



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
05.05.2010 Bulletin 2010/18

(51) Int Cl.:
A47L 15/50 (2006.01)

(21) Application number: **08019219.8**

(22) Date of filing: **03.11.2008**

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

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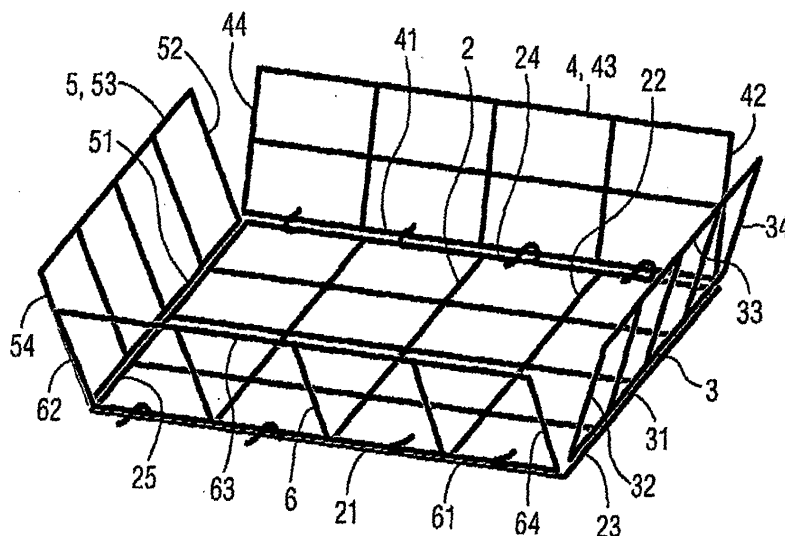
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(54) **Foldable basket, especially foldable dishwasher basket**

(57) The invention relates to a foldable basket (1), especially foldable dishwasher basket, comprising
a) a, particularly at least substantially rectangular, base mesh (2) and
b) at least two, in particular four, foldable, bendable or hinged side meshes (3, 4, 5, 6),
c) wherein each foldable, bendable or hinged side mesh (3, 4, 5, 6) is rotatably, preferably by at least one hinge

element, foldably or bendably connected or connectable to the base mesh (2),
d) wherein each side mesh (3) comprises, based on an upright orientation of the side mesh (3), an upper edge,
e) wherein the side meshes are fixed in their upright orientation by at least one hooking element which is arranged at or at least near at least one upper edge of the side meshes.

FIG 4



Description

[0001] The invention relates to a foldable basket, especially a foldable dishwasher basket.

[0002] Many of the known baskets, especially dishwasher baskets, are made of a wire mesh, which is entirely manufactured and assembled by the basket suppliers. The appearance of such baskets is comparable to an open box, which means that they take up very much room and thus are quite expensive for transportation. Some other baskets are designed to be stackable, but in case of dishwasher baskets it is, in the most cases, impossible due to the various number of prongs and racks integrated inside the baskets.

[0003] DE 201 02 169 U1 discloses a basket, which is designated to hold the items to be washed in a dish washer for home use, especially with plates and glasses, and which comprises a bottom side and edges which consist of a large number of bars.

[0004] IT 53045 discloses a dishwasher basket comprising a base mesh embossed in plastic and reinforced by steel bars, lateral wings of the same mesh type and hinged to the four sides of the base mesh.

[0005] DE 10 2004 060 951 A1 discloses a dishwasher basket for a dishwasher with a base frame, consisting of a base plane with an edge protruding upwards at at least one side, where the edge protruding upwards extends at least the height of the spikes of the dishwasher basket showing upwards and, eventually, the height of the dish parts arranged in at least one dish basket towards the top.

[0006] Thus, it is an object of the invention, to provide a basket design that allows flexibility and to reduce transportation costs.

[0007] This object is solved by a foldable basket according to claim 1. Advantageous embodiments are described especially in the dependent claims.

[0008] According to claim 1, the foldable basket, especially the foldable dishwasher basket, comprises

- a) a, particularly at least substantially rectangular, base mesh and
- b) at least two, in particular four, foldable, bendable or hinged side meshes,
- c) wherein each foldable, bendable or hinged side mesh is rotatably, preferably by at least one hinge element, foldably or bendably connected or connectable to the base mesh,
- d) wherein each side mesh comprises, based on an upright orientation of the side mesh, an upper edge,
- e) wherein the side meshes are fixed in their upright orientation by at least one hooking element which is arranged at or at least near at least one upper edge of the side meshes.

[0009] The foldable basket according to the invention allows to provide a basket design that allows flexibility and reduces transportation costs. For example, the foldable basket according to the invention needs less space

during storage and transportation, which saves costs, as storage and transportation costs depend on the required space. Furthermore, the foldable basket according to the invention can be unfolded at an largely arbitrary time, for example when mounting the basket into a dishwasher, so that it also has a high degree of flexibility.

[0010] Preferably, the foldable basket, especially at least one side mesh and/or the base mesh, comprises at least one wire, where the at least one wire is made out of metal, plastics or metal with a plastic coating or another material or combination of different materials. Preferably, the wire has a round, especially circular cross section.

[0011] Preferably, the hooking element is or comprises at least one fixation wire, wherein preferably the fixation wire is bent, preferably around 90°, wherein preferably the fixation wire has a first fixing element, preferably a hook, at its first end, wherein preferably the fixation wire has a second fixing element, preferably a hook or a clipping bow, at its second end for fixing a first side mesh and a second side mesh with each other. A fixation wire is at least relatively easy and cheap to produce and to handle, furthermore it at least substantially does not affect the functionality of the basket, for example as it at least normally needs only little space.

[0012] In an advantageous embodiment, the at least two side meshes comprise an upper side wire along their upper edges, where the at least two side meshes each comprise at least one vertical side wire extending, preferably perpendicularly, towards and/or beyond the upper side wire, wherein the upper side wire of the or a first side mesh is bent, preferably by 90°, at an outer end, wherein the upper side wire of the or a second side mesh is bent, preferably by 90°, at an outer end, so that, in the upright orientation, the bent upper side wire of the first side mesh and the bent upper side wire of the second side mesh are crossing, wherein the vertical side wire of the first side mesh is preferably arranged between the upper side wire of the first side mesh and the bent upper side wire end of the second side mesh, wherein the vertical side wire of the second side mesh is preferably arranged between the upper side wire of the second side mesh and the bent upper side wire end of the first side mesh to prevent the side meshes from falling onto the base mesh. This embodiment improves the stability of the basket, wherein no or at least not many additional parts are necessary.

[0013] Preferably, each side mesh comprises an upper side wire along its upper edge, wherein the upper side wire of the first side mesh has at least one hinged end, where a second side mesh comprises at least one vertical side wire extending, preferably perpendicularly, towards and/or beyond the upper side wire, wherein the hinged end is clippable over the vertical side wire of the second side mesh to fix the first side mesh and the second side mesh in their upright orientation. This embodiment improves the stability of the basket, wherein no or at least not many additional parts are necessary.

[0014] In an advantageous embodiment, the at least

one side mesh is held in its upright orientation by at least one snapping connection or clipping connection, wherein preferably at least one base wire or side wire is used as a snapping or clipping part. A snapping connection or clipping connection is an advantageous connection, as the parts, on the one hand are at least relatively easy to connect and, on the other hand, an at least relatively stable and/or durable connection is formed. Furthermore, it is normally at least relatively easy to separate the connection again.

[0015] Preferably, at least two side meshes are pushable over and/or into each other against a pre-tension at a mutual hooking point to form a mutual connection, wherein, in the mutual connection, the side meshes are mutually hooked under tension and/or wherein, in the mutual connection, the side meshes form a spring tension with respect to the base mesh, wherein the side meshes especially form an outwardly oriented tension, so that preferably the tension is usable for a rigid connection.

[0016] Preferably, the base mesh comprises

- a1) a first base wire at a first edge of the base mesh with a first base wire end,
 - a2) a second base wire which is perpendicular to the first base wire,
 - a3) a third base wire at a second edge opposite to the first edge of the base mesh which is parallel to the second base wire,
 - a4) wherein the third base wire is, with respect to the base mesh, arranged outwards with respect to the second base wire,
- wherein the at least one side mesh comprises
- b1) a first, lower side wire at a first, lower edge of the side mesh,
 - b2) a second side wire at a second edge of the side mesh,
 - b3) a third, upper side wire at a third, upper edge of the side mesh, parallel and opposite to the first side wire and perpendicular to the second side wire,
 - b3) a fourth side wire at a fourth edge of the side mesh, perpendicular to the first side wire and preferably parallel and opposite to the second side wire,

wherein preferably the foldable basket comprises at least a first and a second side mesh, wherein the first side mesh is, in an assembled state, at least substantially perpendicular with respect to the second side mesh and with respect to the base mesh and/or wherein preferably the first side wire of the first side mesh is rotatably or foldably or bendably connected to the third base wire of the base mesh.

[0017] In an advantageous embodiment, the side mesh comprises a lower side wire at its lower edge opposite to its upper edge, wherein the lower side wire is clippable over at least one base wire end to fix the side mesh in the upright orientation at the base mesh, wherein preferably a further base wire works as a fixation point

for the side mesh in its upright position and/or wherein preferably the lower side wire is fixed to another side wire extending perpendicularly towards or beyond the upper side wire,

d1) wherein preferably the other side wire is bent with an angle, especially at least substantially perpendicular and/or

d2) wherein preferably the other side wire has a hinged end which encompasses a or the further base wire which is preferably parallel to another base wire.

A connection wherein the lower side wire is clippable over at least one base wire can be produced at least relatively cost-saving, as normally, a smaller number of additional parts is necessary, as the used wires usually are existing anyway so that they preferably only have to be arranged in a different way.

[0018] Preferably, the foldable basket comprises four side meshes,

wherein at least two side meshes, especially on opposite sides of the base mesh, are bendably connected with the base mesh and/or

wherein at least two side meshes, especially on the remaining opposite sides of the base mesh, are rotatably connected to the base mesh. A bendable connection can establish a very stable connection, as usually, the at least one connecting element is a part which is fixed in both meshes.

On the other hand, with a rotatable connection, the angle between the meshes can normally be adjusted very precisely, which can allow a very accurate manufacturing.

[0019] In an advantageous embodiment, at least two side meshes are arranged or arrangeable at least substantially in the same plane as the base mesh, preferably for storing or transporting, or angular with respect to the base mesh. This can help to reduce the transportation costs further, as the height of the package for the basket can be at least relatively low.

[0020] Preferably, the rotatable connection between the base mesh and the at least one side mesh is realized by a first and a second group of hinges, wherein the first group of hinges comprises hinges which are open to the inside and the second group of hinges comprises hinges which are open to the outside of the base mesh. This can allow an easy manufacturing of the basket, as the side mesh can be fixed to the base mesh by a rotating movement around a vertical axis in the upright orientation of the side mesh.

[0021] In an advantageous embodiment, at least one side mesh comprises at least one side wire extending, preferably perpendicularly, towards and/or beyond the upper edge of the side mesh, wherein the side wire of the side mesh comprises at least one hinged end, wherein the hinged end is hingable or hinged between two base wires within an at least substantially parallel section, wherein preferably the two base wires have along their at least substantially parallel section such a distance that

the hinged end fits in between them so that they form two stopping elements for the hinged end when arranged in the upright position, where the two base wires are preferably at least substantially directly adjacent to the hinged end on opposite sides. This embodiment also allows a manufacturing with at least relatively low costs, as, for the connection, no or at least not many additional parts are necessary.

[0022] The invention will now be described in further details with references to the schematical drawings in which

- FIG 1 shows a detail according to an embodiment of the invention,
- FIG 2 shows a detail relating to the embodiment in FIG 1,
- FIG 3 shows a detail of a further embodiment of a foldable basket according to the invention,
- FIG 4 shows basic elements of a basket,
- FIG 5a and 5b show a detail of an embodiment of the foldable basket according to the invention in a first state,
- FIG 6a and 6b show the detail according to FIG 5a and 5b in a second state,
- FIG 7 shows the detail according to figures 5a and 5b as well as 6a and 6b in a third state,
- FIG 8a, b, 9 show a detail of another embodiment of a foldable basket according to the invention,
- FIG 10 to 12 show a detail and a foldable basket according to another embodiment the invention and in which
- FIG 13a to 13d show another foldable basket according to the invention.

[0023] FIG 4 shows basic elements of a basket, especially of a dishwasher basket. The basket comprises a base mesh 2 and four side meshes 3 to 6.

[0024] The base mesh 2 comprises at its first edge or edge area a first base wire 21. At its second edge, which is perpendicular to the first base wire 21, a third base wire 23 is arranged. At its third edge; which is perpendicular to the second base wire 23 and opposed to the first base wire 21, a forth base wire 24 is arranged. At its forth edge, which is perpendicular to the forth base wire 24 and opposed to the third base wire 23, a fifth base wire 25 is arranged. In addition, a second base wire 22

is arranged between and parallel to the third base wire 23 and the fifth base wire 25.

[0025] The first side mesh 3 comprises at its first edge or edge area a first side wire 31. The first side wire 31 is the lower side wire and forms the lower edge of the side mesh, at least when the side mesh is in an upright orientation. At its second edge, which is perpendicular to the first side wire 31, a second side wire 32 is arranged. At its third edge, which is perpendicular to the second side wire 32 and opposed to the first side wire 31, a third side wire 33 is arranged. The third side wire 33 is the upper side wire and forms the upper edge of the side mesh, at least when the side mesh is in an upright orientation. At its forth edge, which is perpendicular to the third side wire 33 and opposed to the second side wire 32, a forth side wire 34 is arranged.

[0026] Correspondingly, the second side mesh 4 comprises at its first edge or edge area a first side wire 41. At its second edge, which is perpendicular to the first side wire 41, a second side wire 42 is arranged. At its third edge, which is perpendicular to the second side wire 42 and opposed to the first side wire 41, a third side wire 43 is arranged. At its forth edge, which is perpendicular to the third side wire 43 and opposed to the second side wire 42, a forth side wire 44 is arranged.

[0027] Correspondingly, the third side mesh 5 comprises at its first edge or edge area a first side wire 51. At its second edge, which is perpendicular to the first side wire 51, a second side wire 52 is arranged. At its third edge, which is perpendicular to the second side wire 52 and opposed to the first side wire 51, a third side wire 53 is arranged. At its forth edge, which is perpendicular to the third side wire 53 and opposed to the second side wire 52, a forth side wire 54 is arranged.

[0028] The forth side mesh 6 comprises at its first edge or edge area a first side wire 61. At its second edge, which is perpendicular to the first side wire 61, a second side wire 62 is arranged. At its third edge, which is perpendicular to the second side wire 62 and opposed to the first side wire 61, a third side wire 63 is arranged. At its forth edge, which is perpendicular to the third side wire 63 and opposed to the second side wire 62, a forth side wire 64 is arranged.

[0029] When the basket is assembled, the four side meshes 3 to 6 are in their upright positions, whereas the base mesh 2 is in a horizontal position.

[0030] The first side wire 31 of the first side mesh 3, which is horizontal and the lowest side wire in the upright, assembled position of the first side mesh 3 is arranged near or next to the third base wire 23.

[0031] The first side wire 41 of the second side mesh 4, which is horizontal and the lowest side wire in the upright, assembled position of the second side mesh 4 is arranged near or next to the forth base wire 24.

[0032] The first side wire 51 of the third side mesh 5, which is horizontal and the lowest side wire in the upright, assembled position of the third side mesh 5 is arranged near or next to the fifth base wire 25.

[0033] The first side wire 61 of the forth side mesh 6, which is horizontal and the lowest side wire in the upright, assembled position of the forth side mesh 6 is arranged near or next to the first base wire 21.

[0034] The third side wires 33, 43, 53 and 53 of the side meshes 3 to 6 are horizontal and the highest side wires of the respective side meshes in their upright positions.

[0035] The second side wires 32, 42, 52 and 52 as well as the forth side wires 34, 44, 54 and 54 of the side meshes 3 to 6 are vertical in their upright positions.

[0036] FIG 1 and 2 show an embodiment of the invention, comprising a base mesh 2 and the side meshes 3 and 4, wherein from side mesh 3, the parallel outer side mesh 34 and inner side mesh 374 and its perpendicular upper side mesh 33 are shown. Furthermore, from side mesh 4, the parallel outer side mesh 42 and inner side mesh 471 and its perpendicular upper side mesh 43 are shown.

[0037] The third side wire 33 of the first side mesh 3 has an end portion 332 which is bent inwards around at least substantially 90° with respect to the third side wire 33. Similarly, the third side wire 43 of the second side mesh 4 has a bent end 432, which is also bent around 90°.

[0038] An angled part 71 can be clipped with its hinged ends 712 and 711 around the forth side wire 34 of the side mesh 3 and the second side wire 42 of the side mesh 4 to hold the side meshes in their upright position.

[0039] The angled part 71 is formed like an angled wire and comprises three at least substantially straight wire sections 713, 714 as well as 715, where the section 713 is at least substantially rectangular with respect to the section 715. The ends of section 714 are connected with the ends of sections 713 and 715 in an angle of about 45°.

[0040] The section 713 has another, hinged end 712, whereas the section 715 has another, hinged end 711.

[0041] The hinged end 711 can be clipped over the inner side wire 471 of the side mesh 4 and the second end 712 can be clipped over the inner side wire 374 of side mesh 3, when both side meshes 3 and 4 are in their upright positions.

[0042] FIG 2 shows again, as a detail, a third side wire 33 of the first side mesh 3 which has an end portion 332 bend by 90°. Similarly, the third side wire 43 of the second side mesh 4 has a bent end 432, which is also bent around 90°.

[0043] In the assembled position, the forth side wire 34 of the first side mesh 3 is arranged between the third side wire 33 of the first side mesh 3 and, in parallel, the end portion 432 of the third side wire 43 of the side mesh 4. Similarly, the side mesh 42 is arranged between the side wire 43 of the side mesh 4 and, also in parallel, the end portion 332 of the third side wire 33 of the side mesh 3.

[0044] Corresponding angled parts can be clipped over the other upper three edges of the basket.

[0045] FIG 3 shows another embodiment of a foldable basket according to the invention, wherein the upper side

wires 33, 43, 53 and 63 of the side meshes 3 to 6 can be seen.

[0046] Furthermore, the side wires 32 and 34, 42 and 44, 52 and 54 as well as 62 and 64 are shown which are perpendicular and outwards with respect to the respective corresponding upper side wire and which are protruding away from the not shown base mesh 2.

[0047] The upper, third side wire 33 of the first side mesh 3 comprises two looped ends 332 and 333 which are curved inwardly as a half-circle. Correspondingly, the third, upper side wire 53 of the opposite side mesh 5 comprises two looped ends 532 and 533 which are also curved inwardly as a half-circle.

[0048] For holding the side meshes in their upright positions, the looped end 332 of the third side wire 33 of the first side mesh 3 is clippable over the upper end area of the second side wire 42 of the second side mesh 4. Correspondingly, the looped end 333 of the third side wire 33 of the first side mesh 3 is clippable over the end area of the forth side wire 64 of the side mesh 6.

[0049] At the opposite side mesh 5, the looped ends 532 and 533 of the third side wire 53 are clippable over the upper end area of the forth side wire 44 of the second side mesh 4 and the upper end area of the second side wire 62 of the second side mesh 6.

[0050] The side meshes 3 and 4 are pushable over and/or into each other against a pre-tension at the side mesh 42 which works as a mutual hooking point to form a mutual connection between side meshes 3 and 4. In the mutual connection, the side meshes 3 and 4 are mutually hooked under tension, which is counterpressed by the connection between the looped side wire 332 and the side wire 42. In other words, in the mutual connection, the side meshes 3 and 4 form a spring tension with respect to the base mesh 2, wherein the side meshes 3 and 4 form an outwardly oriented tension, so that the tension is usable for a rigid connection. A corresponding connection is existing between the side meshes 3 and 6, 6 and 5 as well as between the side meshes 5 and 4.

[0051] FIG 5a to 7 show details of a foldable basket according to the invention. The figures show a part of a base mesh 2 and a part of a side mesh 3 which are in communication with each other. The base mesh 2 comprises a first base wire 21 which is perpendicular to a second base wire 22 and a third base wire 23. The base wires 22 and 23 are parallel to each other, whereas the third base wire 23 is, with respect to the not shown center of the base mesh 2, arranged outwards relative to the second base wire 22.

[0052] The side mesh 3 comprises a first side wire 31, which is perpendicular to a second side wire 32. The second side wire 32 comprises two segments 323 and 324 between which a bending 325 with an angle of about 90° is arranged. The bending 325 surrounds the first side wire 31.

[0053] The segment 323 has a hinged end 321 which encompasses the second base wire 22 when it is hooked over the second base wire 22.

[0054] Also, a forth side wire 34 which is parallel to the second side wire 32 can be seen in FIG 5a, where the forth side wire 34 is of the same form as the second side wire 32. Consequently, it also comprises a looped end 341 which also encompasses the second base wire 22 when it is hooked over the second base wire 22.

[0055] However, in the upright position of the side mesh 3, the lower side wire 31 does not necessarily need to be directly adjacent to base wire 23. Alternatively, base wire 23 can be located closer to base wire 22 as well. Base wire 22 works as a vertical fixation point for the side mesh 3, it guarantees and/or enables the horizontal position of side wire 323. For the stability of the solution it is helpful that base wire 23 is as distant as possible from base wire 22, so that the lever formed by side wire 32 is as long as possible.

[0056] However, wire 31 does not necessarily need to be bent around wire 31. The position of wire 31 regarding wire 324 is at least substantially depending on the geometry of wire end 211. It needs to be in the right position to be able to be clipped over wire end 211.

[0057] FIG 5a and FIG 5b show a part of the side mesh 3 in a position, where its hinged side wire ends 321 and 341 are not hinged over the second base wire 22 of the base mesh 2.

[0058] FIG 6a and FIG 6b show a part of the side mesh 3 in a position, where its hinged side wire ends 341 and, not shown, 321, are hinged over the second base wire 22 of the base mesh 2.

[0059] FIG 7 shows parts of the side mesh 3 in an upright position with respect to the base mesh 2.

[0060] To bring the side mesh 3 into the upright position, the first side wire 31 is clipped over the end portion 211 of the first base wire 21 and the end portion 241 of the forth base wire 24.

[0061] When the side wire ends 341, and not shown, 321, are hinged over the second base wire 22 of the base mesh 2, the first side wire 31 is arranged parallel and adjacent to the third base wire 23.

[0062] In a tilted position, after clipping the first side wire 31 over the end portion 211 of the first base wire 21 and the end portion 241 of the forth base wire 24, the first side wire 31 could be arranged with distance to the third base wire 23.

[0063] FIG 8a and 8b show a detail of another embodiment of a foldable basket according to the invention with a second side wire 32 of the side mesh 3 and a first base wire 21 of the base mesh 2 from the side of the base mesh 2. In addition, two parallel base wires 22 and 23 are shown, which are perpendicular with respect to the first base wire 21. The base wires 22 and 23 have a distance which is slightly more than the diameter of a side wire.

[0064] The second side wire 32 comprises a hooked end 322 which is formed similar like a question mark with its lower part merging onto the second side wire 32. The outer part of the hooked end 322 is curved nearly like a half circle where the end area of the hooked end 322 is

directed at least nearly perpendicular with respect to the second side wire 32.

[0065] The hooked end 322 is intended, when a connection with base mesh 2 is to be formed, to be rotated around the third side wire 23 of base mesh 2.

[0066] FIG 8a shows the second side wire 32 in parallel state with respect to the first base wire 21. In this state, the hooked end 322 can be hooked in between the second base wire 22 and the third base wire 23. Therefore, when the base wire 21 and the side wire 32 are pulled away from each other, the hooked end 322 will hold the two wires together. Substantially, in a translational movement, the side wire 32 can only be moved upwards with respect to the base mesh 2.

[0067] FIG 8b shows the second side wire 32 in perpendicular, upright state with respect to the first base wire 21. The hook 322 is now clamped between the second base wire 22 and the third base wire 23 which means that the side wire 32 can be moved translationally in neither direction, only a rotational movement is possible.

[0068] FIG 9 shows the arrangement according to FIG 8b from above the base mesh 2 where, as a further base wire, the forth base wire 24 can be seen which is parallel to the first base wire 21. Another base wire is arranged between the base wires 21 and 24.

[0069] Furthermore, the forth side wire 34 can be seen. It comprises, at its lower end, a hook 342 which is formed like the hook 322. The hook 342 is surrounding the base mesh 23 in the same manner like the hook 322.

[0070] FIG 10 shows a principle of another embodiment of the invention where the base mesh 2 is viewed from the side. It can be seen the first base mesh 21 and, perpendicular, the third base mesh 23. Furthermore, the perpendicular side wires 31 and 32 of side mesh 3 can be seen, where side wire 31 is parallel to base mesh 23.

[0071] Outwards of the end of base wire 21, a hook 212 is arranged. The hook 212 starts perpendicular to the first base wire 21 and bends inwards towards the base wire 21, where its outest end is bent into the opposite direction away from the first base wire 21.

[0072] The hook 212 grips around the side mesh 31 and therefore connects the base mesh 2 and the side mesh 3.

[0073] FIG 11 shows a partly assembled basket 1 according to the invention with a base mesh 2 and two separate side meshes 3 and 5 on opposite sides. The two remaining opposite side meshes 4 and 6 are connected integrally and bendably or foldably with the base mesh 2.

[0074] The opposite side meshes 3 and 5 are connected with the base mesh 2 by hooks 233 to 236 and well as 253 to 256, respectively.

[0075] Between side mesh 5 and base mesh 2, a first group 253, 254 of hinges are fixed to the fifth base wire 25 whose openings are oriented to the inside of the base mesh 2. The hinges are formed similar like the hinge 212 shown in FIG 10.

[0076] Furthermore, a second group 255 and 256 of hinges is arranged besides the first group of hinges

whose openings are oriented to the outside of the base mesh 2.

[0077] Correspondingly, between side mesh 3 and base mesh 2, a first group 233, 234 of hinges is fixed to the third base wire 23 whose openings are oriented to the outside of the base mesh 2. Furthermore, a second group 235 and 236 of hinges is arranged beside the first group of hinges whose openings are oriented to the inside of the base mesh 2.

[0078] For connecting the base mesh 2 and the side mesh 3, the side mesh 3 is rotated with respect to base mesh 2. The side mesh 3 is positioned with upright orientation with the center of the first, lower side wire 31 over the center of base wire 23, where side wire 31 is rotated with respect to base wire 23 around a rotation axis M which is extending upwardly through the center of side mesh 3.

[0079] After positioning side mesh 3 in such a way, it is rotated clockwise when viewed from above so that the section 311 of side mesh 31 which extends from the rotation axis M to a first end beyond the hooks 233 and 234 is turned inwardly into the hooks 233 and 234 from outwards and the section 312 of side mesh 31 which extends from the rotation axis M to a second end beyond the hooks 235 and 236 is turned outwardly into the hooks 235 and 236 from inwards.

[0080] The side mesh 5 and the base mesh 2 are connected in the same way.

[0081] FIG 12 shows a part of the base mesh 2 according to FIG 11 with parts of the side meshes 3 and 6 and hinges 233 and 234.

[0082] FIG 13a to 13d show another embodiment of a foldable basket 1 which is, in FIG 13d, stapled with two other baskets 1' and 1".

[0083] FIG 13a shows a base mesh 2 and four side meshes 3 to 6 wherein the four side meshes 3 to 6 are arranged in a transporting and/or storing orientation. The four side meshes 3 to 6 are in the same plane as the base mesh 2.

[0084] FIG 13b shows the foldable basket 1 in an unassembled state, where base 2 and side meshes 3 to 6 are already connected and each side mesh 3 to 6 is tilted with respect to the base mesh 2 from the upright position with an angle of about 30°.

[0085] To assemble the basket 1, the side meshes 3 to 6 are bent into their upright position, which is shown in FIG 13c.

[0086] FIG 13d shows three unassembled baskets 1, 1' and 1" in a stapled state. Each basket 1, 1', 1" has its side meshes 3 to 6 tilted with respect to the base mesh 2 from the upright position with an angle of about 30° so that the baskets can be stapled easily and space-savingly.

Reference Signs

[0087]

1	dishwasher basket
2	base mesh
21	first base wire
211, 212	first base wire end
5 22	second base wire
23	third base wire
233-236	loops
237	cylindric opening
24	forth base wire
10 241	forth base wire end
25	fifth base wire
253-256	loops
3	side mesh
15 31	first side wire
318	rectangular leg
32	second side wire
321, 322	hinged second side wire end
323, 324	second side wire segments
20 325, 326	bendings
33	third side wire
331	hinged third side wire end
332, 333	looped third side wire end
34	forth side wire
25 341, 342	hinged forth side wire end
371 to 374	side wires
4	side mesh
41	first side wire
30 42	second side wire
43	third side wire
431	third side wire end
432	bent third side wire end
471 to 474	side wires
35 5, 6	side meshes
52	second side wire
54	forth side wire
546	bending
40 571 to 574	side wires
671 to 674	side wires
71	angled part
711, 712	angled part ends
45 713 to 715	angled part sections

Claims

- 50 1. Foldable basket (1), especially foldable dishwasher basket, comprising
- a) a, particularly at least substantially rectangular, base mesh (2) and
- b) at least two, in particular four, foldable, bendable or hinged side meshes (3, 4, 5, 6),
- c) wherein each foldable, bendable or hinged side mesh (3, 4, 5, 6) is rotatably, preferably by

at least one hinge element, foldably or bendably connected or connectable to the base mesh (2),
 d) wherein each side mesh (3) comprises, based on an upright orientation of the side mesh (3), an upper edge,
 e) wherein the side meshes are fixed in their upright orientation by at least one hooking element which is arranged at or at least near at least one upper edge of the side meshes.

2. Foldable basket according to claim 1,

a) wherein the hooking element is or comprises at least one fixation wire (71),
 b) wherein preferably the fixation wire (71) is bent, preferably around 90°,
 c) wherein preferably the fixation wire (71) has a first fixing element, preferably a hook, at its first end (711),
 d) wherein preferably the fixation wire (71) has a second fixing element, preferably a hook or a clipping bow, at its second end (712) for fixing a first side mesh (3) and a second side mesh (4) with each other.

3. Foldable basket according to one of the preceding claims,

a) wherein the at least two side meshes (3) comprise an upper side wire along their upper edges,
 b) where the at least two side meshes (3) each comprise at least one vertical side wire (371 to 374) extending, preferably perpendicularly, towards and/or beyond the upper side wire,
 c) wherein the upper side wire (33) of the or a first side mesh (3) is bent, preferably by 90°, at an outer end (332),
 d) wherein the upper side wire (43) of the or a second side mesh (4) is bent, preferably by 90°, at an outer end (432),
 e) so that, in the upright orientation, the bent upper side wire (33) of the first side mesh (3) and the bent upper side wire (43) of the second side mesh (4) are crossing,
 f) wherein the vertical side wire (34) of the first side mesh (3) is preferably arranged between the upper side wire (33) of the first side mesh (3) and the bent upper side wire end (432) of the second side mesh (4),
 g) wherein the vertical side wire (42) of the second side mesh (4) is preferably arranged between the upper side wire (43) of the second side mesh (4) and the bent upper side wire end (332) of the first side mesh (3)
 h) to prevent the side meshes from falling onto the base mesh (2).

4. Foldable basket according to one of the preceding

claims,

a) wherein each side mesh (3) comprises an upper side wire along its upper edge,
 b) wherein the upper side wire (33) of the first side mesh (3) has at least one hinged end (332),
 c) where a second side mesh (3) comprises at least one vertical side wire (42, 64) extending, preferably perpendicularly, towards and/or beyond the upper side wire,
 d) wherein the hinged end (332) is clippable over the vertical side wire (42) of the second side mesh (4) to fix the first side mesh (3) and the second side mesh (4) in their upright orientation.

5. Foldable basket according to one of the preceding claims,

a) wherein the at least one side mesh (3, 4, 5, 6) is held in its upright orientation by at least one snapping connection or clipping connection,
 b) wherein preferably at least one base wire or side wire (31) is used as a snapping or clipping part.

6. Foldable basket according to one of the preceding claims,

a) wherein at least two side meshes (3, 4, 5, 6) are pushable over and/or into each other against a pre-tension at a mutual hooking point to form a mutual connection,
 b) wherein, in the mutual connection, the side meshes (3, 4, 5, 6) are mutually hooked under tension and/or
 c) wherein, in the mutual connection, the side meshes (3, 4, 5, 6) form a spring tension with respect to the base mesh (2), wherein the side meshes especially form an outwardly oriented tension, so that preferably the tension is usable for a rigid connection.

7. Foldable basket according to one of the preceding claims,

a) wherein the base mesh (2) comprises

a1) a first base wire (21) at a first edge of the base mesh (2) with a first base wire end (211),
 a2) a second base wire (22) which is perpendicular to the first base wire (21),
 a3) a third base wire (23) at a second edge opposite to the first edge of the base mesh (2) which is parallel to the second base wire (22),
 a4) wherein the third base wire (23) is, with respect to the base mesh (2), arranged out-

- wards with respect to the second base wire (22),
- b) wherein the at least one side mesh (3) comprises
- b1) a first, lower side wire (31) at a first, lower edge of the side mesh (3),
- b2) a second side wire (32) at a second edge of the side mesh (3),
- b3) a third, upper side wire (33) at a third, upper edge of the side mesh, parallel and opposite to the first side wire (31) and perpendicular to the second side wire (32),
- b3) a fourth side wire (34) at a fourth edge of the side mesh, perpendicular to the first side wire (31) and preferably parallel and opposite to the second side wire (32),
- c) wherein preferably the foldable basket comprises at least a first (3) and a second (4) side mesh, wherein the first side mesh (3) is, in an assembled state, at least substantially perpendicular with respect to the second side mesh (4) and with respect to the base mesh (2) and/or
- d) wherein preferably the first side wire (31) of the first side mesh (3) is rotatably or foldably or bendably connected to the third base wire (23) of the base mesh (2).
8. Foldable basket according to one of the preceding claims,
- a) wherein the side mesh comprises a lower side wire (31) at its lower edge opposite to its upper edge,
- b) wherein the lower side wire (31) is clippable over at least one base wire end (211) to fix the side mesh in the upright orientation at the base mesh (2),
- c) wherein preferably a further base wire (22) works as a fixation point for the side mesh (3) in its upright position and/or
- d) wherein preferably the lower side wire (31) is fixed to another side wire (32) extending perpendicularly towards or beyond the upper side wire (33),
- d1) wherein preferably the other side wire (32) is bent with an angle, especially at least substantially perpendicular and/or
- d2) wherein preferably the other side wire (32) has a hinged end (321) which encompasses a or the further base wire (22) which is preferably parallel to another base wire (23).
9. Foldable basket according to one of the preceding
- claims,
- a) wherein the foldable basket (1) comprises four side meshes (3, 4, 5, 6),
- b) wherein at least two side meshes (4, 6), especially on opposite sides of the base mesh (2), are bendably connected with the base mesh (2) and/or
- c) wherein at least two side meshes (3, 5), especially on the remaining opposite sides of the base mesh (2), are rotatably connected to the base mesh.
10. Foldable basket according to one of the preceding claims, wherein at least two side meshes (4, 6), are arranged or arrangeable
- a) at least substantially in the same plane as the base mesh (2), preferably for storing or transporting, or
- b) angular with respect to the base mesh (2).
11. Foldable basket according to one of the preceding claims,
- a) wherein the rotatable connection between the base mesh (2) and the at least one side mesh (3, 5) is realized by a first (253, 254) and a second group (255, 256) of hinges,
- b) wherein the first group of hinges (253, 254) comprises hinges which are open to the inside and the second group of hinges (255, 256) comprises hinges which are open to the outside of the base mesh (2).
12. Foldable basket according to one of the preceding claims,
- a) wherein at least one side mesh (3) comprises at least one side wire (32, 34) extending, preferably perpendicularly, towards and/or beyond the upper edge of the side mesh (3),
- b) wherein the side wire (32) of the side mesh (3) comprises at least one hinged end (322),
- c) wherein the hinged end (322) is hingable or hinged between two base wires (22, 23) within an at least substantially parallel section,
- d) wherein preferably the two base wires (22, 23) have along their at least substantially parallel section such a distance that the hinged end (322) fits in between them so that they form two stopping elements for the hinged end (322) when arranged in the upright position, where the two base wires (22, 23) are preferably at least substantially directly adjacent to the hinged end (322) on opposite sides.

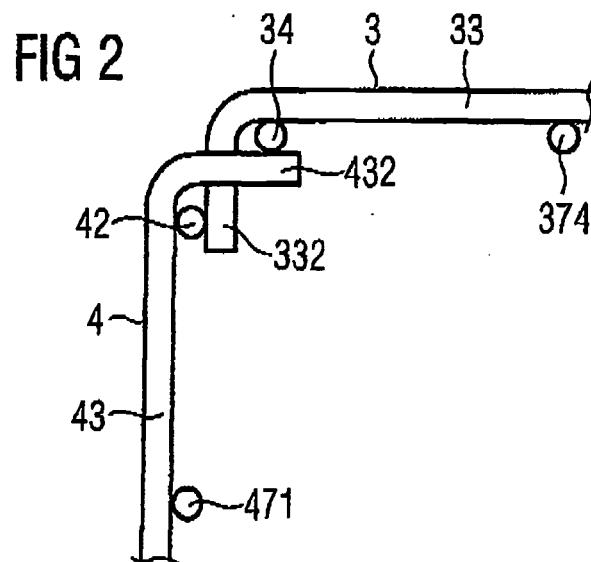
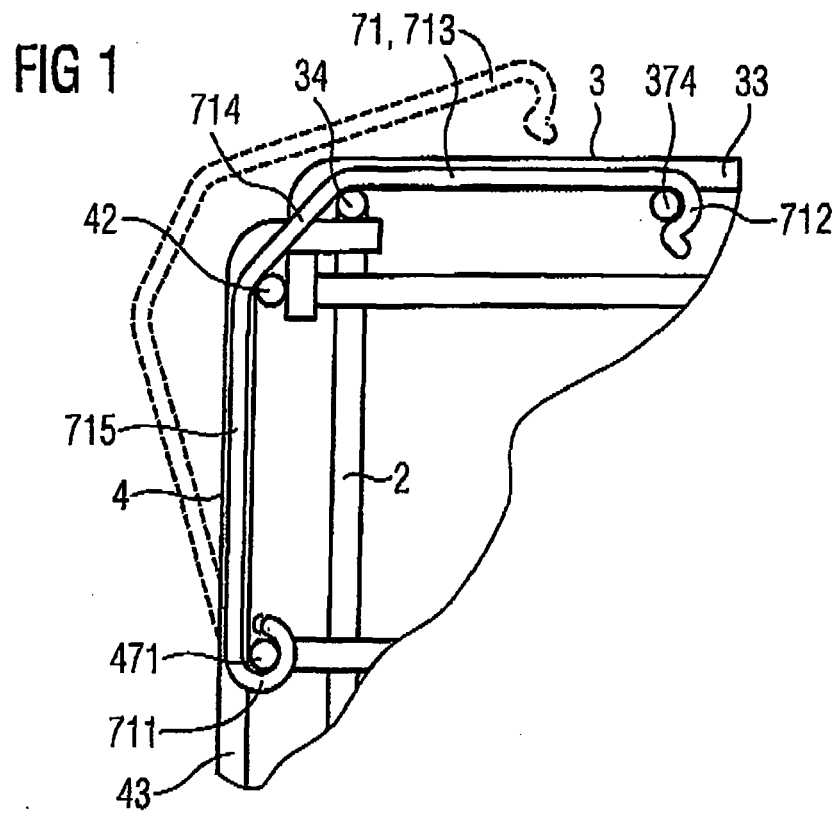


FIG 3

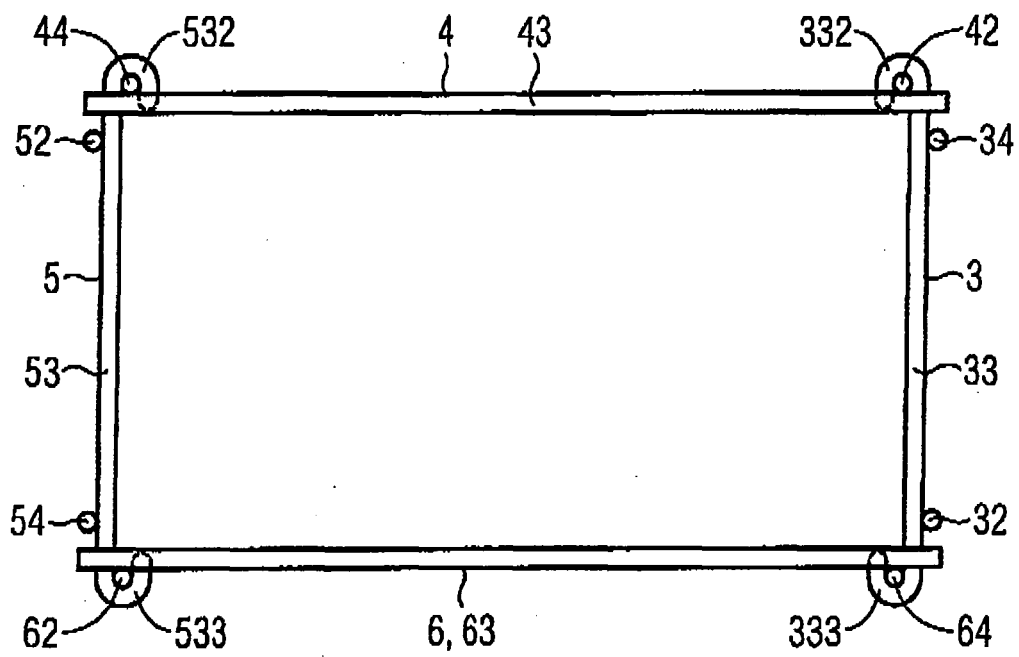


FIG 4

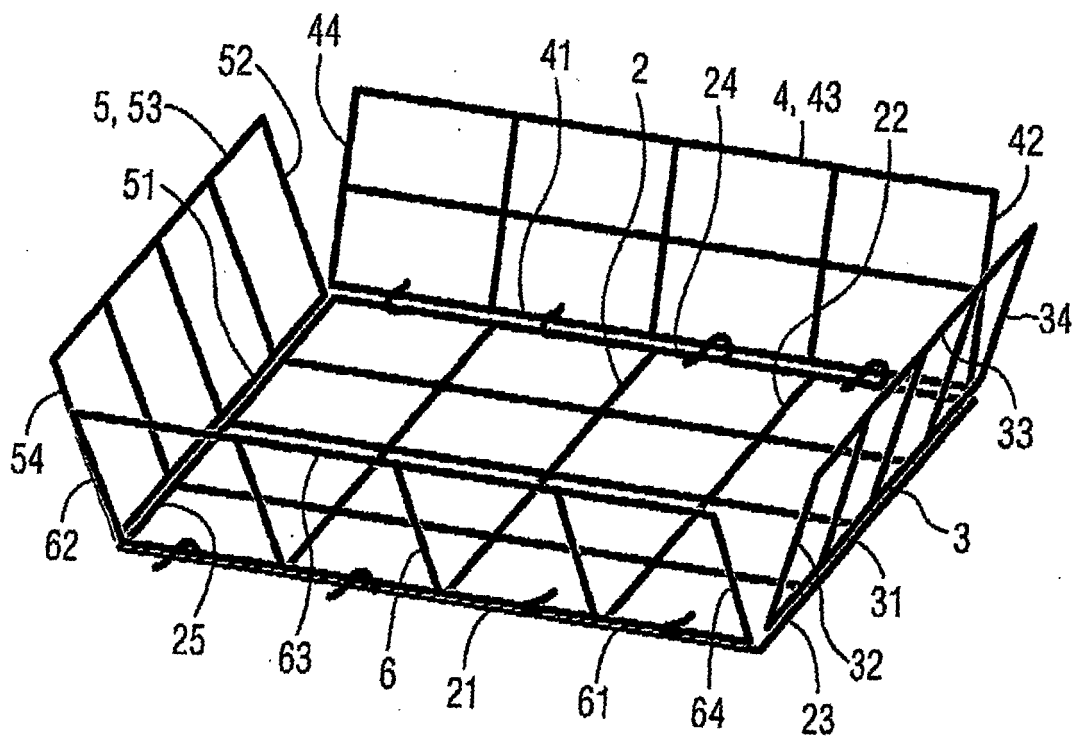


FIG 5a

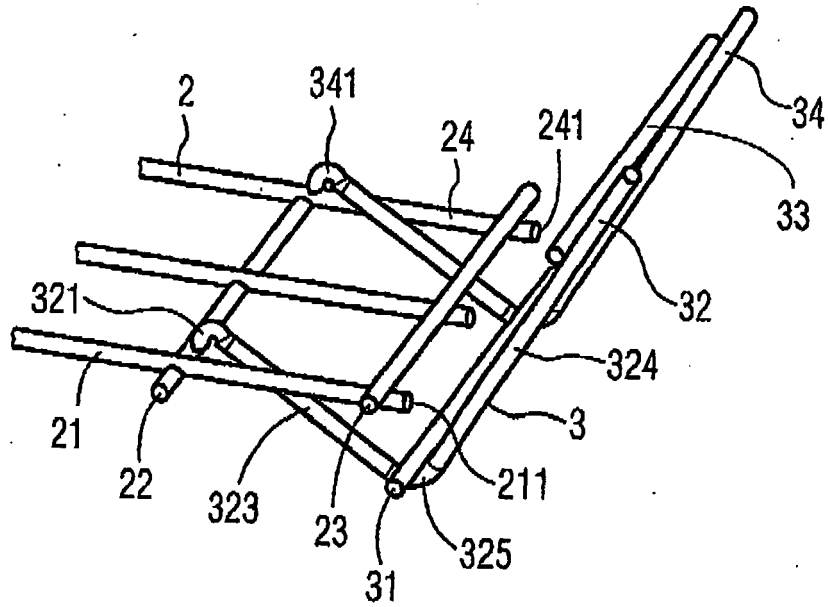


FIG 5b

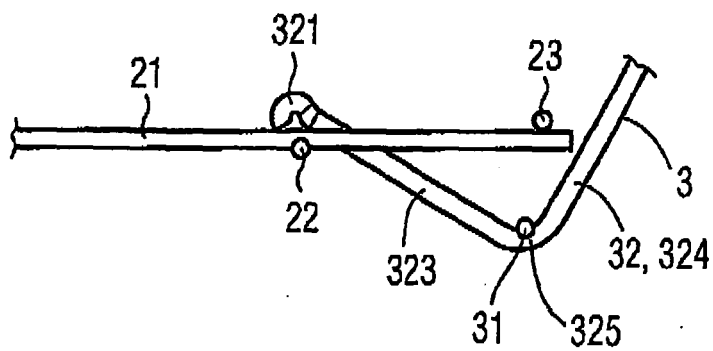


FIG 6a

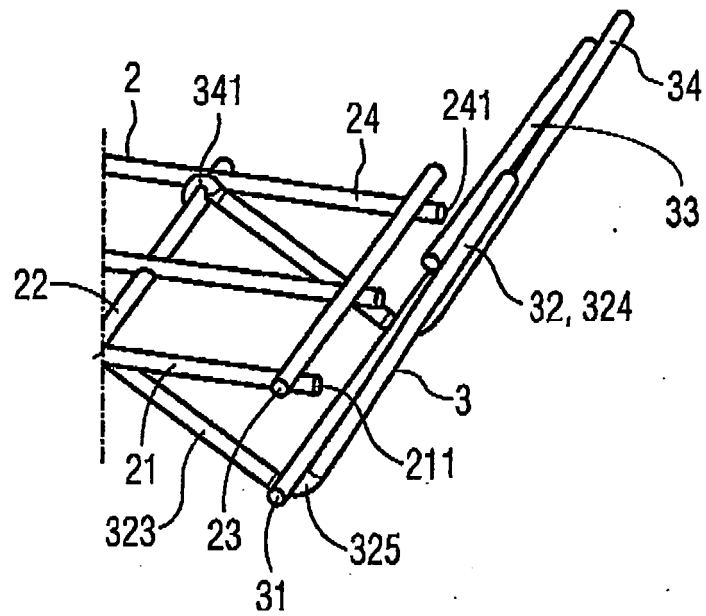


FIG 6b

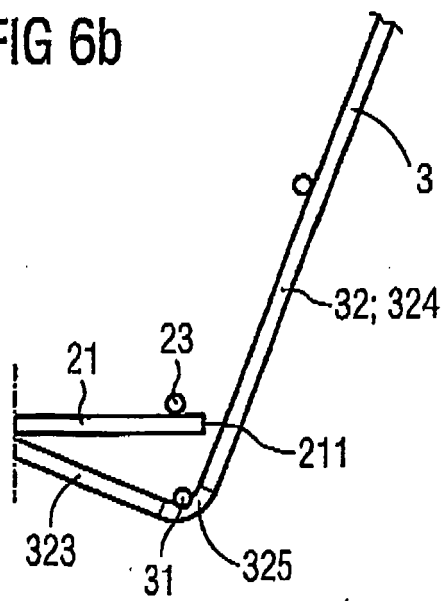
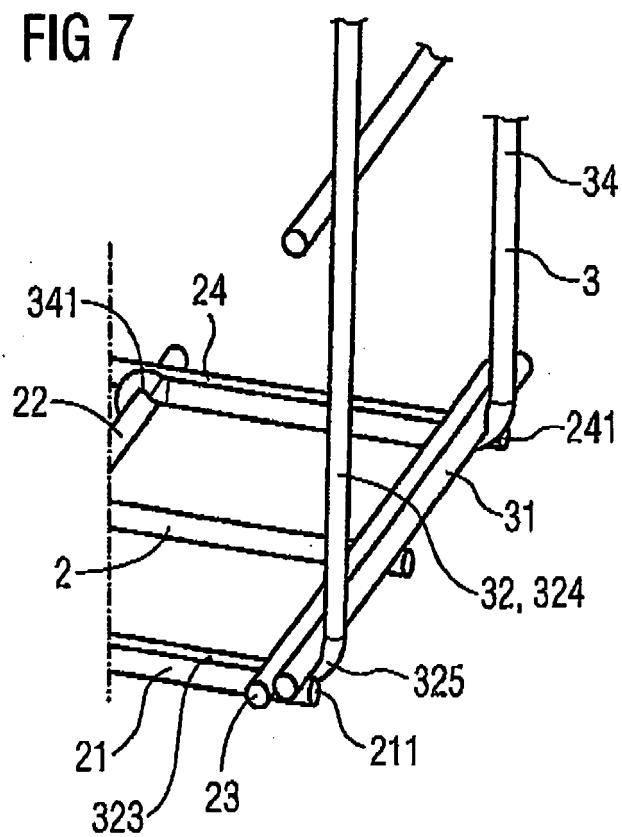


FIG 7



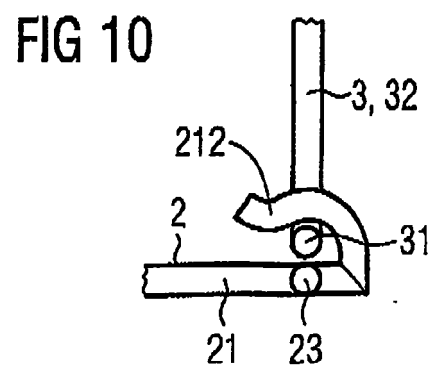
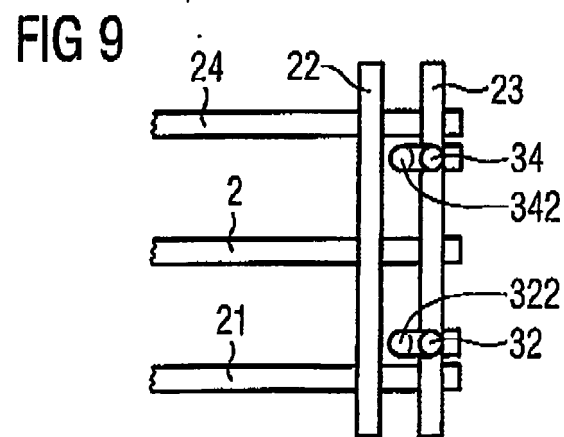
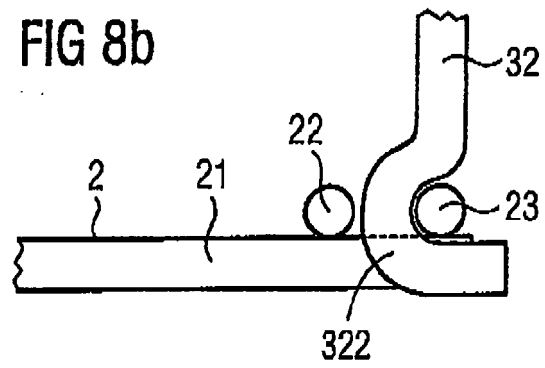
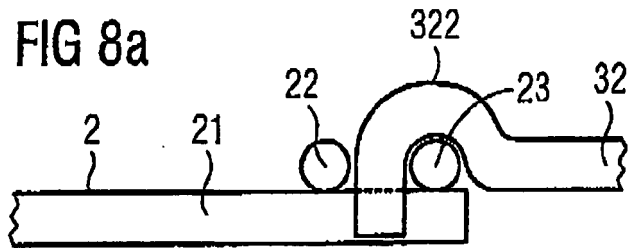


FIG 11

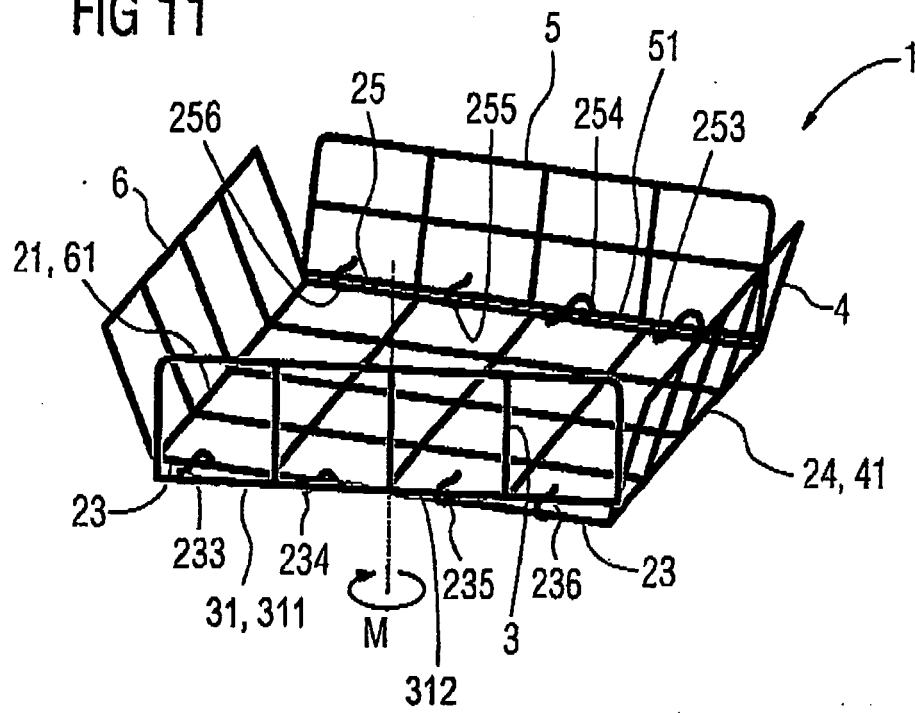
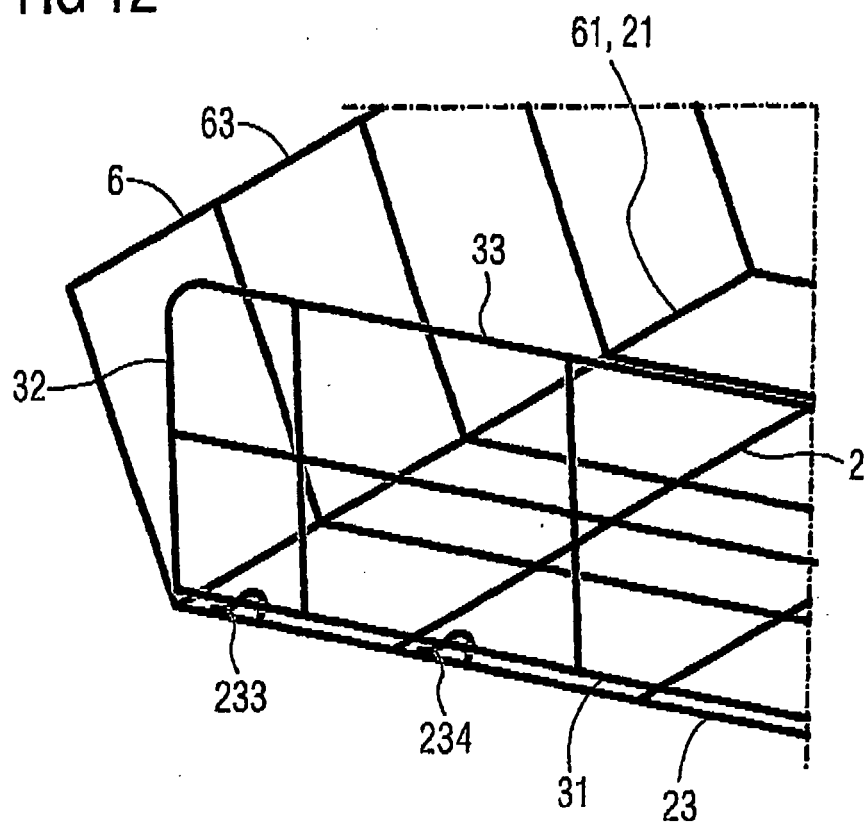
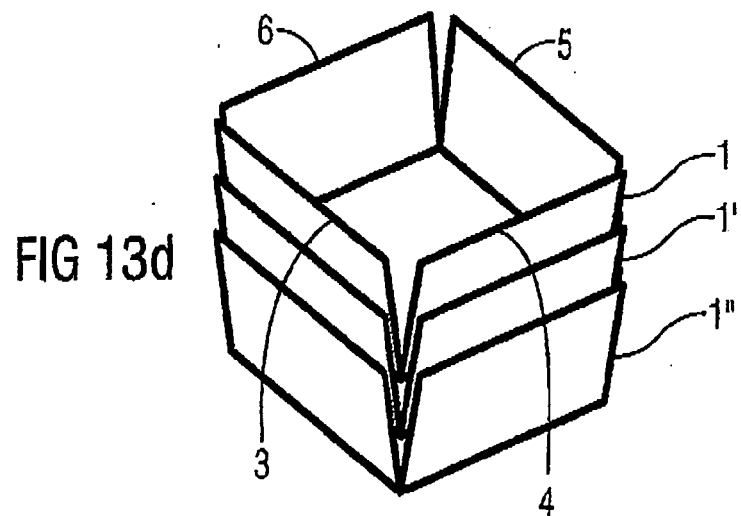
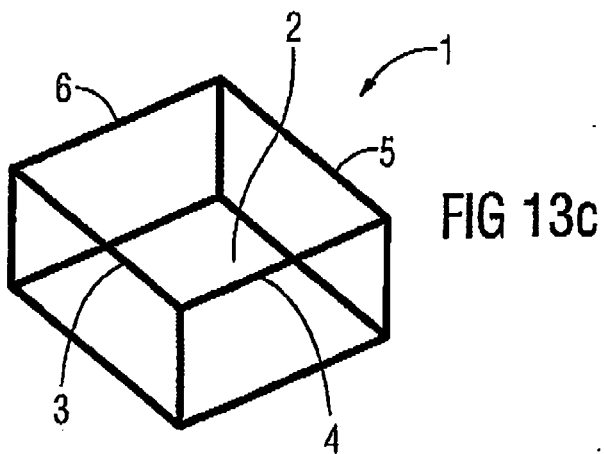
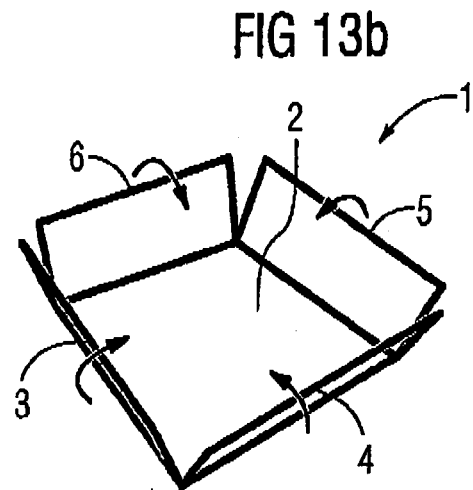
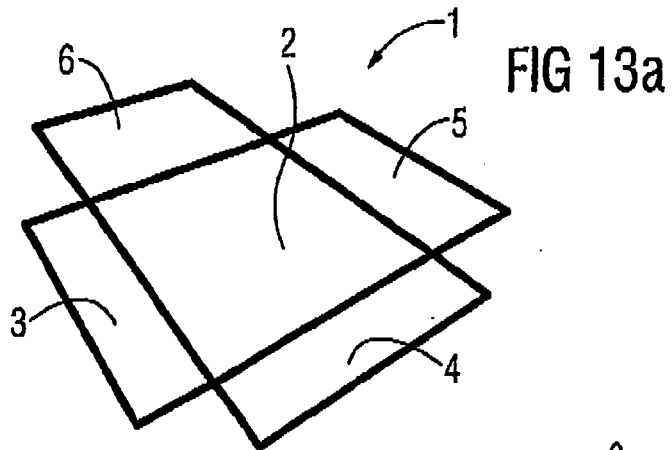


FIG 12







EUROPEAN SEARCH REPORT

Application Number
EP 08 01 9219

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 332 105 A (STANFIELD JOHN [US]) 26 July 1994 (1994-07-26)	1,9,10	INV. A47L15/50
A	* column 4, line 27 - line 41; figures 1,4 *	2-8,11,12	
A	----- US 2005/000554 A1 (CURRAN JESSE ALLEN [US]) 6 January 2005 (2005-01-06) * paragraph [0046] - paragraph [0049]; figure 16 *	1-12	
D,A	----- DE 10 2004 060951 A1 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 29 June 2006 (2006-06-29) * paragraph [0041] - paragraph [0042]; figures 3,7 *	1-12	
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			A47L
Place of search		Date of completion of the search	Examiner
Munich		15 May 2009	Clarke, Alister
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 01 9219

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The members are as contained in the European Patent Office EDP file on
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15-05-2009

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