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(54) **Separator element for shelving and the like**

(57) There is provided a separator element (1) for shelving (10) and the like including at least one shelf (11) having a metal supporting surface (12), the separator element (1) extending prevalently along a plane (1a), and being suitable to be placed on the supporting surface

(12) so that the prevalent extension plane (1a) thereof is substantially perpendicular to this supporting surface (12), the separator element being provided with magnetic coupling means (2), suitable to constrain the element (1) to the supporting surface (12).

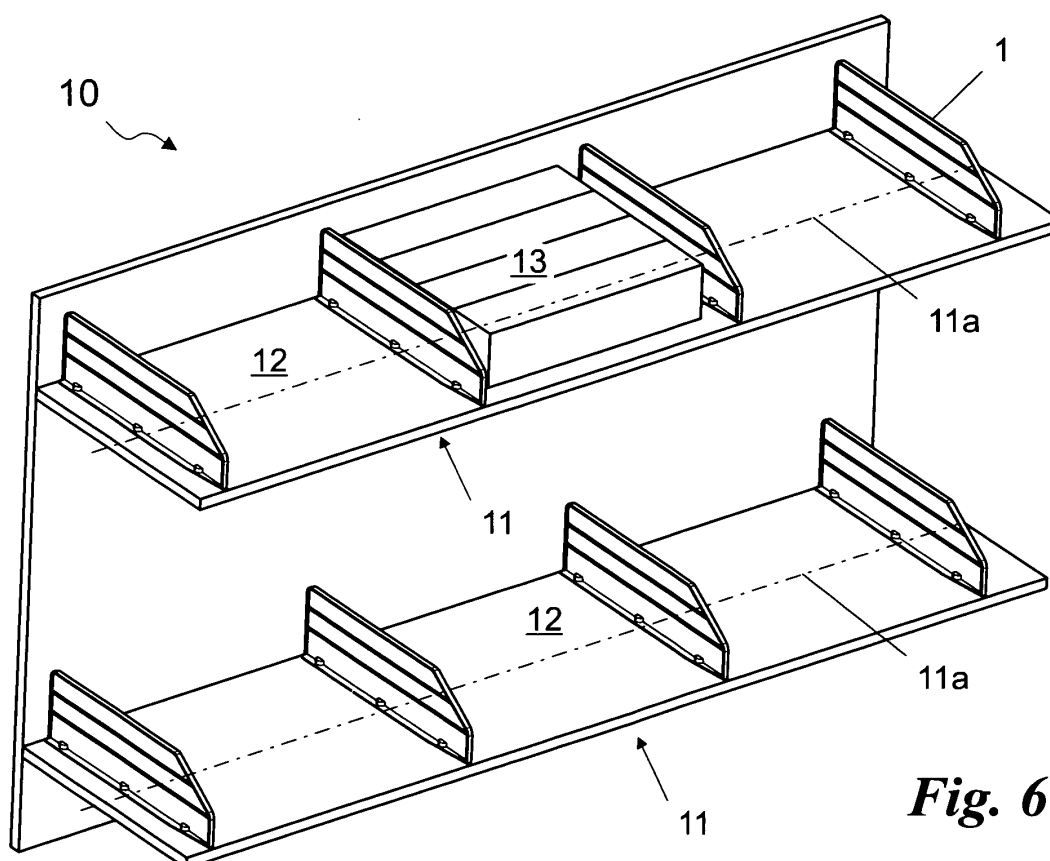


Fig. 6

Description

[0001] The present invention relates to separator element for shelving and the like of the type specified in the preamble of claim 1.

[0002] There are currently known separator elements for shelving and in particular for display units positioned in supermarkets or in stores in general.

[0003] These are realized by a plurality of shelves disposed parallel in a substantially horizontal direction.

[0004] These shelves are also divided, along their extension plane, by specific separator elements suitable to allow improved positioning of the goods on these shelves or to allow positioning of different products in differentiated areas.

[0005] The separator elements therefore extend in vertical direction and are preferably perpendicular to the main direction of extension of said shelves.

[0006] They are constrained to the shelves by means of specific mechanical coupling elements, such as connectors, screws or specific tracks.

[0007] These coupling elements usually provide male coupling elements provided in the separator elements and female coupling elements provided on the shelves.

[0008] The aforesaid prior art presents some important drawbacks.

[0009] In fact, it is necessary to provide specific couplings for the separator elements on the shelving, and in particular on the shelves.

[0010] Consequently, the separator elements can only be disposed in predetermined positions. Therefore, it is not possible to divide the space on shelves arbitrarily.

[0011] Moreover, the coupling elements disposed on the shelving do not usually have a pleasant appearance and thus reduce the aesthetic appeal of this shelving.

[0012] A further drawback is realized by the fact that dirt and germs can accumulate inside the coupling elements, in particular the female coupling elements, and therefore their hygiene is not optimal.

[0013] Last but not least drawback is realized by the fact that the coupling elements can become ruined or break and are thus subject to maintenance costs.

[0014] In this situation the technical aim of the present invention is to devise a separator element for shelving and the like substantially capable of overcoming the aforesaid drawbacks.

[0015] Within said technical aim, an important object of the invention is to obtain a separator element for shelves and the like which can be easily disposed on the shelving in an arbitrary position.

[0016] Another important object of the invention is to produce a separator element which makes it possible to obtain an improved finish and greater aesthetic prestige of this shelving.

[0017] Yet another object is to devise a separator element for shelving which makes it possible to obtain optimal hygiene and cleaning thereof.

[0018] Last but not least object of the invention is to

devise a separator element for shelving which is economical and substantially not subject to breakage.

[0019] The technical aim and the objects specified are achieved by a separator element for shelving and the like as described in claim 1

[0020] The attached drawings illustrate by way of example preferred embodiments of the invention. In particular:

Fig. 1 shows an axonometric view of the separator element according to the invention;

Fig. 2 shows a side view of the separator element according to the invention;

Fig. 3 shows a top view of the separator element according to the invention;

Fig. 4 shows a front view of this separator element;

Fig. 5 is the section V-V, indicate in Fig. 2; and

Fig. 6 shows a shelving including a plurality of separator elements according to the invention.

[0021] With reference to the Figures, the separator element according to the invention is indicated as a whole with the number **1**.

[0022] It is suitable to be placed on shelving **10**, in particular on display units for supermarkets or similar stores, or in general on all shelving and shelves, to divide them into several portions.

[0023] The shelving **10** comprises at least one shelf **11**, preferably flat, disposed in a direction proximal to the horizontal direction and having a prevalent direction of extension **11a** parallel to the main extension plane of the shelving **10**.

[0024] Each shelf **11** defines a supporting surface **12**, which comprises a metal surface. These surfaces **12** are preferably horizontal or, alternatively, may be slightly inclined from the inside of the shelving **10** toward the outside so as to make the objects **13** contained slide to the outermost part of the shelves. These are appropriately made of ferrous material and can be covered by means of painting or various thin coatings.

[0025] The separator element **1** extends prevalently along a plane **1a** and advantageously comprises magnetic coupling means **2**, suitable to constrain the element **1** to the supporting surface **12**.

[0026] It is preferably produced in nonmagnetic and polymer material, more preferably chosen from Polypropylene, Polyethylene, Polycarbonate, Polystyrene and ABS.

[0027] Moreover, it is appropriately produced in transparent material to improve the visibility of products contained in the shelving, but can also be coloured to allow coding, using the same colours, of departments or of products.

[0028] Along the plane **1a** the element **1** preferably has a rectangular surface with the upper front corner bevelled, as shown in the accompanying figures.

[0029] It then comprises a base **3** which extends in a direction perpendicular to the plane **1a** on which seats **4**

are produced for the magnetic coupling means 2.

[0030] These magnetic coupling means 2 are preferably disk-shaped and realized by permanent magnets. The seats 4 are therefore counter-shaped to these and allow direct contact between the magnets and the surface 12, as shown in Fig. 5.

[0031] In particular, three seats 4, for magnetic coupling means 2 can be present, realized by three permanent magnets.

[0032] Finally, the magnetic means 2 are constrained to the specific seats 4 by connectors or by gluing.

[0033] The separator element 1 also preferably comprises an edging 5, which surrounds the profile thereof and some ribs 6 suitable to stiffen the central part of the element 1.

[0034] The dimensions of the element 1 can vary in relation to the dimensions of the shelves 12 and of the position of these elements 1.

[0035] Use of the separator elements 1, the structure of which is described above, is as follows.

[0036] The elements 1 are placed in an appropriate position on the shelving 10 or the like, as shown in Fig. 6.

[0037] These are placed on said shelves 11 so that their prevalent extension plane 1 a is substantially perpendicular to the supporting surface 12.

[0038] In particular, the elements 1 are disposed perpendicular to the prevalent direction of extension 11 a of the shelves 11.

[0039] The element 1 is constrained directly to the metal surface 12, by means of the force of attraction that is created between the magnetic coupling means 2 and the metal surface 12. It is therefore sufficient to position the Separator elements 1 on the shelves to secure them.

[0040] The base 3 also ensures stable balance of the element 1.

[0041] Therefore, further couplings or connection means are unnecessary.

[0042] The elements 1 can then be removed or moved simply by exerting a force in the direction to move the element 1 away from the surface 12.

[0043] A plurality of separator elements 1 can also be positioned in different positions to those shown.

[0044] The invention achieves important advantages.

[0045] In fact, the element 1 allows rapid assembly and disassembly of the shelves 12, as the separator elements 1 can be coupled and released rapidly and it can be removed and repositioned simply by operators during placing of products and changing their layout on shelves. Therefore, it allows a considerable saving of labour times.

[0046] For example, the elements 1 can be released during cleaning of the shelves 10, so as to obtain improved hygiene of the goods.

[0047] Moreover, the element 1 can be assembled in any position on the shelves 10, and not only in specific positions. This allows the appearance and organization of these shelves to be improved.

[0048] Moreover, no unsightly couplings are required on the shelves 11 and on the surfaces 10 as, in fact, a

flat metal surface is sufficient to allow the elements 1 to be correctly constrained.

[0049] Last but not least advantage is given by the fact that the coupling means 2 do not comprise mechanical connectors subject to breakage or wear. The elements 1 are therefore economical and require no maintenance.

[0050] The invention is susceptible to modifications and variants falling within the inventive concept.

[0051] All details can be replaced by equivalent elements and the materials, shapes and dimensions can be any.

Claims

1. Separator element (1) for shelving (10) and the like including at least one shelf (11) comprising a metal supporting surface (12), said separator element (1) extending prevalently along a plane (1 a) and being suitable to be placed on said supporting surface (12) so that said prevalent extension plane (1a) is substantially perpendicular to said supporting surface (12) and **characterized in that** it comprises: magnetic coupling means (2), suitable to constrain said element (1) to said supporting surface (12).
2. Separator element (1) according to Claim 1, wherein said magnetic coupling means (2) are realized by permanent magnets.
3. Separator element (1) according to Claim 2, wherein said permanent magnets are disk-shaped and are preferably three in number.
4. Separator element (1) according to one or more of the preceding claims, including seats (4) for said magnetic coupling means (2).
5. Separator element (1) according to one or more of the preceding claims, comprising a base (3) extending in a direction perpendicular to said prevalent extension plane (1a).
6. Separator element (1) according to one or more of the preceding claims, produced in transparent polymer material.
7. Shelving (10) including at least one shelf (11) having a metal supporting surface (12) and comprising at least one separator element (1) according to one or more of the preceding claims.
8. Shelving (10) according to Claim 7, realized by a display unit for supermarkets.
9. Separator element (1) **characterized in that** it comprises any combination of the new technical solutions described and claimed.

10. Shelving (10) **characterized in that** it comprises any combination of the new technical solutions described and claimed.

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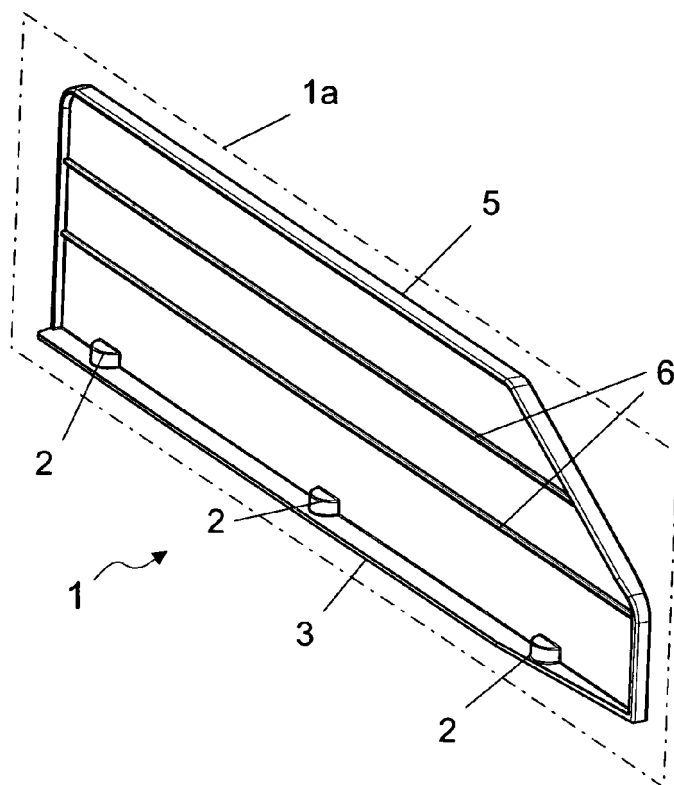


Fig. 1

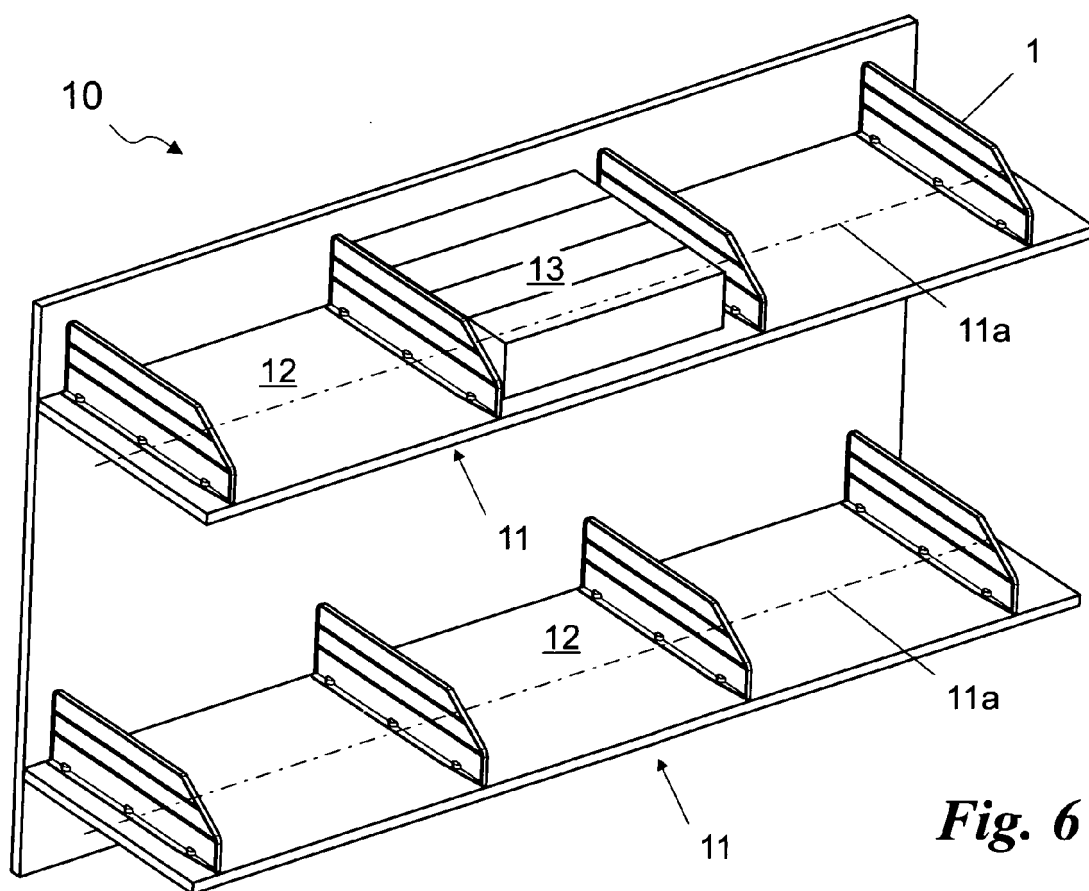


Fig. 6

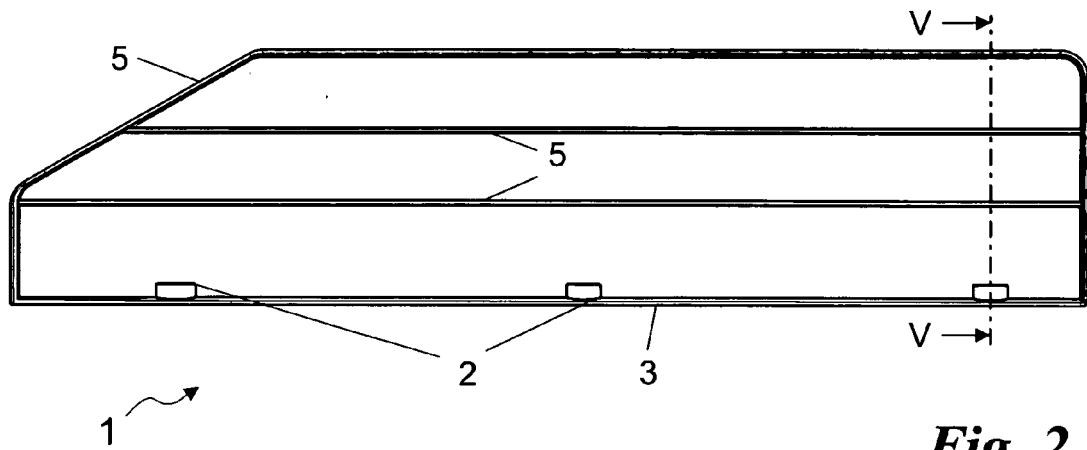


Fig. 2

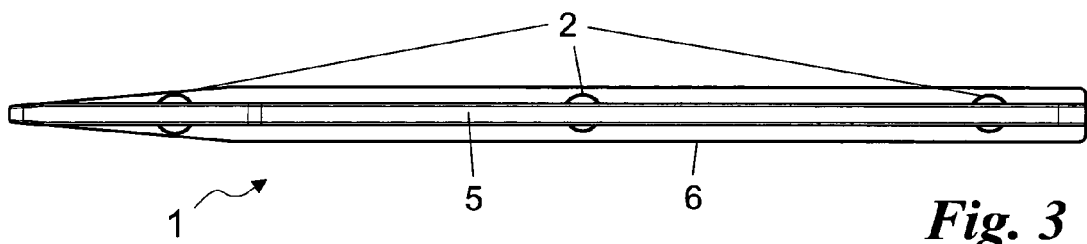


Fig. 3

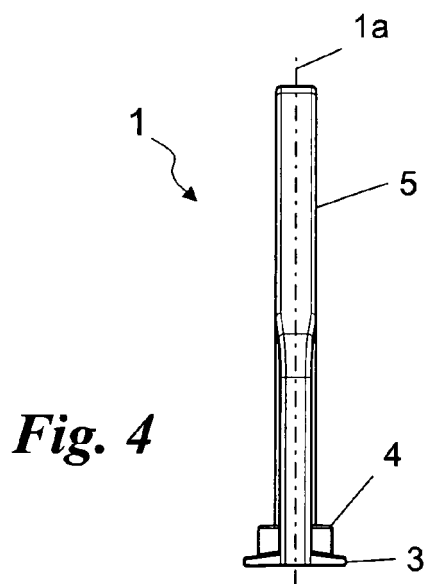


Fig. 4

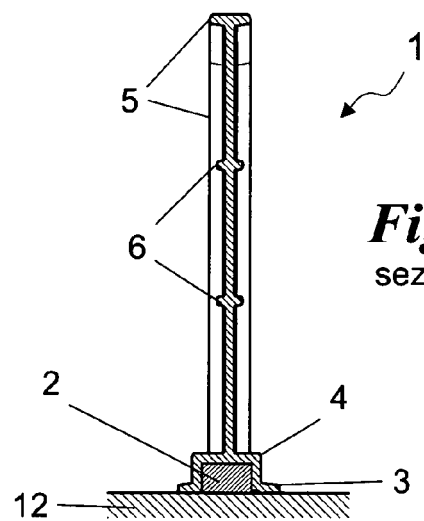


Fig. 5
sez. V-V



EUROPEAN SEARCH REPORT

Application Number
EP 09 00 1494

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 94 07 350 U1 (DOTZAUER HEINZ [DE]) 28 July 1994 (1994-07-28) * page 1, column 2; figures 1,2 *	1-10	INV. A47F5/00
X	US 4 905 847 A (HANSON CHARLES G [US]) 6 March 1990 (1990-03-06) * column 2, line 39 - column 4, line 32; figures 1-7 *	1-10	
X	WO 2005/065058 A2 (KIM GWAN-YONG [KR]) 21 July 2005 (2005-07-21) * page 8, line 23 - page 18, line 24; figures 1-11 *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 3 June 2009	Examiner Klintebäck, Daniel
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 09 00 1494

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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03-06-2009

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US 4905847	A	06-03-1990	NONE	
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