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(54) **Shelf system based on flat shelf elements that interconnect with each other - without the use of any tool - to form a modular system of L-shaped shelves that can be added to each other to form a larger shelf**

(57) A shelving system consisting of a single and only type of piece for the assembling of medium to large shelf for domestic use. Several pieces slide, interlock and

overlap to form a large shelving element. The system does not need tools for its assembly. The shelving system is intuitive and simple in its assembly.

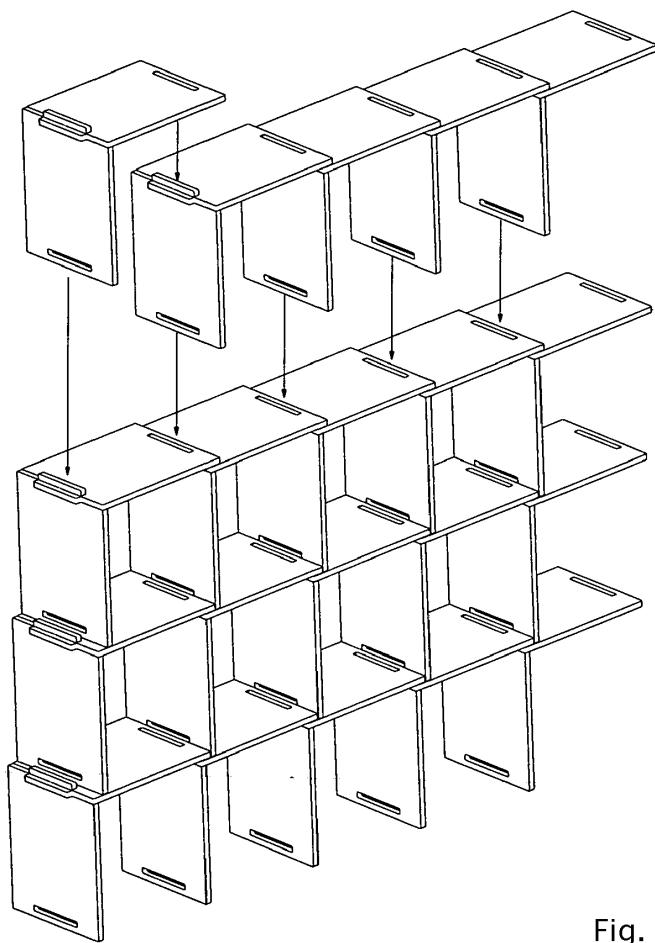


Fig. 4

Description

[0001] The invention consist on a shelving system which single basic component is sufficient for vertical and horizontal elements and which needs no tools for assembly.

Field of the invention

[0002] The state of the art comprises several systems for shelving systems based in furniture techniques, using different dry and/ or wet joints, which makes use of several different components, which are assembled with different kinds of tools and which requires in some case the knowledge of cabinetmakers to be assembled.

[0003] The state of the art in furniture making comprises the use of screws, nails, carpenter's joints, glue, bolts, click-systems, and similar methods to joint vertical panels to horizontal panels, and to joint shelf modules to other modular shelves. Therefore completing the desired shelf size and form.

Summary of the invention

[0004] The invention is set forth and characterized in the main claim, while the dependent claims describe other characteristics of the invention.

[0005] The purpose of the invention is to achieve a shelf system that does not need tools in its assembly.

[0006] Another purpose of the invention is that the shelf system consists of the minimum set of different pieces possible.

[0007] Another purpose of the invention is that the shelf system assembly must be intuitive and simple.

[0008] The system, according to the invention, consists of a single type of piece, which put together in a particular way with more units of this single type piece, can create a shelf.

[0009] The system, according to the invention, needs a particular way of assembly that is self-explanatory, intuitive and simple. This particular way of assembly is a consequence of the form and shape of the single type piece of the invention.

[0010] The form and shape of the single type piece, according to the invention, is made with micrometric precision, accepting very small displacement tolerance when the single type piece is assembled with other pieces in the system.

[0011] The system, according to the invention, does not need tools for its assembly. It can be assembled by a single person with its own hands.

The system**Brief description of the drawings**

[0012] These and other characteristics of the invention will be clear from the following description of a preferential

form of embodiment, given as a non-restrictive example, with reference to the attached drawings wherein:

5 Fig. 1 shows an isometric view of the single type piece of the system.

Fig. 2 Shows an isometric view of the particular way of assembly of two single type pieces.

10 Fig. 3 Shows an isometric view of the two single pieces assembled as a "L" form shelf module

15 Fig. 4 shows an aggregation of several "L" form shelves into a larger shelf.

Detailed description of a preferential embodiment

[0013] With reference to the attached drawings, the single type piece shown in fig. 1 can be made in any solid material with sufficient intrinsic mechanical strength to sustain the forces applied to the invention. This can be wood, metal, plastic, solid surface, mdf, etc.

25 Fig. 1 Shows the specific ear and hole of each single type piece. Fig. 2 shows how the specific ears of two single type pieces slide into each other, regardless of left or right positioning, they always fit into each other.

30 Fig. 3 shows how the ears of each piece lock into each other, making a solid L frame.

35 Fig. 4 shows how the "L" form shelf modules can be assembled overlapping on each other and above one another, with the protruding ear fitting in the hole of the overlapping board or module.

Claims

40 1. Shape and form of the single type piece, **characterized in that** it has micrometric precision in all dimensions to ensure mechanical and statical functioning of the system.

45 2. Device as in claim 1, shape and form of the ear of the single type piece, **characterized in that** it has micrometric precision in all dimensions to ensure mechanical and statical functioning of the system. This ear fits with micrometric precision and very low tolerance with the interlocking ear in case of assembly.

50 3. Device as in claim 1, Shape and form of the hole in the single piece type piece, **characterized in that** it has micrometric precision in all dimensions to ensure mechanical and statical functioning of the system. This hole holds with micrometric precision and

very low tolerance the interlocking ear in case of overlapping.

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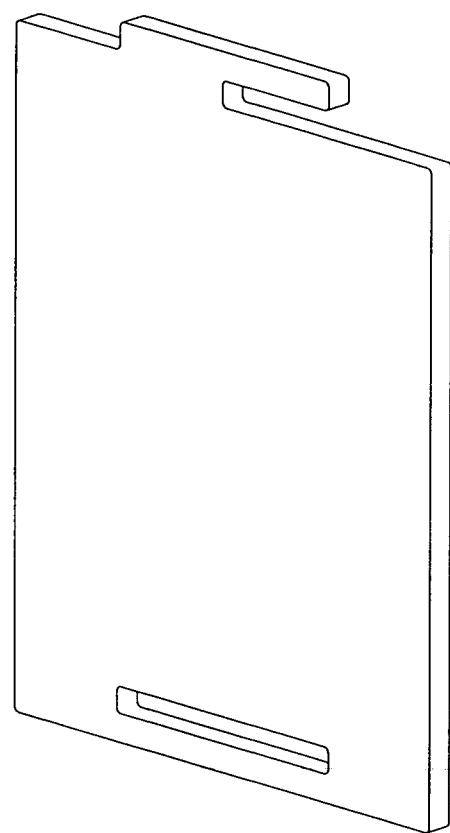


Fig. 1

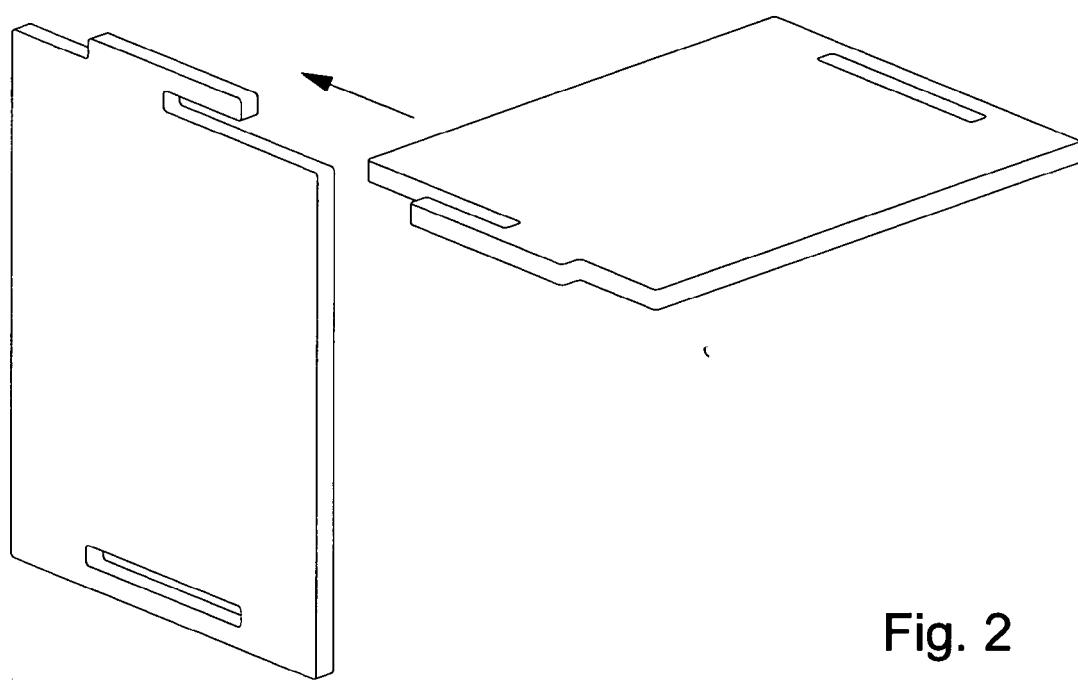


Fig. 2

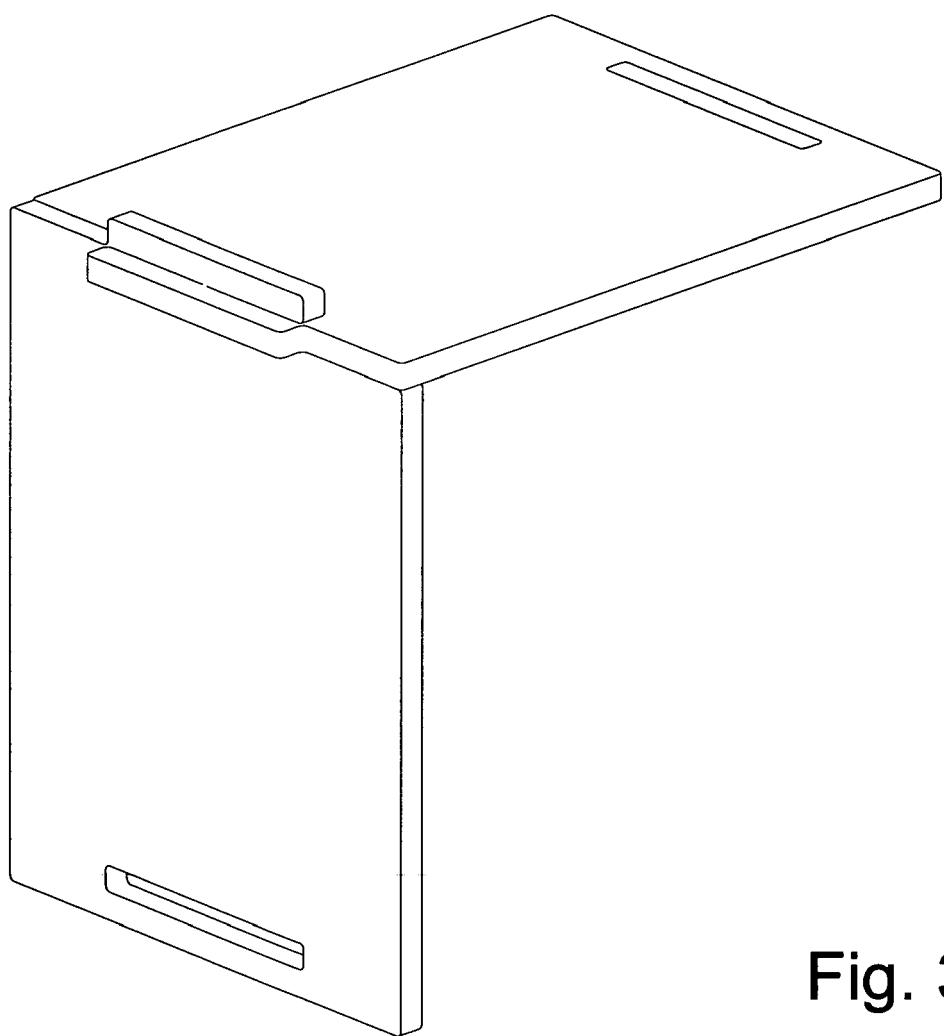


Fig. 3

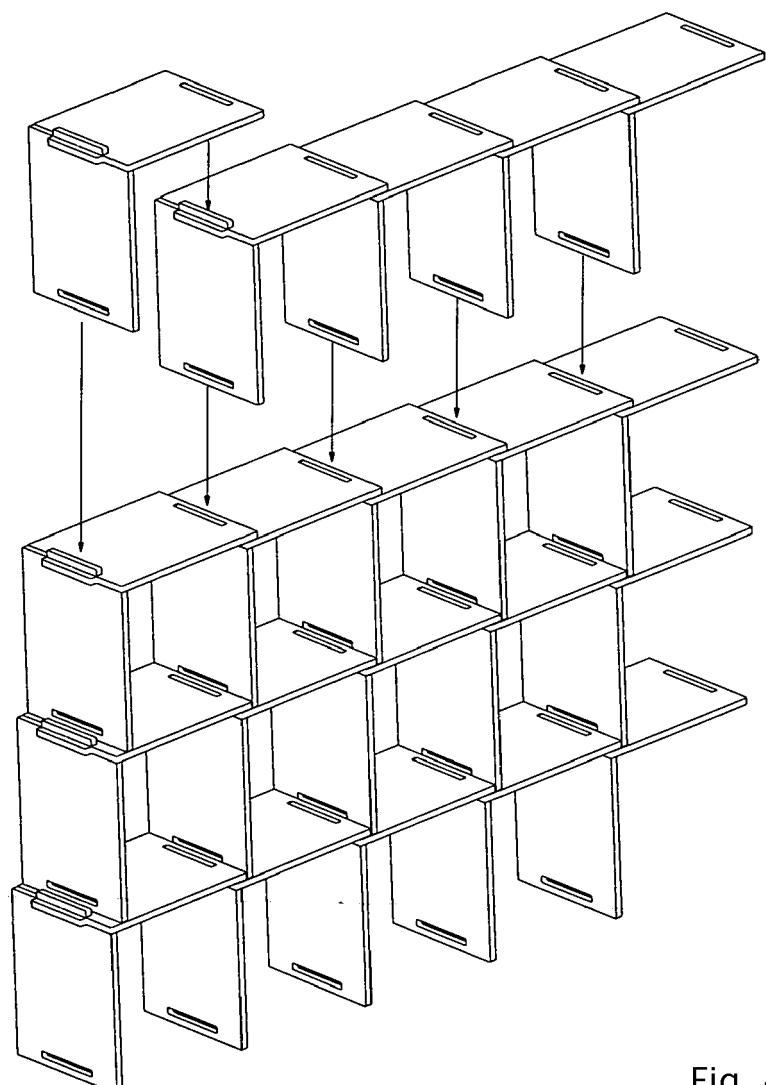


Fig. 4



EUROPEAN SEARCH REPORT

Application Number
EP 11 07 5025

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
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			TECHNICAL FIELDS SEARCHED (IPC)
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2 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		30 June 2011	Vehrer, Zsolt
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			

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

EP 11 07 5025

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