July 22, 1958 W. E. JONES 2,844,247

NEST OF DISPOSABLE ASH TRAYS

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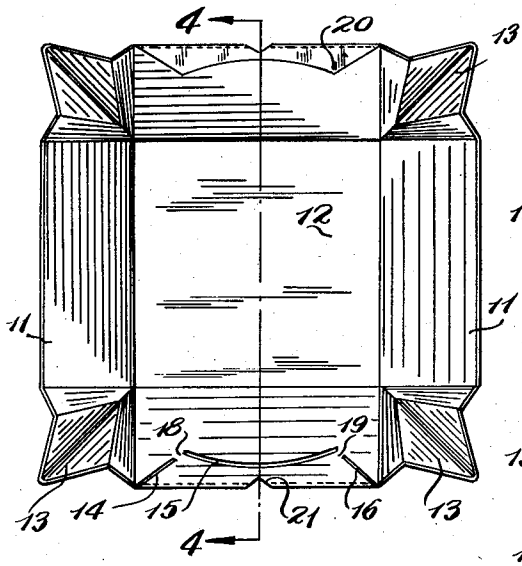


FIG. 1

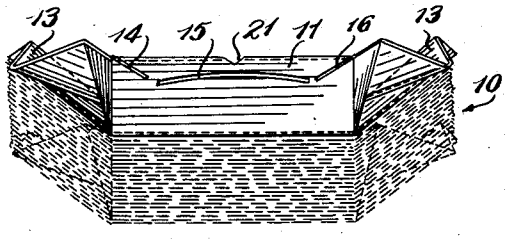


FIG. 2

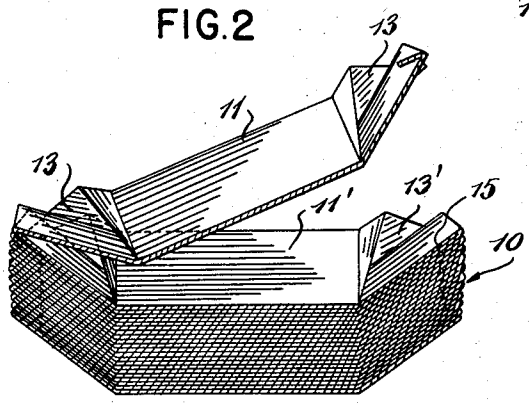


FIG. 4

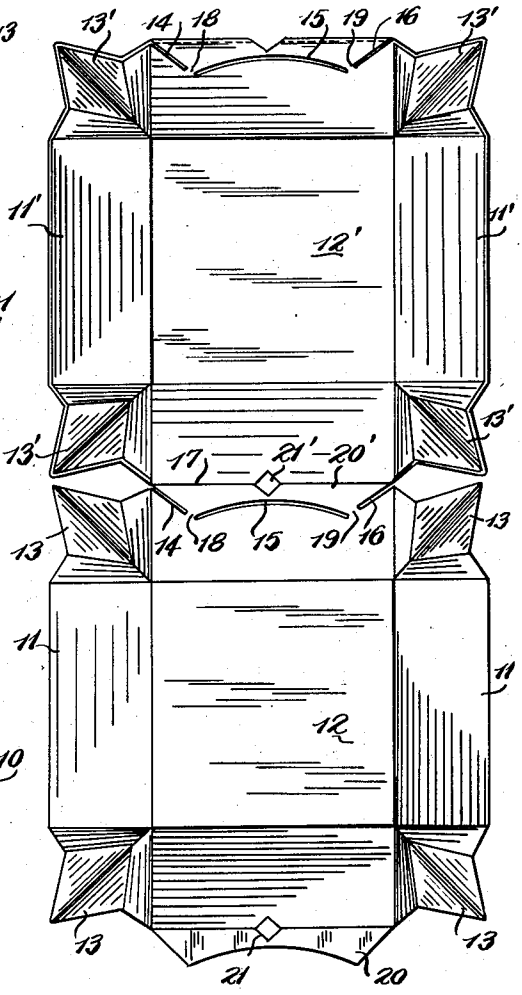


FIG. 3

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NEST OF DISPOSABLE ASH TRAYS

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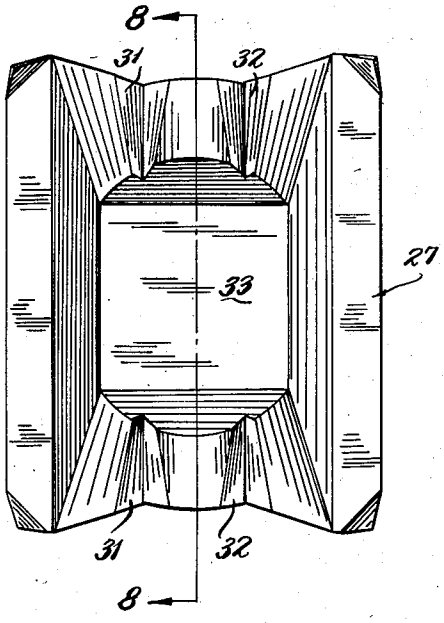


FIG. 5

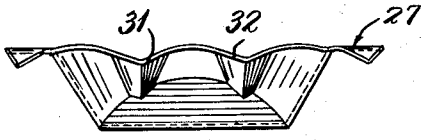


FIG. 6

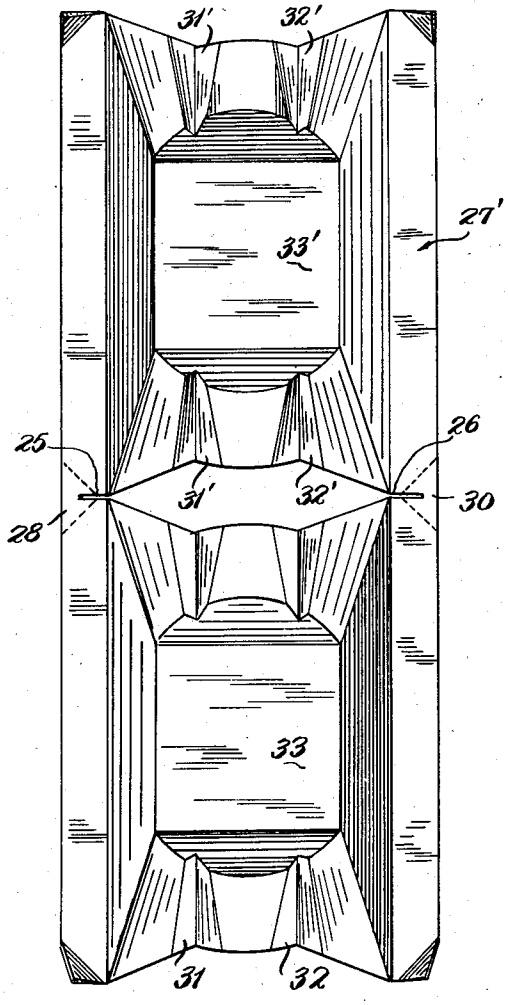


FIG. 7

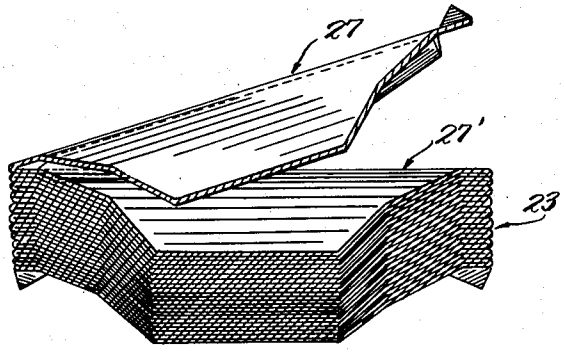


FIG. 8

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NEST OF DISPOSABLE ASH TRAYS

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Application October 7, 1955, Serial No. 539,154

3 Claims. (Cl. 206—56)

This invention relates to disposable tray forms, and more particularly to a nest of disposable ash trays made up of a continuous strip of series connected tray forms.

It is an object of this invention to provide a tray nest in the form of a continuous strip of series connected tray forms adapted to be superfolded within one another and readily divisible from the tray nest into individual trays.

It is another object of this invention to provide a continuous strip of series connected tray forms arranged into a nest and having slits longitudinally spaced on each tray form to allow the individual tray forms to be readily detached from the continuous strip.

It is still another object of this invention to provide a nest of disposable trays in the form of a continuous strip of series connected individual tray forms constructed of a thin flexible foil, crushable and preferably having a high heat resistance.

It is a further object of this invention to provide a nest of disposable trays of the aforementioned character constructed of aluminum foil and having the general configuration of an ash tray.

It is still a further object of this invention to provide a nest of disposable ash trays wherein the individual ash tray forms are provided with slits in the leading edges of the tray forms to allow them to be detached wherein the slits are arranged in a pattern whereby upon detaching an individual tray from the nest, the topmost tray is provided with an upstanding portion cut out from the detached tray, allowing it to be readily grasped for detachment from the tray nest.

Other objects and advantages of this invention will be apparent from the following detailed description and the accompanying drawings forming a part of this specification, and in which:

Fig. 1 is a top plan view of a nest of disposable ash trays embodying the invention;

Fig. 2 is an elevational view of the ash tray nest shown in Fig. 1;

Fig. 3 is an expanded view of a pair of adjacent connected ash tray forms detached from an ash tray nest and showing the top plan view of one of the ash tray forms and the bottom plan view of the other tray form;

Fig. 4 is a sectional view of the ash tray nest taken along the line 4—4 of Fig. 1, and showing the topmost ash tray about to be removed from the nest;

Fig. 5 is a top plan view of a modified ash tray nest and embodying the invention;

Fig. 6 is an elevational view of the ash tray form shown in Fig. 5 and detached from the nest;

Fig. 7 is an expanded view of a pair of adjacent connected ash tray forms detached from an ash tray nest and showing a top plan view of one of the ash tray forms and a bottom plan view of the other ash tray form; and

Fig. 8 is a sectional view of an ash tray nest taken along the line 8—8 of Fig. 5 and showing the ash tray nest with the topmost ash tray about to be removed.

The present invention is embodied in a disposable ash tray nest 10 made up of a continuous strip of individual ash tray forms 11, 11', etc. arranged to be superfolded within each other. The ash tray forms 11 and 11' are further arranged so as to be readily detached from the continuous forms with a minimum of tensile force.

The individual ash tray forms 11 are constructed in this instance in a substantially square symmetrical pattern having a conventional ash tray configuration. The article receiving surface 12 of the ash tray forms 11 is arranged in the same square geometric pattern as the ash tray forms 11' and is so defined by providing upwardly inclined surfaces extending from the perimeter of the receiving surface 12 to the outer edges of the square tray form. Each of the corners of the ash tray forms 11 are arranged to provide an article receiving and retaining hollow 13 for holding cigarettes, cigars or the like. The hollows 13 are formed in the square areas provided by the folding of the inclined surfaces along the perimeter of the surface 12 and the resulting intersection of these folds. The resulting square pattern is then folded as shown to provide the hollow 13.

The individual tray forms 11 are divisible from one another through the provision of slits 14, 15 and 16 adjacent the leading edge of each of the individual tray forms 11. The slits 14 and 16 extend angularly from the corners defined by a fold 17 and the adjacent corner of the squares defining the hollows 13 towards the arcuate slit 15 to define a separation area. The slits 14, 15 and 16 are arranged in this pattern to provide continuous portions 18 and 19 between the slits 14 and 15 and the slits 15 and 16, respectively, whereby the tray forms 11 and 11' are interconnected. It should be noted that these portions 18 and 19 provide the only connection between the tray forms 11 and 11'. The fold 17 defines the adjacent edges of the tray forms 11 and 11' as they appear on the continuous forms and which fold allows the tray forms 11 and 11' to be superfolded. The fold 17 extends between the pair of squares defining the hollows 13 or alternatively from the outer edges of the slits 14 and 16.

The slits 14, 15 and 16 are further arranged in this predetermined pattern whereby upon the detachment of the forms 11 and 11', by connecting the slits 14, 15 and 16, an upstanding portion 20 is provided for the lagging tray form 11' so as to be readily grasped and thereby in turn detached from the tray nest 10. The fold 17 may also be provided with an aperture 21 of a diamond shape or any other suitable geometric pattern, substantially centrally of the fold and divided between the adjacent forms to allow them to be more readily folded and nested within one another.

It has been found that the ash tray nest 10 may be of highly practical value and of simple construction when it is made up from a continuous strip of a thin aluminum foil. However, the ash tray nest 10 may be constructed of any flexible, crushable material that may be compatible with the particular use of the tray forms. When the tray forms are utilized as ash trays, for example, it is desirable that the material be highly resistant to heat so as not to burn readily and a metallic foil satisfies this requirement.

Now referring to the embodiment shown in Figs. 5 through 8, another practical form of the invention will be described. The ash tray forms 23 shown in Figs. 5 through 8 are substantially similar to the previously described embodiment but are arranged to be detached differently. In this embodiment, a plurality of slits 25 and 26 are provided at the leading edges of each tray form 27 and 27' adjacent the longitudinal edges of the continuous strip. The ash tray forms 27 and 27' are folded within one another at the slits 25 and 26 so that a tri-

angle shown in dotted outline is formed. The slits 25 and 26 project into the thus formed triangle at the vertex thereof and provide areas 28 and 30 whereby the tray forms 27 and 27' are interconnected.

The forms 27 are further arranged and folded so that upon successive detachment of the forms the areas 28 and 30 are substantially bisected. Each of the corners for the tray form 27 are folded downwardly and upon detachment from the nest the adjacent area on the succeeding form 27' is raised so as to provide a projection to allow it to be readily grasped for detachment.

In this particular embodiment the ash tray forms 27 and 27' are in a substantially rectangular pattern and have their connected edges apertured between the slits 25 and 26 as shown in Fig. 7. These apertured edges are further provided with a plurality of article retaining areas 31 and 32. The article receiving surface 33 may also have the same general configuration as the tray form 27 or any other convenient configuration.

In the accompanying drawings and the foregoing detailed description it will now be readily understood that this invention provides a disposable ash tray nest which may be used as a nest and upon filling up the topmost ash tray form, the tray may be readily detached from the nest and crushed around the ashes, cigarette butts and the like retained within the ash tray and the entire package conveniently disposed of. Also, although the invention has been described in conjunction with a disposable ash tray nest it should be readily apparent that the nest may be utilized in conventional fashion by cleaning out and reusing the topmost tray rather than disposing of the same.

Although this novel nest of disposable ash trays has been illustrated and described herein to a somewhat detailed extent it will be understood, of course, that the invention is not to be regarded as being limited correspondingly in scope but includes all changes and modifications coming within the terms of the claims hereof.

Having thus described my invention, I claim:

1. A nest of disposable tray forms comprising, a continuous strip of foil material having a series of individual tray forms formed therein in side-by-side integrally connected relationship, evenly spaced transverse fold lines formed in said continuous foil strip adjacent the connected boundaries of said series of individual tray forms, each of said individual tray forms comprising a flat central bottom portion with a wall extending from the perimeter thereof for forming a central article receiving and retaining hollow, the central hollows of said individual tray forms alternately opening toward opposite sides of said continuous foil strip, said continuous foil strip being folded in accordion fashion back upon itself along said fold lines with said individual trays in nested relationship within each other, and said continuous foil strip having a slit on each of said boundaries therein for facilitating separation of each of said individual tray forms from an adjoining tray form.

2. A nest of disposable tray forms as set forth in claim 1, wherein said continuous foil strip has a set of symmetrically formed slits adjacent each of said fold lines and defining a line of separation for adjacent tray forms, and the continuous foil strip portion between the set of slits and fold line of each tray form defines a tab which is easily accessible for hand gripping purposes.

3. A nest of disposable tray forms as set forth in claim 1, wherein said tray forms are ash trays, and said wall of each of said tray forms is folded to provide identical V-shaped portions disposed to nest with the identical V-shaped portions of an adjacent tray form.

References Cited in the file of this patent

UNITED STATES PATENTS

403,113	Keller	May 14, 1889
2,214,525	Murguiondo	Sept. 10, 1940
2,705,962	Welke	Apr. 12, 1955