flat paper blank or a flat plastic blank or may be made by vacuum molding or injection molding, or can be made by stamping and forming metal. It may have a vacuum metalized surface for heat reflection or it may be otherwise coated.

The ash tray 30 of FIGS. 1 through 9, whether made from a paper-metal foil laminate like the blank in FIG. 8 or of molded plastic, or in any form, comprises a unitary receptacle providing two concentric cups, a lower, inner cup 31 and a higher, outer cup 32. The outer cup 32 has a peripheral edge 33 higher than the peripheral edge 34 of the inner cup 31 and its wall 35 meets the inner cup 31 by means of a web 36 which extends up from a vertex 37 where the wall 35 of the outer cup terminates; the web 36 extends up to the upper edge 33 of the inner cup 31. The vertex 37 forms a circle.

The inner cup 31 has a sloping inner wall 38 that goes down to a bottom vertex 39 forming a circle on the same plane as the vertex 37. From the vertex 39 a central cone 40 may arise, terminating in a point 41. Preferably, the cone 40 is made so that it lies fully below a line passing through or tangent to the edges 33 and 34 and extended on down. Hence, the cigarette C never rests on the top 41 of the cone 40. When it burns short, the cigarette C may rest on the slope of the cone 40, as will be explained later.

The outer periphery 33 is preferably provided with V notches 42 which are the preferred cigarette resting locations. As shown best in FIGS. 2 and 3, the cigarette C, in at least its early stages of burning, rests tangent to the edge 33 in a notch 42 of the outer cup 32, on or tangent to the edge 34 of the inner cup 31, and on the opposite slope 38 at a stop position.

In FIG. 6, the material of the ash tray is shown here as foil-coated paper, comprising a lamination 43 of foil on the inside surface and a lamination 44 of paper on the outside. At the notches 42, are downward folds 53 (see FIG. 8) which provide smooth tangent resting points and eliminated the change of the cigarette's catching on a sharp paper edge which might prevent it from sliding. The tangent resting points are located about where the fold is made. This tangency is best shown in FIG. 6.

The dimensions and angles involved are important. The dimension A shown in FIG. 4 is the distance from the edge 34 to the opposite stop point on the wall 38, measured along the line which is an extension of the line joining the tangents to the edges 33 and 34, and the distance along that line between the edges 33 and 34 is the dimension B shown in FIG. 4. The dimension A is ideally 0.3 times the length of a new cigarette, which for current standard sizes is 1.3 inches or 33 mm. The maximum length for dimension A is about one half the length of a new unlit cigarette or about 2 inches (50 mm.) and the minimum is about one-eighth the length of a new cigarette or about one half inch (about 12 mm.). The dimension B is ideally about 1.4 inches (35 mm.) or slightly larger than the ideal length of the dimension A. The maximum practicable length of the dimension B is the length of a new unlit cigarette, less the dimension A, or about seven-eighths the length of a new cigarette when A is at its minimum, i.e., about 3½ inches (about 88 mm.). The minimum length of dimension B is half of the length of a new unlit cigarette, less the dimension A, or about one-eighth the length of a new cigarette (about one-half inch or 12 mm.). The cigarette slope angle in this invention lies between 10° and 40°, ideally around 25°, and this being the inclination to horizontal made by the line tangent to the edges 33 and 34, horizontal being the plane of the circles 37 and 39.

When these critical dimensions and angles are used, one very important result is illustrated by FIGS. 3, 4, and 5. As shown in FIGS. 1–3, a cigarette C has just been lit, and it is placed somewhere along its length on the edges 33 and 34. The slope is such that the cigarette C automatically slides until its lighted end D engages the wall 38. At this time, the unlit end E is still overhanging the outside of the ash tray 30, and if nothing else happened, the cigarette C might burn up to a point near the edge 33 where the weight of the unlit overhanging portion F (see FIGS. 6 and 3) would outweigh the inside portion, and the butt could then fall over out of the ash tray 30. However, this cannot happen, because a cigarette shrinks as it burns, and because the

angle of inclination tends to cause it to slide further into the ash tray **30**. It slides freely across the rounded edges **33** and **34**. The shrinkage pulls the unlit end E into a safe position as is shown in FIG. **4**, and upon further burning the ash G gives way and falls to the bottom **39** of the inner cup **31** and the cigarette C then slides down further to a position such as that shown in FIG. **5**. It will do this also if the smoker has taken some draughts on it and has replaced it on the edges **33** and **34**, because the lighted end will again immediately slide against the wall **38**. The proportioning on the positions of the edges and the angle of rest of the cigarette is such as to make it virtually impossible to misuse the ash tray **30**, or to misuse cigarettes in relation to it. A cigarette always falls or slides into a safe position.

As shown in FIGS. **6** and **7**, another feature of the invention is that the lip structure **33** is curved down between the notches **42** so that there are no sharp edges to hook on to the cigarette C and impede its proper sliding in. There is a smooth curve at the contact points rather than anything confining, as is shown in FIGS. **6** and **7**.

Note that when the cigarette burns in the way shown in FIG. **5**, it does not rest on the vertex **41** of the cone **40** but falls beside it on to the sloping wall of the cone **40**. The cone's function is to hold the lighted end up somewhat so that the air can circulate underneath it and keep the cigarette burning even when the cigarette is short, so that it can still be smoked until it is finally too short. As shown in FIGS. **5** and **9**, a very short cigarette stub will then rest on three points, on the inner rim **34** and on both of the two sloping surfaces **38** and **40**.

A blank **50** shown in FIG. **8** may be used to manufacture the ash tray **30** of FIGS. **1** through **7**. It will be seen that the blank comprises an arcuate edge **51**, having short cuts **52** to provide the notches **42** when flaps **53** are folded down. There are arcuate fold lines **54**, **55**, and **56** to provide the vertices **37**, **34**, and **39**, respectively. The two radially inwardly extending edges **57** and **58** are brought together during folding, and a marginal portion **59** along one of these edges **58** may be previously provided with adhesive, or adhesive may be applied just previous to the folding operation.

An outstanding feature of the invention when it is made of thin material such as foil-coated paper, is its stackability. It can be stacked just as compactly as thin paper plates or cups, and FIG. **9** shows a short stack of these ash trays **30***a*, **30***b*, and **30***c*, with other reference numerals corresponding with the indicia *a*, *b*, and *c* added for the thin trays. Since they stack so compactly, an entire stack may be used as an ash tray, and the top one removed as it is dirtied. There can be successive such removals until finally the stack is consumed.

The number of slots **52** which are on the periphery is not critical. The amount shown in the drawing is chosen to give a satisfying look and good performance, but more or fewer can be used.

A modified ash tray **60** of the invention is shown in FIG. **10**, and FIG. **11** shows a pattern **61** for it, generally circular with radial cuts **62***a* somewhat resembling a flattened orange peel. There are provided circular fold lines **62**, **63**, and **64** to make the inner and outer cups **65** and **66**. In a preferred form of the ash tray **60**, there is gluing at a tab **67** on the edge of each of the several segments **68**. At the outer edge, flaps **69** are turned down with a wide curving fold provided. The result, as shown in FIG. **10**, is very similar to what was shown in FIGS. **1** through **8**.

In this instance, there is no central cone, and the inside of the inner cup **65** is made with a flat bottom surface **70**. The upper edges **72** and **71** of the outer and inner cups **66** and **65**, respectively, are smooth and the edge **71** is broadly rounded at the notches **73**, which are again provided with the downward folds **69** located so as to provide smooth tangent resting points and to eliminate the chance of a cigarette's catching on a sharp paper edge. The wall **74** of the outer cup **66** and the walls **75** and **76** of the inner cup **65** slope conically. The cigarette rests on tangent points inboard from a curved-away sharp outer edge **77**, when it is rested in one of the notch areas, and again of course rests on the smooth folded edge **71** of the inner cup **65**, which is lower than the edge **72** of the outer cup **66**. It may also rest substantially against the conical wall **76** of the inner cup **65**. The same proportions are used as those discussed above in connection with FIG. **4**, for these proportions and slope angles apply throughout the invention. Note that the edge **71** of the inner cup **65** is (as throughout this invention it must be) lower than the edge **72** of the outer cup **66**.

Another modified ash tray **80** of the invention is shown in FIGS. **12** through **14**. Here the blank **81** (FIG. **14**) comprises a full circle, with an outer edge **82** having recessed arcs **83** therein alternating with the normal edge **82** at regular intervals about half the width of the full length portions **82**. Each full length portion **82** has a notch **84** enabling the folding of flaps **85** to give the needed smooth edge here. There are no radial cuts as in FIGS. **10** and **11**, but there are radial fold lines **86** and **87** and also fold lines **88** and **89** to give overlaps, much as is done in some types of paper cups. The result is quite attractive, as shown in FIGS. **12** and **13**. There are also two generally circular folds **90** and **91**, which are made up of short straight folds that lie at an angle to each other, fold lines **92** and **93** for the outer fold **90** and fold lines **94** and **95** for the inner fold **91**.

The relationship in this ash tray **80** between its inner cup **96** and outer cup **97** is substantially the same, although in this instance there is a zig-zag, star-like rim **98**, **99** on each of the inner cup **96** and outer cup **97**, which serves for holding the cigarette, again without causing any catching at any of the edges, since they are all folded edges.

Other forms along this line are obviously possible, and it is not critical that the device be made from a flat blank, for it can be molded or pressed as has been stated before.

For example, FIG. **15** shows a square ash tray **100** having a square outer cup **101** with a vertical wall **102** connected by a flat bottom wall **103** to a square inner cup **104** having a vertical wall **105** extending up from the flat bottom wall **103**. The proportions, slope angles, sizes, and rounding of edges **106** on the outer wall **102** and **107** on the inner wall **105** are basically as have been discussed. The walls **105** and **103** or either of them may be made with a slope, especially the inner wall **105**. There may be a central pyramid like the cone **40** if desired. Instead of being square or circular, the ash tray may be rectangular or in the shape of a regular

or irregular polygon or an ellipse or irregular closed curve. The irregular shapes are easier in ceramic or molded plastic.

The embodiment of the invention shown in FIGS. **16**, **17** and **18** presents an ash tray **110** made much like the type of cups that are used in many restaurants to serve cole slaw. This ash tray **110** may be considered as a totally folded embodiment. It may be made from metal, like the pie plates used in frozen foods. Once again, it has an outer cup **111** and an inner cup **112**, through in this case the outer cup **111** is provided with a flange **113** around a conical wall **114**, the two meeting at a point **115** where curvature changes, not in a sharp edge but at a rounded vertex. The downward sloped wall **114** joins an upwardly sloped conical wall **116** of the inner cup **112** at a vertex **117** which describes a circle around the bottom of the cup **112**. The inner cup **112** also has a smooth upper edge **118** and an inner sloping conical wall **119** leading down to a circular flat portion **120**.

The blank **121** of FIG. **18** is circular and is provided with a circular outer circumference **122**, with circular fold lines **123**, **124**, **125** and **128**, and with radial fold lines **126** and **127** in pairs. There is no need to have the notches here because of the folds along the double fold line **126**, **127**, so that a cigarette C rests on the smooth edges **115** and **118** without any sharp cut paper edges. A wedge-shaped space **128** (FIG. **17**) minimizes the cigarette contact along the flange **113**, and there are smooth contact points providing minimum obstruction to the cigarette's natural tendency to slide, so that as it burns, the cigarette C does slide inwardly toward the inner cup wall **119** opposite from the edge **118** on which it rests.

As stated earlier, the cup may be molded instead of made by folding or by forming a flat blank. A molded cup **150** is shown in FIGS. **19** through **23**. It may be pressed instead of molded, if desired, so that it may be made out of suitable sheet material, such as metal, or it may be made from phenolic resin or from other types of fire-resistant plastic. The ash tray **150** has an outer cup **151** and an inner cup **152**, and the outer cup **151** has a sloping outer wall **153** meeting a sloping flange **154** at a smoothly curved inner rim **155**. The downwardly and inwardly extending conical wall **153** meets an outer conical wall **156** of the inner cup **152** at a vertex circle **157**. The inner cup **152** has a smooth contact edge **158** lower than the flange **154** and rim **155**, and it has an inner conical wall **159** leading to a well **160** with a flat bottom wall **161**, which is coplanar with the circular vertex **157**. The edge **158** is smooth, so that it does not make a sharp contact with the cigarette C. The slope angle of the cigarette again is within the range of 15° to 40° and is preferably about 25° so that the cigarette C has a minimum sliding resistance and does not get hooked on either edge **155** or **158**. The cigarette C really rests on three points: the outer rim **155**, the inner rim **158**, and the stop position of the wall **159** of the inner cup **152**.

FIGS. **20** through **22** show what happens to a cigarette C in the ash tray **150**. If the cigarette C of FIG. **20** is simply left in place, it progressively burns as shown in FIG. **21** and then as shown in FIG. **22**. When the ash **162** eventually breaks after sliding of the cigarette C, the stub **163** falls harmlessly into the well **164** between the inner and outer cups.

FIG. **23** shows what happens with a cigarette C that is smoked intermittently. When it is placed in the ash tray **150**, it assumes the position shown here, and if it is left alone awhile after being smoked, it slides further and it is ready to fall into the inner cup **152**.

FIG. **24** shows how the inner cup **152** can also be used to provide accommodation for a short cigarette **165**. The inner cup **152** may have, as shown here, small notches or valleys **166** in the edge **158** to prevent roll of the cigarette **165**, if this should be deemed desirable.

FIGS. **25** and **26** show one further modification, an ash tray **170** which generally resembles the ash tray **150** but which is wider and has a cone **171** inside the inner cup **172** to serve as a stop. Unlike the use of the cone **40** in FIG. **1**, the cone **171** here is used as a stop and the ash E is placed up against it. In other words, a wide ash tray **170** can have a wide central inner cup **172**, so that the cigarette C, if properly inclined as shown in FIGS. **25** and **26**, tends to come in to a bottom wall **173** rather than reaching the opposite wall **174** of the inner cup **172**. In order to make it wide this way, it is desirable to have the cone **171** to serve as a stop.

Another modification which is feasible is to have, as is shown in FIG. **26**, a small conical ring **175** somewhat analogous to the central cone **40** of FIG. **1**, placed in between the central cone **170** and the wall **174** of the inner cup **172**. The function of the conical ring **175** is to accommodate short cigarettes by keeping them up in the air and helping to keep them burning.

To those skilled in the art to which this invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the spirit and scope of the invention. The disclosures and the description herein are purely illustrative and are not intended to be in any sense limiting.

I claim:

1. An ash tray comprising two concentric cup-shaped portions, an inner cup and an outer cup, both cups having an upper edge, the upper edge of said inner cup being lower than that of the outer cup so that a line tangent to all segments of the contours of the two edges, on which a cigarette would rest, is inclined to the horizontal at an angle lying between 10° and 40°, both said edges being smoothly rounded, so that a cigarette can slide downwardly and inwardly into said inner cup as it shrinks by burning, said outer cup having a downwardly and inwardly sloping wall, and said inner cup having a downwardly and inwardly sloping inner surface and a downwardly and outwardly sloping outer wall that meets said wall of said outer cup at a vertex that lies along a horizontal plane, a cone in said inner cup projecting up from the bottom thereof to a point, the top of said cone lying below the line tangent to said two upper edges.

2. The ash tray of claim 1 wherein the said cone meets said downwardly and inwardly sloping inner surface at a circular vertex.

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