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DE FR GB(71) Applicant: **Gorup, Rado**
1 Tankovske Brigade 3
SI-66210 Sezana (SI)(72) Inventor: **Gorup, Rado**
1 Tankovske Brigade 3
SI-66210 Sezana (SI)(74) Representative: **Luksch, Giorgio, Dr.-Ing. et al**
Ing. A. Giambrocono & C. S.r.l.
Via Rosolino Pilo, 19/b
I-20129 Milano (IT)(54) **Furniture item with superposable modular shelves.**

(57) This furniture item has the characteristic of being formed by superposing modules each consisting of a shelf formed as a perimetral consolidated structural element of the furniture item, each structural module being structurally completed by the base of the overlying module, the top module being structurally completed by a specific panel.

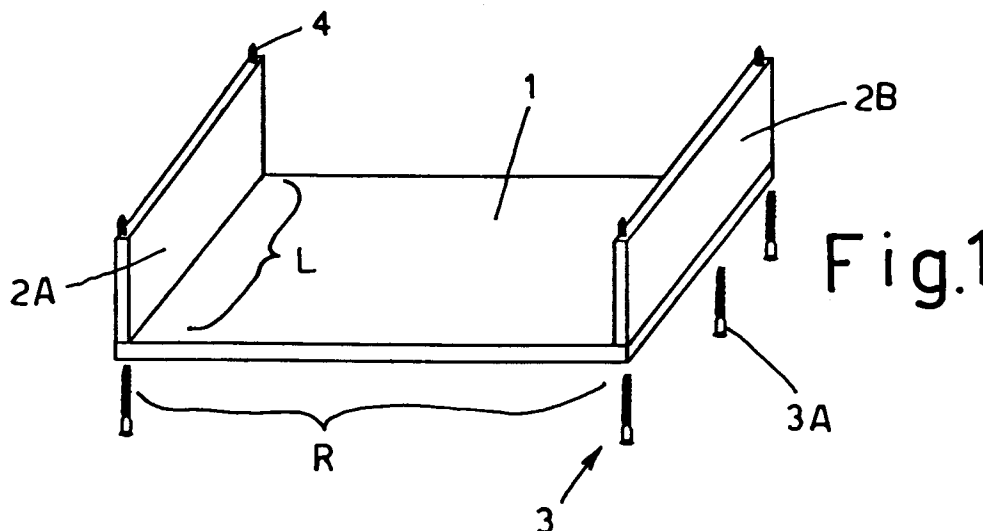
The furniture item has a preferably square base

to enable the modules to be superposed mutually turned through 90° or through an angle which is a multiple of 90° C.

The modules of the furniture item form open or closed compartments.

Such closure is preferably effected by a shutter.

Said modules form slide guides for drawers.

**Fig.1****EP 0 664 980 A1**

This invention relates to a furniture item with superposable modular shelves. As is well known, industrial production costs are contained by standardizing the parts as far as possible, and reducing them to just a few types.

This is also done in the furniture sector, in particular by combining already assembled large elements or modules.

An object of the present invention is to urge this modularity to its limit by defining furniture items which can be obtained by combining just a few simple elements.

A further object is to define a furniture item which can be easily transformed into a chest of drawers or into a shelving unit.

A further object is to define a furniture item of shelving unit type which can be associated with front closure shutter elements.

A further object is to define a furniture item, to the interior of which access can be gained from each side.

A further object is to define a furniture item which can have any height.

A further object is to define a sectional furniture item comprising elements easily assembled within a domestic environment by the purchaser, to reduce transport and production costs.

These and further objects will be seen to be attained on reading the ensuing detailed description of a furniture item having the characteristic of being formed by superposing modules each consisting of a shelf formed as a perimetral consolidated structural element of the furniture item, each structural module being structurally completed by the base of the overlying module, the top module being structurally completed by a specific panel. The furniture item has a preferably square base to enable the modules to be superposed mutually turned through 90° or through an angle which is a multiple of 90° C.

The modules of the furniture item form open or closed compartments.

Such closure is preferable effected by a shutter.

Said modules form slide guides for drawers.

The invention is illustrated by way of non-limiting example on the accompanying drawing in which:

Figure 1 is a perspective view of a constituent module;

Figure 2 shows the aforesaid module associated with the body of a drawer, which is without its front both to show its structure more clearly, and to indicate that the front is of removable type to enable it to be different from the fronts of other drawers, to hence allow a variable multi-colouring;

Figure 3 is a perspective view of a module associated with a shutter closure element located in one of the two sides and shown in a partly extracted position prior to its fixing in the correct position visible in Figure 4; the other side can be left open or closed by a suitable panel or by another analogous shutter;

Figure 4 shows the module of Figure 3 together with a rear closure panel opposite the shutter;

Figure 5 is a perspective view of a module associated with a drawer in a partly extracted position, with an upper structurally stiffening shelf shown in an exploded position, and with a base strip for supporting a pair of casters;

Figure 6 is a perspective view of a furniture item with four mutually perpendicular drawers;

Figure 7 shows a furniture item formed from seven superposed drawers.

With reference to the module shown in Figure 1, on a base 1 there are fixed two identical lateral walls 2A and 2B of length L equal to the length of the base 1.

This length is preferably also equal to the width R of the base 1, so that as R equals L the modules can be freely superposed in any orientation.

The lateral walls 2A, 2B are fixed to the base 1 preferably by screws 3 cooperating with seats provided within its thickness.

The seats or holes are preferably three in number so that a screw 3A is always in a central position, so preventing assembly errors.

These screws are of the socket-head type, ie provided with a head comprising a hexagonal hole and tightened by an Allen key.

In this manner, said screw heads can present a precise housing hole for cylindrical pointed pegs 4 located in a position aligned with the underlying screws 3.

Said pegs 4 hence enable various modules 1 to be superposed, even if positioned turned mutually through 90° or 180°.

In Figure 1 the screws 3 are shown in an exploded position to better clarify their location.

Although the edges of the lateral walls are perfectly flat and perpendicular, the rigidity offered by the said U-shaped structure of Figure 1 may be unsatisfactory.

In this respect, to achieve satisfactory rigidity the tops of the walls can be combined with a suitable flat surface 5, as shown by the exploded part of Figure 5.

The surface 5 is however independent only when it forms a closure panel for the top of the furniture item.

In other situations it takes the form of the base of an upperly installed module.

Figure 2 shows how a module can act as a slide guide and housing for the body of a drawer 6.

The drawer is shown without its front to emphasize its interchangeability and to display the presence of centering and locking pegs and holes indicated by four points 7 for each of the two end edges of two sides 8A, 8B.

Instead of the said drawer 6, the module can be used as a containing compartment closed frontally by a shutter 8 and closed at its rear by a transverse stiffening panel 9, as visible in Figure 4.

This shutter is guided and supported by a specific structure 10, which is introduced into the mouth of the module (Figure 3) and then fixed to its lateral walls 2A and 2B by usual means (Figure 4), to form an integral part of the module.

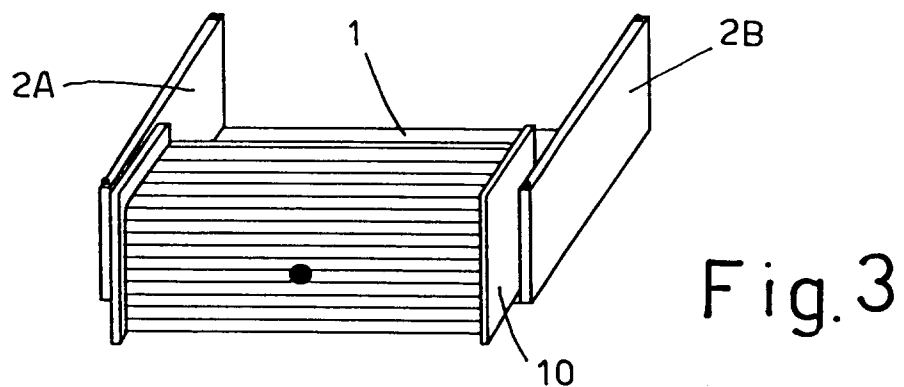
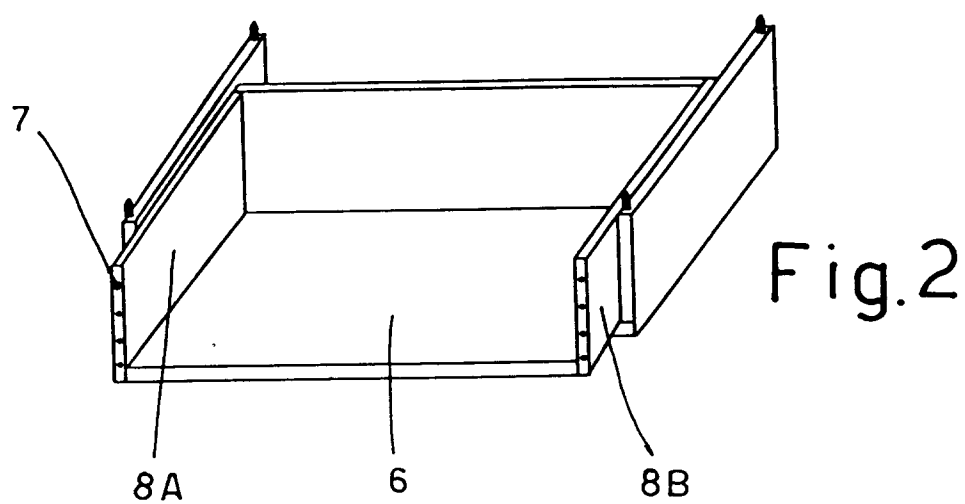
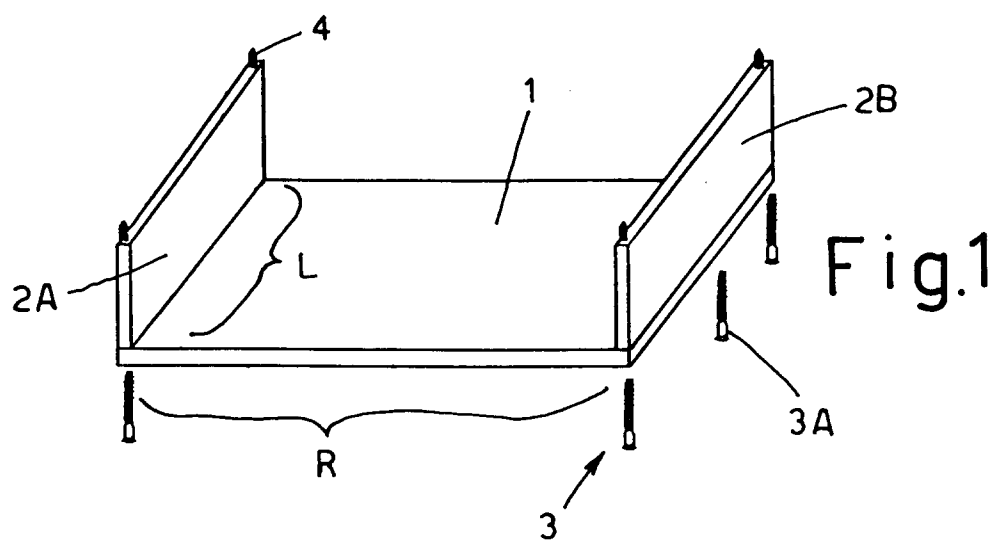
With reference to Figure 5, it can be seen that bars 11A, 11B each provided with a pair of wheels 12A, 12B preferably of caster type can be fixed to the module base.

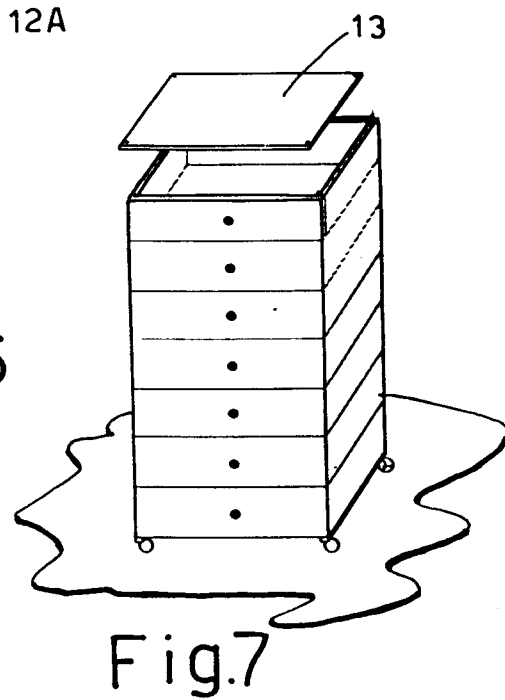
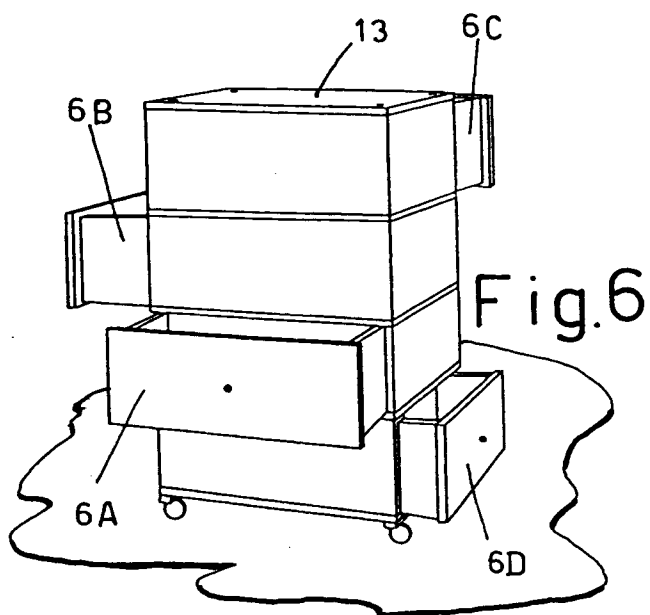
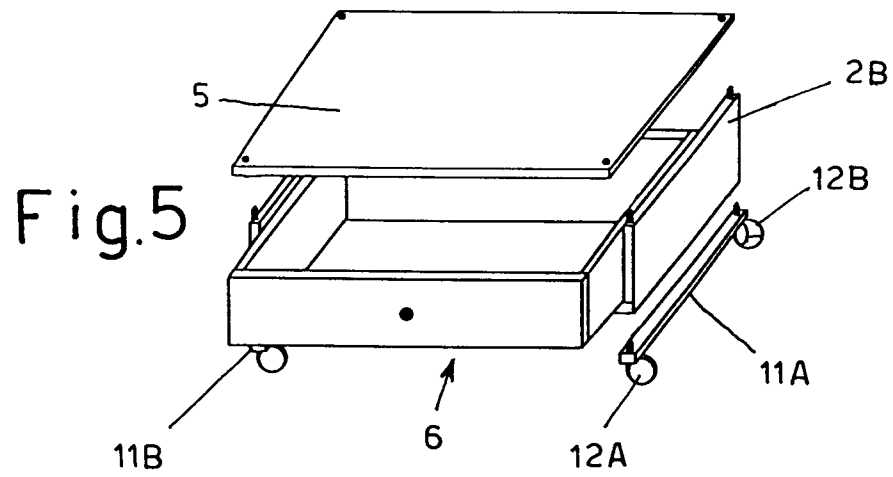
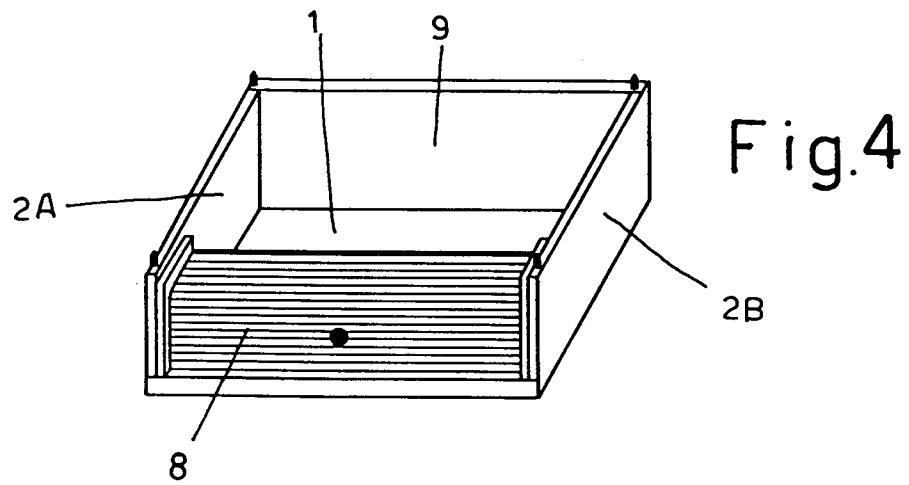
Figure 6 shows how the modules can be superposed in an arrangement in which they are mutually turned through any multiple of 90° and closed by a top panel 13. This positioning is indicated by drawers 6A, 6B, 6C, 6D shown in a partly extracted configuration.

The role of the top panel 13 is clearly illustrated in Figure 7, in which it is shown in an "exploded" position.

Claims

1. A furniture item characterised by being formed by superposing modules each consisting of a shelf (1) formed as a perimetral consolidated structural element of the furniture item, each structural module being structurally completed by the base (1) of the overlying module, the top module being structurally completed by a specific panel (5, 13).
2. A module as claimed in the preceding claim, characterised by a preferably square base (1) to enable the modules to be superposed mutually turned through 90° or through an angle which is a multiple of 90° C (Figure 6).
3. A module as claimed in the preceding claims, characterised in that its modules are in the form of open or closed compartments.
4. A module as claimed in the preceding claims, characterised in that the individual modules are closed preferably by a shutter.
5. A module as claimed in the preceding claims, characterised in that its modules form slide guides (2A, 2B, 1) for drawers (6).
6. A module as claimed in the preceding claims, characterised by drawers (6) provided with a front panel interchangeable with that of other modules to achieve different aesthetic and/or colour compositions.
7. A module as claimed in the preceding claims, characterised by base strips (11A, 11B) provided with a pair of casters (12A, 12B), said strips being fixable by the fixing method (4) used between the various superposed modules.







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EUROPEAN SEARCH REPORT

Application Number
EP 94 11 4663

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)
X	FR-A-2 223 948 (SICOPAL)	1	A47B67/04
Y	* claims 1-3; figures 1-4 *	2,3	A47B87/02
A	---	5	
Y	CH-A-524 511 (OFFICE DESIGN GMBH) * column 6, paragraph 3; figures 1-6 *	2,3	
A	---		
A	FR-A-2 502 922 (VUARNESSEON B.) * claims 1,2; figures 1-3 *	1-3,5	
A	---		
A	DE-A-32 02 304 (C. MIESEN FAHRZEUG UND KAROSSERIEWERK GMBH) * abstract; figures 4,5 *	4,5	

The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A47B
Place of search		Date of completion of the search	Examiner
THE HAGUE		3 May 1995	Jones, C
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