Nov. 5, 1940. G. GEE 2,220,784

MEANS FOR EXTINGUISHING CIGARETTES, MATCHES, AND THE LIKE

Filed Aug. 10, 1938 3 Sheets-Sheet 1

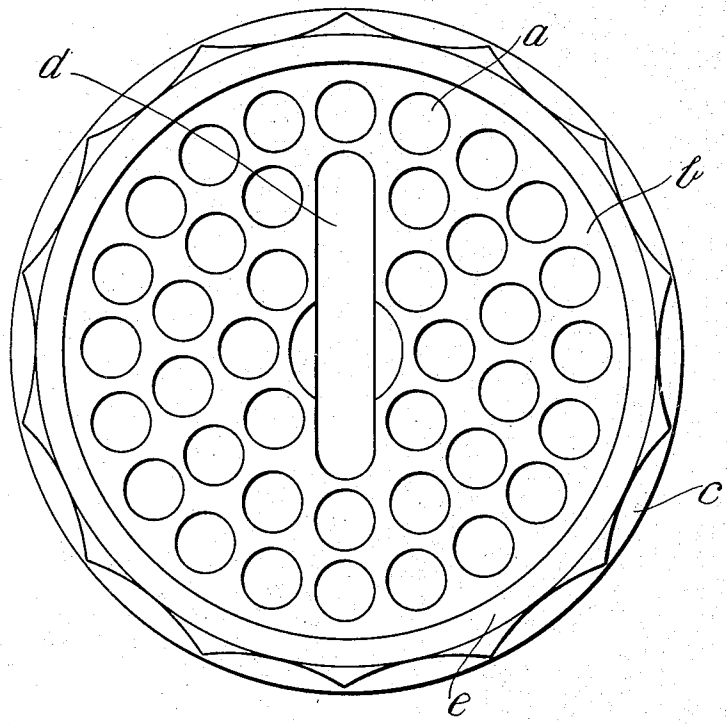


Fig. 1.

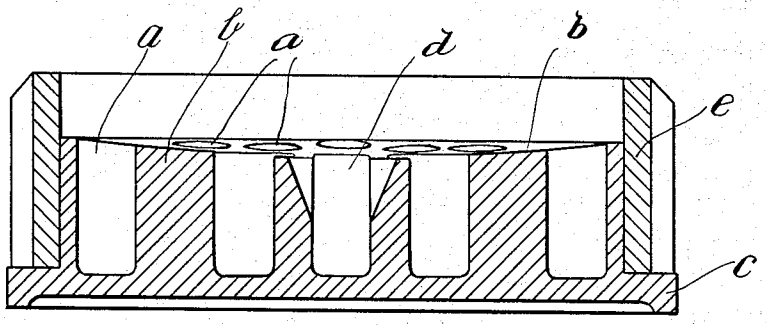


Fig. 2.

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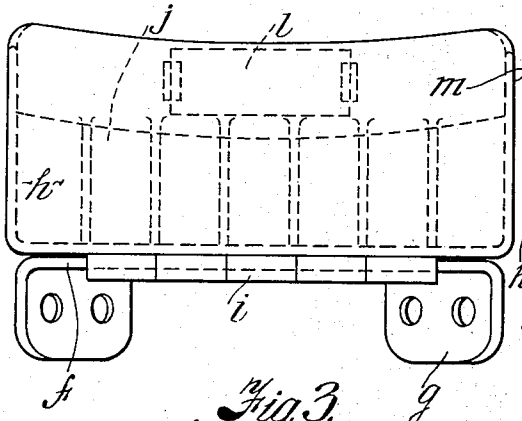


Fig 3.

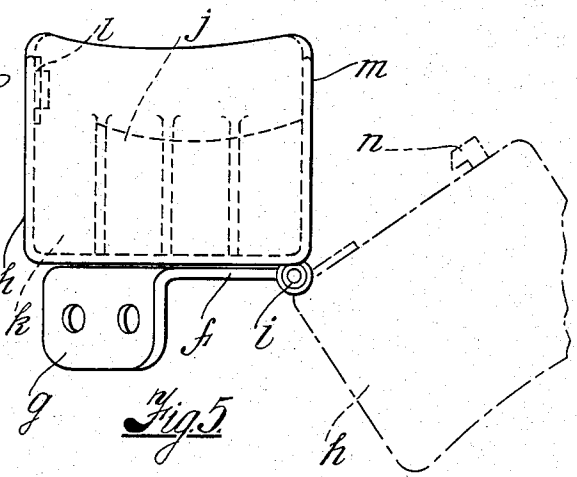


Fig 5.

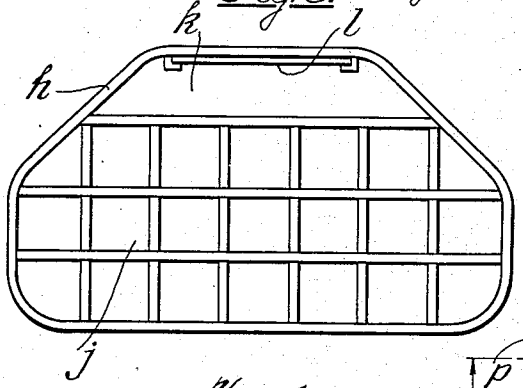


Fig 4.

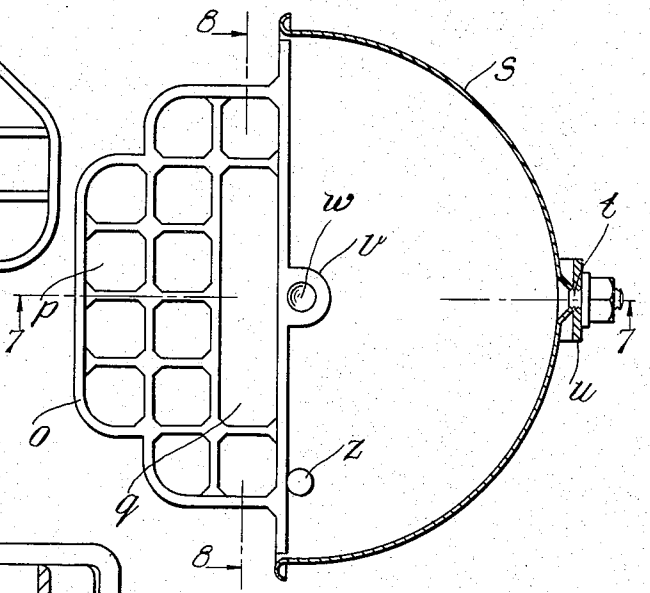


Fig 6.

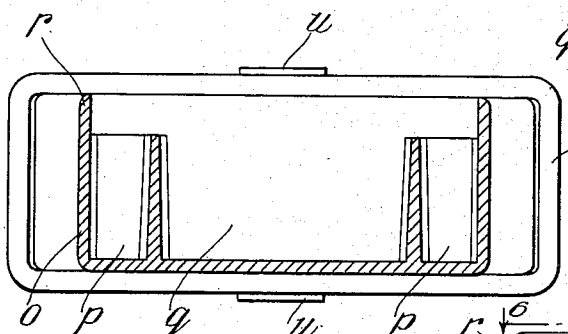
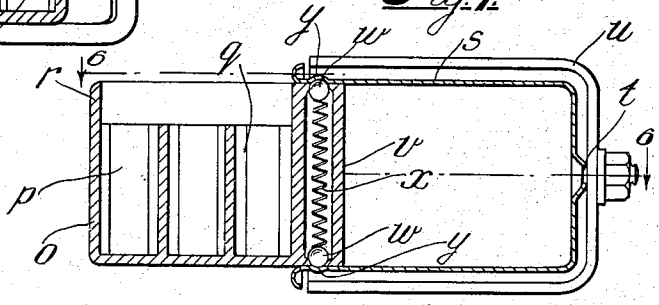


Fig 8.

Fig 7.



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MEANS FOR EXTINGUISHING CIGARETTES, MATCHES, AND THE LIKE

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Fig. 9

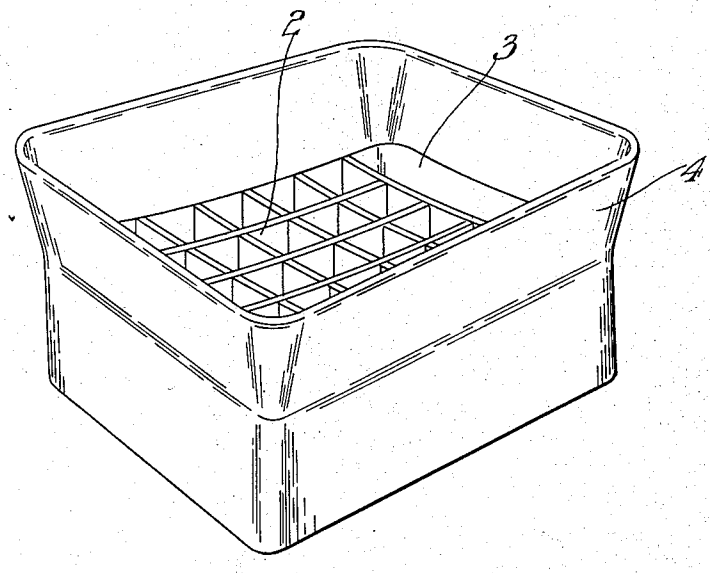


Fig. 10

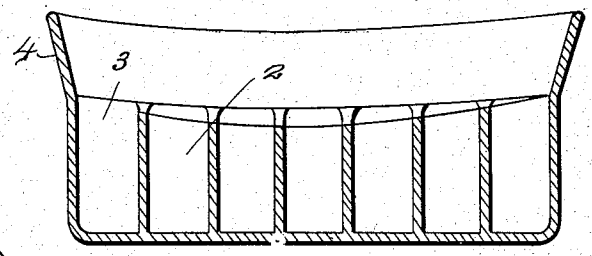
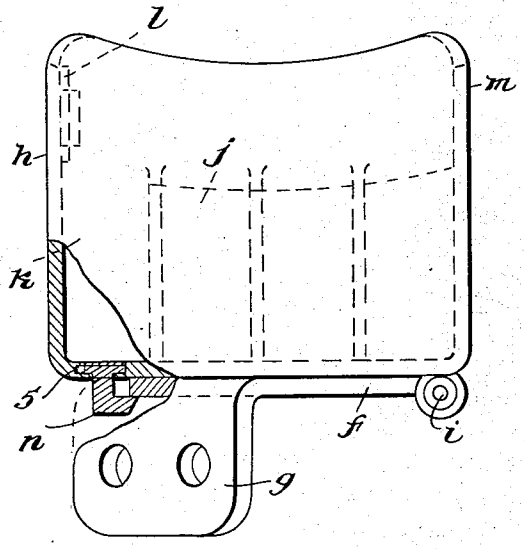


Fig. 11



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Patented Nov. 5, 1940 2,220,784

UNITED STATES PATENT OFFICE

2,220,784

MEANS FOR EXTINGUISHING CIGARETTES, MATCHES, AND THE LIKE

Govan Gee, Winchmore Hill, London, England, assignor to Safety Ashtrays Limited, London, England, a British company

Application August 10, 1938, Serial No. 224,156
In Great Britain August 17, 1937

2 Claims. (Cl. 131—235)

This invention relates to means for extinguishing cigarettes, matches and the like and has for its object to provide an improved construction or arrangement designed to prevent damage to furniture, carpets and the like due more particularly to partially burnt cigarettes falling outwards from ashtrays of ordinary types.

According to the invention a device for extinguishing cigarettes, matches and the like is constructed as an ashtray or as a mat and consists of a number of closely arranged vertical cells open at their upper ends and arranged so that any lighted or glowing body falling or thrown onto the top of the cell structure or assembly remains there until it is extinguished.

The invention also consists in an ashtray comprising a plurality of vertical cells formed within a circular or polygonal body.

The invention further consists in an ashtray comprising a plurality of vertical cells formed in a body of circular or other shape having a rim projecting above the level of the top of the cell structure or assembly.

Reference will now be made to the accompanying drawings which illustrate by way of example constructions according to the invention and in which:

Figure 1 is a plan of a circular ashtray,

Figure 2 is a sectional elevation of Figure 1.

Figures 3, 4 and 5 are elevation, plan and end elevation respectively of an ashtray designed for use in theatres,

Figures 6, 7 and 8 are sectional plan, sectional side elevation and sectional front elevation respectively of an ashtray for use in a motor car, the sections being taken respectively on the lines 6—6 of Figure 7, and 7—7 and 8—8 of Figure 6,

Figure 9 is a perspective view of an ashtray for domestic use,

Figure 10 is a central sectional elevation of the ashtray shown in Figure 9, and

Figure 11 is a view similar to Figure 5 but partly in section to show the snap catch.

Referring first to Figures 1 and 2 the ashtray may be made of metal, earthenware, stoneware or a moulded plastic substance and is formed with a number of closely arranged cylindrical cells *a* open at their upper ends and of such dimensions that any lighted or glowing object, such as a cigarette end, inserted into one of the cells *a* will be quickly extinguished owing to the lack of oxygen. To ensure rapid extinction in such cases the cells *a* are of relatively small dimensions being preferably of the order of one inch in height with an internal diameter of approximately half an inch.

In the form of construction shown the cells *a* are formed by moulding in a cylindrical body *b* formed integral with a base plate *c*. At the centre of the cell structure, an elongated slot or cell *d* may be formed for the reception of matches. In order that this device may be given an ornamental appearance by the use of a material unsuitable for use in forming the cell structure, the exterior of the cylindrical body *b* may be surrounded by a sleeve *e* whose exterior may be serrated, ornamented or formed to receive advertising or other matter and which projects for a substantial distance above the outer edge of the cell structure as shown in Figure 2. This outer edge prevents any lighted or glowing body which is thrown or which falls onto the cell structure from falling off the ashtray. If a partially consumed cigarette, for example, is placed in an inclined position resting upon the upper edge of sleeve *e* the cigarette will eventually fall inwards and not outwards and thus prevent any damage to the table or the like on which the ashtray is standing.

The arrangement shown in Figures 3, 4 and 5 is designed for attachment to the backs of seats in cinematograph theatres and other places of entertainment. In the form shown this structure is made throughout in metal and consists of a base plate *f* with attachment brackets *g* and a tray *h* hinged at *i* to the forward edge of the base plate *f*. The interior of this tray is divided into cells *j* which in this instance are of rectilineal form although of substantially the same general dimensions as before and the rear portion of the receptacle is formed as a match receptacle *k*. On the rear wall of the tray a luminous phosphorus plate *l* may be fixed so that the position of the cell structure can be seen when the device is used in cinematograph theatres. The outer wall of the tray *h* projects for a substantial distance above the top of the cell structure as shown at *m* in Figures 3 and 5 for the purpose of ensuring that when a cigarette does not fall completely within the tray *h* it will lie at an inclination such that, as it smoulders, it cannot fall outwards but must ultimately fall completely into the tray and become extinguished. To empty the tray *h* it is moved outwardly around the hinge *i* to the position shown in broken lines in Figure 5 and when returned to operative position it is retained in

place by a snap catch *n* which engages around the rear edge of the base plate *f* under the action of a spring 5 as the tray is pressed into an upright position as shown in Fig. 11, the catch being released by moving it against said spring.

The construction shown in Figures 6, 7 and 8 is designed for use in a motor car and comprises a metallic tray *o* containing a cell assembly *p* and match receptacle *q* and an upwardly projecting outer edge *r* all arranged substantially as and for the purposes already described in connection with Figures 3, 4 and 5. The tray *o* can be partially rotated from the operative position shown in Fig. 6 to an inoperative position within a casing *s* which is sunk into one of the walls or the dashboard of a motor car, the said casing being removably attached on its inner side at *t* to a stirrup *u* which forms a fixture in the said wall or dashboard. At the centre of the rear wall of the tray *o* is formed a cylindrical open ended socket *v* in the ends of which are mounted two balls *w* urged apart by a spring *x* which causes these balls to engage recesses *y* in the upper and lower parts of the casing *s*, the balls being retained in the socket by constricting the ends thereof, as shown in Fig. 7. This arrangement permits pivotal movement of the tray *o* about the axes of the balls *w* between two positions 180° apart, the operative and inoperative positions being defined by a stop pin *z*. When in the inoperative position the ashtray lies completely within the recess formed by the casing *s* and is screened from view by its rear wall which, in such position lies substantially flush with the wall of the vehicle. The resilient mounting of the balls *w* allows the tray *o* to be completely detached for emptying when a sharp pull is exerted on it in a direction away from the casing *s*.

It is to be understood that the two devices illustrated in Figures 3–8 can be used in a variety of positions other than those for which they have been specifically described.

The ashtray shown in Figures 9 and 10 is preferably made in a ceramic material and is rectangular in plan with rounded corners. It includes a cell structure 2, a match receptacle 3 and an outwardly flared rim 4, to ensure that a cigarette which may be laid across one of the edges 4 with its inner end resting upon the top of the cell structure will ultimately fall inwards and be extinguished.

The height of the projecting rim in all forms of the invention is such that cigarettes placed in the manner described lie at such an inclination that they cannot fall outwards but will eventually fall completely into the tray.

By forming the cellular structure so that its top is of decreasing height from its outer edges toward its center, as shown, a partially consumed cigarette laid temporarily on the cellular structure will tend to roll toward the center thereof and thereby place it in a position where it can be readily picked up by the fingers, and by forming the cellular structure so that its top is concave and of decreasing height from its outer edges toward its center and also forming the upper edges of the side walls of the surrounding rim so that they also are concave and slope downwardly toward their centers in conformity with the concavity of the top of the cellular structure, the concave top of the cellular structure and concave upper edges of the rim cooperate to afford the further advantage that a cigarette laid on the tray and resting on the rim and cellular structure will tend to roll toward the center rather than toward either of the sides of the tray and thereby prevent rolling of the cigarette off the tray.

It is to be understood that various modifications can be made in the forms of the invention above described and illustrated. For example, the ashtray shown in Figs. 1 and 2 may be triangular or other shape in plan or the ashtray shown in Figures 9 and 10 may have cells of circular cross section. Also the cell assembly shown in Figs. 9 and 10 may be of material different from the walls and may be removable for cleaning.

I claim:

1. An ashtray comprising a cellular structure providing a plurality of closely adjacent vertical cells open at their upper ends and of such dimensions as to facilitate extinguishing the lighted end of a cigarette therein, the top of said cellular structure being of decreasing height from its outer edges toward its center, and a rim surrounding said cellular structure and projecting above the top thereof to a height sufficient to prevent a lighted cigarette laid on the tray with its lighted end resting on the cellular structure and its unlighted end projecting over said rim from falling outwardly as its length is decreased by smoldering.

2. An ashtray comprising a cellular structure providing a plurality of closely adjacent vertical cells open at their upper ends and of such dimensions as to facilitate extinguishing the lighted end of a cigarette therein, the top of said cellular structure being concave and of decreasing height from its outer edges toward its center, and a rim surrounding said cellular structure and projecting above the top thereof to a height sufficient to prevent a lighted cigarette laid on the tray with its lighted end resting on the cellular structure and its unlighted end projecting over said rim from falling outwardly as its length is decreased by smoldering, said rim having side walls the upper edges of which are concave and slope downwardly toward their centers in conformity with the concavity of the top of the cellular structure.

GOVAN GEE.