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(54) **Litter container with dustpan housing**

(57) The litter container (201) has a housing (203) adapted to house a dustpan (204b), obtained inside the container, under its cover (212).

The container is provided with a device (214) adapted to clean the dustpan during its extraction from the container.

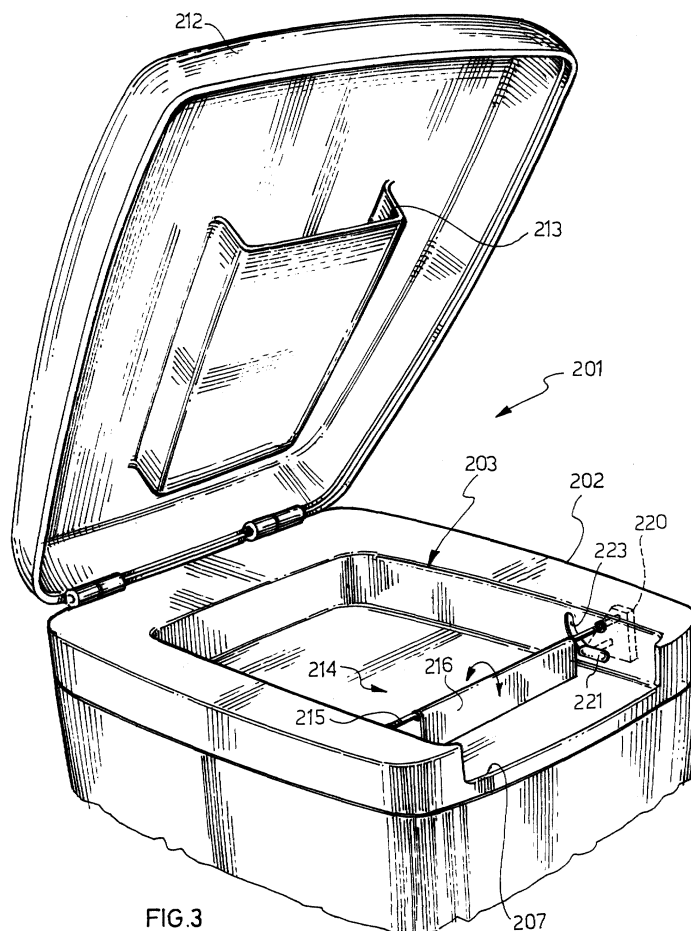


FIG. 3

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Description

[0001] The present invention relates to a dustpan housing.

[0002] In those cases when the dustpan, after having been used, is put inside a litter container, there can be hygienic problems when used again because, as it is left in contact with the litter present into the container, it can be annoyingly dirty.

[0003] For this reason, as known, the dustpan is usually placed outside the litter container; thus, insufficient or lacking cleaning at the end of the use can cause the presence of litter residues outside the container, with consequent hygienic problems.

[0004] The idea at the basis of the invention is that of providing a litter container wherein a dustpan may be housed without coming into contact - when put into the housing - with the litter present into the container.

[0005] Thus, the container of the present invention comprises a cover which, in closed position, leaves a substantially horizontal access free, intended for inserting a dustpan.

[0006] Advantageously, the container is thus designed so as to house a dustpan inside it, in a simple, functional and hygienic way. Moreover, the dustpan is not in direct contact with the litter.

[0007] Preferably, the access intended for inserting the dustpan is obtained in a wall of the container.

[0008] Advantageously, it is not necessary to open the container to insert the dustpan inside it.

[0009] According to a second embodiment, the access is obtained into the cover. Said embodiment is particularly - but not exclusively - applied to containers provided with a pair of superimposed covers, wherein the space obtained between the two covers is adapted to house various accessories, such as, typically, bin liners. In this case, the housing intended for the dustpan is obtained under the cover which first closes the container.

[0010] Preferably, the housing, adapted to house the dustpan in a substantially horizontal position, is obtained into the inner wall of said cover.

[0011] The housing of the dustpan is provided inside the container, under its cover, that is to say, in the portion where the possibility of contact between dustpan and litter present in the container is minimum.

[0012] According to a preferred embodiment, the housing comprises two shelves associated to the inner wall of the cover, said shelves being substantially parallel to one another and to the direction of insertion of the dustpan into the housing.

[0013] Said shelves, integral with the inner wall of the cover of the container, are advantageously adapted to serve as guide and support for the introduction of the dustpan into the container.

[0014] Preferably, with the purpose of further limiting hygienic problems, said housing is associated to a dustpan cleaning device.

[0015] In a preferred embodiment, the dustpan clean-

ing device comprises a tongue mounted on a rotating horizontal support arranged in a substantially orthogonal way with respect to the direction of insertion of the dustpan into the housing, mobile from a raised rest position to a lowered cleaning position, wherein the tongue is substantially in contact with the dustpan inserted into the housing.

[0016] Advantageously, upon inserting the dustpan into the housing, the tongue retracts into a raised position, whereas upon its extraction, the tongue comes down, up to touching the dustpan surface so as to allow cleaning it.

[0017] Preferably, the rotating support is provided with a locking device for holding said tongue in cleaning position during the extraction of the dustpan from the cover.

[0018] Advantageously, the locking device of the rotation of the support, which activates when the dustpan is extracted from the cover of the container, allows locking the tongue in a substantially orthogonal position with respect to the dustpan, thus allowing the removal - through scraping - of possible residues present on its surface.

[0019] Moreover, in consideration of the fact that container and dustpan are normally used in combination with a broom, a preferred embodiment provides for the application, on at least one outer wall of the container, of a coupling system adapted to support a broom in a substantially vertical position.

[0020] Preferably, at the coupling system, the lower portion of the container is provided with a dust collector shelf.

[0021] Further features and advantages of the present invention will appear more clearly from the following detailed description, made hereinafter as a non-limitative indication, with reference to the attached drawings. In such drawings:

- Figure 1 shows a perspective view of a first embodiment of the container according to the invention;
- Figure 2 shows a perspective view of a second embodiment of the container according to the invention;
- Figure 3 shows a partial perspective view of a variant of the container of figure 2;
- Figure 4 shows a side view of a detail of the variant of figure 3;
- Figure 5 shows a partially sectioned partial top view of the detail of figure 4.

[0022] With reference to figure 1, reference numeral 101 indicates as a whole a litter container according to the invention. Container 101 comprises a cover 102 wherein there is provided a housing 103, adapted to

house a dustpan 104. Housing 103 includes two L-shaped shelves 105a, 105b, parallel to one another, and a bearing wall 105c, all integral with an inner wall 117 of cover 102.

[0023] The access for inserting dustpan 104, when cover 102 is closed, comprises, in the illustrated example, apertures 118 and 119 arranged in the front side of container 101, respectively in the front portion of cover 102 and in the upper portion of a front wall 106 of container 101.

[0024] Dustpan 104 can be housed into housing 103 both in straight or upside down position indifferently.

[0025] According to a preferred aspect of the invention, on a side wall 108 the container 101 is provided with a coupling system 109, *in se* conventional, for supporting in a vertical position a broom 110, preferably with folding handle. In the lower portion of wall 108, at said coupling system 109, there is obtained a dust collector shelf 111.

[0026] In a second preferred embodiment (figure 2) there is provided a container 201 provided with a pair of covers, an inner cover 202 and an outer cover 212. Onto the outer cover 212 there is housed a bin-liner holder compartment, whereas onto the inner cover 202 there is obtained a housing 203 adapted to house a dustpan 204. For the purpose of reducing the dimensions outside container 201, the illustrated dustpan 204 is provided with a grip handle 205 in place of the common handle.

[0027] According to said embodiment, for the insertion of dustpan 204 into housing 203, there is provided an aperture 207 obtained in the front side of cover 202, thus allowing inserting dustpan 204 into housing 203 independently of the position taken by the outer cover 212.

[0028] In the variant of figures 3-5 (wherein the same reference numerals used in figure 2 are used for the same parts), the housing 203 is associated to a dustpan cleaning device 214, comprising a tongue 216, suitably sized on the basis of the geometric characteristics of dustpan 214. Tongue 216, preferably made of rubber or of other flexible material, is mounted on a horizontal pivot 215, turnably carried by walls 222 of cover 202; on the same pivot 215, behind wall 222, there is also mounted a gusset plate 220, provided with a stake 221 protruding into housing 203 through an arched slit 223 formed into wall 222.

[0029] The dustpan (indicated with reference numeral 204b as it is different from dustpan 204 of figure 2) has side walls with increasing height starting from the litter-collection side; then, said side walls are divergent towards the litter-collection side, so that dustpan 204b has a maximum width at the litter-collection side, and minimum width at the handle.

[0030] Tongue 216 is mobile between a raised rest position (non represented) and a substantially vertical lowered cleaning position, such as that one illustrated in figures 3-5, so as to be in contact with dustpan 204b and allow its cleaning through scraping when the latter is ex-

tracted from housing 203.

[0031] In fact, upon inserting dustpan 204b in straight position into housing 203 through aperture 207, dustpan 204b strikes the stake 221, thus making the tongue 216 rotate, raising it towards a substantially horizontal position. When dustpan 204b is completely inserted into housing 203 (figure 5), stake 221 is in the portion of minimum width of dustpan 204b; thus, the engagement onto the same dustpan 204b ends, and tongue 216 returns to its vertical position, thanks to the action of the weight of gusset plate 220.

[0032] Vice versa, upon extracting dustpan 204b, the vertical position of tongue 216 causes the removal of possible residues of dirt from the surface of dustpan 204b. The maintenance of the vertical position of tongue 216 during the extraction of dustpan 204b is guaranteed by the engagement of the stake 221 into the slit 223.

Claims

1. Litter container comprising a cover (2), **characterised in that** said cover (2), in closed position, leaves a substantially horizontal access (7) free, intended for inserting a dustpan.
2. Container according to claim 1, **characterised in that** said access (7) is obtained into a wall (6) of the container.
3. Container according to claim 1, **characterised in that** said access (7) is obtained into the cover (2).
4. Container according to any one of the previous claims, **characterised in that** into the inner wall (17) of said cover (2) there is obtained a housing (3) adapted to house the dustpan (4) in a substantially horizontal position.
5. Container according to claim 4, **characterised in that** said housing (3) comprises two shelves (5a, 5b) associated to the inner wall (17) of said cover (2), said shelves (5a, 5b) being substantially parallel to one another and to the direction of insertion of the dustpan (4) into the housing (3).
6. Container according to claim 4 or 5, **characterised in that** said housing (3) is associated to a dustpan cleaning device (14).
7. Container according to claim 6, **characterised in that** said dustpan cleaning device (14) comprises a tongue (16) mounted on a rotating horizontal support (15) arranged in a substantially orthogonal way with respect to the direction of insertion of the dustpan (4) into the housing (3), mobile from a raised rest position to a lowered cleaning position, wherein the tongue (16) is substantially in contact with the

dustpan (4) inserted into the housing (3).

8. Container according to claim 7, **characterised in that** said rotating support (15) is provided with a locking device (19) for holding said tongue (16) in cleaning position during the extraction of the dustpan (4) from the cover (2). 5
9. Container according to any one of the previous claims, **characterised in that** on at least one of its outer walls (8) there is applied a coupling system (9) adapted to support a broom (10) in a substantially vertical position. 10
10. Container according to claim 9, **characterised in that** the lower portion of the wall (8) onto which the coupling system (9) is applied, is provided, at said coupling system, with a dust collector shelf (11). 15

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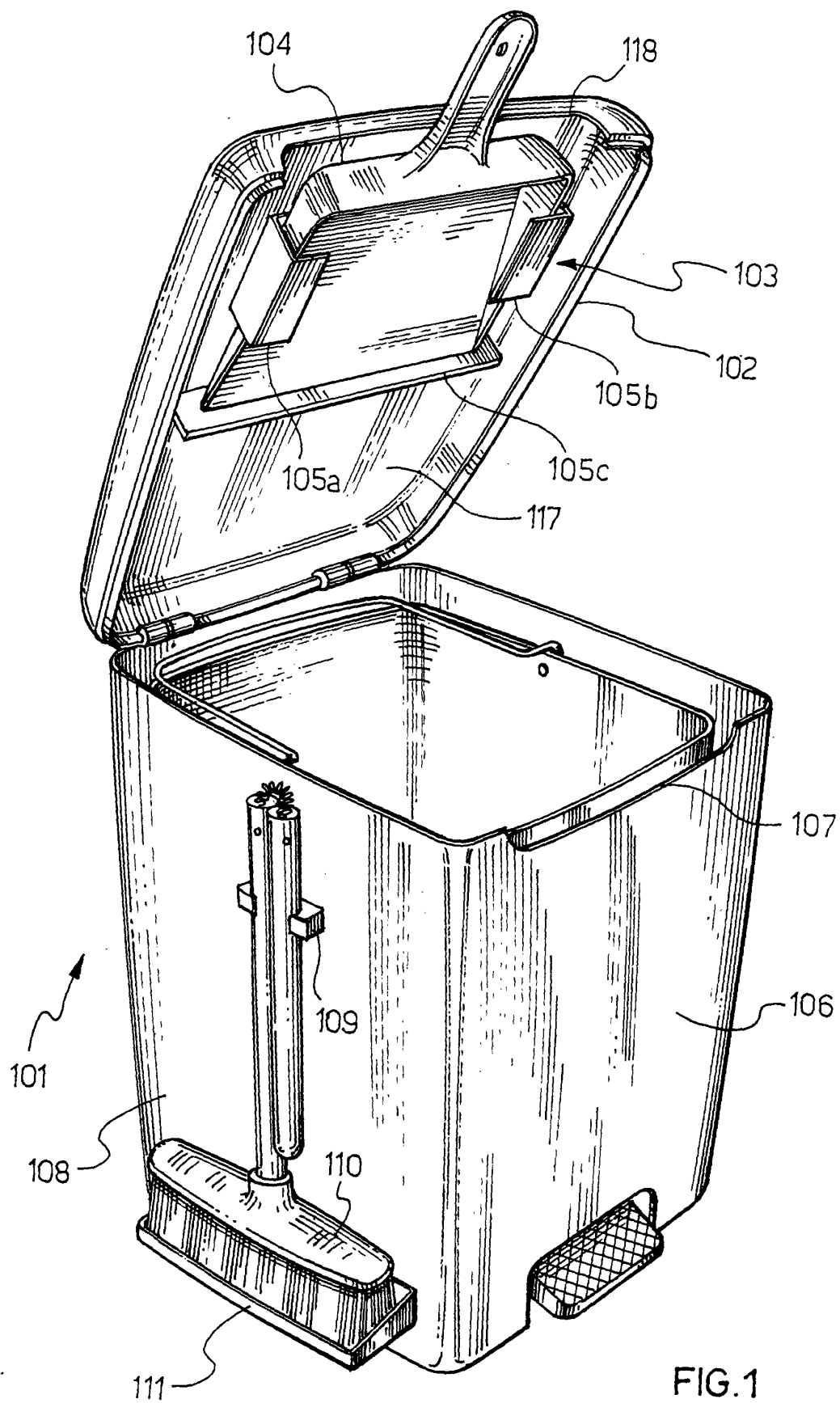


FIG.1

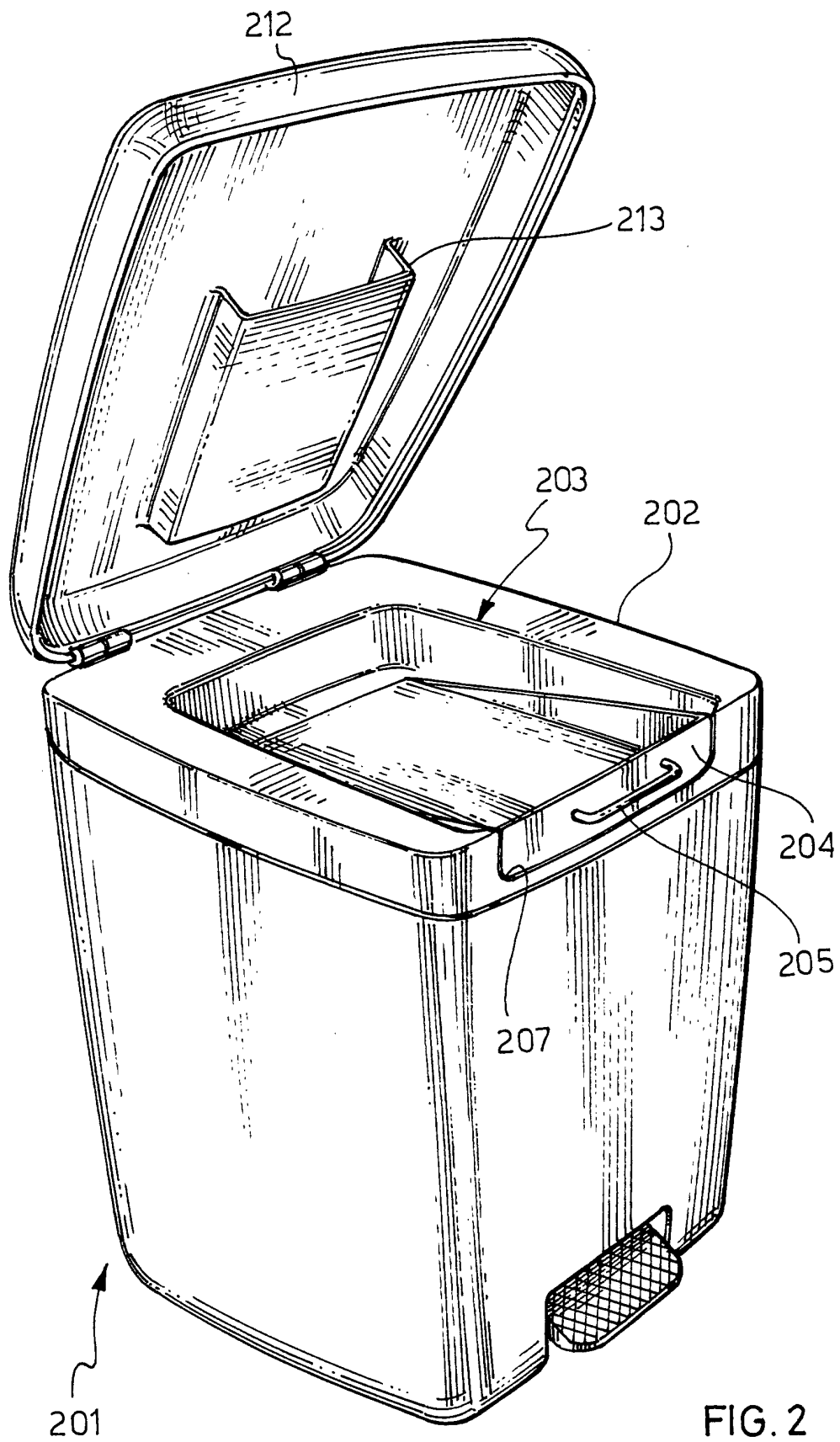
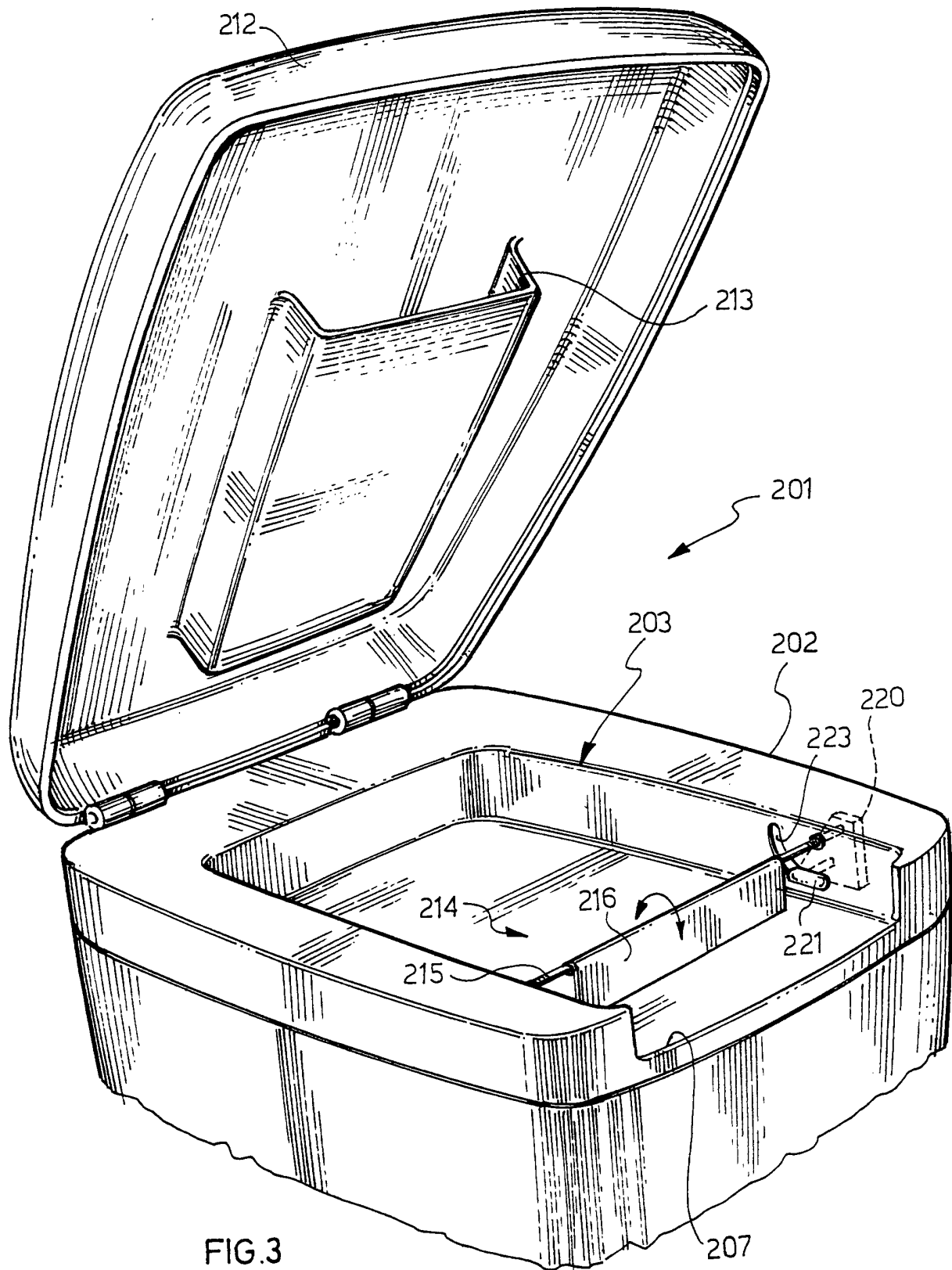
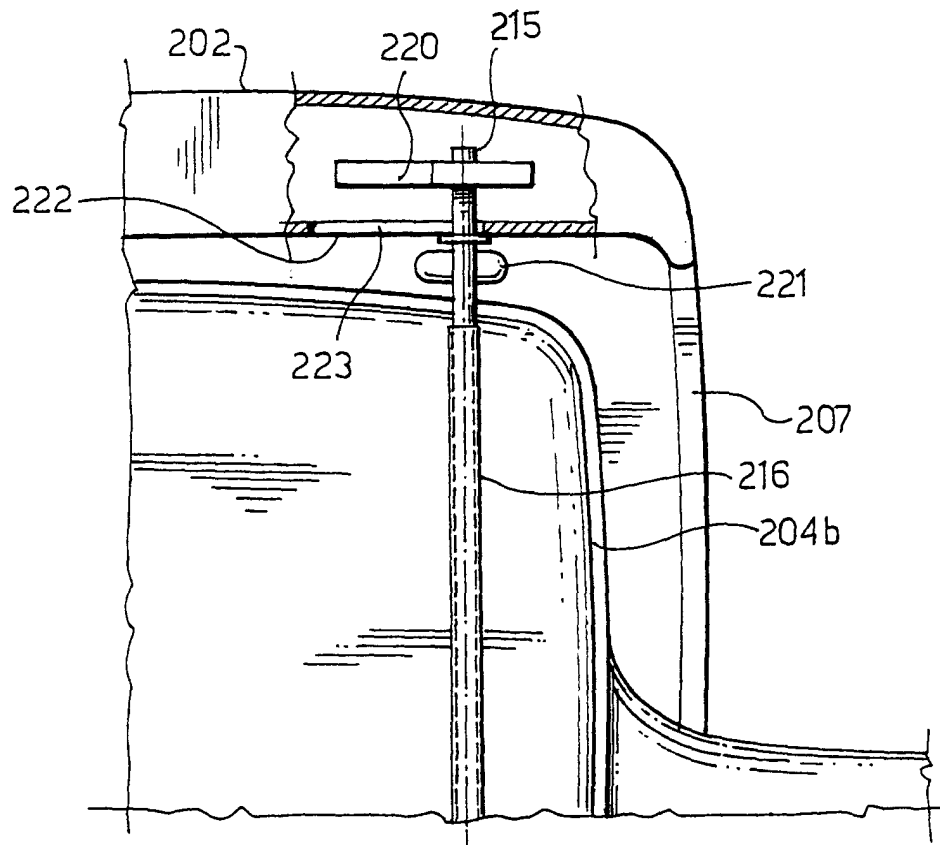
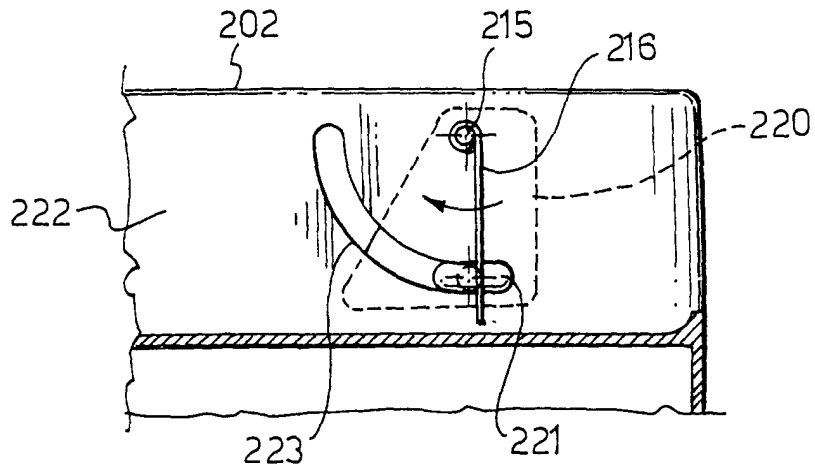


FIG. 2







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EUROPEAN SEARCH REPORT

Application Number
EP 00 83 0367

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	DE 91 11 373 U (Y. TSAI) 31 October 1991 (1991-10-31) * page 4, line 1 - page 5, line 10 * * figures 1,2 * ---	1,2,9,10	B65F1/14 B65F1/16
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X	DE 93 19 459 U (B. DIEFENBACH) 13 April 1995 (1995-04-13) * page 7, line 6 - line 17 * * figures 3-5 * ---	1,2	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28 September 2000	Examiner Smolders, 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	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 83 0367

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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28-09-2000

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