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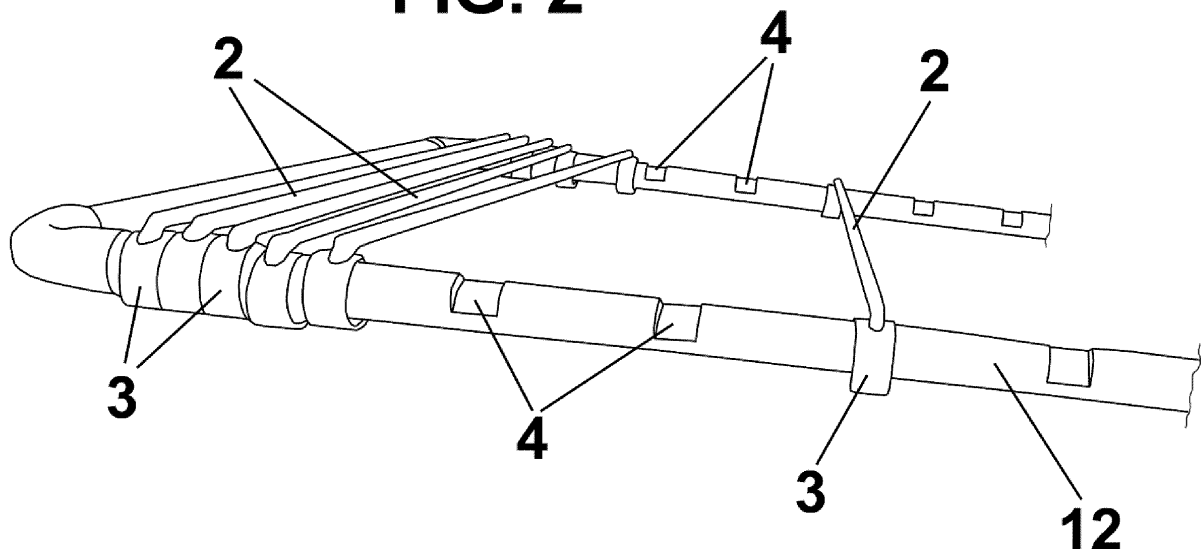
(54) **CLOTHES DRYING RACK**

(57) The clothes drying rack comprises a chassis (1) and a plurality of rods (2), the rods (2) being movable with respect to the chassis (1). Furthermore, the clothes drying rack also includes at least one retaining element (3, 6, 15, 17, 19, 21) to retain one or more rods (2) in relation to

the chassis (1), for example, a ring (3) at the end of the rods (2).

It permits the rods where the clothes are hung to be easily placed in a desired position, adjusting the distance between them as desired.

FIG. 2



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Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a clothes drying rack, in which the rods where the clothes are hung are movable in relation to the chassis of the clothes drying rack, so that the separation between the rods can be changed at the user's discretion.

BACKGROUND OF THE INVENTION

[0002] The use of clothes drying racks is well known for drying personal or household clothing for use in domestic environments. These clothes drying racks consist of rods or strings where the clothes to be dried are hung, which can be metallic, plastic, or made of other materials.

[0003] A type of clothes drying rack is a folding type, which includes a chassis formed by bars that define frames and legs. In these frames, rods are extended longitudinally or transversely, usually metallic, on which the clothes to be dried are hung.

[0004] These foldable clothes drying racks have the advantage that when not in use, they take up very little space, being substantially flat, so they can be easily stored, which is especially practical for use in a household setting.

[0005] However, clothes drying racks in general have the drawback that the rods where the clothes are hung are fixed, meaning they cannot be moved in relation to the chassis, so their spacing is also fixed and cannot be adjusted to the type of clothing being hung.

[0006] For example, for personal clothing the spacing between the rods can be reduced, while for larger household items, such as bed sheets, it is advisable that the spacing between the rods be greater.

[0007] This inability to adjust the spacing between the rods may cause long-term damage to the rods.

DESCRIPTION OF THE INVENTION

[0008] Therefore, an objective of the clothes drying rack according to the present invention is to allow the rods where the clothes are hung to be easily placed in a desired position, regulating the separation between them as desired.

[0009] The clothes drying rack according to the present invention is defined in claim 1, and comprises a chassis and a plurality of rods, the rods being movable with respect to the chassis.

[0010] Thus, the rods can be placed in any suitable position relative to the chassis, according to the user's needs, allowing for the adjustment of the spacing between the rods.

[0011] Optional additional features are described in the dependent claims.

[0012] Advantageously, the clothes drying rack according to the present invention comprises a retention

element.

[0013] According to a first embodiment, the retaining element is a ring located at the ends of the rods, which facilitates the movement of the rods relative to the chassis, and retains the rods by fitting into a plurality of housings of the chassis. These housings allow the rods to be held in a predetermined position, preventing the accidental displacement of the rods.

[0014] Preferably, these housings are evenly spaced along the chassis.

[0015] According to a preferred embodiment, said chassis defines frames and legs.

[0016] Particularly, according to a preferred embodiment, the chassis defines a central frame, for example, rectangular or square, and two side frames, for example, U-shaped, with the side frames hinged to the central frame.

[0017] These rods are preferably metallic, although they could be made of any suitable material.

[0018] According to a second embodiment, each retaining element comprises a movable arm that is movable between a release position and a retaining position. Furthermore, the movable arm advantageously comprises a protrusion.

[0019] According to a third embodiment, the retaining element is a threaded shaft movable between a release position and a retaining position, and the threaded shaft comprises a handle for rotating said threaded shaft from its release position to its retaining position, or vice versa.

[0020] Preferably, each rod comprises a ring at its ends, and the movable arm is connected through a pivot point to said ring.

[0021] According to a preferred embodiment, the protrusion is arranged at the end of the movable arm farthest from the pivot point, and said ring comprises a hole for housing said protrusion.

[0022] Furthermore, the chassis comprises complementary cavities with the hole of each ring.

[0023] If desired, the retaining element can also include a fixed arm.

[0024] In addition, the retaining element can be an engraving of the chassis.

[0025] According to a fourth embodiment of the retaining element, wherein the retaining element is a plurality of curved tilting plates, which are movable between a retaining position, where it is placed on the chassis, and a release position, where it is separated from the chassis. To tilt all the curved plates together, they are joined together by a connecting bar.

[0026] According to a fifth embodiment of the retaining element, in which the retaining element is a protrusion that is inserted into a cavity of the chassis in its retaining position, the protrusion is arranged on a ring disposed at the ends of the rods.

DESCRIPTION OF THE DRAWINGS

[0027] To complement the description being made and

in order to aid in a better understanding of the features of the invention, in accordance with a preferred example of practical embodiment thereof, there is attached as an integral part of said description a set of drawings wherein, by way of illustration and not limitation, the following has been depicted:

Figure 1 is a perspective view of the clothes drying rack according to the present invention;

Figure 2 is a perspective view showing a detail of the clothes drying rack according to the present invention, where the housings of the bars forming the clothes drying rack chassis can be seen;

Figure 3 is a perspective view of one end of a rod used in the clothes drying rack according to the present invention, in accordance with a second embodiment;

Figure 4 is a sectional view of one end of a rod used in the clothes drying rack according to the present invention coupled to the chassis retained in its position of use, according to the second embodiment;

Figure 5 is a sectional view of one end of a rod used in the clothes drying rack according to the present invention coupled to the chassis retained in its operating position, according to a third embodiment;

Figure 6 is a perspective view of a fourth embodiment of the clothes drying rack according to the present invention; and

Figure 7 is a perspective view of a fifth embodiment of the clothes drying rack according to the present invention.

PREFERRED EMBODIMENT OF THE INVENTION

[0028] Subsequently, with the help of the previously referenced figures, a detailed explanation of a preferred embodiment of the object of the present invention is provided.

[0029] Firstly, it should be noted that the figures show a foldable clothes drying rack, but this is shown only by way of non-limiting example, as the clothes drying rack according to the present invention can also be a non-foldable clothes drying rack.

[0030] The clothes drying rack according to the present invention comprises a chassis (1) and rods (2) that are movable with respect to said chassis (1).

[0031] Specifically, according to the depicted embodiment, the chassis (1) is formed by bars that define a central frame (11) and two side frames (12), with the side frames (12) being hinged to the central frame (11). In addition, the chassis (1) also defines legs (13), which are also foldable, according to the depicted embodiment.

[0032] As can be seen in the figures, the rods (2) extend transversely or longitudinally in said frames (11, 12), and include rings (3) at their ends, which surround the bars forming the frames (11, 12).

[0033] Through these rings (3), the rods (2) can slide easily and guided along the bars that make up the frames (11, 12), allowing the rods (2) to be placed in any desired position.

[0034] In addition, the chassis (1), in particular, in the frames (11, 12), comprises retaining elements, in this embodiment housings (4), to house the rings (3) of the ends of the rods (2). These housings (4) are preferably distributed equidistantly in said frames (11, 12).

[0035] In this way, the user can place at least some rods (2) in correspondence with the housings (4), with the upper interior part of the rings (3) housed in said housings (4).

[0036] These housings (4), in addition to determining rod (2) positions, allow retaining the rods (2) in place, preventing accidental displacement of said rods (2).

[0037] The operation of the drying rack according to the present invention is very simple, as the user can simply move the rods (2) so that the spacing between them adapts to their needs. Specifically, you can place them with a minimal separation between them when you do not want to use them, as shown on the left side of figure 2, they can be placed in correspondence with the housings (4), or in any intermediate position.

[0038] In figures 3 to 5, a second and third embodiments of the clothes drying rack according to the present invention are shown. For the sake of simplicity, the same reference numbers are used to identify the same elements, or equivalent elements.

[0039] As can be seen in these figures, the rods (2) extend transversely or longitudinally in said frames (11, 12), and include rings (30) at their ends, which surround the bars that make up the frames (11, 12).

[0040] Through these rings (30), the rods (2) can slide easily and guided along the bars that make up the frames (11, 12), allowing the rods (2) to be placed in any desired position.

[0041] Each of these rings (30) comprises a retaining element which, according to a second embodiment, includes a movable arm (5) provided with a protrusion (6). This movable arm (5) can be placed in a release position and a retaining position.

[0042] In the release position, the rods (2) can move freely along the frames (11, 12), while in the retaining position the rods (2) remain held in the desired position, unable to move along the rods (2).

[0043] This retention is achieved by inserting the protrusion (6) into a hole (7) in the ring (30) and into a cavity (8) in the corresponding frame (11, 12). The movement from the release position to the retaining position, or vice versa, is achieved because the movable arm (5) is preferably articulated with respect to the ring (30) through a pivot point (14) attached to the ring (30), and the protrusion (6) is also preferably located at the end of the

movable arm (5) farthest from the pivot point (14).

[0044] Furthermore, this retaining element may also include a fixed arm (9) to facilitate the manipulation of the movable arm (5), with a spring (16) arranged between the movable arm (5) and the fixed arm (9).

[0045] In addition, the chassis (1), in particular, in the frames (11, 12), may include housings, not shown in figures 3 to 5, but identical to those for the embodiments of figures 1 and 2, to house the ends of the rods (2). These housings may be preferably distributed equidistantly in said frames (11, 12).

[0046] This way, the user can place at least some rods (2) in correspondence with the housings, with the upper interior part of the rings (30) housed in said housings.

[0047] These housings, in addition to determining positions of the rods (2), allow retaining the rods (2) in place, preventing an accidental displacement of said rods (2).

[0048] In addition, if desired, the chassis (1) may include an additional engraving (15) with a ring engraving (30), for retaining the rods. This engraving (15) also serves as the retaining element.

[0049] The operation of the drying rack according to the present invention is very simple, as the user can simply move the rods (2) so that the spacing between them adapts to their needs. Specifically, you can place them with a minimum spacing between them when they are not being used, they can be placed corresponding to the housings, if present, corresponding to the cavities (8) of the frames (11, 12), or in any intermediate position.

[0050] When they are placed in correspondence with the cavities (8), the position of the hole (7) coincides with the cavity (8), and the user moves the movable arm (5) from the release position to the retaining position, inserting the protrusion (6) of the movable arm (5) into the inside of the cavity (8) and the hole (7), retaining the end of the rod (2) in this position.

[0051] In order to allow the rod (2) to move, the moving arm (5) must be placed in the release position, performing the opposite movement.

[0052] A third embodiment of the retaining element is shown in figure 5, wherein the retaining element is a threaded shaft (17) that is movable between a release position and a retaining position, and said threaded shaft (17) comprises a knob (18) for rotating said threaded shaft (17) from its release position to its retaining position, or vice versa.

[0053] In figure 6, a fourth embodiment of the retaining element is shown, in which the retaining element consists of a plurality of tilting curved plates (19) that can be moved between a retaining position, where it is placed on the chassis (1), and a release position, where it is separated from the chassis (1). To tilt all the curved plates together, they are joined together by a connecting bar (20).

[0054] In figure 7, a fifth embodiment of the retaining element is shown, in which the retaining element is a protrusion that is inserted into a cavity of the chassis in its retaining position, the protrusion (21) being located on a ring (30) arranged at the ends of the rods (2).

[0055] Although reference has been made to specific embodiments of the invention, it is apparent to a person skilled in the art that the described clothes drying rack is susceptible of numerous variations and modifications, and that all the details mentioned can be replaced by other technically equivalents, without departing from the scope of protection defined by the appended claims.

10 Claims

1. Clothes drying rack, comprising a chassis (1) and a plurality of rods (2), **characterized in that** the rods (2) are movable with respect to the chassis (1).
2. Clothes drying rack according to claim 1, comprising at least one retaining element (3, 6, 15, 17, 19, 21) for retaining one or more rods (2) with respect to the chassis (1).
3. Clothes drying rack according to claim 2, in which the at least one retaining element is a ring (3) at the end of the rods (2).
4. Clothes drying rack according to claim 3, wherein the chassis (1) comprises a plurality of housings (4) for housing the rings (3) of the rods (2).
5. Clothes drying rack according to claim 4, wherein said housings (4) are equidistantly separated along the chassis (1).
6. Clothes drying rack according to any one of the preceding claims, wherein said chassis (1) defines frames (11, 12) and legs (13).
7. Clothes drying rack according to claim 6, wherein the chassis (1) defines a central frame (11), and two side frames (12), the side frames (12) being articulated with respect to the central frame (11).
8. Clothes drying rack according to claim 7, wherein the central frame (11) is rectangular or square.
9. Clothes drying rack according to claim 7, wherein the side frames (12) are U-shaped.
10. Clothes drying rack according to any one of the preceding claims, wherein said rods (2) are metallic.
11. Clothes drying rack according to claim 2, wherein the at least one retaining element is a protrusion (6) arranged on a movable arm (5) that is movable between a release position and a retaining position.
12. Clothes drying rack according to claim 2, wherein the at least one retaining element is a threaded shaft (17) movable between a release position and a retaining

position.

13. Clothes drying rack according to claim 12, wherein the threaded shaft (17) comprises a handle (18) for rotating said threaded shaft (17) from its release position to its retaining position, or vice versa. 5
14. Clothes drying rack according to claim 11, wherein the movable arm (5) is attached by a pivot point (14) to a ring (30). 10
15. Clothes drying rack according to claims 11 and 14, wherein the protrusion (6) is arranged at the end of the movable arm (5) farthest from the pivot point (14). 15
16. Clothes drying rack according to claims 11 and 14, wherein said ring (30) comprises a hole (7) for housing said protrusion (6). 20
17. Clothes drying rack according to claim 16, wherein the chassis (1) comprises cavities (8) complementary to the hole (7) of each ring (30). 25
18. Clothes drying rack according to claim 11, wherein the at least one retaining element also comprises a fixed arm (9). 30
19. Clothes drying rack according to claim 2, wherein the at least one retaining element is an engraving (15) of the chassis (1). 35
20. Clothes drying rack according to claim 2, wherein the at least one retaining element is a plurality of tilting curved plates (19), which are movable between a retaining position, in which they are placed on the chassis (1), and a release position, in which they are separated from the chassis (1). 40
21. Clothes drying rack according to claim 20, in which the curved plates (19) are joined together by a connecting rod (20). 45
22. Clothes drying rack according to claim 2, wherein the at least one retaining element is a protrusion (21) that is inserted into a cavity (7) of the chassis (1) in its retaining position. 50
23. Clothes drying rack according to claim 22, wherein the protrusion (21) is arranged in a ring (30) placed at the ends of the rods (2). 55

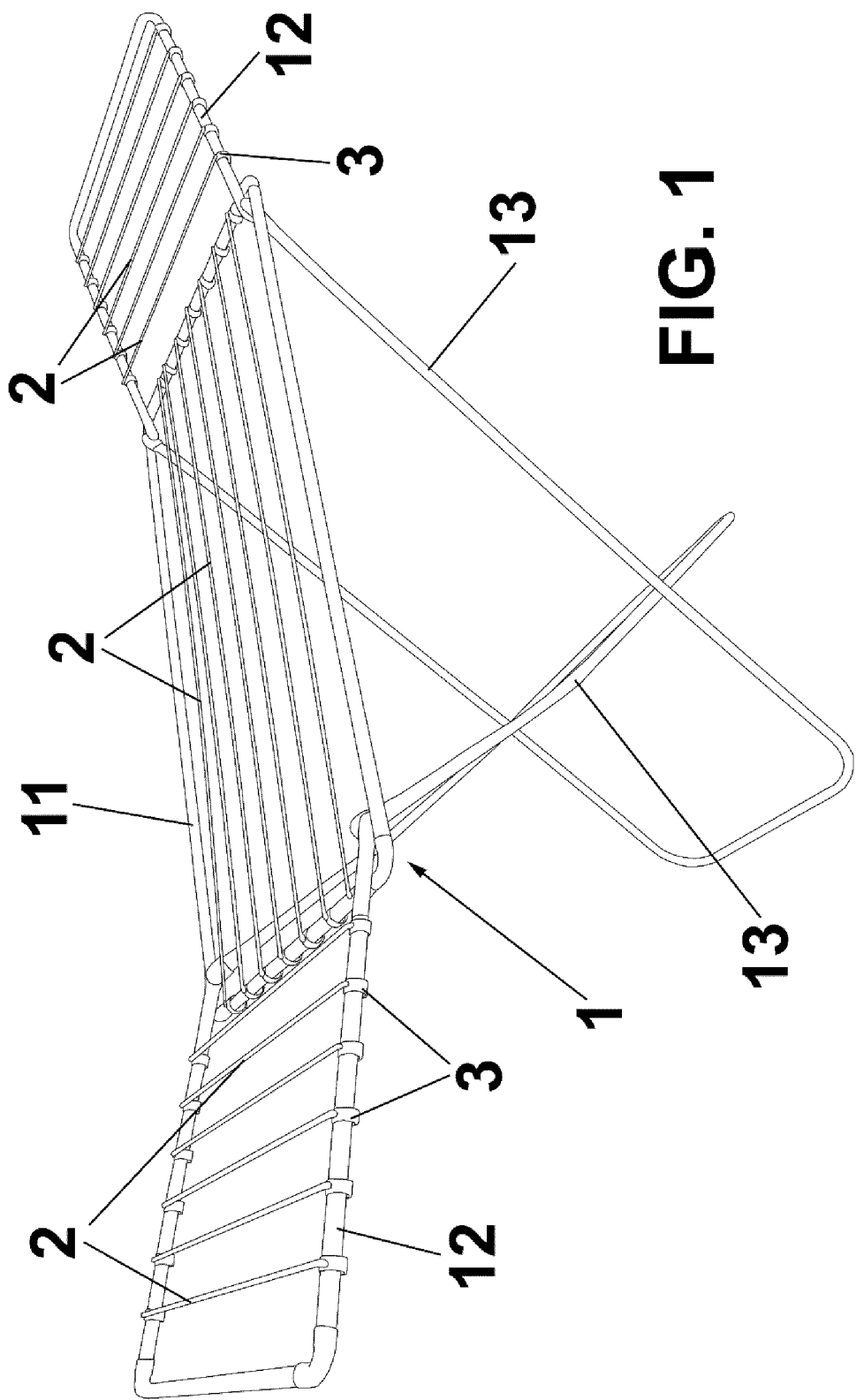
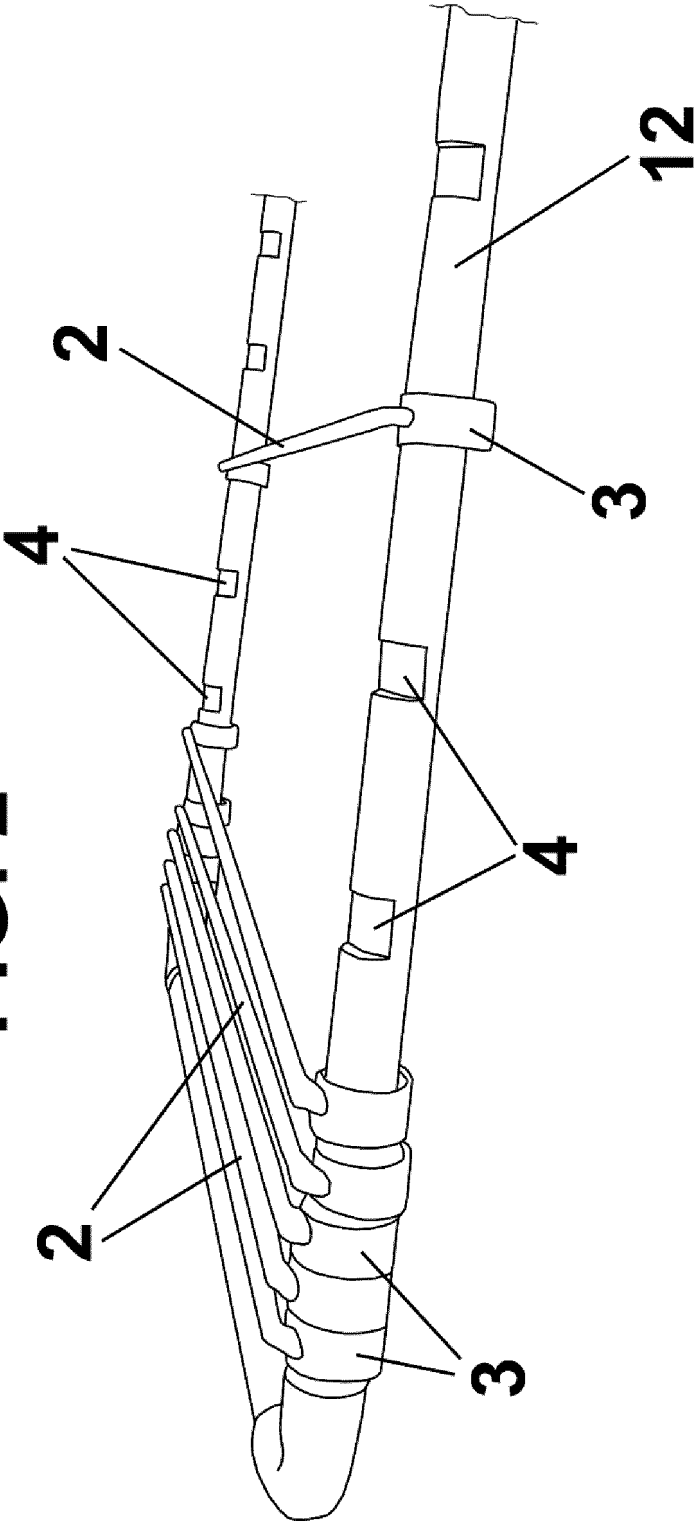
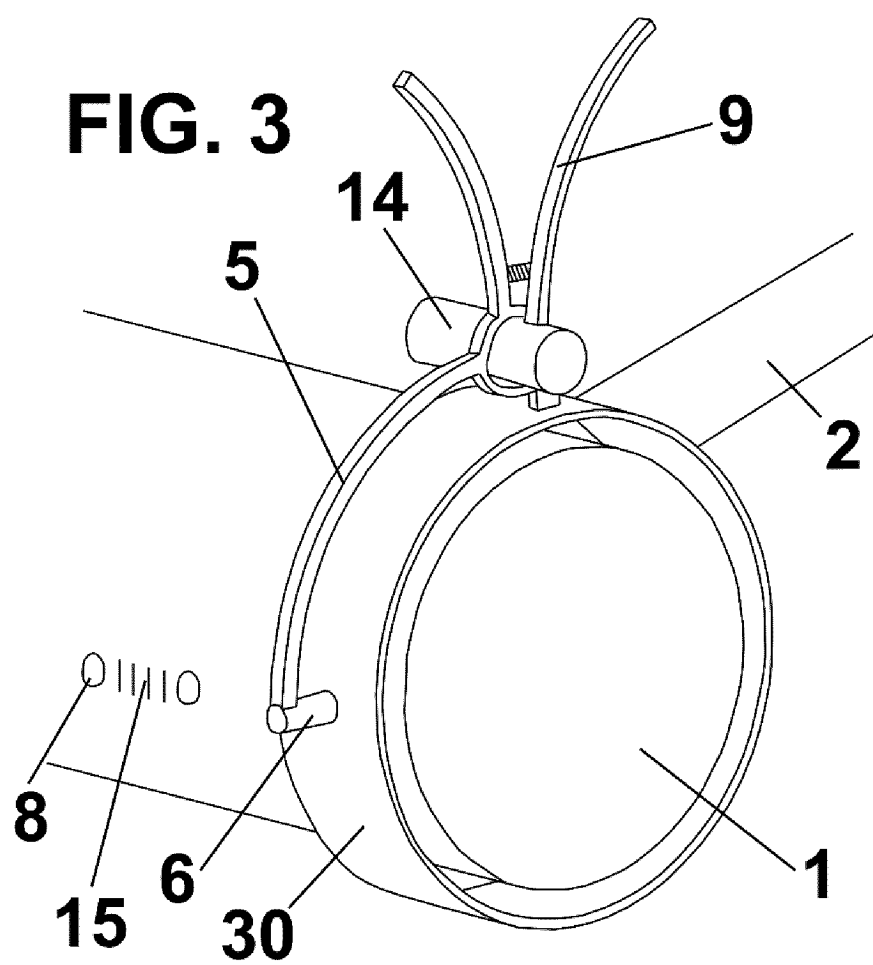
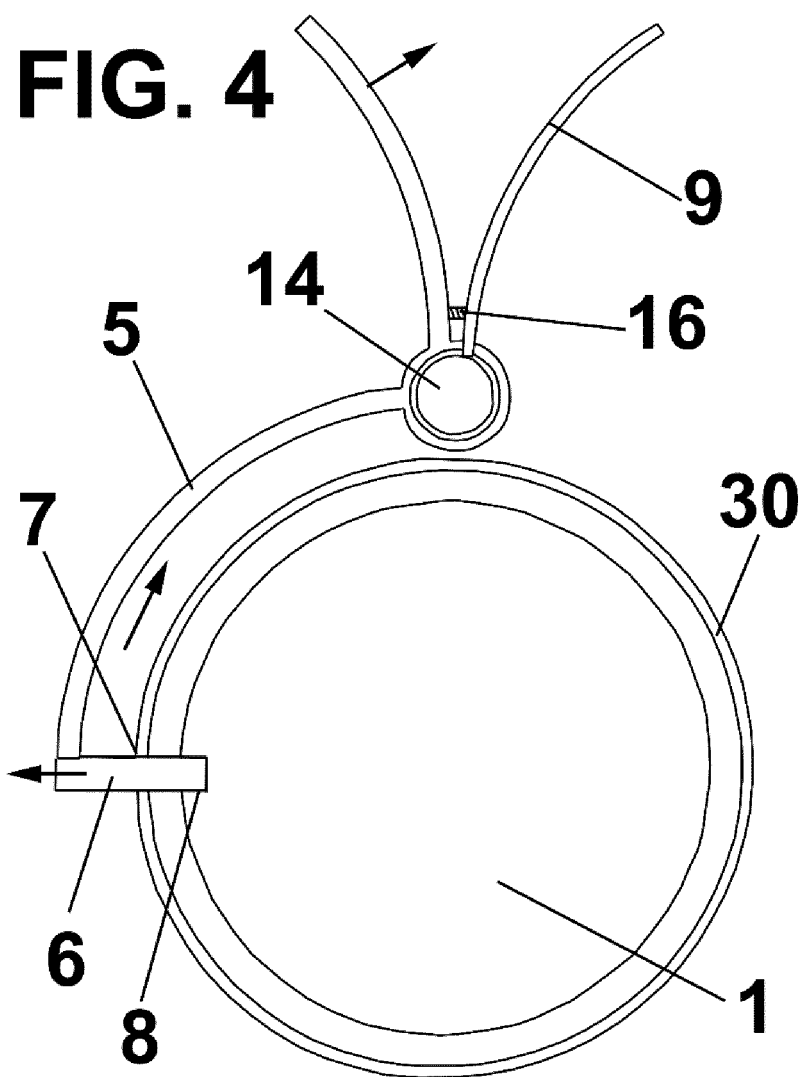


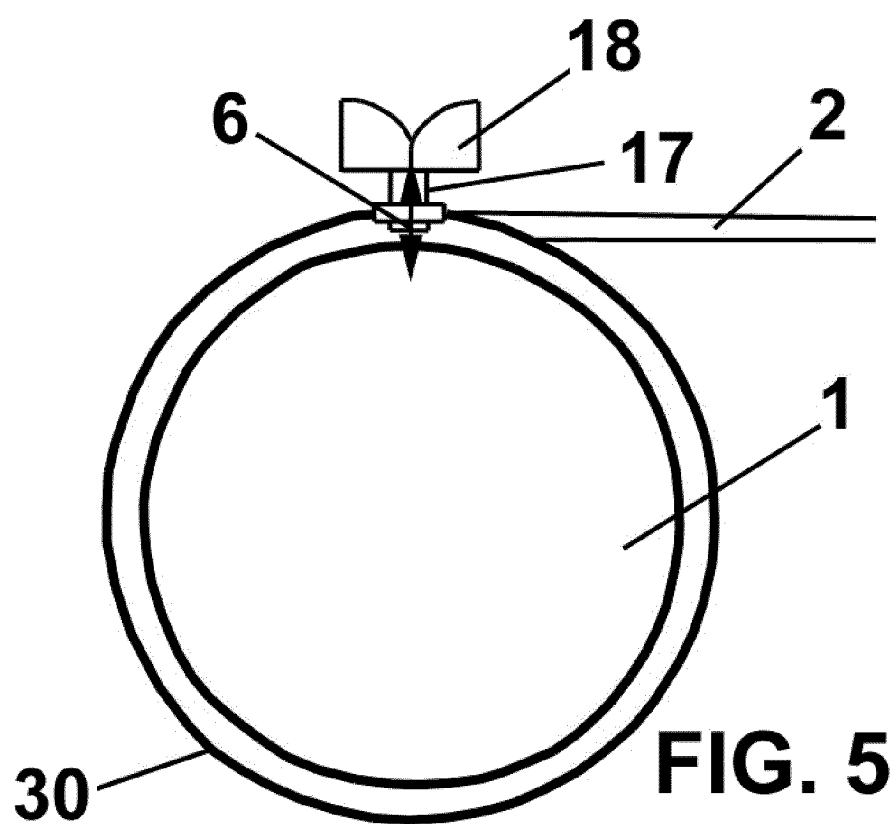
FIG. 1

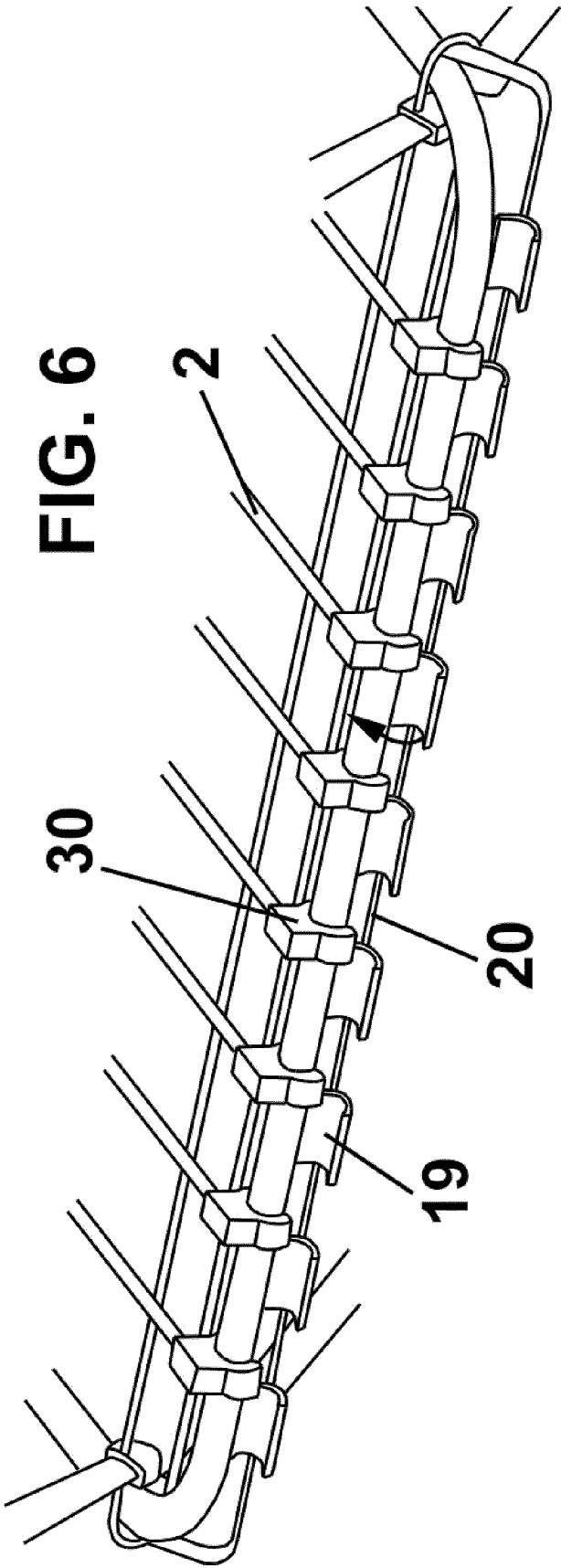
FIG. 2

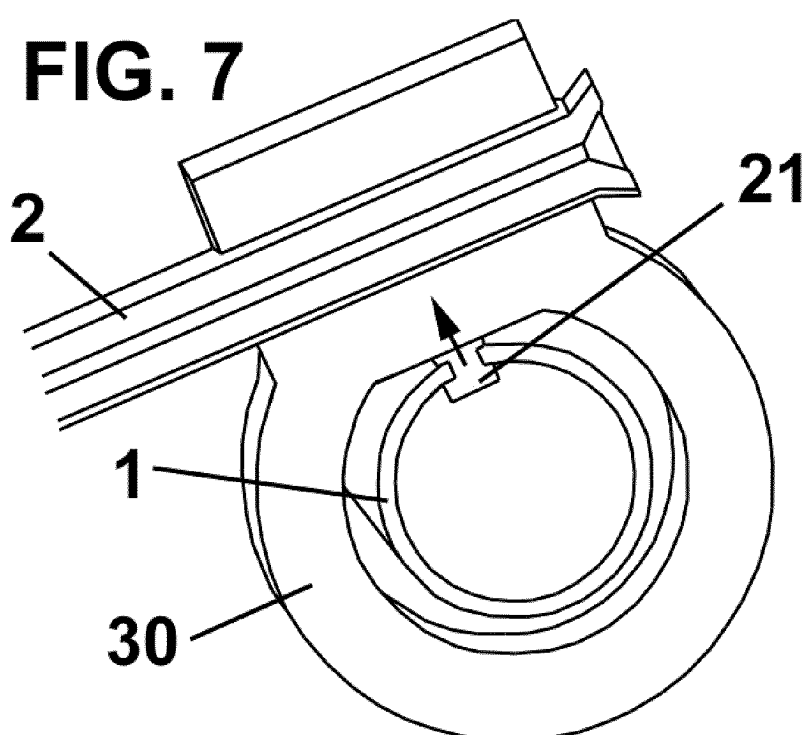












INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2023/070171

A. CLASSIFICATION OF SUBJECT MATTER

D06F57/06 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
D06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 20130060395 A (CHOE SANG HO) 10/06/2013, Paragraphs [1 - 59]; figures 1 - 6.	1-23
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A	US 2012009008 A1 (HODOYA KOHEI ET AL.) 12/01/2012, Paragraphs [1 - 84]; figures 1 - 8.	1,22,23

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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Information on patent family members

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