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(71) Applicant: **Bricca, Claudio**
Perugia, Località Casaglia (IT)

(72) Inventor: **Bricca, Claudio**
Perugia, Località Casaglia (IT)

(74) Representative: **Baldi, Claudio**
Piazza Ghislieri, 3
60035 Jesi (Ancona) (IT)

(54) **Clotheshorse with sliding wires**

(57) Clotheshorse with structure composed of a pair of legs supporting one or more frames with rectangular shape for a certain number of wires, including wires provided at the end with freely sliding means used for connection to the tubular metal rod of the supporting frames.

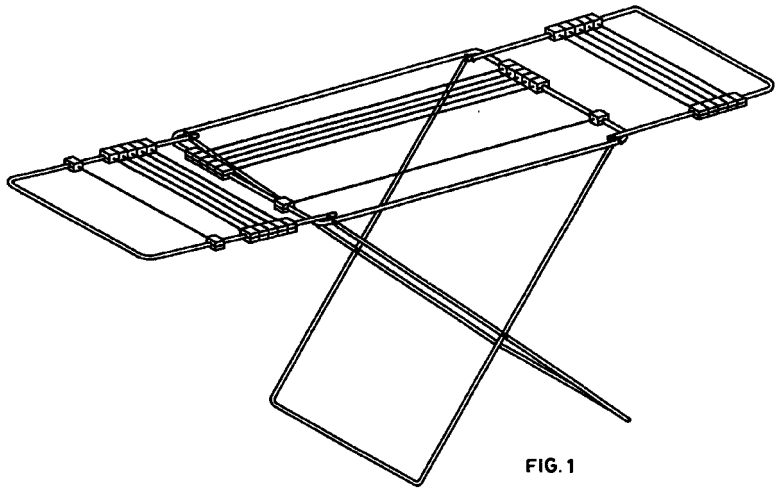

FIG. 1

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Description

[0001] The present patent application for industrial invention refers to a clotheshorse in which the wires or metal sticks used to hang clothes can slide, in parallel, with respect to the supporting frame.

[0002] This clotheshorse makes use of a general structure of traditional type, composed of a pair of crossed legs, that can be opened and closed like compasses, used to horizontally support during operation a frame with rectangular shape made with the same tubular metal rod used for the above-mentioned supporting legs.

[0003] This clotheshorse makes also use of two additional smaller frames, made with the same tubular metal rod, in the shape of a "U". The free end of each frame is connected to one of the transversal sides of the above-mentioned main frame supported by the two crossed legs.

[0004] Each smaller frame can be overturned by 180° from the inside towards the outside and vice versa. This is to say that it can be rotated from the horizontal operating position - in which it overhangs with respect to the transversal side of the main supporting frame - to the horizontal resting position - in which it is located over the main supporting frame, in order to reduce the overall dimensions of the item.

[0005] As known, the central supporting frame of this type of clotheshorse, as well as the two overturning side frames, support an equidistant series of stiff wires or sticks. In particular, the central rectangular frame supports an equidistant series of wires arranged in longitudinal direction, while each of the two overturning side frames supports a series of wires arranged in transversal direction.

[0006] This traditional type of clotheshorse presents some disadvantages during operation, when hanging clothes to the wires. In particular, the inconveniences result from the fact that the wires provided with the clotheshorse are rigidly fixed to the supporting frames with limited spacing.

[0007] As a matter of fact the main disadvantages are caused by the reduced spacing between the wires and represented by a considerable loss of time when inserting wet clothes between two wires and by undesirable, unpractical contacts between the clothes hung to a wire and the clothes hung to the adjoining wires.

[0008] The clotheshorse according to the present invention has been designed in view of these considerations and is characterized by the fact that the wires used to hang clothes can slide in parallel with respect to the supporting frame.

[0009] In order to provide the said wires with this possibility of movement, in a preferred embodiment of the present invention, the two ends of the wires are fixed to special clamps, possibly made of nylon, able to "grasp" from the top and the bottom the tubular metal rod used for the three supporting frames of the clotheshorse, without losing the capability of sliding on the said frames.

[0010] This solution allows the user to determine the position of each wire with respect to the adjoining ones and to arrange the series of wires according to an irregular spacing that can be determined from time to time in a discretional way.

[0011] This feature proves particularly useful when hanging bulky clothes - for which a wide space between the wires is necessary - together with less bulky clothes - that need a reduced space, even smaller than the standard spacing provided between the fixed wires of the traditional clotheshorses.

[0012] Furthermore, the same feature proves advantageous when hanging clothes, since it allows the user to move the wires to be used towards the side of the clotheshorse where he stands.

[0013] In this situation, the user can accumulate all the wires - one next to the other one - towards the said side of the clotheshorse, leaving the external wire at a certain distance from the other wires, since it will be the first to be loaded with clothes. After loading the wire with clothes, the user can make it slide towards the farthest end of the clotheshorse and position the second wire at the desired distance, following the same operating procedure for this wire and for all the other wires that have been initially accumulated on the nearest side of the clotheshorse.

[0014] According to this brief description, it is understood that the above-mentioned subject of the present invention allows for hanging clothes to the wires in a fast, easy way. It is also important to remark that the possibility of setting the distance between the wires at the user's discretion avoids the risk of mutual contact for the hung clothes.

[0015] Moreover, if only some of the wires are used to hang clothes, the unused wires can be pushed towards one side, while keeping the wires with wet clothes at a larger distance for better drying.

[0016] For explanatory reasons, the description of the present invention continues with reference to the enclosed drawing, exclusively having an illustrative, not restrictive purpose, where Fig. 1 is an axonometric view of the clotheshorse according to the present invention.

[0017] With reference to the enclosed figure, the clotheshorse presents a traditional supporting structure provided with a pair of legs that can be opened and closed like compasses (1) supporting a frame with rectangular shape (2) whose transversal sides are coupled to two smaller frames (3) that can be overturned by 180°; being understood that all the components of the said clotheshorse are made with the same tubular metal rod.

[0018] Both the main frame (2) and the two smaller overturning frames (3) are provided with wires (4) that can slide in parallel and are used to hang clothes.

[0019] This possibility is given by the fact that the ends of each wire (4) are fixed to a pair of special clamps (5),

possibly made of nylon, that can be coupled to the tubular metal rod of the said frames (2 and 3) without losing the capability of sliding freely.

[0020] Each clamp (5) makes use of a pair of jaws (5a and 5b) that is connected by means of a fastening screw with vertical axis (5c); one jaw (5a) is coupled to the tubular metal rod from above and the other one (5b) from below.

[0021] Although in the embodiment shown in the enclosed figures the wires (4) are supported and moved by means of the above-mentioned clamps (5), functionally equivalent means can be adopted as a constructional alternative.

[0022] The two ends of the wires (4), for instance, could be connected by means of sleeves having the same section - but slightly larger - as the tubular metal rod on which they are designed to slide.

[0023] Such sleeves must feature an inherently elastic structure - for this reason they could be advantageously made of plastic - and be provided with a cut that can be enlarged by vigorously opening the two opposite sides of the sleeve to allow for passing the tubular metal rod of the supporting frame (2 or 3) through the sleeve itself, when connecting it to the said tubular metal rod.

[0024] This operation allows the sleeve to grasp the tubular metal rod from the outside, while maintaining the capability of sliding freely in view of the above-mentioned difference in cross-section between the sleeve itself and the tubular metal rod.

[0025] It is easily understood that by relieving the strength used to open the opposite sides of the sleeve, the cut of the sleeve itself undergoes a spontaneous narrowing, thus avoiding the accidental release of the sleeve from the tubular metal rod.

[0026] As an additional alternative, the ends of the wires (4) could be provided with sliding means inserted on the sections of tubular metal rod before welding them to the adjoining sections, in order to obtain the supporting frames of the clotheshorse.

[0027] In this case the said sliding means could be represented by simple rings or sleeves with continuous cross-section, with no cut.

Claims

1. Clotheshorse composed of one or more supporting frames with rectangular shape (2 and 3) for a certain number of wires (4), characterized by the fact that the above-mentioned wires (4) are provided at the end with freely sliding means used for connection to the tubular metal rod of the supporting frames (2 and 3).

2. Clotheshorse, according to claim 1, characterized by the fact that the fixing and sliding means provided at the ends of the above-mentioned wires (4) are represented by clamps (5), possibly made of nylon, composed of an upper jaw (5a) and a lower jaw (5b) fixed with a fastening screw with vertical axis (5c).

3. Clotheshorse, according to claim 1, characterized by the fact that the fixing and sliding means provided at the ends of the above-mentioned wires (4) are represented by sleeves having an elastically deformable structure and a cut used for cross-section enlargement purposes.

4. Clotheshorse, according to claim 1, characterized by the fact that the fixing and sliding means provided at the ends of the above-mentioned wires (4) are represented by rings or sleeves with continuous cross-section.

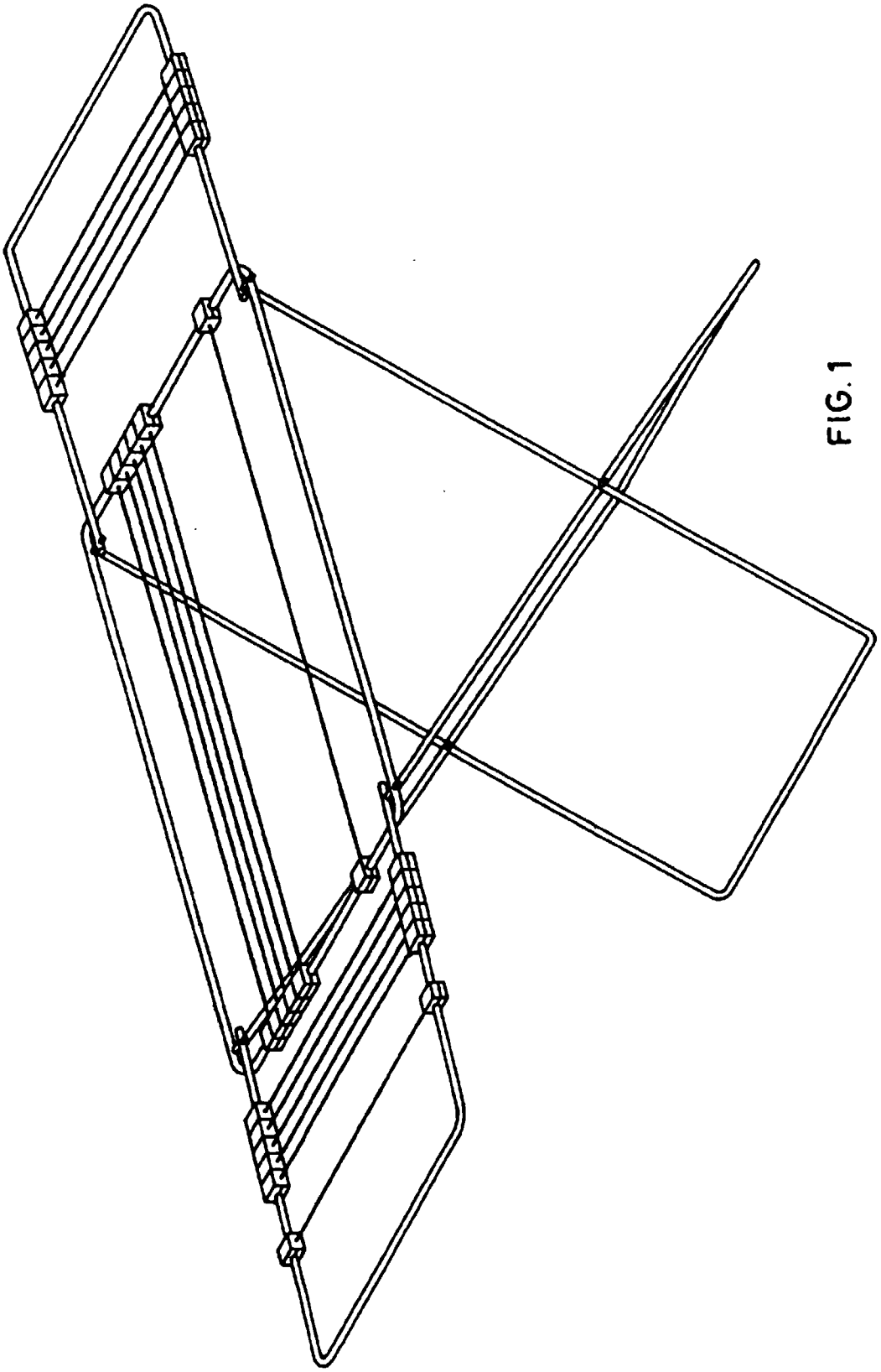

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 98 83 0406

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 A	FR 1 404 706 A (R. LEDRU) 10 November 1965 * the whole document *	1,4 2,3	D06F57/08
A A	FR 86 532 E (R. LEDRU) 11 May 1966 * the whole document *	1,4 2,3	
X A	US 2 597 788 A (V.E. GLASMAN) 20 May 1952 * the whole document *	1,4 2,3	
X A	DE 296 06 545 U (K. BÖTTENBERG) 16 January 1997 * the whole document *	1 2-4	
A	EP 0 271 453 A (R. FALCI) 15 June 1988 * figure 1 *	1	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)
D06F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	8 December 1998	Courrier, G

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