



(11) **EP 3 162 260 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
03.05.2017 Bulletin 2017/18

(51) Int Cl.:
A47K 10/10 (2006.01)

(21) Application number: **16195778.2**

(22) Date of filing: **26.10.2016**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA ME
Designated Validation States:
MA MD

(71) Applicant: **Holland, Barry Gordon**
Red Deer County, Alberta T4S 2A9 (CA)

(72) Inventor: **Holland, Barry Gordon**
Red Deer County, Alberta T4S 2A9 (CA)

(74) Representative: **Oslo Patentkontor AS**
P.O. Box 7007M
0306 Oslo (NO)

(30) Priority: **27.10.2015 US 201562247168 P**

(54) **TOWEL RACK**

(57) In one aspect there is provided a towel rack having a width and comprising a wall mounting bracket and a towel support frame. The wall mounting bracket is for fastening the towel rack to a wall. The towel support frame is supported by the wall mounting bracket and defines a perimeter thereabout and a plane therebetween. The

length of the perimeter is longer than the width of the towel rack. The towel support frame may be secured in a drying configuration so as to orient said plane substantially perpendicular to the wall. When in the drying configuration, a towel may be positioned on the towel support frame substantially around said perimeter.

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DescriptionFIELD OF THE INVENTION

[0001] The field of present invention relates generally to bathroom fixtures, and, more particularly, to a towel rack.

BACKGROUND OF THE INVENTION

[0002] Conventional towel bars are generally mounted permanently to a wall. In its simplest form, a towel bar is a bar connected at each end to a mounting member, wherein the mounting members are then connected to the wall so as to locate the bar about two to three inches, or so, from the wall. One problem with conventional towel bars is that they are intended, at best, to only hang a single unfolded bath towel. At best, two bath towels may be hung on a single bar in a folded or bunched-up state.

[0003] For example, 80% or more of standard bath towels are 27 inches or 30 inches wide and a standard bath sheet width is 35 inches. However, approximately 80% or more of standard towel bars are only 18 inches to 24 inches long. These dimensions have not been purposefully engineered or designed to correspond to standard towel widths. As such, in order to hang a 27 inch towel without being bunched up, an oversized 30 or 36 inch bar is required. However, most towel bars are not long enough to accommodate a standard towel without the towel having to be folded into itself, bunched-up or overlapped, therefore greatly reducing the ability to dry quickly and encouraging mildew growth. Two 27 inch towels do not fit on a 36 inch towel bar without folding them in half or needing to bunch them. Hanging a multiple towels bunched or folded will not allow them to dry as quick as would being stretched fully and draped once over a bar, as air could not circulate as freely around the towel.

[0004] Standard towel bars, as described above, also take up a great amount of wall space. Most household bathrooms have limited wall space and usually have one or two towel bars. Households with more than two family members have to stack towels over one another on bars due to limited wall and towel bar space or use hooks to hang towels which cause the towels to bunch together from the hook and prevent the full surface of the towel to be open for drying. This presents a problem of unpleasant smell as a wet towel is more susceptible for mildew, mold and bacteria than a dry towel.

[0005] Finally, some home owners prefer to display towels in different and unique ways, for esthetic reasons. However, a simple straight towel bar does not provide many different options to visually display a towel in different or unique configurations.

[0006] Accordingly, what is needed is a towel rack that takes up less area of a wall than a standard towel rack, still supports a standard bath towel in an unfolded configuration, provides greater air flow through and around a hanging towel and provides a home owner or user with

different and additional display configurations.

SUMMARY OF THE INVENTION

[0007] In an embodiment of the invention, there is provided a towel rack having a width and comprising a wall mounting bracket and a towel support frame. The wall mounting bracket is for fastening the towel rack to a wall. The towel support frame is supported by the wall mounting bracket and defines a perimeter thereabout and a plane therebetween. The length of the perimeter is longer than the width of the towel rack. The towel support frame may be secured in a drying configuration so as to orient said plane substantially perpendicular to the wall. When in the drying configuration, a towel may be positioned on the towel support frame substantially around said perimeter.

[0008] In another embodiment, the towel rack comprises a wall mounting bracket, a towel support frame, pivoting means and position locking means. The towel support frame is supported by the wall mounting bracket which, in turn, fastenes the towel rack to a wall. The pivoting means to allow the towel support frame to pivot within the wall mounting bracket between a drying configuration and a display configuration. The position locking means to releasably secure the towel support frame in either the display configuration or the drying configuration.

[0009] Various embodiments of the pivoting means are provided, including a clamp which may loosely support the towel support frame and a void in the wall mounting bracket, through which the towel support frame may be positioned. Various embodiments of the position locking means are provided, including a clamp which may tightly fasten around the towel support frame in a friction fit and a polygonal fitting on the towel support frame that may be biased into a corresponding polygonal socket on the wall mounting bracket in a mated arrangement.

BRIEF DESCRIPTION OF THE DRAWINGS**[0010]**

Figure 1 is a top perspective view of a towel rack according to an embodiment of the invention; Figure 2 is an exploded bottom perspective view of the towel rack of the embodiment of Fig. 1; Figure 3 is an isometric view of a wall mount bracket having a partial cutaway view of the socket according to an embodiment of the invention; Figure 4 is a front view of the wall mount bracket of Fig. 3 having a proximal member provided therein; Figure 5 is an isometric view of the wall mount bracket of Fig. 4 having a biasing means provided therein, the proximal member being in a locked position; Figure 6 is an isometric view of the wall mount bracket of Fig. 4 having a biasing means provided therein, the proximal member being in an adjustable position;

Figure 7 is a side view of a towel rack according to another embodiment of the invention, the towel support frame being in a drying configuration;

Figure 8 is a side view of a towel rack of Fig. 7 showing the towel support frame being in a display configuration;

Figure 9 is an isometric view of a wall mount bracket according to another embodiment described herein;

Figure 10 is a rear perspective view of a towel rack according to another embodiment of the invention; and

Figures 11 and 12 are perspective views of additional embodiments of the towel rack, shown with the towel support frame in the drying configuration and illustrating a towel hung about the perimeter thereof.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0011] The following description is of preferred embodiments by way of example only and without limitation to the combination of features necessary for carrying the invention into effect. Reference is to be had to the Figures in which identical reference numbers identify similar components. The drawing figures are not necessarily to scale and certain features are shown in schematic or diagrammatic form in the interest of clarity and conciseness.

[0012] Referring to the figures, embodiments of a towel rack 10 for hanging a towel T thereon are shown. The towel rack 10 preferably comprises a wall mount bracket 12 and a towel support frame 14 connected thereon. Wall mount bracket 12 facilitates mounting of the towel rack 10 to a wall A in a conventional manner (e.g. via screws). Wall mount bracket may therefore be provided with screw openings 12o

[0013] Having reference to Fig. 1, the towel support frame 14 may be provided in a variety of shapes including but not limited to an oval, rectangle, square or any other polygonal shape (e.g. triangle as shown in Fig. 10). The embodiment of the towel rack 10 provided in Fig. 1 shows the towel support frame 14 having a substantially oval shape. The towel support frame 14 comprises a proximal section or proximal member 16 in which a portion thereof engages the wall mount bracket 12, at least one intermediate section or intermediate member 17, 17', and a distal section or distal member 18 spaced from the proximal member 16 by means of the at least one intermediate member 17, 17'. The terms proximal member 16 and distal member 18 are used for convenience, to designate the spatial relationship of said members 16, 18 relative to the wall mount bracket 12. These members 16, 17, 18, may also be referred to as a first member 16 second member 17 and third member 18.

[0014] Towel support frame 14 may also be constructed of one continuous unit, rather than discrete members, in which case the towel support frame 14 will have a proximal section 16, at least one intermediate section 17, 17' and a distal section 18, rather than discrete mem-

bers. As such, it will be understood that when referring to proximal, intermediate or distal "members", the invention will also encompass embodiments where the towel support frame 14 is a single unit having proximal, intermediate and distal sections.

[0015] The proximal member 16, intermediate member(s) 17, 17', and distal member 18 define a plane P therebetween. The length (or radius of curvature) of the at least one intermediate member 17, 17' substantially determines the amount of space D between the proximal member 16 and distal member 18, such as when the various components 16, 17, 17', 18 are assembled into the towel support frame 14. When D is equal to zero, the towel support frame 14 substantially simulates a bar style towel rack as is known in the art. Benefits of the present embodiment may be realized when D is at least a size so that, when a towel is hung substantially around the perimeter R of the plane P, the surfaces of the towel are not in contact, thereby allowing air more easily to flow therebetween.

[0016] A towel T may be hung about the perimeter R of the plane P (e.g. see FIGS. 11-12). Advantageously, upon hanging a towel T about the perimeter R of the plane P, air is able to flow more easily past adjacent surfaces of the towel T as compared with traditional bar, or hook style towel racks, where such adjacent surfaces are more likely to be bunched or clumped together. More advantageously, towel rack 10, with proximal member 16, intermediate member(s) 17, 17', and distal member 18, provides a perimeter R about which a towel T may be supported; said perimeter R having a width W that is less than half the length of the overall perimeter R. For example, if the length of each of the proximal and distal members 16, 18 is the conventional 24 inches, and the length of the intermediate members 17, 17' is 1 inch, then the perimeter R of the towel support frame 14 will be approximately 50 inches, while the width W of the towel rack 10 will be only 24 inches. Advantageously, a towel rack 10 with such dimensions will be able to support a large unfolded bath towel (with a width of up to 50 inches) along the perimeter R, while only requiring 24 inches of width along a wall A or other structure upon which the towel rack 10 is mounted.

[0017] The towel rack 10 is preferably provided with pivoting means 100, to allow the towel support frame 14 to pivot along the longitudinal axis L of the proximal member 16, about a pivot point within wall mount bracket 12. Preferably towel rack 10 can pivot between a drying configuration (Fig. 7) wherein the plane P of the towel support frame 14 is substantially perpendicular to a wall A, and a display configuration (Fig. 8) wherein the plane P of the towel support frame 14 is substantially parallel to the wall A.

[0018] Position locking means 110 are preferably provided to releasably secure towel support frame 14 at the display configuration, the drying configuration, or at additional pivotable positions therebetween. Advantageously, the embodiments provided herein allow a towel

support frame 14 to pivot providing for multiple configurations in which to hang and display a towel T. Furthermore, the distance between the wall A and the distal member 18 of the towel support frame 14 decreases as the angle of the towel support frame 14 changes from any position other than being substantially perpendicular to the wall, providing the user to increase space in a bathroom when the towel moved to the display position (e.g. when the towel T is dry).

[0019] Various preferred embodiments of the pivoting means 100 and position locking means 110 are shown by having reference to Figs. 2 - 6. Figure 2 is an exploded view of the embodiment of the towel rack 10 in Fig. 1. The towel rack 10 comprises a wall mount bracket 12 having a wall surface engagement end 20 for fastening the wall mount bracket 12 to a wall, and an attachment end 21 for accepting the proximal member 16 of the towel support frame 14 therethrough. The proximal member 16 preferably comprises a center section 24 for slidably connecting through the attachment end 21 of the wall mount bracket 12. The center section 24 preferably comprises a polygonal fitting 26 for engaging a corresponding polygonal socket 40 (see Fig. 3) for releasably securing the towel support frame 14 at various angles relative to the wall mount bracket 12 (and any wall A on which the towel rack 10 is mounted).

[0020] Preferably, the proximal member 16 further comprises a first end 16a and a second end 16b extending in opposing directions along the longitudinal axis L of the proximal member's center section 24. More preferably, the towel support frame 14 further comprises a first intermediate member 17 having a first end 17a and a second end 17b and a second intermediate member 17' having a first end 17a' and a second end 17b'. The first and second intermediate members 17, 17' preferably have a substantially similar cross section as the first and second ends of the proximal member 16 and the distal member 18. The area of the cross section of the first and second intermediate members 17, 17' are preferably sized to accept the first end and the second end 16a, 16b of the proximal member 16 therein. In a similar manner, a distal member 18 is preferably provided having a center section 19, first end 18a and a second end 18b extending along distal member's longitudinal axis L' and sized to engage the second ends 17b, 17b' of the first and second intermediate members 17, 17' therein. The length of the proximal member 16 and the distal member 18 may be similar.

[0021] The distance between the first and second ends 16a, 18a, 16b, 18b of the proximal member 16 and the distal member 18 dictate any expansion and contraction of the towel support frame 14. The towel support frame 14 is in its smallest position (with the smallest perimeter R) when the first intermediate member 17 and the second intermediate member 17' are adjacent the center sections 19, 24 respectively. The towel support frame 14 is in its largest position (with the greatest perimeter R) when the first intermediate member 17 and the second inter-

mediate member 17' are only placed over the ends 16a, 16b, 18a, 18b. Towel support frame size locking means 200 is preferably provided to selectively and securably lock the towel support frame 14 in a desired sized configuration. Towel support frame size locking means 200, preferably comprises conventional buttons 202 mounted on flexible tabs 203 and a series of corresponding opening or holes 204 suitable to accept buttons 202 therein and lock the towel support frame 14 in a desired size.

[0022] Figure 3 provides a partial cutaway view of the wall mount bracket 12 of the embodiment of Fig. 1. The wall mount bracket 12 comprises a wall surface engagement end 20 for securing the wall mount bracket 12 to a wall A and an attachment end 21 opposite the wall mount bracket 12 for connecting the towel support frame 14 thereon. In the present embodiment the attachment end 21 comprises a void V therethrough for accepting the center section 24 therein. A first portion 46 of the attachment end 21 may have a circular cross section of a specified diameter for allowing the center section 24 to slidably connect thereto. A second portion 48 of the attachment end 21 may be a polygonal socket 22, having a cross section in the shape of a polygon for accepting the polygonal fitting 26 in a mating configuration and thereby preventing the towel support frame 14 from pivoting about the attachment end 21 (i.e. when the fitting 26 is mated with the socket 22).

[0023] The wall mount bracket 12 may also comprise a light source 42 for creating an esthetically pleasing glow about the towel rack and towel hanging therefrom. The light source 42 may act as a nightlight in a bathroom to replace a traditional night light. The light source 42 may have an on and off switch or it may have a motion sensor to react to movement in a room within the parameters of the motion sensor. A battery compartment 44 may be provided to accept a power source, such as a battery, for powering the light source 42. The wall mount bracket 12 may also comprise an air flowing apparatus such as a fan for assisting ambient air to flow past the surface of the towel hanging therefrom.

[0024] Having reference to Fig. 4, a cutaway view of the wall mount bracket 12 having the proximal member 16 located therein is provided. The center section 24 slidably engages the first portion 46 of the attachment end 21 and the polygonal fitting 26 slidably engages the second portion 48 of the attachment end 21. Preferably, an O-ring fitting 50 having an inner diameter and an outer diameter is provided and friction fit into the end of the first portion 46 of the attachment end 46. The inner diameter of the O-ring fitting 50 is sized to allow the center section 24 to slide therethrough but prevents the polygonal fitting 26 from sliding out or through. The O-ring fitting 50 allows the proximal member 16 to be displaced within the attachment end 21 to disengage the polygonal fitting 26 from the polygonal socket 22 for pivoting the proximal member 16 and the towel support frame 14.

[0025] In operation, and having reference to Figs. 5

and 6, a biasing means 60 having a first end 62 and a second end 64 is provided. The biasing means 60 may be a spring or any other apparatus known in the art. In the present embodiment the first end 62 engages the inner surface of the O-ring fitting 50. The biasing means 60 slidably fits over the diameter of the center section 24 where the second end 64 engages the polygonal fitting 26. The biasing means 60 is naturally biased for exerting a force against the polygonal fitting 26 thereby assisting in maintaining engagement between the polygonal fitting 26 and the polygonal socket end 22.

[0026] Fig. 6 illustrates one embodiment of the pivoting means 100 when shows the proximal member 16 being displaced within the attachment end 21. Pivoting means 100 of this embodiment comprises center section 24 and void V of the attachment end 21. In Figure 6, the biasing means 60 is compressed between the O-ring fitting 50 and the polygonal fitting 26. The center section 24 is displaced through the O-ring fitting 50 and out of the attachment end 21. The polygonal fitting is displaced out of the polygonal socket end 22 and is positioned within the first portion of the attachment end 21 adjacent the polygonal socket end 22 wherein the proximal member 16 may pivot the towel support frame 14 into different positions relative to the wall mounting bracket 12 and any wall A. Upon locating the desired position of the towel support frame 14, relative to the bracket 12 and any wall A, the biasing means 60 exerts a force on the proximal member 16 and the polygonal fitting 26 re-engages with the polygonal socket end 22 thereby securably supporting the towel support frame 14 in the new orientation. As such, biasing means 60, polygonal fitting 26 and polygonal socket 48 comprise the position locking means 110 of this embodiment.

[0027] Having reference to Figs. 7 and 8, an alternate embodiment of pivoting means 100 and position locking means 110 is illustrated. As in the other embodiments, the towel rack 10 comprises wall mount bracket 12 and a towel support frame 14. However, in the present embodiment, the wall mount bracket 12 further comprises a clamp 70 shaped to engage the proximal member 16 of the towel support frame 14 in a friction fit when said clamp is tightened and in a pivoting configuration when clamp is loosened. Thus, in this embodiment, clamp 70 functions as both the pivoting means 100 and position locking means 110. The clamp 70 may be tightened about the proximal member 16 with a clamp tightener 72. The clamp tightener 72 may be a screw or bolt wherein it engages two arms 74a, 74b of the clamp 70 to releasably secure the towel support frame 14 in the desired position.

[0028] Having reference to Fig. 9, another embodiment of a wall mount bracket 12 is provided. This embodiment of the wall mount bracket 12 comprises a wall surface engagement member 20, at least one bracket clamp 90 connected thereto for holding an extension member 92. The extension member 92 comprises an attachment end 21. The extension member 92 engages the at least one bracket clamp 90 for adjusting the positioning of the at-

tachment end 21 relative to the wall mount bracket 12. The attachment end 21 in the present embodiment comprises the polygonal socket 22 configuration as described above, but one skilled in the art would understand that any style of an attachment end such as the clamp embodiment (Figs. 7 and 8) could also be substituted on this embodiment of wall mount bracket 12.

[0029] Having reference to Fig. 10, another embodiment of a towel rack 10 is provided. The towel rack 10 comprises yet another embodiment of a wall mount bracket 12. The wall mount bracket 12 comprises a pair of wall engagement surface ends 12a, 12b for abutting to two planer intersecting walls. The pair of wall engagement surface ends 12a, 12b provide convenient means to secure the towel rack 10 to the corner of a room such as a bathroom, allowing a user more options for locating the towel rack 10.

[0030] Those of ordinary skill in the art will appreciate that various modifications to the invention as described herein will be possible without falling outside the scope of the invention. In the claims, the word "comprising" is used in its inclusive sense and does not exclude other elements being present. The indefinite article "a" before a claim feature does not exclude more than one of the features being present.

Claims

1. A towel rack having a width and comprising:

a wall mounting bracket for fastening the towel rack to a wall;
a towel support frame supported by the wall mounting bracket and defining a perimeter thereabout and a plane therebetween;
wherein the length of the perimeter is longer than the width of the towel rack; and
wherein the towel support frame may be secured in a drying configuration so as to orient said plane substantially perpendicular to the wall;

and wherein, when in the drying configuration, a towel may be positioned on the towel support frame substantially around said perimeter.

2. A towel rack comprising:

a wall mounting bracket for fastening the towel rack to a wall;
a towel support frame supported by the wall mounting bracket;
pivoting means to allow the towel support frame to pivot within the wall mounting bracket between a drying configuration and a display configuration; and
position locking means to releasably secure the towel support frame in either the display config-

uration or the drying configuration.

3. The towel rack of claim 1 further comprising:

pivoting means to allow the towel support frame 5
to pivot within the wall mounting bracket be-
tween the drying configuration and a display
configuration; and
position locking means to releasably secure the
towel support frame in either the display config- 10
uration or the drying configuration.

4. The towel rack of claim 3 wherein the pivoting means
is a clamp.

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5. The towel rack of claim 3 wherein the pivoting means
is a void within the wall mounting bracket.

6. The towel rack of claim 3 wherein the position locking
means is clamp.

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7. The towel rack of claim 3 wherein the position locking
further comprises a polygonal fitting on the towel
support frame and a polygonal socket in the wall
mounting bracket.

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8. The towel rack of claim 1 further comprising a light
source.

9. The towel rack of claim 1 further comprising an air 30
flowing apparatus.

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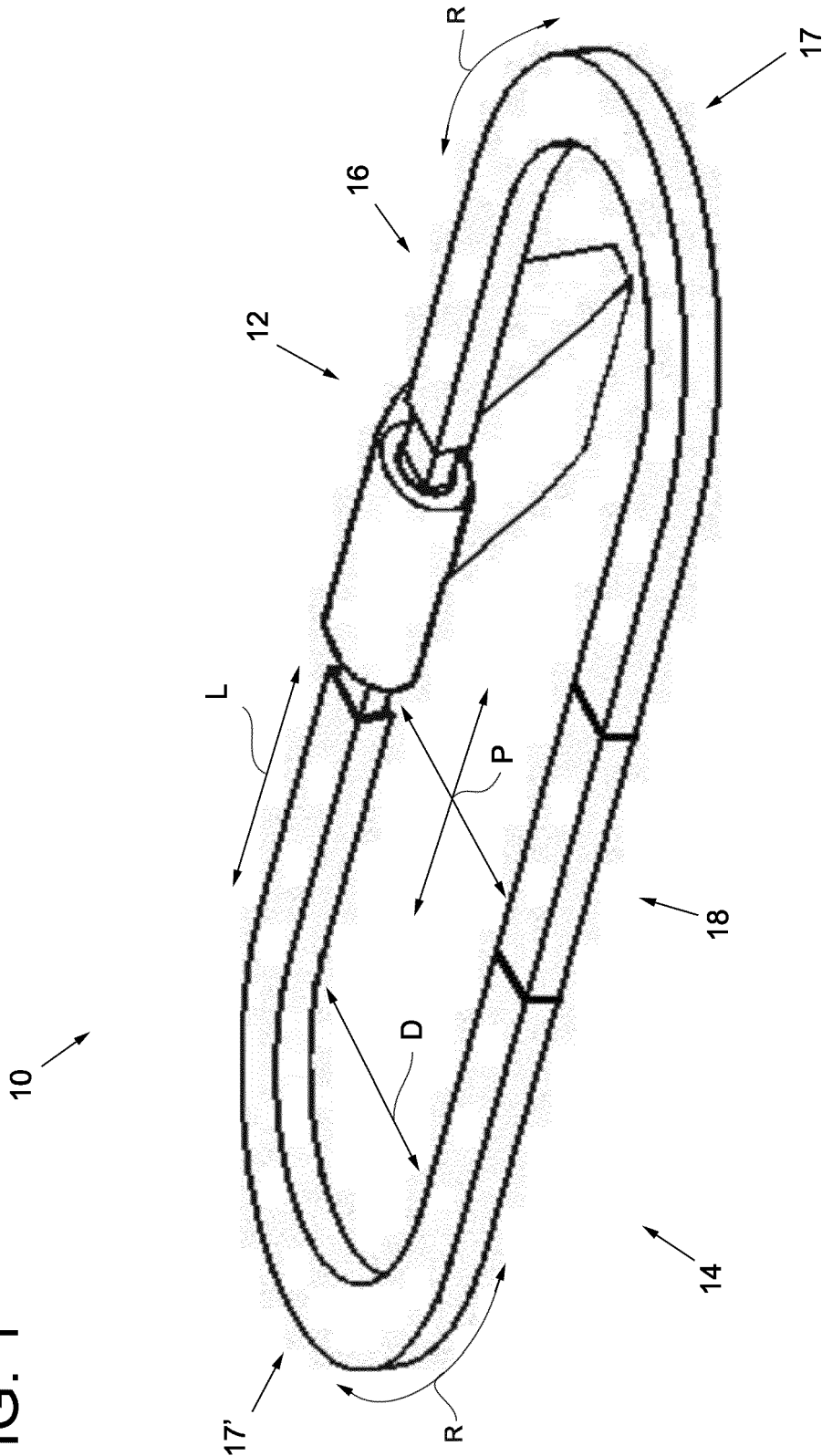
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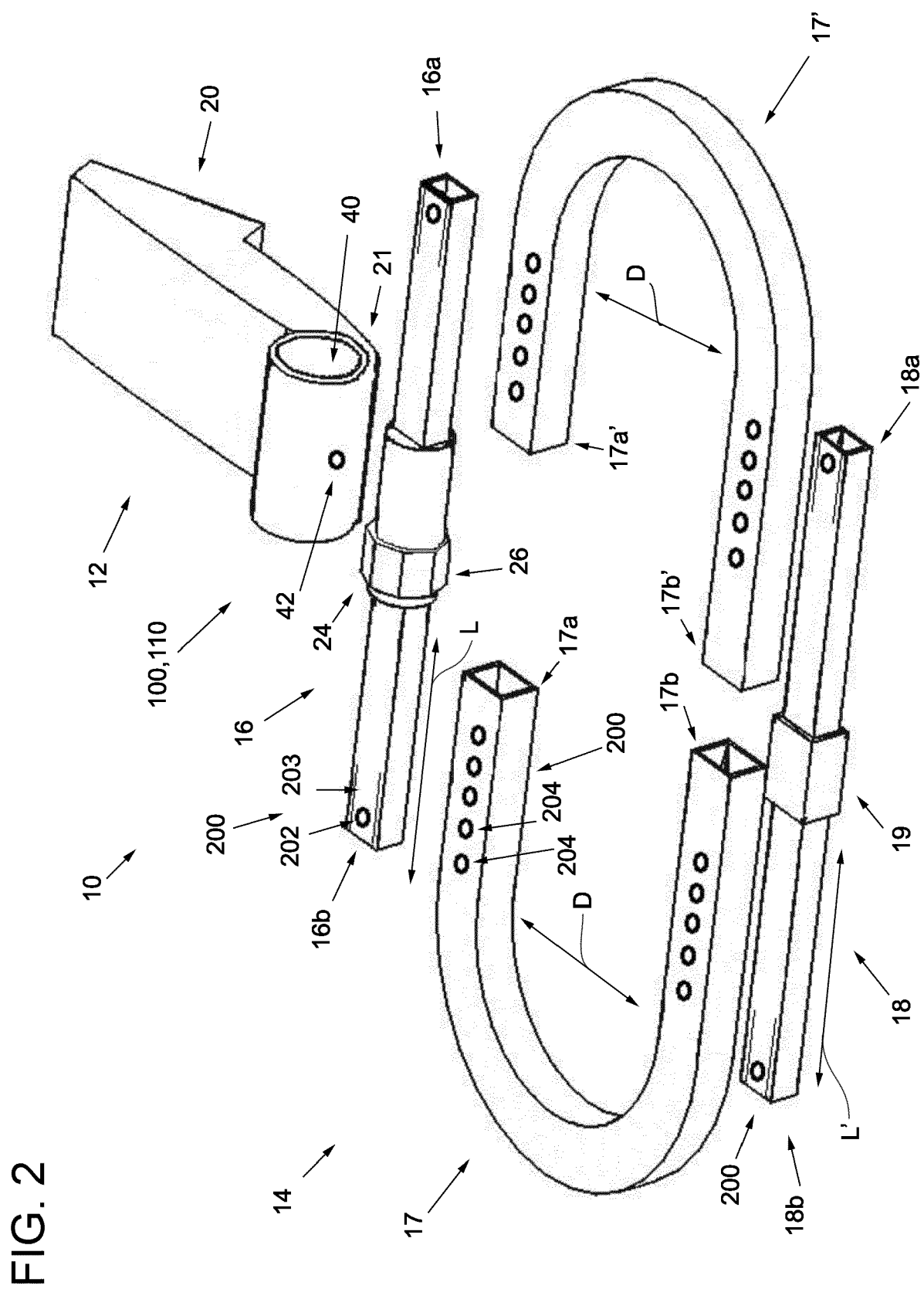
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FIG. 1





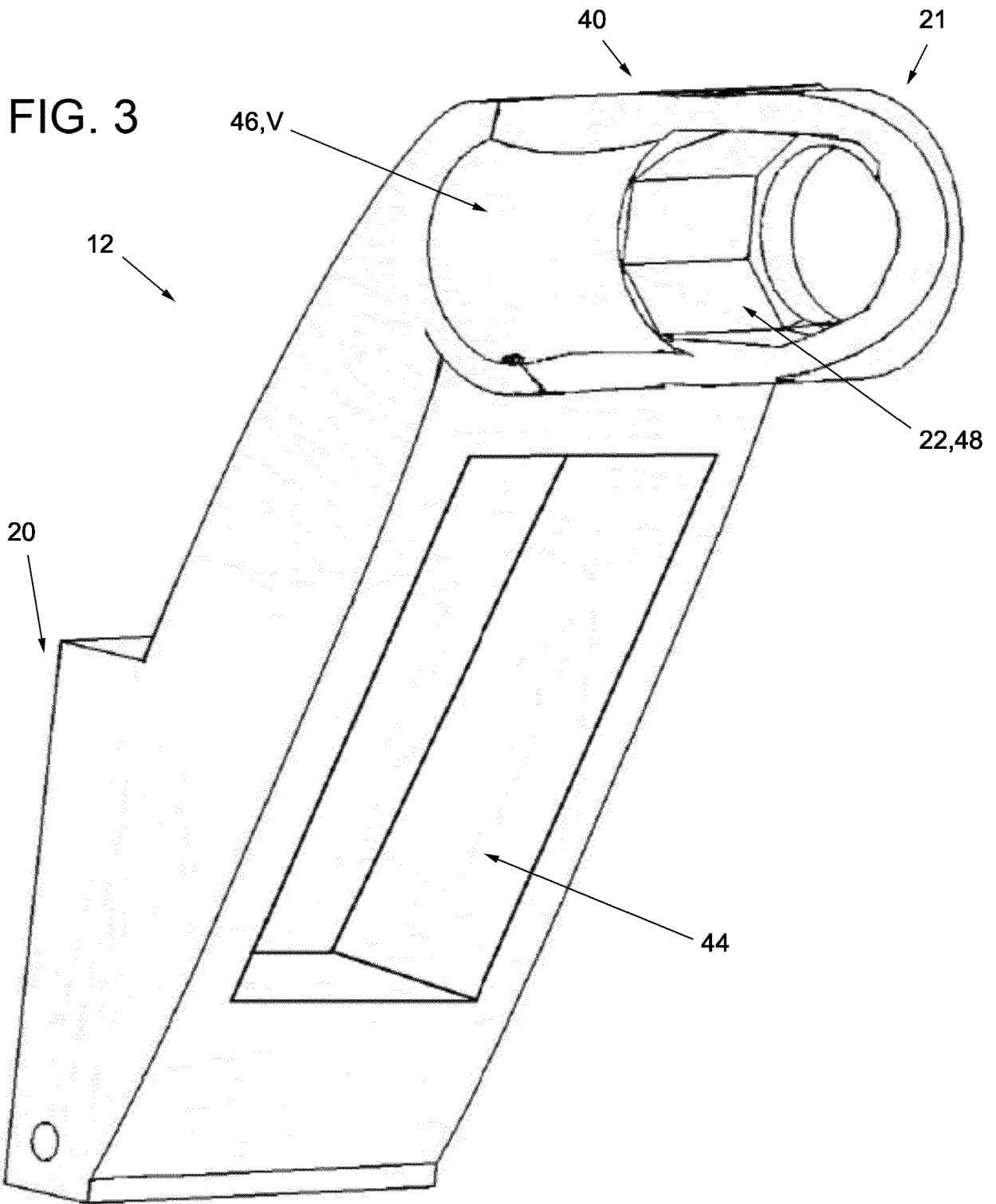


FIG. 4

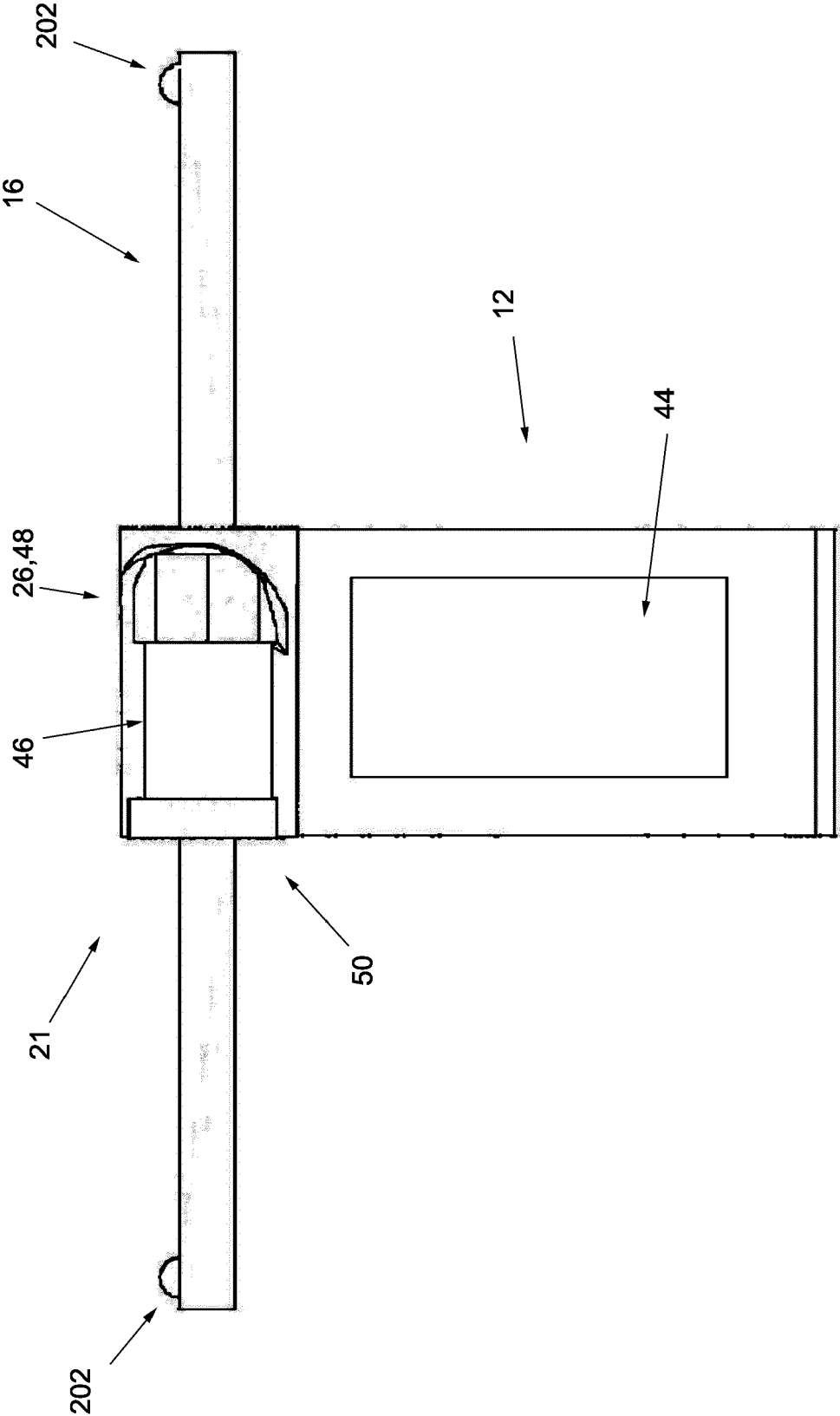


FIG. 5

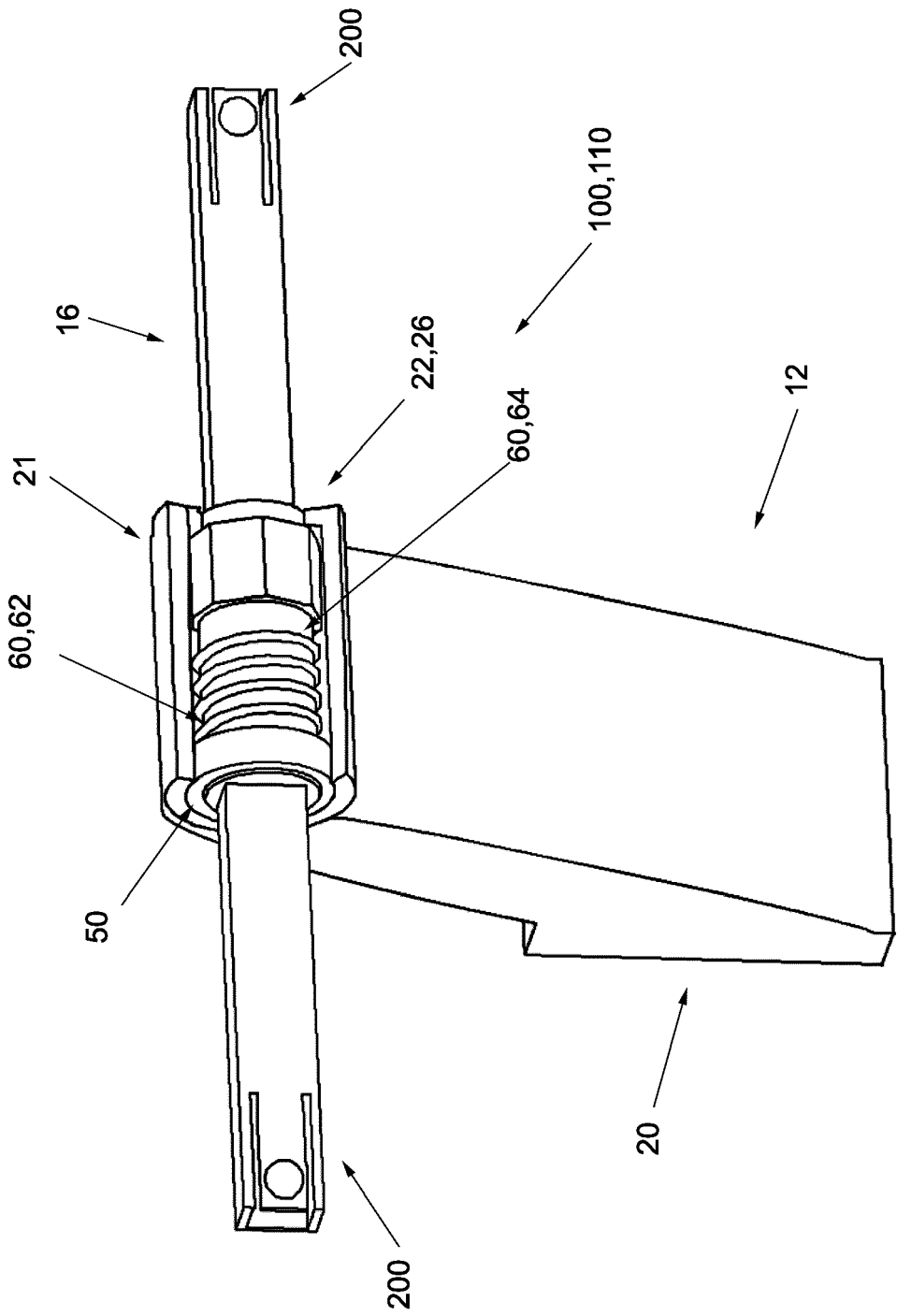


FIG. 6

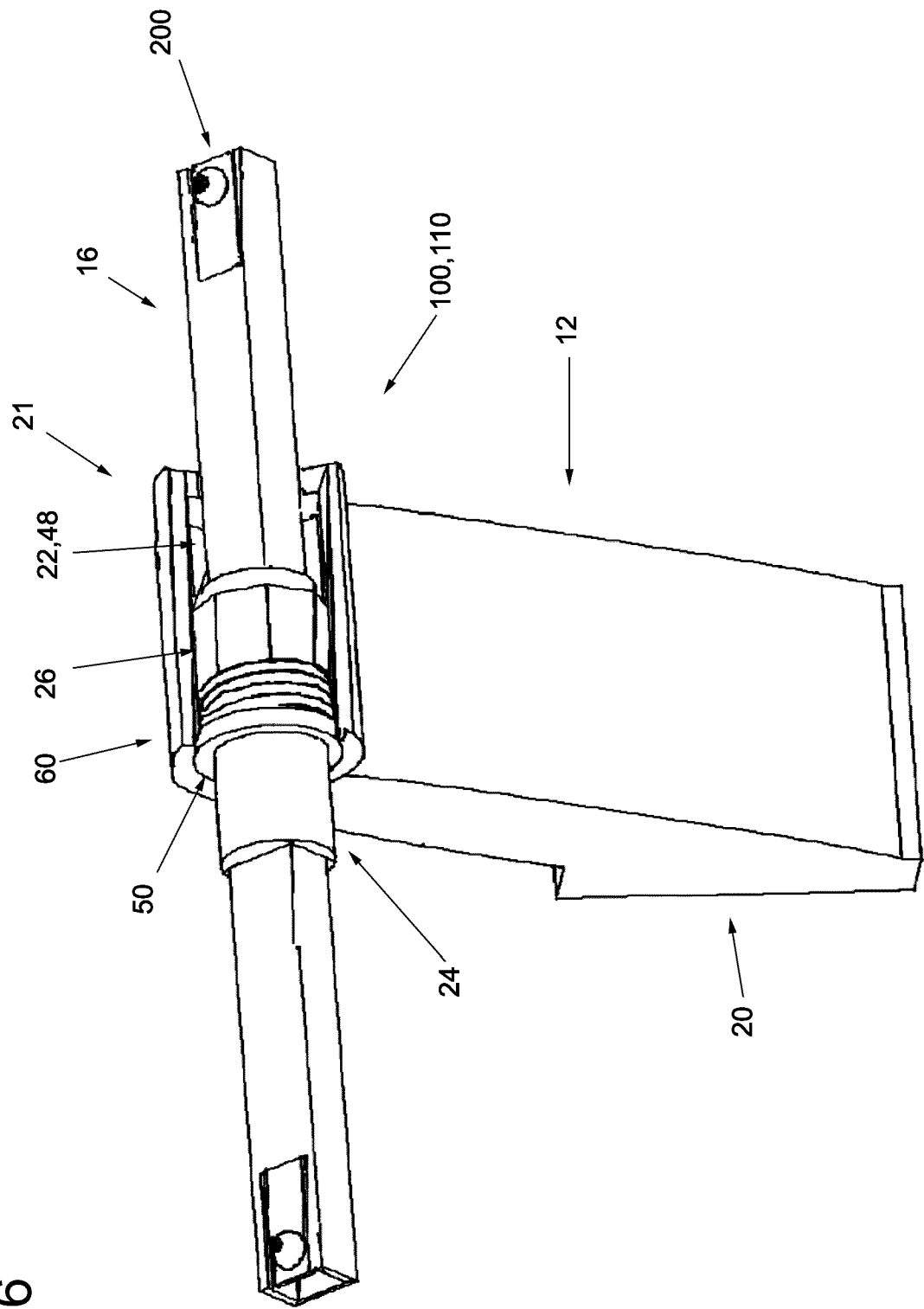


FIG. 7

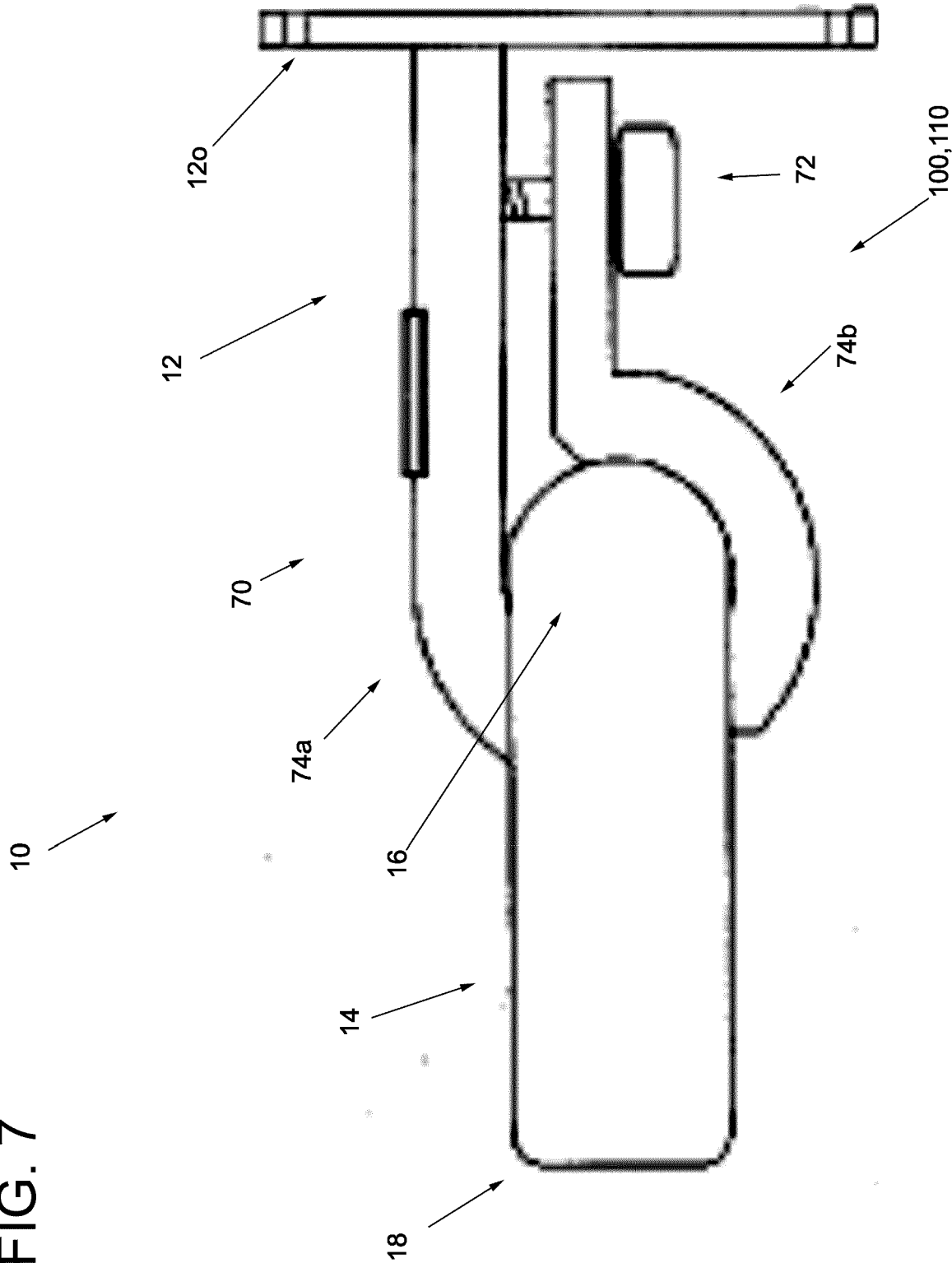


FIG. 8

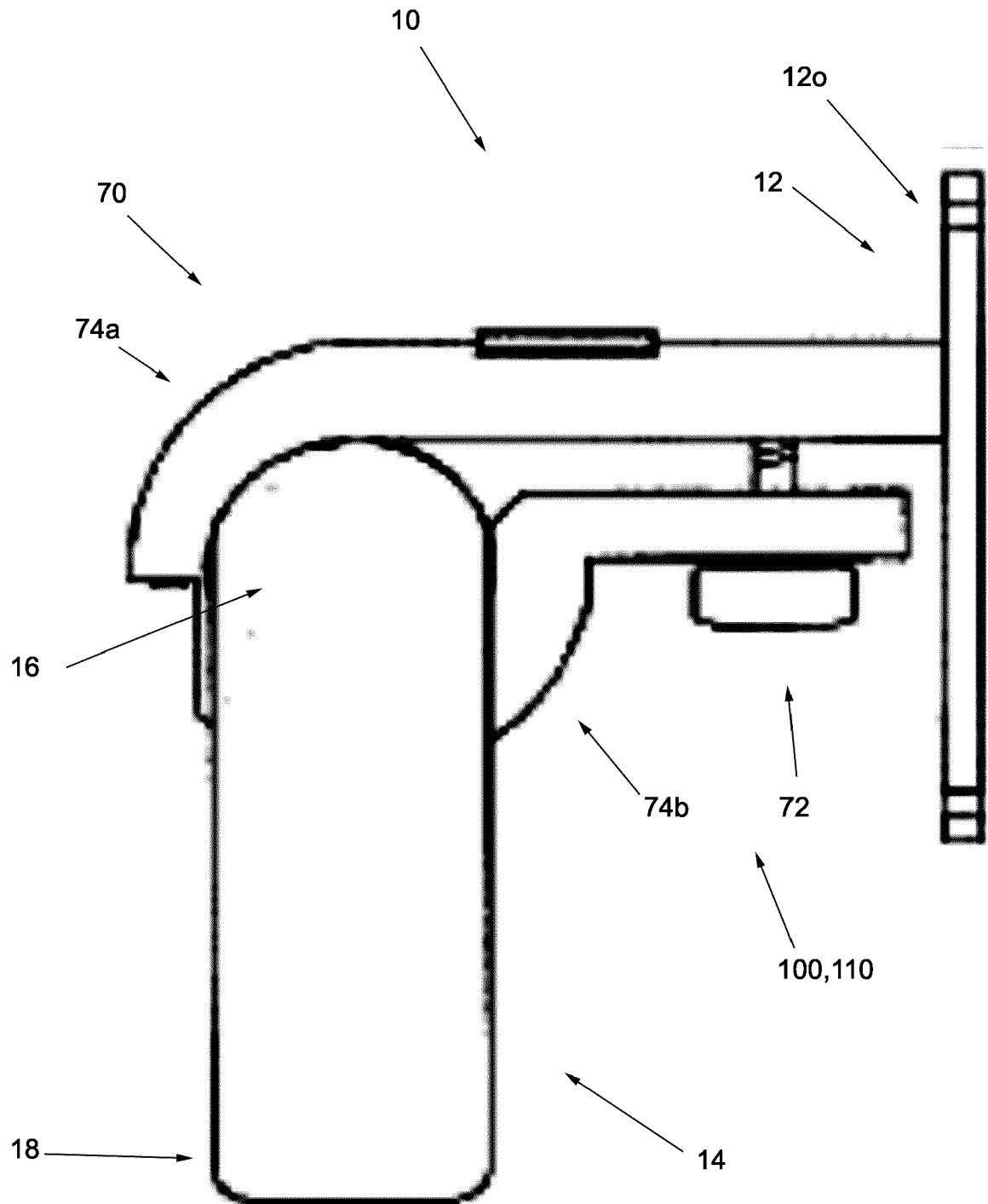
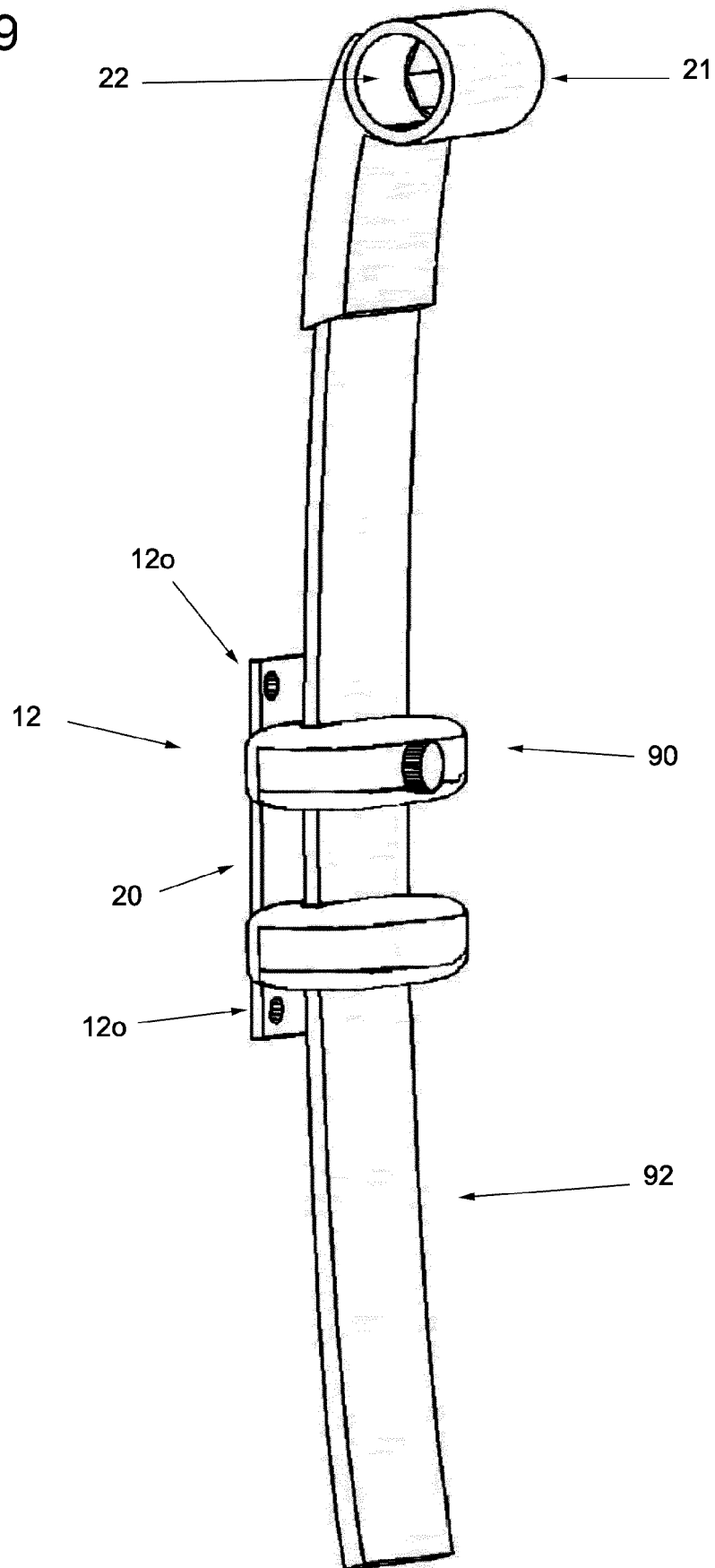


FIG. 9



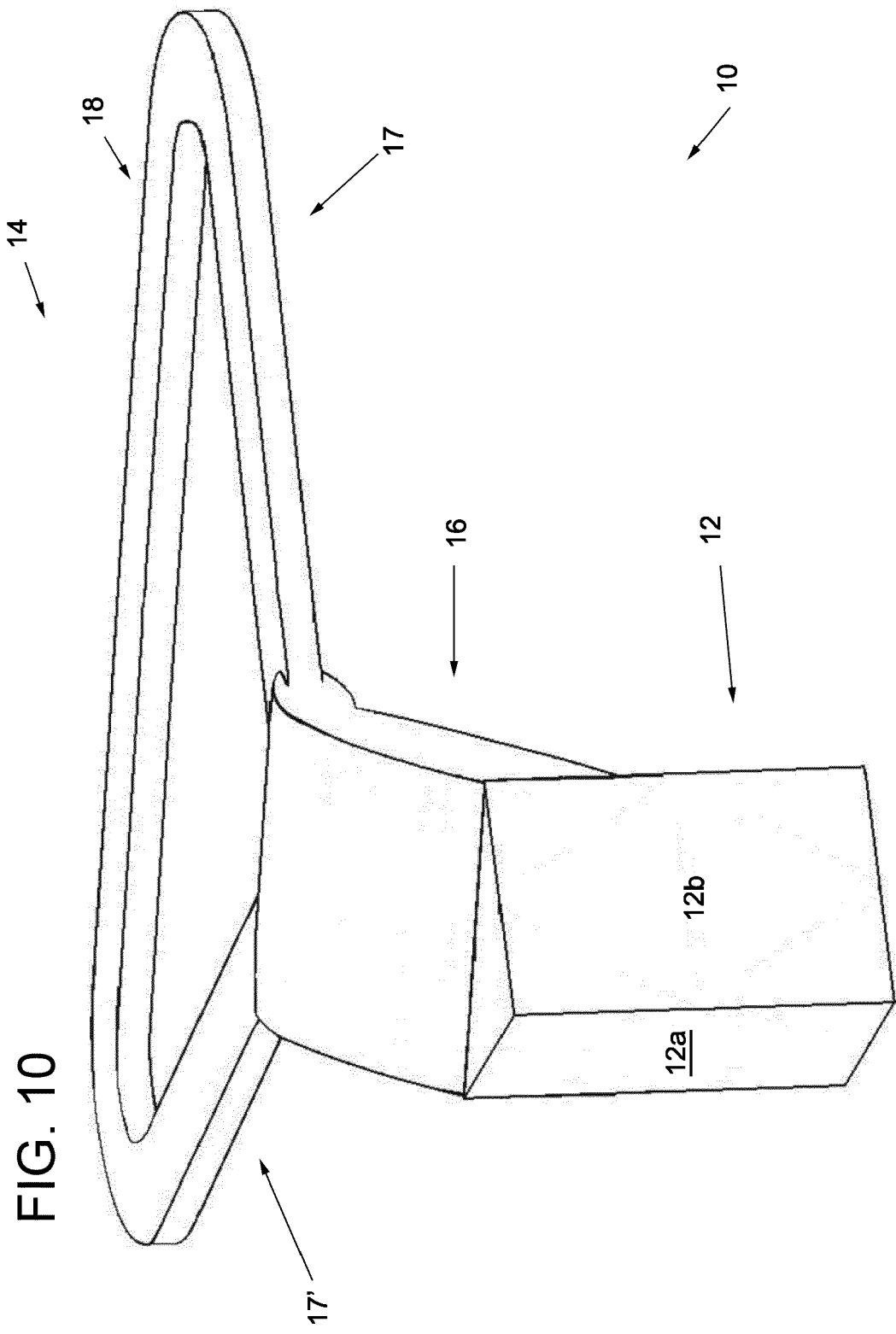


Fig. 12

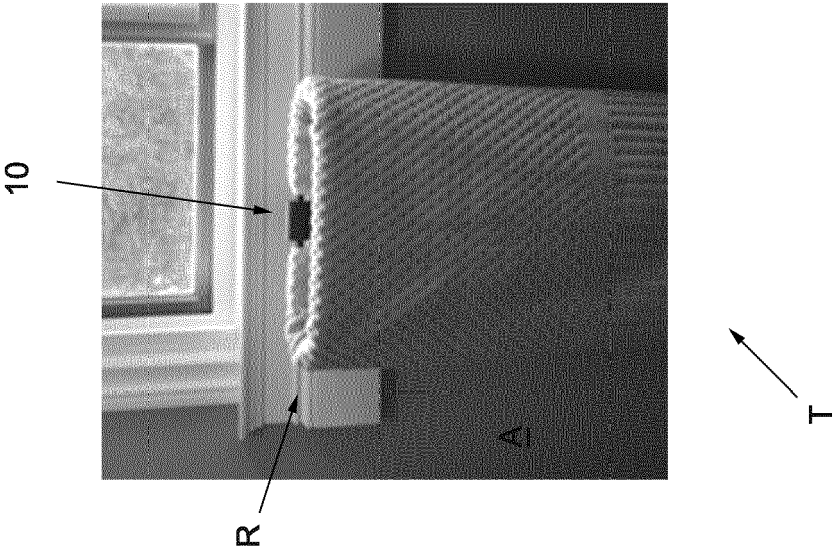
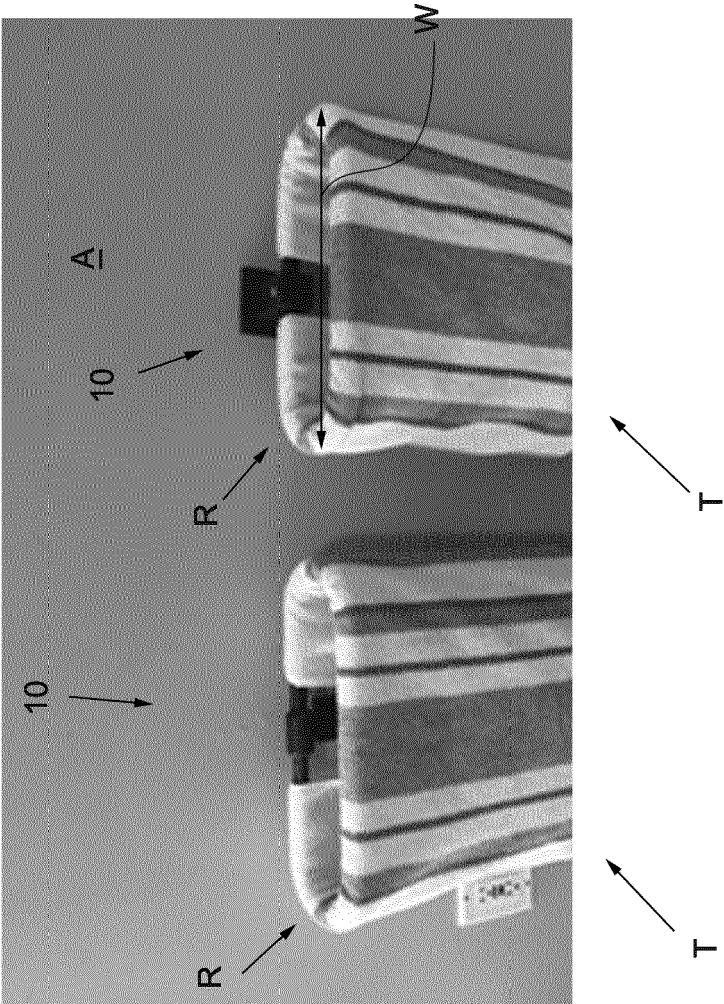


Fig. 11





EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 1 February 2017	Examiner Schikhof, Arnout
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