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V. WAGNER
DISPOSABLE ASH TRAY
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2,796,211

FIG. 1.

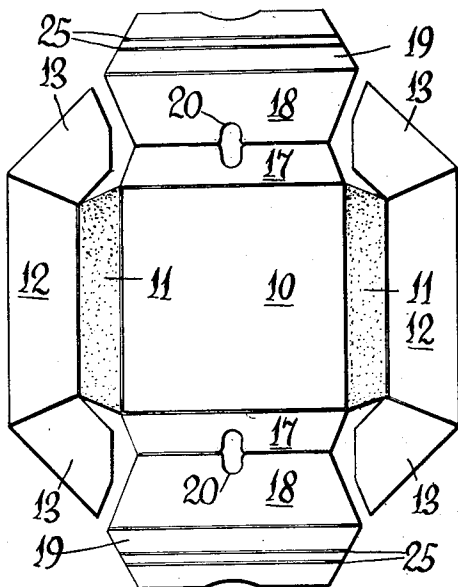


FIG. 2.

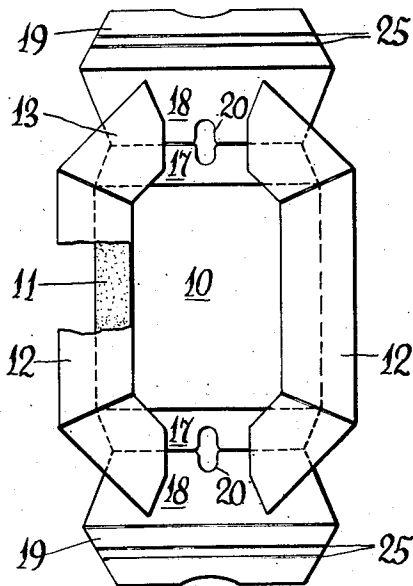


FIG. 3.

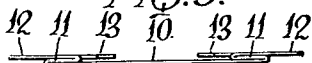


FIG. 4.

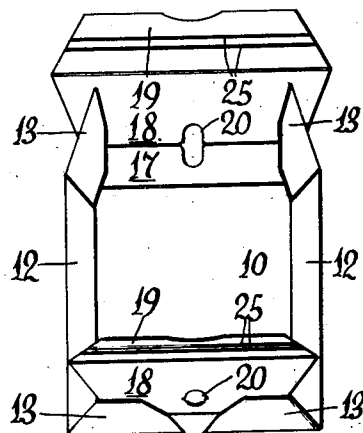


FIG. 5.

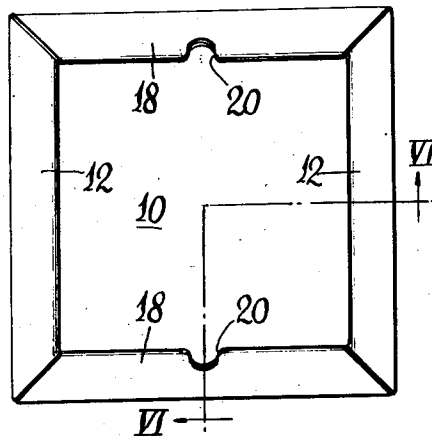
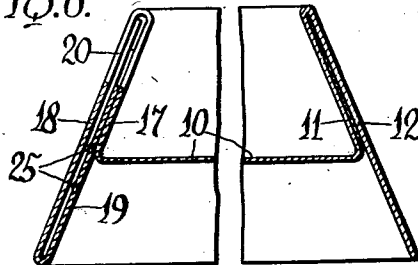


FIG. 6.



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DISPOSABLE ASH TRAY

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6 Claims. (Cl. 229—3.5)

This invention relates to disposable ash trays and particularly to an ash tray which may readily be set up for use from a flat blank of paper or cardboard having a surface layer or lamination of metallic foil or other fireproof or fire resistant material.

Disposable ash trays have previously been proposed but the ash tray of the present invention presents a number of novel structural advantages, both from the standpoint of economy of manufacture and facility and effectiveness of use, which renders the same practically useful and advantageous. The ash tray of the present invention is formed from a flat blank of cardboard or similar material having adhered to one surface thereof a thin sheet of metal foil or other fire resistant material. Paper or cardboard stock having such a metal foil facing is commercially available.

The disposable ash tray of the present invention is of frusto-pyramidal form and is therefore highly stable against tipping and presents oblique side surfaces which are particularly effective for receiving advertising matter or decorative printing of various kinds. Furthermore, the construction of the ash tray is such that the bottom surface of the set-up ash tray is spaced from the supporting surface. This is an important advantage since the construction material of the ash tray, while fire resistant, is relatively thin and apt to transmit harmful heat therethrough to a finished surface or the like upon which the ash tray may rest.

A further advantage of the present ash tray resides in the fact that certain gluing steps in the fabrication may be completed with the partially fabricated ash tray still in flat form for shipment and handling, so that the ultimate setting-up of the ash tray is accomplished with no further gluing and still provides a very rigid and substantial ash tray, despite its inexpensive and disposable nature.

Various other objects and advantages of the disposable ash tray of the present invention will appear to those skilled in the paper manufacture arts from a consideration of the form of ash tray illustrated in the accompanying drawing and described in detail in the following specification. However, it is to be understood that the ash tray thus set forth is by way of example only and that various variations and modifications may be effected without departing from the principles of the invention, the scope of the invention being limited only as defined in the appended claims.

In the drawing:

Fig. 1 is a representation of a flat blank of one form of the ash tray of the present invention, the side illustrated being the bottom side of the blank;

Fig. 2 shows the blank of Fig. 1 with a gluing and folding step effected but with the blank still in flat condition, the side shown in Fig. 2 being the upper side or the opposite side from that shown in Fig. 1;

Fig. 3 is an end elevational view of the partially fabricated structure of Fig. 2;

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Fig. 4 is a view similar to Fig. 2 but with the structure in a state of partial setting-up or assembly;

Fig. 5 is a top plan view of the fully set-up ash tray; and

Fig. 6 is a fragmentary cross-sectional view on an enlarged scale taken on the line VI—VI of Fig. 5.

Like characters of reference denote like parts throughout the several figures of the drawing and reference will first be had to the blank illustrated in Fig. 1. As there shown the blank is illustrated with its foil coated side down and the paper side, which becomes the bottom of the set-up ash tray, uppermost. The blank of Fig. 1 comprises a central panel 10 which ultimately forms the bottom of the ash tray and panel 10 has inner and outer side flaps 11 and 12, respectively, at its opposite margins. The outer side flaps 12 are provided at their opposite ends with obliquely extending tabs 13 which cooperate in the setting-up and securing of the end structure of the ash tray as will presently appear.

Each end of the central panel 10 is provided with a series of three flaps designated 17, 18 and 19, the flaps being numbered consecutively from the panel 10 outwardly. All of the several flaps and tabs thus described are connected to the central panel 10 or to each other by score lines, as clearly shown in Fig. 1. Elongated notches or perforations 20 are formed in the blank straddling the score line connecting the flaps 17 and 18 to provide a cigarette receiving notch in the set-up ash tray.

A gluing step and a partial folding of the blank may be effected at the factory, the thus partially fabricated ash tray being still in flat condition for easy shipment and handling. This first assembly step comprises applying glue to the underside of flap 11 (the side which is uppermost in Fig. 1) and folding the flaps 11 and 12 in accordance pleated fashion to the condition illustrated in Figs. 2 and 3. Thus the entire glued surface of flap 11 is adhered to the underside of the outer flap 12 while the flap 11 overlies central panel 10 but is not adhesively secured thereto.

When it is desired to erect or set up an ash tray for use one of the glued and partially folded blanks in the condition illustrated in Figs. 2 and 3 is first manipulated to place its side flaps, that is the secured flaps 11 and 12, in an oblique position by hinging the same about the score line connecting the flaps 11 with central panel 10. This hinging position is shown in Fig. 4 and in detail at the right-hand side of Fig. 6. The tabs 13 are then moved apart so that the entire end flap structure 17, 18, 19 may be hinged upwardly and inwardly as illustrated at the bottom of Fig. 4 at which time the end flap structure 17, 18, 19 extends somewhat vertically from central panel 10. The tabs 13 are then hinged inwardly across the end of the device as shown at the bottom of Fig. 4 to lie against the end or paper side of the first end flap 17. The second end flap 18 is then bent downwardly across tabs 13 and the outer end flap 19 is then partially curled by means of the intermediate score lines 25 which permits the outer edge portion of flap 19 to be inserted between the tabs 13 and the adjacent surface of flap 17 as shown at the left-hand side of Fig. 6. This insertion of flap 19 between the tabs 13 and flap 17 completes the setting up of the ash tray and insures the retention of the sides thereof at the desired oblique angle, as clearly illustrated in Fig. 6, such angle being determined by the angular disposition of the tabs 13 with respect to flaps 12 and also by the angle at which the ends of the various flaps are cut in the blank as shown in Fig. 1.

I claim:

1. A disposable ash tray of frusto-pyramidal form comprising a rectangular bottom wall and side wall means at each edge of said rectangular bottom wall, each side wall means comprising a panel portion bent upwardly

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and inwardly from each edge of said bottom wall and an outer wall panel return bent downwardly from the upper edge of each upwardly and inwardly bent panel portion to lie against the latter in a downwardly divergent plane and extending below each of said upwardly and inwardly bent panel portions to space the bottom wall above the surface upon which the ash tray rests.

2. A disposable ash tray of frusto-pyramidal form comprising a rectangular bottom wall and side wall means at each edge of said rectangular bottom wall, each side wall means comprising a panel portion bent upwardly and inwardly from each edge of said bottom wall and an outer wall panel return bent downwardly from the upper edge of each upwardly and inwardly bent panel portion to lie against the latter in a downwardly divergent plane and extending below each of said upwardly and inwardly bent panel portions to space the bottom wall above the surface upon which the ash tray rests, and tabs extending from the ends of an opposed pair of said outer wall panels and disposed between the upwardly and inwardly bent panel portions and the return bent outer wall panels of the remaining two side wall means.

3. A disposable ash tray of frusto-pyramidal form comprising a rectangular bottom wall and side wall means at each edge of said rectangular bottom wall, each side wall means comprising a panel portion bent upwardly and inwardly from each edge of said bottom wall and an outer wall panel return bent downwardly from the upper edge of each upwardly and inwardly bent panel portion to lie against the latter in a downwardly divergent plane and extending below each of said upwardly and inwardly bent panel portions to space the bottom wall above the surface upon which the ash tray rests, an opposed pair of said side wall means having their upwardly and inwardly bent panel portions and the return bent outer wall panels adhesively secured in face to face contact, and tabs extending from the ends of said opposed pair of outer wall panels and disposed between the upwardly and inwardly bent panel portions and the return bent outer wall panels of the remaining two side wall means.

4. A disposable ash tray comprising a sheet of paper like material having at one of its surfaces a facing of metallic foil, said ash tray being of frusto-pyramidal form and comprising a rectangular bottom wall and side wall means at each edge of said rectangular bottom wall, each side wall means comprising a panel portion bent upwardly and inwardly from each edge of said bottom wall and an outer wall panel return bent downwardly from the upper edge of each upwardly and inwardly bent panel portion to lie against the latter in a downwardly divergent

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plane and extending below each of said upwardly and inwardly bent panel portions to space the bottom wall above the surface upon which the ash tray rests, said sheet of material being arranged so that the foil faced surface is uppermost in the finished ash tray.

5. A disposable ash tray formed from a flat blank of flexible material having a central rectangular bottom forming panel, a panel portion along each edge of said bottom forming panel and connected thereto by a score line, a side wall forming portion of greater width than said panel portions and connected to the outer edge of each panel portion by a score line, end flaps connected to the outer edge of two opposite side wall forming portions by score lines, and oblique flaps extending from each end of each of the remaining two side wall forming portions and connected thereto by score lines, said ash tray having the panel portions bent upwardly and inwardly and said side wall portions being return bent across the outer faces of the panel portions, said oblique flaps being disposed between said two opposite side wall portions, and their connected panel portions and said end flaps being inwardly return bent and extending between said two opposite side wall forming portions and their connected panel portions.

6. A disposable ash tray formed from a flat blank of flexible material having a central rectangular bottom forming portion, a panel portion along each edge of said bottom forming portion and connected thereto by a score line, a side wall forming portion of greater width than said panel portions and connected to the outer edge of each panel portion by a score line, end flaps connected to the outer edge of two opposite side wall forming portions by score lines, and oblique flaps extending from each end of each of the remaining two side wall forming portions and connected thereto by score lines, said ash tray having the panel portions thereof bent upwardly and inwardly and said side wall portions being return bent across the outer faces of the panel portions, said oblique flaps being disposed between said two opposite side wall portions, and their connected panel portions and said end flaps being inwardly return bent and extending between said two opposite side wall forming portions and their connected panel portions, the abutting faces of said remaining two side walls and their connected panel portions being adhesively secured to each other.

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