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J. D. CROWLEY
DISPOSABLE ASH TRAY

2,836,340

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FIG. 1

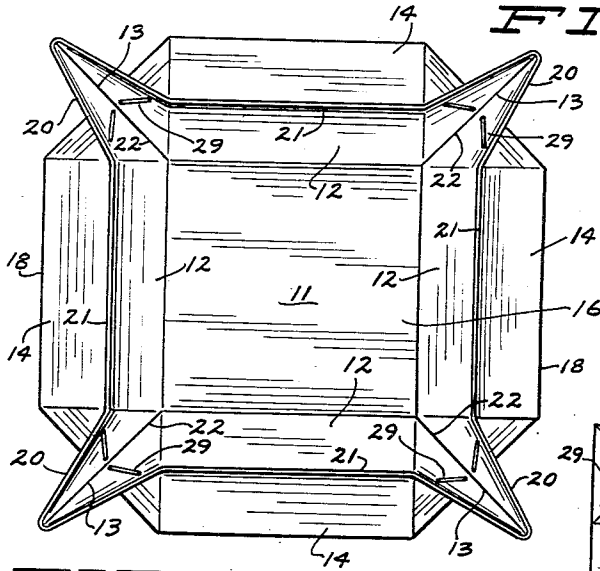


FIG. 5

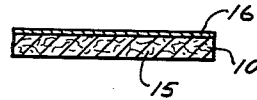


FIG. 4

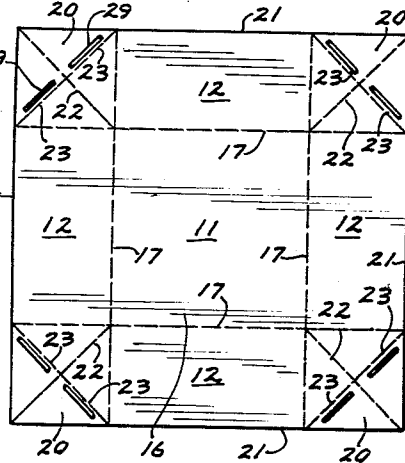


FIG. 2

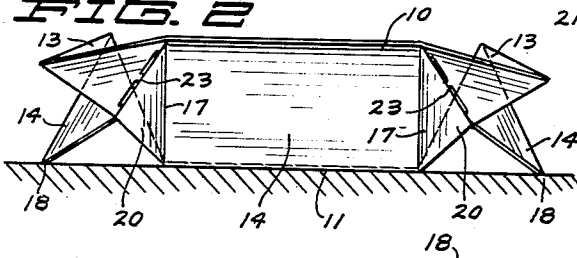
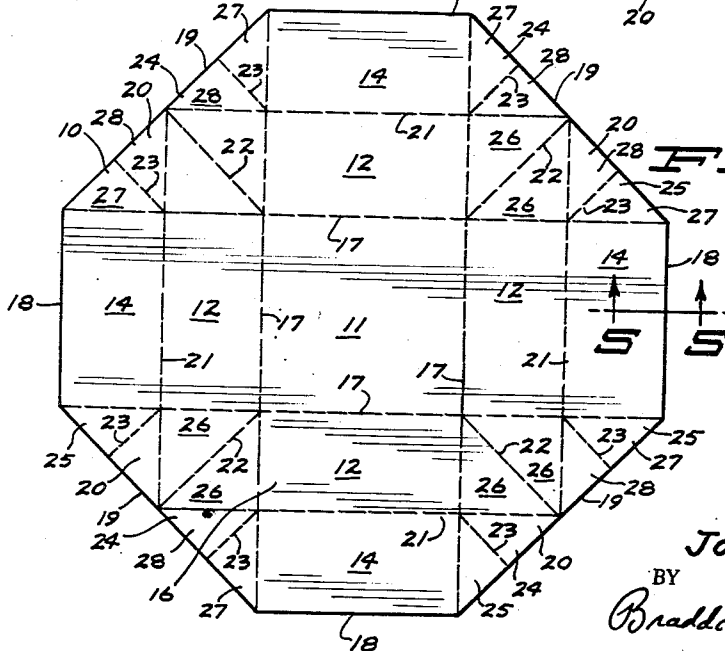


FIG. 3



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DISPOSABLE ASH TRAY

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7 Claims. (Cl. 229—30)

The invention herein has relation to an ash tray of new and improved construction.

In the accompanying drawing forming a part of this specification,

Fig. 1 is a top plan view of an ash tray made according to the invention;

Fig. 2 is a side elevational view of the ash tray;

Fig. 3 is a plan view, on a reduced scale, of a blank for providing the ash tray;

Fig. 4 is a plan view, on the scale of Fig. 3, of the blank after parts thereof have been partially folded in the process of producing the ash tray; and

Fig. 5 is an enlarged sectional view, taken on line 5—5 in Fig. 3.

An ash tray incorporating the features and characteristics of the invention will be constituted as a single blank 10 of foldable material, and will include a bottom wall 11, upstanding side walls, each denoted 12, depressions, each represented 13, at the corners of the ash tray between adjacent side walls, for receiving cigars and cigarettes, and supporting elements, each represented 14, for the ash tray.

In the disclosure as made, the blank 10 consists of a flat piece 15 of fiber, paper or cardboard and a facing sheet 16 of metal foil, desirably aluminum, secured to the outer or upper surface of the flat piece 15. A metal foil facing sheet also could be secured to the inner or lower surface of said flat piece.

Also as disclosed, the blank for providing the ash tray is of octagonal configuration and the finished ash tray has four sides. It could, however, have three sides, or more sides than four. When four sided, the ash tray can be rectilinear, but need not be square as shown. That is, the ash tray could be oblong.

The bottom wall 11 of the ash tray is square and is bounded at the four sides thereof by the side walls 12 of said ash tray. Each side wall is of rectilinear configuration. As disclosed, each side wall is of the same length as the dimension of the bottom wall and has width equal to a measurement representing half of its length. Each side wall is bounded at the outer or upper edge thereof by a supporting element 14 of the blank, and as shown the supporting elements are of the same area as are the side walls.

Straight score or fold lines, each designated 17, extend across the blank at the location of each of the four side edges of the bottom wall 11 of the ash tray and bound or define the opposite ends of the different sets, respectively, of side walls 12 and supporting elements 14.

A straight outer edge 18 of each supporting element 14 meets and is perpendicular to adjacent score or fold lines 17. There are four straight outer edges 18 at ninety degrees apart, and also four straight outer edges, each denoted 19, of the blank extending between ends of said outer edges 18 which are adjacent each other. As shown, the outer edges 19 are of equal length and longer than the outer edges 18.

Each depression 13 is provided by a V-shape portion

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20 of the blank 10 bounded or defined interiorly thereof by parts of adjacent score or fold lines 17 and exteriorly thereof by an outer edge 19 of said blank. There are four depressions providing V-shape portions 20 at ninety degrees apart.

Straight score or fold lines, each represented 21, extend across the blank at each of locations where adjacent side walls 12 and supporting elements 14 of the ash tray meet, and the exterior ends of the score or fold lines 21 terminate at the midlengths of the outer edges 19 of the blank.

A straight score or fold line 22 extends across each depression providing V-shape portion 20 of the blank between the midlength of the outer edge 19 thereof and a corner of the bottom wall 11 of the ash tray, and straight score or fold lines, each designated 23, extend across each of the V-shape portions 20 at either side of and in spaced, parallel relation to a corresponding score line 22. The interior end of each score or fold line 23 meets a score or fold line 17 at an interior corner of the next adjacent supporting element 14, and the exterior end of each score or fold line 23 terminates in the corresponding outer edge 19 of the blank at a location equidistantly spaced from the score or fold line 22 and an exterior corner of said next adjacent supporting element.

Each score or fold line 22 divides the corresponding V-shape portion 20 into duplicate triangular sections, each represented 24, and portions of the score or fold lines 21 divide the triangular sections 24 into duplicate exterior and interior triangular pieces, denoted 25 and 26, respectively. The score or fold lines 23 divide the exterior triangular pieces 25 into duplicate triangular parts, denoted 27 and 28, respectively.

In Fig. 4 of the drawing, the blank has been folded downwardly and inwardly along all of the score or fold lines 21 to situate each of the supporting elements 14 and the triangular pieces 25 at the opposite ends thereof in engaged relation with the inner or lower surfaces of the next adjacent supporting elements 14 and triangular pieces 26, respectively. Also in said Fig. 4, the triangular pieces 25 of each V-shape portion 20 have been secured, by staples 29 at the score or fold lines 23, to and against triangular pieces 26 of the corresponding triangular sections 24. Connecting of the triangular pieces could be accomplished by means, such as stitching or gluing, other than staples. The opposite end portions of each outer edge 19 are in parallel, adjacent relation at the under side of the blank in Fig. 4.

It is contemplated that the blanks will be handled, stored and shipped in partially formed, flattened condition, as in Fig. 4, completion of the formation to be accomplished when the ash trays are to be put to use.

Assuming a blank, as in Fig. 3, to be partially folded and stapled, as in Fig. 4, completion of production of the ash tray will comprise folding of the side walls 12 upwardly along the score or fold lines 17 relative to the bottom wall 11 of said ash tray, and folding of each depression providing portion 20 outwardly along the score or fold lines 21 and inwardly along the score or fold lines 17. As will be apparent from Figs. 1 and 2 of the drawing, the side walls 12 of the ash tray extend upwardly and exteriorly, the cigar or cigarette receiving depressions 13 face upwardly at the four corners of said ash tray, the supporting elements 14 extend downwardly and outwardly and the lower edges 18 of said supporting elements are engaged against the surface upon which the ash tray rests. Staples 29 secure the triangular parts 28 to adjacent triangular pieces 26. The triangular parts 27, at the opposite ends of and secured to the supporting elements 14, are free to swing exteriorly thus to situate said supporting elements in downwardly and exteriorly extending positions.

The ash tray will be and remain of configuration as disclosed in Figs. 1 and 2 of the drawing after completion of the crimping operations necessary to produce said ash tray.

What is claimed is:

1. An ash tray formed from a blank of relative stiff foldable material comprising a bottom wall, upstanding side walls, and supporting elements extending downwardly from upper edges of said upstanding side walls exteriorly thereof, there being portions of the blank providing upwardly and inwardly facing depressions of said ash tray between and contiguous with ends of side walls and supporting elements, respectively, which are adjacent to each other.

2. An ash tray formed from a blank of relatively stiff foldable material comprising a bottom wall, side walls extending upwardly from said bottom wall, and supporting elements extending downwardly from upper edges of said side walls exteriorly thereof, there being portions of the blank at each of corners of said ash tray providing upwardly and inwardly facing depressions between and contiguous with ends of said side walls and supporting elements, respectively, which are adjacent to each other.

3. The combination as specified in claim 2, and means securing said supporting elements to depression providing portions to be swung exteriorly of said ash tray.

4. The combination as specified in claim 2 wherein a bounding surface of each of said depressions slants upwardly from and exteriorly of a corner of the bottom wall of said ash tray.

5. An ash tray formed from a blank of relatively stiff foldable material comprising a bottom wall, side walls extending upwardly from and exteriorly of said bottom wall, and supporting elements extending downwardly and exteriorly from upper edges of said side walls, there being portions of the blank at corners of the ash tray providing upwardly facing depressions between and contiguous with each of said side walls and supporting elements, respectively, which are in adjacent relation, the bounding surface of each of said depressions slanting upwardly from and exteriorly of a corner of the bottom wall of said ash tray.

6. The combination as specified in claim 1 wherein said ash tray is of rectilinear configuration.

7. The combination as specified in claim 5 wherein said ash tray is of rectilinear configuration and all of said side walls and supporting elements are of equal width.

References Cited in the file of this patent

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