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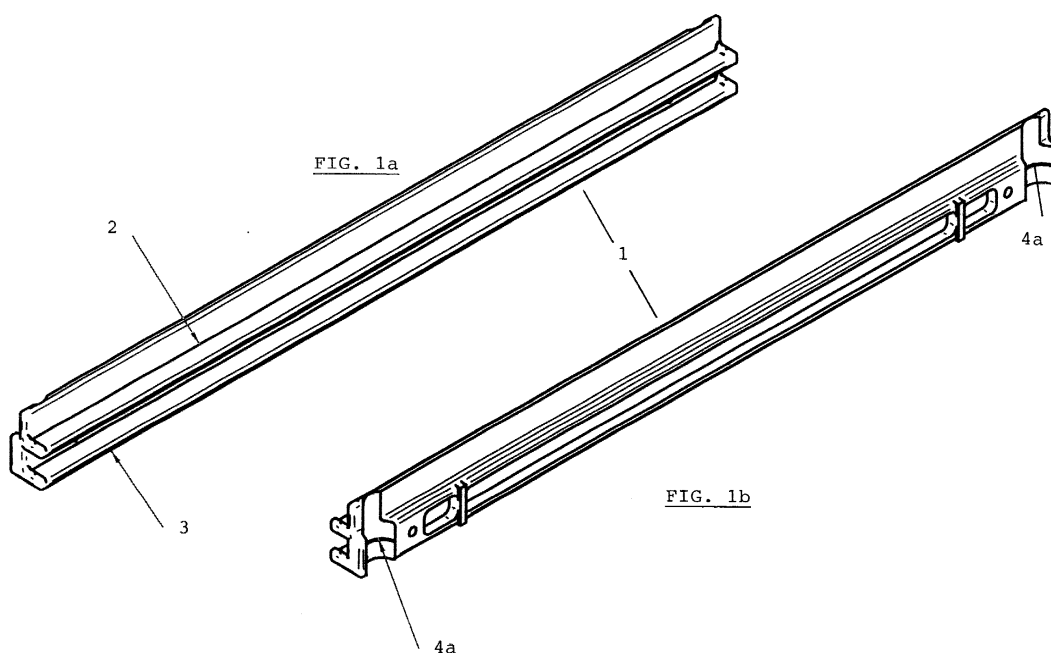
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(54) **Wire shelving system**

(57) A shelving unit for storing containers such as baskets and boxes with different edge heights, comprising at least two side edge constructions comprising a spacer connecting a first edge post and a second edge post which are substantially parallel, and at least two beams connecting said side edge constructions from the first edge post of the first side edge construction to the first edge post of the second side edge construction and from the second edge post of the first side edge construction to the second edge post of the second side edge construction, said beams arranged parallel to each

other and substantially perpendicular to said edge posts, characterised in that said beams comprise a first profile extending horizontally from the beam, said first profile being arranged to hold a container having a maximum edge height, and a second profile extending horizontally from the beam, said second profile being arranged to hold a container having a second edge height, wherein said second edge height is greater than said maximum edge height and said maximum edge height is determined by the distance between said first and said second profile.



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Description**Field of the invention**

[0001] The invention is situated in the field of shelving systems.

State of the art

[0002] The state of the art currently comprises several systems that are incompatible with each other. For example, two standards that exist are the ISO standard for baskets, the Gastro-Norm and e.g. 50x50 baskets, all of which are currently used but are incompatible with each other. A major issue in this is that not all baskets and accessories have a corresponding edge height.

Aims of the invention

[0003] The primary aim of the present invention is to provide a shelving system that is arranged to fit component such as baskets from any standard or for any use available, including accessories having an aberrant edge height.

Summary of the invention

[0004] The present invention comprises a shelving unit for storing containers such as baskets and boxes with different edge heights, comprising at least two side edge constructions comprising a spacer connecting a first edge post and a second edge post which are substantially parallel, and at least two beams connecting said side edge constructions from the first edge post of the first side edge construction to the first edge post of the second side edge construction and from the second edge post of the first side edge construction to the second edge post of the second side edge construction, said beams arranged parallel to each other and substantially perpendicular to said edge posts, characterised in that said beams comprise a first profile extending horizontally from the beam, said first profile being arranged to hold a container having a maximum edge height, and a second profile extending horizontally from the beam, said second profile being arranged to hold a container having a second edge height, wherein said second edge height is greater than said maximum edge height and said maximum edge height is determined by the distance between said first and said second profile.

Short description of the drawings

[0005] Figure 1 describes a U-beam according to the present invention.

[0006] Figure 2 shows a clamp according to the present invention.

[0007] Figure 3 depicts a spacer (3a) and a connection (3b) according to the present invention.

[0008] Figures 4, 5 and 6 show embodiments of the shelving system according to the present invention.

Detailed description of the invention

[0009] The system of the invention is a shelving unit for different standards of baskets and boxes. It is built on the standard edge posts of the existing METRO ® or compatible wire shelving. It can be used stand alone or in combination with wire shelves. The system is designed for fixed and for mobile use. The system fits on METRO ® or compatible shelves with a depth of 24". Although the system is designed in the first place for the ISO baskets and boxes, it can easily be adapted for the "Gastro - Norm" or for 50 x 50 cm baskets and a lot of other applications.

Description of an embodiment of the present invention

[0010] The system of the invention consists of four components:

- 1) the U-Beam (Fig. 1a and Fig. 1b)
- 2) the Clamp (Fig. 2a and Fig 2b)
- 3) the Spacer (Fig. 3a)
- 4) the Connection (Fig. 3b)

1) The Beam

[0011] The beam 1 consists of both an L-profile 2 and a U-profile 3 (Fig 1a). The beam further comprises fixation rings 4a. Baskets and boxes with an edge height up to 15 mm can use the U-Profile. The L-profile is used to put boxes on the top of the beam. (Fig 5 detail A and detail B) One Beam can hold two items: one basket hangs in the U-profile, one box on the L-profile.

[0012] A standard edge post 5 (fig. 4) has fixation rings (grooves) 6 every inch, corresponding to the fixation rings 4a and 4b on the beam and clamp. So the height of the Beam can be adjusted every 25,4 mm. The fixation ring ensures a tight grip on the edge post. The Beams can hold charges up to 50 kg.

[0013] Boxes with a cover up to 10 mm larger than the outside dimension of the box can be stored: ISO Boxes 400 x 600 mm with a cover of 410 x 610 mm can be used. (Fig. 5)

2) The Clamp

[0014] The Clamp 10 is used to fix the U-Beam on the edge post. The Clamp is also used to fix the spacer 15 on the edge post. The fixation ring 4b (along with 4a on the beam) ensures a tight grip on the edge post.

3) The Spacer

[0015] The Spacer 15 holds the clamp 10 in three lo-

cations (Fig. 3a: 16, 17 and 18). A tight grip of the edge post is ensured.

[0016] The Spacer exists in different lengths. Each of these lengths is used for a certain standard:

Length 1 = ISO 40 cm (60 x 40 cm and 40 x 30 cm)

Length 2 = Gastro Norm 32,5 cm

Length 3 = Dishwasher baskets 50 cm

(and other lengths can be provided)

4) The connection

[0017] The connection 20 is used when more modules are placed next to each other. (Fig. 6) The connection is attached to the spacers through the openings 21.

[0018] A system of the invention can be used together with METRO ® or compatible wire shelving. (Fig. 4) All existing 24" components are compatible with the system of the invention: wire shelves, extended handles, cart handles, etc...

[0019] The system of 1 module can be converted for mobile use by applying casters with expander-fixation on the edge posts. A mobile system with more than one module must use a "Dolly Frame" 30 (Fig. 5).

[0020] The system can also be used stand-alone. (without wire-shelving) (Fig. 6)

[0021] Because the Beams can be adjusted in height and spacers exist in different lengths, the system of the invention is very flexible.

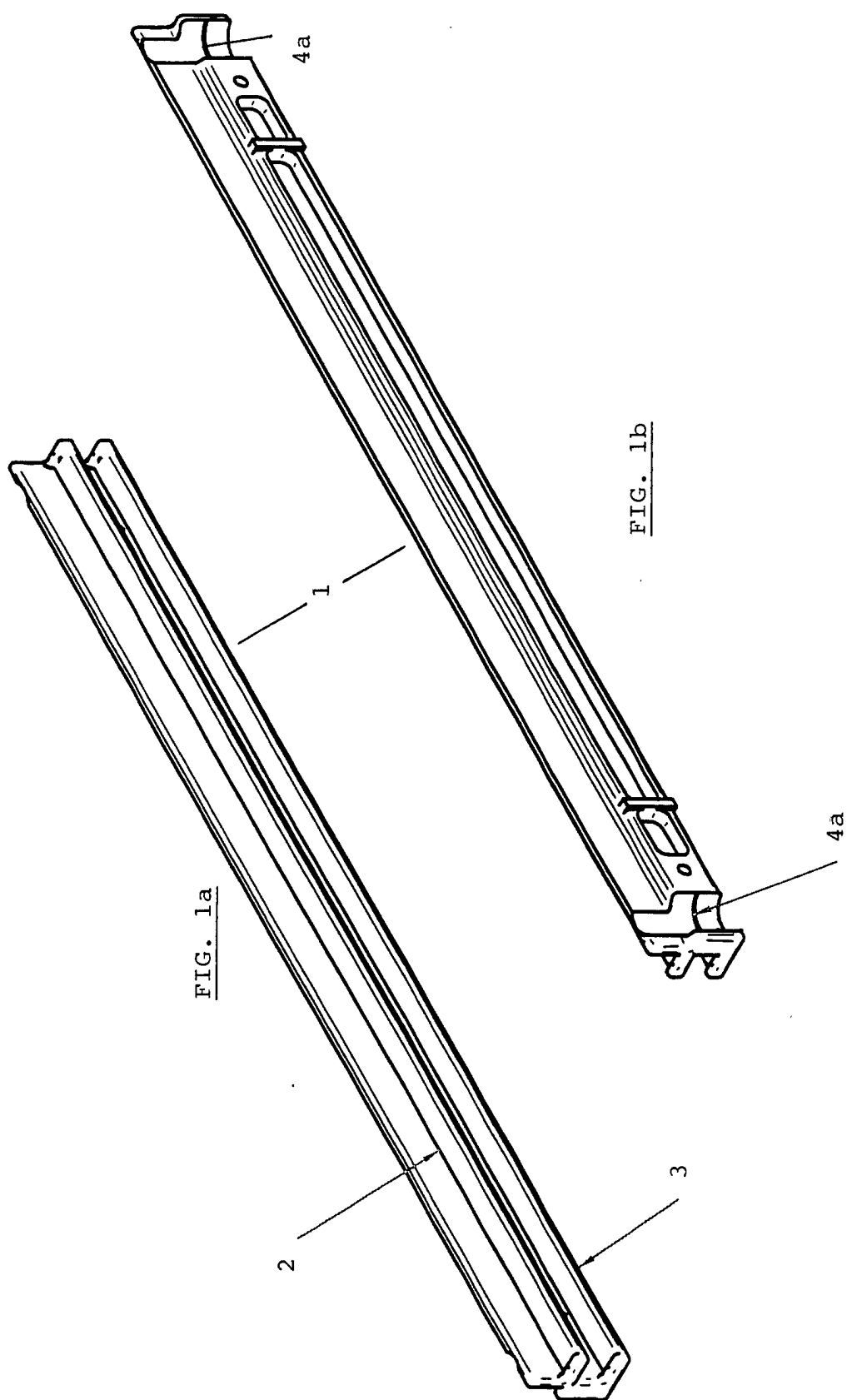
[0022] A user can always change the height and the spacers to fit the system to his specific needs.

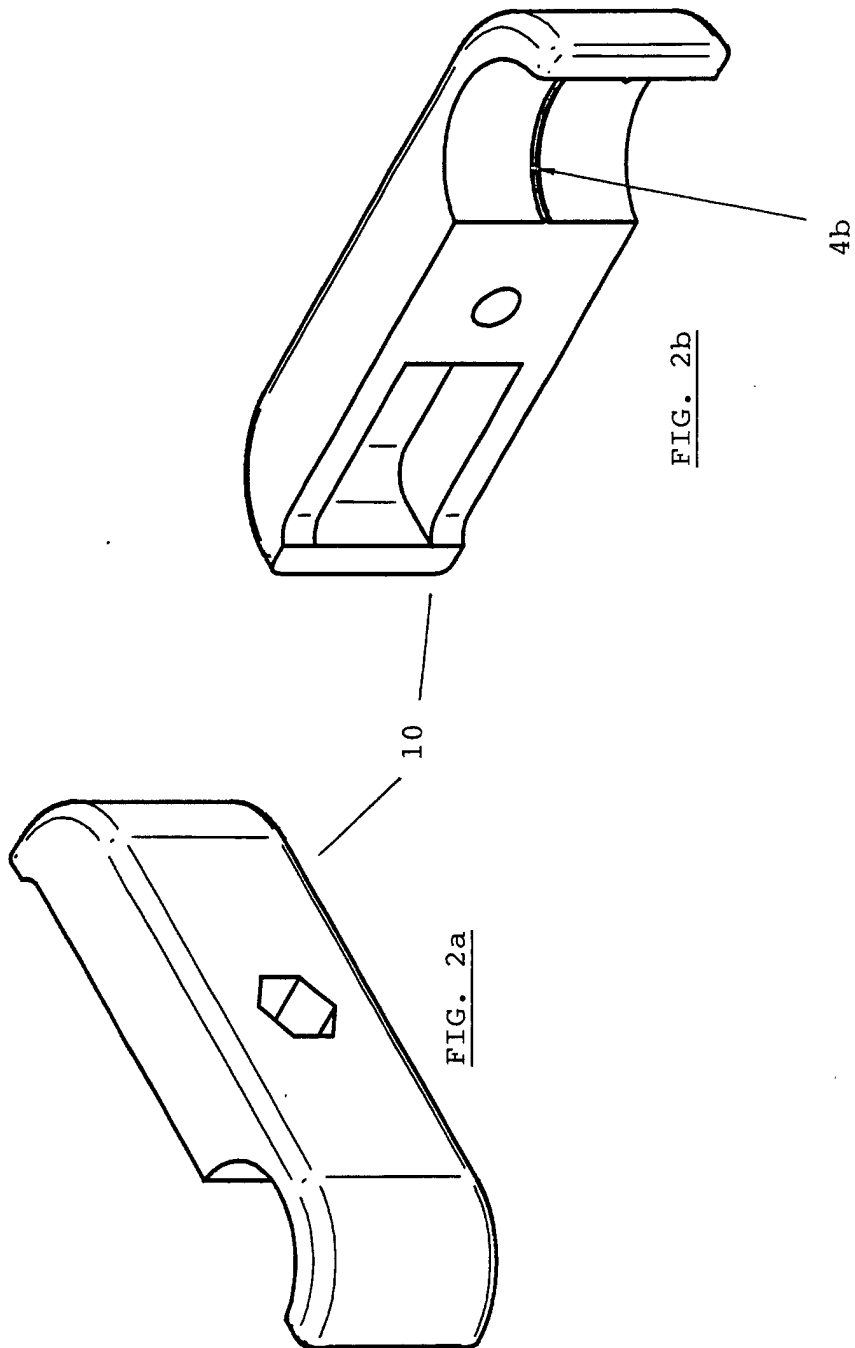
Claims

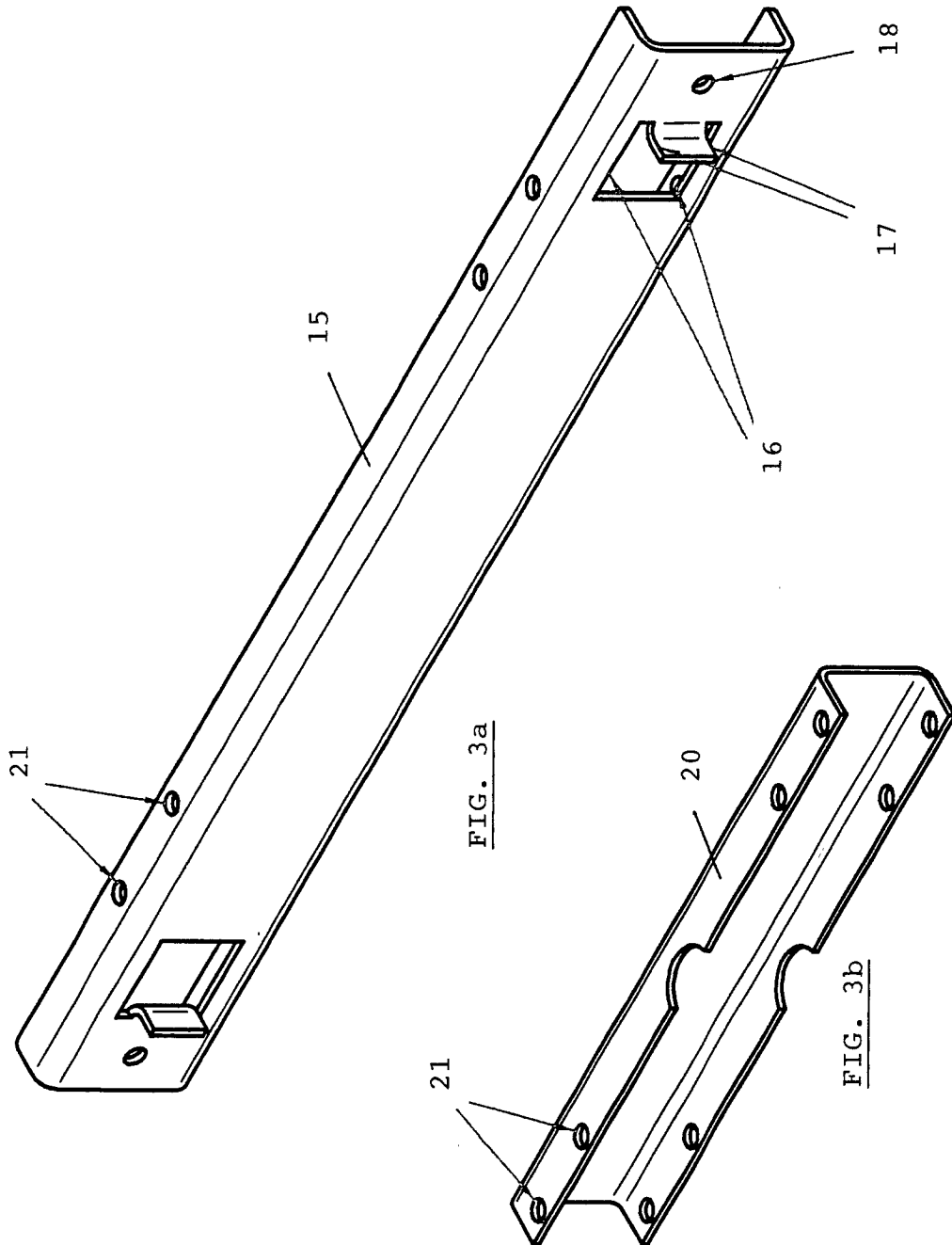
1. A shelving unit for storing containers such as baskets and boxes with different edge heights, comprising at least two side edge constructions comprising a spacer (15) connecting a first edge post (5) and a second edge post which are substantially parallel, and at least two beams (1) connecting said side edge constructions from the first edge post of the first side edge construction to the first edge post of the second side edge construction and from the second edge post of the first side edge construction to the second edge post of the second side edge construction, said beams arranged parallel to each other and substantially perpendicular to said edge posts, **characterised in that** said beams comprise a first profile extending horizontally from the beam, said first profile being arranged to hold a container having a maximum edge height, and a second profile extending horizontally from the beam, said second profile being arranged to hold a container having a second edge height, wherein said second edge height is greater than said maximum edge height and said maximum edge height is determined by the distance between said first and said

second profile.

2. A shelving unit according to claim 1, wherein said first profile is a U-profile (3), and said second profile is an L-profile (2).







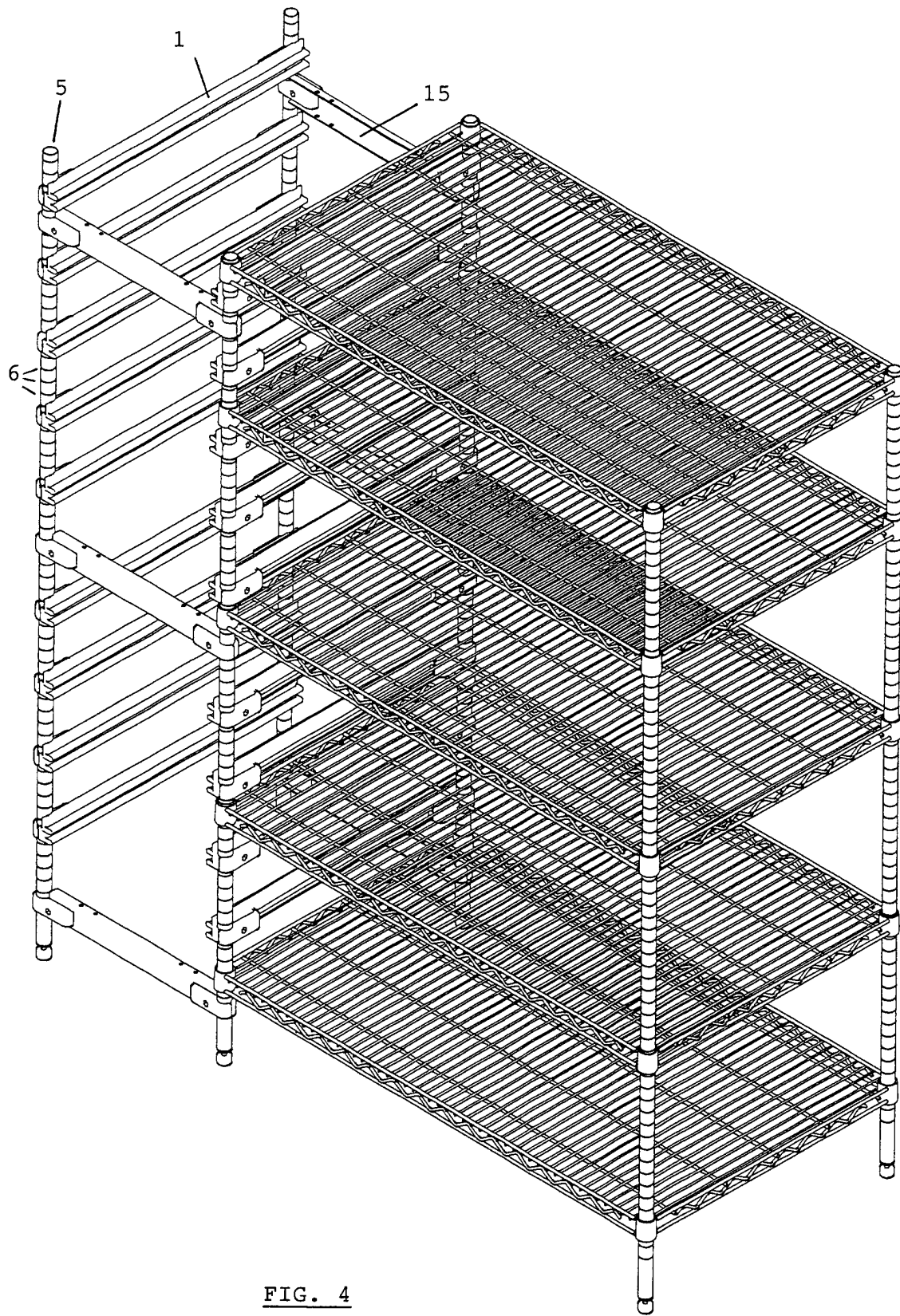
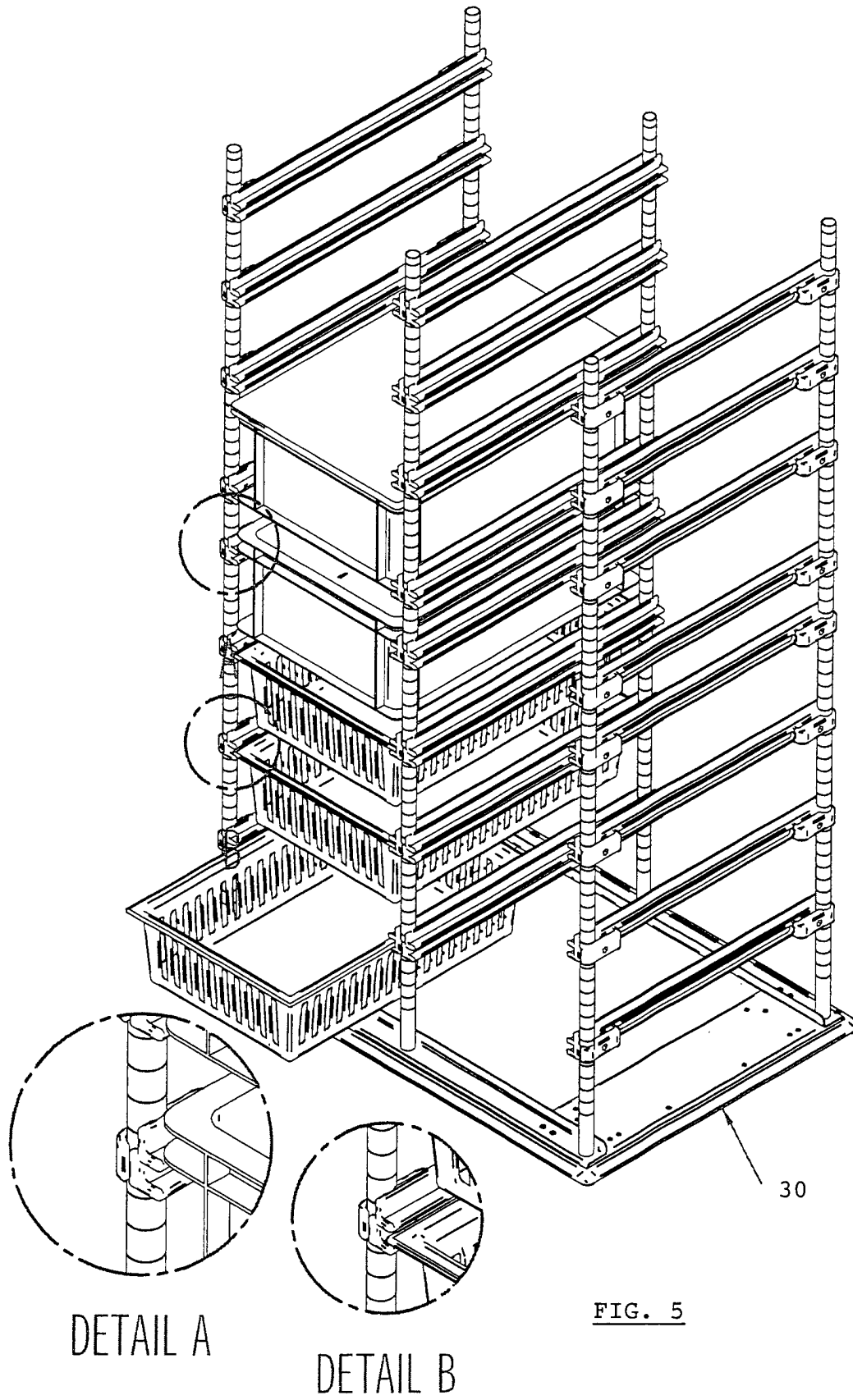


FIG. 4



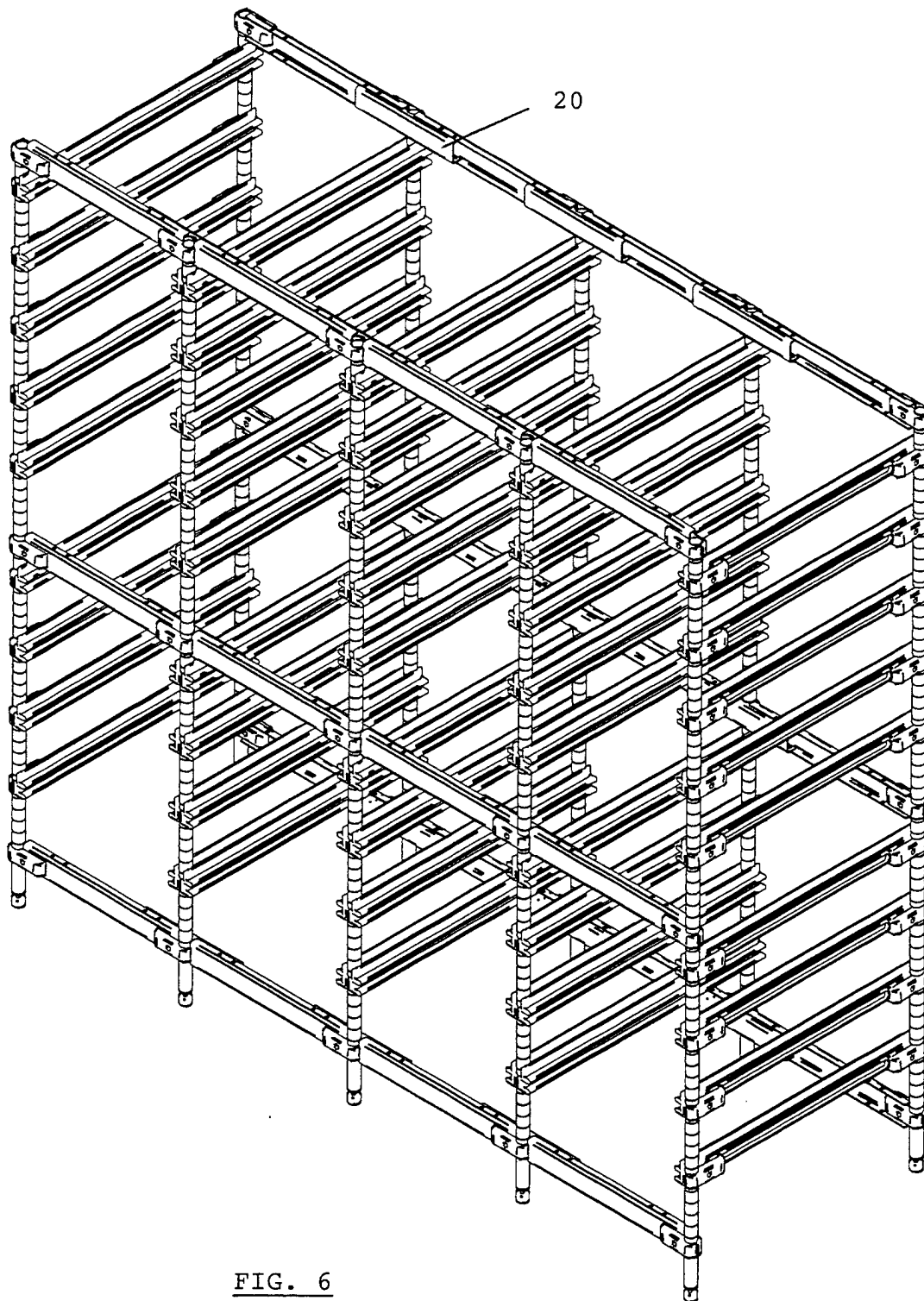


FIG. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 01 87 0045

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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 June 2001	Examiner Jones, C
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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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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