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(54) **DRAWER FOR SEPARATE WASTE COLLECTION**

BEHÄLTER FÜR GETRENNTE MÜLLSAMMLUNG

TIROIR DE COLLECTE DE DÉCHETS SÉPARÉE

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Description**TECHNICAL FIELD**

[0001] The present invention relates to a drawer for separate waste collection.

BACKGROUND ART

[0002] Normally a drawer for separate waste collection is constituted by a guide installed inside the cabinet compartment wherein the drawer operates, a sliding frame along the guide and adapted to support one or more waste holding buckets, a front door fixed to the frame and a backboard fixed to the frame.

[0003] Currently the cabinet, the guide, the door and the backboard is built by the cabinet maker while said frame and buckets are manufactured by a company supplying the cabinet maker.

[0004] The main problems that currently exist lie in the fact that in the same area width wherein the drawer must operate every cabinet maker installs his own guide of construction and size different than those guides installed by other cabinet makers. Consequently the frame-work manufacturing companies must produce a series of models thereof each suited to the type of guide used by the cabinet maker. In addition, the guide with the current commercially available frames remains visible, and therefore is not only unsightly but subject to collecting dust and occasional particles of waste (because of the use of the drawer). Finally with the current frame-work rises the complexity of being able to adjust the width thereof to obtain a precise and effective support for holding the waste buckets. Drawers for separate waste collection are known, for example, by documents EP 1 136 392 A2, 20 2010 000 629 U1, DE20 2006 012 399 U1 and WO 2011/094789 A1.

DISCLOSURE OF INVENTION

[0005] The purpose of the present invention is to provide a drawer for separate waste collection that is free from the above mentioned drawbacks.

[0006] According to the present invention a drawer for separate waste collection installed inside a compartment made in a cabinet and delimited by two side walls that support a respective guide along which slides a frame that supports a plurality of holding waste buckets is provided, characterized in that said frame has a rectangular perimeter and comprises two elongated side bodies parallel to each other and two bars parallel to each other for connecting together the longitudinal ends of said bodies; each of said bodies having a covering member of the corresponding said guide.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] For a better understanding of the invention in

the following is presented one embodiment purely by way of illustration and not of limitation with the aid of the accompanying figures, wherein:

Figure 1 is a perspective view of a drawer according to the teachings of the present invention;

Figure 2 is a perspective view of a part of the drawer of Figure 1;

Figure 3 is a perspective view on an enlarged scale of a detail of the part shown in Figure 2;

Figures 4 and 5 are perspective views on an enlarged scale of a member of the part shown in Figure 2 wherein in figure 4 two portions of said member are separated and wherein in figure 5 said portions are connected together;

Figure 6 is a front view, partial and in enlarged scale of the member shown in Figure 5 coupled to a guide of the drawer of Figure 1; and

Figure 7 is a view on an enlarged scale of a detail of the member shown in Figure 6.

BEST MODE FOR CARRYING OUT THE INVENTION

[0008] With reference to Figure 1 a drawer for separate waste collection installed inside a compartment 2 made in a cabinet 3 is indicated as a whole; the two side walls 4 bounding the compartment 2 supporting a respective guide 5 (figure 6). The drawer 1 comprises a frame 6 which supports a plurality of holding waste buckets 7 and which is slidable along the guides 5 during opening and closing of the drawer 1.

[0009] With reference to Figures 2 to 5, the frame 6 has a rectangular perimeter development and comprises two side elongated bodies 8 parallel to each other and two bars 11 parallel to each other for connecting together the ends of the longitudinal bodies 8; the bodies 8 being preferably made of plastic material and the bars 11 being preferably made of metallic material. On the face of each body 8 facing the corresponding face of the other body 8, at both longitudinal ends extends towards the other body 8 a corresponding sleeve 12 internally hollow and having a rectangular inner section. The sleeves 12 housing the longitudinal ends of the bars 11. Moreover, the upper wall of each sleeve 12 has a through slot 13 with longitudinal axis perpendicular to the longitudinal axis of the corresponding body 8. The longitudinal end of each bar 11 has a threaded hole 14 inside the sleeve 12 and exactly in correspondence to the slot 13. A corresponding screw 15 creates the fastening between the sleeve 12 and the bar 11 which has its longitudinal end housed inside the sleeve 12. In fact, the threaded shank of the screw 15 passes through the slot 13 and is screwed into the hole 14. Naturally the screw head 15 has a diameter greater than the width of the slot 13. This fastening system just described allows to adjust, before the screwing of the screws 15, the position of the longitudinal ends of the bars 11 inside the respective sleeves 12 and then allow to adjust the distance between the bodies 8 also

according to the width of the compartment 2.

[0010] With reference to Figures 6 and 7, the guide 5 is supported by way of a bracket 16 from the corresponding side wall 4 of the compartment 2. In said figures the solid line illustrates a guide 5 and the dashed lines illustrate other types of guides 5. The parts in common to all these guides 5 are, apart from the connection by way of the bracket 16 to the wall 4, a side projection 17 having a substantially triangular shape that reaches a recess 18 which also has a triangular shape formed on the face of the body 8 facing the guide 5. It is evident that the projection 17-recess 18 coupling constitutes the supporting device and the guide of the drawer 1. Furthermore, as can be seen, the geometric development of various guides 5 is different and therefore is important as stated above to achieve a correct and precise adjustment of the distance between the bodies 8.

[0011] With reference to Figures 4 to 7, each body 8 has an integral tab 21 of the same length as the body 8 extending in a horizontal plane towards the corresponding wall 4. In addition, to each body 8 is associated a tab 22 shaped as an inverted L and of the same length as the tab 21. The tab 22 has a first portion 23 defined in a horizontal plane which in use is inserted between the tab 21 and the upper part of the guide 5 and a second portion 24 defined in a vertical plane and that laterally covers the upper part of the guide 5. In essence, the tab 22 is substantially at the same level of the tab 21 and above all covers the guide 5 carrying out both an aesthetic function and a barrier function against any dust or anything else that comes to rest in the area occupied by the guide 5 with consequent sliding problems of the drawer 1. It should be noted that on the upper face of the portion 23 there are two small areas 25 which are knurled and that from the lower face of the tab 21 exactly in correspondence to said areas 25 downwardly originate teeth 26 engaging with their tips said areas 25 thus actuating the fastening of the tab 22 to the corresponding body 8 as the portion 23 is pressed by the upper part of the guide 5 on the lower face of the tab 21. This type of fastening as it appears evident also allows adjustment of the position of the tab 22 with respect to the corresponding body 8 by engaging the teeth 26 with a different zone of the areas 25. In this way it is possible to position the tab 22 according to the size of the guide 5.

[0012] With reference to Figure 1, each body 8 at its front longitudinal end supports a corresponding bracket 31 to which, by means of screws not shown, a door 32 of the drawer 1, shown in dashed lines, is fixed. Similarly each body 8 at its rear longitudinal end supports a respective bracket, not shown, for the fastening of a back-board (not shown) of the drawer 1.

[0013] With reference to Figures 1 and 2 the frame 6 has a support area for the buckets 7. This support area is defined by the upper face of the bars 11, by the upper face of a bar 33 parallel to the bodies 8 and which connects the centerlines of the bars 11 and by the upper face of a portion 34 which extends from the wall of the body

8 facing the other body 8. The buckets 7 have an upper edge 35 folded towards the outside by way of which each bucket 7 rests on the upper face of the corresponding area of the bars 11, of the bar 33 and of the portion 34.

[0014] From that described above the advantages of the embodiment of the present innovation become evident and numerous.

[0015] In particular a drawer 1 is obtained which has a cover system of the guides 5 not only easy to assemble but also provided with simple fastening means and with means for adjusting the position of the tab 22 with respect to the tab 21 that allows to obtain a cover adaptable to dimensions of the guide 5 which may be different from cabinet maker to cabinet maker as already mentioned. The cover system, besides an aesthetic function, protects the guides 5 from the collection of dust or anything else that could affect the sliding quality of the drawer 1. Moreover, the drawer 1 has means for fastening the bodies 8 and the bars 11 one to the other that are also means for adjusting the distance between the bodies 8 so as to adapt to the width of the compartment 2 and to the dimensions of the guides 5. It should be noted that the adjustment is made using simple screws 15 screwed from above and overall without disassembling the various parts of the drawer 1.

Claims

1. A drawer for separate waste collection to be installed inside a compartment (2) made in a cabinet (3) and delimited by two side walls (4) that support a respective guide (5) along which a frame (6) that supports a plurality of waste holding buckets (7) slides, wherein said frame (6) has a rectangular perimeter development and comprises two lateral elongated bodies (8) parallel to each other and two bars (11) parallel to each other which connect to one another the longitudinal ends of said bodies (8); each of said bodies (8) having a covering member (21 and 22) of the corresponding said guide (5); wherein said covering member (21 and 22) comprises a first tab (21) of substantially the same length as said body (8) and when installed inside said compartment extending in a horizontal plane towards the corresponding said side wall (4) of said compartment (2); a second tab (22) shaped as an inverted L, of substantially the same length as said first tab (21) and having a first portion (23) defined in a horizontal plane which in use is inserted between said first tab (21) and the top part of said guide (5) and a second portion (24) defined in a vertical plane and that laterally covers the upper part of said guide (5); the drawer being **characterized by** comprising fastening means between said tabs (21 and 22) constituted by at least one knurled area (25) defined on the upper face of said first portion (23) and at least one tooth (26) that extends from

the lower face of said first tab (21) and which engages with its tip a region of said knurled area (25); said fastening means between said tabs (21 and 22) allowing the position adjustment of said second tab (22) with respect to said first tab (21) so as to adjust the covering area of said guide (5) as a function of the size thereof.

2. The drawer according to claim 1 **characterized in that** on the face of each of said bodies (8) facing the corresponding face of the other said body (8), at least at one longitudinal end, extends towards the other said body (8) a corresponding sleeve (12) adapted to house the longitudinal end of the corresponding said bar (11).
3. The drawer according to claim 2 **characterized by** comprising means for adjusting the distance between said bodies (8).
4. The drawer according to claim 2 and/or 3 **characterized by** comprising fastening means between said bodies (8) and said bars (11).
5. The drawer according to claims 2 to 4 **characterized in that** said adjusting means and said fastening means comprise:

a threaded hole (14) formed at the longitudinal end of each of said bars (11) housed inside the corresponding said sleeve (12);
 a through slot (13) formed in correspondence to the upper wall of said sleeve (12); and
 a screw (15) that through said slot (13) is screwed into said hole (14).

Patentansprüche

1. Schublade für getrennte Abfallsammlung, die im Inneren eines Abteils (2) zu installieren ist, das in einem Schrank (3) ausgebildet ist und von zwei Seitenwänden (4) begrenzt ist, welche jeweilige Führungen (5) tragen, längs welcher ein Rahmen (6) gleitet, der eine Vielzahl von Abfallaufnahmebehältern (7) trägt, wobei der Rahmen (6) eine rechteckige Umfangsentwicklung besitzt und zwei seitliche langgestreckte Körper (8) parallel zueinander sowie zwei Stangen (11) parallel zueinander aufweist, welche die längsseitigen Enden der Körper (8) miteinander verbinden; wobei jeder der Körper (8) ein Abdeckelement (21 und 22) der entsprechenden Führung (5) aufweist; wobei das Abdeckelement (21 und 22) eine erste Zunge (21) von im Wesentlichen der gleichen Länge wie der Körper (8) aufweist, die sich in einer horizontalen Ebene zu der entsprechenden Seitenwand (4) des Abteils (2) erstreckt, sowie eine zweite Zunge (22) aufweist, die in Form eines umgekehrten

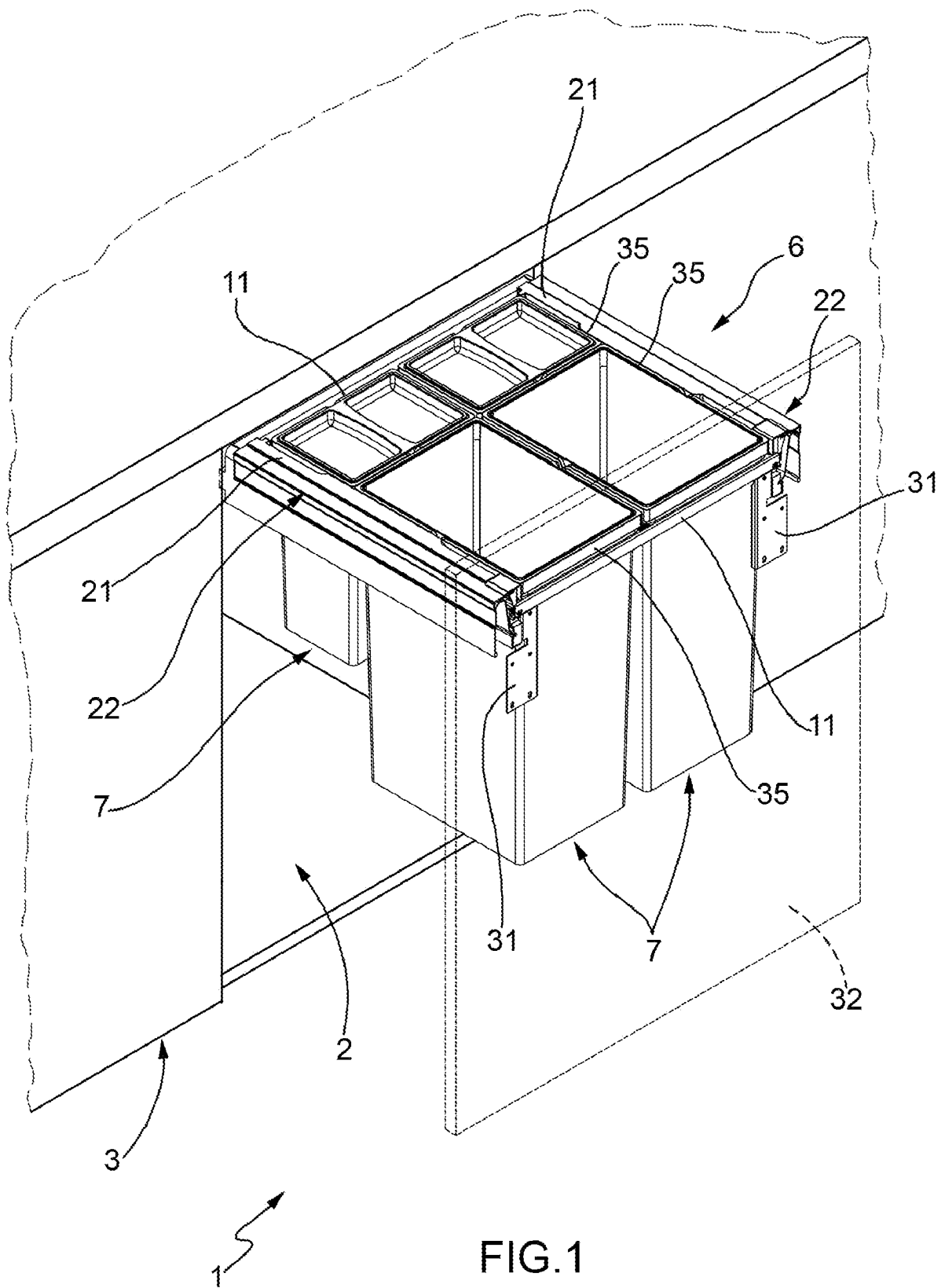
L ausgebildet ist und im Wesentlichen die gleiche Länge wie die erste Zunge (21) besitzt sowie einen ersten Bereich (23), der in einer horizontalen Ebene ausgebildet ist, welcher im Betrieb zwischen der ersten Zunge (21) und dem oberen Bereich der Führung (5) eingesetzt ist, sowie einen zweiten Bereich (24) aufweist, der in einer vertikalen Ebene ausgebildet ist und der seitlich den oberen Bereich der Führung (5) bedeckt,

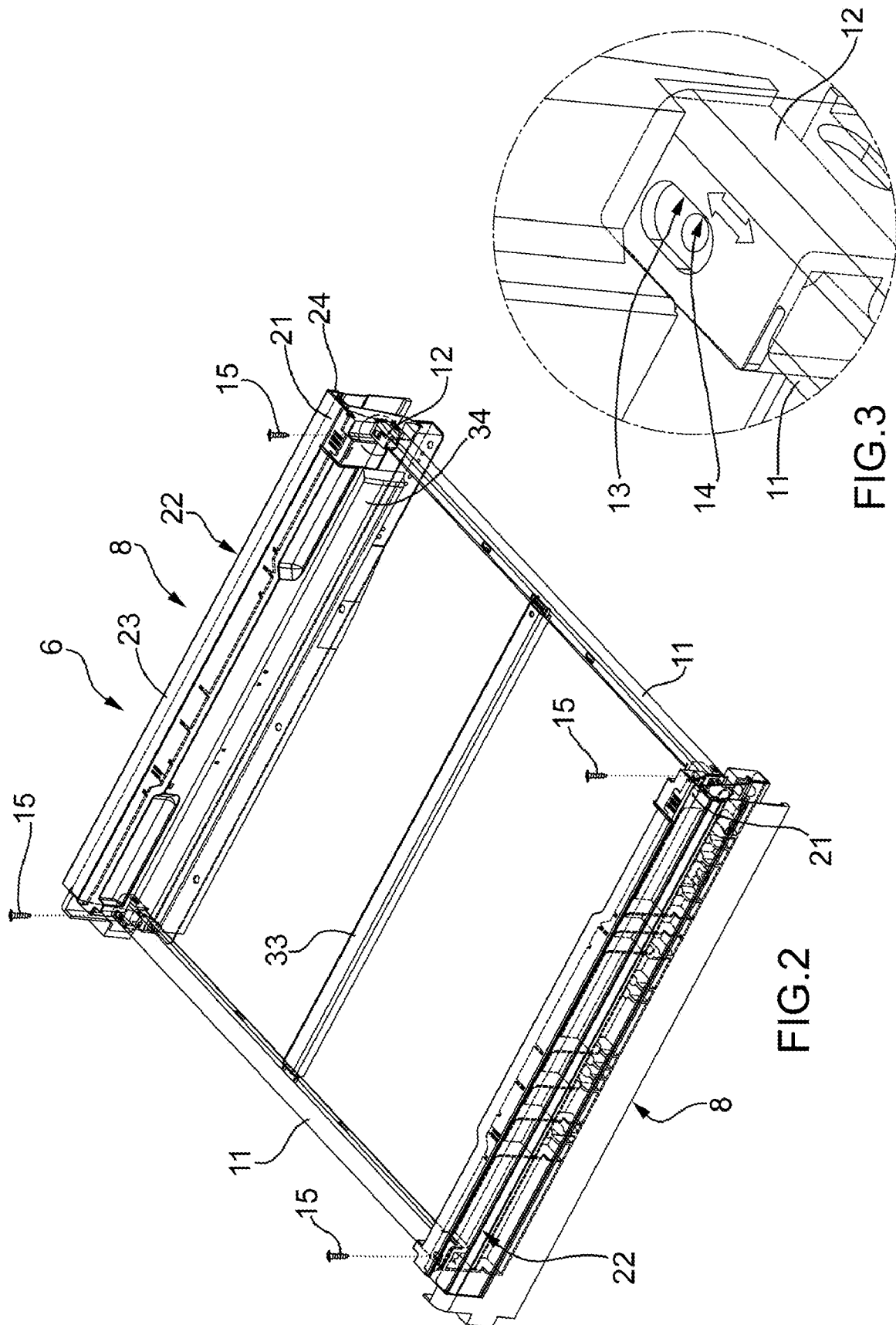
wobei die Schublade **dadurch gekennzeichnet ist, dass** sie Befestigungseinrichtungen zwischen den Zungen (21 und 22) aufweist, die von mindestens einem gerändelten Bereich (25), der an der Oberseite des ersten Bereichs (23) ausgebildet ist, sowie mindestens einem Zahn (26) gebildet ist, der sich von der Unterseite der ersten Zunge (21) aus erstreckt und mit seiner Spitze mit einem Bereich des gerändelten Bereichs (25) in Eingriff steht, wobei die Befestigungseinrichtungen zwischen den Zungen (21 und 22) eine positionsmäßige Einstellung der zweiten Zunge (22) bezüglich der ersten Zunge (21) ermöglichen, um den Abdeckungsbereich der Führung (5) als Funktion ihrer Größe einzustellen.

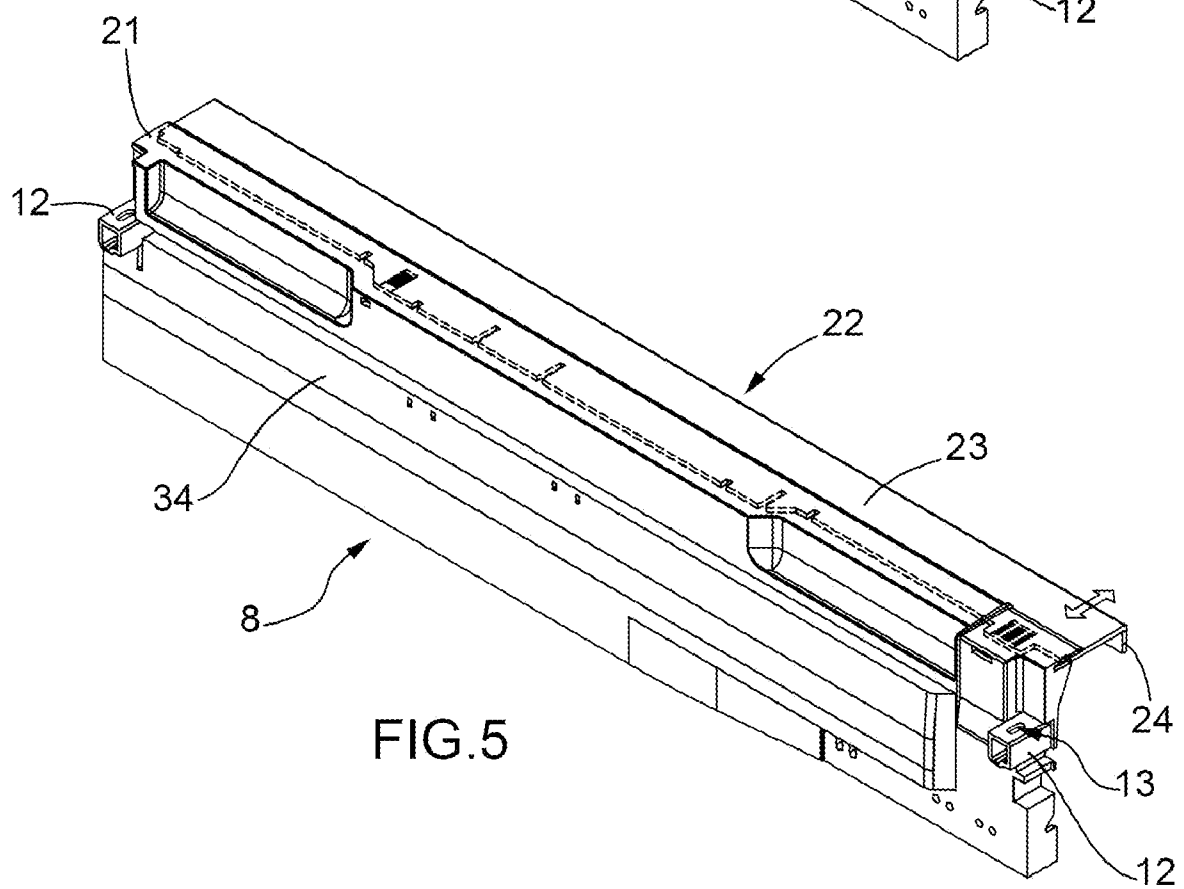
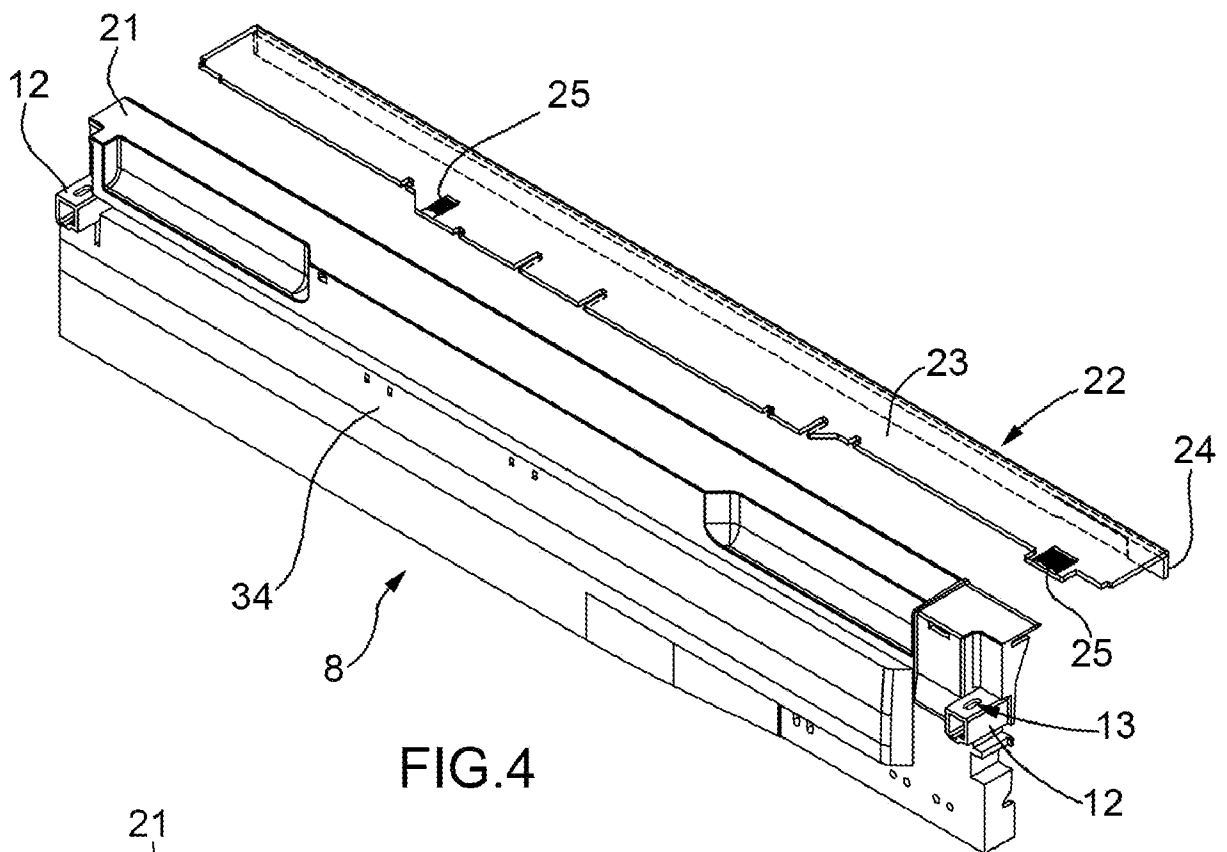
2. Schublade nach Anspruch 1, **dadurch gekennzeichnet, dass** auf der Seite von jedem der Körper (8), die der entsprechenden Seite des anderen Körpers (8) gegenüberliegt, zumindest an einem längsseitigen Ende sich eine entsprechende Buchse (12) zu dem anderen Körper (8) hin erstreckt, wobei die Buchse dazu ausgelegt ist, das längsseitige Ende der entsprechenden Stange (11) aufzunehmen.
3. Schublade nach Anspruch 2, **dadurch gekennzeichnet, dass** sie eine Einrichtung zum Einstellen des Abstands zwischen den Körpern (8) aufweist.
4. Schublade nach Anspruch 2 und/oder 3, **dadurch gekennzeichnet, dass** sie eine Befestigungseinrichtung zwischen den Körpern (8) und den Stangen (11) aufweist.
5. Schublade nach den Ansprüchen 2 bis 4, **dadurch gekennzeichnet, dass** die Einstelleinrichtung und die Befestigungseinrichtung Folgendes aufweisen:
 - ein Gewindeloch (14), das an dem längsseitigen Ende von jeder der Stangen (11) ausgebildet ist, die im Inneren der entsprechenden Buchse (12) aufgenommen ist;
 - einen Durchgangsschlitz (13), der in Entsprechung zu der oberen Wand der Buchse (12) ausgebildet ist; und
 - eine Schraube (15), welche durch den Schlitz (13) in das Loch (14) eingeschraubt ist.

Revendications

1. Tiroir de collecte de déchets séparée devant être installé à l'intérieur d'un compartiment (2) réalisé dans un meuble (3) et délimité par deux parois latérales (4) qui supportent un guide respectif (5) le long duquel une armature (6) qui supporte une pluralité de godets contenant des déchets (7) coulisse, dans lequel ladite armature (6) a un développement de périmètre rectangulaire et comprend deux corps allongés latéraux (8) parallèles l'un à l'autre et deux barres (11) parallèles l'une à l'autre qui se connectent à une autre des extrémités longitudinales desdits corps (8), chacun desdits corps (8) ayant un élément de recouvrement (21 et 22) dudit guide (5) correspondant, dans lequel ledit élément de recouvrement (21 et 22) comprend une première patte (21) de globalement la même longueur que ledit corps (8) et lorsqu'elle est installée à l'intérieur dudit compartiment s'étendant dans un plan horizontal en direction de ladite paroi latérale (4) correspondante dudit compartiment (2), une deuxième patte (22) en forme de L inversé, de globalement la même longueur que ladite première patte (21) et ayant une première partie (23) définie dans un plan horizontal qui en utilisation est insérée entre ladite première patte (21) et la partie supérieure dudit guide (5) et une deuxième partie (24) définie dans un plan vertical et qui recouvre latéralement la partie supérieure dudit guide (5), le tiroir étant **caractérisé par** le fait de comprendre un moyen de fixation entre lesdites pattes (21 et 22) constitué par au moins une zone moletée (25) définie sur la face supérieure de ladite première partie (23) et au moins une dent (26) qui s'étend à partir de la face inférieure de ladite première patte (21) et qui engage avec son extrémité une région de ladite zone moletée (25), ledit moyen de fixation entre lesdites pattes (21 et 22) permettant l'ajustement de position de ladite deuxième patte (22) par rapport à ladite première patte (21) de manière à ajuster la zone de recouvrement dudit guide (5) en fonction de la taille de celui-ci.
2. Tiroir selon la revendication 1 **caractérisé en ce que** sur la face de chacun desdits corps (8) orientée vers la face correspondante dudit autre corps (8), au niveau d'au moins une extrémité longitudinale, s'étend en direction de l'autre dit corps (8) un manchon correspondant (12) destiné à recevoir l'extrémité longitudinale de ladite barre correspondante (11).
3. Tiroir selon la revendication 2 **caractérisé par** le fait de comprendre un moyen destiné à ajuster la distance entre lesdits corps (8).
4. Tiroir selon la revendication 2 et/ou 3 **caractérisé par** le fait de comprendre un moyen de fixation entre lesdits corps (8) et lesdites barres (11).
5. Tiroir selon les revendications 2 à 4 **caractérisé en ce que** ledit moyen d'ajustement et ledit moyen de fixation comprennent :
 - un trou fileté (14) formé au niveau de l'extrémité longitudinale de chacune desdites barres (11) reçue à l'intérieur dudit manchon (12) correspondant,
 - une encoche traversante (13) formée en correspondance avec la paroi supérieure dudit manchon (12), et
 - une vis (15) qui à travers ladite encoche (13) est vissée dans ledit trou (14).







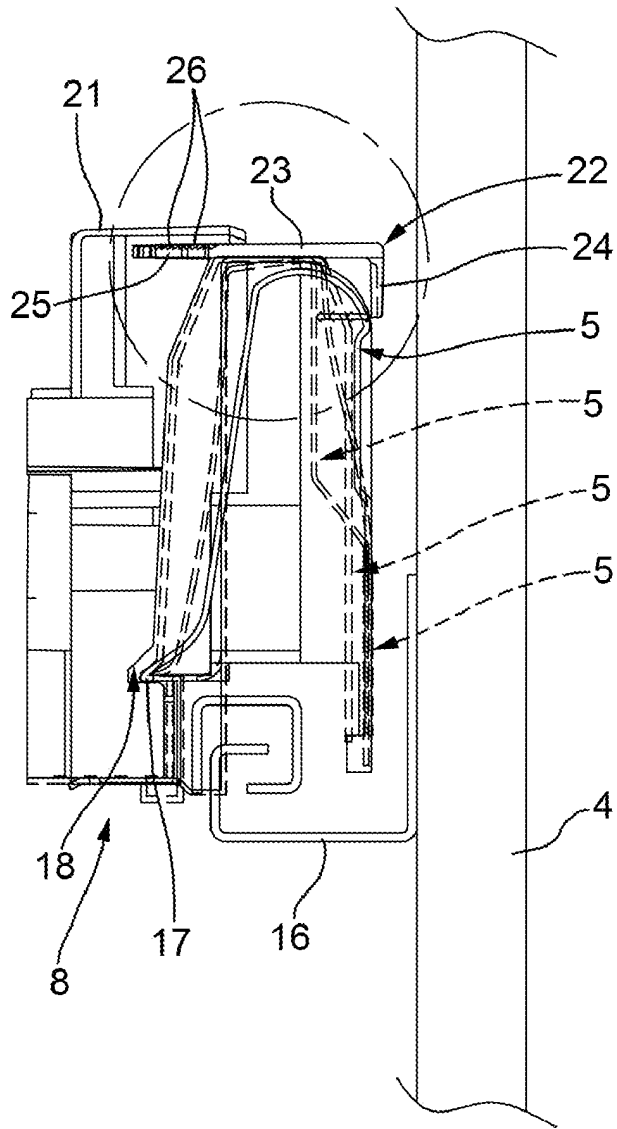


FIG. 6

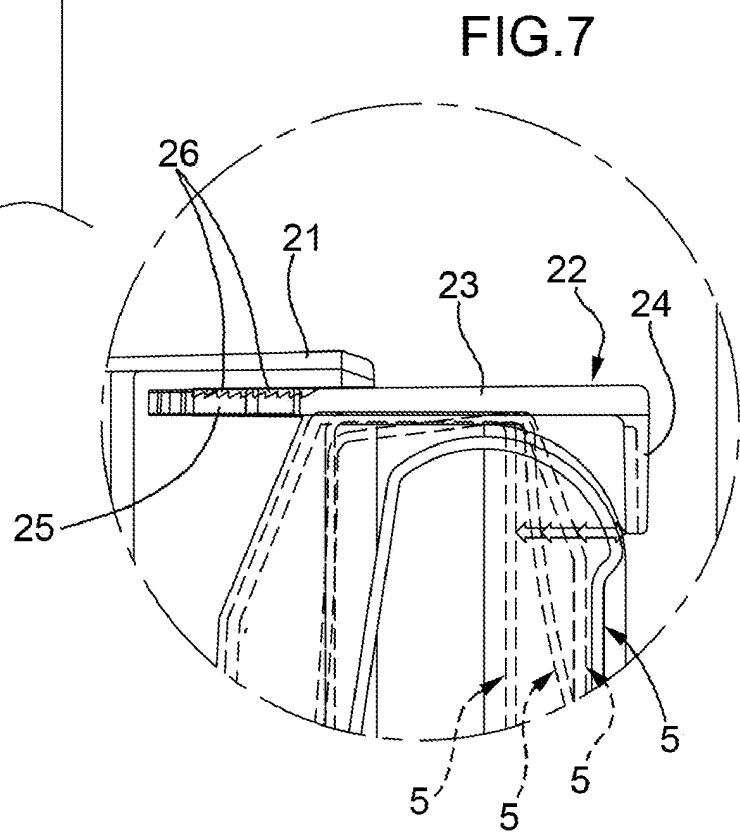


FIG. 7

REFERENCES CITED IN THE DESCRIPTION

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