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## (54) Counter module for newsstands, tobacco shops, stationery shops, and the like

(57) The counter module (10) comprises a bottom base (12) and a peripheral wall (16) which rises horn the periphery of the bottom base (12) and has two opposite, closed side faces (16a,16b), a rear face (16c) and an open, front face (16d). A cover (18) closes the upper end of the peripheral wall (16). The peripheral wall (16) is made of a steel sheet Each of the lateral edges which laterally bound the open front face (16d) of the module is bent inwards and has a plurality of cuts (23) at different heights for supporting a shelf at its front end, which co-operate with rear supporting means for the shelf (24,26).

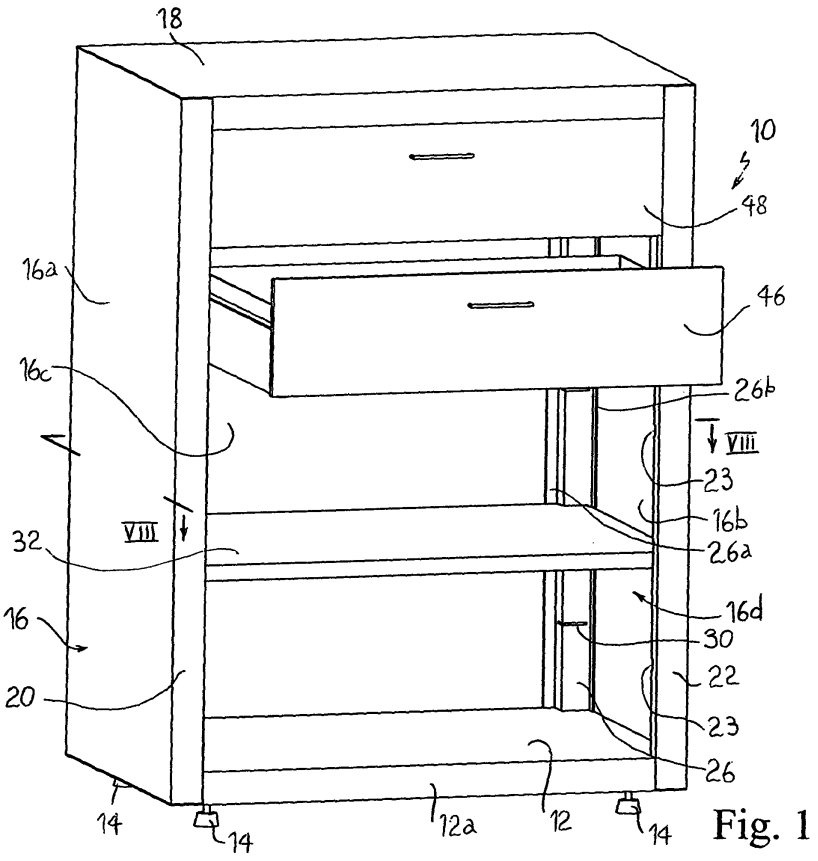


Fig. 1

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## Description

**[0001]** The present invention relates to a counter module for shops such as newsstands, tobacco shops, stationery shops, and the like.

**[0002]** As known, counters are installed in shops such as the above-mentioned ones for separating the area occupied by the dealer from the area occupied by the customers. A counter consists of a plurality of counter modules which are arranged side-by-side and are bolted to one another, with a top applied on top of them.

**[0003]** A conventional counter module is made of wood or other wood-based material having properties similar to wood, and is typically box-shaped with a surface facing the area occupied by the dealer, which is open and is provided with shelves and/or drawers on which the dealer can arrange goods, and a closed, opposite surface facing the area occupied by the customers.

**[0004]** It is a main object of the present invention to provide a counter module having a higher flexibility and a higher adaptability with respect to the above-mentioned, conventional counter modules, and whose configuration can be changed easily and quickly without requiring any auxiliary equipment

**[0005]** Furthermore, the counter modules made of wood are liable to become unsteady after repeated assemblying/disassembling operations, due to the compliance of the wooden material of which they are made. This circumstance affects the effectiveness and the operation of any movable parts of the counter module, such as drawers, shutters, and the like.

**[0006]** Therefore, it is another object of the invention to increase the sturdiness and the steadiness of the counter module so that its movable parts preserve their effectiveness even after a number of assemblying/disassembling operations.

**[0007]** It is a further object of the invention to provide a counter module having relatively low manufacturing costs.

**[0008]** The above objects and other advantages, which will better appear from the following description, are achieved by the counter module having the features recited in claim 1, while the dependent claims state other advantageous, though secondary features of the invention.

**[0009]** The invention will be now described in more detail, with reference to a few preferred, non-exclusive embodiments, shown by way of non-limiting example in the attached drawings, wherein:

Fig. 1 is a perspective view of a counter module according to the invention;

Fig. 2 is a diagrammatical view in horizontal, cross-section of the peripheral wall of the counter module according to the invention;

Fig. 3 is a perspective view showing a first, isolated part of the counter module of Fig. 1;

Fig. 4 is a broken-away, perspective view of an upper portion of the counter module of Fig. 1, in which some parts have been removed for better clarity of illustration;

Fig. 5 is a perspective view showing a second, isolated part of the counter module of Fig. 1;

Fig. 6 is a broken-away, front view to an enlarged scale of a detail of the counter module of Fig. 1;

Fig. 7 is a perspective, rear view of a lower portion of the counter module of Fig. 1;

Fig. 8 is view in horizontal cross-section made along plane VIII-VIII of a detail of the counter module of Fig. 1;

Fig. 9 is a perspective, rear view of the counter module according to an alternative embodiment of the invention;

Fig. 10 is a perspective rear view of the counter module according to another alternative embodiment of the invention;

Fig. 11 is a perspective view showing a third, isolated part of the counter module according to a further alternative embodiment of the invention.

**[0010]** With initial reference to Fig. 1, a counter module 10 has a rectengular bottom base 12 made of a steel sheet and supported on four adjustable feet such as 14. The bottom base is surrounded by a peripheral wall 16 made of a steel sheet, which consists of two closed, opposite side walls 16a, 16b, a closed rear wall 16c facing the area of the shop which is occupied by the customers, and an open front face 16d facing the area occupied by the dealer, through which the dealer may access to the inside of the module. Bottom base 12 has an edge 12b projecting at right angles downwards at the open side of the counter. The counter module is closed at its upper end by a rectangular cover 18 made of a steel sheet, which also has an edge 18a projecting at right angles downwards at the open side of the counter.

**[0011]** Having now particular reference to Fig. 2, peripheral wall 16 of the counter module consists of a steel sheet which is bent at right angles along two vertical lines defining the rear corners S1, S2 of the counter module. Each of the lateral edges of the steel sheet is bent at right angles three times along respective three subsequent vertical lines L1, L2, L3 and L1', L2', L3', thereby defining two hollow uprights 20, 22 which laterally bound the open, front face 16d of the counter module. A plurality of rectangular cuts 23 (see also Fig. 8) are formed along uprights 20, 22, which mainly engage the innermost side of

the upright, i.e., the last portion of the edge of the steel sheet between line L3, L3' and the border.

**[0012]** Each of the rear corners of the counter module has a steel strip welded internally thereto, which is axially bent at right angles in the opposite direction with respect to the corresponding corner (see also Figs. 7, 8) so that a column 24, 26 is defined. The opposite longitudinal edges 24a, 24b and 26a, 26b of the strip are bent at right angles outwards and are welded to the rear wall 16c and to the adjacent, side wall 16a,16b of the counter module respectively. A plurality of horizontal slots such as 30 are formed along the columns. The slots are aligned to the cuts 23 in the uprights and partially cut both the sides of the column.

**[0013]** A shelf 32 (separately shown in Fig. 3) is removably supported within the counter module. The shelf mainly consists of a substantially rectangular steel plate which has two lateral, stiffening ribs 32a, 32b which project downwards at right angles from its opposite, lateral edges and extend along the whole length of the edge except for short spans T1, T2 and T1', T2' at the opposite ends of the edge. A rear projection 32c projects from the rear end of the plate, extends along the whole length of the rear edge except for short spans T3, T4 at the ends of the edge, and has an end portion bent at right angles downwards for stiffening purposes. Accordingly, two flat tabs 34, 36 are defined between the rear projection 32c and the two lateral, stiffening ribs 32a, 32b, which are insertable into the horizontal slots 30 in columns 24, 26 to support the shelf at its rear end. A front projection 32d projects from the front end of the plate and extends along the whole length of the edge except for short spans T5, T6 at the ends of the edge. Front projection 32d is first bent at right angles downwards along a first line X1, and then is further bent at right angles inwards along two subsequent horizontal lines X2, X3. Two teeth 38, 40 project downstream from the front end of the plate near the opposite ends of front projection 32d. Accordingly, two toothed tabs 42, 44 are defined between front projection 32d and the two lateral, stiffening ribs 32a, 32b, which are restrainedly engageable into cuts 23 to support the shelf at its front end.

**[0014]** In order to remove the shelf, the front end of the shelf is lifted so that front toothed tabs 42, 44 are disengaged from the cuts 23, then the shelf is pulled towards the open, front face 16d of the module so that rear, flat tabs 34, 36 are disengaged from slots 30. To this purpose, the height of slots 30 preferably is such that the rear tabs are received in the slots with a loose fit.

**[0015]** Having now particular reference to Figs 4-6, two drawers 46, 48 having a rectangular profile are supported within counter module 10, each of which is provided with a front panel 52 (Fig. 5) with handle 54. Each of the opposite, lateral sides of the drawer has a guide welded thereto, which consists of a steel plate 56 welded to the lateral side of the drawer and having a lower edge 56a bent at right angles under the bottom of the drawer, and an upper, cantilever edge 56b bent at right angles outwards (Fig. 6). Each of the guides has a roller 58 hinged to its rear end. The drawer is supported within the counter module on a pair of tracks each consisting of a channel 60 arranged with the parallel sides of the C-shape projecting inwards. Channel 60 has a pin 62 welded near its rear end, which is received in a recess 63 formed in the corresponding column 24, 26 for supporting the channel at its rear end. Channel 60 has a flange 60a projecting upwards from its front end. The flange is fixed to a box 64, which is welded to the rear side of the corresponding upright 20, 22, by a screw 66 about which another roller 68 is hinged. When the drawer is inserted into the counter module, upper edge 56b of guide 56 lies on roller 68 hinged to the counter, while roller 58, which is hinged to the drawer, is slidably received between the parallel sides of channel 60, thereby preventing the drawer from tilting. Preferably, the drawer is sized in such a way that a gap is defined between the rear wall of the drawer and rear wall of the counter, for receiving wires supplying any accessory equipment associated to the counter module.

**[0016]** Fig. 9 shows an alternative embodiment of the invention, in which rear wall 116c of counter module 110 has a rectangular opening 180 provided with a wire net 182 which can be used for hanging goods-holding/magazine-holding brackets, and the like.

**[0017]** Fig. 10 shows another alternative embodiment of the invention, in which a box 284 made of a metal sheet is bolted to rear wall 216c of counter module 210. The box is supported on feet such as 285 and may support stands and/or general goods to be exhibited.

**[0018]** Fig. 11 shows a further alternative embodiment of the invention, in which the drawer is replaced by a wooden slidable shelf 386, e.g., for a computer keyboard. Slidable shelf 386 has a pair of guides 356 attached to its opposite sides, which are equal to the guides of the drawers and are slidable along the same tracks, so that no further description will be given about them.

**[0019]** As the person skilled in the art will easily understand, the counter module according to the invention may be manufactured at relatively low cost, because no accessory supporting element, such as pins, brackets, and the like, are required for supporting the shelves.

**[0020]** Moreover, the above-described supporting system with cuts 23 and slots 30 has the further advantage that the shelves can be easily removed and inserted again at different heigths without requiring accessory tools (screwdrivers, keys, etc.) and without affecting the outer surface of the counter module.

**[0021]** A few preferred embodiments of the invention have been described herein, but of course many changes may be made by a person skilled in the art within the scope of the claims. For example, the slots and the cuts by which the shelves are supported within the counter module may be replaced by other openings having different shapes. The front tabs and the rear tabs of the shelves may also be replaced by other projections made enbloc at the corners of the shelf. Of course, although a single counter module is shown in the above-described

embodiments, counters may be assembled in a shop in order to separe the area occupied by the dealer from the area occupied by the customers, by arranging a plurality of counter modules according to the invention side-by-side, with their lateral walls interconnected by bolts. The counter module can be conventionally lined, e.g., with wooden panels and with a top. Moreover, the counter module can have a higher/lower number of fixed shelves and/or slidable shelves and/or drawers with respect to the above-described embodiments, and it could even be provided with fixed shelves and movable shelves only, as well as with drawers only. In particular, box 64, which is welded to the rear side of upright 20, 22 and to which the tracks 60 supporting the drawer are attached, can be made longer or shorter depending on the number of drawers to be installed, or it could be made enbloc with the peripheral wall of the counter by thickening the uprights 20, 22 in the span between the bending lines L2, L3 and L2', L3' respectively.

## Claims

**1.** A counter module (10) for shops, comprising

- a bottom base (12),
- a peripheral wall (16) rising from the periphery of the bottom base (12) and consisting of two opposite, closed side walls (16a, 16b), a rear wall (16c) and an open, front face (16d),
- a cover (18) closing the upper end of said peripheral wall (12),

**characterized in that** said peripheral wall (16) is made of a steel sheet having two lateral edges which laterally bound said open front face (16d) of the module, are bent inwards and have a plurality of cuts (23) at different heigths for supporting a shelf near its front end, and **in that** it comprises rear supporting means for said shelf (24, 26).

**2.** The counter module of claim 1, **characterized in that** said rear supporting means for the shelf comprise two columns (24, 26) which are attached to the inside of the module between the rear wall (16c) and the two side walls (16a, 16b) respectively, and have slots (30) aligned to said cuts (23) for supporting the shelf near its rear end.

**3.** The counter module of claim 2, **characterized in that** each of said columns consists of a steel strip (24, 26), which is longitudinally bent at right angles and has two opposite longitudinal edges (24a, 24b and 26a, 26b) respectively welded to the rear wall (16c) and to the adjacent, side wall (16a, 16b) of the peripheral wall (16).

**4.** The counter module of claim 3, **characterized in that** each of said slots (30) partially engages both the sides of the steel strip.

**5.** The counter module of any of claims 2 to 4, **characterized in that** it comprises a shelf made of a steel sheet (32) and provided with front supporting projections (38, 40) which removably engage said cuts (23) and with rear supporting projections which removably engage said slots (30).

**6.** The counter module of claim 5, **characterized in that** said shelf (32) comprises a substantially rectangular steel plate, said rear supporting projections comprising two rear tabs (34, 36) at respective two rear corners of the plate, which are insertable into said slots (30), and said front supporting projections comprise two front tabs (42, 44) near respective two front corners of the plate, which are restrainedly engageable into said cuts (23).

**7.** The counter module of any of claims 1 to 6, **characterized in that** it comprises at least one slidable supporting member consisting of a drawer (46, 48) provided with lateral guides (56) at its opposite sides, which are slidably supported on respective tracks (60) attached to the inside of the module.

**8.** The counter module of any of claims 1 to 6, **characterized in that** it comprises at least one slidable supporting member consisting of a shelf (386) provided with lateral guides (356) at its opposite sides, which are slidably supported on respective tracks attached to the inside of the module.

**9.** The counter module of claim 7 or 8, **characterized in that** said guides each comprise a cantilever edge (56b) projecting from a respective side of the slidable supporting member, and a first roller (58) that is laterally hinged near the rear end of the slidable supporting member, and said tracks each comprise a channel (60) that is attached to the inside of a respective side wall of the module with the parallel sides of the C-shape projecting inwardly, a second roller (68) being hinged near the front face of the module for sustaining said cantilever edge (56b), said first roller (58) being slidably received between the parallel sides of said channel.

**10.** The counter module of claim 9, **characterized in that** said channel (60) has a pin (62) near its rear end, which is received in a recess (63) formed on a respective column (24, 26) for supporting the channel at its rear end.

**11.** The counter module of claim 9 or 10, **characterized in that** said channel (60) has a flange (60a) near its front end, which is attached to the corresponding side wall of the module by a screw (66) about which

said second roller (68) is hinged.

**12.** The counter module of any of claims 1 to 11, **characterized in that** the rear face (16c) of the module has a rectangular opening (180) provided with a wire net (182).

**13.** The counter module of any of claims 1 to 12, **characterized in that** a box (184) is anchored to the rear side of the module, which is lower than the module.

**14.** The counter module of claim 1, **characterized in that** each of said lateral edges of the steel sheet is bent at right angles inwardly along three subsequent vertical lines (L1, L2, L3; L1', L2', L3), said cuts being formed mainly in the last bent portion of the lateral edge.

**15.** The counter module of claim 1, **characterized in that** said peripheral wall (16) consists of a steel sheet bent at right angles along two vertical lines defining respective rear corners (S1, S2) of the module.

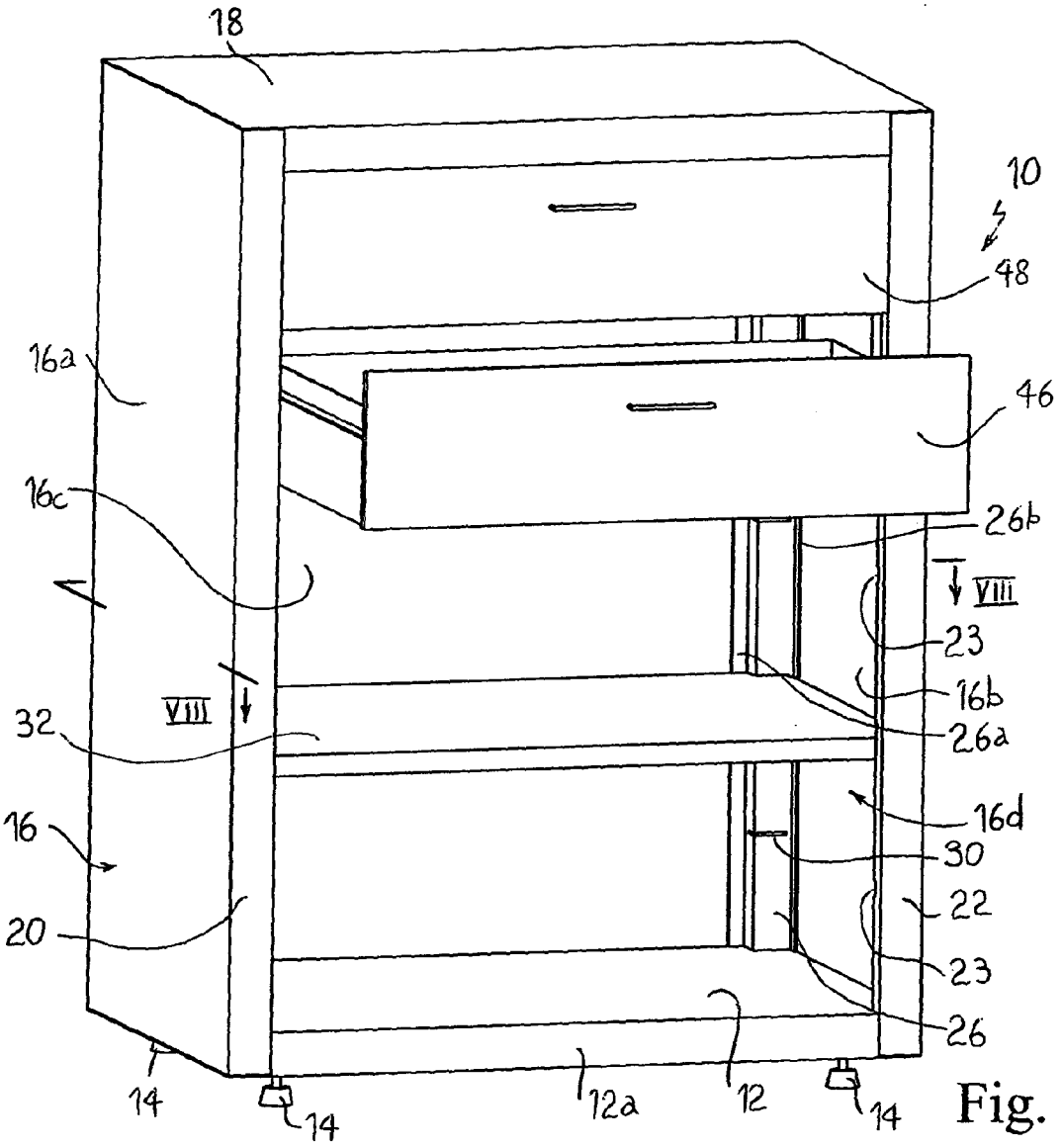

18
10
48
16a
46
16c
26b
VIII
23
16b
VIII
32
26a
16
16d
30
20
22
23
26
14
14
12a
12
14

Fig. 1

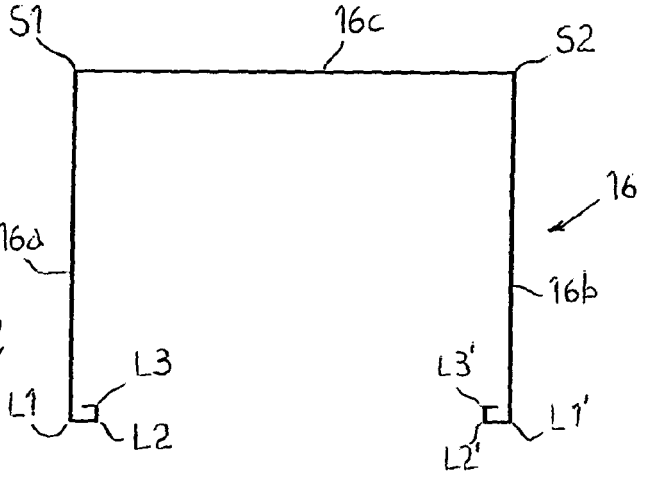

S1
16c
S2
16
16a
16b
L3
L1
L2
L3'
L1'
L2'

Fig. 2

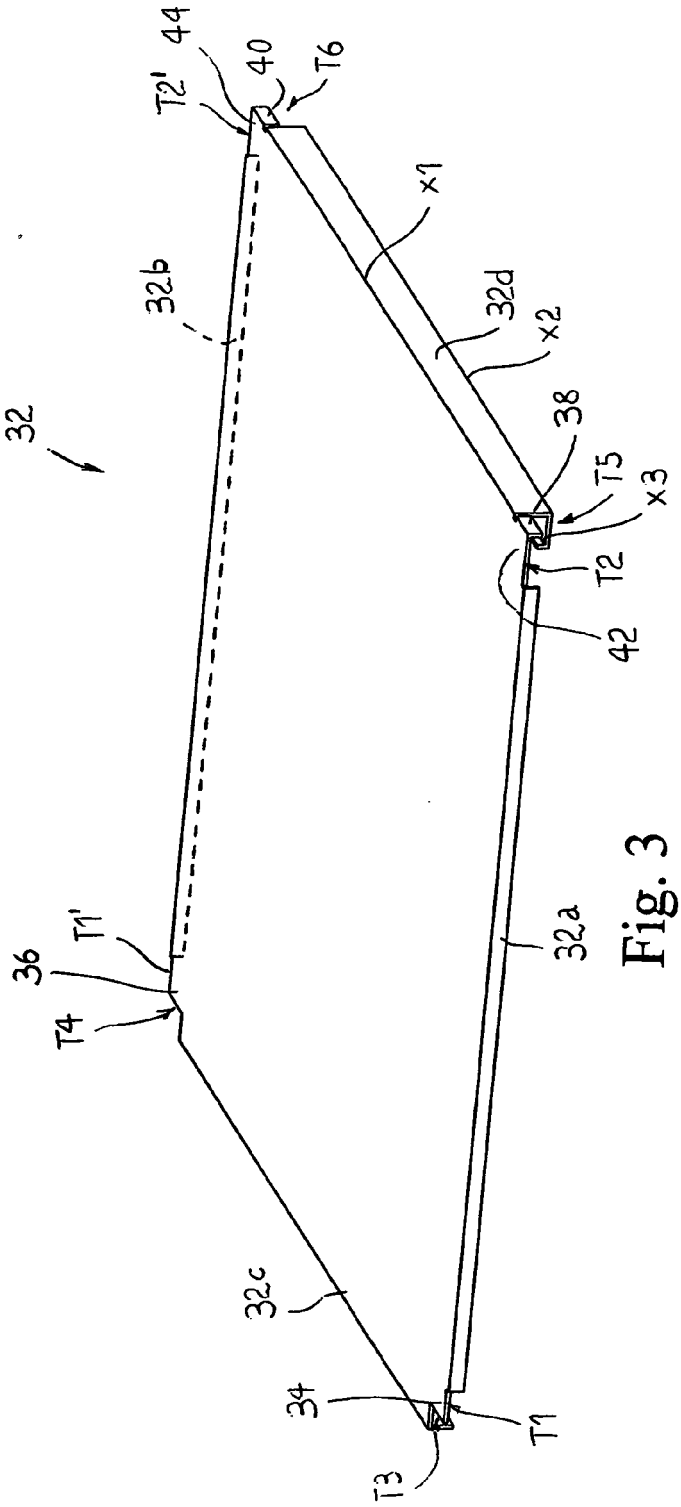

32
44
T2'
40
T6
x1
32b
32d
x2
38
T5
x3
T2
42
36
T1'
T4
32a
32c
34
T1
T3

Fig. 3

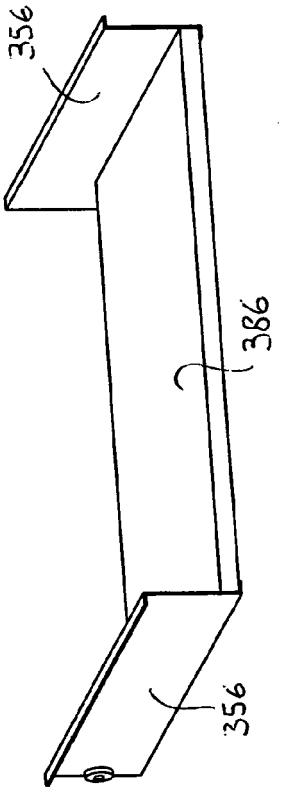

356
386
356

Fig. 11

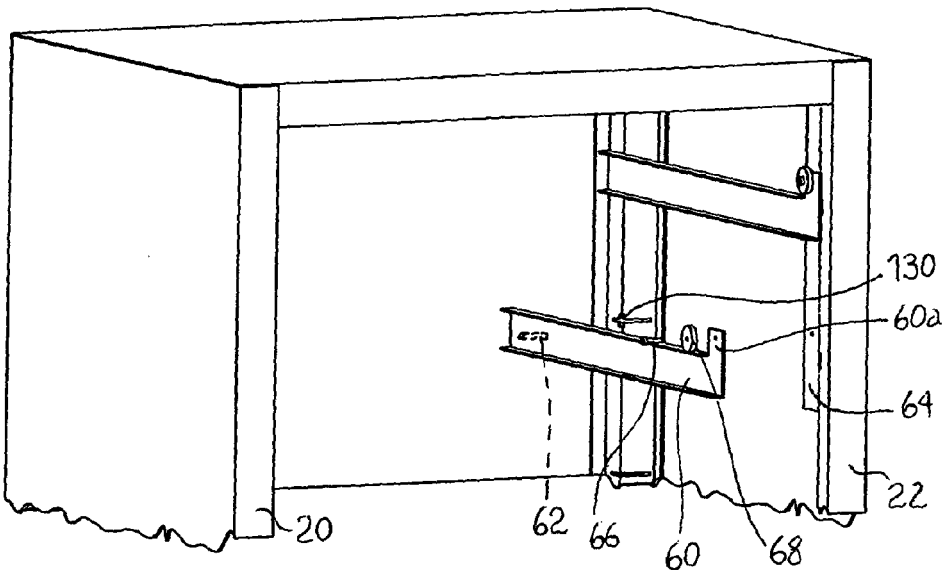



Fig. 4

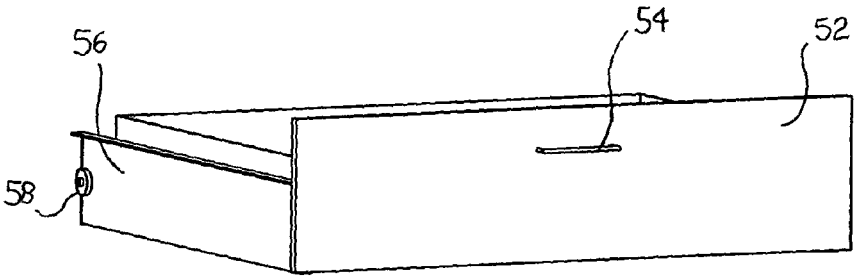
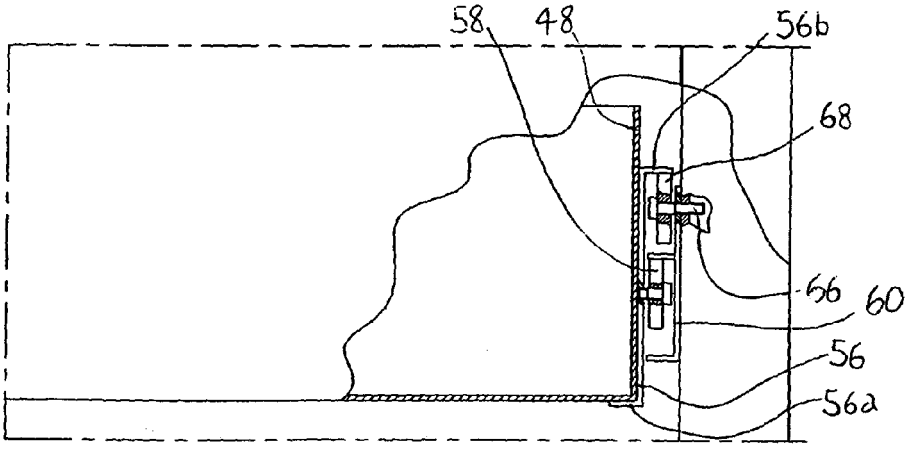



Fig. 5

Fig. 6



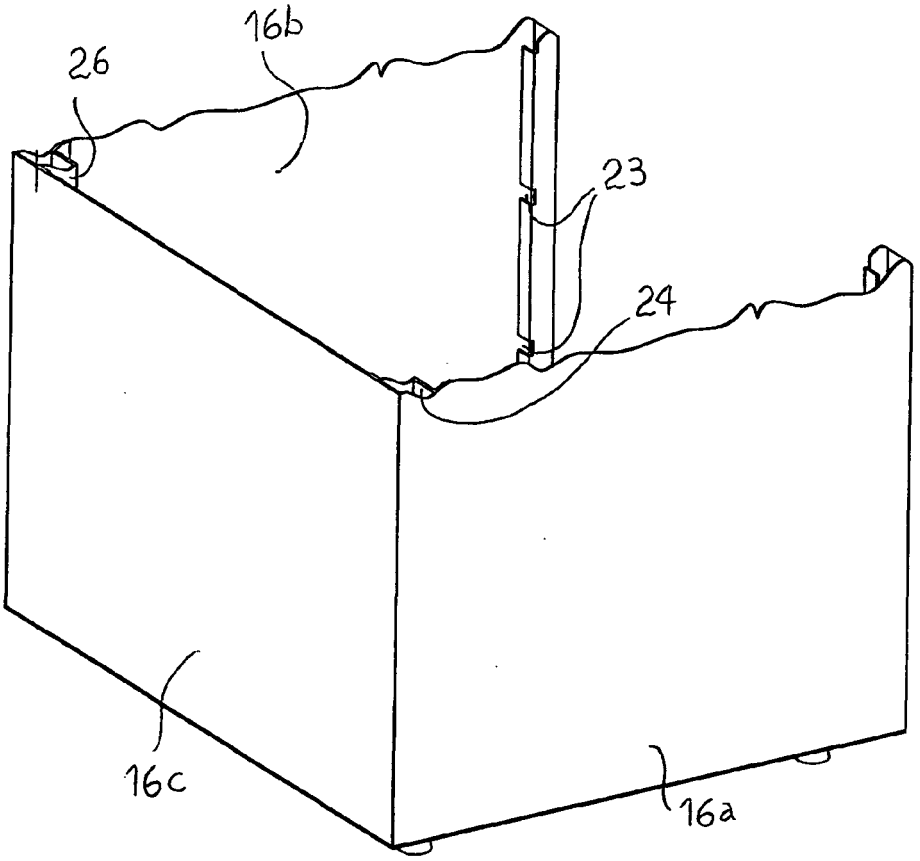
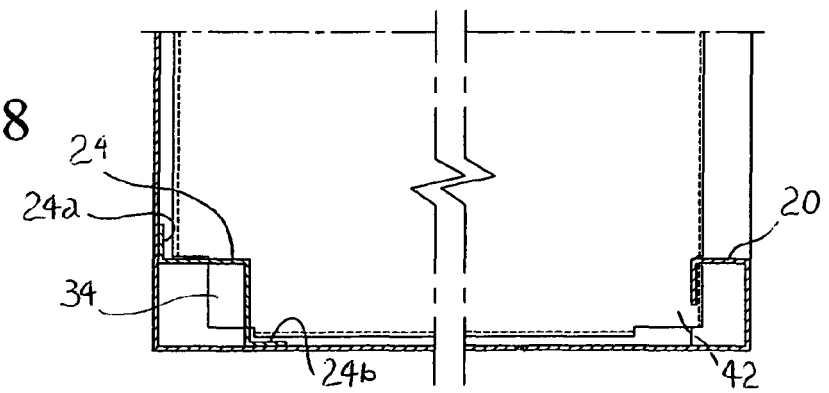



Fig. 7

Fig. 8



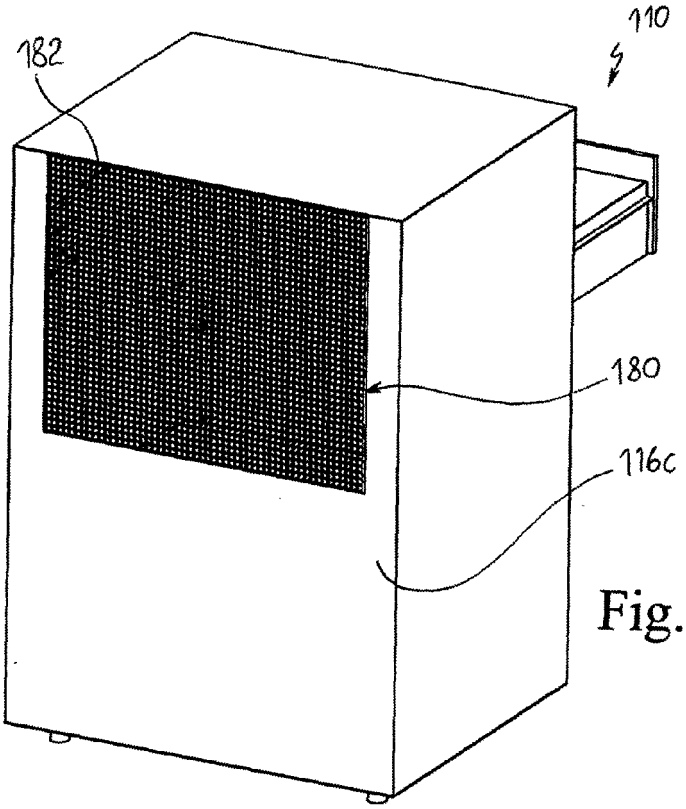



Fig. 9

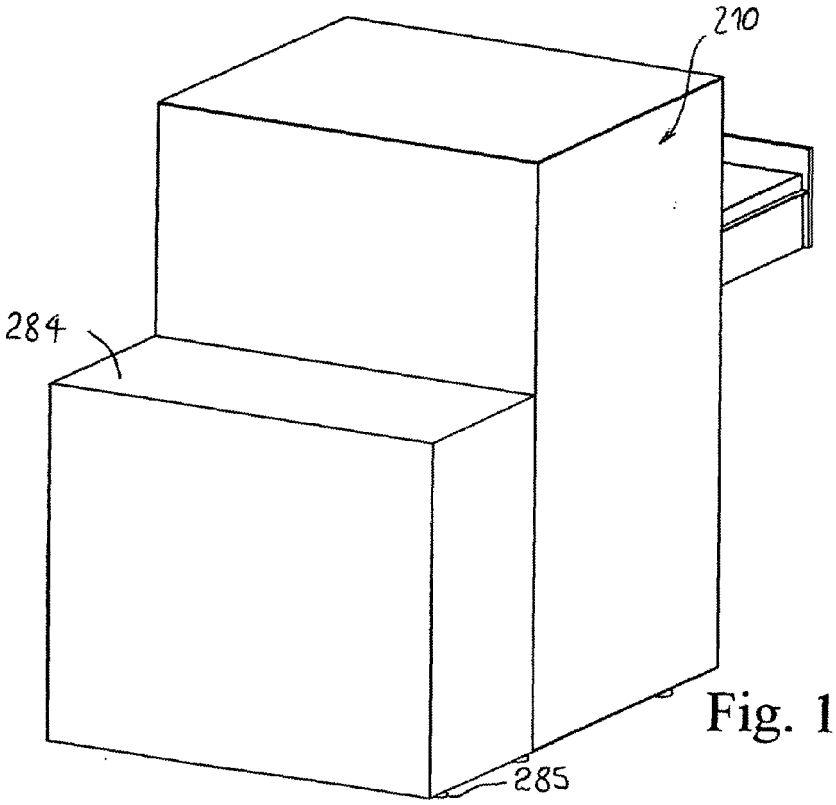



Fig. 10

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# EUROPEAN SEARCH REPORT

Application Number
EP 08 01 3489

## DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
|---|---|---|---|
| A | US 4 692 984 A (MCKERNAN THOMAS J [US] ET AL) 15 September 1987 (1987-09-15)<br>* column 3, line 18 - column 4, line 48 *<br>* figures 1-6 *<br>----- | 1 | INV.<br>A47B47/02 |

TECHNICAL FIELDS SEARCHED (IPC)

A47B
A47F

The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| The Hague | 19 November 2008 | van Hoogstraten, S |

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19-11-2008

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| US 4692984 A | 15-09-1987 | NONE | |

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