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(54) **A METHOD AND AN APPARATUS FOR REMOVING A PELT-RETAINING DEVICE FROM A PELT BOARD**

VERFAHREN UND VORRICHTUNG ZUM ENTFERNEN EINER PELZRÜCKHALTEVORRICHTUNG VON EINEM PELZBRETT

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a method and an apparatus for removing a pelt-retaining device from a pelt board on which the pelt has been retained by the pelt-retaining device during drying of the pelt.

[0002] After skinning and scraping of the flesh side of pelts, such as mink pelts, the pelt is mounted on a pelt board and frequently longitudinally stretched and thereafter fixed or retained to the pelt board in order to maintain the increased length of the pelt during drying of the pelt. Frequently, a bag or sleeve of a fat-absorbing material, such as paper, is arranged on the pelt board prior to mounting and stretching the pelt on the pelt board.

BACKGROUND OF THE INVENTION

[0003] A traditional pelt board is a flat board of wood or a similar suitable material having parallel first and second major sides and lateral sides which are essentially parallel at the lower part of the pelt board and taper inwardly at the upper part of the pelt board. The pelt is, in the stretched state, fixed to the pelt board by means of staples at the lower end or tail end of the pelt.

[0004] Today, most pelt boards have convex major sides provided with openings and are additionally circumferentially expandable, thereby allowing an easier removal of the pelt from the pelt board after drying.

[0005] Different retaining or fixing methods and means have been proposed for retaining the pelt to the above pelt boards after stretching of the pelt.

[0006] EP 1 285 094 B1 discloses a method where a sleeve with a shape corresponding to the pelt board with the pelt mounted and stretched is drawn down over the pelt into tight contact with the fur side of the pelt for fixing the pelt to the pelt board. The sleeve can be removed by cutting it longitudinally.

[0007] EP 1 723 262 B1 discloses a method where the pelt is secured to the pelt board by winding the lower end of the pelt with a winding material, such as band, after stretching of the pelt. The winding can be removed by cutting it transversely.

[0008] EP 3 034 630 A1 discloses a fixing device for surrounding and fixing a pelt to a pelt board after stretching of the pelt comprising a radially inner expandable part partially surrounded by an outer fixed part, the expanded part including at least one filler neck allowing for filling the expandable part for fixing the pelt to the pelt board. The fixing device can be deflated and removed from the pelt board and reused.

[0009] EP patent application No. 18162047.7, which has not been published prior to the filing date of the present invention, discloses a reusable pelt-retaining device of a type being removable by means of the method and apparatus of the present invention.

SUMMARY OF THE INVENTION

[0010] The object of the present invention is to provide a method and an apparatus allowing for reliably removing a pelt-retaining device of the above type, especially a reusable pelt-retaining device from a pelt board

[0011] The present invention provides a method for removing a pelt-retaining device from a pelt board on which a pelt, especially a mink pelt has been retained by the retaining device during a drying process, the pelt board having a longitudinal board axis, a longitudinal middle plane, a lower end, an opposite upper end and a first major side and an opposite second major side and a first lateral side and an opposite second side,

the pelt retaining device comprising a first elongated element and a second elongated element, each having a length, a width and a thickness, an inner surface and an opposite outer surface and a first longitudinally outer end portion and an opposite second longitudinally outer end portion, characterized in that said elongated elements being elastically bendable and arranged opposite each other on respective major sides of the pelt board and bent to bring the respective inner surfaces in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board, opposite outer end portions of each of the elongated elements extending beyond the first and the second lateral side of the pelt board, and adjacent outer end portions of the elongated elements being mutually connected by means of a ratchet-pawl means arrangement comprising a ratchet bar with a plurality of teeth being provided at and being integral with one of the outer end portions and a pawl means being provided at and being integral with the other one of the adjacent outer end portions, the method comprising the following steps:

- a. arranging the lower end of the pelt board with the pelt retained thereon by means of the retaining device in a pelt board-holding device,
- b. bringing a gripping member into engagement with the outer surface of each of the elongated elements arranged opposite each other on respective major sides of the board,
- c. applying a pressure to the outer surface of each of the outer end portions of the elongated members being provided with a ratchet bar in order to bring the ratchet bar out of engagement with the pawl means,
- e. moving the gripping members being in engagement with the respective elongated members away from the pelt on the pelt board, thereby removing the elongated members from the pelt, after the pressure on each of the outer portions of the elongated elements have been re-

leased

[0012] When a pressure is applied during step c to the outer end portions of the elongated members being provided with a ratchet bar, the ratchet bar flexes inwardly away from and out of engagement with the pawl means.

[0013] According to an example of a method of the present invention, the pelt board is arranged in an upright position in step a.

[0014] According to an example of the present invention, the method comprises the following steps in connection with or after step c:

Step c1: applying a pressure to each of the outer end portions of the elongated members being provided with a pawl means, and
step c2: releasing the pressure on each of the outer end portions of the elongated members being provided with a pawl means, and
step c3: releasing the pressure on each of the outer end portions of the elongated members being provided with a ratchet bar.

[0015] When a pressure is applied during step c1 to each of the outer end portions of the elongated members being provided with a pawl means, the pawl means flexes outwardly away from and out of a possible engagement between a tooth of the ratchet bar.

[0016] When the pressure on the outer end portions of the elongated elements has been removed, the elongated elements can be removed by means of the gripping members being in engagement with respective elongated members as stated in step c.

[0017] According to a further example of the present invention, the method comprises applying a pressure to the outer free end of the ratchet bar in a direction towards the longitudinal board axis in order to bring the ratchet bar out of engagement with the pawl means.

[0018] Thereby, the ratchet bar flexes inwardly away from the engagement with the pawl means providing for a movement of the ratchet bar in a direction bringing the ratchet bar out of engagement with the pawl means.

[0019] According to an example, the method according to the present invention comprises the following step subsequent to (following) step e:

Step f: removing the pelt from the pelt board.

[0020] The pelt can be removed from the pelt board by gripping or clamping the pelt for example in the head area thereof and optionally also in other parts of the pelt and pulling the pelt upwardly towards and away the upper end of the pelt board. Additionally, and or alternatively, the pelt board-holding device can be moved downwardly.

[0021] According to a further example, the method according to the present invention comprises the following step subsequent to step e:

Step g: delivering the elongated elements of the retaining device to a retaining device store, such as a retaining device magazine.

[0022] The retaining device store can be a simple store, in which the elongated elements are oriented and positioned randomly. For reuse of the elongated elements, it is thereafter necessary or appropriate to arrange them with the desired orientation. This is especially the case when the first and second elongated elements are not identical, and one of the elongated elements is provided with a ratchet bar at each opposite end and the other elongated element is provided with a pawl means at each opposite end. It is preferred that the elongated elements are identical, having a ratchet bar at one outer end and a pawl means at the opposite outer end.

[0023] According to a further example, the elongated elements are delivered to and stored in the magazine in pairs corresponding to the pair of elongated elements forming the retaining device being removed from the retaining engagement with the pelt on the pelt board.

[0024] Thereby, the elongated elements are advantageously stored and arranged with an orientation ready for reuse

[0025] According to an example, the pairs of elongated elements are identical elongated elements stored in the magazine in positions where a ratchet bar of one of the elongated elements is placed opposite the pawl means of the other one of the pairs of elongated elements.

[0026] According to a further example, the elongated elements are stored in the magazine in a shape corresponding to the shape of the elongated element before being elastically bent to bring the respective inner surfaces thereof in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board.

[0027] In this way, the elongated elements will be moved back to assume their original shape if they do not flex back from their bent shape immediately after being removed from the pelt board. Additionally, the present invention provides an apparatus for removing a pelt-retaining device from

a pelt board on which a pelt, especially a mink pelt has been retained by the retaining device during a drying process,

the pelt board having a longitudinal board axis, a longitudinal middle plane, a lower end, an opposite upper end and a first major side and an opposite second major side and a first lateral side and an opposite second side,

the pelt retaining device comprising a first elongated element and a second elongated element, each having a length, a width and a thickness, an inner surface and an opposite outer surface and a first longitudinally outer end portion and an opposite second longitudinally outer end portion, characterized in that said

the elongated elements being elastically bendable and arranged opposite each other on respective major sides of the pelt board and bent to bring the respective inner surfaces in retaining engagement with the outer surface of the pelt and retain the pelt on

the pelt board, opposite outer end portions of each of the elongated elements extending beyond the first and the second lateral side of the pelt board, and adjacent outer end portions of the elongated elements being mutually connected by means of a ratchet-pawl arrangement comprising a ratchet bar with a plurality of teeth being provided at and being integral with one of the outer end portions and a pawl means being provided at and being integral with the other one of the adjacent outer end portions, the apparatus comprising:

- a pelt board holding device configured for preferably releasable fastening the lower end of the pelt board in a preferable upright position
- a housing comprising a first housing part and a opposite second housing part mutually spaced to accommodate the pelt board fastened in the pelt board holding device with the retaining device retaining the pelt on the pelt board and the elongated elements of the retaining device facing respective inwardly facing sides of the first and second housing part respectively in a first position of the housing.
- a first gripping and releasing device for gripping and releasing the first elongated element of the retaining device and being arranged in the first housing and a second gripping and releasing device for gripping and releasing the second elongated element of the retaining device and being arranged in the second housing part,
- each of the first and second gripping and releasing devices comprising:
 - a first and a second pressure rod being mutually spaces corresponding essentially to the spacing between the outer end portions of the elongated elements and each being relative to the inwardly facing side of the respective housing part movable between a retracted position and an extending position engaging, in the first position of the housing, an outer end portion of an elongated element of a pelt retaining device arranged on a pelt board fastened in the pelt board holding device, and
 - a gripping member being relative to the inwardly facing side of the respective housing part movable between a retracted position and an extending position and comprising at an outer end thereof cooperating gripping and engagement means being movable away from and towards each other and configured to engage and grip, in the first position of the housing, a handle part protruding from the outer surface of each of the longitudinal elements.

[0028] The housing may additionally comprise a third housing part connecting the first and the second housing part at first ends thereof, thereby providing an essentially

U-shaped housing, the opposite second outer ends of the first and second housing part defining an opening to allow passage of the pelt board therethrough and into the space between the first and second housing part.

[0029] According to an example of an apparatus according to the present invention, the handle part is arranged essentially centrally of the respective elongated elements as seen in the longitudinal direction thereof and the gripping member is arranged essentially midway between the first and the second pressure rod.

[0030] According to an additional example of an apparatus according to the present invention, the housing is arranged on a housing support movable along tracks in a transverse direction between the first housing position where the retaining device on the pelt board is arranged between the inwardly facing sides of the housing parts and a second position where the housing is moved transversely away from the pelt board and the pelt board not accommodated in the spacing between the housing parts.

[0031] According to a further example of an apparatus according to the present invention, the housing support is arranged movably along a column having a column axis being essentially parallel with the longitudinal board axis of a pelt board fastened in the pelt board-holding device, the housing support being movable between a position where the housing is in its second position and a position where the housing is in an elevated third position, and in the position of the housing support where the housing is in its third position, the housing support and thereby the housing being laterally movable to a position where the housing is in a fourth position above an upper opening of a retaining device store configured for receiving the elongated elements of the retaining device.

[0032] According to an example, the retaining device store is a retaining device magazine having at least one upwardly open storing room divided into two storing compartments by means of a dividing wall, the storing compartments being configured and shaped to receive and stack the pairs of elongated elements of the retaining device corresponding to the pairs of elongated elements forming the retaining device being removed from the retaining engagement with the pelt on the pelt board.

[0033] According to an example, the compartments are configured and shaped to receive and store the elongated elements in the shape of the elongated elements before being elastically bent to bring the respective inner surfaces thereof in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board.

BRIEF DESCRIPTION OF THE FIGURES

[0034] Embodiments and examples of the invention will be described in more details in the following with regard to the accompanying figures. The figures show ways of implementing the present invention and are not to be construed as limiting to other possible embodiments falling within the scope of the attached set of claims.

Fig. 1 is a schematically perspective view of an embodiment of an apparatus according to the invention, a pelt board being arranged in an upright position in a pelt board-holding device and a pelt on the pelt board being retained on the pelt board by a pelt-retaining device,

Fig. 2 is an enlarged view of the area in the circle W in Fig.1,

Fig. 3 is a schematically top view of the illustration in Fig. 2 as seen in the direction of the board axis of the pelt board shown in Figs. 1 and 2 and shows that the pelt-retaining device surrounds the pelt on the pelt board and comprises two identical and mutually connected elongated elements, and additionally illustrates the start position of two pressure rods and a gripping member of each of two oppositely arranged gripping and releasing devices arranged in opposite housing parts of essentially U-shaped housings and being configured for gripping and releasing the elongated elements of the pelt-retaining device,

Fig. 3a to Fig. 3e are schematically perspective views corresponding to that of Fig. 3 of sequences in the method of removing the elongated elements of the retaining device from the pelt on the pelt board,

Fig.4 is a diagrammatically top view illustrating that the housing is supported by and movable along tracks on a housing support, and that the housing support is arranged movably along an upright column,

Fig. 5 is a schematically perspective view of the upright pelt board after removal of the pelt-retaining device and the position of the housing support and the housing after it has been moved to an elevated position and additionally moved to a lateral position above a retaining device store.

Fig. 6 is a top view of the illustration in Fig. 5

Fig. 6a is an enlarged view of an area of the illustration in Fig. 6

Fig.7 is an enlarged schematically perspective view of an elongated element of the retaining device in the bent position shown in Fig. 1 to Fig. 3.

Fig. 8 is an enlarged schematically perspective view of the gripping member shown in Fig. 2 engaging and gripping the handle part protruding from the outer surface of the elongated elements of the retaining device

DETAILED DESCRIPTION OF THE INVENTION

[0035] Reference is made to Figs. 1 and 2 disclosing an embodiment of an apparatus 1 according to the invention for removing a pelt-retaining device 2 from a pelt board 3 on which a mink pelt 4 is retained by means of the pelt-retaining device 2.

[0036] The pelt board 3 has a longitudinal board axis LA, a lower end 6 and an opposite upper end 5, a first major side 7 and an opposite second major side 8, a first lateral side 9 and an opposite second lateral side 10 and a middle plane extending through the board axis LA and through the lateral sides 9,10. The lower end 6 of the pelt board 3 is fixed in a pelt board-holding device, not shown, to arrange the pelt board in an upright position.

[0037] The pelt retaining device 2 comprises a first elongated element 12 and an identical second elongated element 12, each having a length, a width and a thickness, an inner surface 13 and an opposite outer surface 14 and a first longitudinally outer end portion 15 and an opposite second longitudinally outer end portion 16, see Fig.7 disclosing the elongated element 12 in a bent state.

[0038] The elongated elements 12 are elastically bendable and arranged opposite each other on respective major sides 7,8 of the pelt board 3 and bent to bring the respective inner surfaces 13 in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board 2, opposite outer end portions 15,16 of each of the elongated elements extending beyond the first and the second lateral side 9,10 of the pelt board 2.

[0039] Adjacent outer end portions 15,16 of the elongated elements 12 are mutually connected by means of a ratchet-pawl arrangement comprising a ratchet bar 17 with a plurality of teeth 11 being provided at and being integral with one of the outer end portions 15 and a pawl means 18 being provided at the other one of the adjacent outer end portions 16. It should be noted that the elongated elements are straight in their original state before being bent except from the ratchet bar 17 and the pawl means 18.

[0040] Each elongated element 12 is on the outer surface 14 thereof provided with a handle part 20 arranged essentially centrally of the elongated element and protruding from the outer surface 14. As seen in Fig. 7, the handle part 20 comprises a centrally arranged and transversely extending rib 21 with a lateral wedge-shaped through-going notch. A T-shaped portion 23 of the handle part 20 extends outwardly beyond the outer surface 14 at the upper edge of the rib 21 and ends in the crossbar 24 of the T.

[0041] Reference is further made to Figs. 1-3 and Figs. 3a - 3e and Fig. 4 and the apparatus of the invention is now described in more detail. The apparatus 1 comprises an essentially C-shaped housing 25 comprising a first housing part 26, an opposite second housing part 27 spaced from the first housing part and a third housing part 28 connected to the first and second housing parts at first ends thereof. The opposite second ends of the

first and second housing parts 26,27 define an opening to allow passage of the pelt board 2 therethrough and into the space 29 between the first and the second housing parts. The first and second housing parts are spaced to accommodate the pelt board fastened in the pelt board-holding device with the pelt-retaining device 2 retaining the pelt 4 on the pelt board and the elongated elements 12 of the retaining device facing respective inwardly facing sides 30,31 of the first and second housing part 26,27, respectively, in a first position of the housing. The first position of the housing is shown in Figs. 1-3, Figs. 3a-3e and Fig. 4.

[0042] A first gripping and releasing device 32 for gripping and releasing the first elongated element 12 of the retaining device 2 is arranged in the first housing part 26 and a second gripping and releasing device 33 for gripping and releasing the second elongated element 12 of the retaining device 2 is arranged in the second housing part 27.

[0043] Each of the first and second gripping and releasing devices 32,33 comprise a first and a second mutually spaced pressure rods 34,35 and a gripping member 36. The first and a second pressure rod 34,35 are mutually spaced corresponding essentially to the spacing between the outer end portions 15,16 of the elongated elements 12, and each pressure rod is relative to the inwardly facing side 30,31 of the respective housing part 26,27 moveable between a retracted position and an extending position. In the extended position, the pressure rod engages, in the first position of the housing, an outer end portion 15,16 of an elongated element 12 of a pelt-retaining device 2 arranged on a pelt board 3 fastened in the pelt board-holding device.

[0044] The gripping member 36 is relative to the inwardly facing side of the respective housing part 26,27 moveable between a retracted position and an extending position and comprises a first and a second arm 38,39 comprising at an outer end thereof cooperating gripping and engagement means 37a,37b being movable away from and towards each other and configured to engage and grip, in the first position of the housing, the handle part 20 protruding from the outer surface 14 of each of the longitudinal elements 12, see Fig. 8.

[0045] Further, the apparatus can comprise additional pressure rods illustrated by the arrows 40,41 and being moveable between a retracted position an extended position. In the extended position, a pressure is applied to the outer free end of the ratchet bar 17 in a direction towards the pelt board, such as towards the longitudinal board axis LA.

[0046] As it appears from Figs. 1 and 4, the housing 25 is arranged on a housing support 42 and moveable in a transverse direction along tracks 43 of the housing support 42 between the first housing position, shown in Figs. 1-3, Figs. 3a-3e and Fig. 4, where the retaining device 2 on the pelt board is arranged between the inwardly facing sides of the first and second housing parts 26,27 and a second position where the housing 25 is

moved transversely away from the pelt board 3 and the pelt board is not accommodated in the spacing 29 between the first and second housing parts.

[0047] As it appears from Figs. 1 and 4-6a, the housing support 42, and thereby the housing 25, is additionally moveable along an upright column 44 having a column axis being essentially parallel to the longitudinal pelt board axis LA, when a pelt board 3 is fastened in the pelt board-holding device. Thereby, the housing 25 supported by the housing support can be moved to any vertical position and especially to the first position where the gripping and releasing devices are in the position for gripping and releasing the elongated elements of the retaining device and remove the latter from the pelt. Additionally, the housing support 42 is movable between a position where the housing 25 is in its second position and a position where the housing is in an elevated third position. From the position of the housing support 42 where the housing is in its third position, the housing support and thereby the housing 25 is laterally moveable to a position where the housing is in a fourth position above an upper opening 45 of a retaining device store 46 configured for receiving the elongated elements 12 of the retaining device 2. The retaining device store 46 is preferably movable relative to the housing supported by the housing support in order to arrange each opening of a retaining device store 46 having a number of openings in the correct position for receiving the elongated elements 12 of the retaining device when they are released.

[0048] The retaining device store 46 has a number of upwardly open storing rooms divided into two storing compartments 47, 48 by means of a dividing wall 49. The storing compartments are configured and shaped to receive and stack the pairs of elongated elements 12 of the retaining device 2 corresponding to the pairs of elongated elements forming the retaining device being removed from the retaining engagement with the pelt on the pelt board.

[0049] The compartments 47, 48 can be configured and shaped to receive and store the elongated elements 12 in the shape of the elongated elements before being elastically bent to bring the respective inner surfaces thereof in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board, see especially Fig 6a.

[0050] The pelt-retaining device 2 comprising two identical elongated elements can be removed by a method of the invention according to the following steps carried out by means of the above described embodiment of the apparatus of the invention:

- a. fastening the lower end 6 of the pelt board 3 with the pelt retained thereon by the pelt-retaining device 2 in the pelt board-holding device, whereby the pelt board will be arranged in an upright position, and moving the housing 25 to the first housing position shown in Figs. 1 and 2 where the pressure rods 34,35 and the gripping members 36 of the gripping and

releasing devices are in the retracted position,
b. bringing the gripping member 36 into engagement with the handle part 20 on the outer surface 14 of each of the elongated elements by moving the gripping member to the extended position as shown in Fig. 3 and moving the cooperating gripping and engagements means 37 a, 37 b towards each other, as illustrated in Fig. 3b,

c. applying a pressure to the outer surface of each of the outer portions of the elongated elements 12 provided with a ratchet bar 17 by moving the pressure rods 34 to the extended position, whereby the ratchet bars flex inwardly and away from the engagement with the pawl means 18 as illustrated in Fig. 3c. When all the pressure rods 34,35 have been retracted to their retracted position, the gripping members 36 are retracted to their retracted position and the elongated elements 12 of the retaining device 2 are thereby removed from the retaining engagement with the pelt on the pelt board as illustrated in Fig. 3e, c1. prior to retracting the gripping members to their retracted positions, applying a pressure to each of the outer end portions of the elongated elements being provided with a pawl means by extending the pressure rods 35 to their extended position.

[0051] When a pressure is applied during step c1 to each of the outer end portions of the elongated members being provided with a pawl means, the pawl means flexes outwardly away from and out of a possible engagement between a tooth of the ratchet bar. Thereby, the risk of not obtaining a disengagement of the ratchet bar from the pawl means is eliminated. If not, it is possible to apply a pressure to the outer free end of the ratchet bar in a direction towards the pelt board, such as the longitudinal board axis by means of the pressure rods illustrated by means of the arrows 40 and 41 in Fig. 3d in order to disengage the ratchet bar from the pawl means.

[0052] When the pressure rods have been retracted to their retracted position, the gripping members 36 are retracted to their retracted position, thereby removing the elongated element of the retaining device 2 from the pelt board as mentioned above.

[0053] The pelt can then be removed from the pelt board.

[0054] Additionally, the elongated elements 12 of the pelt-retaining device 2 gripped by the gripping members 36 can be delivered to the retaining device store 46 by moving the housing 25 supported by the housing support to its second position and thereafter moving the housing on the housing support 42 to its elevated third position. The housing 25 on the housing support 42 is then moved to its fourth position above the upper opening 45 of the retaining device store 46 as shown in Fig.5 and 6.

[0055] In the fourth position of the housing 25, the gripping members 36 of the gripping and releasing devices 32, 33 can be extended to their extended positions to bring the elongated elements from their bent shape and

state shown in Figs. 5 and 6 and into their straight shape and state shown in Fig. 6a. The housing 25 can then be moved downwardly to insert the elongated elements 12 in the respective storing compartments 47,48 of the retaining device store 46. The gripping members 36 of the gripping and releasing devices 32, 33 can now be retracted to their retracted positions leaving the elongated elements in the respective compartments 47,48. Finally the housing is moved back to its first position for removing the next pelt-retaining device from a pelt on a pelt board.

LIST OF REFERENCE NUMERALS

[0056]

1	apparatus
2	pelt-retaining device
3	pelt board
4	mink pelt
20 LA	longitudinal board axis
5	upper board end
6	lower board end
7	first major side
8	second major side
25 9	first lateral side
10	second lateral side
11	teeth
12	elongated elements
13	inner surface of elongated element
30 14	outer surface of elongated element
15	first longitudinally outer end portion
16	second longitudinally outer end portion
17	ratchet bar
18	pawl means
35 19	pawl
20	handle part
21	rib
22	notch
23	T-shaped portion
40 24	cross bar
25	housing
26	first housing part
27	second housing part
28	third housing part
45 29	space, spacing
30	inwardly facing side
31	inwardly facing side
32	first gripping and releasing device
33	second gripping and releasing device
50 34	first pressure rod
35	second pressure rod
36	gripping member
37a	cooperating gripping and engagement means
37b	cooperating gripping and engagement means
55 38	first arm
39	second arm
40	additional pressure rod
41	additional pressure rod

42 housing support
 43 tracks
 44 column
 45 upper opening
 46 retaining device store
 47 storing compartment
 48 storing compartment
 49 dividing wall

Claims

1. A method for removing a pelt-retaining device (2) from a pelt board (3) on which a pelt (4), especially a mink pelt has been retained by the retaining device (2) during a drying process,

the pelt board (3) having a longitudinal board axis (LA), a longitudinal middle plane, a lower end (6), an opposite upper end (5) and a first major side (7) and an opposite second major side (8) and a first lateral side (9) and an opposite second lateral side (10),

the pelt-retaining device (2) comprising a first elongated element (12) and a second elongated element (12), each having a length, a width and a thickness, an inner surface (13) and an opposite outer surface (14) and a first longitudinally outer end portion (15) and an opposite second longitudinally outer end portion (16),

characterized in that said elongated elements (12) being elastically bendable and arranged opposite each other on respective major sides (7,8) of the pelt board (3) and bent to bring the respective inner surfaces (13) in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board, opposite outer end portions (15,16) of each of the elongated elements (12) extending beyond the first and the second lateral side (9,10) of the pelt board (3), and

adjacent outer end portions (15,16) of the elongated elements (12) being mutually connected by means of a ratchet-pawl arrangement comprising a ratchet bar (17) with a plurality of teeth (11) being provided at and being integral with one of the outer end portions (15) and a pawl means (18) being provided at being integral with the other one of the adjacent outer end portions (16), the method comprising the following steps:

- a. arranging the lower end of the pelt board (3) with the pelt (4) retained thereon by means of the retaining device (2) in a pelt board-holding device
- b. bringing a gripping member (36) into engagement with the outer surface (14) of each of the elongated elements (12) ar-

ranged opposite each other on respective major sides (7,8) of the board (3),

c. applying a pressure to the outer surface of each of the outer end portions (15) of the elongated members (12) being provided with a ratchet bar (17) in order to bring the ratchet bar (17) out of engagement with the pawl means (18),

e. moving the gripping members (36) being in engagement with the respective elongated members (12) away from the pelt (4) on the pelt board (3), thereby removing the elongated members (12) from the pelt (4), after the pressure on each of the outer end portions (15) of the elongated elements (12) has been released

2. A method according to claim 1, wherein the pelt board (3) is arranged in an upright position in step a.

3. A method according to any of the preceding claims, said method comprising the following steps in connection with or after step c:

step c1: applying a pressure to each of the outer end portions (16) of the elongated members (12) being provided with a pawl means (18), and

step c2: releasing the pressure on each of the outer end portions (16) of the elongated members (12) being provided with a pawl means (18), and

step c3: releasing the pressure on each of the outer end portions (15) of the elongated members (12) being provided with a ratchet bar (17).

4. A method according to claim 1 and/or claim 3, said method comprising applying a pressure to the outer free end of the ratchet bar (17) in a direction towards the longitudinal board axis (LA) in order to bring the ratchet bar (17) out of engagement with the pawl means (18).

5. A method according to any of the preceding claims, said method comprising the following step subsequent to (following) step e:
 Step f: removing the pelt (4) from the pelt board (3).

6. A method according to any of the preceding claims, said method comprising the following step subsequent to step e:
 Step g: delivering the elongated elements (12) of the retaining device (2) to a retaining device magazine (46).

7. A method according to claim 6, wherein the elongated elements (12) are delivered to and stored in the magazine (46) in pairs corresponding to the pair of elongated elements (12) forming the retaining device

(2) being removed from the retaining engagement with the pelt (4) on the pelt board (3).

8. A method according to claim 7, wherein the pairs of elongated elements (12) are stored in the magazine (46) in positions where a ratchet bar (17) of one of the elongated elements (12) is placed opposite the pawl means (18) of the other one of the pairs of elongated elements (12)
9. A method according to claim 7 and/or 8, wherein the elongated elements (12) are stored in the magazine (46) in a shape corresponding to the shape of the elongated element (12) before being elastically bent to bring the respective inner surfaces thereof in retaining engagement with the outer surface of the pelt and retain the pelt on the pelt board.
10. An apparatus (1) for removing a pelt-retaining device (2) from a pelt board (3) on which a pelt (4), especially a mink pelt has been retained by the retaining device (2) during a drying process, the pelt board (3) having a longitudinal board axis (LA), a longitudinal middle plane, a lower end (6), an opposite upper end (5) and a first major side (7) and an opposite second major side (8) and a first lateral side (9) and an opposite second lateral side (10),

the pelt-retaining device (2) comprising a first elongated element (12) and a second elongated element (12), each having a length, a width and a thickness, an inner surface (13) and an opposite outer surface (14) and a first longitudinally outer end portion (15) and an opposite second longitudinally outer end portion (16),
characterized in that said elongated elements (12) being elastically bendable and arranged opposite each other on respective major sides (7,8) of the pelt board (3) and bent to bring the respective inner surfaces (13) in retaining engagement with the outer surface of the pelt (4) and retain the pelt on the pelt board (3), opposite outer end portions of each of the elongated elements (12) extending beyond the first and the second lateral side (9,10) of the pelt board (3), and
adjacent outer end portions (15,16) of the elongated elements being mutually connected by means of a ratchet-pawl arrangement comprising a ratchet bar (17) with a plurality of teeth (11) being provided at and being integral with one of the outer end portions and a pawl means (18) being provided at the other one of the adjacent outer end portions (16), the apparatus comprising:

- a pelt board-holding device configured for preferably releasably fastening the lower

end (6) of the pelt board (3) in a preferable upright position

- a housing (25) comprising a first housing part (26) and an opposite second housing part (27) mutually spaced to accommodate the pelt board (3) fastened in the pelt board-holding device with the retaining device (2) retaining the pelt (4) on the pelt board (3) and the elongated elements (12) of the retaining device (2) facing respective inwardly facing sides (30,31) of the first and second housing part (26,27) respectively in a first position of the housing (25).

- a first gripping and releasing device (32) for gripping and releasing the first elongated element (12) of the retaining device (2) and being arranged in the first housing part (26) and a second gripping and releasing device (33) for gripping and releasing the second elongated element (12) of the retaining device (2) and being arranged in the second housing part (27),

- each of the first and second gripping and releasing devices (32,33) comprising:

- a first and a second pressure rod (34,35) being mutually spaced corresponding essentially to the spacing between the outer end portions (15,16) of the elongated elements (12) and each being relative to the inwardly facing side (30,31) of the respective housing part (26,27) movable between a retracted position and an extending position engaging, in the first position of the housing (25), an outer end portion of an elongated element (12) of a pelt-retaining device (2) arranged on a pelt board (3) fastened in the pelt board-holding device, and
- a gripping member (36) being relative to the inwardly facing side (30,31) of the respective housing part (26,27) moveable between a retracted position and an extending position and comprising at an outer end thereof cooperating gripping and engagement means (37a,37b) being movable away from and towards each other and configured to engage and grip, in the first position of the housing (25), a handle part (20) protruding from the outer surface (14) of each of the longitudinal elements (12).

11. An apparatus according to claim 10, wherein the handle part (20) is arranged essentially centrally of the respective elongated elements (12) as seen in the longitudinal direction thereof and the gripping member (36) is arranged essentially midway between the first and the second pressure rod (34,35).

12. An apparatus according to claim 10 and/or 11,

wherein the housing (25) is arranged on a housing support (42) movable along tracks (43) in a transverse direction between the first housing position where the retaining device (2) on the pelt board is arranged between the inwardly facing sides (30,31) of the housing parts (26,27) and a second position where the housing (25) is moved transversely away from the pelt board and the pelt board is not accommodated in the spacing between the housing parts.

13. An apparatus according to claim 12, wherein the housing support (42) is arranged movably along a column (44) having a column axis being essentially parallel with the longitudinal board axis (LA) of a pelt board (3) fastened in the pelt board-holding device, the housing support (42) being movable between a position where the housing (25) is in its second position and a position where the housing is in an elevated third position, and in the position of the housing support where the housing (25) is in its third position, the housing support (42) and thereby the housing (25) being laterally movable to a position where the housing (25) is in a fourth position above an upper opening of a retaining device store (46) configured for receiving the elongated element (12) of the retaining device (2).

14. An Apparatus according to claim 13, wherein the retaining device store (46) is a retaining device magazine having at least one upwardly open storing room divided into two storing compartments (47,48) by means of a dividing wall (49), the storing compartments (47,48) being configured and shaped to receive and stack the pairs of elongated elements (12) of the retaining device (2) corresponding to the pairs of elongated elements (12) forming the retaining device (2) being removed from the retaining engagement with the pelt (4) on the pelt board (3).

15. An apparatus according to claim 14, wherein the compartments (47,48) are configured and shaped to receive and store the elongated elements (12) in the shape of the elongated elements before being elastically bent to bring the respective inner surfaces thereof in retaining engagement with the outer surface of the pelt (4) and retain the pelt on the pelt board (3).

Patentansprüche

1. Verfahren zum Entfernen einer Pelzhaltevorrichtung (2) von einem Pelzbrett (3), auf welchem ein Pelz (4), insbesondere ein Nerzpelz, während eines Trocknungsvorgangs von der Haltevorrichtung (2) gehalten wurde, wobei das Pelzbrett (3) eine Brett-Längsachse (LA), eine Längsmittlebene, ein unteres Ende (6), ein gegenüberliegendes oberes Ende

(5) und eine erste Hauptseite (7) und eine gegenüberliegende zweite Hauptseite (8) und eine erste laterale Seite (9) und eine gegenüberliegende zweite laterale Seite (10) aufweist, wobei die Pelzhaltevorrichtung (2) ein erstes längliches Element (12) und ein zweites längliches Element (12) umfasst, die jeweils eine Länge, eine Breite und eine Dicke, eine Innenfläche (13) und eine gegenüberliegende Außenfläche (14) und einen ersten in Längsrichtung äußeren Endabschnitt (15) und einen gegenüberliegenden zweiten in Längsrichtung äußeren Endabschnitt (16) aufweisen,

dadurch gekennzeichnet, dass die

länglichen Elemente (12) elastisch biegsam sind und einander gegenüberliegend auf einer jeweiligen Hauptseite (7, 8) des Pelzbrettes (3) angeordnet und so gebogen werden, dass die jeweilige Innenfläche (13) mit der Außenfläche des Pelzes in Halteeingriff gebracht und der Pelz auf dem Pelzbrett gehalten wird, wobei sich gegenüberliegende äußere Endabschnitte (15, 16) jedes der länglichen Elemente (12) über die erste und die zweite laterale Seite (9, 10) des Pelzbrettes (3) hinaus erstrecken, und aneinandergrenzenden äußeren Endabschnitte (15, 16) der länglichen Elemente (12) mittels einer Sperrklinkenanordnung, die eine Sperrstange (17) mit einer Vielzahl von Zähnen (11), welche an einem der äußeren Endabschnitte (15) bereitgestellt und mit diesem einstückig ist, und ein Klinkenmittel (18) umfasst, welches am anderen der aneinandergrenzenden äußeren Endabschnitte (16) bereitgestellt und mit diesem einstückig ist, miteinander verbunden werden, wobei das Verfahren die folgenden Schritte umfasst:

- a. Anordnen des unteren Endes des Pelzbrettes (3) mit dem Pelz (4), der mittels der Haltevorrichtung (2) auf diesem gehalten wird, in einer Pelzbrett-Halterungsvorrichtung,
- b. Ineingriffbringen eines Greifgliedes (36) mit der Außenfläche (14) jedes der länglichen Elemente (12), die einander gegenüberliegend auf einer jeweiligen Hauptseite (7, 8) des Brettes (3) angeordnet sind,
- c. Anlegen eines Drucks auf die Außenfläche jedes der äußeren Endabschnitte (15) der länglichen Glieder (12), die mit einer Sperrstange (17) versehen sind, um die Sperrstange (17) und das Klinkenmittel (18) außer Eingriff zu bringen,
- e. Bewegen der Greifglieder (36), die sich mit den jeweiligen länglichen Gliedern (12) in Eingriff befinden, vom Pelz (4) auf dem Pelzbrett (3) weg, wodurch die länglichen

- Glieder (12) vom Pelz (4) entfernt werden, nachdem der Druck auf jedem der äußeren Endabschnitte (15) der länglichen Elemente (12) gelöst wurde.
2. Verfahren nach Anspruch 1, wobei das Pelzbrett (3) in Schritt a in einer aufrechten Stellung angeordnet wird.
 3. Verfahren nach einem der vorstehenden Ansprüche, wobei das Verfahren die folgenden Schritte in Verbindung mit oder nach Schritt c umfasst:

Schritt c1: Anlegen eines Drucks auf jeden der äußeren Endabschnitte (16) der länglichen Glieder (12), der mit einem Klinkenmittel (18) versehen ist, und

Schritt c2: Lösen des Drucks auf jedem der äußeren Endabschnitte (16) der länglichen Glieder (12), der mit einem Klinkenmittel (18) versehen ist, und

Schritt c3: Lösen des Drucks auf jedem der äußeren Endabschnitte (15) der länglichen Glieder (12), der mit einer Sperrstange (17) versehen ist.
 4. Verfahren nach Anspruch 1 und/oder Anspruch 3, wobei das Verfahren das Anlegen eines Drucks in einer Richtung zur Brett-Längsachse (LA) auf das äußere freie Ende der Sperrstange (17) umfasst, um die Sperrstange (17) und das Klinkenmittel (18) außer Eingriff zu bringen.
 5. Verfahren nach einem der vorstehenden Ansprüche, wobei das Verfahren im Anschluss an (nachfolgend auf) Schritt e den folgenden Schritt umfasst: Schritt f: Entfernen des Pelzes (4) vom Pelzbrett (3).
 6. Verfahren nach einem der vorstehenden Ansprüche, wobei das Verfahren im Anschluss an Schritt e den folgenden Schritt umfasst: Schritt g: Zuführen der länglichen Elemente (12) der Haltevorrichtung (2) einem Haltevorrichtungsmagazin (46).
 7. Verfahren nach Anspruch 6, wobei die länglichen Elemente (12) dem Magazin (46) paarweise, dem Paar länglicher Elemente (12) entsprechend, welches die aus dem Halteeingriff mit dem Pelz (4) auf dem Pelzbrett (3) entfernte Haltevorrichtung (2) bildet, zugeführt und in diesem gelagert werden.
 8. Verfahren nach Anspruch 7, wobei die Paare länglicher Elemente (12) im Magazin (46) in Stellungen gelagert werden, bei denen eine Sperrstange (17) eines der länglichen Elemente (12) dem Klinkenmittel (18) des anderen des Paares länglicher Elemente (12) gegenüberliegend platziert ist.

9. Verfahren nach Anspruch 7 und/oder 8, wobei die länglichen Elemente (12) im Magazin (46) in einer Form gelagert werden, die der Form des länglichen Elements (12) entspricht, bevor dieses elastisch gebogen wird, um die jeweilige Innenfläche desselben mit der Außenfläche des Pelzes in Halteeingriff zu bringen und den Pelz auf dem Pelzbrett zu halten.

10. Einrichtung (1) zum Entfernen einer Pelzhaltevorrichtung (2) von einem Pelzbrett (3), auf welchem ein Pelz (4), insbesondere ein Nerzpelz, während eines Trocknungsvorgangs von der Haltevorrichtung (2) gehalten wurde, wobei das Pelzbrett (3) eine Brett-Längsachse (LA), eine Längsmittlebene, ein unteres Ende (6), ein gegenüberliegendes oberes Ende (5) und eine erste Hauptseite (7) und eine gegenüberliegende zweite Hauptseite (8) und eine erste laterale Seite (9) und eine gegenüberliegende zweite laterale Seite (10) aufweist,

wobei die Pelzhaltevorrichtung (2) ein erstes längliches Element (12) und ein zweites längliches Element (12) umfasst, die jeweils eine Länge, eine Breite und eine Dicke, eine Innenfläche (13) und eine gegenüberliegende Außenfläche (14) und einen ersten in Längsrichtung äußeren Endabschnitt (15) und einen gegenüberliegenden zweiten in Längsrichtung äußeren Endabschnitt (16) aufweisen,

dadurch gekennzeichnet, dass die länglichen Elemente (12) elastisch biegsam sind und einander gegenüberliegend auf einer jeweiligen Hauptseite (7, 8) des Pelzbrettes (3) angeordnet und so gebogen werden, dass die jeweilige Innenfläche (13) mit der Außenfläche des Pelzes (4) in Halteeingriff gebracht und der Pelz auf dem Pelzbrett (3) gehalten wird, wobei sich gegenüberliegende äußere Endabschnitte jedes der länglichen Elemente (12) über die erste und die zweite laterale Seite (9, 10) des Pelzbrettes (3) hinaus erstrecken, und aneinandergrenzenden äußeren Endabschnitte (15, 16) der länglichen Elemente mittels einer Sperrklinkenanordnung, die eine Sperrstange (17) mit einer Vielzahl von Zähnen (11), welche an einem der äußeren Endabschnitte bereitgestellt und mit diesem einstückig ist, und ein Klinkenmittel (18) umfasst, welches am anderen der aneinandergrenzenden äußeren Endabschnitte (16) bereitgestellt ist, miteinander verbunden werden, wobei die Einrichtung umfasst:

- eine Pelzbrett-Halterungsvorrichtung, die dafür ausgelegt ist, das untere Ende (6) des Pelzbrettes (3) in einer vorzugsweise aufrechten Stellung vorzugsweise lösbar zu befestigen,
- ein Gehäuse (25), das einen ersten Ge-

- häuseteil (26) und einen gegenüberliegenden zweiten Gehäuseteil (27) umfasst, die zueinander beabstandet sind, um das in der Pelzbrett-Halterungsvorrichtung befestigte Pelzbrett (3) mit der den Pelz (4) auf dem Pelzbrett (3) haltenden Haltevorrichtung (2) und den länglichen Elementen (12) der Haltevorrichtung (2) in einer ersten Stellung des Gehäuses (25) einer jeweiligen nach innen gewandten Seite (30, 31) des ersten bzw. des zweiten Gehäuseteils (26, 27) zugewandt unterzubringen.
- eine erste Greif- und Lösevorrichtung (32) zum Greifen und Lösen des ersten länglichen Elements (12) der Haltevorrichtung (2) und im ersten Gehäuseteil (26) angeordnet werden, und eine zweite Greif- und Lösevorrichtung (33) zum Greifen und Lösen des zweiten länglichen Elements (12) der Haltevorrichtung (2) und im zweiten Gehäuseteil (27) angeordnet werden,
 - wobei die erste und die zweite Greif- und Lösevorrichtung (32, 33) jeweils umfassen:
 - einen ersten und einen zweiten Druckstab (34, 35), die im Wesentlichen dem Abstand zwischen den äußeren Endabschnitten (15, 16) der länglichen Elemente (12) entsprechend zueinander beabstandet sind und jeweils relativ zu der nach innen gewandten Seite (30, 31) des jeweiligen Gehäuseteils (26, 27) zwischen einer eingezogenen Stellung und einer sich erstreckenden Stellung bewegt werden können, welche in der ersten Stellung des Gehäuses (25) einen äußeren Endabschnitt eines länglichen Elements (12) einer Pelzhaltevorrichtung (2), die auf einem in der Pelzbrett-Halterungsvorrichtung befestigten Pelzbrett (3) angeordnet ist, in Eingriff nimmt, und
 - ein Greifglied (36), das relativ zu der nach innen gewandten Seite (30, 31) des jeweiligen Gehäuseteils (26, 27) zwischen einer eingezogenen Stellung und einer sich erstreckenden Stellung bewegt werden kann und an einem äußeren Ende desselben zusammenwirkende Greif- und Eingriffsmittel (37a, 37b) umfasst, die auseinander und zueinander bewegt werden können und dazu ausgelegt sind, in der ersten Stellung des Gehäuses (25), einen von der Außenfläche (14) jedes der länglichen Elemente (12) vorstehenden Griffteil (20) in Eingriff zu nehmen und zu greifen.
- 11.** Einrichtung nach Anspruch 10, wobei der Griffteil (20), in der Längsrichtung derselben gesehen, im Wesentlichen mittig von den jeweiligen länglichen Elementen (12) angeordnet ist, und das Greifglied
- (36) im Wesentlichen auf halber Strecke zwischen dem ersten und dem zweiten Druckstab (34, 35) angeordnet ist.
- 12.** Einrichtung nach Anspruch 10 und/oder 11, wobei das Gehäuse (25) an einem Gehäuseträger (42) angeordnet ist, der entlang von Schienen (43) in einer Querrichtung zwischen der ersten Gehäusestellung, bei der die Haltevorrichtung (2) auf dem Pelzbrett zwischen den nach innen gewandten Seiten (30, 31) der Gehäuseteile (26, 27) angeordnet ist, und einer zweiten Stellung bewegt werden kann, bei der das Gehäuse (25) quer vom Pelzbrett weg bewegt wird und das Pelzbrett nicht in dem Raum zwischen den Gehäuseteilen untergebracht ist.
- 13.** Einrichtung nach Anspruch 12, wobei der Gehäuseträger (42) entlang einer Säule (44) mit einer im Wesentlichen parallel zur Brett-Längsachse (LA) eines in der Pelzbrett-Halterungsvorrichtung befestigten Pelzbrettes (3) verlaufenden Säulenachse beweglich angeordnet ist, wobei der Gehäuseträger (42) zwischen einer Stellung, bei der sich das Gehäuse (25) in seiner zweiten Stellung befindet, und einer Stellung, bei der sich das Gehäuse in einer angehobenen dritten Stellung befindet, bewegt werden kann, und wobei in der Stellung des Gehäuseträgers, bei der sich das Gehäuse (25) in seiner dritten Stellung befindet, der Gehäuseträger (42) und damit das Gehäuse (25) seitwärts zu einer Stellung bewegt werden können, bei der sich das Gehäuse (25) in einer vierten Stellung über einer oberen Öffnung eines Haltevorrichtungslagers (46) befindet, das dafür ausgelegt ist, das längliche Element (12) der Haltevorrichtung (2) aufzunehmen.
- 14.** Einrichtung nach Anspruch 13, wobei es sich bei dem Haltevorrichtungslager (46) um ein Haltevorrichtungsmagazin mit mindestens einem nach oben offenen Lagerraum handelt, der mittels einer Trennwand (49) in zwei Lagerabteile (47, 48) getrennt ist, wobei die Lagerabteile (47, 48) dazu ausgelegt und geformt sind, die Paare länglicher Elemente (12) der Haltevorrichtung (2) den Paaren länglicher Elemente (12) entsprechend, welche die aus dem Halteeingriff mit dem Pelz (4) auf dem Pelzbrett (3) entfernte Haltevorrichtung (2) bilden, aufzunehmen und zu stapeln.
- 15.** Einrichtung nach Anspruch 14, wobei die Abteile (47, 48) dazu ausgelegt und geformt sind, die länglichen Elemente (12) in der Form der länglichen Elemente, bevor diese elastisch gebogen werden, um die jeweiligen Innenflächen derselben mit der Außenfläche des Pelzes (4) in Halteeingriff zu bringen und den Pelz auf dem Pelzbrett (3) zu halten, aufzunehmen und zu lagern.

Revendications

1. Procédé de retrait d'un dispositif de retenue de peau (2) d'une planche à peau (3) sur laquelle une peau (4), en particulier une peau de vison, a été retenue par le dispositif de retenue (2) durant un processus de séchage, la planche à peau (3) présentant un axe de planche longitudinal (LA), un plan médian longitudinal, une extrémité inférieure (6), une extrémité supérieure (5) opposée et un premier côté principal (7) et un second côté principal (8) opposé et un premier côté latéral (9) et un second côté latéral (10) opposé, le dispositif de retenue de peau (2) comprenant un premier élément allongé (12) et un second élément allongé (12), chacun présentant une longueur, une largeur et une épaisseur, une surface intérieure (13) et une surface extérieure (14) opposée et une première portion d'extrémité longitudinalement extérieure (15) et une seconde portion d'extrémité longitudinalement extérieure (16) opposée, **caractérisé en ce que** lesdits

éléments allongés (12) étant pliables élastiquement et agencés opposés l'un à l'autre sur des côtés principaux (7, 8) respectifs de la planche à peau (3) et pliés pour mettre les surfaces intérieures (13) respectives en prise de retenue avec la surface extérieure de la peau et retenir la peau sur la planche à peau, des portions d'extrémité extérieures (15, 16) opposées de chacun des éléments allongés (12) s'étendant au-delà du premier et du second côté latéral (9, 10) de la planche à peau (3), et des portions d'extrémité extérieures (15, 16) adjacentes des éléments allongés (12) étant reliées mutuellement au moyen d'un agencement rochet-cliquet comprenant une barre à rochet (17) avec une pluralité de dents (11) qui est prévue au niveau et fait partie intégrante d'une des portions d'extrémité extérieures (15) et un moyen cliquet (18) qui est prévu au niveau et fait partie intégrante de l'autre des portions d'extrémité extérieures (16) adjacentes, le procédé comprenant les étapes suivantes :

- a. un agencement de l'extrémité inférieure de la planche à peau (3) avec la peau (4) retenue sur celle-ci au moyen du dispositif de retenue (2) dans un dispositif de maintien de planche à peau,
- b. une mise en prise d'un organe de préhension (36) avec la surface extérieure (14) de chacun des éléments allongés (12) agencés opposés l'un à l'autre sur des côtés principaux (7, 8) respectifs de la planche (3),
- c. une application d'une pression sur la surface extérieure de chacune des portions d'extrémité extérieures (15) des éléments

allongés (12) qui sont pourvues d'une barre à rochet (17) afin d'amener la barre à rochet (17) à ne plus être en prise avec le moyen cliquet (18),

e. un déplacement des organes de préhension (36) qui sont en prise avec les éléments allongés (12) respectifs à distance de la peau (4) sur la planche à peau (3), retirant ainsi les éléments allongés (12) de la peau (4), après que la pression sur chacune des portions d'extrémité extérieures (15) des éléments allongés (12) a été relâchée.

2. Procédé selon la revendication 1, dans lequel la planche à peau (3) est agencée dans une position droite à l'étape a.
3. Procédé selon l'une quelconque des revendications précédentes, ledit procédé comprenant les étapes suivantes en rapport avec ou après l'étape c :

étape c1 : une application d'une pression sur chacune des portions d'extrémité extérieures (16) des éléments allongés (12) qui sont pourvues d'un moyen cliquet (18), et

étape c2 : un relâchement de la pression sur chacune des portions d'extrémité extérieures (16) des éléments allongés (12) qui sont pourvues d'un moyen cliquet (18), et

étape c3 : un relâchement de la pression sur chacune des portions d'extrémité extérieures (15) des éléments allongés (12) qui sont pourvues d'une barre à rochet (17).

4. Procédé selon la revendication 1 et/ou la revendication 3, ledit procédé comprenant une application d'une pression sur l'extrémité libre extérieure de la barre à rochet (17) dans une direction vers l'axe de planche longitudinal (LA) afin d'amener la barre à rochet (17) à ne plus être en prise avec le moyen cliquet (18).
5. Procédé selon l'une quelconque des revendications précédentes, ledit procédé comprenant l'étape suivante ultérieure à (suivant) l'étape e :
étape f : un retrait de la peau (4) de la planche à peau (3).
6. Procédé selon l'une quelconque des revendications précédentes, ledit procédé comprenant l'étape suivante ultérieure à l'étape e :
étape g : une fourniture des éléments allongés (12) du dispositif de retenue (2) à un magasin de dispositif de retenue (46).
7. Procédé selon la revendication 6, dans lequel les éléments allongés (12) sont fournis au et stockés dans le magasin (46) par paires correspondant à la

paire d'éléments allongés (12) constituant le dispositif de retenue (2) qui est retiré de la prise de retenue avec la peau (4) sur la planche à peau (3).

8. Procédé selon la revendication 7, dans lequel les paires d'éléments allongés (12) sont stockées dans le magasin (46) dans des positions où une barre à rochet (17) d'un des éléments allongés (12) est placée à l'opposé du moyen cliquet (18) de l'autre des paires d'éléments allongés (12). 5
9. Procédé selon la revendication 7 et/ou 8, dans lequel les éléments allongés (12) sont stockés dans le magasin (46) sous une forme correspondant à la forme de l'élément allongé (12) avant d'être pliés élastiquement pour mettre les surfaces intérieures respectives de ceux-ci en prise de retenue avec la surface extérieure de la peau et retenir la peau sur la planche à peau. 10
10. Appareil (1) de retrait d'un dispositif de retenue de peau (2) d'une planche à peau (3) sur laquelle une peau (4), en particulier une peau de vison, a été retenue par le dispositif de retenue (2) durant un processus de séchage, la planche à peau (3) présentant un axe de planche longitudinal (LA), un plan médian longitudinal, une extrémité inférieure (6), une extrémité supérieure (5) opposée et un premier côté principal (7) et un second côté principal (8) opposé et un premier côté latéral (9) et un second côté latéral (10) opposé, 20

le dispositif de retenue de peau (2) comprenant un premier élément allongé (12) et un second élément allongé (12), chacun présentant une longueur, une largeur et une épaisseur, une surface intérieure (13) et une surface extérieure (14) opposée et une première portion d'extrémité longitudinalement extérieure (15) et une seconde portion d'extrémité longitudinalement extérieure (16) opposée, 25

caractérisé en ce que lesdits éléments allongés (12) étant pliables élastiquement et agencés opposés l'un à l'autre sur des côtés principaux (7, 8) respectifs de la planche à peau (3) et pliés pour mettre les surfaces intérieures (13) respectives en prise de retenue avec la surface extérieure de la peau (4) et retenir la peau sur la planche à peau (3), des portions d'extrémité extérieures opposées de chacun des éléments allongés (12) s'étendant au-delà du premier et du second côté latéral (9, 10) de la planche à peau (3), et 30

des portions d'extrémité extérieures (15, 16) adjacentes des éléments allongés étant reliées mutuellement au moyen d'un agencement rochet-cliquet comprenant une barre à rochet (17) avec une pluralité de dents (11) qui est prévue 35

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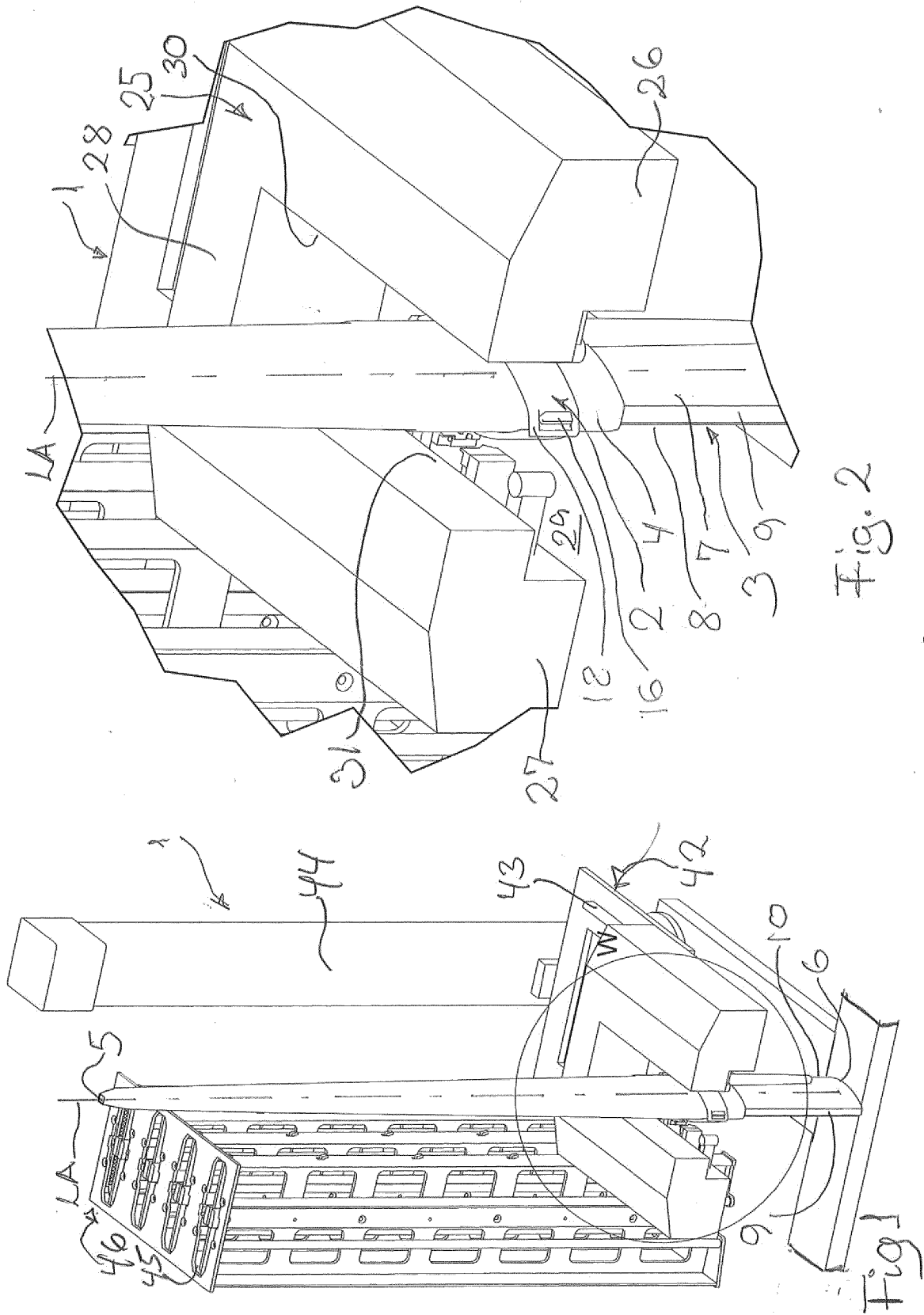
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au niveau et fait partie intégrante d'une des portions d'extrémité extérieures et un moyen cliquet (18) qui est prévu au niveau de l'autre des portions d'extrémité extérieures (16) adjacentes, l'appareil comprenant :

- un dispositif de maintien de planche à peau configuré pour fixer de préférence de manière libérable l'extrémité inférieure (6) de la planche à peau (3) dans une position droite préférable,
- un boîtier (25) comprenant une première partie de boîtier (26) et une seconde partie de boîtier (27) opposée espacées mutuellement pour contenir la planche à peau (3) fixée dans le dispositif de maintien de planche à peau avec le dispositif de retenue (2) retenant la peau (4) sur la planche à peau (3) et les éléments allongés (12) du dispositif de retenue (2) faisant face à des côtés faisant face vers l'intérieur (30, 31) respectifs de la première et de la seconde partie de boîtier (26, 27) respectivement dans une première position du boîtier (25),
- un premier dispositif de préhension et de libération (32) permettant de prendre et de libérer le premier élément allongé (12) du dispositif de retenue (2) et étant agencé dans la première partie de boîtier (26) et un second dispositif de préhension et de libération (33) permettant de prendre et de libérer le second élément allongé (12) du dispositif de retenue (2) et étant agencé dans la seconde partie de boîtier (27),
- chacun des premier et second dispositifs de préhension et de libération (32, 33) comprenant :
- une première et une seconde tige de pression (34, 35) qui sont espacées mutuellement en correspondant essentiellement à l'espacement entre les portions d'extrémité extérieures (15, 16) des éléments allongés (12) et chacune se trouve par rapport au côté faisant face vers l'intérieur (30, 31) de la partie de boîtier (26, 27) respective mobile entre une position rétractée et une position d'extension entrant en prise, dans la première position du boîtier (25), avec une portion d'extrémité extérieure d'un élément allongé (12) d'un dispositif de retenue de peau (2) agencé sur une planche à peau (3) fixée dans le dispositif de maintien de planche à peau, et
- un organe de préhension (36) qui se trouve par rapport au côté faisant face vers l'intérieur (30, 31) de la partie de boîtier (26, 27) respective mobile entre une position rétractée et une position d'extension et qui com-

- prend au niveau d'une extrémité extérieure de celui-ci des moyens de préhension et d'entrée en prise (37a, 37b) coopérants qui peuvent être éloignés et rapprochés l'un de l'autre et configurés pour entrer en prise avec et prendre, dans la première position du boîtier (25), une partie poignée (20) faisant saillie à partir de la surface extérieure (14) de chacun des éléments longitudinaux (12).
11. Appareil selon la revendication 10, dans lequel la partie poignée (20) est agencée à peu près au centre des éléments allongés (12) respectifs tels que vus dans la direction longitudinale de ceux-ci et l'organe de préhension (36) est agencé essentiellement à mi-chemin entre la première et la seconde tige de pression (34, 35).
12. Appareil selon la revendication 10 et/ou 11, dans lequel le boîtier (25) est agencé sur un support de boîtier (42) mobile le long de glissières (43) dans une direction transversale entre la première position de boîtier où le dispositif de retenue (2) sur la planche à peau est agencé entre les côtés faisant face vers l'intérieur (30, 31) des parties de boîtier (26, 27) et une deuxième position où le boîtier (25) est éloigné transversalement de la planche à peau et la planche à peau n'est pas contenue dans l'espacement entre les parties de boîtier.
13. Appareil selon la revendication 12, dans lequel le support de boîtier (42) est agencé de manière mobile le long d'une colonne (44) présentant un axe de colonne qui est essentiellement parallèle à l'axe de planche longitudinal (LA) d'une planche à peau (3) fixée dans le dispositif de maintien de planche à peau, le support de boîtier (42) étant mobile entre une position où le boîtier (25) est dans sa deuxième position et une position où le boîtier est dans une troisième position surélevée, et dans la position du support de boîtier où le boîtier (25) est dans sa troisième position, le support de boîtier (42) et ainsi le boîtier (25) étant mobiles latéralement vers une position où le boîtier (25) est dans une quatrième position au-dessus d'une ouverture supérieure d'un emplacement de stockage de dispositif de retenue (46) configuré pour recevoir l'élément allongé (12) du dispositif de retenue (2).
14. Appareil selon la revendication 13, dans lequel l'emplacement de stockage de dispositif de retenue (46) est un magasin de dispositif de retenue présentant au moins un espace de stockage ouvert vers le haut divisé en deux compartiments de stockage (47, 48) au moyen d'une cloison (49), les compartiments de stockage (47, 48) étant configurés et formés pour recevoir et empiler les paires d'éléments allongés (12) du dispositif de retenue (2) correspondant aux paires d'éléments allongés (12) constituant le dispositif de retenue (2) qui est retiré de la prise de retenue avec la peau (4) sur la planche à peau (3).
15. Appareil selon la revendication 14, dans lequel les compartiments (47, 48) sont configurés et formés pour recevoir et stocker les éléments allongés (12) sous la forme des éléments allongés avant d'être pliés élastiquement pour mettre les surfaces intérieures respectives de ceux-ci en prise de retenue avec la surface extérieure de la peau (4) et retenir la peau sur la planche à peau (3).



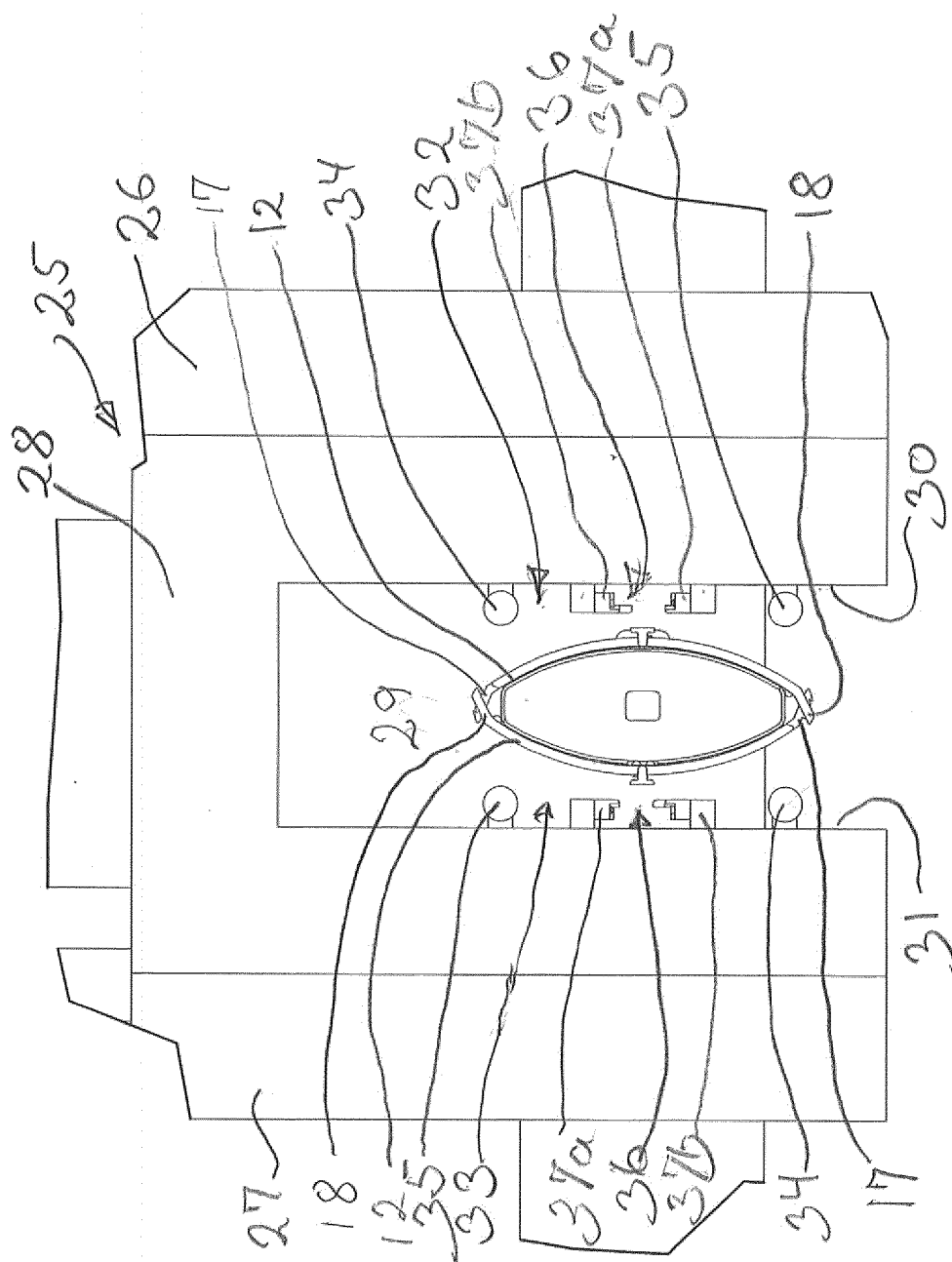
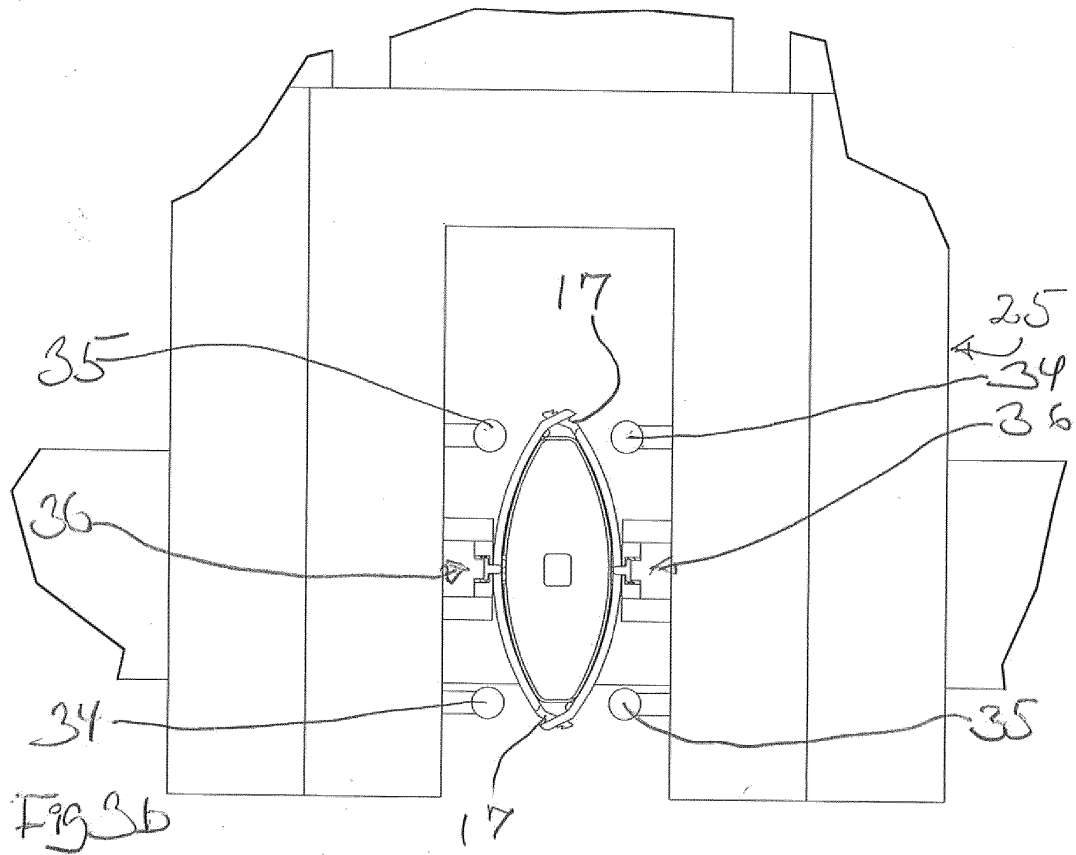
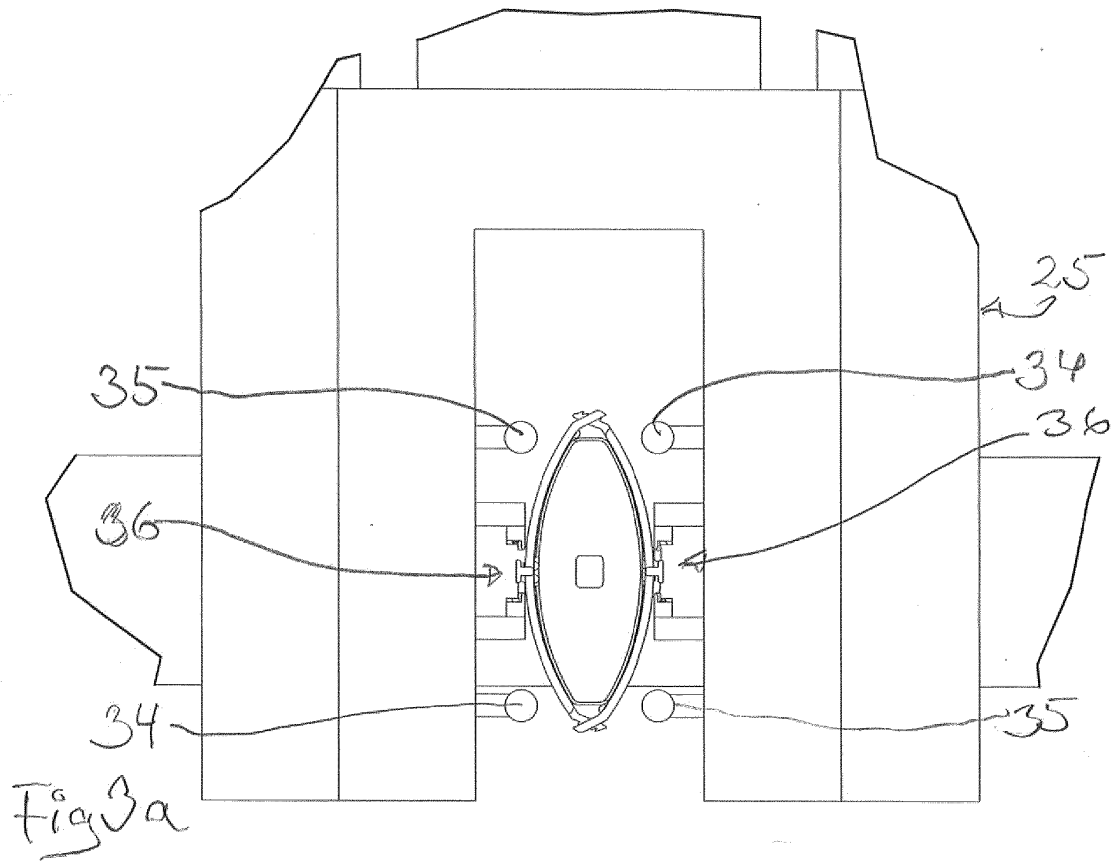
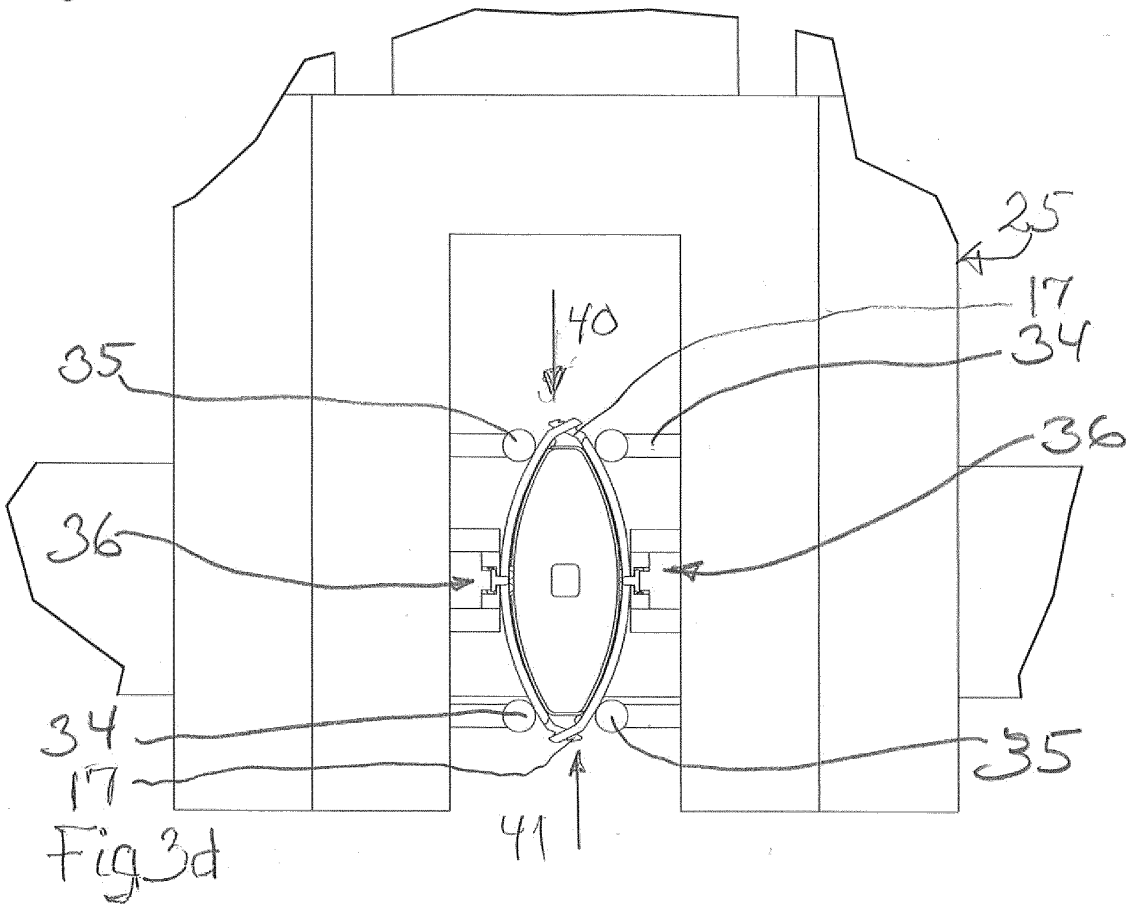
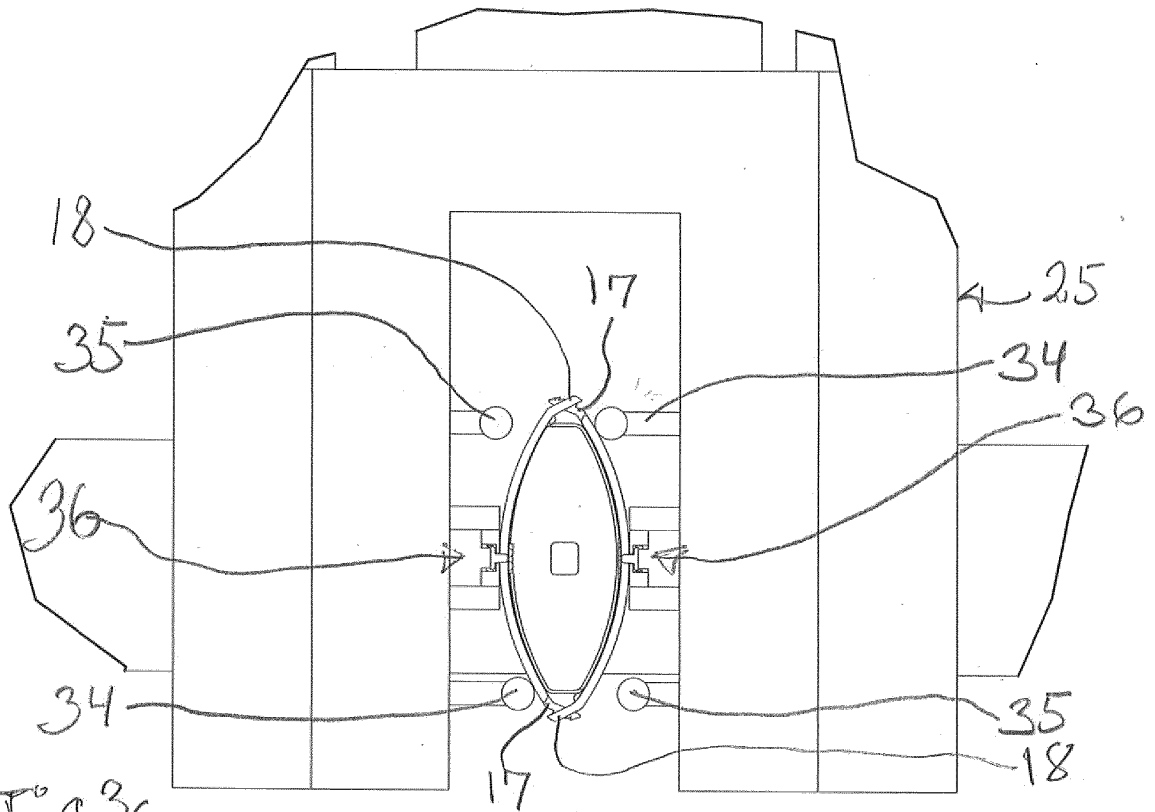


Fig. 3





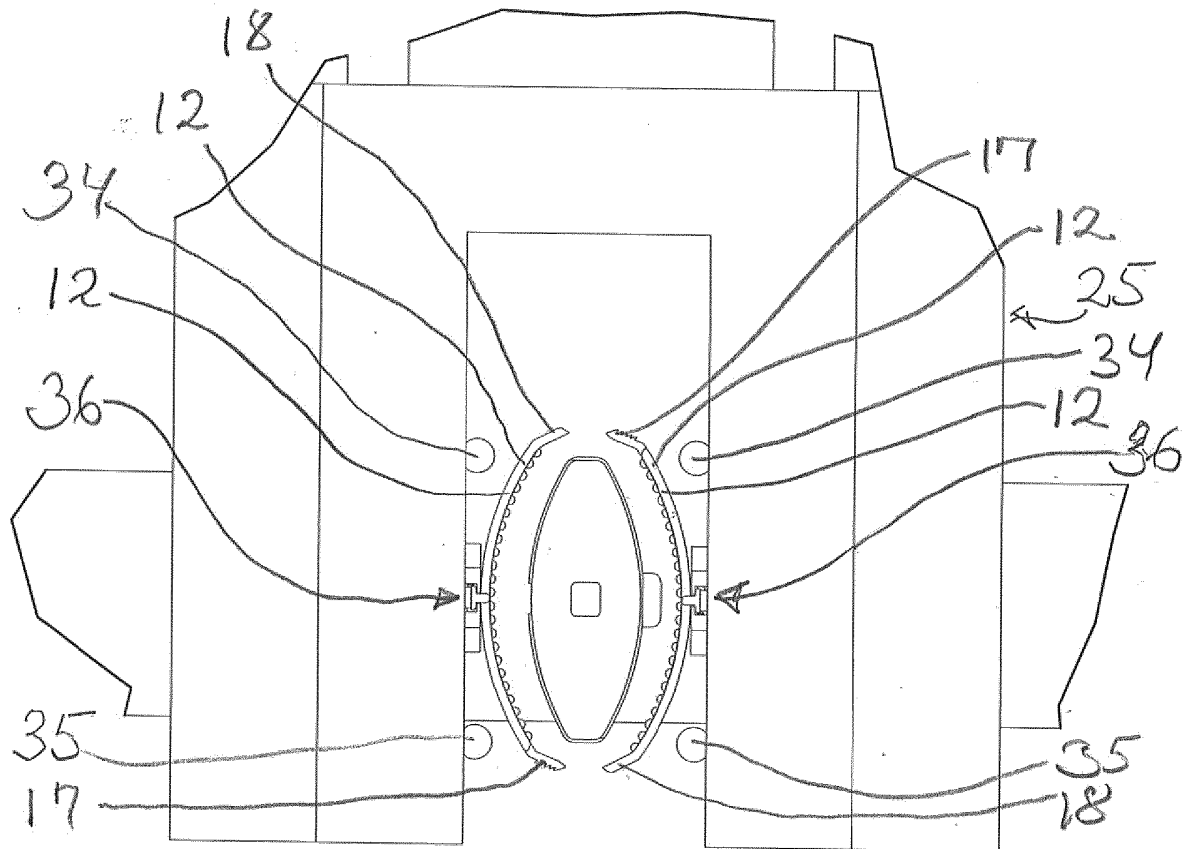


Fig 3e

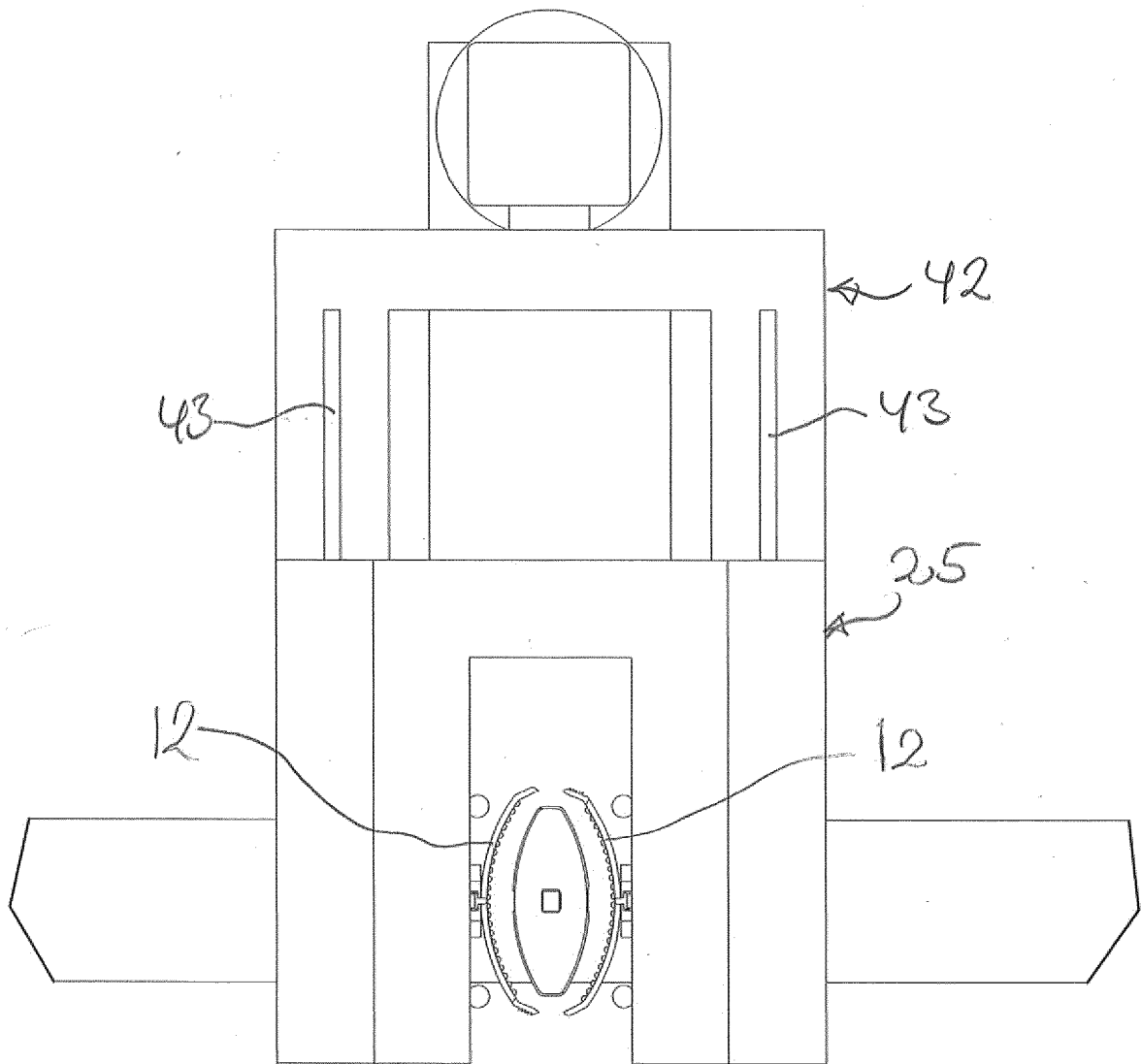


Fig 4

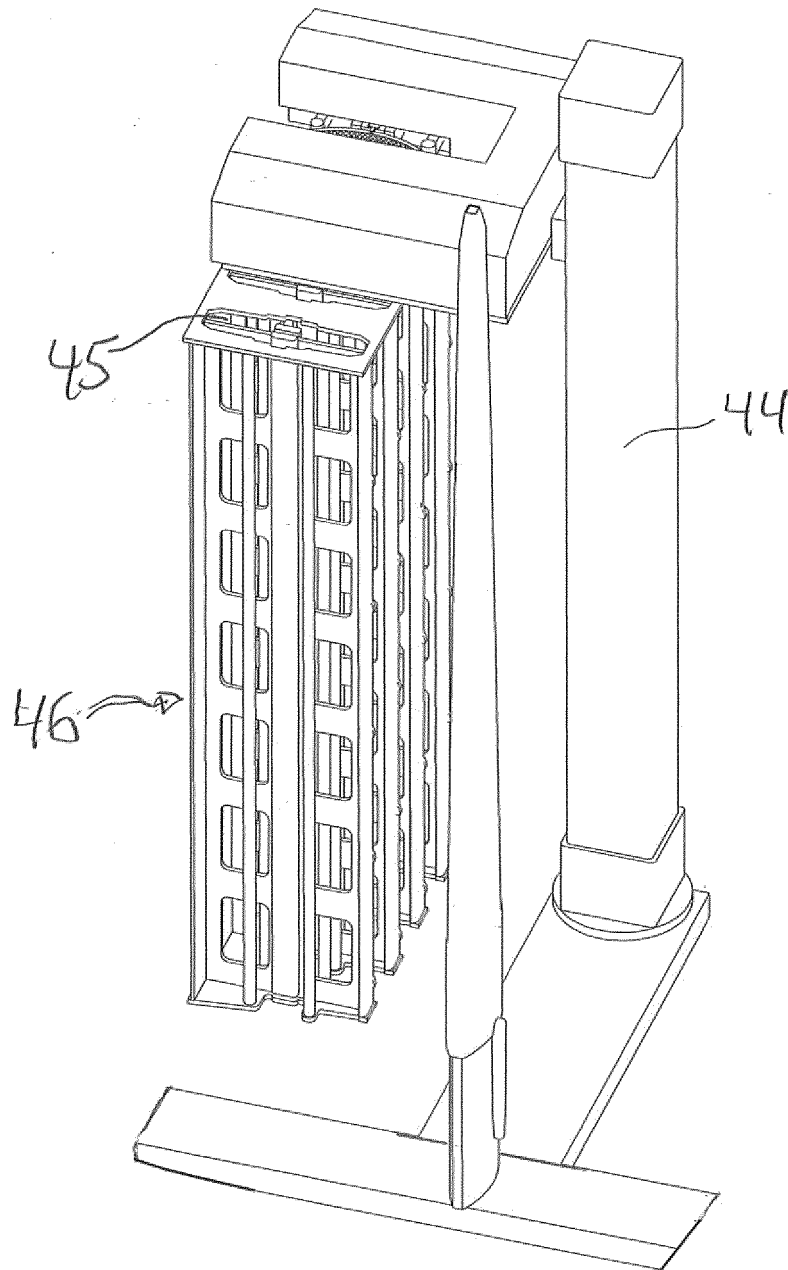


Fig 5

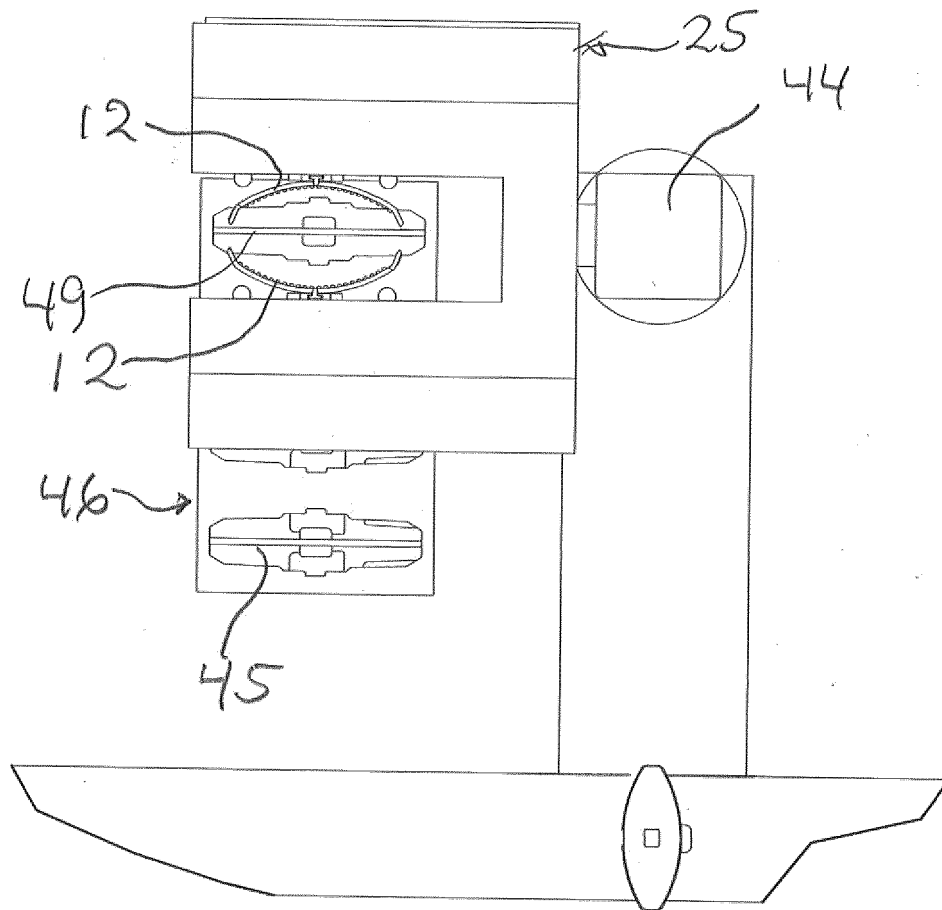


Fig 6

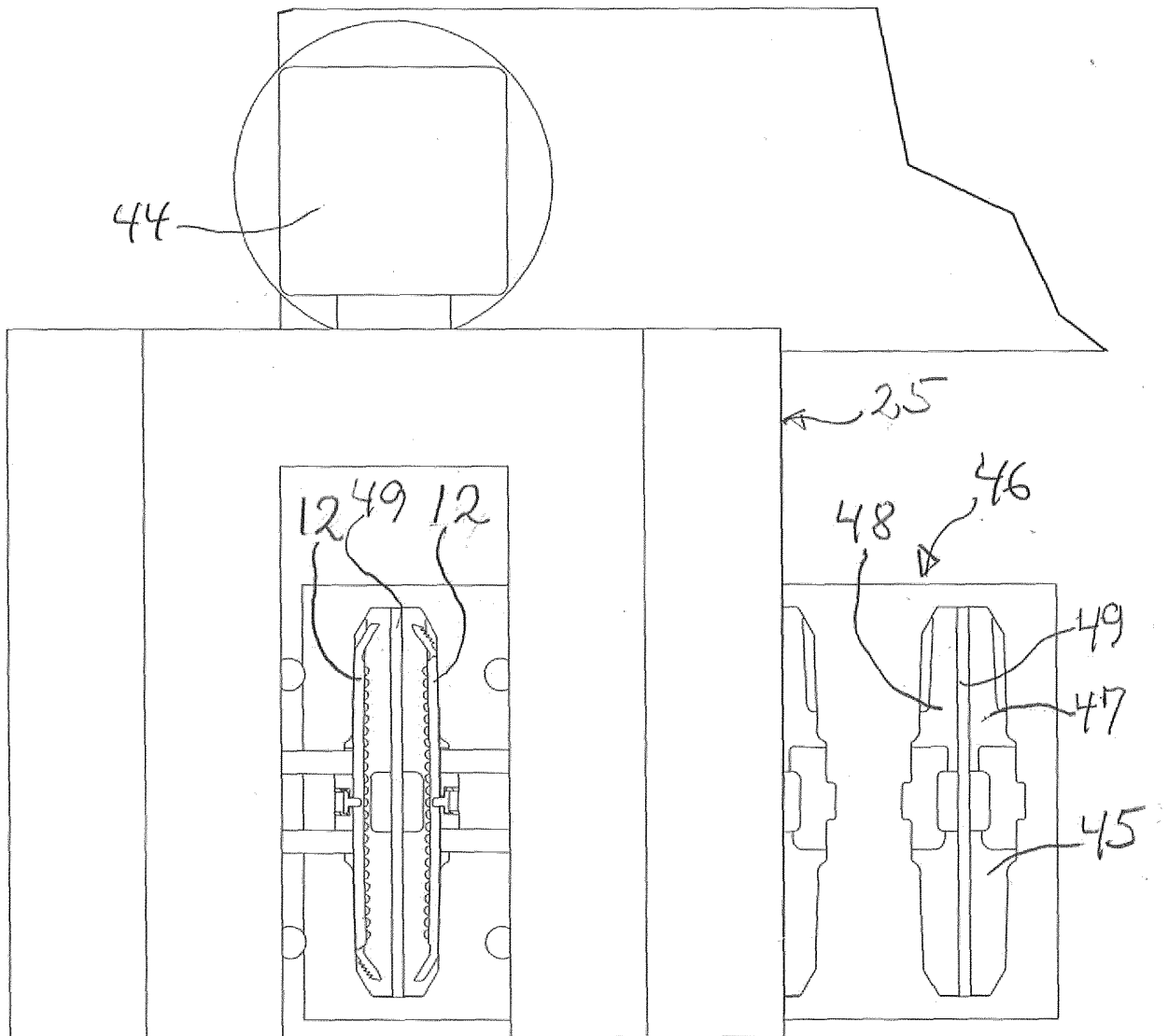
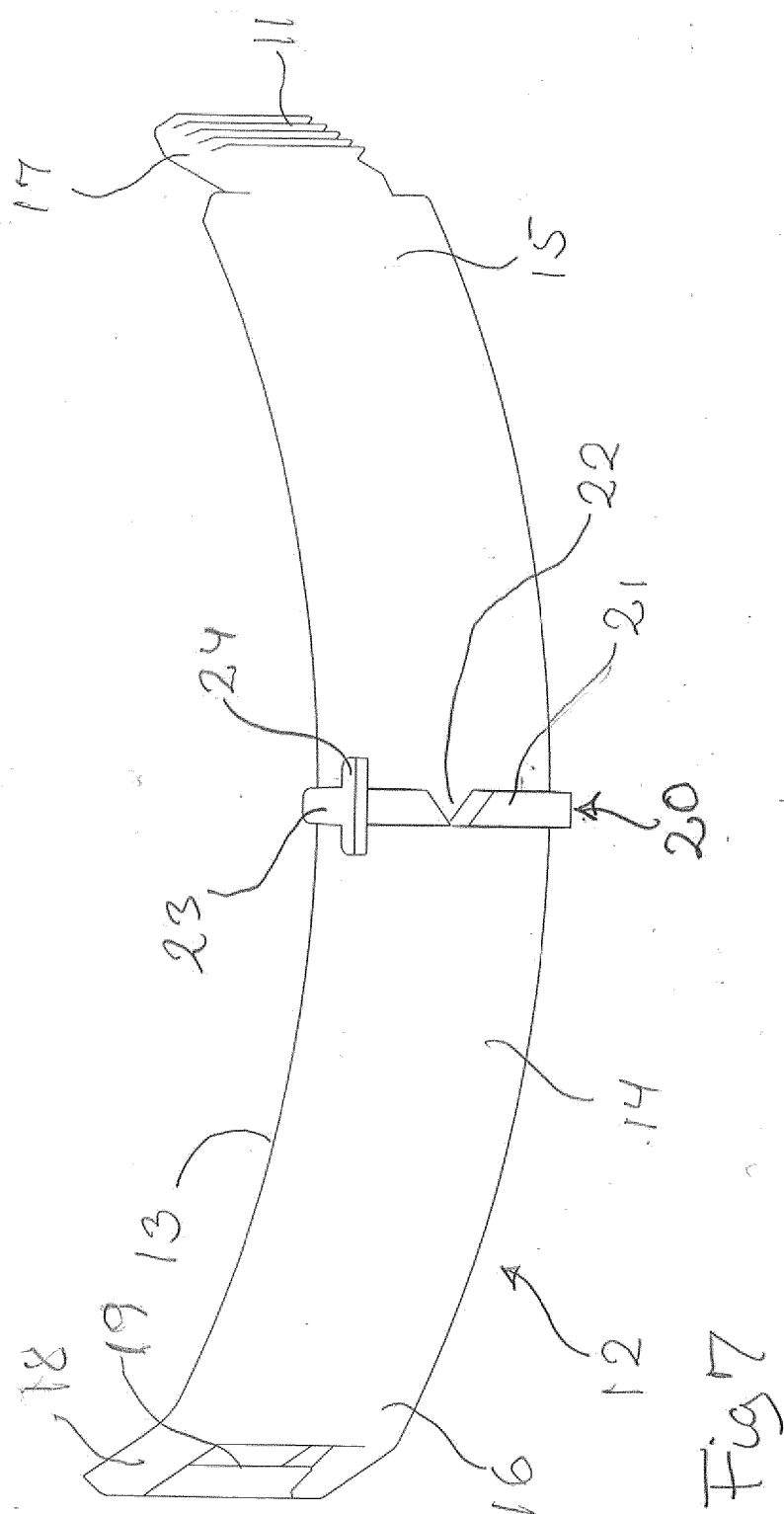


Fig 6a



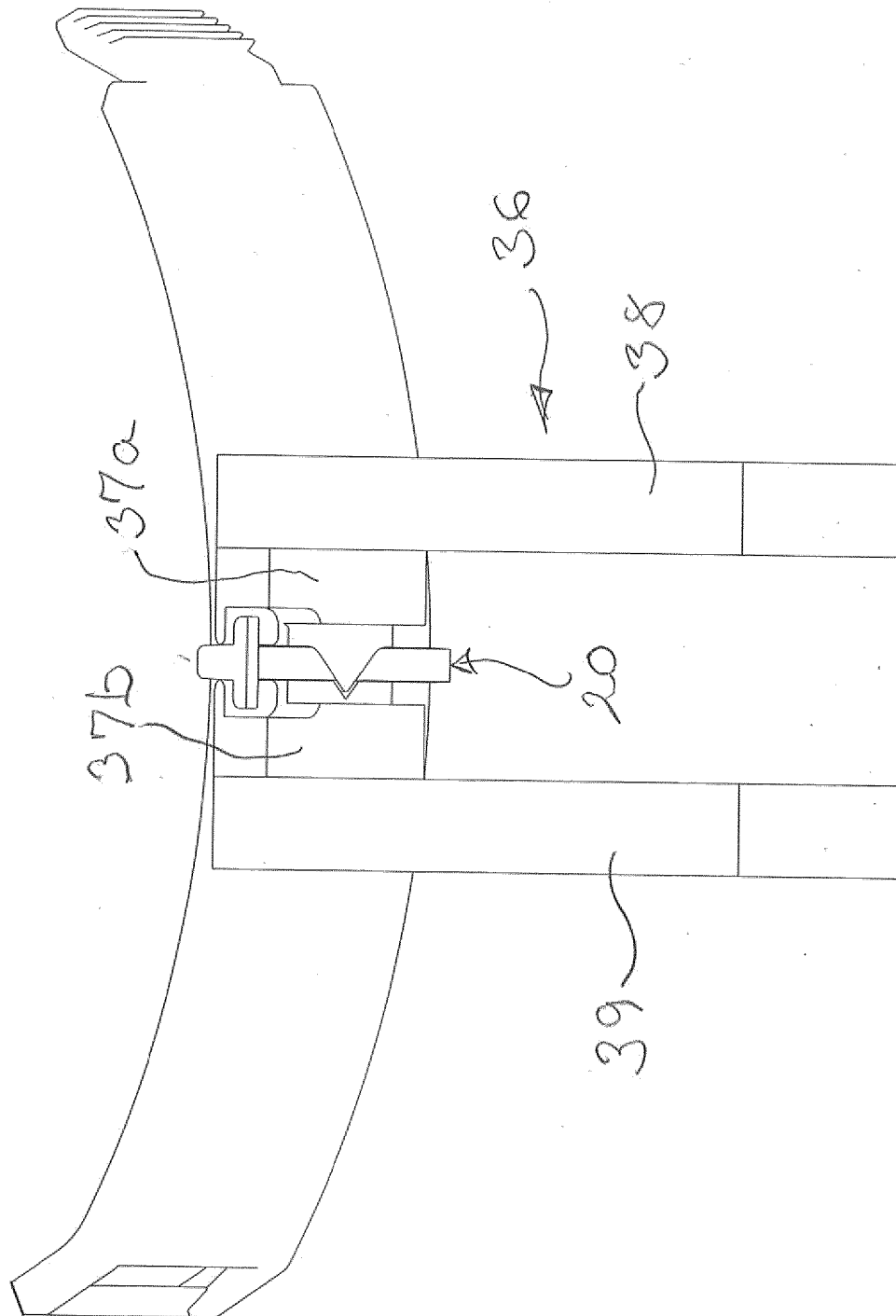


Fig. 8

REFERENCES CITED IN THE DESCRIPTION

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