June 6, 1939. H. J. THOMAS 2,161,109

ASHTRAY

Filed March 28, 1935 2 Sheets-Sheet 1

Fig. 1.

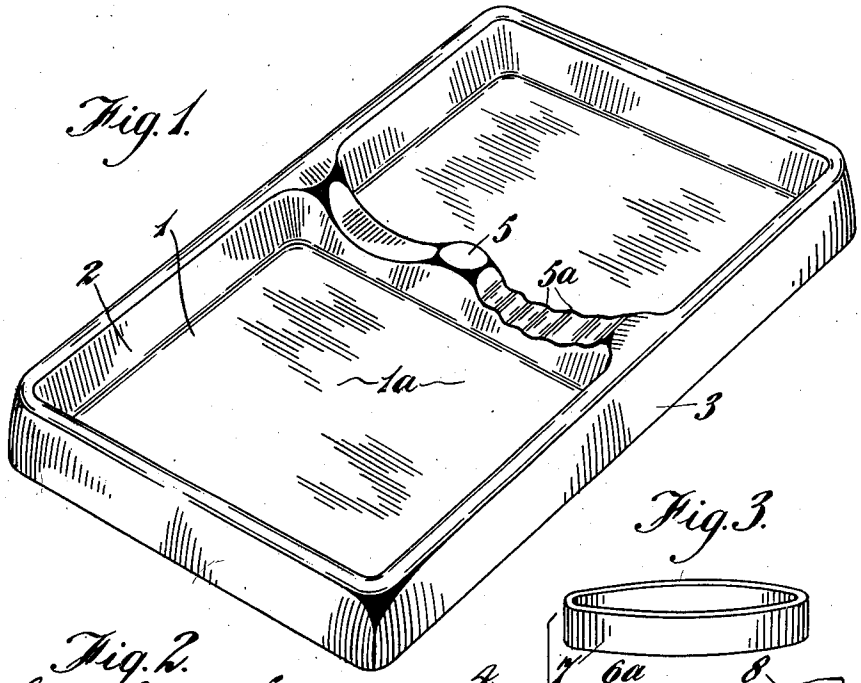


Fig. 2.

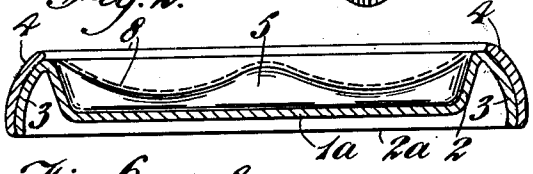


Fig. 3.

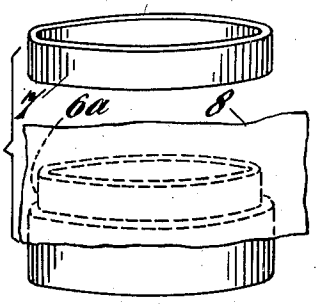


Fig. 6.

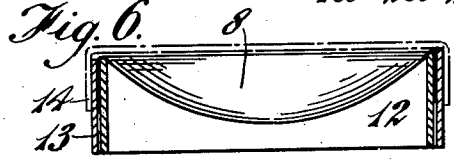


Fig. 4.

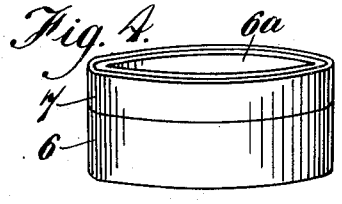


Fig. 7.

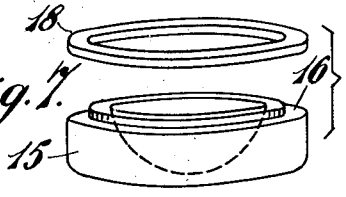


Fig. 5.

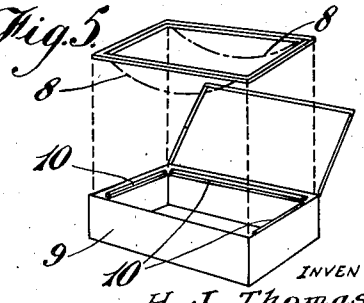
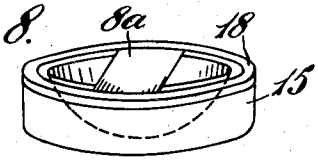


Fig. 8.



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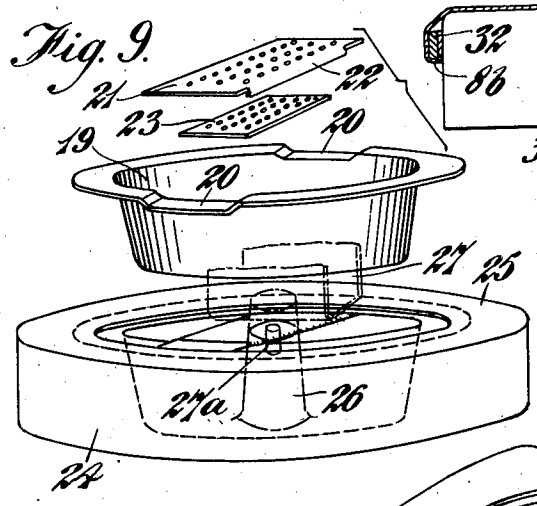
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June 6, 1939. H. J. THOMAS 2,161,109

ASHTRAY

Filed March 28, 1935 2 Sheets-Sheet 2

Fig. 9.



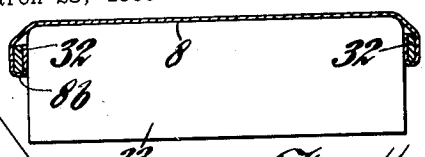
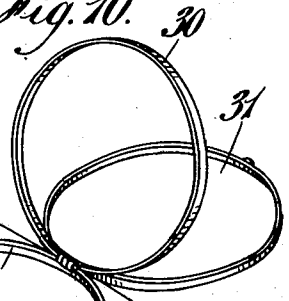


Fig. 11.

Fig. 10.



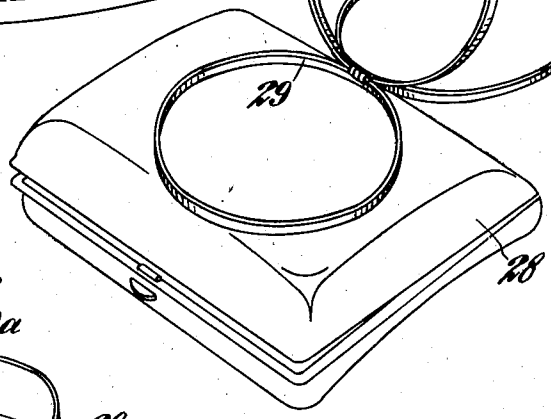


Fig. 12.

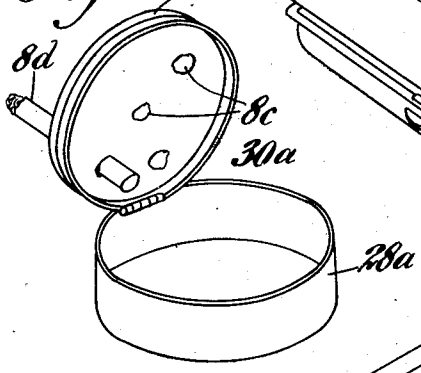


Fig. 13.

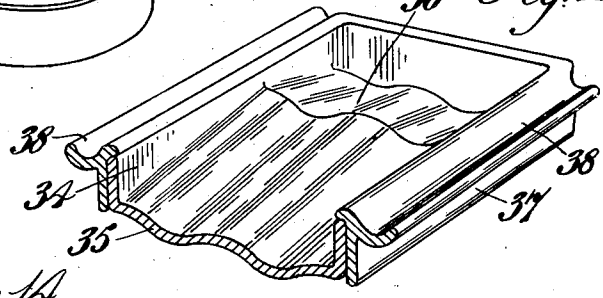
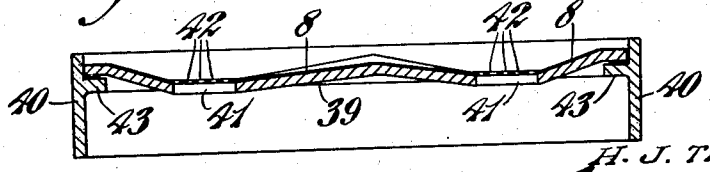


Fig. 14.



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UNITED STATES PATENT OFFICE

2,161,109

ASHTRAY

Henry John Thomas, Gorseinon, Swansea, South Wales

Application March 28, 1935, Serial No. 13,546
In Great Britain March 28, 1934

4 Claims. (Cl. 131—51)

This invention relates to improvements in receptacles for receiving cigarette ash or for burning fumigants and like substances the object being to provide a simple cheap and effective tray which will be trouble free and when employed as a cigarette ashtray will actually assist in providing the smoker with a clean, sweet smelling smoke and eliminate the necessity for frequent washing as in the usual types of ashtray to remove stains.

A lighted cigarette placed upon an ordinary ashtray or other plane surface will normally result in a dark, moist, stain appearing on the underside of the cigarette, the stain being caused by the condensed moisture from the tobacco. This also causes unpleasant, rank odours to be emitted by the cigarette often completely spoiling its taste so that a smoker with a keen, discerning palate will often throw such a cigarette away rather than continue to smoke it.

The inventor has by experiment found that a lighted cigarette laid upon a sheet of thin metal foil commonly known as "silver paper" will continue to burn sweetly and without any tendency to stain or emit rank smells. "Silver paper" is frequently porous and if this is employed it permits a flow or layer of air to pass to the underside of the cigarette and contribute to its perfect combustion and dissipation of heat and any moisture which may tend to collect thereon. It has been found that a thin sheet of tinfoil or silver paper is generally a poor conductor of heat and that it will retain, for the most part, the heat underneath a burning cigarette so that moisture as it forms will be largely driven off. It is well known, of course, that this would probably not be true of a relatively thick sheet of tinfoil or silver paper. It is also found that the flavour and aroma of the cigarette is materially improved due to slight reabsorption of deposited tobacco tar on the foil.

The object of the present invention is to provide a construction of ashtray or other receptacle to which can be readily adapted in a neat and highly efficient manner a sheet of suitable non-inflammable material, preferably "silver paper" in such manner that it will be held in the desired plane or configuration and can also be readily removed and replaced by a new sheet when required.

The arrangement may be applied to cigarette ashtrays and to cigarette cases, vanity cases and like articles for the pocket or handbag.

According to this invention means is provided whereby a sheet of metal foil, "silver paper" or other suitable sheet material is adapted to line a tray or like receptacle for receiving cigarette ash or for burning fumigants and like substances or serve as a tray or support for receiving cigarette ash or for burning fumigants and like substances by being secured at its end, edges or perimeter between a pair of retaining members, the material if desired being pressed into a well or bowl-like formation to form a receptacle. One of the retaining members may be a tray or other receptacle and the other a collar shaped to fit the tray or other receptacle.

The sheet material may be placed upon a rigid perforated former to produce a firm base capable of supporting a cigarette and to act as an extinguishing member against which a cigarette end may be pressed.

In carrying an embodiment of the invention into practice a sheet of metal foil, commonly known as "silver paper" and readily obtainable from cigarette and tobacco packets and various food commodities is laid over the open container portion of an ordinary small shallow tin or wooden box the lid of which has had its top removed so that only an annular disc shaped or other suitable rim remains. The said rim is then engaged over the mouth of the box just as if it were a complete lid so that the foil is gripped between it and the container.

The expanse of foil thus anchored between the two members of the box may be lightly pressed down to produce a shallow bowl-like container which may be employed as an ashtray, the extraneous edges of the foil being neatly trimmed off by a sharp cutting tool. A secondary loose or hinged or pivoted lid may be provided if necessary to close the tray.

In a square or rectangular box a ledge may be provided inside the box a short distance down from the top, an open rectangular frame being overlayed with a sheet of foil and dropped on to the ledge to form an ashtray.

A small ashtray for carrying in the pocket may consist of two concentric rings adapted to clamp a sheet of foil between them.

In order that this invention may be clearly understood and readily carried into effect I have appended hereto two sheets of drawings illustrating embodiments thereof, and wherein:—

Figures 1 and 2 are plan perspective and sectional end elevation views respectively showing a tray suitable as a cigarette ashtray and adapted to detachably receive a cover sheet of metal foil "silver paper" or other suitable non-inflammable sheet material;

Figures 3 and 4 are perspective views of a modification of a tray of simple cylindrical form,

Figure 5 is a perspective view showing the application of the invention to a metal or wooden cigarette or cigar box, or a box adapted to contain a supply of fumigants;

Figure 6 is a sectional elevation of a small ashtray which e. g. can be carried in a suit case or the pocket;

Figures 7 to 12 inclusive are perspective views of further modifications hereinafter fully described;

Figure 13 is a sectional perspective view showing a modification of ashtray having a number of contours or channels to assist in the collection of ash and clean burning of cigarettes, and

Figure 14 is a sectional elevation view showing a method whereby the "silver paper" or other suitable sheet material may be punctured or perforated at a plurality of points whilst shaped upon a base of a tray.

Referring to the drawings in Figures 1 and 2 a tray 1 has an inverted channelled perimeter or boundary 2 the extreme edge 2*a* of which forms the base on which the tray stands, the base proper 1*a* of the tray preferably being in a plane slightly above the edge 2*a*. The outer flange 3 of the channelled boundary 2 is curved inwardly upwards to provide a flared effect, and fitted over this flange 3 is a correspondingly shaped removable frame 4. In practice a sheet of "silver paper" is fitted at its edges between the flanges 3 and frame 4 and the tight fit of the frame 4 grips the sheet of "silver paper" so that the silver paper is drawn across the interior of the tray. If desired a bridge or rest 5 can be formed across the interior of the tray and the "silver paper" can be bent to conform to the configuration of this tray, e. g. as shown by the broken line 8 in Figure 2.

In the arrangement shown in Figures 3 and 4, a cylindrical or other suitably shaped box 6 has a reduced diameter upper part 6*a* over which fits a collar 7 after the manner of a lid excepting that the collar 7 is open at the top to enable a sheet of silver paper 8 to be rested upon the rim of the box 6 and secured in position by forcing the collar 7 over the silver paper where it overhangs the rim of the box.

Where the invention is applied to a rectilinear or like box, e. g. a metal or wooden cigar or cigarette box adapted to accommodate a fair number of cigarettes or cigars, the interior of the box 2 (see Figure 5) can be formed with four inwardly directed ledges 10 upon which can rest a removable frame 11 adapted to fit snugly into the top of the box. The sheet 8 of silver paper can be wrapped round the edges of or gripped between this frame and the ledges 10.

In Figure 6, is shown a small portable ashtray device which can be carried in a pocket of a person's clothes or a purse, and it comprises simply two concentric very narrowly spaced rings 12 and 13 between which the silver paper 8 can be gripped. The silver paper 8 can be troughed inside the ring 13 or frame 11 (see Figure 5) and the outer ring 13 can have a removable lid 14 fitted over it.

A more substantial tray for table use is shown in Figures 7 and 8 and consists of a china, glass or other bowl 15 with a shallowly disposed annular ledge 16 round its mouth to support a ring 18 which when in position retains a diametrical strip of metal foil 8*a* across the mouth of the tray the strip serving to support the cigarette which may be rested upon the ledge of the bowl so that the cigarette when burnt beyond the edge of the foil will when the ash breaks, fall into the tray. A similar type of tray may be provided with means for extinguishing a cigarette consisting of a diametrically disposed strip 21 of perforated sheet metal (see Figure 9) over which is engaged a piece of metal foil, the longitudinal edges of the foil being secured in shallow beads or inturned edges 22 along the metal strip by a second perforated strip of metal 23 sprung into the beads. A cigarette may be extinguished by pressing its lighted end on to the reinforced strip and grinding it down, the ash falling into the bowl below.

The elaborated form of tray modelled upon the latter arrangement shown in Figure 9 consists of an annularly rimmed bowl 19 with diametrically opposite sunken portions 20 in its rim to receive the ends of the foil-wrapped metal strip, an outer ring 24 having an inturned annular ledge 25 being engaged over the whole to anchor the strip in the sunken portions and to weight the device down.

Such a device may also be provided with a match-box holder or stand by providing an upstanding boss 26 in the centre of the bowl, a U-shaped frame 27 to engage the shell of a match-box being provided with a depending threaded screw 27*a* adapted to be passed through an aperture in the perforated metal strip and into a threaded aperture in the boss in the bottom of the bowl.

As shown in Figure 10 a cigarette case 28, vanity box or the like pocket article may be provided with an ashtray by providing on the shell of the case a shallow cylindrical, annular or other conveniently shaped ring 29 over which is laid a sheet of metal foil, a second, hinged ring 30 being closed down upon the foil to secure it in position. A hinged cover or lid 31 may also be provided to close the device until it is convenient to get rid of the ash.

In a further modification an open rectangular or other conveniently shaped frame 32 (see Figure 11) may be covered on one side with a sheet of foil 8 which may be tucked round the lower edges of the frame 32 as at 8*b*, the frame being lowered over a solid block 33 of wood, china, glass or other material, the device thus provided being employed as an ashtray, as a surface for burning fumigants, asthma powder, perfumed fumigants for sick room or burning sulphur.

In the embodiment shown in Figure 12 the tray or box 28*a* has a hinged lid composed of a ring 30*a* having an outer ledge upon which rests a collar 31*a* disposed about such ring. The "silver paper" 8 is gripped between the ring 30*a* and collar 31*a* and can be punctured as at 8*c* to receive cigarettes or the like as at 8*d*.

In the embodiment shown in Figure 13, a tray 34 has an inclined corrugated base 35 merging into a transverse oppositely inclined ledge or shelf 36 upon which cigarettes may be rested. A frame 37 is fitted closely about the tray and is adapted to receive between it and the tray the edges of a sheet of "silver paper" which can be folded to the contours and sides of the interior of the tray. The frame 37 can be formed with a channelled ledge 38 on which cigarettes and other articles can be rested.

In Figure 14 a modification is shown in which a plate 39 adapted to form the base of an ashtray is rested on ledges 43 formed integral with the inner surface of a wall 40. This plate 39

is formed with one or more openings or slots 41 so that a sheet 8 of silver paper stretched over the upper surface of such plate can be perforated as at 42 by means of a match, needle or other tool should it be required to provide perforations in the tray base. The "silver paper" is gripped at its edges between the plate 39 and the wall 40 and ledges 43 by being folded over the edges of the plate 39.

For use with an ordinary ashtray the foil may be adhered by its whole surface to the end of the tray or by securing its edges by adhesive plaster, tape or paper. The tray may be exteriorly grooved to receive an elastic rubber band for retaining the foil in position.

The part of the tray device on which the cigarette rests may be grooved to prevent too rapid transference of heat between the foil and the tray or support, a suitable arrangement being shown in Figure 1 in which the bridge member 5 is grooved as at 5a.

It may be desirable in some cases to use a plurality of tin foil sheets, so that the uppermost sheet may be removed when it becomes soiled and so leave the next one clean and ready for use.

The ashtrays or supporting devices may be of any desired shape or configuration and in all the arrangements described the foil assists in preventing the cigarette from producing bad odours, and when damaged or soiled may be easily removed and replaced by a fresh piece of material. The light weight of the material is also an advantage especially in producing an ashtray for the pocket or in combination with cigarette cases or the like and being readily available in cigarette boxes and packets of foodstuffs of various kinds should assist in its wide adoption.

What I claim is:

1. In an ashtray, a support, and a strip of metal foil having portions secured at the edges of the support, said strip being spaced throughout its length above the bottom of the support so that a burning cigarette resting thereon will burn substantially uniformly and without acquiring a deposit of moisture thereon.

2. In an ashtray, detachable inner and outer parts, a support for the parts and having a bottom, and a strip of metal foil having its edges gripped between the inner and outer parts so that said foil is disposed across the inner part and spaced above the bottom of the support, so that a burning cigarette resting thereon will burn substantially uniformly and without acquiring a moisture deposit on the end thereof.

3. In an ashtray, a box having a stop shoulder near its upper end, a frame engageable about the box adjacent the stop shoulder, and a sheet of metal foil disposed across the interior of the box and having its edges gripped between the frame and the box, said sheetof metal foil being disposed in spaced relation throughout its length above the bottom of the box so that a burning cigarette resting thereon will burn substantially uniformly and without acquiring a moisture deposit on the end thereof.

4. In an ashtray, a tray member having an upper flange formed with oppositely disposed rests, an outer frame fitting the tray member and having an inwardly directed ledge adapted to overhand the flange, and a sheet of metal foil adapted to be held in the rests by the ledge of the frame and to extend across the interior of the tray member in spaced relation throughout its length above the tray member so that a burning cigarette resting thereon will burn substantially uniformly and without acquiring a moisture deposit on the end thereof.

HENRY JOHN THOMAS.