

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

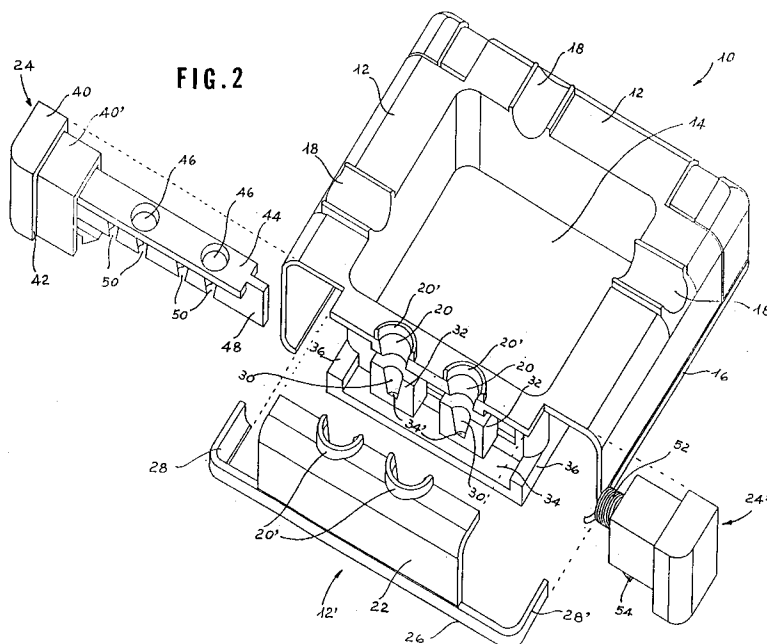
0 670 120 A1

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **95102493.4**(51) Int. Cl.⁶: **A24F 19/14**(22) Date of filing: **22.02.95**(30) Priority: **01.03.94 IT BG940011**(43) Date of publication of application:
06.09.95 Bulletin 95/36(84) Designated Contracting States:
**AT BE CH DE DK ES FR GB GR IE LI LU MC
NL PT SE**(71) Applicant: **Toffetti, Mario****Brignano Gera D'Adda (Bergamo) (IT)**(72) Inventor: **Toffetti, Mario****Brignano Gera D'Adda (Bergamo) (IT)**(74) Representative: **Lecce, Giovanni**
Studio Nord Brevetti,
Via Verdi, 14
I-24121 Bergamo (IT)(54) **Improved ashtray.**

(57) An improved ashtray (10) having, by way of example, a quadrangular plan is provided with a perimetric edge (12) along which, on one front at least, one or more holes are obtained (20), oriented towards base (16) and communicating with an underlaying plate (34).

Through said holes a blade-element (44), (48) is slidingly movable, whose opposed ends are rigidly or elastically connected with corresponding wedges (24), (24'), which complete edge (12), integrating in same.

**EP 0 670 120 A1**

This invention relates to an improved ashtray. More particularly, this invention relates to an ashtray provided with one or more self-cleaning seats for stubbing out cigarette and cigar butts.

Many types of ashtrays are known, having different shapes and sizes, which are for instance placed on tables and writing-desks; some of them, thanks to the worth of their design, are even furnishing-integrating elements.

A drawback which appears often, when burnt-out cigarettes and cigars are crushed in the ashtray, lies in that butts go on for some time consuming the residual tobacco, having not been carefully stubbed out. Combustion tends to involve also the cigarette filter, causing the spreading of particularly unpleasant and disgusting smells in the room. The problem obviously exists also for car ashtrays, where the stubbing out of the butt by the driver may also cause serious dangers, as this operation distracts the attention from driving.

In some ashtrays, there is sometimes provided a small cylindrical container, of limited height, whose inner diameter substantially corresponds to that of the butt to be stubbed out; the latter, before being placed in the ashtray, is inserted in said container, to extinguish it completely, due to oxygen lack.

However, also this solution involves an important drawback. In fact, the cylindrical extinguishing body tends in time to be filled with highly compact burnt-out residues, reducing progressively the space available for the introduction of other butts. One has therefore to carry out a systematic cleaning operation, which is far from being easy.

Object of this invention is to obviate the aforementioned drawbacks.

More particularly, the object of this invention is to realize an improved ashtray provided with one or more self-cleaning seats for stubbing out cigarette or cigar butts.

A further object of this invention is to realize an ashtray as defined above, which with the suitable size adaptations or hooking means, can be mounted also on cars or transport vehicles in general.

A further object of this invention is to realize an ashtray provided with one or more self-cleaning seats for the butts, suitable to provide a high level of assistance and reliability in time, and also such as to be easily and economically realizable.

These and still other objects are achieved by the improved ashtray subject matter of this invention, which ashtray, made from plastic material or other suitable material, comprises a quadrangular plan body with an edge circumscribing an internal tray-shaped seat, and basically characterized in that at least one of the fronts of said edge houses one or more through-holes in which a blade-element is slidably movable and whose opposite

ends are rigidly or elastically connected with corresponding wedges which complete said edge.

The technical and functional characteristics of the improved ashtray subject matter of this invention shall become clearer from the following description of one preferred non limitative embodiment, made with reference to the attached drawings wherein:

Fig. 1 shows schematically, from a perspective top view, the improved ashtray;

Fig. 2 shows schematically a burst view of said ashtray, to stress the components that circumscribe the self-cleaning extinguishing seats.

With reference to the above drawings, the improved ashtray subject matter of this invention, indicated as a whole by (10), is constituted by a body having a preferably quadrangular plan, obtained from plastic material or other suitable material, provided with a perimetric edge (12) which circumscribes a seat or tray (14) suitable to collect the residues of cigarettes, cigars or the like. A bottom base (16), connected elastically or by glueing to said body, forms the resting or containment surface of said tray (14); along the upper front of edge (12), traditional, variously located hollow seats are obtained for the temporary support of the cigarette or cigar. The dimensions, in height and depth, of the perimetric edge (12) are preferably of a few centimeters only; depth, in particular, is such as to allow to obtain, at least on one front of edge (12), one or more holes (20) oriented towards base (16) having a diameter adequate for the introduction of cigarette or cigar butts.

According to this invention, the front of edge (12) along which the hole or holes (20) are obtained is formed by the coupling of a plurality of elements which, once the whole has been fixed, integrate in the body (10), completing its structure.

In particular, with reference, by way of example, to front (12'), provided with a couple of adjoining holes (20), a head (22) and two opposed side wedges (24), (24') are obtained, complementary to each other. Head (22) comprises a part (26) of the base perimeter of body (10), bent at 90° at the opposite ends (28) (28'), which align with the remaining lower sector of said body, as well as a large central portion on whose upper front half of holes (20) are obtained, which holes are advantageously coneshaped and provided with a mouth-collar (20'). The remaining holes (20) are obtained on front (12') of body (10) opposing head (22), as shown on Fig. 2. One notices from the latter that said holes, in their lower, cone-shaped portion, are formed by a prismatic core (32); the punched base (34') of said cores looks onto a plate (34) laterally circumscribed by borders (36) and which communicates with tray (14) along the fore front.

The side wedge (24) which completes a side of body (10) is located between said body and head (22); said wedge is formed by integral prismatic sectors (40), (40'), the first of which has a configuration complementary to that of edge (12); sector (40') is smaller than the preceding one, engaging in body (10) and forming a shoulder (42) which meets partly said body and partly head (22).

From sector (40) a front extension develops whose section is substantially "T"-shaped and whose upper branch (44) is provided with one or more through-holes (46), suitable to align with holes (20); the underlying branch (48) having an orthogonal development relatively to branch (44), longitudinally extended for a length slightly longer than the latter, is provided along its development with a plurality of openings (50). Said openings have an extension and configuration substantially identical to those of the lower cone-shaped part of holes (20), and align with them when wedge (24) is approached to body (10) and head (22).

Wedge (24'), aligned with the preceding one and obtained in the same way as concerns the end sectors, complete the opposite site of body (10) and is provided with a spring (52) to which the end of the "T"-shaped extension protruding from wedge (24) is connected. The front part of wedge (24') is provided in the lower part with a projection (54) which meets a border of plate (34).

The coupling between body (10), head (22) and wedge (24') is preferably realized by means of generic elastic snap-clutches; alternatively, said components are fastened to one another with screws or the like. Wedge (24) is connected by spring (52) to the opposite wedge (24'). Once the assembly has been obtained, the "T"-shaped extension protruding from wedge (24) may be advantageously allowed to slide along the perimetric sector of holes (20), which wedge forms a blade for moving and removing ash and tobacco residues clogging the bottom of holes (34') of cores (32), and which therefore fall onto plate (14).

The activation of the blade is particularly easy, as it suffices to operate on wedge (24), pushing it towards the inside of body (10); spring (52) allows to re-position automatically said wedge once it is released, aligning openings (50) with holes (20).

The ashtray subject matter of this invention, as schematically illustrated on Figs. 1 and 2, is of a type suitable to be placed on tables, writing-desks and flat surfaces in general; however, the side slides along edge (12) allow its utilization also as an ash and butt container for vehicles, with the suitable size and configuration adaptations.

As can be inferred from the above, the advantages achieved by the invention are evident.

The improved ashtray allows to obtain systematically the stubbing out of butts of cigarettes,

cigars and the like, avoiding the need of cleaning the seats where said butts are priorly introduced.

However, the invention, as described hereabove and claimed hereafter, has been merely proposed by way of example, meaning that the same is susceptible of many modifications and variants, all of them falling within the protection scope of the innovatory concept.

For instance, the ashtray could be obtained as a single body by providing same with a slot through which a blade could be introduced consisting of one stiff filament communicating with the butt extinguishing holes. Said holes, possibly different in number and size, could be obtained along several fronts of the ashtray edge.

Lastly, possible structural reversals or alternative locations of the components that form altogether the ashtray subject matter of this invention are also possible.

Claims

1. Improved ashtray (10) from plastic material or other suitable material, comprising a quadrangular plan body, whose perimetric edge (12) circumscribes an internal seat or tray (14), characterized in that at least one of the fronts of said edge houses one or more through-holes (20), vertically or tendentially vertically oriented, through which a blade-element (44), (48) is slidingly movable, whose opposite ends are rigidly or elastically connected with corresponding wedges (24), (24') which complete said edge.
2. Improved ashtray according to claim 1, characterized in that front (12') of edge (12) along which hole or holes (20) are obtained is formed by the coupling of elements (22), (24), (24') which integrate in body (10).
3. Improved ashtray according to the preceding claims, characterized in that element (22) is formed by a head whose central portion is provided in the upper part with half of the holes (20), coupled to one another, cone-shaped and provided with an upper mouth-collar (20').
4. Improved ashtray according to one of the preceding claims, characterized in that the remaining holes are obtained on front (12') of body (10) opposite to said head and on the sliding element (44), (48); said element having a longitudinally developed "T"-shaped section, protruding from the depressed end (40') of wedge (24) and connected through elastic means (52) with the opposite wedge (24').

5. Improved ashtray according to the preceding claims, characterized in that on the horizontal branch (44) of said "T"-shaped section element (44) at least a through-hole is provided (46), suitable to align with a corresponding hole (20) vertically developed from front (12') of edge (12), a plurality of coneshaped openings (50) being obtained in the underlying branch (48) of said element, orthogonally developed relatively to branch (44). 5
10
6. Improved ashtray according to the preceding claims, characterized in that holes (20) extend in the lower part in a wedge (32) provided with an end hole (34'), and communicate with a plate (34), frontally looking onto seat (14). 15
7. Improved ashtray according to one or more of the preceding claims, characterized in that body (10), head (22) and wedge (24) are coupled to one another by means of elastic snap-clutches or screws or equivalent fastening means, wedge (24') being provided with a protrusion (54) which meets a border of plate (34). 20
25
8. Improved ashtray according to one or more of the preceding claims, characterized in that it is obtained in one single piece and has, along at least one front of edge (17), a slot where a blade or stiff filament is clutched, communicating with hole(s) (20) having the same diameter or different diameters. 30
9. Improved ashtray as described with special reference to the reservation of the last period of the descriptive part, illustrated by way of example and for the purposes specified. 35

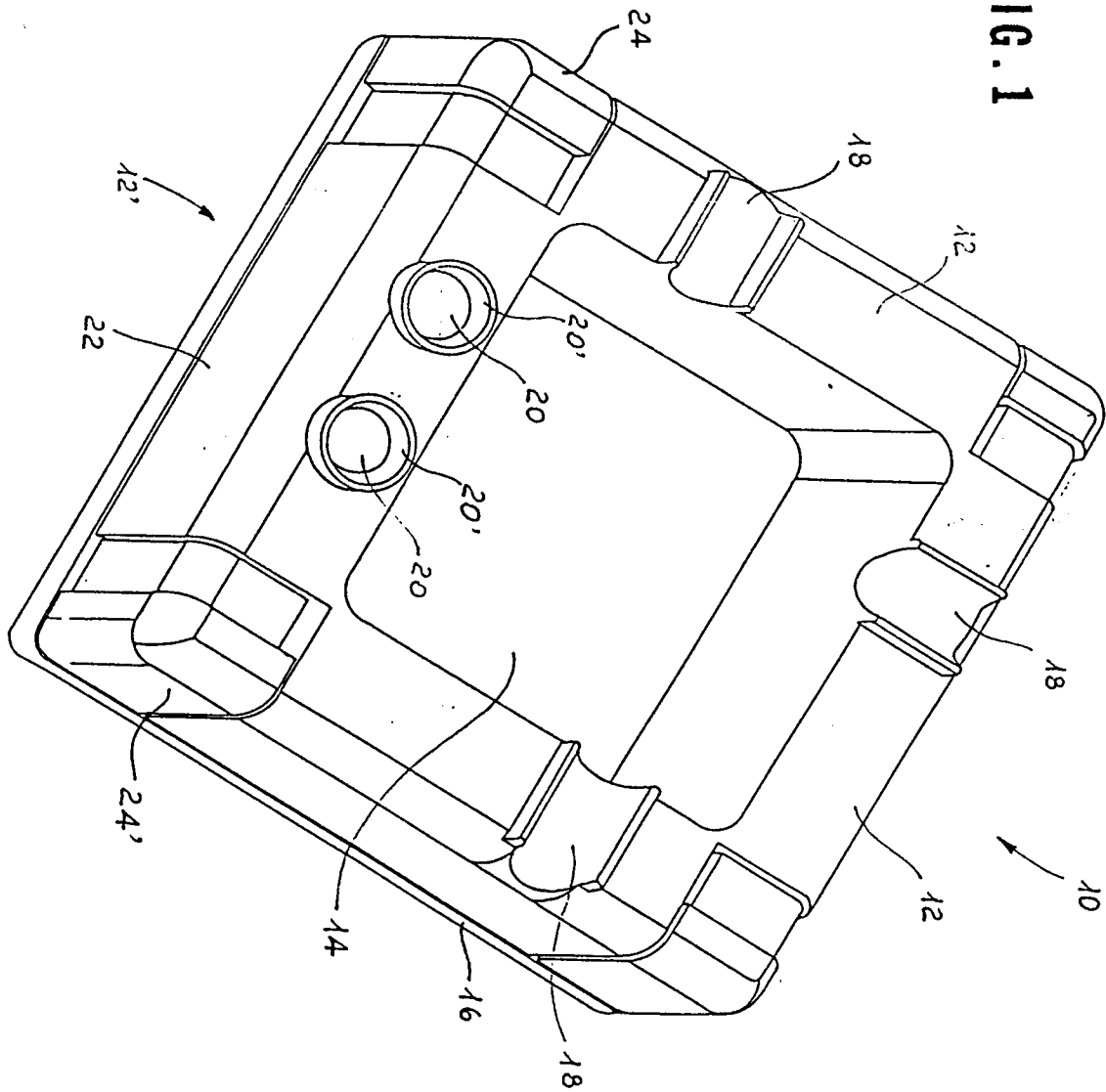
40

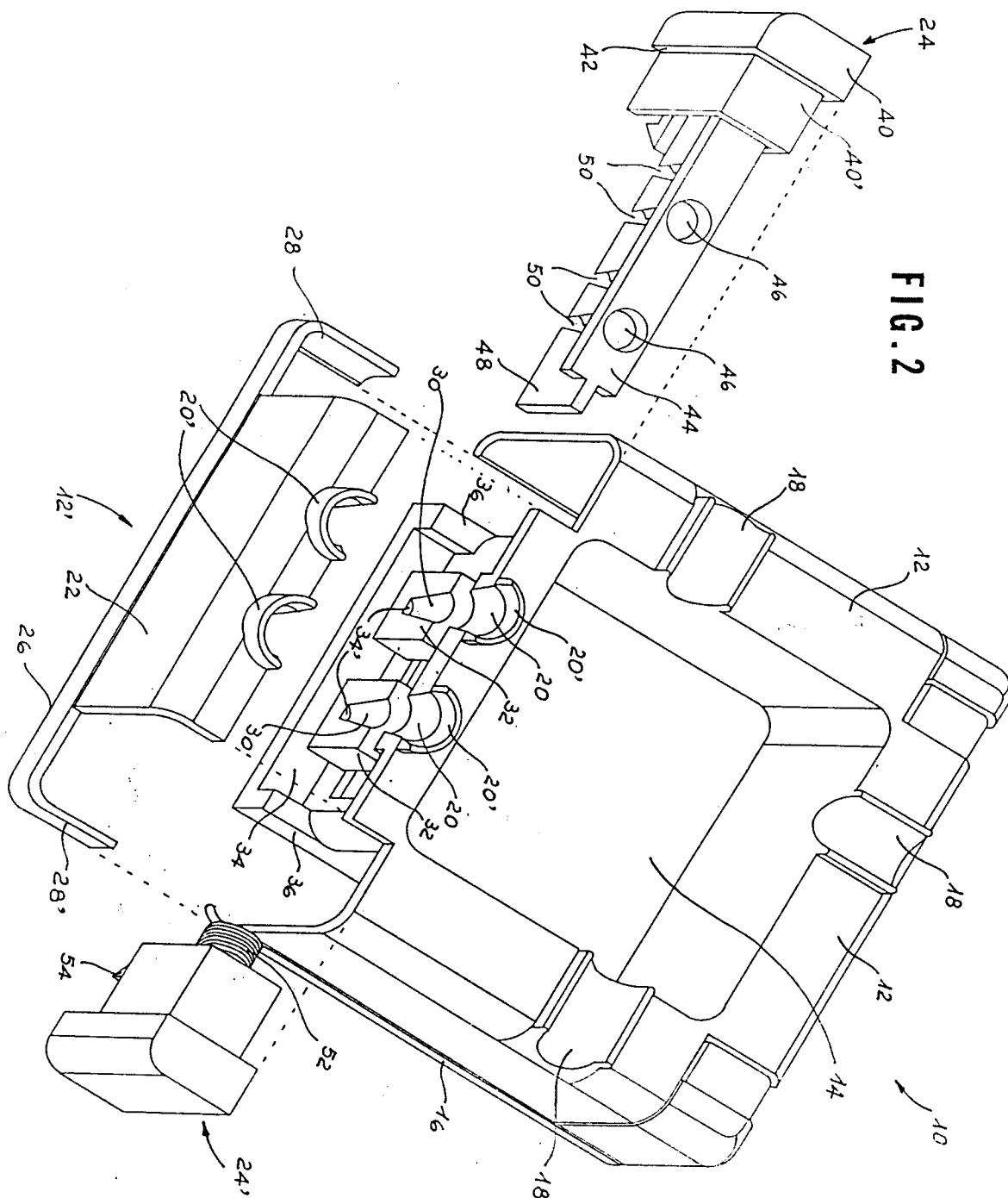
45

50

55

FIG. 1







European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 95 10 2493

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	GB-A-941 354 (MCDONALD) * the whole document * ---	1	A24F19/14
A	US-A-4 240 449 (CARAVELLO) ---		
A	US-A-2 089 139 (TIERNEY) ---		
A	US-A-4 239 049 (PERRY) ---		
A	US-A-2 798 498 (AGHNIDES) -----		
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A24F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 6 June 1995	Examiner Riegel, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			