United States Patent

Kahn

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[54] **PLASTIC CONSTRUCTION FOR AN ITEM USED IN A HEAT ENVIRONMENT, SUCH AS AN ASHTRAY**

[72] Inventor: **Robert D. Kahn,** Rockville Centre, N.Y.

[73] Assignee: **Fedtro, Inc.,** Rockville Centre, N.Y.

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[52] **U.S. Cl.**.....**161/7,** 131/238, 131/241, 161/18, 161/403, 161/413

[51] **Int. Cl.**.....**D04d 7/04,** A24f 19/00

[58] **Field of Search**.....40/10 C, 16, 312, 324; 131/231, 241, 238, 242, 240; 161/7, 18, 257, 403, DIG. 3, 97, 413; 220/41, 20.5

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Primary Examiner—John T. Goolkasian
Assistant Examiner—Henry F. Epstein
Attorney—Amster & Rothstein

[57] **ABSTRACT**

A structure for a utilitarian item, such as an ash tray, for exposure to heat, including a nonflamable, heat resistant main body portion and an attached decorative portion formed of a material which is suitable for decorative hot stamping and engraving processes.

1 Claims, 4 Drawing Figures

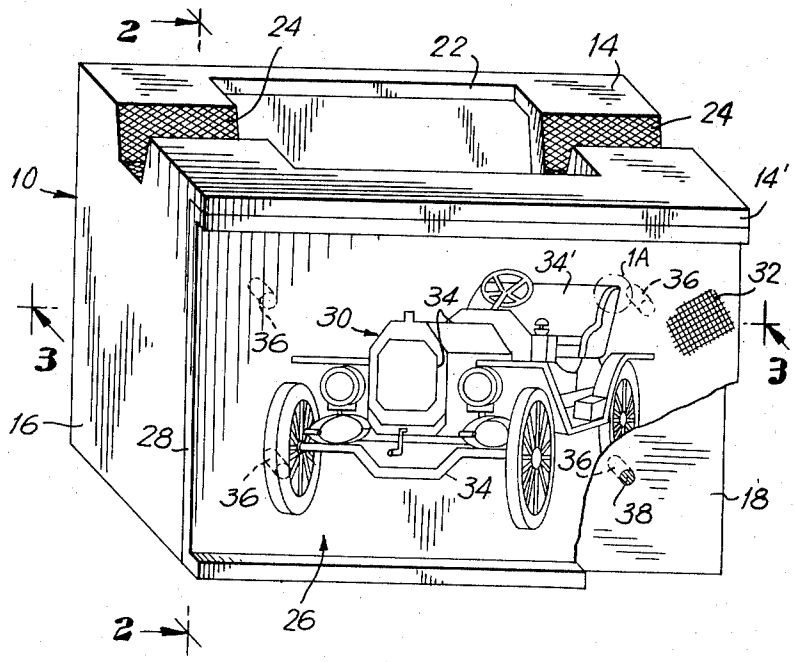


FIG. 1

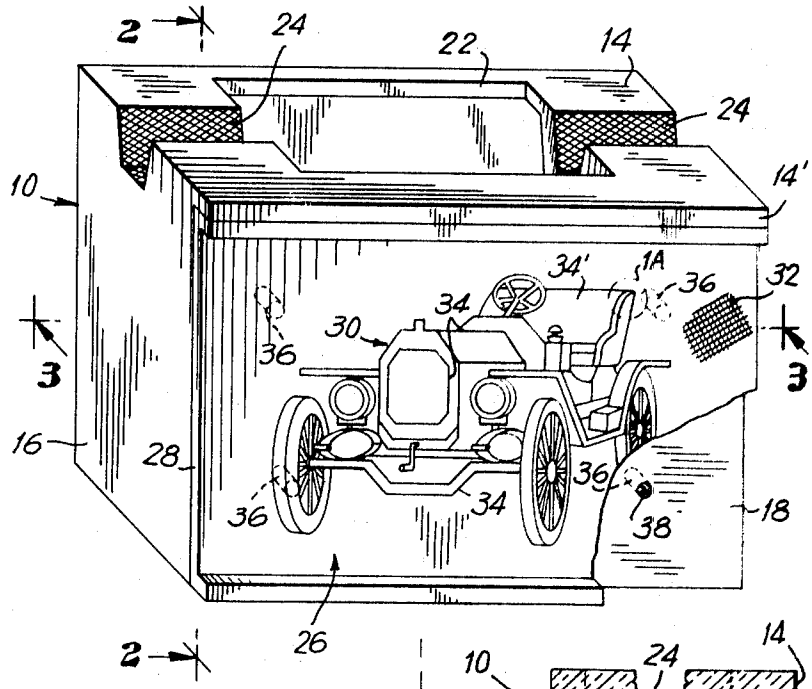


FIG. 1A

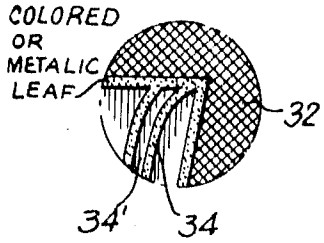


FIG. 2

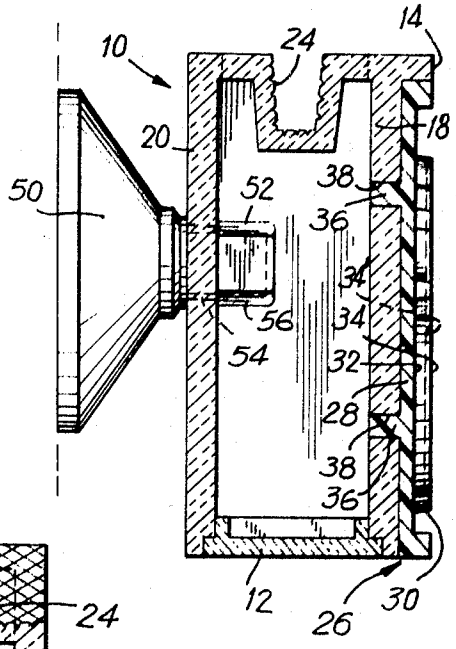
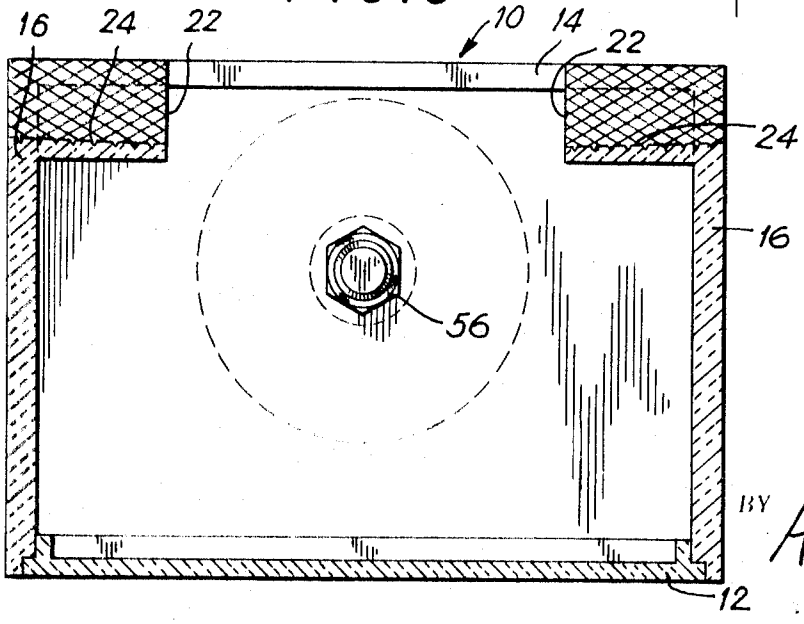


FIG. 3



INVENTOR.
ROBERT D. KAHN

BY Amster & Rothstein

ATTORNEYS

PLASTIC CONSTRUCTION FOR AN ITEM USED IN A HEAT ENVIRONMENT, SUCH AS AN ASHTRAY

PLASTIC CONSTRUCTION

This invention relates primarily to plastic constructions and more particularly, to plastic constructions for use in a heat environment and yet suitable for decorative display.

Materials such as Bakelite are suitable for the construction of such items as ash trays from a functional standpoint because of the ability of such materials to withstand heat and flame. However, such materials are somewhat limited relative to the use of decorative forming processes thereon. Conversely, materials such as polystyrene are particularly useful for various hot stamping and engraving techniques, but are somewhat non-functional relative to their ability to withstand heat and/or flame.

Accordingly, a primary object of the present invention is to provide a decorative item for use in a heat environment.

A further and more particular object is to provide a plastic construction for use in a heat environment which is both decorative and functional.

These and other objects are accomplished in accordance with one illustrative embodiment of the present invention wherein a plastic structure, for use as an ash tray or the like in a heat environment, includes a first main body portion fabricated of a heat resistant and/or nonflamable material for direct exposure to heat and a second portion useful for hot stamping and engraving to provide a decorative appearance. The first and second portions are attached such that the second decorative portion is prominently exposed to the user and the first main body portion is constructed so as to protect the second portion from heat exposure.

The above brief description as well as further objects, features and advantages of the present invention will be more fully appreciated by reference to the following detailed description of the preferred, but nonetheless illustrative embodiment when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a front perspective view of an ash tray constructed according to the present invention;

FIG. 1A is a partial view of FIG. 1;

FIG. 2 is a sectional view of the ash tray of FIG. 1 taken along the line 2—2 thereof; and

FIG. 3 is a sectional view of the ash tray of FIG. 1 taken along the line 3—3 thereof.

Referring to the drawings, an ash tray is shown as including a main body portion, generally designated **10**, and a bottom closure member **12**, both constructed of a heat resistant and nonflamable material, such as Bakelite. The main body portion **10** comprises a top wall **14**, side walls **16**, front wall **18**, and a back wall **20**. The bottom closure member **12** is constructed to snap (or otherwise be fixed) into a bottom opening defined by the side walls **16** and the front and back walls **18**, **20**. The top wall **14** is formed by conventional plastic working techniques to define a top opening **22** and side slots **24**, the side slots being tapered and engraved with a special grain-like pattern to grip cigarettes.

The second or decorative portion of the ash tray, generally designated **26**, is formed of a material useful in hot stamping and engraving processes and is shown as including a base panel **28**, an engraved design, generally designated **30**, on the base panel, a contrasting finished surface **32** defined by base panel **28** and a hot stamped outline **34** for the design **30**. A recommended material for the second portion of the ash tray is polystyrene and it is further recommended that the material be molded with four rearwardly projecting pins **36**, nonsymmetrically protruding from the rear surface of the base panel

28. Likewise, the front wall **18** of the main body portion **10** is constructed to define four receiving holes **38** for the pins **36**. The nonsymmetry of the holes **38** and the pins **36** insures the desired orientation for the second portion **26** when it is being snapped into place relative to the main body portion **10**. The tips of the pins **36** may be peened with heat after being inserted to the holes **38** in order to fix the attachment, or, alternatively, a cement or the like may be used between the contacting faces of the first and second portions of the ash tray to fix the attachment therebetween.

Looking at the engraved design **30** in more detail by particular reference to FIGS. **1**, **1A** and **2**, it should be understood that the polystyrene base panel **28** is engraved and hot stamped such that the outline **34** for the engraved design **30** is of some finite thickness which is raised, as an example, approximately three-sixteenth of an inch above the contrasting finished surface **32** of the base panel **28**. Between the lines of the outline **34** in the design **30**, a slightly recessed (one thirty-second of an inch) area **34'** is made with a surface different than the contrasting finished surface **32** for the base panel **28** in order to provide a more "outstanding" design **30**. The outline **34** of the design **30** is finished in chrome, gold, bronze, or a colored material by means of "hot stamping" (laying colored material or metal leaf over the surface of the outline **34** and then applying a hot stamp pressure). With the outline **34** raised in the finished design by engraving into the mold, a plated appearance for an aesthetically desirable product is produced. The polystyrene decorative portion and its design are protected from heat exposure by the Bakelite overhang **14'**. The overhang, for instance, prevents contact by a cigarette and the base panel **28** or design **30**.

Another feature of the present invention is the use of suction cup **50** projecting rearwardly from the main body portion **10** in order to affix the ash tray to a surface such as an automobile dash panel, or the like. The suction cup **50** is attached to the main body portion **10** by means of its projecting bolt **52** protruding through a bolt-receiving hole **54** in the rear wall **20** and a nut **56** which is threadably attached to the bolt **52** at the inside of the ash tray. Alternatively, an adjustable orientation for the ash tray may be obtained by the use of a ball-swivel joint (not shown). One recommended construction for such a joint would make use of a rubber suction cup for receiving a round metal ball. The resiliency of the suction cup provides a tight enough fit for the metal ball so that after adjustment by moving the ball in the cup, the orientation of the ash tray is held.

In accordance with the above description, a novel design for an ash tray or the like has been described to provide an item which is both decorative and functional, for use in a heat environment.

I claim:

1. A plastic construction for an item used in a heat environment comprising a functional, heat-resistant, main body portion, and a heat-formable decorative portion, means for attaching said main body portion to said decorative portion and overhang means on said main body portion for protecting said decorative portion from heat exposure, said main body portion including a top wall, side walls and a front wall, said top wall extending beyond said front wall to define said overhang means and said decorative portion being attached by attachment means to said front wall for protection by said overhang means against heat, said attachment means including a plurality of nonsymmetrically arranged holes defined by said front wall and a plurality of nonsymmetrically arranged pins projecting rearwardly from said decorative portion, said holes being arranged to receive said pins with one orientation only of said decorative portion.

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