

Tiltable chair**Field of disclosure**

The present disclosure relates to the field of tiltable chairs.

Background

- 5 [0001] Tiltable chairs may generally be defined as chairs having a seat portion that may be tilted relative to a base portion supporting the seat portion. Several types of tiltable chairs exists today, where the mechanism enabling the tiling typically comprising at least an axle, and often one or more spring members.
- [0002] Common for most tiltable chairs today is that they comprise a large number
10 of parts, and consequently that they are hard to maintain and expensive to construct.
- [0003] It is an aim of the present invention to provide a tiltable chair that addresses at least in part some of the issues with the prior art.

15 **Summary of the invention**

- [0004] A first aspect of the present invention provides a chair comprising a base portion comprising a rounded protrusion, a seat portion comprising a rounded slot, where the seat portion is arranged such that the rounded protrusion is received in the rounded slot, and where the seat portion is
20 configured to be tilted relative to the base portion about the rounded protrusion between a first upright position and a second backwards tilted position, an elastic element arranged between the seat portion and the base portion such that the elastic element is compressed between the seat portion and the base portion when the seat portion is moved from the first upright
25 position to the second backwards tilted position, and a connection mechanism connecting the base portion and the seat portion, where the connection mechanism is configured to allow the seat portion to be moved between the first upright position and the second backwards tilted position, and to prevent the seat portion from being tilted forward from the first
30 upright position relative to the base portion.
- [0005] According to an embodiment of the invention the chair comprises a sliding element provided between the rounded protrusion and the rounded slot.
- [0006] According to another embodiment of invention the friction coefficient between the rounded protrusion and the rounded slot is less than 0.3.
- 35 [0007] According to yet another embodiment of invention the rounded protrusion protrudes in a forward-facing direction of the chair.

[0008] According to yet another embodiment of invention the elastic element comprises or consists of a thermoplastic or a polyurethane.

5 [0009] According to yet another embodiment of invention the base portion comprises a first engagement portion arranged in the forward-facing direction of the chair relative to the rounded protrusion, and the seat portion comprises a second engagement portion arranged in in the forward-facing direction of the chair relative to the rounded slot, where the first engagement portion rests against the second engagement portion when the seat is in the first upright position.

10 [0010] According to yet another embodiment of invention the connection mechanism comprises a bolt comprising a male threaded portion, a bolt shank portion and a bolt head, a female threaded recess provided in the seat portion, a chamber provided in the base portion, and a chamber wall provided in the base portion, where the chamber wall is facing the seat portion, and where the chamber wall is provided with an unthreaded opening, where the bolt is arranged such that the male threaded portion of the bolt is connected to the female threaded recess, the bolt head is arranged inside the chamber, and the bolt shank portion is arranged through the unthreaded opening, and where the bolt head is abutting the chamber wall when the seat portion is in the first upright position.

15 [0011] According to yet another embodiment of invention the connection mechanism comprises a bolt comprising a male threaded portion, a bolt shank portion and a bolt head, a female threaded recess provided in the base portion, a chamber provided in the seat portion, and a chamber wall provided in the seat portion, where the chamber wall is facing the base portion, and where the chamber wall is provided with an unthreaded opening, where the bolt is arranged such that the male threaded portion of the bolt is connected to the female threaded recess, the bolt head is arranged inside the chamber, and the bolt shank portion is arranged through the unthreaded opening, and where the bolt head is abutting the chamber wall when the seat portion is in the first upright position.

25 [0012] According to yet another embodiment of invention the chair further comprises a rigid washer ring provided between the bolt head and the chamber wall.

30 [0013] According to yet another embodiment of invention the chair further comprises a dampening element provided between the bolt head and the chamber wall.

[0014] According to yet another embodiment of invention the dampening element is an elastic washer ring.

[0015] According to yet another embodiment of invention the unthreaded opening has an elongated shape.

5 [0016] According to yet another embodiment of invention the rounded slot and the rounded protrusion form a ball joint.

[0017] A second aspect of the present invention provides a chair comprising a base portion comprising a rounded slot, a seat portion comprising a rounded protrusion, where the seat portion is arranged such that the rounded
10 protrusion is received in the rounded slot, and where the seat portion is configured to be tilted relative to the base portion about the rounded slot between a first upright position and a second backwards tilted position, an elastic element arranged between the seat portion and the base portion such that the elastic element is compressed between the seat portion and the
15 base portion when the seat portion is moved from the first upright position to the second backwards tilted position, and a connection mechanism connecting the base portion and the seat portion, where the connection mechanism is configured to allow the seat portion to be moved between the first upright position and the second backwards tilted position, and to
20 prevent the seat portion from being tilted forward from the first upright position relative to the base portion.

Brief description of the drawings

[0018] Figure 1a is a schematic illustration of a chair according to the present
25 invention where the seat portion is in an upright position,

[0019] Figure 1b is a schematic illustration of a chair according to the present invention where the seat is in a backwards tilted position,

[0020] Figure 2a is a schematic illustration of a section of a chair according to the present invention where the seat portion is in an upright position,

30 [0021] Figure 2b is a schematic illustration of a section of a chair according to the present invention where the seat is in a backwards tilted position,

[0022] Figure 3a is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprising a bolt, and a chamber provided in the base portion, where the seat portion is in an
35 upright position,

[0023] Figure 3b is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprising a bolt, and a

chamber provided in the base portion, where the seat portion is in a backwards tilted position,

[0024] Figure 4a is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprising a bolt, and a chamber provided in the seat portion, where the seat portion is in an upright position,

[0025] Figure 4b is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprising a bolt, and a chamber provided in the seat portion, where the seat portion is in a backwards tilted position,

[0026] Figure 5a is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprises a bolt, a female threaded recess provided in the seat portion, a chamber provided in the base portion, and a chamber wall provided in the base portion, where the bolt comprises a male threaded portion, a bolt shank portion and a bolt head,

[0027] Figure 5b is a schematic illustration of a section of a chair according to the present invention with a connection mechanism comprises a bolt, a female threaded recess provided in the base portion, a chamber provided in the seat portion, and a chamber wall provided in the seat portion, where the bolt comprises a male threaded portion, a bolt shank portion and a bolt head,

[0028] Figure 6 is a schematic illustration of a section of a chair according to the present invention where the the base portion comprises a first engagement portion, and the seat portion comprises a second engagement portion,

[0029] Figure 7 is a schematic illustration of a section of a chair according to the present invention where the chair comprises a sliding element provided between the rounded protrusion and the rounded slot,

[0030] Figure 8a is a schematic illustration of a section of a chair according to the present invention where the seat portion is provided with a rounded protrusion where the base portion is provided with a rounded slot and where the seat portion is in an upright position, and

[0031] Figure 8b is a schematic illustration of a section of a chair according to the present invention where the seat portion is provided with a rounded protrusion where the base portion is provided with a rounded slot and where the seat portion is in a backwards tilted position.

Detailed description of the disclosure

- [0032] In the following, general embodiments as well as particular exemplary embodiments of the invention will be described. References will be made to the accompanying drawings. It shall be noted, however, that the drawings are exemplary embodiments only, and that other features and embodiments may well be within the scope of the invention as claimed. Further, the mentioning of references such as "a" or "an" etc. should not be construed as excluding a plurality. The term "invention" may herein be used interchangeably with the term "disclosure". The term "producing" may herein be used interchangeably with the term "obtaining".
- [0033] Unless otherwise defined, all terms of art, notations and other scientific terms or terminology used herein are intended to have the meanings commonly understood by those of skill in the art to which this invention pertains. Certain terms of art, notations, and other scientific terms or terminology may, however, be defined specifically as indicated below.
- [0034] The present invention concerns a chair 100. More specifically, the present invention concerns a chair 100 comprising a seat portion 120, a base portion 110, an elastic element 150, and a connection mechanism 160, where the seat portion 120 is configured to be tilted relative to the base portion 110 between a first upright position and a second backwards tilted position. The tilting of the seat portion 120 relative to the base portion 110 may, as schematically illustrated in figures 1 and 2 be obtained via a direct rotational engagement between the seat portion 120 and the base portion 110, where a dampening of the tilting may be provided by the elastic element 150. The connection mechanism 160 may generally be configured to connect the base portion 110 and the seat portion 120, *i.e.*, to maintain the integrity of the chair 100. The chair 100 according to the present invention does not rely on a separate axle between the seat portion 120 and the base portion 110 to enable tilting of the seat portion 120 relative to the base portion 110 and may thus be made from fewer parts and with a more compact design as compared to conventional tiltable chairs.
- [0035] A seat portion may according to the present invention generally be a part of a chair that is configured to support a user occupying the chair. The seat portion may comprise a seat and optionally a back and may for example comprise a seat frame supporting the seat. A support portion may according to the present invention generally be a structure configured to support the seat portion of a chair, for example on the ground, rack, etc. A support portion may for example comprise a frame and legs, or alternatively a swivel and a chair base.

- [0036] As schematically illustrated in figures 1 and 2, the chair 100 according to the present invention comprises a base portion 110 and a seat portion 120. The base portion 110 comprises a rounded protrusion 140 and the seat portion 120 comprises a rounded slot 140, and the seat portion 120 is arranged such that the rounded protrusion 130 of the base portion 110 is received in the rounded slot 140 of the seat portion 120. The rounded slot 140 and the rounded protrusion 130 may thus engage and slidingly rotate relative to each other, thereby allowing the seat portion 120 to be tilted relative to the base portion 110 about the rounded protrusion 130. The seat portion 120 may therefore in other words be configured to be tilted relative to the base portion 110 about the rounded protrusion 130 between a first upright position and a second backwards tilted position. Figures 1a and 2a schematically illustrate a chair 100 where the seat portion 120 is in the first upright position, whereas figures 1b and 2b schematically illustrate a chair 100 where the seat portion 120 is in the second backwards tilted position.
- [0037] The rounded protrusion 130 and the rounded slot 140 may as schematically illustrated in figures 2a and 2b generally engage each other by the rounded protrusion 130 being received in the rounded slot 140. More specifically the rounded protrusion 130 and rounded slot 140 may form a rotation joint between the seat portion 120 and the base portion 130. The rounded slot 140 may for example form and/or function as an open linear bearing for receiving the rounded protrusion 130 and for allowing rotation of the rounded protrusion 130. The rounded slot 140 and the rounded protrusion 130 may as a way of example form a ball joint. A direct engagement between the rounded protrusion 130 and the rounded slot 140 as a means to allow the seat portion 120 be tilted relative to the base portion 110 has been found to require fewer parts as compared to the use of a conventional axle. A more compact design for the chair 110 may thus be obtained.
- [0038] The rounded protrusion may shape wise be an elongated projection or knob with a rounded outer surface and may be attached to or be an integral part of the base portion. The rounded protrusion may for example be rounded in one dimension, and optionally flat in another, thereby for example forming a semi cylindrical shape with a circular, oval or more generally rounded surface. The rounded slot may generally be a slot shaped to receive the rounded protrusion, such that the shape of the rounded slot corresponds to that of the rounded protrusion. The rounded protrusion may thus engage the rounded slot such that the surface of the rounded protrusion directly or indirectly abuts the surface of the rounded slot so that the rounded

protrusion may be rotated at least in part within the rounded slot. Any one or more of the rounded protrusion and the rounded slot may be made from for example a suitable metal, plastic or the like.

5 [0039] As schematically illustrated in figures 1 and 2, the chair 100 according to the present invention further comprises an elastic element 150. The elastic element 150 is, as illustrated in figures 1 and 2, arranged between the seat portion 120 and the base portion 110. The elastic element 150 is generally arranged such that the elastic element 150 is compressed between the seat portion 120 and the base portion 110 when the seat portion 120 is moved from the first upright position to the second backwards tilted position. The elastic element 150 may thereby provide a dampening effect to the motion of the seat portion 120 as the seat portion 120 is moved from the first upright position to the second backwards tilted position.

15 [0040] The elastic element 150 may, as schematically illustrated in figures 1 and 2, be positioned behind the rounded protrusion 130 and rounded slot 140 relative to the forward-facing position of the chair 100. The elastic element 150 may for example be positioned in a recess formed between the seat portion 120 and the base portion 110 and/or may abut, and optionally apply a force to the seat portion 120 and the base portion 110 when the seat portion 120 is in the first upright position. The elastic element 150 may for example comprise or consist of a thermoplastic, a polyurethane or a combination of both. The use of a thermoplastic, a polyurethane or a combination of both is preferred as these materials have been found to be suitable for being shaped to a predetermined shape, e.g., such that the elastic element 150 may fit between the seat portion 120 and the base portion 110.

25 [0041] As schematically illustrated in figures 1 and 2, the chair 100 according to the present invention further comprises a connection mechanism 160 connecting the base portion 110 and the seat portion 120. The connection mechanism 160 may be provided in order to prevent the seat portion 120 from falling off the base portion 110, *i.e.*, to maintain the integrity of the chair 100. The latter is particularly preferred when the engagement of the seat portion 120 with the base portion 110 via the rounded protrusion 130 and rounded slot 140 does not provide any retaining connection between the seat portion 120 and the base portion 110.

30 [0042] The connection mechanism is generally configured to allow the seat portion to be moved between the first upright position and the second backwards tilted position, and also configured to prevent the seat portion from being

tilted forward from the first upright position relative to the base portion. In other words, the connection mechanism may be configured to allow for movement of the seat portion relative to the base portion between the first upright position and the second backwards tilted direction, but to restrict movement of the seat portion to any other position. As will be appreciated by a person skilled in the art with knowledge of the present invention, the connection mechanism may for example comprise a bolt, a piston, or a rivet and any suitable appurtenant fastening points or fastening means provided in the seat portion and/or base portion. The connection mechanism may as a way of example comprise a bolt that is a separate part from the seat portion and/or the base portion, or that is an integral part of the seat portion or base portion. As will also be appreciated, the chair according to the present invention may further comprises one or more additional connection mechanism(s), where the additional connection mechanism(s) may be of the same type as the connection mechanism. Alternatively, the connection mechanism may comprise multiple bolts, pistons, rivets or the like.

[0043] Figures 3a, 3b and 5a schematically illustrates an embodiment of the present invention where the chair 100 comprises a connection mechanism that comprises a bolt 200, a female threaded recess 210 provided in the seat portion 120, a chamber 220 provided in the base portion 110, and a chamber wall 230 provided in the base portion 110. The connection mechanism is here arranged behind the rounded protrusion 130 and rounded slot 140 in the backwards facing direction of the chair 100. The bolt 200 may here comprise a male threaded portion 201, a bolt shank portion 202 and a bolt head 203, where the male threaded portion 201 is configured to mate with the female threaded recess 210 provided in the seat portion 120. The chamber wall 230 may here be facing the seat portion 120 and be provided with an unthreaded opening 240. The chamber 220 in the base portion 110 may thus be positioned opposite the female threaded recess 210 of the seat portion 120 when seat portion 120 is arranged such that the rounded protrusion 130 is received in the rounded slot 140. As schematically illustrated in figures 5a and 5b, the bolt 200 may here be arranged such that the male threaded portion 201 of the bolt 200 is connected to the female threaded recess 210, the bolt head 203 is arranged inside the chamber 220, and the bolt shank portion 202 is arranged through the unthreaded opening 240. The unthreaded opening 240 may thus have a cross section that is the same or larger than the cross section of the bolt shank portion 202, and optionally smaller than the bolt head 203. In other words, the unthreaded

opening 240 may be configured to retain the bolt head 203 inside the chamber 220. The connection of the bolt 200 to the female threaded recess 210 and the retaining of the bolt head 203 inside the chamber 220 will here connect the base portion 110 to the seat portion 120, *i.e.*, maintain the integrity of the chair 100. As schematically illustrated in figures 5a and 5b, the connection mechanism 160 may be configured such that the bolt head 203 is directly or indirectly abutting the chamber wall 230 when the seat portion 120 is in the first upright position. The latter prevents the seat portion 120 from being tilted forward from the first upright position relative to the base portion 110.

[0044] As will be appreciated by a person skilled in the art, the embodiment of the invention illustrated in figures 3a, 3b and 5a may be modified as schematically illustrated in figures 4a, 4b and 5b *i.e.*, such that the female threaded recess 210 is provided in the base portion 110, and the chamber 220 and the chamber wall 230 provided in the seat portion 120. The chamber wall 230 will as schematically illustrated in figures 4a and 4b be facing the base portion 110 of the chair 100 instead of the seat portion 120 of the chair 100.

[0045] Further, for the example illustrated in figures 5a and 5b, the chair 100 may comprise a rigid washer ring 250 provided between the bolt head 203 and the chamber wall 230. Said rigid washer ring 250 may generally be employed in order to retain the bolt head 203 inside the chamber 220, to provide a pre-determined friction with the chamber wall 230, and/or to allow for the cross section of the unthreaded opening 240 to have a wide variety of geometries. The unthreaded opening 240 may for example generally have an elongated shape, *i.e.*, an elongated cross section, where the elongated direction of the elongated shape optionally is aligned along the forward-facing direction of the chair 100. An unthreaded opening 240 with an elongated cross section is preferred, as the latter allows for movement of the bolt 200 in two perpendicular directions within the unthreaded opening 240, e.g., the horizontal direction as well as the vertical direction. The latter allows for the connection mechanism 160 to connect the base portion 110 and the seat portion 120, while allowing the seat portion 120 to be moved between the first upright position and the second backwards tilted position.

[0046] The connection mechanism 160 may, as schematically illustrated in figures 5a and 5b, further comprise a dampening element 260 provided between the bolt head 203 and the chamber wall 230. The latter may provide a dampened stop when the seat portion 120 is moved from the second

backwards tilted position to the first upright position. The dampening element may for example be an elastic washer ring 270, that may be employed together with or independently of a rigid washer ring 250. The elastic washer ring 270 may alternatively be combined with a rigid washer ring 250 in a single washer ring, *i.e.*, such that a single washer ring is provided that comprises a rigid portion and a dampening portion. The dampening element 260 may for example comprise or consist of a thermoplastic or a polyurethane.

[0047] The seat portion 120 of the chair according to the present invention, may generally be moved between a first upright position and a second backwards tilted position, where the seat portion 120 is prevented from being tilted further forward than the first upright position by means of the connection mechanism 160. The seat portion 120 and the base portion 110 may, as schematically illustrated in figure 6, optionally be shaped in such a way that the seat portion 120 is prevented from being tilted further forward than the first upright position. As a way of example, the base portion 110 may comprise a first engagement portion 180 arranged in the forward-facing direction of the chair relative to the rounded protrusion 130, and the seat portion 120 may comprise a second engagement portion 190 arranged in the forward-facing direction of the chair 100 relative to the rounded slot 140. The first engagement portion 180 may here rest against the second engagement portion 190 when the seat portion 120 is in the first upright position, optionally indirectly via a dampening surface element that may be provided on either or both of the first engagement portion 180 and the second engagement portion 190. As will be appreciated by a person skilled in the art the first engagement portion 180 may alternatively or optionally detachably fasten to the second engagement portion 190 such that the seat portion 120 is prevented from being tilted further forward than the first upright position. Said fastening may for example be obtained by any suitable means, for example a clamp, coupling or similar.

[0048] The rounded protrusion 130 may according to the present invention preferably protrude in a forward-facing direction of the chair 100. Said arrangement of the rounded protrusion 130 is preferred in order to provide a retaining effect between the seat portion 120 and the base portion 110, *i.e.*, such that the seat portion 120 does not fall off the base portion 110. A forward-facing protrusion is particularly preferable for a chair 100 where the connection mechanism 160 is arranged in the backwards facing direction of the chair relative to the rounded protrusion 130 and rounded slot 140. As is

schematically illustrated in figures 2 and 3, the combination of the connection mechanism 160 and the forward-facing rounded protrusion 130 received in the rounded slot 140 may ensure that the seat portion 120 is prevented from being moved further back than the second backwards tilted position, and thus from falling off the base portion 110.

5 [0049] As schematically illustrated in figure 7, the chair 100 according to the present invention may further comprise a sliding element 170 provided between the rounded protrusion 130 and the rounded slot 140. The sliding element 170 may here be a separate piece of material configured to allow
10 sliding movement between the rounded protrusion 130 and the rounded slot 140. The sliding element 170 may cover and optionally be fastened to the surface of the rounded protrusion 130 or the rounded slot 140 and may optionally be replaceable. The employment of a sliding element 170 provided between the rounded protrusion 130 and the rounded slot 140 has been
15 found to be preferable in order to reduce wear of the surface of the rounded protrusion 130 and the surface of the rounded slot 140, and also in order to obtain a desirable friction between the rounded protrusion 130 and the rounded slot 140. The sliding element 170 may for example be made from
20 any one or more of polytetrafluoroethylene, polyimide, polyphenylene sulphide, polyetheretherketone, polyoxymethylene, polyketone, polyamide and polyphthalamide. In a particular example, the friction coefficient between the rounded protrusion 130 and the rounded slot 140 is less than 0.3. The latter has been found to be preferable in order to achieve a smooth tilting of the seat portion 120 relative to the base portion 110.

25 [0050] As will generally be appreciated by a person skilled in the art, the chair 100 described above may be considered equivalent to a chair 100 that comprises a base portion 110 comprising a rounded protrusion 130, and a seat portion 120 comprising a rounded slot 140. An example of such a chair 100 is schematically illustrated in figure 8 Here, the seat portion 120 may be
30 arranged such that the rounded protrusion 130 is received in the rounded slot 140, and the seat portion 120 may be configured to be tilted relative to the base portion 110 about the rounded protrusion 130 between a first upright position and a second backwards tilted position. All embodiments described above may thus be applied to said chair 100 that comprises a
35 base portion 110 comprising a rounded protrusion 130, and a seat portion 120 comprising a rounded slot 140.

Claims

1. A chair (100) comprising
 - a base portion (110) comprising a rounded protrusion (130),
 - a seat portion (120) comprising a rounded slot (140), where
 - 5 the seat portion (120) is arranged such that the rounded protrusion (130) is received in the rounded slot (140), and where the seat portion (120) is configured to be tilted relative to the base portion (110) about the rounded protrusion (130) between a first upright position and a second backwards tilted position,
 - 10 an elastic element (150) arranged between the seat portion (120) and the base portion (110) such that the elastic element (150) is compressed between the seat portion (120) and the base portion (110) when the seat portion (120) is moved from the first upright position to the
 - 15 second backwards tilted position, and
 - a connection mechanism (160) connecting the base portion (110) and the seat portion (120), where the connection mechanism (160) is configured to
 - 20 allow the seat portion (120) to be moved between the first upright position and the second backwards tilted position, and to prevent the seat portion (120) from being tilted forward from the first upright position relative to the base portion (110).
2. The chair (100) according to claim 1, further comprising a sliding element
- 25 (170) provided between the rounded protrusion (130) and the rounded slot (140).
3. The chair (100) according to claim 1 or 2, where the friction coefficient between the rounded protrusion (130) and the rounded slot (140) is less than
- 30 0.3.
4. The chair (100) according to any one of the preceding claims, where the rounded protrusion (130) protrudes in a forward-facing direction of the chair (100).
- 35 5. The chair (100) according to any one of the preceding claims, where the elastic element (150) comprises or consists of a thermoplastic or a polyurethane.

6. The chair (100) according to any one of the preceding claims, where

the base portion (110) comprises a first engagement portion (180)
arranged in the forward-facing direction of the chair (100) relative to
the rounded protrusion (130), and

the seat portion (120) comprises a second engagement portion (190)
arranged in the forward-facing direction of the chair (100) relative to
the rounded slot (140),

where the first engagement portion (180) rests against the second
engagement portion (190) when the seat is in the first upright position.

7. The chair (100) according to any one of the preceding claims, wherein the
connection mechanism (160) comprises

a bolt (200) comprising a male threaded portion (201), a bolt shank
portion (202) and a bolt head (203),

a female threaded recess (210) provided in the seat portion (120),
a chamber (220) provided in the base portion (110), and

a chamber wall (230) provided in the base portion (110), where
the chamber wall (230) is facing the seat portion (120),
and where

the chamber wall (230) is provided with an unthreaded
opening (240),

where the bolt (200) is arranged such that the male threaded portion (201)
of the bolt (200) is connected to the female threaded recess (210), the bolt
head (203) is arranged inside the chamber (220), and the bolt shank portion
(202) is arranged through the unthreaded opening (240), and

where the bolt head (203) is abutting the chamber wall (230) when the seat
portion (120) is in the first upright position.

8. The chair (100) according to any one of the claims 1 - 6, wherein the
connection mechanism (160) comprises

a bolt (200) comprising a male threaded portion (201), a bolt shank
portion (202) and a bolt head (203),

a female threaded recess (210) provided in the base portion (110),
a chamber (220) provided in the seat portion (120), and

a chamber wall (230) provided in the seat portion (120), where

the chamber wall (230) is facing the base portion (110),
and where
the chamber wall (230) is provided with an unthreaded
opening (240),

5 where the bolt (200) is arranged such that the male threaded portion (201)
of the bolt (200) is connected to the female threaded recess (210), the bolt
head (203) is arranged inside the chamber (220), and the bolt shank portion
(202) is arranged through the unthreaded opening (240), and

10 where the bolt head (203) is abutting the chamber wall (230) when the seat
portion (120) is in the first upright position.

9. The chair (100) according to claim 7 or 8 further comprising a rigid washer
ring (250) provided between the bolt head (203) and the chamber wall (230).

15 10. The chair (100) according to any one of the claims 7 - 9, further comprising a
dampening element (260) provided between the bolt head (203) and the
chamber wall (230).

11. The chair (100) according to claim 10, where the dampening element (260) is
an elastic washer ring.

20 12. The chair (100) according to any one of the claims 7 - 11, where the
unthreaded opening (240) has an elongated shape.

25 13. The chair (100) according to any one of the preceding claims where the
rounded slot (140) and the rounded protrusion (130) form a ball joint.

14. A chair (100) comprising
a base portion (110) comprising a rounded slot (140),
a seat portion (120) comprising a rounded protrusion (130), where
30 the seat portion (120) is arranged such that the rounded
protrusion (130) is received in the rounded slot (140), and where
the seat portion (120) is configured to be tilted relative to the
base portion (110) about the rounded slot (140) between a first
upright position and a second backwards tilted position,
35 an elastic element (150)
arranged between the seat portion (120) and the base portion
(110) such that the elastic element (150) is compressed between
the seat portion (120) and the base portion (110) when the seat

portion (120) is moved from the first upright position to the second backwards tilted position, and
a connection mechanism (160) connecting the base portion (110) and the seat portion (120), where the connection mechanism (160) is
5 configured to
allow the seat portion (120) to be moved between the first upright position and the second backwards tilted position, and to prevent the seat portion (120) from being tilted forward from the first upright position relative to the base portion (110).