

United States Patent

[11] 3,561,453

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 [21] Appl. No. **849,061**
 [22] Filed **Aug. 11, 1969**
 [45] Patented **Feb. 9, 1971**

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[54] **DISPOSABLE ASHTRAY AND BASE**
7 Claims, 7 Drawing Figs.

[52] U.S. Cl. **131/241,**
 229/30, 248/152

[51] Int. Cl. **A24f 19/00,**
 A47g 23/032

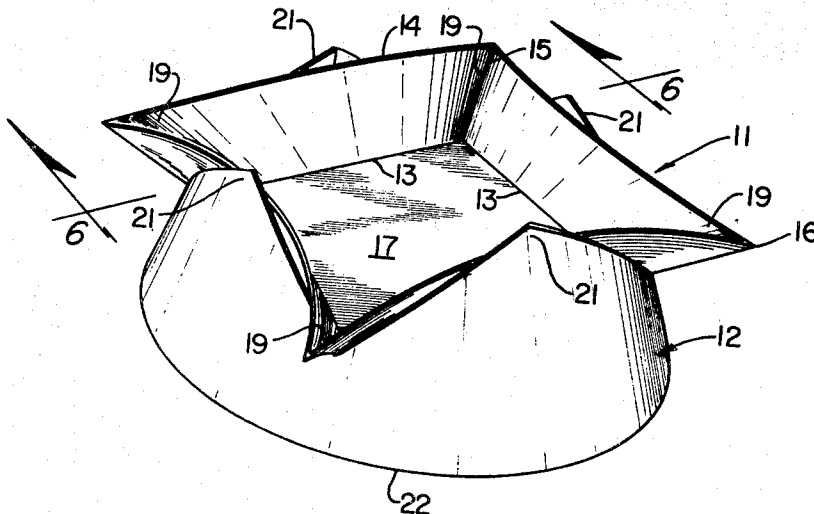
[50] Field of Search **131/231,**
 240, 241; 229/1.5H, 30; 248/146, 192

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ABSTRACT: A disposable insert-type ashtray and base therefor with the tray being made of a single blank of a resilient sheet material having at least an upper heat resistant layer. Fold lines are provided substantially inwardly of and along each edge which permit the blank to be folded along the lines into an open container characterized by a flat bottom, upright inclined and inwardly bowed sidewalls and generally V-shaped corners. A base into which the ashtray may be inserted for support and readily removed therefrom is a generally hollow body with a top opening and upstanding inwardly inclined spaced projections or lips sized and circumferentially arranged to bear against the sidewalls of the tray to releasably hold it in place and which may also be formed from a disposable blank.



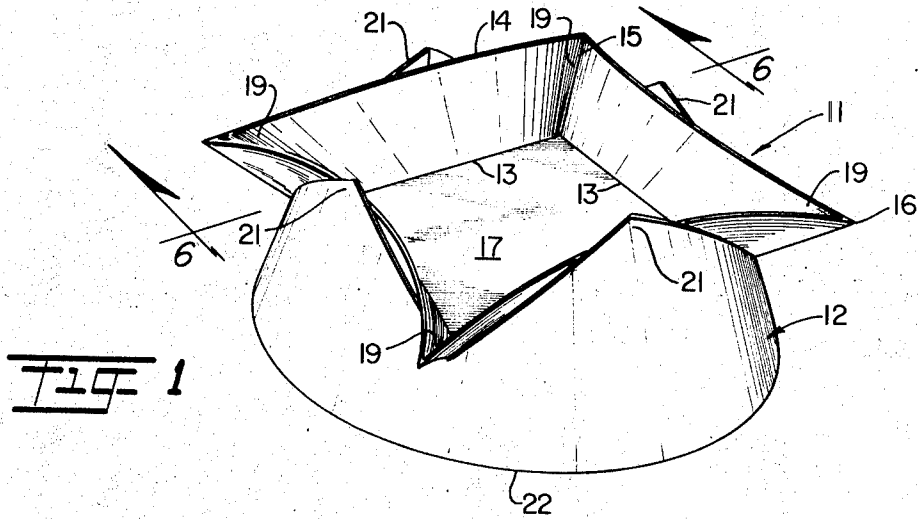


FIG. 1

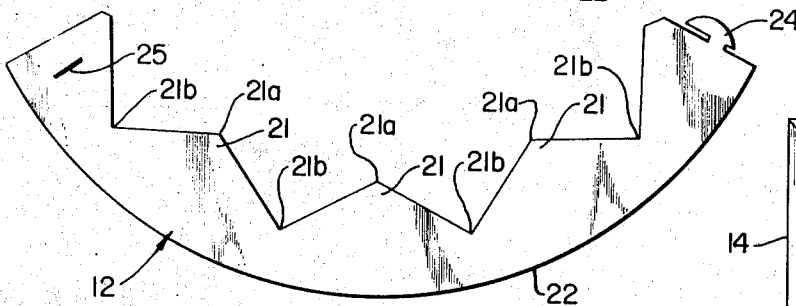


FIG. 2

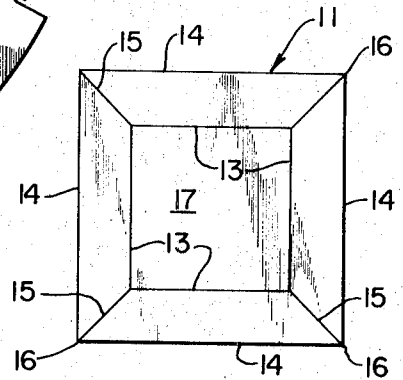


FIG. 3

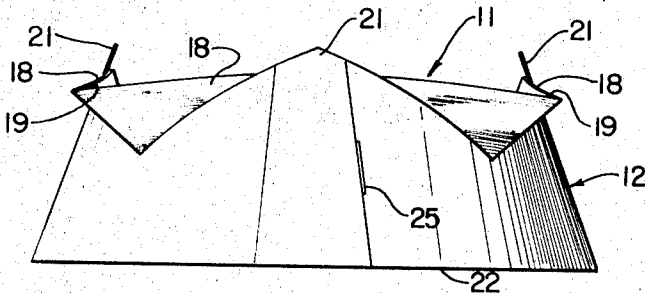


FIG. 5

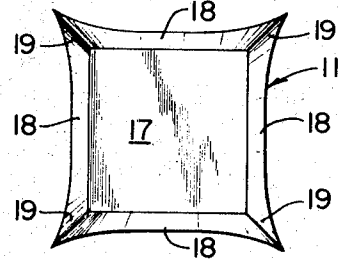


FIG. 4

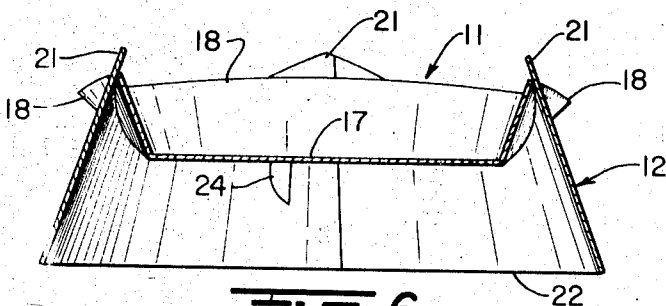


FIG. 6

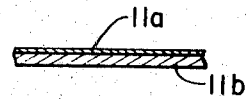


FIG. 7

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DISPOSABLE ASHTRAY AND BASE

This invention relates to a novel and improved disposable ashtray and base for supporting same which may also function as an advertising display assembly.

Disposable ashtrays formed of relatively inexpensive laminated materials have heretofore been provided particularly in offices and other commercial situations. In addition to receiving ashes, they also advantageously serve as advertising media. The prime factors for disposable ashtrays which are also employed as advertising media is that they must be of an extremely simple construction so as to be economical to make and ship and also easy to assemble to form the tray once at the point of use. In this connection ashtrays formed of blank sheets of heat-resistant material afford the best solution as they may be shipped flat and formed into shape at the point of use. Previously known ashtrays of this type have generally employed some form of slotted or joint construction to maintain the shape of the tray.

Accordingly, it is an object of this invention to provide a simple and economically produced disposable ashtray shaped by folding a single blank of sheet material which requires no slots.

Another object of this invention is to provide a disposable ashtray comprised of a laminated sheet construction including a thin fire-resistant layer and a resilient paper backing formed in a particular shape and with a particular arrangement of fold lines resulting in a tray which will tend to retain its shape after it has once been folded.

It is yet a further object of the invention to provide a novel and improved ashtray and base assembly in which the tray portion is readily inserted and removed from the base and either of which may easily be provided with advertising media.

In accordance with the present invention there is provided a disposable ashtray formed of a single flat blank of heat-resistant sheet material, preferably a laminated construction having a thin upper metal foil layer and a thin, lower resilient paper backing member. The blank is made in a geometrical shape with a plurality of straight side edges such as a triangle, square, polygon or the like, and parallel fold lines are provided substantially inwardly of each side edge together with diagonal fold lines extending inwardly from the corners so that crimping along the parallel fold lines produces a tray with upright, inclined, inwardly bowed sidewalls, a flat bottom and generally V-shaped, upwardly inclined corners. A base for the tray has upwardly inclined, uniformly spaced projections sized and arranged to receive and bear against the sidewalls. A disposable base may also be formed of a single blank of sheet material which may be shipped flat and assembled at the point of use.

Other objects, advantages and capabilities of the present invention will be more apparent as the description proceeds taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of an assembled disposable ashtray and base embodying features of the present invention.

FIG. 2 is a plan view of a flat disposable blank for forming the base shown in FIG. 1.

FIG. 3 is a top plan view of a flat disposable blank for forming the ashtray shown in FIG. 1.

FIG. 4 is a top plan view of the formed ashtray.

FIG. 5 is a side elevation view of the ashtray and base assembly shown in FIG. 1.

FIG. 6 is a sectional view taken along lines 6-6 of FIG. 1; and

FIG. 7 is a fragmentary sectional view showing the laminated construction of the disposable ashtray.

Referring now to the drawings, the ashtray and base assembly shown in FIG. 1 in general comprises a disposable ashtray 11 removably mounted on a support base 12. Both the ashtray and the base shown herein are made as separate units which are intended to be brought together at the point of use. The ashtray is disposable and the base may be either disposable or an integral body. The ashtray is readily placed in and

removed from the base in a manner described more fully hereafter.

The ashtray 11 shown is made of a single, flat blank of a resilient sheet material. The blank is formed of a selected geometric shape with a plurality of straight side edges of a uniform length and herein illustrated as of a square shape with four straight side edges. This blank is provided with fold lines 13 disposed parallel to and inwardly a substantial distance from each side edge 14 together with a diagonal fold line 15 extending from the corner of the blank to the junction of the two of the fold lines of an associated corner. The tray is shaped from the blank by creasing or folding along each fold line to produce an ashtray with a flat bottom 17 and upstanding, outwardly inclined and inwardly bowed or concave sidewalls 18. Generally outwardly extending and upwardly inclined V-shaped corner portions 19 are formed between the adjacent sidewalls. This shaping of the formed ashtray is significant and it will be seen that the peripheral dimension of the tray will vary depending upon the force applied to the side edges. This construction permits the sidewalls to be contracted to clear the projections on the base and to expand against the projections of the base to be held in a firm position and at the same time may be easily removed from the base by forcing and contracting the sides inwardly. The application of force to any two opposing sides as by grasping between two fingers tends to contract the other two sides because of the geometry of the tray.

The tray 11 is a disposable or throwaway unit which is preferably made of a relatively inexpensive sheet material composed of a layer 11a of heat-resistant material such as a metal foil with a resilient backing member layer 11b such as paper. Aluminum foil is a suitable heat resistant layer. The fold lines 13 and 15 are preferably formed in the paper layer by scoring and this has been found to be advantageous in retaining a predetermined configuration independent of the base so that the tray 11 may be used without the base if desired. Also, this configuration permits the tray to be grasped either between two fingers against the opposite sides or by gripping one of the upwardly inclined V-shaped corners. These V-shaped corners form a holder for a cigarette and the like to support it in a downwardly inclined position and retain it in the ashtray.

The base 12 shown for supporting the ashtray may be characterized as being generally hollow and of an annular or circular shape with an open top having a series of upstanding, inwardly inclined, projections or lips 21. One lip is shown for each of the four sidewalls of the ashtray to engage each of the sidewalls. The base 12 is of a generally truncated cone shaped configuration with the projections 21 forming a series of uniformly spaced apices 21a and valleys 21b. The apices extend above the ashtray and the valleys receive and engage the corners 16 of the tray. The top opening between the projections or lips of the base is sized so that it will clear the sidewalls of the tray when they are compressed toward a vertical position and then expand against them so that the tray is held firmly as above described. The base shown is also formed of a single blank of sheet material having the projections 21 formed by a series of relatively deep V-shaped serrations along an upper side of the blank and providing a smooth curved edge 22 along the other side forming the flat bottom of the base. The base flank has a tab 24 at one end and a slot 25 arranged to interfit together at the other end to facilitate the holding of the blank in the hollow truncated cone shape shown.

From the foregoing it is apparent that the geometric shape of the tray blank may be formed having three or more sides but as a practical matter would not exceed ten. While the numbers of projections on the base may be directly related to the number of sides, it is apparent that fewer projections than sidewalls could be used as for example only a pair of oppositely disposed projections could hold the four-sided tray shown in place. Further it is apparent that a paper-backed foil may be provided in a variety of attractive colors so that as well as

being disposable may also carry advertising media and company identification so that the ashtray assembly will perform a dual function.

While the invention has been described with reference to particular structure there is no intent to limit the spirit of the present invention to such structure except as defined by the appended claims.

I claim:

1. A disposable tray comprising a single sheet of resilient material including at least an upper external fire-resistant layer, said sheet having the form of an open tray having a flat bottom portion and upright concave side portions outwardly of the periphery of said bottom, and support means to engage at least a pair of oppositely disposed of said side portions to maintain the concavity of the side portions.

2. A disposable tray as set forth in claim 1 wherein said support is of generally conical configuration.

3. A disposable tray as set forth in claim 1 wherein said support is formed of a resilient flat sheet of disposable material.

4. A disposable tray as set forth in claim 1 wherein said tray has diagonal folds extending inwardly from each corner

thereof forming generally V-shaped corners.

5. An ashtray and base assembly comprising, in combination, a disposable ashtray formed of a single sheet of resilient material having at least an upper external fire resistant layer, said sheet being folded inwardly of and along each side edge thereof to form a hollow open tray having a flat bottom, flexible upwardly directed sides outwardly of the periphery of the bottom and upwardly inclined V-shaped corners between adjacent sidewalls, an open, hollow base for receiving and supporting the folded tray including oppositely disposed inwardly inclined upstanding projections arranged to releasably engage a central portion of at least a pair of oppositely disposed of said side walls to support the tray.

6. An ashtray and base assembly as set forth in claim 5 wherein said base has an upstanding projection for engaging the external portion of each sidewall of the ashtray.

7. An ashtray and base assembly as set forth in claim 5 wherein said base has V-shaped portions at the base of the projection to receive and engage each of the corners of said ashtray.

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