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(72) Inventors:
• **SENKE, Anette**
564 35 Bankeryd (SE)
• **JOHANSSON, Kenneth**
554 64 Jönköping (SE)
• **GUSTAFSSON, Jonas**
554 48 Jönköping (SE)
• **ARNELL, Thomas**
561 46 Huskvarna (SE)

(71) Applicant: **Rörets Industrier AB**
550 08 Jönköping (SE)

(74) Representative: **Kransell & Wennborg KB**
P.O. Box 27834
115 93 Stockholm (SE)

(54) **FOLDABLE CLOTHES DRYING RACK**

(57) The present disclosure relates to a clothes drying rack (1) comprising a frame (3), a first lateral wing (7) pivotally coupled to the frame (3), which first lateral wing (7) is pivotable between an unfolded wing position, and a folded wing position, relative to the frame (3), cross legs (5) pivotally coupled to the frame (3), and a first

lateral wing retaining member (9) fixedly mounted to the clothes drying rack (1), which first lateral wing retaining member (9) is arranged to releasably lock only the first lateral wing (7), in the folded wing position of the first lateral wing (7), to the frame (3).

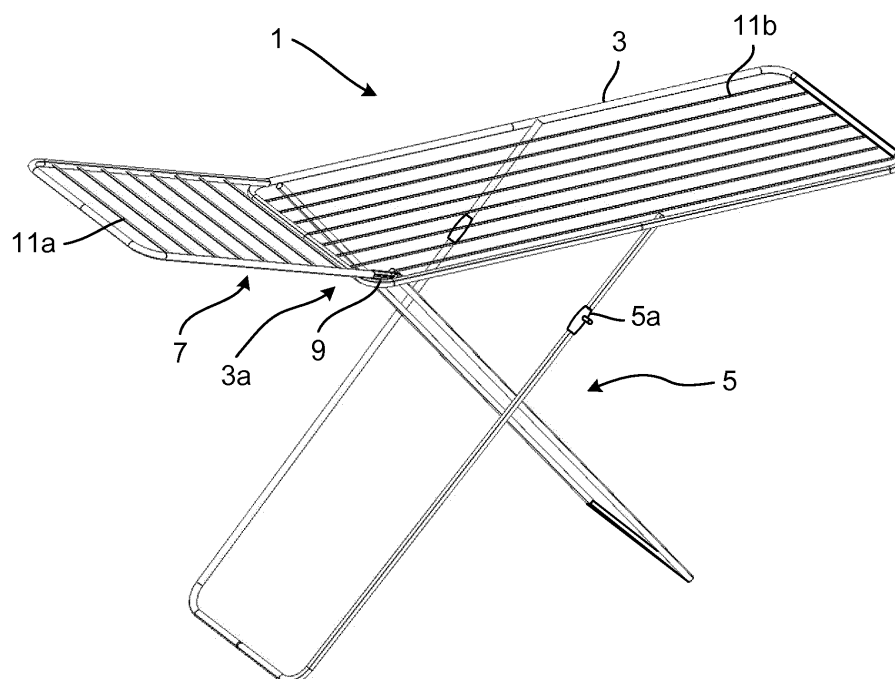


Fig. 1

Description

TECHNICAL FIELD

[0001] The present disclosure generally relates to clothes drying racks. In particular, it relates to foldable clothes drying racks.

BACKGROUND

[0002] Clothes drying racks of the foldable type may comprise a main frame, one or two lateral wings which are pivotally coupled to opposite ends of the main frame, and legs that are pivotally coupled to the main frame. The lateral wings may be foldable towards each other, and the legs may be placed in a folded position towards the main frame, thus minimising the size of the clothes drying rack when not in use.

[0003] When a clothes drying rack has been placed in its folded state by folding of the legs and lateral wings, there is a risk that the lateral wings will unfold when handling the clothes drying rack, for example when moved from one location to another.

[0004] There are several existing solutions for maintaining a clothes drying rack in a folded state. DE202004009881, for example, discloses a clothes dryer that has a holding clamp for holding the lateral wings of the clothes dryer so that the dryer can be stored in the vertical position after use without the lateral wings unfolding from the main frame. The clamp is placed around portions of the lateral wings which face each other in the folded position, thus locking the lateral wings in this position.

[0005] WO2005113882 shows another example of a clothes drying rack which has lateral wings that are fixed when the clothes drying rack is folded. In particular, each lateral wing is folded towards a respective leg and fixed thereto, wherein both legs are folded towards the main frame to obtain a folded clothes drying rack.

SUMMARY

[0006] Clothes drying racks may for example be provided with foldable cross legs, i.e. X-shaped legs, or with two legs provided at each of the two lateral ends of the frame, foldable towards each other. Of these two designs, cross legs have proved to be beneficial in that they are easier to handle. Cross legs will for example not unfold in different directions like legs do for models that have two legs arranged at the two lateral ends of the frame and which are foldable towards each other. Moreover, a user may readily grip around both the frame and the cross legs simultaneously in a single grip when the cross legs are in the folded leg position relative to the frame, to maintain the cross legs in the folded leg position during handling of the clothes drying rack.

[0007] The present inventors have realised that for clothes drying racks that have foldable cross legs, it suf-

fices to lock only the lateral wings in their folded position to obtain a clothes drying rack which may be handled conveniently when stowing it away and when bringing it out for use.

5 [0008] In view of the above, an object of the present disclosure is to solve, or at least mitigate, the problems of the prior art.

[0009] There is hence provided a clothes drying rack comprising a frame, a first lateral wing pivotally coupled to the frame, which first lateral wing is pivotable between an unfolded wing position, and a folded wing position, relative to the frame, cross legs pivotally coupled to the frame, and a first lateral wing retaining member fixedly mounted to the clothes drying rack, which first lateral wing retaining member is arranged to releasably lock only the first lateral wing, in the folded wing position of the first lateral wing, to the frame.

[0010] An effect which may be obtainable by the clothes drying rack being arranged to releasably lock the first lateral wing to the frame by means of the first lateral wing retaining member when the first lateral wing is in the folded wing position, is that the clothes drying rack may be maintained in its folded state during normal handling thereof. Furthermore, the first lateral wing retaining member is arranged to release the first lateral wing from the frame and the folded wing position when the first lateral wing is subjected to a pivot force greater than a threshold value when the first lateral wing is pivoted towards the unfolded wing position.

30 [0011] According to one embodiment the first lateral wing retaining member provides a snap-lock function between the frame and the first lateral wing.

[0012] According to one embodiment the first lateral wing retaining member has a groove arranged to receive a portion of one of the first lateral wing and the frame, in the folded wing position of the first lateral wing.

[0013] According to one embodiment the first lateral wing retaining member is fixedly mounted around the first lateral wing.

40 [0014] According to one embodiment the first lateral wing retaining member is fixedly mounted around the frame.

[0015] According to one embodiment the first lateral wing retaining member forms part of a pivot arrangement enabling pivoting between the first lateral wing and the frame.

[0016] According to one embodiment the first lateral wing retaining member is made of plastic.

[0017] One embodiment comprises a second lateral wing pivotally coupled to the frame, which second lateral wing is pivotable between an unfolded wing position and a folded wing position relative to the frame, and a second lateral wing retaining member fixedly mounted to the clothes drying rack, which second lateral wing retaining member is arranged to releasably lock only the second lateral wing, in the folded wing position of the second lateral wing, to the frame.

[0018] According to one embodiment the second lat-

eral wing retaining member provides a snap-lock function between the frame and the second lateral wing. According to one embodiment the second lateral wing retaining member has a groove arranged to receive a portion of one of the second lateral wing and the frame in the folded wing position of the second lateral wing.

[0019] According to one embodiment the second lateral wing retaining member is fixedly mounted around the second lateral wing.

[0020] According to one embodiment the second lateral wing retaining member is fixedly mounted around the frame.

[0021] According to one embodiment the second lateral wing retaining member forms part of a pivot arrangement enabling pivoting between the second lateral wing and the frame.

[0022] According to one embodiment the second lateral wing retaining member is made of plastic.

[0023] According to one embodiment the cross legs has knees for pivoting the cross legs to a folded leg position relative to the frame.

[0024] Generally, all terms used in the claims are to be interpreted according to their ordinary meaning in the technical field, unless explicitly defined otherwise herein. All references to "a/an/the element, apparatus, component, means, etc. are to be interpreted openly as referring to at least one instance of the element, apparatus, component, means, etc., unless explicitly stated otherwise.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025] The specific embodiments of the inventive concept will now be described, by way of example, with reference to the accompanying drawings, in which:

Fig. 1 schematically shows a perspective view of an example of a clothes drying rack in an unfolded state;

Fig. 2 schematically shows a perspective view of the clothes drying rack in Fig. 1 when the lateral wing is fully folded to the frame;

Fig. 3 is a perspective view of an example of a lateral wing retaining member;

Fig. 4 is a perspective view of a portion of the clothes drying rack in Fig. 1;

Fig. 5 is a perspective view of a portion of the clothes drying rack in Fig. 2;

Fig. 6 is a cross section along A-A of Fig. 5; and

Fig. 7 shows another example of a clothes drying rack.

DETAILED DESCRIPTION

[0026] The inventive concept will now be described more fully hereinafter with reference to the accompanying drawings, in which exemplifying embodiments are shown. The inventive concept may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided by way of example so that this disclosure will be thorough and complete, and will fully convey the scope of the inventive concept to those skilled in the art. Like numbers refer to like elements throughout the description.

[0027] This disclosure relates to a foldable clothes drying rack of the type that has a frame, a first lateral wing pivotally coupled to the frame, pivotable between a folded wing position relative to the frame and an unfolded wing position relative to the frame, and cross legs pivotally coupled to the frame. The clothes drying rack also includes a first lateral wing retaining member, which is a kind of a locking member, fixedly mounted to the clothes drying rack. The first lateral wing retaining member is fixedly mounted to the frame or to the first lateral wing. Preferably, the first lateral wing retaining member is immovably attached to the frame or to the first lateral wing.

[0028] When the first lateral wing is in the folded wing position, the first lateral wing retaining member maintains the first lateral wing in the folded wing position, locking the first lateral wing to the frame until the first lateral wing is subjected to a pivot force larger than a threshold value which allows the first lateral wing to be released from the frame and pivoted towards the unfolded wing position. The first lateral wing retaining member may have a snap-lock functionality to retain only the first lateral wing in the folded wing position. The first lateral wing retaining member does hence not interact with the cross legs. Moreover, the first lateral wing retaining member does not have to be actuated in any way to obtain the locking effect between the frame and the first lateral wing; it is designed to provide engagement of the first lateral wing and the frame as the first lateral wing reaches its folded wing position.

[0029] Examples of clothes drying racks will now be described with reference being made to Figs 1-7.

[0030] Fig. 1 shows an example of a clothes drying rack 1 in an unfolded state. The clothes drying rack 1 comprises a frame 3, cross legs 5, i.e. X-shaped legs, a first lateral wing 7, and a first lateral wing retaining member 9. The clothes drying rack 1 may further comprise a plurality of wires 11a, 11b onto which garments may be hung. The wires 11a and 11b may extend between sides of the first lateral wing body and between sides of the frame body, respectively.

[0031] The cross legs 5 are pivotally coupled to the frame 3. The cross legs 5 are foldable relative to the frame 5, and can be manoeuvred between an unfolded leg position as shown in Fig. 1, and a folded leg position in which the cross legs 5 are folded towards the frame

3. The cross legs 5 may beneficially further comprise knees 5a which provide a third pivot axis for the cross legs 5 and enables folding of the cross legs 5 relative to the frame 3.

[0032] The first lateral wing 7 is pivotally coupled to the frame 5. The first lateral wing 7 is pivotable between an unfolded wing position relative to the frame 3, as shown in Fig. 1, and a folded wing position relative to the frame 3, as shown in Fig. 2. The first lateral wing 7 may be pivotally attached to a first lateral end 3a of the frame 3. Folding of the first lateral wing 7 towards the frame 3 results in that the first lateral wing 7 obtains its folded wing position, and folding of the first lateral wing 7 away from the frame 3, when the first lateral wing 7 is in the folded wing position, results in that the first lateral wing 7 obtains its unfolded wing position.

[0033] The clothes drying rack 1 can be set in an unfolded state in which the first lateral wing 7 is in the unfolded wing position and in which the cross legs 5 are in the unfolded leg position, which is the normal configuration of the clothes drying rack 1 when hanging and drying garments. The clothes drying rack 1 can furthermore be set in a folded state in which the first lateral wing 7 is in the folded wing position and in which the cross legs 5 are in the folded leg position in order to facilitate stowing of the clothes drying rack 1.

[0034] According to the example in Fig. 1, the first lateral wing retaining member 9 is fixedly mounted to the first lateral wing 7. The first lateral wing retaining member 9 is preferably immovably attached to the first lateral wing 7. The first lateral wing retaining member 9 may be arranged anywhere along the side of the first lateral wing 7 so that it can engage with the frame 3 in the folded wing position. Thus, as the first lateral wing 7 is pivoted towards the folded wing position the, the first lateral wing retaining member 9 engages only with the frame 3 as the first lateral wing 7 is set in the folded position. In this manner, the first lateral wing 7 is maintained in the folded wing position until it is desired to set the clothes drying rack 1 in the unfolded state. The cross legs 5 may however still be manoeuvred between the folded leg position and the unfolded leg position in the same manner as if the first lateral wing 7 was still in the unfolded wing position. This is because the cross legs 5 do not interact with the first lateral wing retaining member 9 even when the first lateral wing 7 is in the folded wing position.

[0035] As an alternative to being fixedly mounted to the first lateral wing, the first lateral wing retaining member could be fixedly mounted to the frame. In this case the first lateral wing retaining member is preferably immovably attached to the frame. The first lateral wing retaining member may be arranged anywhere along the side of the frame as long as it allows engagement with the first lateral wing in the folded wing position. Thus, as the first lateral wing is pivoted towards the folded wing position the, the first lateral wing retaining member engages only with the first lateral wing as the first lateral wing is set in the folded position. In this manner, the first

lateral wing is maintained in the folded wing position until it is desired to set the clothes drying rack in the unfolded state.

[0036] Fig. 3 shows a perspective view of the first lateral wing retaining member 9. According to this example, the first lateral wing retaining member 9 has an opening 9a extending along the longitudinal direction of the first lateral wing retaining member 9. The first lateral wing retaining member 9 is arranged to receive the first lateral wing 7 in the opening 9a. The first lateral wing retaining member 9 furthermore has a groove 9b which according to the example in Figs 1 and 2 is arranged to receive a portion of the frame 3 when the first lateral wing 7 is in the folded wing position. To this end, external surface of the first lateral wing retaining member 9 is provided with the groove 9b, and the groove 9b extends in parallel with the longitudinal direction of the first lateral wing retaining member 9. The groove 9b may according to one variation have a curved cross-section, forming a circular arc with the same or essentially the same radius as the radius of the frame 3. It is envisaged that the groove could have other curved cross-sectional shapes instead of having a curved cross-section in the form of a circular arc. The cross-sectional shape and size of the groove should in general be designed such that it provides a snap-lock functionality between the frame and the first lateral wing.

[0037] The portion of the first lateral wing retaining member 9 which is provided with the groove 9b projects in a direction perpendicular to the longitudinal direction of the first lateral wing retaining member 9. This portion extends towards the frame 3 when the first lateral wing 7 is in the folded wing position. The groove edges 9c extending on both sides of and parallel with the groove 9b extend beyond a portion of the frame 3 when the first lateral wing 7 is arranged in the folded wing position. The frame 3 is hence trapped inside the groove 9b when the first lateral wing 7 is in the folded wing position. The frame 3 can thereby be maintained in the groove 9a as long as a pivot force acting on the first lateral wing 7 is smaller than a threshold value.

[0038] According to one variation, the first lateral wing retaining member 9 may form a pivot member which forms part of a pivot arrangement arranged to provide pivoting between the frame 3 and the first lateral wing 7. The first lateral wing retaining member 9 may therefore have one or more pivot openings 9d, at right angle with the longitudinal axis of the first lateral wing retaining member 9. The clothes drying rack 1 may comprise a rotation axle, arranged in the pivot opening(s) 9d, and which together with the first lateral wing retaining member 9 forms the pivot arrangement. According to one variation, one of the legs of the cross legs 5, is pivotally coupled to the first lateral wing retaining member 9. Moreover, the frame 3 is also pivotally connected to the first lateral wing retaining member 9.

[0039] The same design of the first lateral wing retaining member as described in the previous paragraphs equally applies also in case the first lateral wing retaining

member is arranged to be fixedly mounted to the frame instead of to the first lateral wing. However in this case, in the above paragraphs the term "first lateral wing" is interchanged with the term "frame" and vice versa concerning assembly and function.

[0040] The function of the clothes drying rack 1 will now be described in more detail with reference to Figs 4-6.

[0041] In Fig. 4, the first lateral wing 7 is shown in the unfolded wing position with the first lateral wing retaining member 9 being fixedly mounted to the first lateral wing 7. In this case, the frame 3 is not received in the groove 9b as the first lateral wing retaining member 9 is pivoted away from the frame 3.

[0042] In Fig. 5, the first lateral wing 7 is in the folded wing position and the first lateral wing retaining member 9 is aligned with the frame 3. In this case, a portion of the frame 3 is received by the groove 9b. This can be seen in Fig. 6, which shows the section along A-A in Fig. 5. It can be understood that the first lateral wing 7 is retained in the folded wing position and locked to the frame 3 by means of the first lateral wing retaining member 9. By applying a large enough pivot force F, i.e. a force for pivoting the first lateral wing 7 relative to the frame 3, to the first lateral wing 7, the frame 3 is released from the groove 9b and the first lateral wing 7 is allowed to be set in the unfolded wing position.

[0043] The functionality of the clothes drying rack is identical for variations thereof for which the first lateral wing retaining member is fixedly mounted to the frame instead of to the first lateral wing, except that in this case it is the first lateral wing that is received in the groove when the first lateral wing is in the folded wing position.

[0044] Fig. 7 shows another example of a clothes drying rack. Clothes drying rack 1' is similar to the clothes drying rack 1. The clothes drying rack 1' is however symmetric and includes two lateral wings, namely a first lateral wing 7 and a second lateral wing 8, and a corresponding first lateral wing retaining member 9 and a second lateral wing retaining member 10. The first lateral wing 7 is pivotally coupled to the frame 3' at a first end of the frame 3 and the second lateral wing 8 is pivotally coupled to the frame 3 at a second end of the frame 3, opposite to the first end. The second lateral wing 8 is arranged to be pivoted between a folded wing position relative to the frame 3', and an unfolded wing position relative to the frame 3'.

[0045] The second lateral wing retaining member 10 is arranged to releasably lock only the second lateral wing 8, in the folded wing position of the second lateral wing 8, to the frame 3'. The second lateral wing retaining member 10 functions in an identical manner as the first wing retaining member 7 already described herein, and may be fixedly mounted to the second wing retaining member 7 or to the frame 3'.

[0046] In any variation disclosed herein, the first lateral wing may be associated with one or more first lateral wing retaining members. With being associated with the

first lateral wing is here mean that each first lateral wing retaining member is arranged to releasably lock only the first lateral wing to the frame when the first lateral wing is in the folded wing position. The first lateral wing may for example be associated with two first lateral wing retaining members.

[0047] The first lateral wing retaining members may beneficially be identical in design, and in case of two first lateral wing retaining members, the second first lateral wing retaining member may be mounted in a corresponding manner as the first one, i.e. around either the first lateral wing or around the frame. Each wing retaining member associated with the first lateral wing may for example form part of a respective pivot arrangement as has previously been described herein. Depending on the design of the first lateral wing retaining member, concerning its strength to hold the first lateral wing locked to the frame, it may suffice with only one first lateral wing retaining member for the first lateral wing.

[0048] The previous paragraph can also apply to the second lateral wing retaining member for variations of the clothes drying rack comprising two lateral wings. To this end, examples of the clothes drying rack having a second lateral wing may include one or more second lateral wing retaining members, arranged to releasably lock the second lateral wing to the frame in the folded wing position of the second lateral wing.

[0049] According to any variation of the clothes drying rack disclosed herein the first lateral wing retaining member and the second lateral wing retaining member may be made of for example plastic, metal, wood or any other suitable solid material.

[0050] The inventive concept has mainly been described above with reference to a few examples. However, as is readily appreciated by a person skilled in the art, other embodiments than the ones disclosed above are equally possible within the scope of the inventive concept, as defined by the appended claims.

Claims

1. A clothes drying rack (1; 1') comprising:

a frame (3),
a first lateral wing (7) pivotally coupled to the frame (3; 3'), which first lateral wing (7) is pivotable between an unfolded wing position, and a folded wing position, relative to the frame (3; 3'), cross legs (5) pivotally coupled to the frame (3; 3'), and
a first lateral wing retaining member (9) fixedly mounted to the clothes drying rack (1), which first lateral wing retaining member (9) is arranged to releasably lock only the first lateral wing (7), in the folded wing position of the first lateral wing (7), to the frame (3; 3').

2. The clothes drying rack (1; 1') as claimed in claim 1, wherein the first lateral wing retaining member (9) provides a snap-lock function between the frame (3) and the first lateral wing (7). 5
3. The clothes drying rack (1; 1') as claimed in claim 1 or 2, wherein the first lateral wing retaining member (9) has a groove (9b) arranged to receive a portion of one of the first lateral wing (7) and the frame (3; 3'), in the folded wing position of the first lateral wing (7). 10
4. The clothes drying rack (1; 1') as claimed in any of the preceding claims, wherein the first lateral wing retaining member (9) is fixedly mounted around the first lateral wing (7). 15
5. The clothes drying rack as claimed in any of claims 1-3, wherein the first lateral wing retaining member (9) is fixedly mounted around the frame (3; 3'). 20
6. The clothes drying rack (1; 1') as claimed in any of the preceding claims, wherein the first lateral wing retaining member (9) forms part of a pivot arrangement enabling pivoting between the first lateral wing (7) and the frame (3; 3'). 25
7. The clothes drying rack (1; 1') as claimed in any of the preceding claims, wherein the first lateral wing retaining member (9) is made of plastic. 30
8. The clothes drying rack (1') as claimed in any of the preceding claims, comprising:

a second lateral wing (8) pivotally coupled to the frame (3'), which second lateral wing (8) is pivotable between an unfolded wing position and a folded wing position relative to the frame (3'), and 35

a second lateral wing retaining member (10) fixedly mounted to the clothes drying rack (1'), which second lateral wing retaining member (10) is arranged to releasably lock only the second lateral wing (8), in the folded wing position of the second lateral wing (8), to the frame (3'). 40 45
9. The clothes drying rack (1') as claimed in claim 8, wherein the second lateral wing retaining member (10) provides a snap-lock function between the frame (3') and the second lateral wing (8). 50
10. The clothes drying rack (1') as claimed in any of claims 8 or 9, wherein the second lateral wing retaining member (10) has a groove arranged to receive a portion of one of the second lateral wing (8) and the frame (3) in the folded wing position of the second lateral wing (8). 55
11. The clothes drying rack (1') as claimed in any of claims 8-10, wherein the second lateral wing retaining member (10) is fixedly mounted around the second lateral wing (8).
12. The clothes drying rack as claimed in any of claims 8-10, wherein the second lateral wing retaining member (10) is fixedly mounted around the frame (3').
13. The clothes drying rack (1') as claimed in any of claims 8-12, wherein the second lateral wing retaining member (10) forms part of a pivot arrangement enabling pivoting between the second lateral wing (8) and the frame (3').
14. The clothes drying rack (1') as claimed in any of claims 8-13, wherein the second lateral wing retaining member (10) is made of plastic.
15. The clothes drying rack (1; 1') as claimed in any of the preceding claims, wherein the cross legs (5) has knees (5a) for pivoting the cross legs (5) to a folded leg position relative to the frame (3; 3').

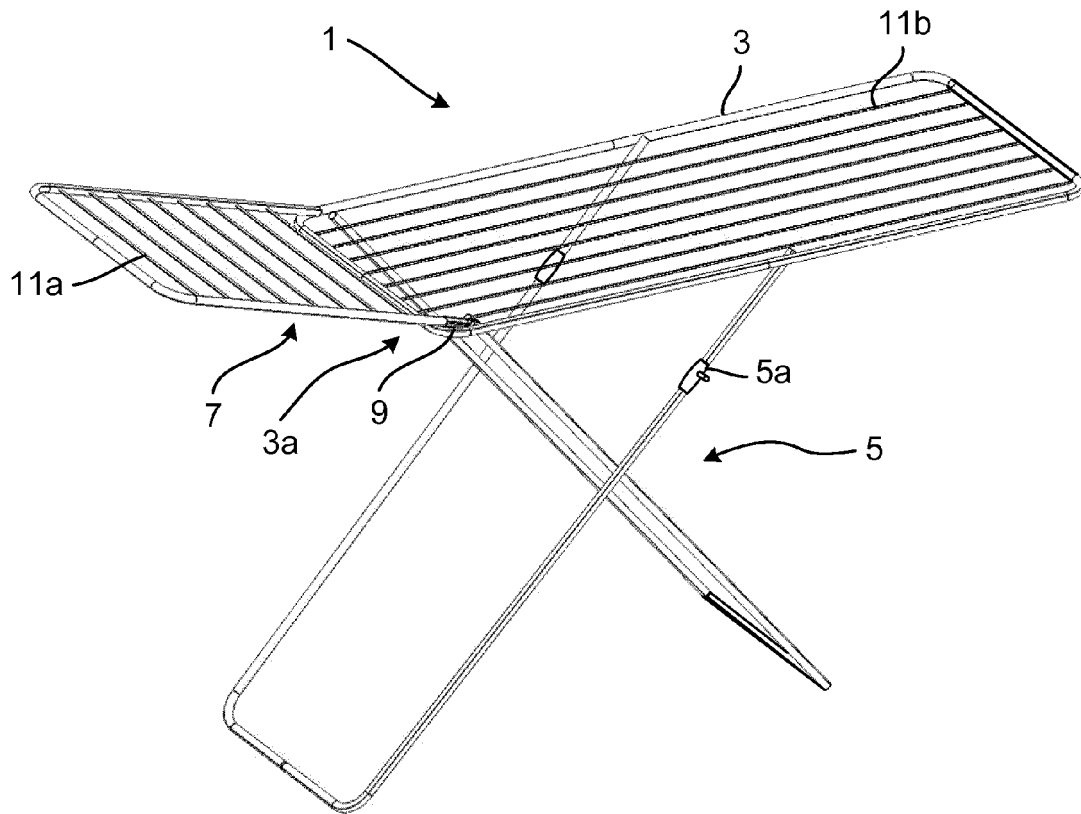


Fig. 1

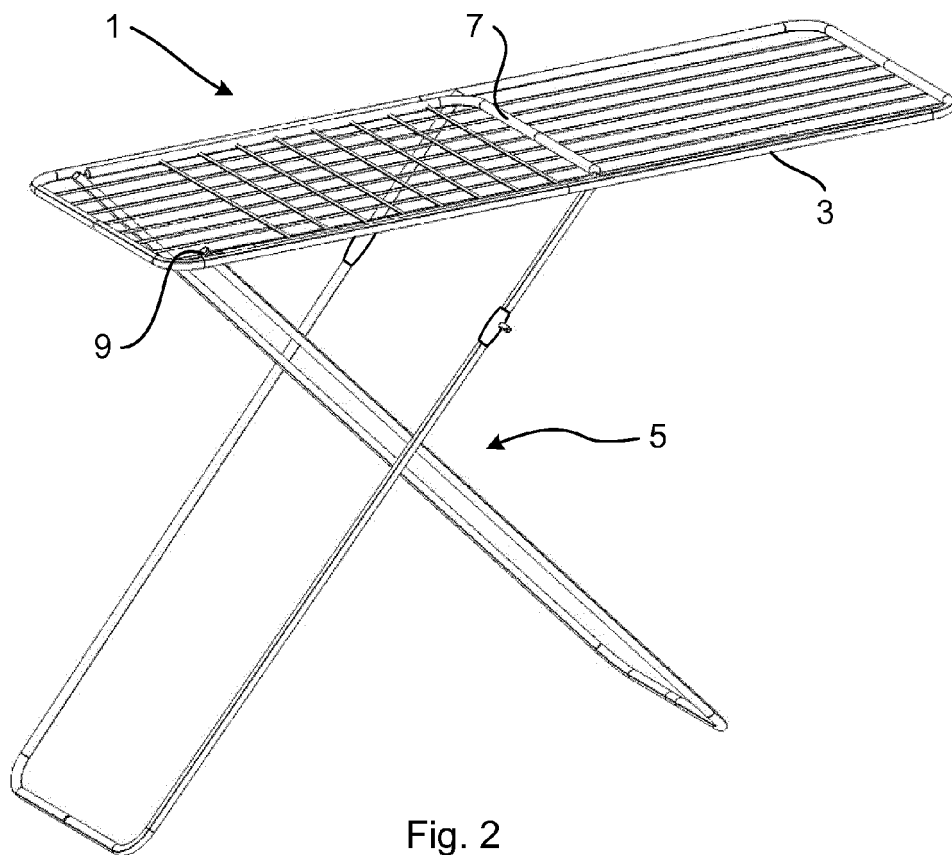


Fig. 2

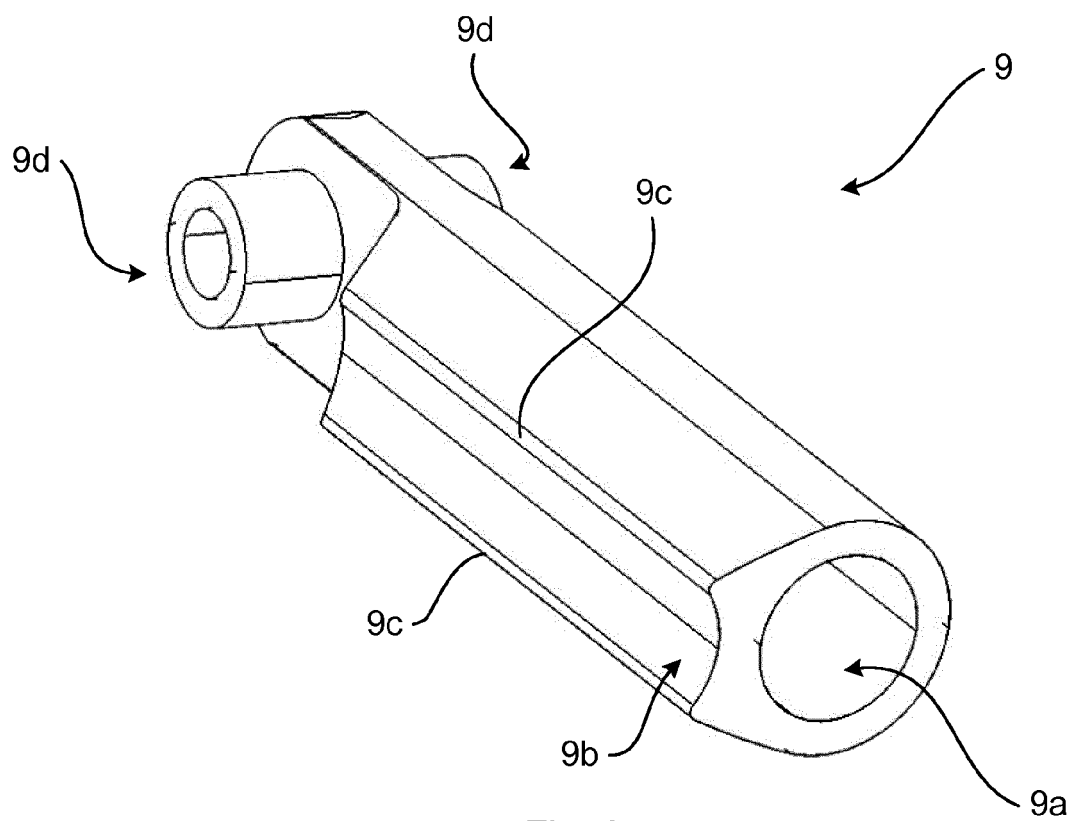


Fig. 3

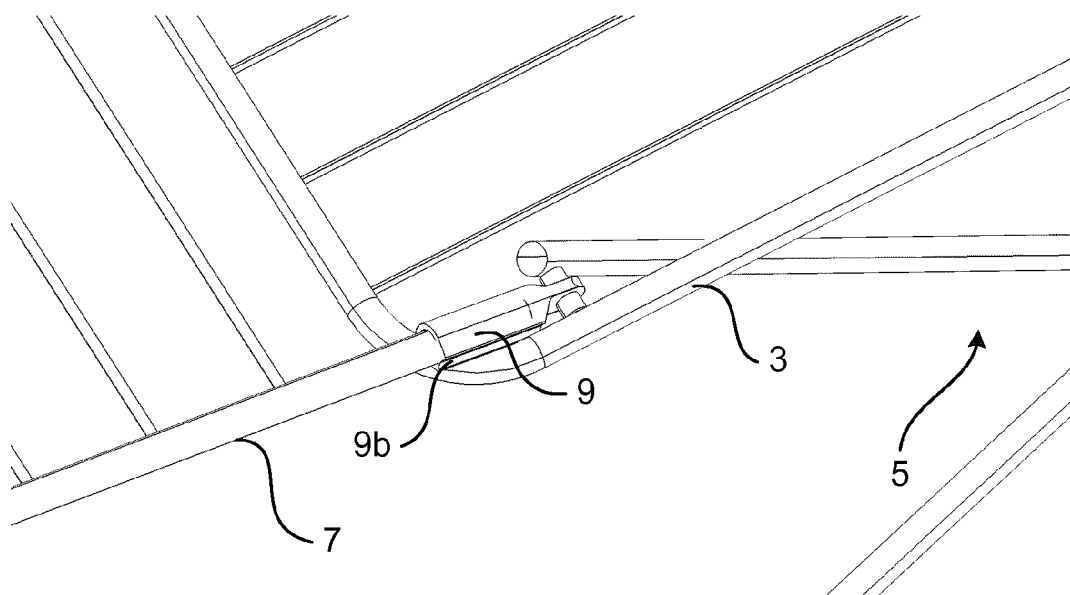


Fig. 4

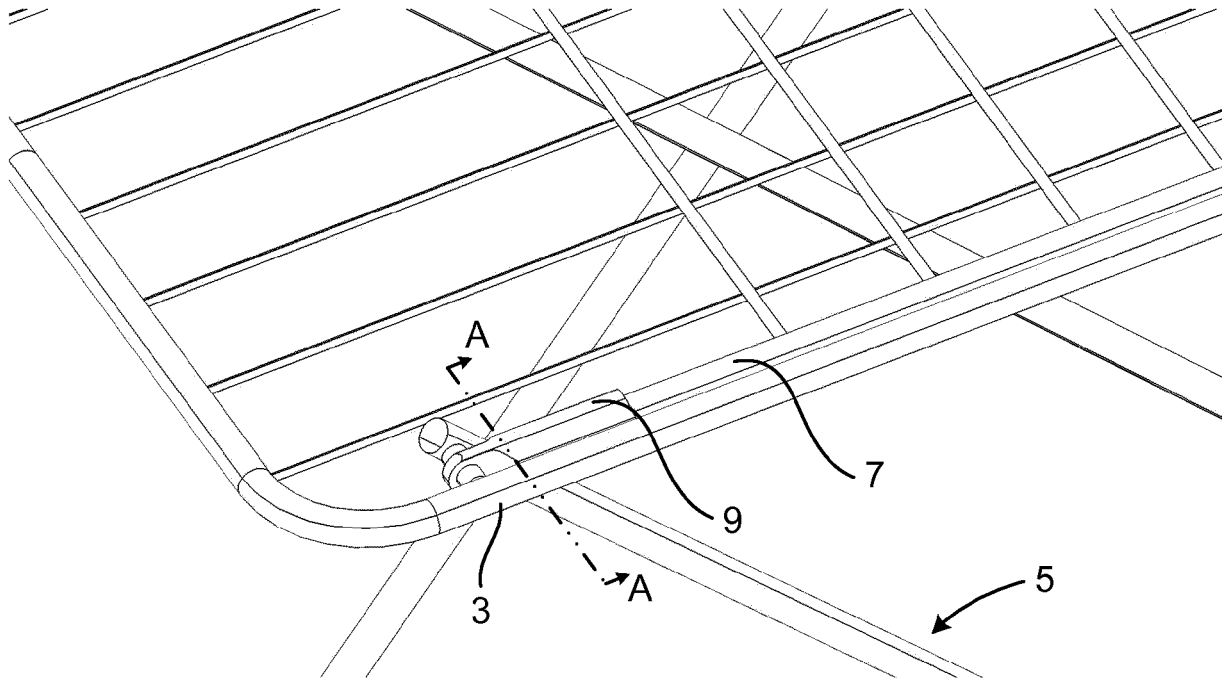


Fig. 5

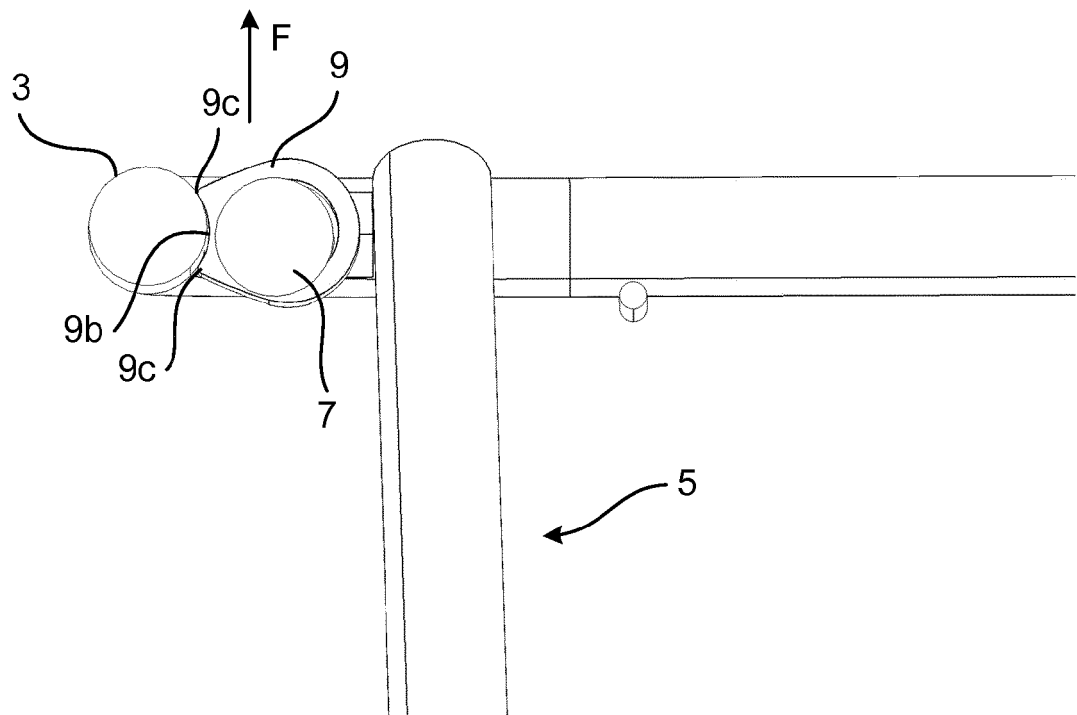


Fig. 6

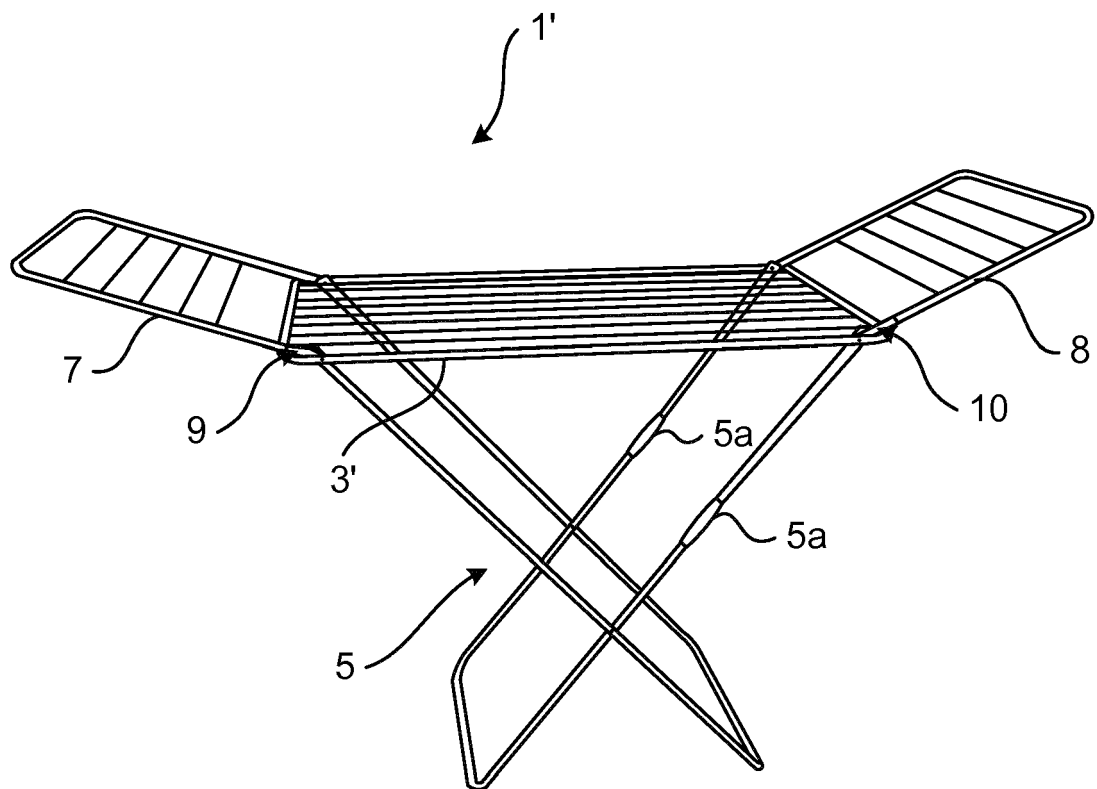


Fig. 7



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Application Number
EP 15 17 7892

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The present search report has been drawn up for all claims			
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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