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(54) **Shelf with catches and method of their assembly**

(57) Shelf (3) with catches (1) and method of their assembly, said shelf (3) comprising iron bar elements (4) resting on longitudinal notches (6) situated on the upper

edges (5) of catches (1). Said notches (6) having a length corresponding to the one of the iron bar elements (4). The catches further comprise hook elements (2) that engage in openings situated on the frame of the shelf.

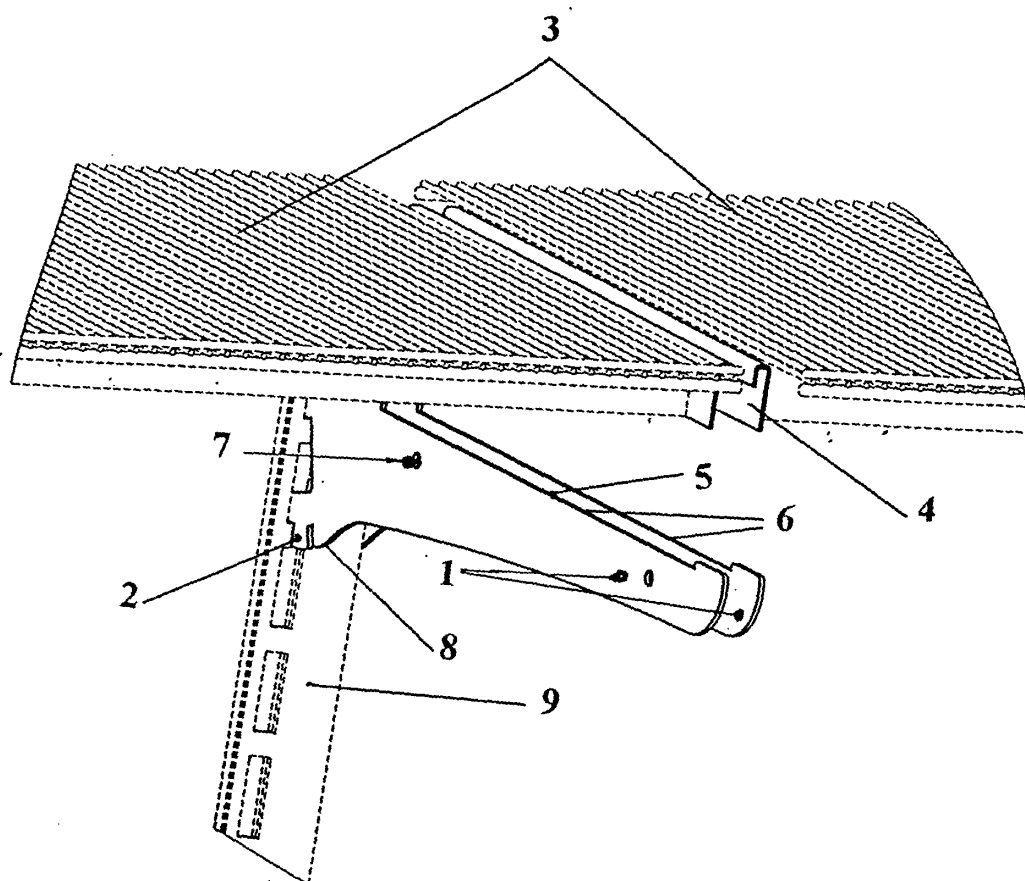


FIG.1

Description

[0001] The object of the invention comprises shelves with catches and the way of their assembly, designed especially for shop racks.

[0002] The shelves with catches known from the patent description WO 01/32055, where the shelves are made in such a way that they have three horizontal rods in the bottom, two at the extreme longitudinal edges and the third between them. The rods are longer than the length of the shelf.

The known catch for mounting the above mentioned shelves has a form of a double triangle which has the hooks for fixing the catch in the openings of the frame on its one side, which is its height, On the side constituting the hypotenuse, the catch has notches, two in two extreme places and the third one in the place which enables fixing of the middle rod of the shelf in it. The hooks of the catch are stuck into the openings of the frame made of rectangular pipe.

The known shelf is fixed with the ends of the rods into the catches in the notches made there.

[0003] There are also shelves known from a description of a German utility design DE 29718 748, which are settled into the catches mounted in the frame openings, where the shelves are made in such a way, that they have perpendicular bendings at the ends which make short walls, which in turn have rectangular notches in their middle part. The catches, in turn, are made in the form of a multigon which has two notches with a separation in the middle for the notches of the vertical wall of the shelf on its upper edge, cooperating with the shelf. The notches of the catches have the length in proportion to the length of the vertical side walls of the shelves. The catch has additional notches in the catch itself under the edge notches. The additional notches make it possible to set the shelf at a lower level.

The catch has additional hooks on the vertical back edge. The hooks are to fix the catch into the openings of the frame, which is made of the square pipe.

[0004] The idea of the invention comprises the shelves with catches, where the catches have hooks to fix into the openings of the frame characteristic for the shelves with iron bar elements which are settled on the upper edges of the catches.

The catches have longitudinal notches on upper edges of the length in proportion to the length of the iron bars of the shelves.

The iron bar elements are connected inseparably with the shelf.

The catches have the arterial fixing openings.

[0005] The catches have two hooks situated on the rear vertical edge and the third hook on the lower edge in the place adjacent to the bottom hook on the vertical edge.

The bottom hooks of the catch are situated arch wise on its lower edge in the part adjacent to the frame.

[0006] The way of assembly of the shelves with catch-

es by settlement of the shelves on the catches, whose hooks are mounted into the frame openings characteristic for the ends of the shelves with fixed iron bars, and the shelves assembled in such a way are put on the catches.

This is preferable, because in order to fix two neighboring shelves, after their settlement next to each other on the catches fixed into the openings of the walls of the frame, distance sleeves are placed between the mounting openings, and then the catches are screwed together.

[0007] The shelves with catches and the way of their assembly, according to the invention, allows for a stable and quick assembly of many shelves with application of universal catches in vertical and inclined positions depending on requirements.

[0008] The object of the invention was presented in the attached drawing where fig. 1 represents two adjacent ends of shelves with catches in a prospective view before being mounted, fig. 2 represents two adjacent ends of the shelves in the front view before being assembled and the way of their settlement, fig.3 represents the view from the bottom of a fragment of two assembled shelves.

[0009] The shelves with catches, according to the invention, comprise:

The catches 1, which have two hooks situated on the vertical real edge and stuck into the openings of the frame and the third hook 2 situated on the lower edge in the place adjacent to the lower hook on the vertical edge, and

The shelves 3, which have on their shorter ends - the iron bar elements 4, which are set on the upper edges 5 of the catches 1.

[0010] The catches 1 have on their upper edges 5, a longitudinal notch 6 of the length in proportion to the length of the iron bars 4 of the shelves 3. In the vertical wall, the catches 1 have arterial assembly openings 7 to assembly two neighboring shelves 3.

[0011] The lower hooks of the catch 1 are placed arch wise 8 on its lower edge in the part adjacent to the frame 9, therefore one can select a horizontal or an inclined position of the shelf 3.

[0012] The way of assembly of the shelf with catches, according the invention, comprises the shelves settled on the catches, whose hooks are stuck into the frame openings. Earlier, the iron bar is mounted on shorter ends of the shelves.

[0013] To assembly to neighboring shelves, after their settlement next to each other on the catches situated in the openings of the frame wall, distance tubes and the catches are further screwed.

Claims

1. The shelves with catches, where the catches have

the hooks to settle in the frame openings characteristic for the shelves (3) within bar elements on their shorter ends (4), which are settled on upper edges (5) of catches (1).

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2. The shelves with catches, according to claim 1, characteristic for the catches (1) which have on upper edges (5) longitudinal notches (6) of the length in proportion to the length of the iron bars (4) of the shelves (3). 10
3. The shelves with catches according to the claim 1, characteristic for the iron bar element (4) are connected with the shelf (3) inseparably. 15
4. The shelves with catches, according to claim 1, characteristic for the iron bar elements (4) connected with the shelf (3) separately.
5. The shelves with the catches, according to claim 1, characteristic for the catches (1) with arterial mounting openings (7). 20
6. The shelves with catches, according to claim 1, characteristic for the catches (1) with two hooks situated on the real vertical edge and the third hook (2) situated in the lower edge in the place adjacent to the lower hook on the vertical edge. 25
7. The shelves with catches, according to claim 6 characteristic for the lower hooks of the catch (1) situated arch wise (8) on its lower edge of lower edge in the part adjacent to the frame (9). 30
8. The way of assembly of the shelves on catches, whose hooks are stuck into the frame openings, characteristic for the iron bars mounted on the shorter ends of the shelves, and the mounted shelves are settled on the catches. 35
9. The way according to claim 8, characteristic for the fact that for assembly of two neighboring shelves, after their placement next to each other on the catches situated in the frame openings. Distance sleeves are placed between assembly openings of the catches, and the catches are screwed. 40 45

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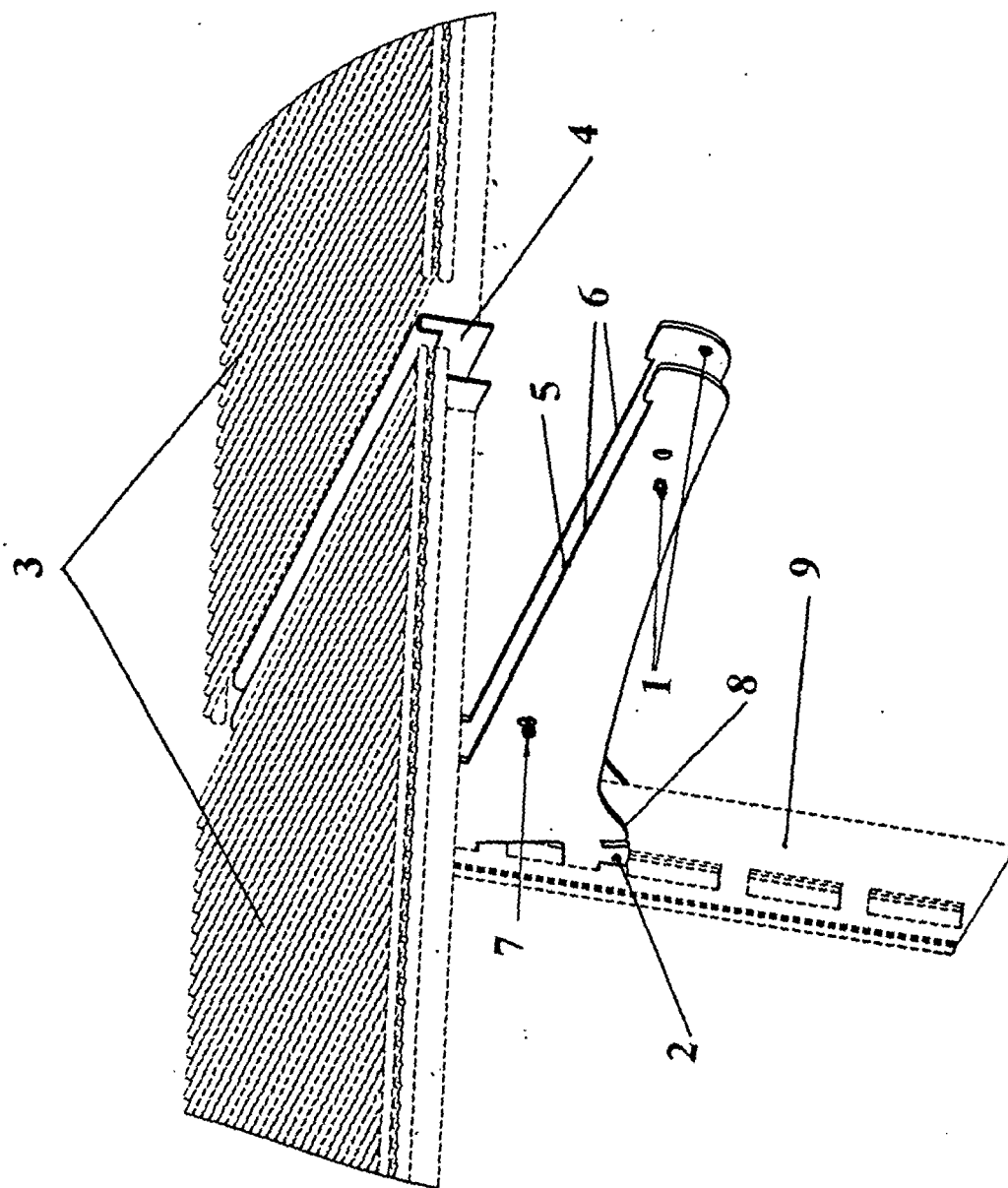


FIG.1

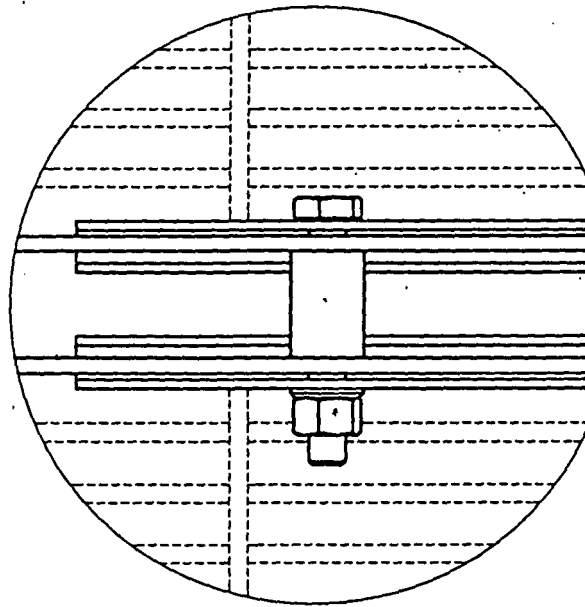


FIG.3

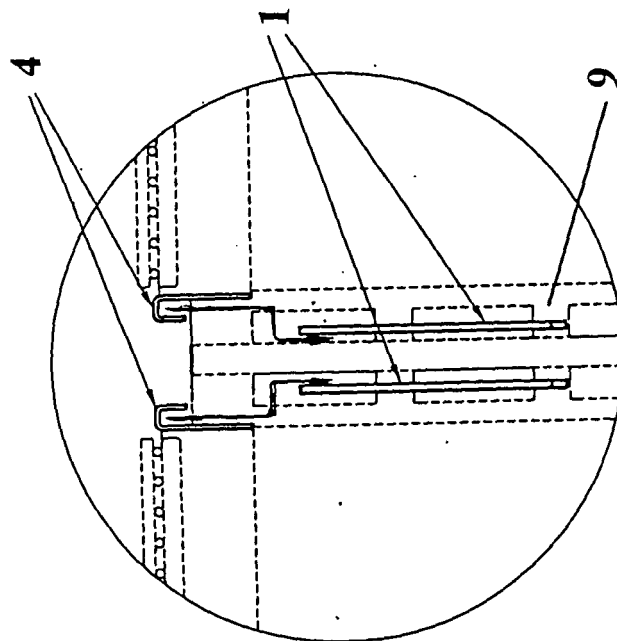


FIG.2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 0132055 A [0002]
- DE 29718748 [0003]