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(54) Title: BOARD PRODUCT, AND MANUFACTURING METHOD THEREOF

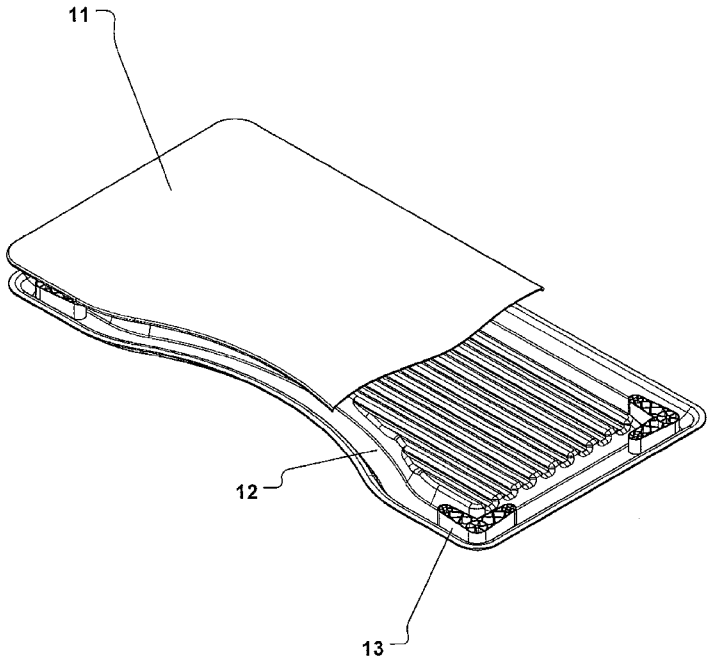

Fig. 1

(57) Abstract: The present invention refers to a product for carrying vertical loads, comprising a top and a bottom surface, said top and bottom surface having an extension in the horizontal plane in use. The product comprises a top sheet (11), comprising the top surface, and a bottom sheet (12), comprising the bottom surface. The top and bottom sheet (11, 12) are adhered to each other along the edges thereof, and the cross-section of the bottom sheet (12) is provided with vertical fluctuations, whereby a flexural rigidity of the product is obtained. The product also comprises means for mounting a supporting structure for supporting the top surface in an extension in the horizontal plane. A method for production thereof is also provided.

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BOARD PRODUCT, AND MANUFACTURING METHOD THEREOF

Field of the Invention

This invention pertains in general to the field of board products, and a manufacturing method thereof, for carrying vertical loads. More particularly the invention relates to board products, such as table tops, comprising a top and a bottom surface, having an extension in the horizontal plane in use, for carrying vertical loads.

Background of the Invention

In the field of products for withstanding vertical loads, such as tables and table tops, it is common practice to manufacture such board products of wood. However, wooden products have a high density, which impairs transportation and transportation costs.

In this regard, it is known to manufacture such products of boards of lignocellulose-containing material, such as particle boards and fibreboards according to the dry method (MDF, HDF, LDF etc.). Here, the lignocellulose-containing material is first disintegrated into particles or fibre bundles. Subsequently these are dried and glue-coated and formed to a continuous mat in one or several forming stations. The mat is pre-pressed and subsequently finish-pressed to boards under pressure and heat in a continuous or discontinuous press. These boards are then adhered/attached on a frame of wood, to produce the product for withstanding vertical load. Optionally, the space defined by the boards and the frame is filled with a distance material, such as honeycomb structure or the like.

The technique of manufacturing such products of boards on an intermediate frame is accompanied by several failings and drawbacks. Still, such products are unsatisfactory heavy, since the frame still is of solid wood or fibre beams. Also, the manufacturing of such products in other shapes than rectangular in the horizontal plane, requires a multi-step and time consuming configuration of the frame. The use of intermediate frames requires a lot of material and results in several manufacturing steps in the manufacturing process. Furthermore, it is likewise difficult to manufacture such products without sharp edges, which may be harmful, unaesthetic, etc. Still further, such products have a very limited possibility to fasten parts/objects, such as table legs, lamps, etc., thereon in other positions than where the frame is located (this would imply the integration of yet another frame part within the product), without exterior metal frames or the like.

Hence, an improved board product for carrying vertical loads would be advantageous, and in particular a board product for carrying vertical loads allowing for decreased weight of the product, allowing for the possibility to manufacture them in a variety of shapes and designs, and of different radiuses, without unnecessary manufacturing steps, allowing for the possibility to attach legs thereon without metal frames mounted on the bottom side thereof, while still minimizing the weight of the product, and allowing for the possibility to rigidly attach other parts, such as lamps etc, thereon without internal frames within the product, while still minimizing the weight of the product would be advantageous.

Summary of the Invention

Accordingly, the present invention preferably seeks to mitigate, alleviate or eliminate one or more of the above-identified deficiencies in the art and disadvantages singly or in any combination and solves at least the above mentioned problems by providing a board product for carrying vertical loads, characterized by a top sheet, comprising the top surface, and a bottom sheet, comprising the bottom surface, wherein the top and bottom sheet are adhered to each other along the edges thereof, and the cross-section of the bottom sheet, in the vertical plane in use, is provided with vertical fluctuations, whereby a flexural rigidity of the board product is obtained; and a method for manufacturing of a table top comprising the steps: forming a mat of glue-coated cellulose-containing material, in the form of wood fibre material; press moulding said mat of glue-coated cellulose-containing material to obtain a top sheet; forming a mat of glue-coated cellulose-containing material, in the form of wood fibre material; press moulding said mat of glue-coated cellulose-containing material to obtain a bottom sheet with a vertical fluctuation; arranging table leg mounting means at said top sheet and/or bottom sheet; and attaching said top sheet and bottom sheet to each other.

Advantageous features of the invention are defined in the dependent claims.

Brief Description of the Drawings

These and other aspects, features and advantages of which the invention is capable of will be apparent and elucidated from the following description of embodiments of the present invention, reference being made to the accompanying drawings, in which

Fig. 1 is an elevated view of an embodiment of the present invention;

Fig. 2a is a top view of an embodiment of the present invention;

Fig. 2b is cross section of a bottom sheet according to an embodiment of the present invention;

Fig. 3a is an elevated view of one embodiment of the present invention;

Fig. 3b is a top view of an embodiment of the present invention;

Fig. 3c is a cross section of a bottom sheet according to an embodiment of the present invention;

Figs 4a and 4b Are cross sectional views of edge configurations according to some embodiments of the present invention; and

Fig. 5 is a flow chart of a manufacturing method according to one embodiment of the present invention.

Description of embodiments

The following description focuses on an embodiment of the present invention applicable to a board product, and in particular to a table top. Specifically, the present invention pertains to products for presenting a surface in the horizontal plane, to vertically support other products placed on said surface.

According to one embodiment, according to Fig. 1, a table top **10** is provided. The table top comprises a top sheet **11** and a bottom sheet **12**. The top and/or the bottom sheet **11**, **12** is/are preferably manufactured by press moulding of a mat of fibre material.

The fibre material may be selected from the group comprising plastics; reinforced plastic; metal; wood; fibre material of cellulose material; cellulose-containing material; cellulose-containing material mixed with plastics, waste paper, glass fibres, or disintegrated minerals; or combinations thereof. The compression of fibre material results in that the obtained product will be of a suitable weight, and low manufacturing cost. The fibre material may preferably be engineered wood. Engineered cellulosic material may for example be particles or fibers, or other sawmill scraps or wood waste from soft or hardwood. Alternatively, engineered cellulosic material may be vegetable fibers, such as other lignin containing material, such as rye straw, wheat straw, rice straw, hemp stalks, kenaf stalks, or sugar cane residue. However, engineered cellulosic material may be substantially of a cellulose-containing fibre material, such as strands of wood, particles of wood, or fibers of wood, whereby the obtained product will be environmentally friendly, while simultaneously being of low weight and low manufacturing cost and improved product aestetic and perception.

The top and bottom sheet **11**, **12** are adhered to each other, along their periphery and perhaps also along or at contact points within the periphery. The cross-section in a vertical plane of the bottom sheet **12** is provided with vertical fluctuations, when the table top is horizontally aligned, whereby a flexural rigidity and/or stability of the table top is obtained, which flexural rigidity and/or stability is satisfying for normal table use.

The top sheet **11** preferably comprises a planar top surface, upon which other products may be placed, whereby a horizontal plane provided by the top surface constitutes a support. The top sheet **11** may have a thickness of 2 to 4, such as 3 mm. The top sheet **11** may have peripheral edges that are angled downwards in relation to the plane of the planar top surface. Peripheral edges that are angled in relation to the plane of the planar top surface facilitate the adherence between the top sheet **11** and the bottom sheet **12**, since the possible contact area thereby is increased and multiplanar. The angle between the peripheral edges of the top sheet **11** and the plane of the top sheet **11** is adapted, inter alia, to the design of the table top and the thickness of the table top. In this respect the peripheral edges may be radially angled towards the bottom sheet **12**. Radial edges of the top sheet **11** also eliminates a sharp edge of the table, upon which persons may be hurt or devices may be broken. The radius is preferably selected in the interval of 5 to 15 mm, such as 10 mm.

The bottom sheet of the table top according to Fig. 1 may have a cross-section along a line A-A according to Figs. 2a and 2b. According to the embodiment disclosed in Fig. 2 the cross-section is provided with a channel **21** when the bottom sheet **12** is arranged in the horizontal plane. The bottom sheet **12** may have a thickness of 2 to 4, such as 3 mm. The edges of the bottom sheet **12** may constitute a contact area to the top sheet **11**. The channel **21** may have a first depth, such that a vertical distance from the edges of the bottom sheet **12** to the bottom of the channel **21** is obtained, when the table top is horizontally aligned. The channel **21** may extend along the periphery of the bottom sheet **12**, and/or along the entire circumference of the bottom sheet **12**. Thus, a circular channel **21**, when the bottom sheet **12** is looked at from above, may be provided, when the bottom sheet **12** is arranged in the horizontal plane, along the periphery of the bottom sheet **12**, such as adjacent to the circumference of the bottom sheet **12**. The channel **21** may then form a beam when the top and bottom sheet **11**, **12** are adhered to each other. Centrally of the channel **21**, a rib/groove or corrugated system is provided. In the rib/groove or corrugated system, the ribs **22** may extend longitudinally or latitudinally in the horizontal plane of the bottom sheet **12**, when the

bottom sheet **12** is arranged in the horizontal plane. Thus, the board product comprises a rib/groove or corrugated system, wherein the rib/groove or corrugated system comprises extending in an angle in between 0 and 90 °, in relation to the direction of the at least one channel **21**.

The rib/groove or corrugated system may be wave shaped along the line A-A. Suitable wave shapes are selected from the group comprising sinus shape, rectangular wave shape, rectangular wave shape with obtuse angles, etc.

The upper parts of the ribs **22** may form further contact areas, such as contact surfaces, to contact and stabilize the top sheet **11**, in addition to the edges of the bottom sheet **12**. The grooves **23**, in between the ribs **22**, may have a second depth, such that a vertical distance from the edges of the bottom sheet **12** to the bottom of the grooves **23** is obtained, when the bottom sheet **12** is arranged in the horizontal plane. Thus, at least one of the ribs **22** may constitute a contact surface, for contact with the top sheet **11**. The arrangement of the rib/groove system will brace the table top, such that a satisfactory flexural rigidity is obtained even for larger table tops, during normal use. The ribs **22** and the edges of the bottom sheet **12** may thus have contact areas, such as contact surfaces, in the same horizontal plane, when the bottom sheet is aligned in the horizontal plane, whereby the contact area between the top sheet **11** and the bottom sheet **12** may be increased, allowing for increased flexural stability of the table top. The arrangement of ribs **22** and edges of the bottom sheet **12**, such that contact areas thereof in respect of the top sheet **11** are provided in the same horizontal plane, results in a strong and load-bearing table top without the use of - or at least with minimized amount of - a distance material in between the top and bottom sheet **11**, **12**.

The edges of the bottom sheet **12** may be formed such that they follow the inside of the angled edges of the top sheet **11**, such that the angled edges of the top sheet **11** will constitute the vertical outer sides of the table top, which provides the positive technical effect that the top sheet **11** may be individually laminated or coated with a pleasing appearance, without having to laminate or coat the entire table top after attachment of the top sheet **11** to the bottom sheet **12**. Also, an increased contact area between the top and bottom sheets **11** and **12** may be obtained.

The top sheet **11** is adhered to the bottom sheet **12** by means of suitable attachment means, such as glue, rivets, screws, etc. The peripheral contact between the top sheet **11** and the bottom sheet **12** is thus fixed, whereby no conventional intermediate frame is necessary in between the top and bottom sheet **11**, **12**. The glue is here applied as a continuous line of beads or a string. When ribs **22** of the bottom sheet

12 coincide with the contact plane between the top and the bottom sheet **11**, **12**, also the parts of the ribs coinciding with said plane may be provided with attachment means, such as glue.

In another embodiment the area within the channel **21** is substantially flat, in accordance with Figs. 3a to 3c. The substantially flat area **32** within channel **31** may constitute a plane parallel to, but not coinciding with, the contact plane between the top sheet **11** and the bottom sheet **12**, as disclosed in Fig. 3c. The plane of the flat area **32** may be vertically displaced downwards, when the bottom sheet **12** is arranged in the horizontal plane. Thus, when the top and bottom sheet **11**, **12** are adhered to each other along the peripheral edges thereof, a space in between the flat area **32** and the top sheet **11** may be obtained. In this space a distance material **33** may be provided. The distance material **33** may be glued to the top sheet **11** and/or the bottom sheet **12**, to ensure prohibition of movement of the distance material **33**. Such movement could interfere with other functions of the finalized table top.

The distance material **33** may be selected from the group comprising of honeycomb structure, corrugated cardboard, corrugated board, undulated cardboard cellular board.

The substantially flat area **32** within channel **31** may in one embodiment constitute a plane parallel to, and coinciding with, the contact plane between the top sheet **11** and the bottom sheet **12**. Thus, when the top and bottom sheet **11**, **12** are adhered to each other along the peripheral edges thereof, the top and bottom sheet **11**, **12** could also be adhered to each other at the substantially flat area **32**. Such adherence could be obtained by a suitable glue.

Means for attachment of table legs, such as table leg attachment portions, may be arranged on the top or bottom sheet **11**, **12**, depending on the specific design of the table top. The means for attachment of table legs may be screw holes, reinforced screw holes or fittings/mountings in desired positions, such as in the four corners of a square or rectangular table top.

In one embodiment components **13** are arranged within the top and the bottom sheet **11**, **12**. Such components may be structural or constructive elements. These structural or constructive elements may be applied by a robot, in accordance with below.

The components are attached/adhered to top or bottom sheet **11**, **12** by gluing or welding, such as ultrasound welding or wood welding. The components may be of a material selected from the group comprising plastic, such as reinforced plastic; metal;

wood; fibre material, such as fibre material of cellulose material, cellulose-containing material, cellulose-containing material mixed with other materials, such as plastics, waste paper, glass fibres, or disintegrated minerals; or combinations thereof.

In one embodiment, according to Figs. 1, 2a, 3a, and 3b, components **13** in form of means for attachment of table legs are applied and attached to the bottom sheet **12**. Means for attachment of table legs in form of components may be suitable when the strains on the table top are high enough to jeopardize the resistance of the table top during use, whereby screw holes, reinforced screw holes, fittings/mountings not can ensure satisfactory resistance. It is advantageous to apply and attach means for attachment of table legs on the bottom sheet **12**, when the table legs are to be applied/mounted on the bottom side of the table top, which often is the case. However, it is equally possible to apply means for attachment of table legs on the top sheet **11**, if the circumstances are such that this would facilitate the manufacturing of the table top or facilitate the mounting of the table legs.

In one embodiment components, such as in form of means for attachment of table legs, are applied and attached to the bottom sheet **12** in the bottom of the channel **21**. The means for attachment of table legs may then be attached in peripheral positions of the bottom sheet **12**, and in positions suitable for giving the resulting table top a satisfactory stability when the vertically attached table legs are attached.

It is of course within the scope of the present invention to apply components for other purposes than means for attachment of table legs, such as means for attachment of lamps, drawers, etc. Depending on the circumstances such components may be attached to the top sheet **11** and/or the bottom sheet **12**.

According to one embodiment separate parts may first be independently press moulded from a mat of fibre material. These separate parts may be in the form of pucks. Then top and/or the bottom sheet **11**, **12** is/are manufactured by press moulding of a mat of fibre material, after first applying said independently press moulded parts. The fibre material may preferably be a cellulose-containing fibre material. The independently press moulded parts will then be integrated with the top and/or bottom sheet **11**, **12**, during press moulding thereof. The compression of fibre material results in that the obtained product will be of a suitable weight, and low manufacturing cost. The top and bottom sheet **11**, **12** are then adhered to each other, in accordance with the description above. This embodiment provides the advantage of integrating reinforcing parts already in the press moulding of the top and/or bottom sheet **11**, **12**, whereby no later gluing or welding of further components in specifically strained positions is necessary.

In one embodiment pucks are applied and attached to the bottom sheet **12** in the bottom of the channel **21**. These pucks may then constitute means for attachment of table legs. These means for attachment of table legs may then be attached in peripheral positions of the bottom sheet **12**, and in positions suitable for giving the resulting table top a satisfactory stability when the vertically attached table legs are attached

After the top and bottom sheet **11**, **12** are adhered to each other, it may be necessary to cut the peripheral edges of the table top with a cutting device **C**, depending on how well the edges of the top and bottom sheet **11**, **12** are aligned after said adherence. Different embodiments illustrating the cutting of the edges are disclose in Fig. 4a and 4b.When the top sheet **11** is provided with a laminated or coated pleasing appearance, it is preferred to cut the edges horizontally, when the table top is arranged in the horizontal plane. Hereby, the angled edges of the top sheet **11** will constitute the vertical outer sides of the table top. Simultaneously, the table top obtains straight peripheral edges.

Fig. 5 shows a schematic flow schedule illustrating an embodiment of the method according to the present invention, comprising the following steps: A mat of glue-coated cellulose-containing material, in the form of wood fibre material, is formed, at **51**, in a line for manufacturing table tops. The mat is press moulded in a multi-opening press having moulds adapted for the application, at **52**, so that a hard thin top sheet of about 3 mm is obtained, the peripheral edges of which are angled in relation to the plane of the top sheet, and the peripheral edges have a peripheral contact surface along the entire circumference of the top sheet for contact with a bottom sheet.

The same procedure is performed for the manufacturing of the bottom sheet. However, in respect of the bottom sheet, the mat is press moulded in a multi-opening press having moulds adapted for the application, so that a hard thin bottom sheet of about 3 mm is obtained with a vertical fluctuation, such as comprising at least one peripheral channel, according to above, and optionally a rib/groove or corrugated system within said peripheral channel or in between two peripheral channels, and the peripheral edges have a peripheral contact surface along the entire circumference of the top sheet for contact with a bottom sheet.

After the press moulding of the top and bottom sheet **11**, **12**, the peripheral edges may optionally be contour cut, at **53**, to facilitate later processing. The contour cutting may be performed by a robot, in combination with water jet, steel blade, or laser.

Optionally, when a distance material in between the top and bottom sheet is asked for, a distance material according to above may be provided in between the top

and bottom sheet at **54**. The application of distance material in **54** may be performed with a robot. The distance material may be provided with glue, optionally with a robot, before the distance material is applied on the top or bottom sheet **11**, **12**, depending on the specific circumstances.

Components, such as components constituting table leg mounting means, or strengthening means, may be arranged within the table top, such as in between the top and the bottom sheet, at **55**. Step **55** may be performed with a robot, to obtain a preciseness wished for, whereby table legs, etc., safely can be mounted in predetermined positions, i.e. the positions where the components are located. The use of a robot allows for application of components within small margins of tolerances.

Of course, step **54** and **55** may switch order of priority, whereby the application of precedes the application of the distance material.

Attachment means, such as glue, is provided at contact surfaces on the top and/or the bottom sheet at **56**. The attachment means may be arranged along the peripheral edges of the top and bottom sheet **11**, **12**, and optionally along other contact surfaces.

The top and bottom sheet **11**, **12** are then adhered to each other at **57**, along the contact surfaces, between which contact surfaces glue has been applied. The adherence between the top and bottom sheet **11**, **12** may be obtained by pressing them against each other. Step **57** may be performed by a robot.

In the event that the edges of the top and bottom sheet not are perfectly aligned, the peripheral edges may be cut at **58**, whereby the table top obtains straight edges. The cutting in **58** may be performed by a robot, in combination with water jet, steel blade, or laser.

Steps **53** to **58** may be performed from the same zero reference point. The zero reference point is determined in step **53**, where the robot is starting out from a fixed zero point at the top and/or bottom sheet **11**, **12**. The zero reference point may be marked at the top and/or bottom sheet **11**, **12**, such that the same robot, or the next robot in the production line, identifies the same zero reference point for operation of the next step in relation to said zero reference point. The zero reference point may be a stamp, punch, or bar code. When using a bar code, the identification of the zero reference point may be performed by laser. The zero reference point may for example be determined to be the intersecting point of two diagonals from corners of the product. The corners of the product may be found by a camera. It is also possible to have multiple reference

points, being readable to a robot, whereby the demands on alignment of the sheets may be less.

The residual material originating from the cut-away material may then be reintroduced into the manufacturing process, as material for the fibre preparation.

The table top of the present invention is considerably lighter in weight than table tops of prior art. The weight reduction is between 40 and 50 %, depending on the dimensions of the table top, in relation to a table top manufactured from an MDF or a particle board having corresponding dimensions. This is of great importance when transporting the table tops because the loads of table tops to be transported are large. By the present invention, considerably less lignocellulose-containing material, and consequently considerably less resin, which is used for glue-coating the fibres or fibre bundles, are used in relation to table tops manufactured from solid boards, such as MDF.

By pressing the top and bottom sheet of the table top to a thickness of about 3 mm, high temperatures can be attained in the centre of the board when press moulding it. The results of this are that resins, containing phenol, which cures at high temperatures, can be used when glue-coating the fibres or fibre bundles. Cured phenol resin does not emit any formaldehyde, which has a major environmental significance.

By the above-mentioned material which forms the formed mat, not only cellulose material is meant, but also cellulose-containing material mixed with other materials, such as plastics, waste paper, glass fibres, disintegrated minerals, etc.

The size and shape of the material can vary, and the material can for example include fibres and/or fibre bundles.

Although the present invention has been described above with reference to specific embodiments, it is not intended to be limited to the specific form set forth herein. Rather, the invention is limited only by the accompanying claims and, other embodiments than the specific above are equally possible within the scope of these appended claims.

In the claims, the term “comprises/comprising” does not exclude the presence of other elements or steps. Furthermore, although individually listed, a plurality of means, elements or method steps may be implemented by e.g. a single unit or processor. Additionally, although individual features may be included in different claims, these may possibly advantageously be combined, and the inclusion in different claims does not imply that a combination of features is not feasible and/or advantageous. In addition, singular references do not exclude a plurality. The terms “a”, “an”, “first”,

"second" etc do not preclude a plurality. Reference signs in the claims are provided merely as a clarifying example and shall not be construed as limiting the scope of the claims in any way.

CLAIMS

1. A product for carrying vertical loads, comprising a top and a bottom surface, said top and bottom surface having an extension in the horizontal plane in use, **characterized by**

a top sheet (11), comprising the top surface, and a bottom sheet (12), comprising the bottom surface, wherein the top and bottom sheet (11, 12) are adhered to each other along the edges thereof, and the cross-section of the bottom sheet (12), in the vertical plane in use, is provided with vertical fluctuations, whereby a flexural rigidity of the board product is obtained, said product comprising means for mounting a supporting structure for supporting the top surface in an extension in the horizontal plane.

2. The product according to claim 1, wherein the supporting structure is table legs or subconstruction for a table.

3. The product according to claim 1, wherein top and/or the bottom sheet (11, 12) is/are manufactured by press moulding of a mat of fibre material.

4. The product according to claim 3, wherein the fibre material is selected from the group consisting of plastics; reinforced plastic; metal; wood; fibre material of cellulose material; cellulose-containing material; cellulose-containing material mixed with plastics, waste paper, glass fibres, or disintegrated minerals; or combinations thereof.

5. The product according to claim 4, wherein the fibre material is strands of wood, particles of wood, or fibers of wood.

6. The product according to claim 1, wherein the top sheet (11) comprises a planar top surface.

7. The product according to claim 1, wherein the top sheet (11) has peripheral edges that are angled towards the bottom sheet (12) in relation to the plane of the top surface.

8. The product according to claim 1, wherein the top sheet (11) and/or the bottom sheet (12) have a thickness of 2 to 4.

9. The product according to claim 1, wherein the cross-section of the bottom sheet (12) is provided with at least one channel (21), when the bottom sheet (12) is arranged in the horizontal plane, the channel (21) having a first depth, such that a vertical distance from the edges of the bottom sheet (12) to the bottom of the channel (21) is obtained.

10. The product according to claim 9, wherein the channel (21) extends along the periphery of the bottom sheet (12), and/or along the entire circumference of the bottom sheet (12).

11. The product according to claim 9 or 10, wherein a rib (22)/groove (23) or corrugated system is provided in between at least two channels (21) or within the channel (21), when the channel (21) extends along the periphery of the bottom sheet (12), and/or along the entire circumference of the bottom sheet (12).

12. The product according to claim 11, wherein the rib/groove or corrugated system comprises ribs (22) extending in an angle in between 0 and 90 °, in relation to the direction of the at least one channel (21).

13. The product according to claim 11, wherein the cross-section in a vertical plane of the rib/groove or corrugated system is shaped in a wave shape.

14. The product according to claim 13, wherein said wave shape is selected from the group consisting of sinus shape, rectangular wave shape, and rectangular wave shape with obtuse angles, or combinations thereof.

15. The product according to claim 11, wherein the upper parts of the ribs (22) forms further contact areas, such as contact surfaces, to contact and stabilize the top sheet (11), in addition to the edges of the bottom sheet (12).

16. The board product according to claim 11, wherein the grooves (23), in between the ribs (22), have a second depth, such that a vertical distance from the edges

of the bottom sheet (12) to the bottom of the grooves (23) is obtained, when the bottom sheet 12 is arranged in the horizontal plane, wherein the first depth is greater than the second depth.

17. The product according to claim 1, comprising reinforcing components for reinforcing the top (11) or bottom sheet (12), within the top (11) and the bottom sheet (12).

18. The product according to claim 17, wherein said reinforcing component is said means for mounting a supporting structure for supporting the top surface in an extension in the horizontal plane.

19. The product according to claim 1, wherein the product is a table top.

20. A method for manufacturing of a table top comprising the steps:

forming (61) a mat of glue-coated cellulose-containing material, in the form of wood fibre material;

press moulding (62) said mat of glue-coated cellulose-containing material to obtain a top sheet (11);

forming (61) a mat of glue-coated cellulose-containing material, in the form of wood fibre material;

press moulding (62) said mat of glue-coated cellulose-containing material to obtain a bottom sheet (12) with a vertical fluctuation;

arranging (64) means for mounting table legs or a subconstruction for a table at said top sheet (11) and/or bottom sheet (12); and

attaching (65) said top sheet (11) and bottom sheet (12) to each other.

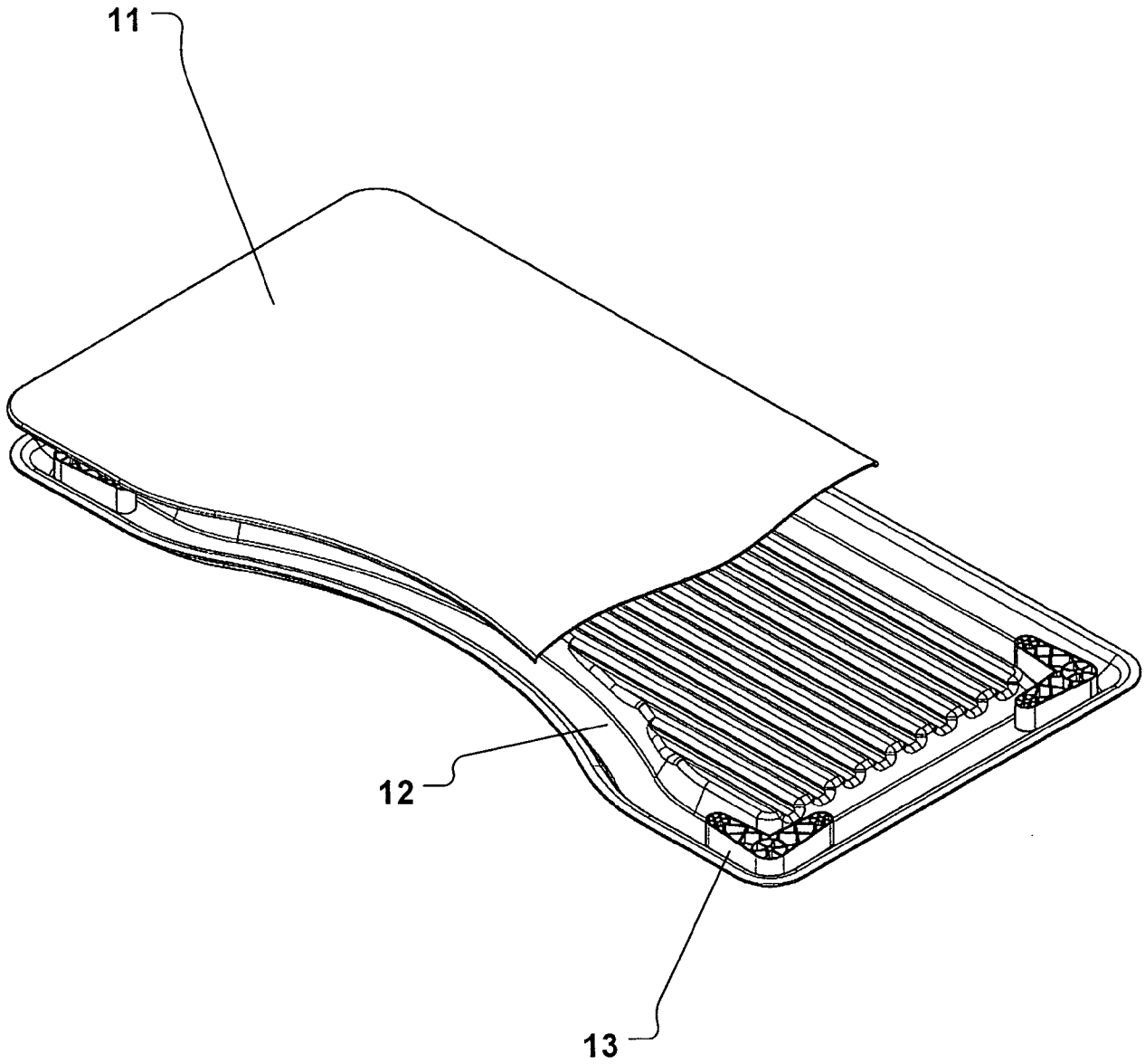

Fig. 1

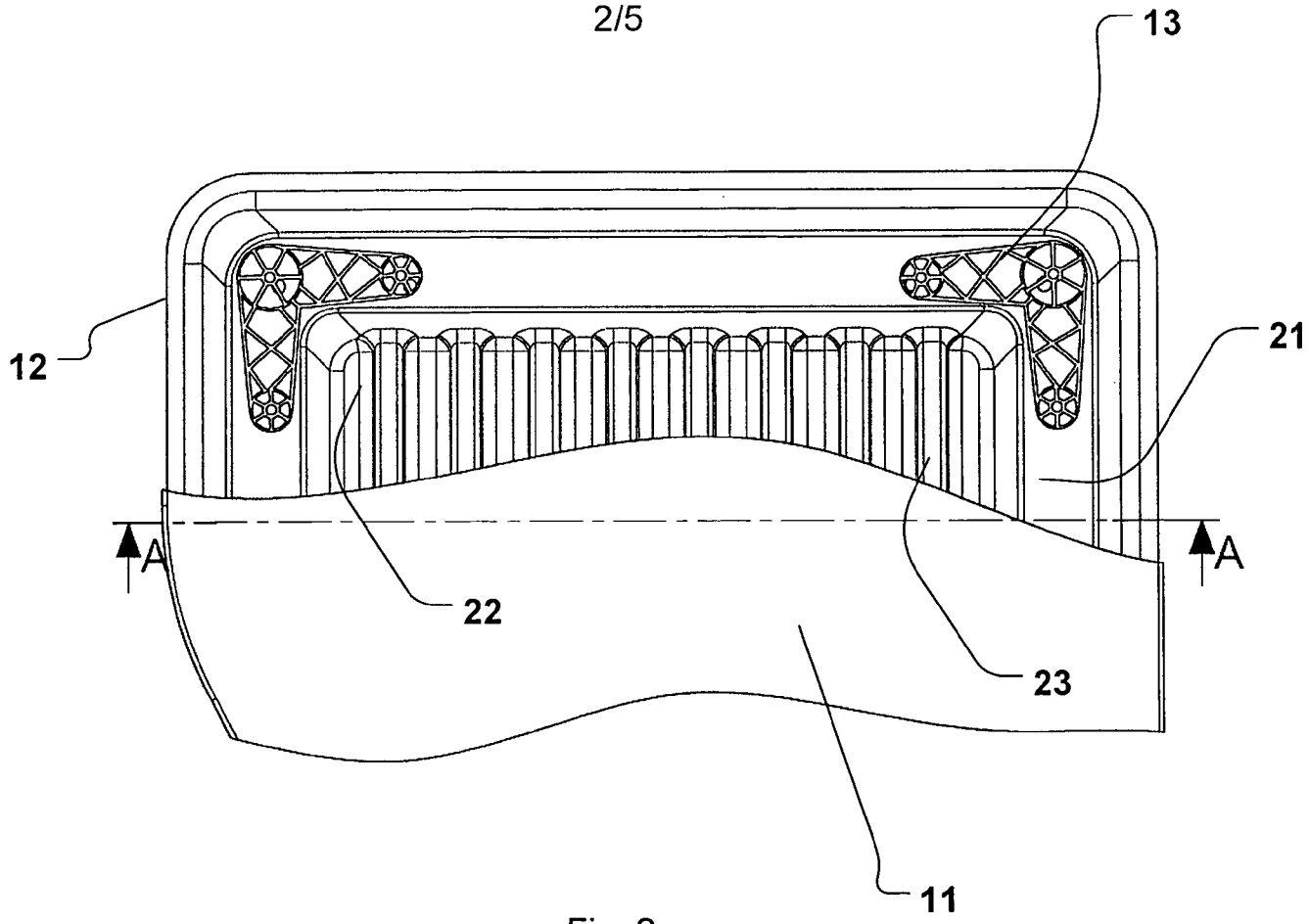

Fig. 2a

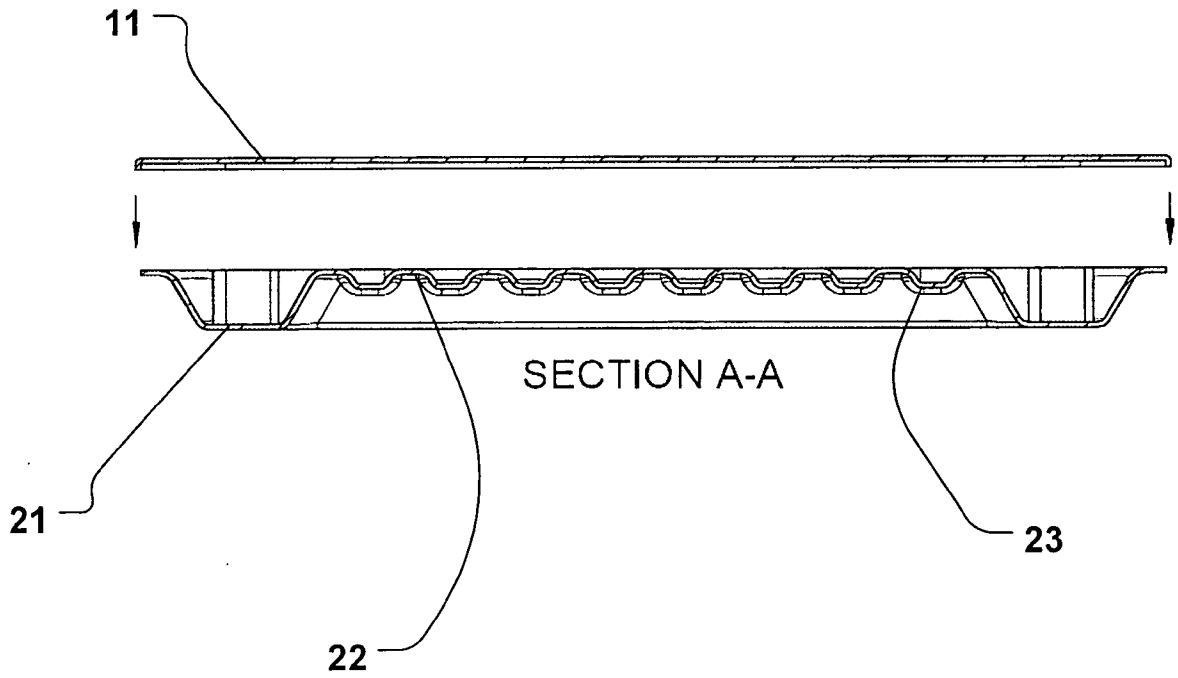

Fig. 2b

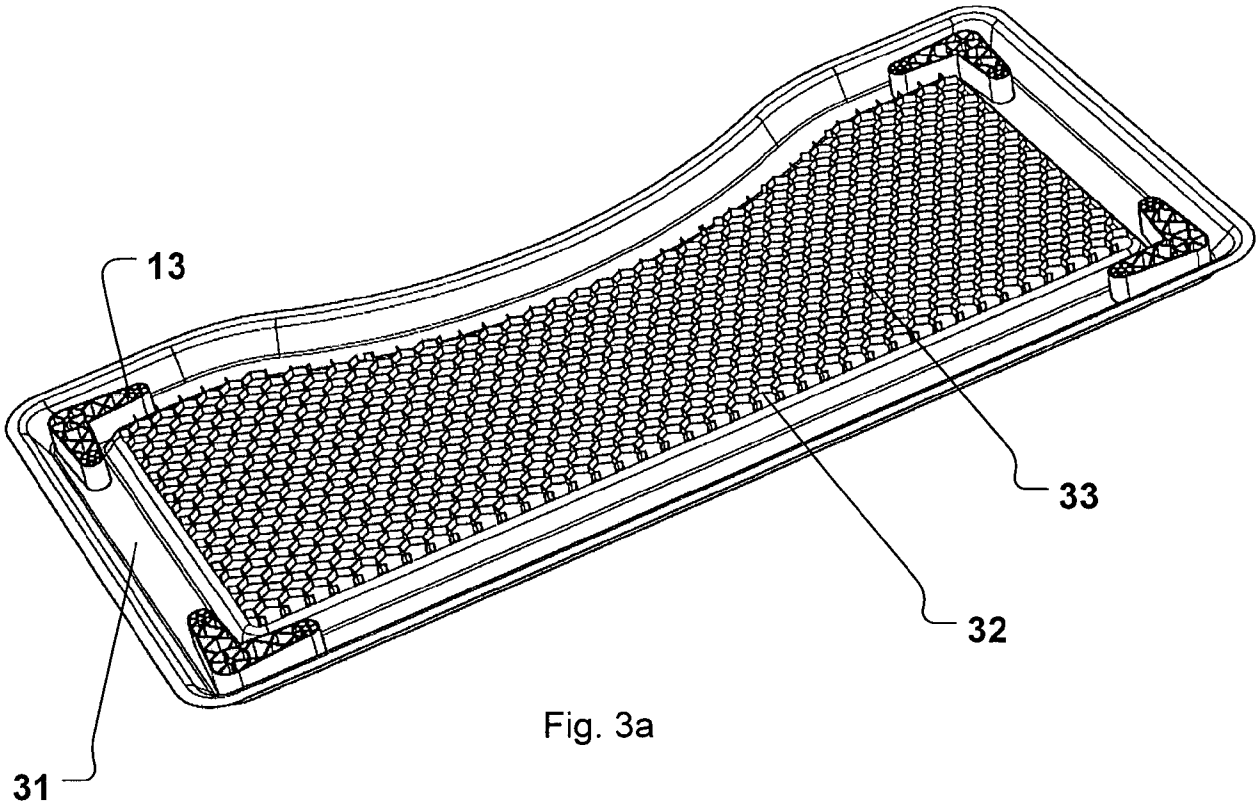

Fig. 3a

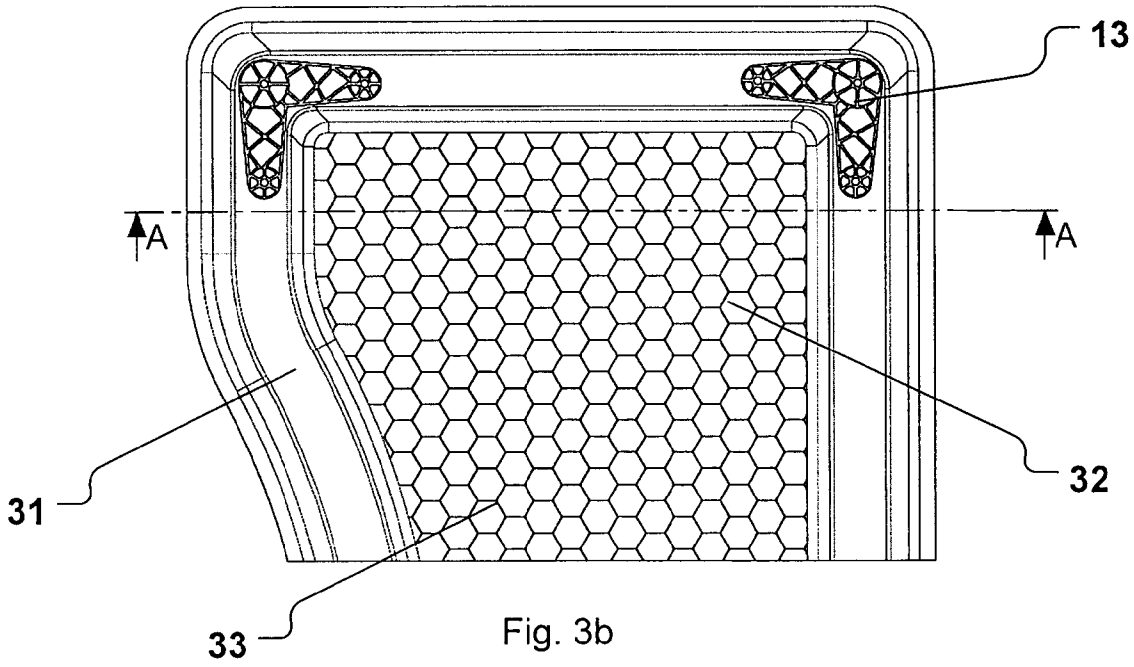

Fig. 3b

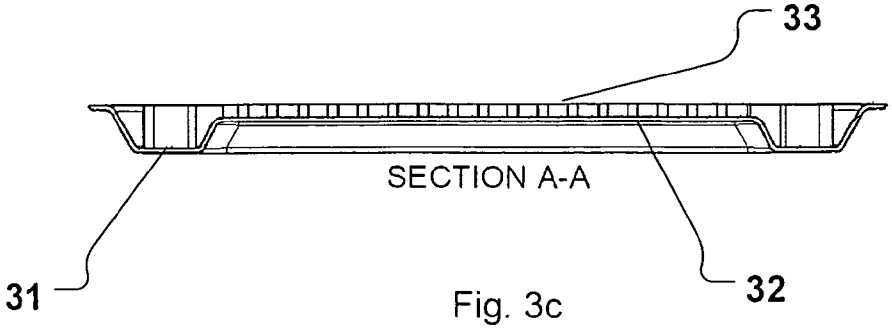

Fig. 3c

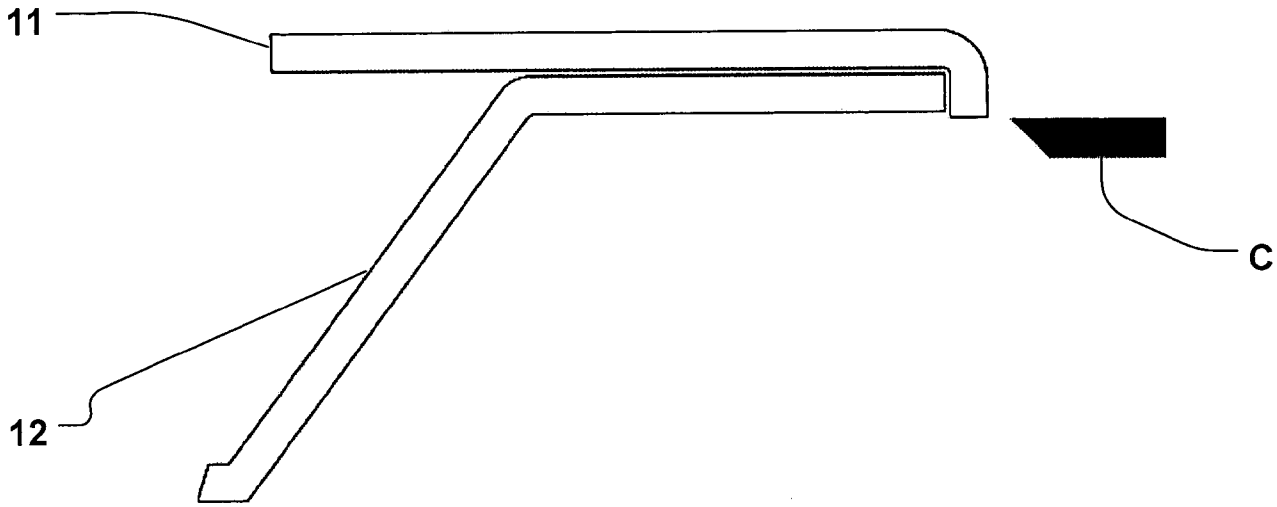

Fig. 4a

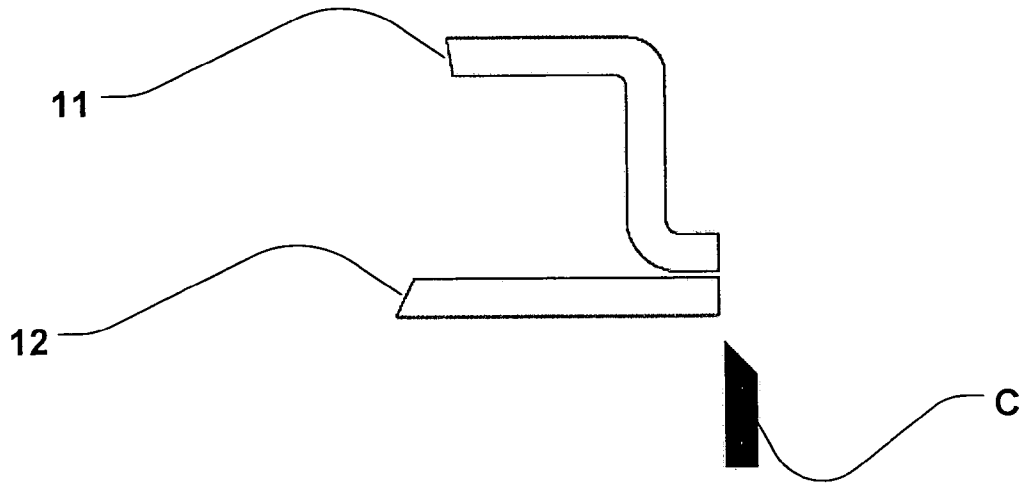

Fig. 4b

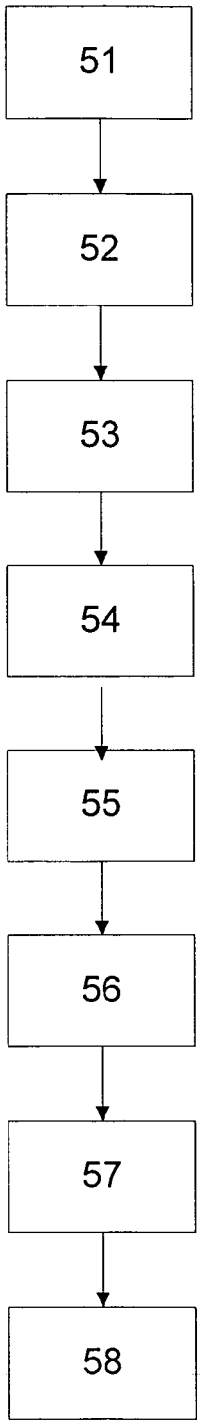

Fig. 5