Assembly, comprising an element (2) defining a lying or support surface, such as a foam layer forming a core of a mattress, and a device (3) associated with the element (2) for adapting the form of the lying or support surface in waves, wherein the device (2) comprises at least one selectively expandable and/or compressible body. The body (3) is further embedded in or arranged under a part of the element (2) which is lower-lying during use and has above it at least a greater part of the thickness of the element (2). The body (3) acts on a wave part of the element (2) so as to selectively bring about waves in the lying or support surface, which wave part is connected via a hinged configuration to other parts of the element (2).
ASSEMBLY FOR ADAPTING A SUPPORT SURFACE IN A WAVE SHAPE

[0001] The present invention relates to an assembly of an element defining a lying or support surface, such as a foam layer forming a core of a mattress, and a device associated with the element for adapting the form of the lying or support surface in waves, wherein the device comprises at least one selectively expandable and/or compressible body.

[0002] In known mattresses a lying surface is defined on a mattress. It is usually the intention that the support surface is substantially level or two-dimensional. By way of exception a pillow is provided only for the head of a user, although no modification at all is hereby made to the form of the mattress.

[0003] A substantially completely flat support surface, as defined by a mattress, is however in many cases undesirable or can have adverse or even harmful effects. For instance in situations in which the user has a condition such as kyphosis, stenosis, hernia etc., a flat lying or support surface can exacerbate symptoms or in any case result in irritation, bedsores as a result of prolonged pressure load on limited numbers of points on a body of a user, and so on.

[0004] It is known that determined mattresses can be manufactured from selected materials, whereby the mattresses are given the ability to adapt to the contour form of a user. This is therefore a reactive adjustment, which has however not yet provided a satisfactory solution for the users with one of the stated conditions.

[0005] An assembly of the above defined type with a device for adapting the lying or support surface, precisely for the purpose of providing a more adequate solution herefor, is for instance known from WO 88/01158. This known assembly comprises inflatable plastic bags which are positioned on a mattress, with a thin, pliable covering or lining layer thereover.

[0006] This known configuration has a number of drawbacks.

[0007] In a situation with empty (non-inflated) plastic bags—which can be compared to elongate balloons for inflating—the plastic of these bags lies separately on a part of the lying or support surface defined on the mattress. The moisture-regulating action of the core material of a mattress, which material is usually intended specifically for this purpose, is impeded just as great an extent as the surface of the mattress core is covered by the empty plastic bags. The edges of the empty bags can therefore be easily discerned and felt in disruptive and irritating manner through the thin, pliable cover layer, and this has a significant adverse effect on the comfort.

[0008] It is also the case that, in an inflated state of the bags, these bags are, at least must be made, rigid and hard in order to provide a desired measure of support. Due to the bags being insufficiently inflated a user will otherwise simply subside onto the lying or support surface defined by the conventional mattress below the bags. The hardness of the inflatable bags is not damped or made less noticeable by the thin, pliable cover layer. It will thus be apparent that, when a person sits or lies thereon, the hardness of these inflatable bags is high and the comfort low during use thereof.

In addition, when a user lies on a thus known mattress and wishes to get off the bed, he or she has to clamber over a considerable obstacle formed by the hard inflated bags in order to get out of bed. These hard inflated bags do not yield, precisely because they are highly inflated in order to provide some measure of support, although at the same time an obstruction is thus created to getting off the mattress in an acceptable manner.

[0009] It is noted that an assembly is known from EP-A-1. 541.109 in which inflatable elements are placed beneath a thin mat which can perhaps be designated as a mattress. However, in order to enable setting of a wave shape with the inflatable bags under the mat and to ensure that this wave shape is imparted to the lying or support surface on the top of the mat, it will necessarily be given a very thin form. As a result the comfort of this assembly with the device in expanded or deflated state will always leave something to be desired.

[0010] The present invention has for its object to enable realization of a pro-active adaptation of a support surface, in particular in combination with a mattress, which is usually flat.

[0011] The objects of the present invention are achieved by means of an assembly as defined in the main claim of the appended set of claims. The hinge configuration ensures that the mattress core in particular and the mattress in general adjusts itself to the wave shape defined with the device or the body, so that a greater thickness of the mattress core of the mattress is provided in order to be able to continue to provide a desirable measure of comfort, and moreover also a sufficient moisture regulation, despite the presence of the added device, in precisely which respects the two above cited disclosures show shortcomings.

[0012] This configuration can moreover provide a solution to snoring by users. If they lie with their back against a folded-up edge of the mattress when falling asleep, there is a limited chance of them coming to lie on their back, a position which is known to be conducive to snoring.

[0013] The device can be expanded and compressed cyclically or at intervals. The recumbent position of a person on a thus designed mattress with a device according to the invention is thus regularly varied in forced manner, which can provide a very favourable solution to bedsores. When devices are arranged along mutually opposite edges of the element, a gentler or quicker reciprocal rocking movement can even be realized in order to counter even further the danger of bedsores.

[0014] This does not detract from the fact that users in whom symptoms have not already manifested themselves can also benefit from an assembly according to the invention, for instance if it is made available to them in the form of a mattress. Even in a preventive way the invention can already have a very favourable effect.

[0015] According to the invention a considerable thickness of the core layer of the mattress lies over or on the device with the expandable body which may take the form of an inflatable device. As a result of the thus achieved levelling action of this core layer the operation of the assembly is not lost due to a (too) low pressure in the inflatable device, and the intended wave shape can also be formed at a pressure lower than a maximum pressure, this in contrast to the known configurations. In addition, users can also get off the mattress more easily since more yield occurs above the device, which may be inflated to a greater or lesser extent, when the user exerts a pressure thereon locally, for instance with his/her backside or upper legs.

[0016] By applying in a preferred embodiment a body of substantially wedge-shaped cross-section in a position of use it is possible to realize an adaptation of a support surface with
a suitable choice of the wedge shape when the device is placed on or under the support surface. It is thus possible to place the wedge-shaped body under a mattress, or also on a mattress, but then preferably with a suitable means for preventing displacement relative to the mattress such as a velcro fastening, wherein such a fixation could also be applied in the case of positioning in or under the mattress. Alternatively, the wedge-shaped body can also be arranged between a supporting surface and the mattress, or even be incorporated in the mattress.

Confidential tests have shown that it is not only people with disorders who can benefit from the devices according to the present invention. People without symptoms of a physical nature also perceive the adaptation of the support surface of for instance a mattress as a more comfortable improvement.

The present invention has various preferred embodiments, several of which are defined in the dependent claims in the appended set of claims. It is thus possible for the body to be hollow. A hollow body has the advantage that little material need be used. A hollow body can moreover be inflatable if suitable means are connected thereto for inflating or deflating the device.

The wave part of the element with the body in expanded state preferably forms in cross-section an angle of between 5 and 45 degrees with the other parts of the element. The angle to be enclosed may depend on an inflation state or inflation pressure in the interior of the in this case hollow body. The angle to be enclosed can also be related to the distance over which the wedge-shaped body extends under or in the mattress from an edge of the mattress (or at some distance from this edge). By for instance varying pressure in the hollow body it is thus possible to realize the desired or required enclosed angle in order to provide a comfortable adaptation of the support surface of for instance a mattress.

Air or liquid can be applied for the purpose of inflating the body, and even an embodiment with gel, particularly (though not exclusively) if the wedge-shaped body does not come into contact with a person lying on the mattress in a position of use. The wedge-shaped body can here even be sub-divided into chambers or compartments which can be brought individually or jointly to a desired pressure or firmness for purposes of support.

Such part-bodies can also advantageously be utilized to provide even more degrees of freedom in respect of waves in the lying or support surface, for instance if the base of a bed can be formed in a wave transversely of the longitudinal direction of a succession of part-bodies, which in a singular embodiment with a unitary body would result in the formation of a bend therein, without producing the desired waves. In particular the part-bodies are therefore individually expandable and/or compressible in order to enable the greatest possible adaptability.

If the wedge-shaped body is inflatable, the device can further comprise a pump to be selectively activated for the purpose of inflating the body. Such a pump can be controlled by a control, which can then for instance be operated by a user. For this purpose the control can be provided with an operating means which can for instance be hand-held and is in wireless connection with the pump, optionally via a microcomputer or other similar element, via antennas or the like. Infrared remote controls are also possible. The user can thus indicate whether a device according to the invention must be pumped up harder or, conversely, (partially) deflated.

In a possible preferred embodiment the pump can be connected substantially fixedly to the body. A structural unit is thus obtained with a high measure of reliability. It is however noted that the pump and the body can also be connected releasably to each other and that, if a hollow body were to develop a leak or were to deflate, the pump can simply be reconnected, optionally after a repair, this within the scope of the present invention. If a wedge-shaped body comprises compartments or chambers, each of the compartments can be connected to the pump to enable selective adjustment of the pressure in each of these chambers individually or jointly to a momentary requirement or when it is initially taken into use. It may also be desirable to be able to allow selective (partial) deflation of the body. For this purpose a controllable outlet valve can be connected to the body, which outlet valve can then be controlled by the user of the device.

Particularly in an embodiment wherein the body extends along an edge of for instance a mattress in order to define the support surface, it may be desirable to also arrange (at least) one body on an additional edge located opposite. A kind of cavity can thus be defined between upright edges of the mattress, which are pressed upward by the wedge-shaped bodies at that location, although the wedge-shaped bodies can thus also be positioned on the mattress or incorporated therein. The body or the bodies is or are therefore possibly integrated into the mattress. It is even possible for the bodies to form the mattress, particularly in an embodiment in which the bodies are mutually connected. In this latter case a comfort mattress can optionally be further arranged over the body or over the bodies of the device in order to even out for a user as many discontinuities as possible in the lying surface defined for him or her, albeit in a curved wave shape, even though this is far from being necessary in all embodiments, particularly when a connection between the mutually connected bodies transposes slantwise or gradually into the wedge shape of the body or the bodies. In an embodiment with two selectively inflatable bodies, or at least hollow bodies, both or more than two of the bodies can each be connected to the pump or to their own pump. A valve or similar means can then be provided in order to inflate or pump up one of the two bodies or both bodies together. The same is possible when a body is sub-divided into chambers or compartments, wherein these chambers or compartments can here be selectively or jointly connected to a single or shared pump. It is noted in respect of the outlet valve that it might be preferable to be able to allow individual deflation of each of the inflatable bodies or compartments thereof in the device, although this also can take place via a control. The valve member for connecting the pump to at least one of the bodies is preferably also placed into connection with and controlled by the control, wherein it is once again possible for the user to have within reach the final setting options.

The assembly can comprise a sleeve or ticking layer which can be arranged around the assembly. At least determined parts thereof, which extend along side surfaces running downward from the lying or support surface, are elastic. The change in shape resulting when the body or the device is inflated or expanded can thus be accommodated.

In yet another alternative or additional embodiment an assembly according to the invention has the feature that the body comprises folding means for bringing the body into a compact form in a compressed state thereof. The folding means preferably comprise tensioning cables, and these can be elastic. The devices or bodies can thus be easily and neatly
compressed or deflated without irritating lumps of material having a noticeable influence on comfort.

[0027] In possible embodiments the pivotal configuration of the element comprises at least one incision extending upward from the device to a position below the lying or support surface, and the element is adaptable locally in the device to the form defined by the device. Additionally or alternatively, the pivotal configuration of the element can comprise at least one incision extending downward from the lying or support surface, and the element is adaptable locally in the device to the form defined by the device. In these embodiments the mattress core, for instance of foam material, is preferably provided with incisions in said manner. An elegant and simple design of the hinge configuration can thus be realized.

[0028] The present invention will be further elucidated hereinbelow on the basis of the accompanying drawings, in which the same and similar parts, components and features are designated with the same reference numerals, and which shows an embodiment only by way of example. In the drawing:

[0029] FIG. 1 shows an application option of a device according to the present invention;

[0030] FIG. 2 shows a position of use of an alternative embodiment according to the present invention relative to that shown in FIG. 1;

[0031] FIG. 3 shows an assembly of a device and a mattress, both according to the present invention;

[0032] FIG. 4 shows another assembly of a device and a mattress, both according to the present invention;

[0033] FIG. 5 shows a solid, single embodiment of the present invention;

[0034] FIG. 6 shows an embodiment of a device in an assembly according to the present invention with an elastic sleeve or ticking layer;

[0035] FIG. 7 shows an assembly of a mattress and a device to the present invention with folding means;

[0036] FIG. 8 shows an assembly of a mattress and a device to the present invention, wherein the device is embedded in the mattress;

[0037] FIG. 9 shows an embodiment of the invention wherein at least one body or device is divided into independent part-bodies;

[0038] FIG. 10 shows a side view of a possible application of the assembly according to the invention in FIG. 9;

[0039] FIG. 11 shows an alternative expandable device; and

[0040] FIG. 12 shows an assembly with another embodiment of folding means.

[0041] FIG. 1 shows a device 1 according to the present invention. This device is applied in combination with a mattress 2.

[0042] Device 1 comprises a body 3 which is of triangular cross-section (in the direction transversely of arrow E) and which in this embodiment is wedge-shaped and per se hollow. Body 3 is inflatable, for which purpose a pump 4 can be selectively activated. Pump 4 is connected to hollow wedge-shaped body 3 via a conduit 5. Pump 4 can be selectively activated by means of a microcomputer 6 as an embodiment of a control, which is equipped with an antenna 7. Antenna 7 is connected wirelessly to hand-held operating means 8, which is available to a user for selective activation of pump 4.

[0043] In another embodiment a pressure gauge 9 can be applied for measuring the pressure in the interior of the hollow wedge-shaped body 3 in order to activate pump 4 automatically and selectively on the basis of measurement signals and using microcomputer 6 for the purpose of increasing the pressure in the interior of the hollow wedge-shaped body 3.

[0044] A shut-off valve, tap or outlet valve 11 is arranged in another conduit 10. Outlet valve 11 can also be actuated selectively by microcomputer 6. Outlet valve 11 is intended for the purpose of decreasing the pressure in the interior of the hollow wedge-shaped body 3. Outlet valve 11 can also be arranged in conduit 5 between pump 4 and the hollow wedge-shaped body 3.

[0045] The hollow wedge-shaped body 3 can be arranged under mattress 2 in the direction of arrow A, preferably on a base 12. The hollow wedge-shaped body 3 then comes to lie between base 12 and mattress 2.

[0046] Available and suitable around mattress 2 are various locations where a hollow wedge-shaped body 3 can be placed on or under mattress 2, as indicated with arrows B, C and D.

[0047] In a preferred embodiment hollow wedge-shaped bodies 3 are in any case arranged at the long sides of the mattress indicated with arrows A and C. This is the situation as shown in FIG. 2.

[0048] FIG. 2 shows an alternative to the wedge-shape of device 3 in FIG. 1, wherein device 3′ is formed by an outward oriented succession of, in this embodiment, three progressively thicker tubular hollow bodies 27, 26 and 25.

[0049] Also arranged in FIG. 3 (as in FIG. 2) is a frame 13 with a spring base 14, on which mattress 2 rests. On opposite sides of mattress 2 two hollow wedge-shaped bodies 3 are placed on the upper surface of the mattress.

[0050] In the embodiment of FIGS. 2 and 3 microcomputer 6 is omitted, although pump 4 is here preferably also under the control of microcomputer 6.

[0051] Pump 4 is connected via a valve 16 to each of the two hollow wedge-shaped bodies 3 on either side of mattress 2. The valve means can be used in combination with a control, embodied as microcomputer 6 or in other manner, in order to select to which of the two hollow wedge-shaped bodies 3 pump 4 must be connected. It is of course also possible that valve member 16 provides the option of connecting pump 4 to each of the two wedge-shaped hollow bodies 3. FIG. 1 shows a possible embodiment in which the shown wedge-shaped body is divided into compartments by means of a membrane or partition 17. Each of the compartments can be connected to the pump via a valve 18 in similar manner as bodies 3 in FIG. 2 in order to enable adjustment of the firmness, support or hardness in each of the thus separated compartments, both initially and after a period of time during use.

[0052] FIG. 3 shows an assembly 18 of mattress 2 and a device 3, 3′ according to the invention with a hinge configuration. The device comprises a wedge-shaped body 3 and a second wedge-shaped body 3′ along opposite edges of mattress 2. Along the side edges of assembly 18 the device is placed on a carrier such as a box-spring 17. In FIG. 4 box-spring 17 is replaced by a slat frame 20. Mattress 2 comprises incisions 19 so that it bends more easily so as to take on the form defined by wedge-shaped body 3 and second wedge-shaped body 3′, and to thus form the hinge configuration according to the invention. Laterally situated wave parts 24 of mattress 2 on the outer sides of incisions 19 can be fixedly connected to mattress 2, for instance by means of stitching, or can be connected thereto by means of for instance a velcro
connection (not shown). In FIG. 3 mattress 2 is a mattress with a foam core, while FIG. 4 shows a spring mattress. It will be apparent that the intended gap 21 can also be formed with incisions 19 in the case of a spring mattress. Also shown in more detail on the left-hand side in FIG. 4 is that recesses 29 are provided in top surface 28 in order to facilitate bending of the thus formed hinge configuration.

FIG. 4 further shows how a gap 21 adapting mattress 2 to the shape of device 3, 3 results when device 3, 3 is arranged in the direction of arrow A beneath mattress 2 with incisions 19. For this purpose the outward situated wave part 24 of mattress 2 can simply be lifted in the direction of arrow F so as to provide or make space for body 3. It is noted that in FIG. 4 the gap or incisions 19 are arranged substantially over the greater part of the thickness of mattress 2, but that they may also extend over the whole thickness.

In the embodiment of FIG. 6 a tickling layer or sleeve 30 is arranged round the assembly of mattress 2 and device 3. Ticking layer 30 is at least flexible and preferably even elastic in order to be able to accommodate the change (increase) in the dimensions of side surface 31 in the direction of arrow G.

FIG. 7 shows schematically a possible embodiment of an assembly according to the invention with folding means based on a tensioning cable 32. Tensioning cable 32 runs from about halfway along the height of side 33 of body 3 to the sloping side 34, and is fastened thereto. From this fastening this or another cable continues to lowest point 35 of wave part 24 of mattress 2. When the body deflates and the air is released therefrom, tensioning cable 32 ensures that the covering of hollow body 3 is folded onto itself.

It is possible that the upward orientated point 37 of body 3 is arranged with a fastening 36 on the adjacent point 38 of wave part 24 in order to improve the operation of the folding means still further.

As a further addition or alternative, tensioning cable 32 can be elastic and then preferably be fastened to the bottom point 39 of stationary part 40 of mattress 2 (or at least the mattress core of mattress 2). In addition to compact folding of body 3, an inelastic or elastic cable 32 also achieves that side 33 thereof does not bulge excessively. This is also prevented by the elasticity of tickling layer 30 over side wall 31 of the assembly of mattress 2 and device or body 3.

FIG. 8 shows an embodiment with the additional or alternative feature that the body is embedded in foam core 2 of mattress 2 beneath wave part 24. Extending beneath the device or body 3 is a leg 41 of the material of mattress core 2, with a locking protrusion 42 at the free outer end, which falls into a receiving recess 43 in the wave part of core 2 of mattress 2 in the unexpanded state of the device or body 3.

FIGS. 9 and 10 show that in a further embodiment the device comprises various part-bodies 3, 44, 45, 46. The wave in the lying or support surface of mattress 2 can thus be adjusted and regulated even more finely when each of the part-bodies can be expanded and compressed individually, for instance by means of individual connections to a single pump or various pumps or with individual valves in each of the part-bodies, in order to enable individual deflation of each of the part-bodies in controlled manner after reaching a fully inflated state of all part-bodies with for instance a single pump and various branches to the individual part-bodies. The subdivision of the device into the individual part-bodies 3, 44, 45, 46 moreover allows the base below the part-bodies to be able to take on an additional wave shape as is shown in FIG. 10, which runs for instance in the longitudinal direction of mattress 2. With a single body 3 this would result in a bend instead of a gradual wave shape in this single body 3, as shown for instance in the embodiment of FIG. 1. The divided part-bodies then also enable a gradual wave shape of the lying or support surface as in FIG. 3, even with a wave defined transversely thereof in the base under mattress 2 such as that in FIG. 10.

FIG. 11 shows an embodiment with another embodiment 47 of the expandable and compressible device. Device 47 has a stacked structure with inflatable components 48, the contour form of which becomes increasingly smaller in upward direction and an outer edge of which is aligned in each case with components 48 thereabove and thereunder. The need for folding means can hereby be made unnecessary, since a configuration 47 of the device with components 48 will compress in neat and flat manner when the chambers in the components deflate.

FIG. 12 shows an embodiment wherein the corner edge 38 of wave part 24 is chamfered in order to bring about a more gradual progression of the outer side of the assembly according to the invention, where a relatively sharp corner would otherwise occur. A simplified embodiment of the folding means is further incorporated in the view of the embodiment in FIG. 12. A tensioning cable is here not arranged through the interior of the device, but simply from the outer top corner of device 3 to corner 35 on wave part 24 between the device and the wave part.

In the embodiments described above and shown in the figures a covering can be arranged round at least wedge-shaped body 3. Such a covering can take the form of a sleeve 23 which can be detachable. Sleeve 23 can in particular be arranged fixedly on device 3 and be removable, for instance be formed from a smooth or at least sealing plastic, or be releasable to enable separate cleaning thereof, for instance in a washing line or laundry of a hospital.

After examination of the foregoing, many additional and alternative embodiments will occur to the skilled person which must all be deemed as embodiments of the present invention unless they depart from the letter or spirit of that defined in the appended claims, in particular the single independent claim. Diverse possibilities have already been described in the foregoing as alternative to those shown specifically in the drawing. It can further also be noted here that when shorter hollow or solid or filled wedge-shaped bodies are applied at the head or foot end of a mattress, the feet of a user can be moved upward and/or the need for a pillow can be reduced or even obviated. Repeated reference is made in the foregoing to inflation of the bodies with air, but use can of course also be made of other fluids, for instance water or the like. Bodies 3 do not have to be hollow, let alone inflatable, but can be solid and filled with a gel or other substance, or be formed from foam or the like. FIG. 5 shows such an embodiment, which is or can also be to some or considerable extent shorter than the length of the bed and, in addition to use on the long side of the bed, can also be applied on a short side. Bodies 3 can also form integral parts of a regular bed or even a waterbed, for instance in the form of compartments thereof lying on top of the usual lying surface. The device according to the present invention can also be applied in a manner other than solely in combination with a mattress, for instance in combination with a seat, for instance of a chair, etc.
1. Assembly, comprising:
an element defining a lying or support surface, such as a
foam layer forming a core of a mattress, and
a device associated with the element for adapting the form
of the lying or support surface in waves,
wherein:
the device comprises at least one selectively expandable
and/or compressible body,
the body is embedded in or arranged under a part of the
element which is lower-lying during use and has above it
at least a greater part of the thickness of the element,
the body acts on a wave part of the element so as to selec-
tively bring about waves in the lying or support surface,
which wave part is connected via a pivotable configura-
tion to other parts of the element.
2. Assembly as claimed in claim 1, wherein a body is of
substantially wedge-shaped cross-section in a position of use.
3. Assembly as claimed in claim 1 or 2, wherein in the
expanded state of the body the wave part of the element forms
in cross-section an angle of between 5 and 45 degrees with the
other parts of the element.
4. Assembly as claimed in claim 1, 2 or 3, wherein the body
is inflatable.
5. Assembly as claimed in at least one of the foregoing
claims, wherein the body comprises at least two individual
part-bodies along an edge of the element.
6. Assembly as claimed in claim 5, wherein the part-bodies
are further independently expandable and compressible in
selective manner.
7. Assembly as claimed in at least one of the foregoing
claims, further comprising a pump which is or can be con-
ected to the body and is controllable with a control, wherein
the control comprises an operating means to be actuated by a
user.

8. Assembly as claimed in claim 7, wherein the operating
means can be hand-held and is in wireless contact with the
pump during use.
9. Assembly as claimed in claim 7 or 8, wherein the pump
is connected substantially fixedly to the body.
10. Assembly as claimed in at least claim 4, wherein a
selectively controllable outlet valve is connected to the body.
11. Assembly as claimed in at least one of the foregoing
claims, further comprising at least one second body along an
additional edge of the element.
12. Assembly as claimed in at least one of the foregoing
claims, wherein a sleeve or ticking layer is arranged around the
assembly, at least parts of which extending along side sur-
faces running downward from the lying or support surface are
elastic.
13. Assembly as claimed in at least one of the foregoing
claims, wherein the body comprises folding means for bring-
ing the body into a compact form in a compressed state
thereof.
14. Assembly as claimed in claim 13, wherein the folding
means comprise tensioning cables.
15. Assembly as claimed in claim 14, wherein the tension-
ing cables are elastic.
16. Assembly as claimed in at least one of the foregoing
claims, wherein the pivotable configuration of the element
comprises at least one incision extending upward from the
device to a position below the lying or support surface, and the
element is adaptable locally in the device to the form defined
by the device.
17. Assembly as claimed in at least one of the foregoing
claims, wherein the pivotable configuration of the element
comprises at least one incision extending downward from the
lying or support surface, and the element is adaptable locally
in the device to the form defined by the device.

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