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DESCRIPTION

[0001] The invention relates to a pelt board which can be used with a drying aggregate, where said pelt board has a longitudinal axis, a first transverse axis (breadth axis) and a second transverse axis (height axis), and front end for receiving the cranium end of the pelt, and a foot end which terminates preferably at right- angles in relation to the longitudinal axis of the pelt board. Such pelt boards are disclosed in more details In EP 1680520 and EP 2292804.

[0002] In the drying of pelts, for example a mink or a fox pelt (in the following referred to jointly as a pelt), after skinning and scraping off the layer of fat on the leather side of the pelt, the pelts are stretched for example on a pelt board which is often first provided with a fat-absorbing material with the object that the remaining fat on the leather side of the pelt will be drawn Into the paper and hereby removed from the pelt.

[0003] The use of pelt boards in connection with the drying of pelts is thus well-known, and with the passing of time there has been developed a great number of configurations of such pelt boards with the view of improving the drying of pelts. With the mechanisation and organising of production and sale of pelts which has taken place, there has also occurred a certain standardisation of pelt sizes, and herewith also of the pelt boards on which the pelts are stretched and fixed in this position during the drying, the object being to be able to achieve the best possible and uniform pelt quality, which means that the producers can obtain a higher price for the pelts.

[0004] Those pelt boards which have become most widespread, and which today are used by the majority of the producers of pelts, including namely mink pelts, are made of wood, and can briefly be described as a flat piece of wood with a first broadside surface and a second broadside surface and a first narrow side surface and a second narrow side surface, the breadth of which is essentially considerably less than the breadth of the broad side surface, and where the one end of the board (the foot end) is cut off at right-angles to the longitudinal axis of the board, and the lower end nearest the foot end has constant breadth but hereafter this breadth gradually decreases towards a pointed but rounded end part (the front end, the nose end), and where the pelt board has a through-going slot between the first broadside surface and the second broadside surface, said slot lying symmetrically around the longitudinal axis of the board and extending between near the pointed end part and at least for over a half of the length of the board. The pelt board described above is a pelt board intended for the pelts from male animals, which are normally larger than the pelts from female animals. A pelt board intended for use in the drying of the leather side of pelts from female animals does not comprise a lower end where the breadth of the board is constant.

[0005] In the following there are provided some definitions, which will be used in the following:
In the following, the mounting of pelts is to be understood as a procedure which consists of the drawing of a pelt over a pelt board, preferably with the leather side of the pelt facing towards the surface of the board, the stretching of the pelt on the pelt board and the fastening/securing

of the pelt in the stretched position on the pelt board.

[0006] In the following, the removal of the pelt from the pelt board, typically after the conclusion of the drying process, is to be understood as the removal of a pelt which has been stretched and fixed in this position on the board during the drying process. The procedure for removal also includes the removal of any elements which have been used for the fixing of the pelt in the stretched position on the pelt board.

[0007] In certain cases, the fat-absorbing material which is placed on the board before the drawing-on of the pelt consists of a bag made of fat-absorbing material, preferably of fat-absorbing paper with perforations, for example in the form of a so-called "pelt bag", which will thus be lying between the pelt board and the leather side of the pelt.

[0008] The drying procedure or drying of pelts shall be understood to be a drying-out of the leather side of the pelt to a preferred extent which from experience excludes the attack on the pelt by mites. The drying process is typically effected by the blowing of dry air in the slot in the board via pipes which are introduced into the slot, where via the perforations in the walls of the pelt bag the dry air is diffused out to the leather side of the pelt and dries the pelt.

[0009] In the drawing of the pelt on to the pelt board, a stretching of the pelt is often effected mechanically in order to achieve the greatest possible length of the pelts, and herewith the highest obtainable price at the fur auction. With more modern pelt board machines, a vibrating movement is imparted to the machine used for the stretching of the pelt, preferably arranged in the longitudinal axis of the pelt board, the result being that it becomes possible to stretch the pelts to a size category which is greater than that which can normally be achieved, this technique is disclosed in WO 0244428 A1. The stretching of pelts following the method described leads to greater demands regarding the securing of the nose end of the pelt on the pointed end of the pelt board, and it is preferred that the pelt is secured in the stretched position during the drying in a manner which is non-destructive.

[0010] The method hitherto used to maintain the pelt in the stretched position on the pelt board during the consequent drying has consisted of fastening the pelt to the board with securing means, for example by staples or clips which are inserted manually and which penetrate the pelt. Use is made of 10-14 clips per pelt, which thus leave 20-28 holes in the dried pelt.

[0011] After drying, the clips are removed and thereafter the pelt is removed from the pelt board, which is also often effected mechanically, and which as a consequence of the maximum stretching of the pelt often leaves elongated holes in the pelt from the clips, the result being that the optimum price cannot be achieved for the pelts at the fur auction, in that 2-3 cm of the pelt where this is broadest is ruined. Sometimes, the mechanical removal of the clips also gives rise to damages of the pelts. The holes from the clips thus constitute great losses for the fur farmers, and furthermore considerably reduce the possibilities of use of the pelts when these are subsequently processed.

[0012] However, from WO 0162985 there is known a method and a bag-shaped holster, which in the following is referred to as a fixing-bag, for use in the securing of pelts stretched on a pelt board during the drying process. The fixing-bag, the shape of which corresponds substantially to the shape of a pelt board comprising a fat-absorbing pelt bag over which a pelt is stretched, is drawn over the board with the stretched part from the cranium end of the pelt, so that the side of the fixing-bag facing the fur side of the pelt is in tight contact with the fur, which results in the pelt being pressed against the board with a force which is sufficient for the pelt to remain substantially in the stretched position during the drying. A further advantage with use of the fixing-bag is that a drying of the fur side of the pelt during the drying process is avoided, whereby the normal processing of the pelts with a water-bearing rotating brush, which results in a reduction of the fur's natural fat layer, and herewith the natural silky appearance of the pelt, can be omitted.

[0013] Considerable savings are thus achieved with the use of the fixing-bag, but the use of this demands that it is very correctly placed, and despite the placing being carried out correctly, it is ascertained that the stretched pelts secured on the pelt board by the fixing-bag slip slightly on each side of the tail root of the pelt, which can be due to the fact that sufficient holding force/friction can not be established between the surface of the pelt board and the leather side of the pelt on the broadside surfaces of the board, with reduced pelt size as a consequence. To counteract this, with a view to preserving the expected pelt size category, use is thus made of two to four staples which are driven through the pelt in the mentioned areas of slip and into the pelt board, as an extra security regarding the fixing of the pelt in the stretched position by the fixing-bag. The use of said staples will result in holes in the pelt in the stapled areas, thus reducing the value of the pelts, which is undesirable. Moreover, the use of the staples damages the wood of which the pelt board is made.

[0014] The work in connection with the dismounting (removal) of pelts stretched on pelt boards aft the conclusion of the drying process is time-consuming, even though machines have been developed for the cutting-up of the fixing-bags, the extraction of the staples and the drawing-free of the pelt from the pelt board.

[0015] However, according to drying systems known from US 3313038 A and US 3526967, the drying air is blow into the pelt board from the nose end when the pelt board is in a horizontal position, which may cause that sufficient drying air does not reach the foot end. Moreover, the pelts require special means to attach the pelts to the pelt boards, such as plates and staples.

[0016] The present invention relates to a pelt board according to claim 1.

[0017] When using the pelt board according to the present invention, the drying aggregate comprises an encapsulation with a cavity connected to an air replacement arrangement wherein the encapsulation comprises a first surface which is substantially upwardly-facing and having openings. These openings cooperate with a lower part of the foot end of the pelt board in such a way that each opening cooperates with a projecting element which extends outside

the foot end of the pelt board, so that the air in the cavity of the pelt board which is placed in the first surface is changed by replacement of the air in the cavity by means of the air replacement arrangement.

[0018] Thus, the pelt boards are mounted vertically in the drying aggregate with the foot end in contact with the drying air source so that the drying air will enter the pelt board at foot end or bottom and rise though the pelt board towards the nose end or top. The pelt board is more narrow at the nose end which will ensure that pressure of the drying air in the nose end remains sufficient to allow an efficient drying of the pelt.

[0019] In this manner there is achieved a considerable reduction in the drying time for the leather side of a pelt. Trials with the drying aggregate have shown that the drying time for the drying of the leather side of, for example, a mink pelt, by use of the pelt board as disclosed In EP 1 and 1, can be reduced right down to approx. 22 hours, which is a considerable reduction compared with the normal dry time which lies at around 48-96 hours. This will result in the utilisation of the pelt boards becoming more effective, with the further result that a fur manufacturer can reduce the number of pelt boards in the production.

[0020] The drying aggregate also includes an embodiment in which the encapsulation comprises a second surface substantially parallel to the first surface where the second sur-face comprises mountings for wheels. Such an embodiment is highly advantageously as it makes it possible to transport the pelts and the pelts boards during the drying process.

[0021] With the object of further optimising the drying process, and to ensure that the replacement of air in the board's cavity becomes effective, the replacement of the air in the hollow pelt board can take place by placing one or more pelt boards in the cooperating drying aggregate comprising an encapsulation which defines a cavity with first openings for the placing of at least one pelt board.

[0022] The drying aggregate may comprise additional openings near the respective first openings. The additional openings stand in connection with the cavities in the respective pelt boards which are placed in the upwardly-facing surface, so that the air in the cavity of a distension element/board which is placed in the upwardly-facing surface is changed by the replacement of the air in the cavity by an air-replacement arrangement. The additional openings may optionally lie within the limit of the foot ends of the respective elements. A saving of time is hereby achieved in the handling of the pelt boards after pelts have been applied until the drying pro-cess can begin, in that the pelt boards are successively placed in the drying aggregate without having to manipulate with air pipes etc., as is the case with the dry procedure which is normally used.

[0023] A system for use in the drying out of the leather side of pelts from furred animals is disclosed in this application, and comprising a pelt board onto which a pelt is drawn, stretched out and secured during the drying with the leather side facing towards the surface of the board. The pelt board which is elongated and hollow, the surface of which has an open structure, and

with a front end and a foot end, where the foot end cooperates with a system comprising a drying aggregate comprising an encapsulation with a cavity connected with an air re-placement arrangement, and where said encapsulation at least comprises an upwardly-facing surface with first openings which cooperate with a lower part of the foot end of the board, and openings, so that the air in the cavity of a pelt board which is placed in the upwardly-facing surface is changed by replacement of the air in the cavity, this being effected by an air replacement arrangement.

[0024] There is hereby provided an effectively working system for use in the execution of the drying of pelts. It will thus be possible to place the pelt boards on which the pelts have been placed directly into the drying aggregate, instead of having to collect the treated pelts on a carriage and transport these to a drying room where the boards are suspended and provided with a pipe for the blowing in of air, which in itself is a time-consuming task.

[0025] There is hereby achieved a pelt board which extends in a arched manner over the "flat side", which means that the fixing-bag drawn over the board on which a pelt has been placed, stretched and held in this position, will be able to secure the pelt in this position during the whole of the drying process, simply for the reason that the pressure forces which will arise between the inside of the fixing-bag and the fur side of the pelt will be transferred as pressure forces between the leather side of the pelt and the surface of the board and, due to the arched shape of the board, a greater friction will hereby arise between the pelt and the surface of the board, and this will serve as a fastening of the pelt which will be effective over a considerably greater area compared with those frictional forces which can be brought about between the leather side of a pelt and one of the traditionally-used boards comprising two plane broad-side surfaces and two narrow-side surfaces, where the friction between the surface of the board and the leather side of the pelt is brought about mainly in the areas around the narrow side surfaces.

[0026] The arched shape of the board's surfaces results in the leather side of the pelt being stressed more uniformly during the stretching of the pelt on the board, as compared with the stress during the stretching of the pelt on the traditionally-known pelt boards. This aspect means that in the use of the pelt board according to the invention, it will be possible to stretch the pelts on the board to a greater extent than will be possible with the pelt boards traditionally used.

[0027] The above-mentioned open structure of the surface of the board shall be understood in a very broad sense. In practice, the open structure could consist of an arched grid construction which provides optimal conditions for the changing of the air in the cavity defined by the grid construction, and herewith of the air under the leather side of the pelt.

[0028] With the use of the pelt board according to the invention and the drying aggregate, at one and the same time there is thus achieved the possibility for an effective drying of the leather side of the pelt, so that there are no areas left on the leather side of the pelt which have not been dried, and which herewith can be attacked by mites, while at the same time the

stretched size of the pelt is maintained solely by use of the fixing bag without the use of hole-creating fixing clips.

[0029] It will naturally be possible to use a traditional fat-absorbing pelt bag in connection with the pelt board, but this will be able to be rendered superfluous, which will be explained later.

[0030] The pelt board further comprises, as stated above, a short projecting element used to mount the pelt board in the drying aggregate and the projecting element is also used as guide/channel for the blown-in drying air, which is supplied from the board's lower end, from the drying aggregate associated with the drying system. With the use of said channels, it is achieved that the drying air is led a relatively
long distance up in the interior of the board before the air is distributed to the cavity in the board, and herewith to the leather side of the pelt. The result is that the drying air is distributed better and more expediently than would be possible merely by blowing the drying air into the board's cavity from underneath, or via tubes Inserted through the jaw part of the pelt. The improved distribution of the blow-in drying air, where it is sought to distribute the air with 2/3 which flow downwards and out through the perforations (the open structure of the board's half parts) in the area at the lower end of the board, and 1/3 up through the upper end of the board, where the air is led out through the pelt's jaw part, results in a considerable improvement of the drying of the pelt in the area where the front paws are placed and where the pelt lies in three layers.

[0031] It will be recalled that the pelt board also comprises a part extending below the foot end. This part is used to hold the pelt boards in the upright position in relation to the upwardly facing surface of the drying aggregate by leading the part down though the holes in the upwardly-facing surface, Said part is also connected to the plate-shaped elements which constitute the forcing means which ensure that the board's half parts/shells are lying in the first outer position, with a slot-shaped opening between these, and remain in this position during the drying process. Said part further comprises holding surfaces which are intended for engagement with cooperating means for displacement of the plate-shaped elements between outer positions. As also mentioned earlier, a displacement of the plate-shaped element towards the foot end results in the half parts/shells of the board being able to be released and displaced towards each other, and with special embodiments of the half shells and the plate-shaped elements the displacement of the half shells towards each other will be force controlled.

[0032] However, to have to carry out the displacement of the individual plate-shaped elements in each pelt board would require considerable manual work.

[0033] With the object of minimising and simplifying the work involved in the handling of the pelt boards after conclusion of the drying process, where the pelt boards with the pelts stand placed e.g. on racks in the drying aggregate, with the invention it is realised that it is expedient to arrange the drying aggregate so that a multiple of pelt boards, for example one or more rows at a time, can be released by a single operation.

[0034] This is possible with a further embodiment of the drying aggregate, where the first openings and the additional openings are arranged in rows extending in parallel in the upwardly-facing surface, and where in the cavity under said surface, in the ribs of the U-shaped profile rails, there are displaceable drawplates arranged in parallel with the upwardly-facing surface, said drawplates having similar through-going cut-outs for engaging the projecting element which extends outside the foot end of a pelt board, and where each through-going cut-out comprises a projection which cooperates with comprises the wedge-shaped part of a projecting element which is substantially arranged transversely to the longitudinal axis of the board, so that a displacement of a drawplate between a first outer position, where the projections are not in engagement with the wedge-shaped part, to a second outer position where the projections are in engagement with the wedge-shaped part, will give rise to a displacement of the forcing means/the plate-shaped element, so that the slot-shaped holes or cut-outs in the plate-shaped element are moved to a position opposite the plane sides of the pins, whereby the subtending sides of the half parts become displaceable/controlled to a position where the subtending sides/edges of the board are lying closer to each other.

[0035] There is hereby achieved the advantage that the half parts of the pelt boards can be released for displacement towards each other by a simple operation, where the drawplates are displaced, whereby the pelt boards which lie in the relevant axis are released. It will also be possible to arrange mechanical displacing means in connection with the drying aggregate, or externally, which can be set for displacement of selected drawplates or all drawplates for releasing/displacement of the half parts of the pelt boards.

[0036] With the view of providing the necessary access to the drawplates for the displacement of these, the drawplates can comprise freely projecting parts through a side of the encapsulation, said parts comprising though-going openings for establishing traction facilities for displacement of the drawplates.

[0037] A drying aggregate for use with the pelt boards is characterised in that it comprises an encapsulation which defines a cavity, and an air replacement arrangement for the changing of the air existing in the cavity, said encapsulation comprising at least an upwardly-facing surface with a plurality of first openings.

[0038] Under said surface a plurality of substantially U-shaped profile rails may be arranged in parallel, the bottoms of which comprise opening with geometry and number corresponding to the first openings, said opening cooperating with the projecting element which extends outside the foot end of the pelt board for the placing of at least one, preferably a plurality, of pelt boards standing up from the upwardly-facing surface, with the foot end of the board in contact with the upwardly-facing surface, and where the exchange of air in the cavity in the board takes place by the blowing-in of air by the air displacement arrangement, said air being supplied to the board's cavity via the channels defined by said ribs, and where the air is distributed in the board in the area where the distance between the ribs on the subtending side

surfaces of the half shells is reduced, so that approx. 1/3 is led out through the openings in the board at the front end (14) and approx. 2/3 is led out via the open structure at the board's foot end.

[0039] The drying aggregate can further be arranged so that the encapsulation comprises displaceable elements which cooperate with the holding surfaces on the short projecting element, the activation of which result in a displacement of the forcing elements oriented in the longitudinal axis of the board, and in a direction away from the board's foot end, whereby the forcing elements assume their second outer position.

[0040] With the object of being able to utilise the drying aggregate as a means of transport for the pelt boards with the processed pelts, the drying aggregate can be placed on wheels.

[0041] The drying aggregate, completely or partly filled with pelt boards with pelts, can hereby easily be brought to the place where the drying process is to take place. The carriages normally used for the transport of the pelt boards can thus be dispensed with.

[0042] In one embodiment of the drying aggregate, the air replacement arrangement for the exchange of air in the cavity in the encapsulation of the drying aggregate can comprise a blower unit. In the following, the invention will be explained in more detail with reference to the drawing, where

Fig. 1 is a perspective view of a system for the dry of the leather side of a furred animal pelt according to the invention.

Fig. 2 is a perspective view of a second embodiment of the pelt board suitable for use with the drying aggregate according to the invention.

Fig.3 is detail perspective view of the foot end of the embodiment of the pelt board shown in fig. 2.

Fig. 4 is a perspective view of the system for the drying of pelts.

Fig.5 is a detail perspective view of a section of the drying aggregate with cabinet.

Fig. 6 is a detail perspective view of a section of the drying aggregate without cabinet.

[0043] Fig 1 shows a system for use in the drying of the leather side of pelts (not shown) from furred animals. The system comprises a pelt board 6 on which a pelt is mounted and stretched, the pelt being held in the stretched position during the drying with the leather side (not shown) against the surface of the board. The board 6 is hollow and elongated and comprises a front end 14 and a foot end 16, the surface of which in the shown embodiment has an open structure in the form of holes 10 in the surface 12.The pelt board 6 is open at the foot end 16, which cooperates with a drying aggregate 100 comprising an encapsulation 102

which defines a cavity 104, which in turn is connected with an air replacement arrangement 106 which, in the shown embodiment, comprises a blower unit 138 mounted on the outside of the encapsulation 102. The encapsulation 102 comprises an upwardly-facing surface 110 with first openings 11.2 which cooperate with a lower part 68 of the pelt board which extends at the bottom of the foot end 16 for securing pelt boards 6 inserted in the
openings, so that these are secured in an upright manner with the foot end resting on the upwardly-facing surface 110. The upwardly-facing surface 110 comprises further openings 120, 120' which are placed at such a distance from the respective first openings 112 that these lie within the limit of the foot of the board, so that the air in the cavity 8 of a pelt board 6, which is placed in the upwardly-facing surface 110, is exchanged by the replacement of the air in the cavity 104 by the blower unit 138.

[0044] In fig. 2 is shown a second embodiment of the board 6. This has the same shape as the board shown in fig. 3, but where the nature of the surface 12 as an open structure appears clearly as a consequence of the holes 10 in the board. In the shown embodiment, the surface 12 is provided with holes 10 between the front end 14 and to a distance in the area 15 of the board 6 near the foot end 16, where the extent of the board in the direction of the first transverse axis 12 and the second transverse axis 14 is more or less constant.

[0045] Already here it shall be mentioned that the inventor has realised that the holes 10 can assume another configuration or combination of that shown and other configurations. Moreover, in the area 15 of the board 6 near the foot end 16, where the extent of the board in the direction of the first transverse axis 12 and the second transverse axis 14 is more or less constant, the holes can be provided with edges which extend up over the surface 12. This will contribute towards an increase in the fixing of the pelt in the stretched position on the board 6, in that the leather side of the pelt in this area will be pressed down into the holes behind said edges by the fixing-bag, which will result in an improved retaining ability, whereby the leather side of the pelt is hooked fast but without this being damaged.

[0046] The pelt board in this embodiment consists of similar half parts 32, 34, which in the shown embodiment consist of half shells 48, 50 joined by locking means/assembly means 30, the subtending edges 36 of said half shells defining an envisaged first plane 38 which is substantially coincident with the first transverse axis (breadth axis) 20. The sides of the half shells facing away from each other extend in an arched manner and together constitute the surface 12 of the board 6, and also define a cavity 8 which via the holes 10 stands in connection with the surface 12. The half shells 48, 50 define a cavity 8, and the board 6 comprises an opening to the cavity 8 in the foot end 16.

[0047] As will further appear from fig. 4, at the front end 14 the board 6 comprises slot-shaped openings 94 to ensure an effective and easy passage of air.

[0048] The embodiment of the board 6 shown in fig. 2 is particularly suitable for use in the drying of pelts from furred animals, where the pelts are stretched and fixed in this position by means of a fixing-bag or similar fixing means which press at least a part of the leather side of

the pelt in against the perforated surface 12. The drying takes place by effecting a continuous replacement of the air in the cavity 8, which e.g. can be done by blowing air in or sucking air out, whereby moisture from the leather side of the pelt is transported away in an effective manner. It has hitherto been unknown to effect the drying in this manner, where the drying air is held inside the cavity, where replacement of the air in the board's cavity takes place e.g. by blowing air in from the foot end 16 of the board, said air flowing out of the openings 94 at the front end 14 of the board. Trials with the drying of pelts with the use of the pelt board 6 according to the invention have shown a considerable improvement and uniform drying of the leather side of the pelt, and in approx. 1/3 of the drying time involved with the use of the traditionally-known boards.

[0049] It shall further be mentioned that the front end 14 of the board 6 comprises means 96 for securing the nose end of a pelt stretched and held in this position on the board. The means consist of a sharp-edged area 96 along the edge of the pointed end 97, which are intended for the securing of the nose end of the pelt and contribute towards an effective securing of the pelt during the stretching and during the drying process.

[0050] The locking means/assembly means 30 which join the two half shells 48, 50 together are arranged so that the two half shells 48, 50 are relatively displaceable away from and towards the first plane 38, between a first outer position where a slot shaped opening 40 arises between the subtending sides 42, 44 of the half parts, and a random position where said sides 42, 44 can be in contact with each other.

[0051] Between the half shells 48, 50 there is a wedge plate 64 which is displaceable in the longitudinal axis, as will appear from fig. 5 and fig.6, and which comprises a part of the forcing means for the locking of the half shells 48, 50 in the first outer position. The remaining parts of the forcing means comprising studs 56 on the subtending sides 52, 54 of the half shells 48, 50 will be described later.

[0052] As will appear from fig.3, the subtending sides 52, 54 of the half shells 48, 40 comprise stiffeners 80, 82 which are arranged in the longitudinal direction and on which the displaceable wedge-plate rests. The half shells also comprise transverse stiffeners which stand in connection with the stiffeners 80, 82. It shall be noted that the transverse stiffeners 81 will not have an impeding influence on the replacement of the air in the cavity 8, but possibly create turbulence in an air flow through the cavity 8, which will only improve the drying affect by the replacement of the air in the cavity. The stiffeners serve to stabilise the half shells, which will typically be made of plastic material or polystyrene.

[0053] The locking means 30 can consist of screws or similar means. Alternatively, the assembly can be effected as a click-assembly, where the locking means can consist of the cooperating elements 84, 86 projecting from the respective subtending sides 52, 54 of the half parts 48, 50, and which comprise projection 88 and projection 90 with openings 92 for receiving said projection 88. The geometry of the openings 92 and the projections 88 will mutually be fitted with locking means, so that after being pressed into the openings 92, the

projections 88 are secured in a displaceable manner in the openings 92.

[0054] In a further embodiment, where at least the projections 88 consist of relatively light, fusible material, e.g. polystyrene or plastic, the openings 92 can alternatively consist of channels with a recess 93 opposite the subtending sides 52, 54 of the half shells 48, 50, where the diameter of the channels subsequently in the direction towards the surface 12 of the board 6 are larger. The joining of the similar half shells 48, 50 thus takes place by the insertion of a wedge-plate 64 in the first half shell 48, after which the second half shell 50 is placed on top of the first half shell with the projections 88 extending through suitable openings 76 in the wedge-plate 64, and further in through the openings 92, so that the free ends of the projections extend into the channels 92, past the recess 93, and with the wedge-plate in its active position, where a slot-shaped opening 40 arises between the subtending sides 42, 44 of the half parts, after which the free ends 88 are heated to melting point and pressed flat, after which the half shells 48, 50 are joined together. The disadvantage with this method of assembly is that the board 6 can not be separated, but which should neither be necessary for the lifetime of the board.

[0055] The second part of the forcing means for the locking of the half shells 48, 50 in the first outer position, so that a slot-shaped opening 40 arises between the subtending sides 42, 44 of the half shells, or between the edges 36 of the half shells 48, 50, consist c.f. fig. 10 of a plurality of studs 56 placed on the subtending sides 52, 54 of the half shells 48, 50, where from said sides there are a number of similar but laterally reversed studs 56 with freely extending ends 58 respectively comprising a plane side 60 and from here, sides 62 sloping in the direction towards the respective projections fixing area in the respective sides 52, 54 and towards the foot of the board 16, and where the plane sides terminate on a level near the first plane 38. In the embodiment shown in fig. 4, fig. 5, fig. 7 and fig. 9, the studs 56 are configured as projections on the stiffeners 80, 82.

[0056] As will appear from fig. 2 and fig. 3, the wedge-plate 64 comprises a stubby, projecting element 68 which extends outside the foot end 16 of the board 6. It will be possible to displace the wedge-plate 64 by drawing the stubby element 68 in the direction away from the foot end 16 of the board. However, it is realised that the carrying out of a manual displacement of the wedge-plate 64 will involve a lot of work, but it will still be easier to remove the pelt from the board 6. However, to achieve a more rational manner in which to carry out the retraction of the wedge-plate 64, it is realised that it is possible to effect the retraction of a plurality of wedge-plates at one time when the pelts on the pelt boards 6 have been dried and are sitting in the drying aggregate 100 which cooperates with the board 6.

[0057] The stubby element 68 is intended to be introduced down in the cooperating first openings 112 in the drying aggregate 100 shown in fig. 2, so that the board with the pelt is secured in the upright position on the upwardly-facing surface 110 of the drying aggregate with the foot end 16 in contact with the surface 110. As seen most clearly from fig. 8, the stubby projecting element 68 also comprises a wedge-shaped part 70 which is arranged in a substantially transverse manner to the longitudinal axis 18 of the board in the direction of the

second transverse axis 22. Precisely this wedge-shaped part 70 plays an important role in connection with the retraction of the wedge-plate 64.

[0058] As appears from fig. 1, fig. 4, fig. 5 and fig. 6, the drying aggregate 100 comprises an encapsulation 102 which defines a cavity 104, and an air replacement arrangement 106 for changing the air existing in the cavity 108, which in the shown embodiment consists of a blower unit 138. The encapsulation 102 comprises an upwardly-facing surface 110 with a number of first openings 112 and, under said surface 110, a number of substantially U-shaped profile rails 114 which are arranged in parallel and which have a bottom 116 comprising openings 118, the geometry and number of which correspond to the first openings 112. The openings 112, 118 cooperate with the projecting element 68 which extends outside the foot end 16 of a pelt board 6. This enables at least one, preferably a plurality of pelt boards 6 to be placed standing upright from the upwardly-facing surface 110 with the foot end 16 of the board in contact with the upwardly-facing surface 110. The upwardly-facing surface 110 also comprises further openings 120,120' near the respective first openings 112 lying within the limit of the foot ends 16 of the respective boards, so that the further openings 120,120' stand in connection with the cavities 8 in the respective pelt boards 6 which are placed in the upwardly-facing surface 110, so that the air in the cavity 8 of a pelt board 6 which is placed in the upwardly-facing surface 110 is changed by replacement of the air in the cavity 101 by the air replacement arrangement 106/blower unit 138.

[0059] As also appears, the first openings 112 and the further openings 120,120' are arranged in parallel rows in the upwardly-facing surface 110. In the cavity 108, under said surface 110, in slots 122 in the ribs 124, 126 of the U-shaped profile rails 114, there are displaceable drawplates 128 arranged in parallel with the upwardly-facing surface 110. The drawplates 128 have similarly-shaped through-going cut-outs 130 for engaging the projection element 68 which extends outside the foot end 16 of a pelt board 6, and where each through-going cut-out 130 comprises a projection 132 which cooperates with the wedge-shaped part 70 on the projecting element 68 which is arranged in a substantially transverse manner to the longitudinal axis 18 of the board.

[0060] As will appear from fig. 5 and fig. 6, a displacement of a drawplate 128 between a first outer position where the projections 132 are not in engagement with the wedge-shaped part 70, to a second outer position where the projections 132 are in engagement with the wedge-shaped part 70, will result in a displacement of the forcing means/the plate-shaped element (wedge-plate) 46/64, so that the wedge-shaped projection 66 on the plate-shaped element is moved to a position away from the plane surfaces 60 of the studs 56, whereby the subtending sides 52, 54 of the half shells 32, 34, 48, 50 are moved to a position where the subtending sides 52, 54/edges 36 are lying closer to each other.

[0061] This means that a displacement of a drawplate 128 will result in a displacement of the wedge-plate 64 in all of the pelt boards 6 which are placed in the relevant rows, which is a considerable simplification of this work as compared to carrying out displacement of each individual plate in the respective pelt boards 6.

[0062] In the embodiment of the drying aggregate 100 shown in fig. 4, the drawplates 128 comprise parts 134 freely extending through a side 136 of the encapsulation 102. These extending parts 134 comprise through-going openings 137 for cooperating operation with not-shown traction facilities for displacement of the drawplates 128.

[0063] As shown in the figure, the drying aggregate 100 can be madmobile by placing it on wheels 140, whereby a considerable saving is achieved in the handling and transport of the dried pelts from the place where the pelts are mounted on the boards, and to the place where the drying of the pelts is carried out. It can further be mentioned that the air replacement arrangement 106 for changing the air in the cavity 108 in the encapsulation 102 can alternatively consist of a suction unit which in a manner similar to that of the blower unit 138 can be integrated with the encapsulation 102.

[0064] It shall be noted that the individual part belonging to the system for the drying of the leather side of pelts from furred animals can assume configurations other than those described here and shown in the drawings. However, this does not change the inventive aspect, where by use of a combination of a drying aggregate and a pelt board with an open surface structure, a quick, uniform and effective drying of the leather side of the pelt is made possible, whereby "black spots" on the leather side of the pelt are avoided, and which due to the shape of the surface structure makes it possible to secure a pelt in the stretched position solely by means of a fixing-bag, which at least over a limited part of the pelt presses the leather side against the surface structure, whereby the use of damaging clips/staples can be omitted. And furthermore that the pelt board 6 is further con-figured in such a manner that its half parts are relatively displaceable between a first outer position, where the board has a greater circumference, and a second outer position where the board has a smaller circumference in relation to the first outer position, whereby the removal of the pelt from the board is made considerably easier, the reason being that the reduced circumference results in the pelt coming to sit loosely on the surface of the pelt board, and will hereby be easy to remove together with the fixing-bag.

REFERENCES CITED IN THE DESCRIPTION

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- EP2292804A **[0001]**

- WO0244428A1 **[0009]**
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- US3526967A **[0015]**

PATENTKRAV

1. Tane (6) til tørring af lædersiden på pelse (4) fra pelsdyr, hvor pelsen (4) påføres og strækkes på ydersiden af tanen (6), og fastgøres i denne position under en tørreproces ved hjælp af en holdepose (5), som i det mindste dækker en del af en nedre ende af pelsen, presser denne imod tanen, idet tanen (6) har en langsgående akse (18), en første tværgående akse (20) og en anden tværgående akse (22), en forreste ende (14) til indgreb med kranieenden (18) på pelsen (4) og en fodende (16), som afsluttes vinkelret i forhold til den langsgående akse (18) for tanen (6), hvilken tane (6) er **kendetegnet ved, at** tanen (6) er hul og har en første og anden bueformet overflade (26, 28) med en åben struktur, som afgrænser et tanehulrum (8), og at overfladerne (26, 28) på tanen (6) i det væsentlige er udformede symmetriske omkring i det mindste to af de definerede akser (18, 20, 22), og at tanen (6) omfatter et kort fremspringende element (68), som strækker sig udenfor fodenden af tanen og i det mindste én åbning til tanehulrummet (8) i fodenden (16), og hvor fodenden (16) er indrettet til at samvirke med et tørreaggregat (100), som omfatter en indkapsling (102) med et indkapslingshulrum (104) forbundet med et luftudskiftningsarrangement (106), og med en opadvendende overflade (110) med første åbninger (112), hvor det korte fremspringende element (68) er beregnet til at blive indført ned i en samvirkende første åbning (112) i tørreaggregatet, således at tanen (6) med pelsen (4) er fastholdt i den opretstående position på den opadvendende overflade (110) på tørreaggregatet (100) med fodenden (16) i kontakt med overfladen (110), hvor den opadvendende overflade (110) omfatter yderligere åbninger (120, 120') nær den respektive første åbning (112), som ligger indenfor afgrænsningen for fodenden (16) på den respektive tane, således at de yderligere åbninger (120, 120') står i forbindelse med tanehulrummet (8) i den respektive tane (6), som er placeret i den opadvendende overflade (110), således at luften i tanehulrummet (8) i tanen (6), som er placeret på den opadvendende overflade (110), kan udskiftes ved udskiftning af luften i indkapslingshulrummet (104) ved hjælp af luftudskiftningsarrangementet (106), som er forbundet med tørreaggregatet (100), hvorved lædersiden (2) på pelsen tørres.

2. Tane (6) ifølge krav 1, **kendetegnet ved, at** overfladerne (26, 28) ved forenden (14) omfatter et antal slidsformede åbninger (94).

3. Tane (6) ifølge ethvert af de foregående krav, **kendetegnet ved, at** tanehulrummet (8) står i forbindelse med huller/perforeringer (10) i overfladerne (26, 28) i tanen (6).

DRAWINGS

Fig. 1

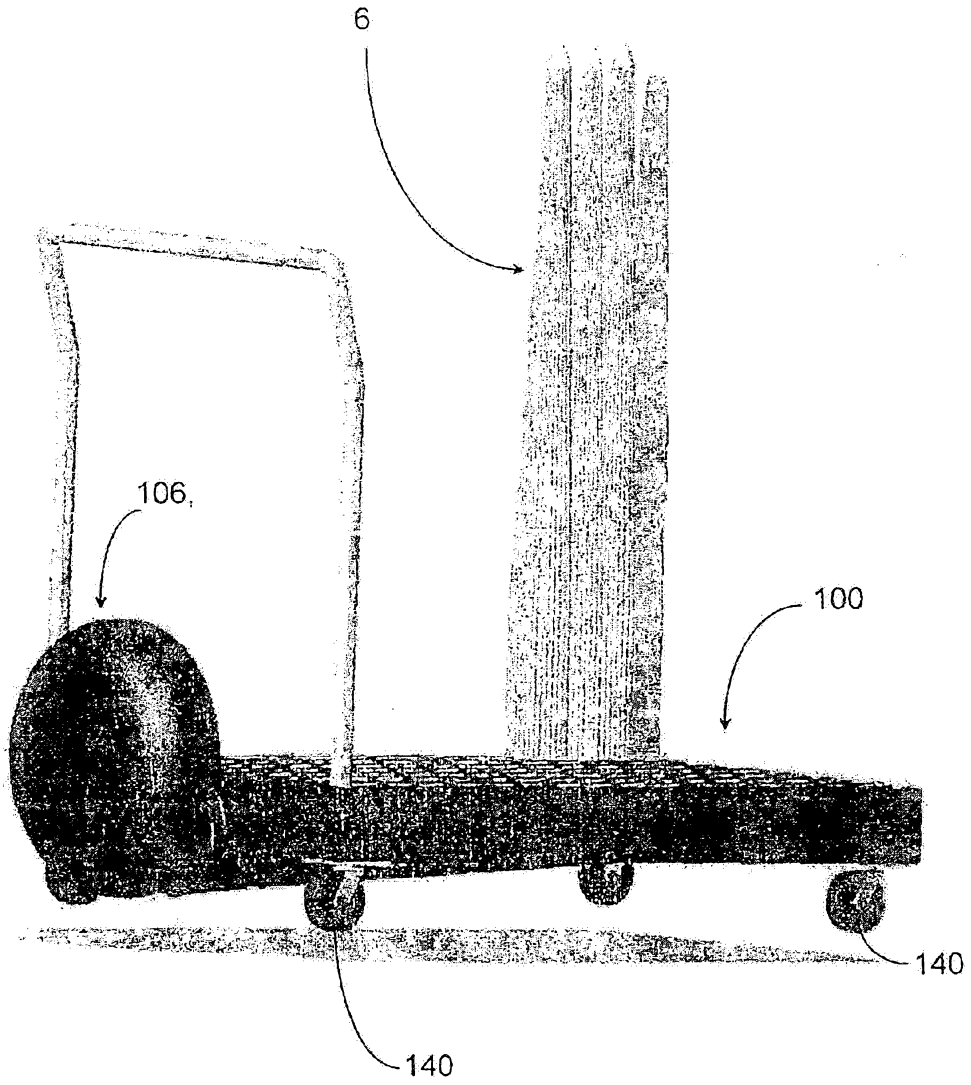


Fig. 2

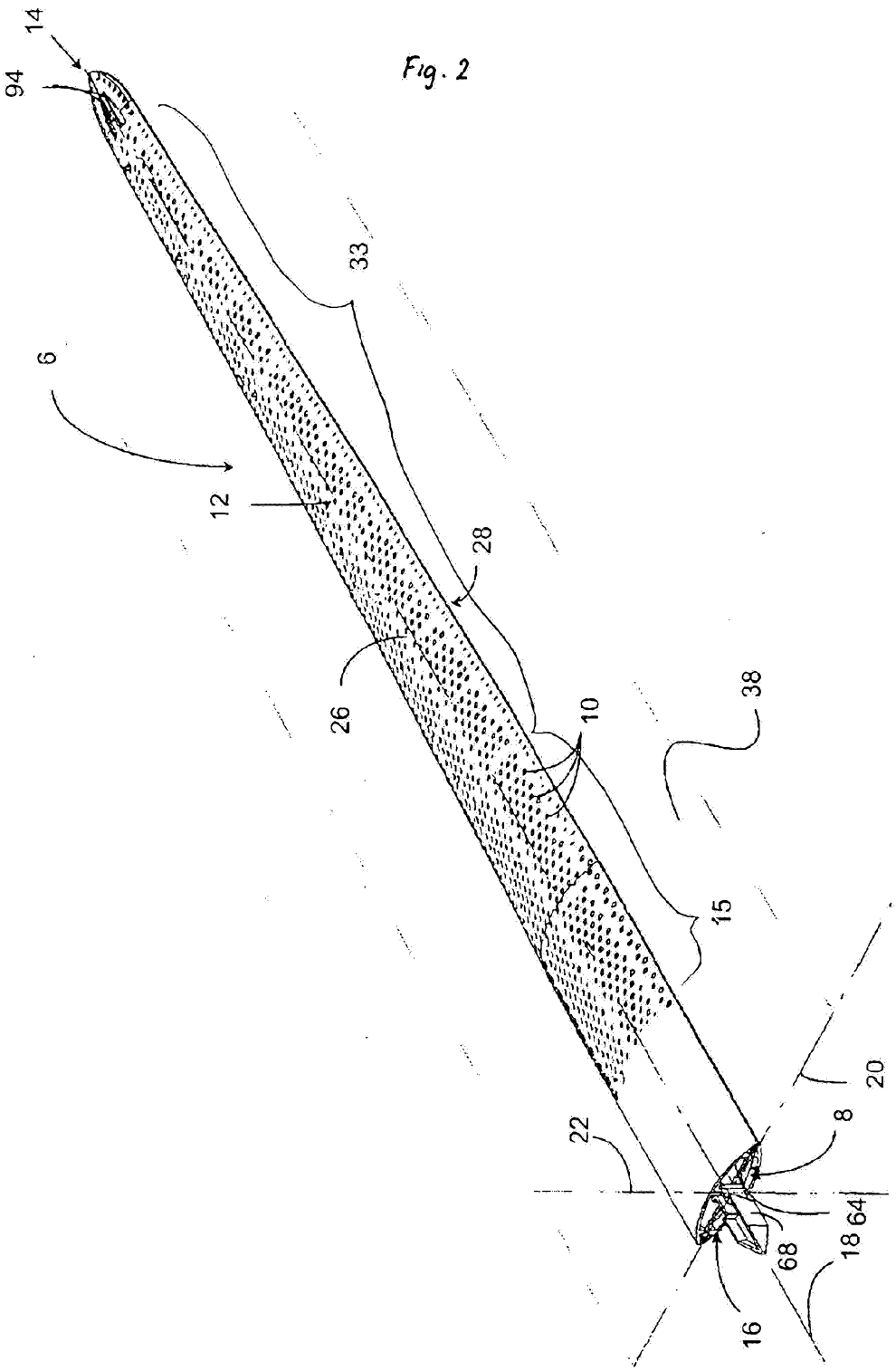


Fig. 3

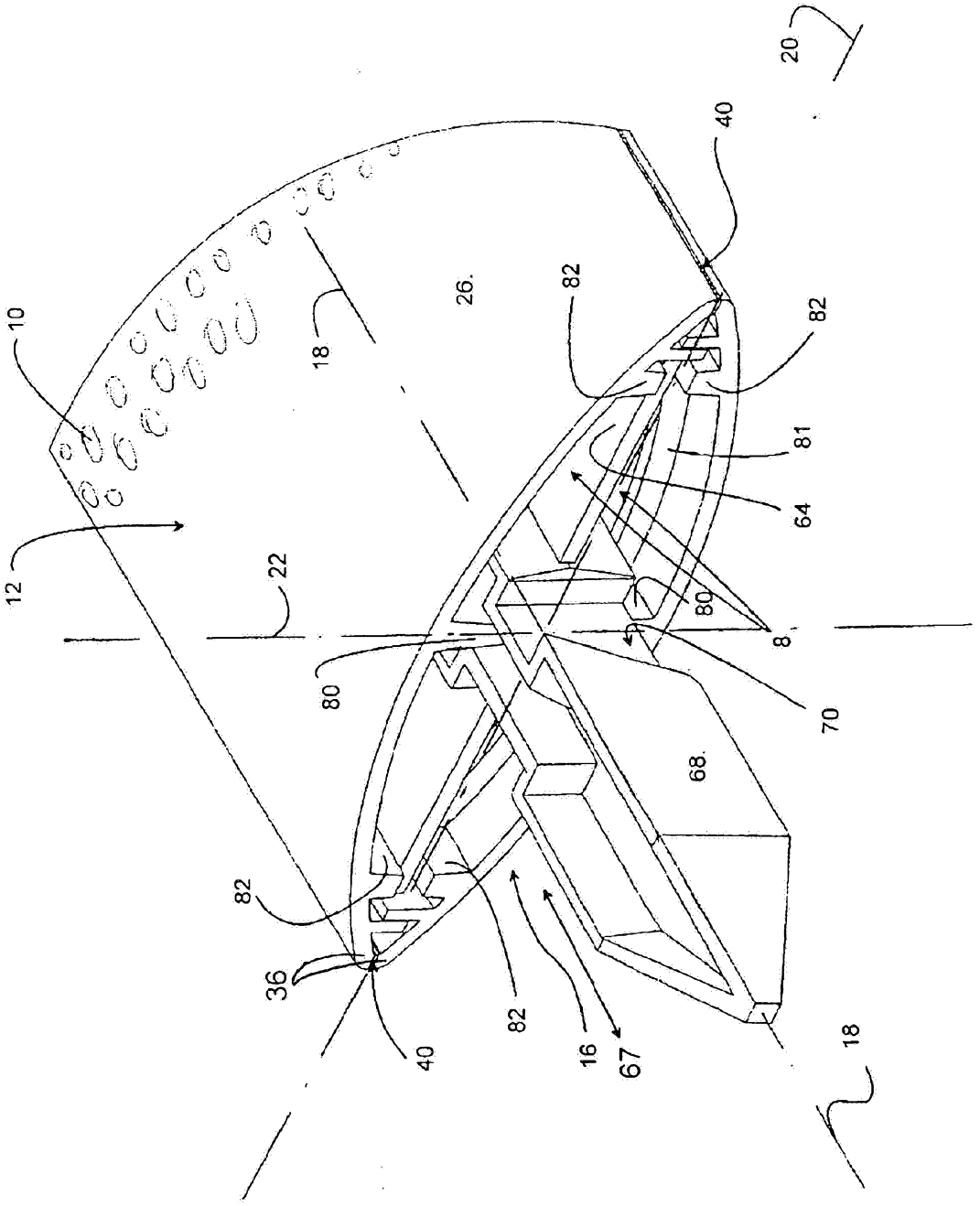


Fig. 4

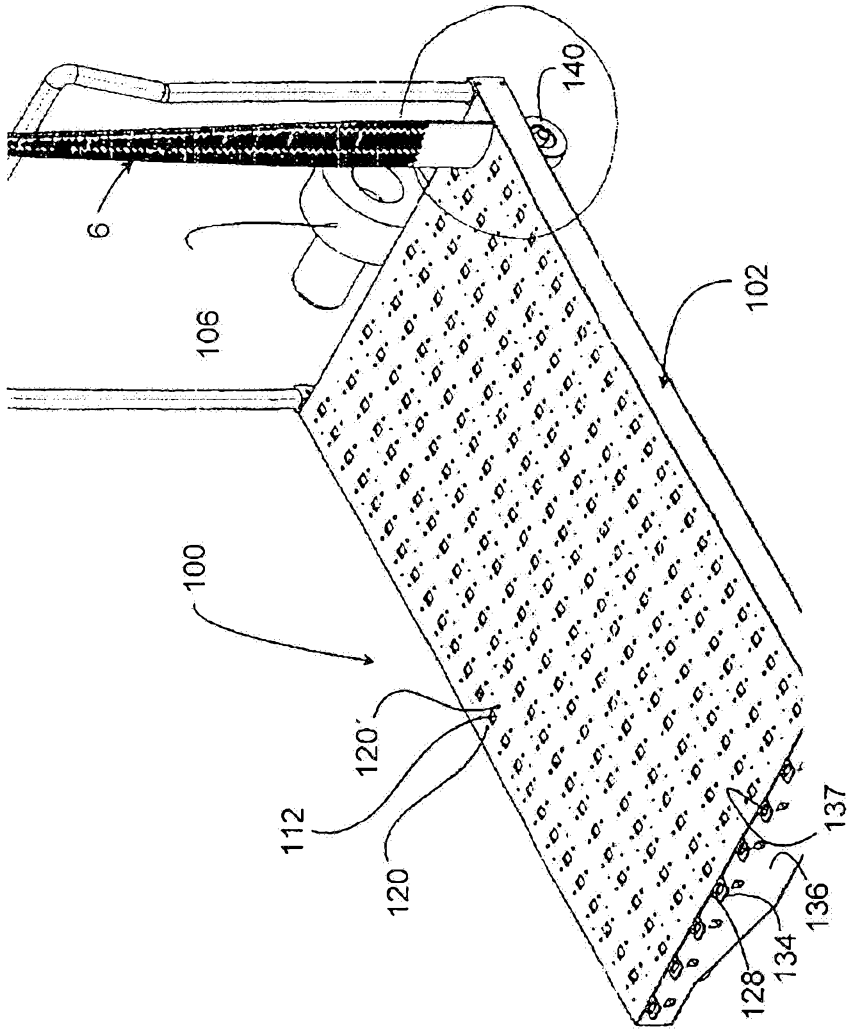


Fig. 5

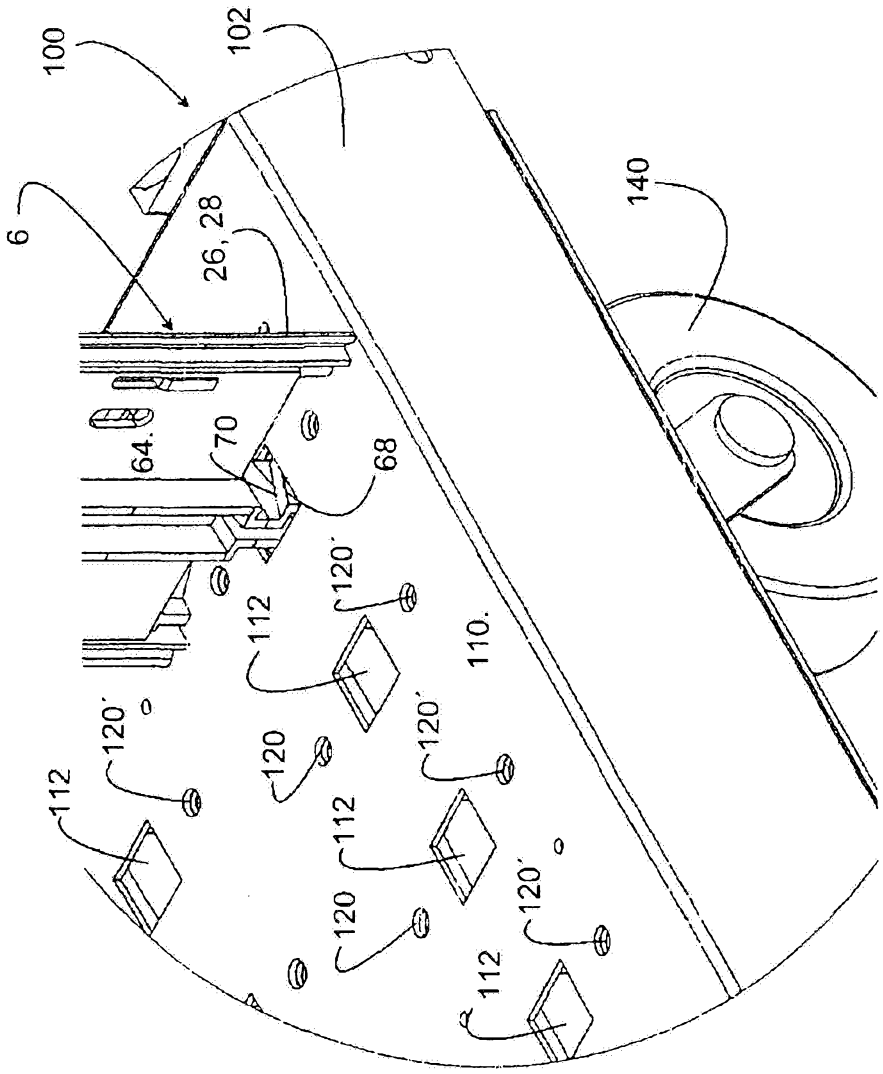
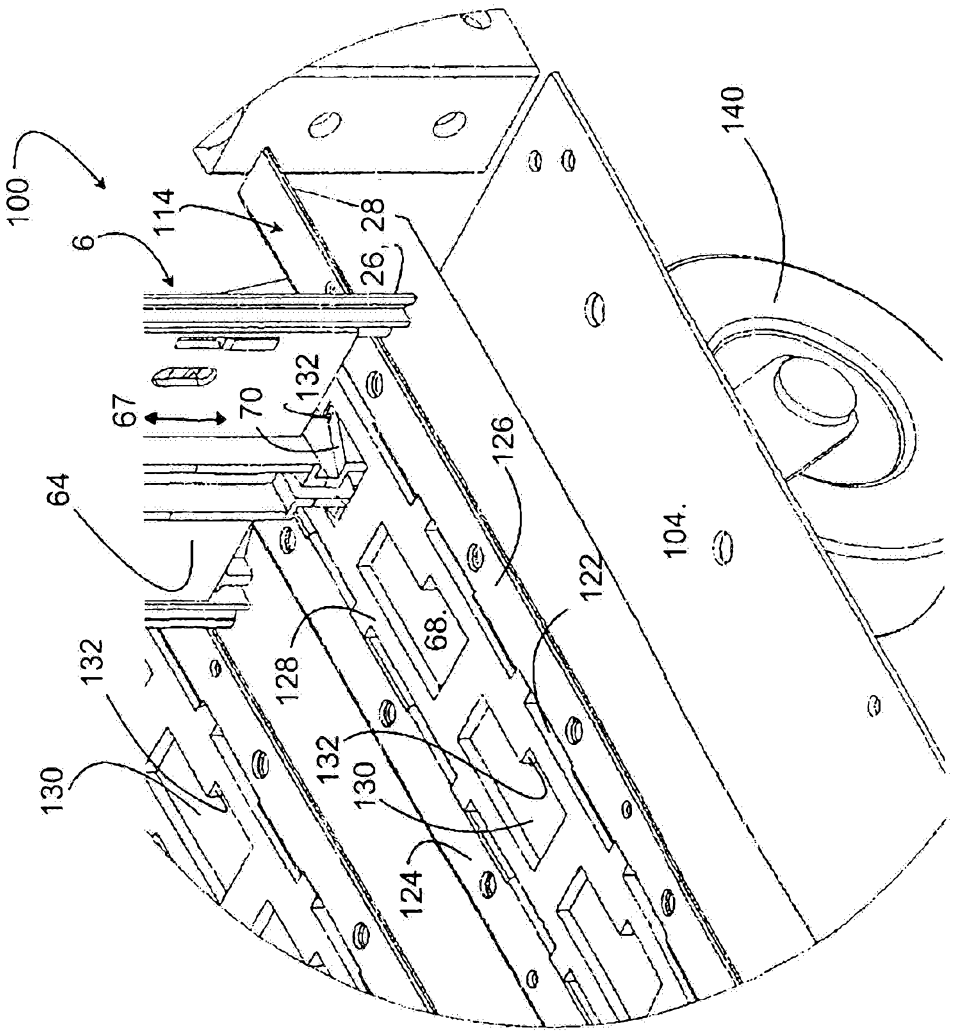

100
102
6
26, 28
140
64
70
68
120'
112
110
120
112
120'
120
112
120'
120
112

Fig 6.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26, 28
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