

Patent Right	Date	December 15, 2021	Court	Intellectual Property High Court, Third Division
	Case number	2020 (Gyo-Ke) 10089		
<p>- A case in which, concerning the findings of the subject-matter of the invention, the court first determined that if the meanings of the statements in the claims are not defined or described in the description or drawings as being different from the regular meanings, it is reasonable to interpret the statements in the claims based on the regular meanings in consideration of common general technical knowledge before the priority date in the technology field to which the invention belongs, then interpreted the terms in the claims based on common general technical knowledge, determined that, according to the aforementioned interpretation, a person skilled in the art could have easily conceived of the patented invention based on publicly-known inventions, and rescinded the JPO Decision that denied that a person skilled in the art could have easily conceived of the patented invention.</p>				

Case type: Rescission of Trial Decision to Maintain

Results: Granted

References: Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act

Related rights, etc.: Patent No. 6328108. Invalidation Trial No. 2019-800027

Summary of the Judgment

1. The Defendant is the patentee of Patent No. 6328108 (number of patent claims: 16; hereinafter referred to as the "Patent") for an invention titled, "Child safety seat or baby carrier to be installed on a vehicle seat and a side impact bar for the seat." The Plaintiff requested a trial for invalidation of the Patent (Invalidation Trial No. 2019-800027) and the Defendant requested correction of Claims 1 through 15 among the claims of the Patent. The Japan Patent Office (JPO) approved the correction, found that a person skilled in the art could not have easily conceived of the invention related to the Patent based on publicly-known inventions, and determined that the request for the Trial could not be upheld. The Plaintiff filed this lawsuit to seek rescission of this decision made by the JPO (the "JPO Decision").

2. In this judgment, concerning the findings of the subject-matter of the invention, the court first determined that if the meanings of the statements in the claims are not defined or described in the description or drawings as being different from the regular meanings, it is reasonable to interpret the statements in the claims based on the regular meanings

in consideration of common general technical knowledge before the priority date in the technology field to which the invention belongs, then interpreted the terms in the claims (the terms, "seat shell" and "supporting section" as used in Claims 1 and 16) based on common general technical knowledge, and determined that, according to the aforementioned interpretation, a person skilled in the art could have easily conceived of the patented invention based on publicly-known inventions. In conclusion, the court rescinded the JPO Decision that denied that a person skilled in the art could have easily conceived of the patented invention.

Judgment rendered on December 15, 2021

2020 (Gyo-Ke) 10089 Case of seeking rescission of the JPO decision

Date of conclusion of oral argument: September 22, 2021

Judgment

Plaintiff: Joie International Co., Limited.

(omitted)

Defendant: CYBEX GmbH

(omitted)

Main text

1. The decision made by the Japan Patent Office (the "JPO") on March 27, 2020, for the case of Invalidation Trial No. 2019-800027 shall be rescinded.
2. The Defendant shall bear the court costs.
3. The additional period for filing a final appeal and a petition for acceptance of final appeal against this judgment shall be set as 30 days.

Facts and reasons

No. 1 Claim

Same as the main text.

No. 2 Outline of the case

1. History of procedures at the JPO

(The facts other than those for which evidence has been presented are not disputed between the parties.)

(1) The Defendant is the patentee of Patent No. 6328108 for an invention titled "Child safety seat or baby carrier for mounting on a motor vehicle seat and side impact bar for such a seat" (an international application filed on June 13, 2013; priority claims under the Paris Convention accepted by a foreign office: June 18, 2012, Germany, and July 4, 2012, Germany; the establishment of the patent right registered on April 27, 2018; the number of claims: 16; hereinafter referred to as the "Patent").

(2) On April 3, 2019, the Plaintiff filed a request for a trial with the JPO seeking invalidation of the Patent (Invalidation Trial No. 2019-800027; hereinafter referred to as the "Invalidation Trial"). The Defendant filed a request for a correction on July 16, 2019 (hereinafter referred to as the "Correction") (Exhibit Ko 11; with regard to the

claims, correction was requested for Claims 1 through 15).

On March 27, 2020, the JPO rendered a decision to the effect that it approves the correction with regard to Claims [1 through 15] resulting from correcting the description and claims of Patent No. 6328108 to the corrected description and claims attached to the written request for correction, and that therefore the request for this trial is groundless (hereinafter referred to as the "JPO Decision"; the JPO Decision is as described in Attachment 1), and its certified copy was served on the Plaintiff on April 6, 2020.

On July 27, 2020, the Plaintiff filed this action seeking rescission of the JPO Decision.

2. Claims

The claims after the Correction (Claims 1 through 16 as corrected by the Correction) are as described below (JPO Decision, No. 3 [line 3 on page 7 to line 34 on page 9 of the JPO Decision]; hereinafter, the statements of the claims are those after the Correction, and the inventions claimed in Claims 1 through 16 as corrected by the Correction are respectively referred to as "Invention 1" or the like and they are collectively referred to as the "Inventions"; codes 1A through 1H are assigned to the constituent features of Claim 1), the description attached to the written application of the Patent (the description after the correction referred to in 1. (2) above; hereinafter referred to as the "Description") is as described in Attachment 2-1 (Corrected Description) (the corrected description in Exhibit Ko 11), and the drawings (hereinafter referred to as the "Drawings," and together with the Description, they are referred to as the "Description, etc.") are as shown in Attachment 2-2 (Drawings) (the drawings in Exhibit Ko 21).

(1) Claim 1

A child safety seat or infant car seat for mounting onto a motor vehicle seat, (1A)
which is a child safety seat (1H)
comprising
support sections that support the child or infant, (1B)
a seat shell as a construction element for the support sections, (1C)
and a side-collision protection attached to the seat shell on the outer side of the seat shell, (1D)
wherein the support sections are positioned on the inner sides of the seat shell, (1E)
the side-collision protection is movable from a resting position situated within the predefined width of the child safety seat to a functional position situated outside of the predefined width of the child safety seat in the direction of projecting from the outer

side of the seat shell, and from the functional position to the resting position, (1F) and the side-collision protection is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell. (1G)

(2) Claim 2

A child safety seat according to Claim 1, characterized in that the side-collision protection comprises a side element which in its resting position, rests flat on the side area of the outside of the seat shell, or, is flush with the side area of the outside of the seat shell.

(3) Claim 3

A child safety seat according to Claim 2, characterized in that the side element may be folded-out, swiveled-out, or extended telescopically from the resting position for use in the functional position.

(4) Claim 4

A child safety seat according to Claim 2 or 3, characterized in that the side element is configurable as regards its length and/or height position.

(5) Claim 5

A child safety seat according to any one of Claims 2 through 4, characterized in that the side element comprises a snap-in control (click lock) mechanism, snap-action mechanism, folding mechanism, ratchet mechanism, telescope mechanism, thread or screwing mechanism or pulley mechanism, intended for fixing the side element to the functional position.

(6) Claim 6

A child safety seat according to any one of Claims 2 through 5, characterized in that the side element is arranged above the seat area of the child safety seat.

(7) Claim 7

A child safety seat according to any one of Claims 2 through 6, characterized in that the side element is arranged in the back section of the child safety seat.

(8) Claim 8

A child safety seat according to any one of Claims 2 through 7,

characterized in that

the child safety seat comprises two side elements in the seat shell.

(9) Claim 9

A child safety seat according to any one of Claims 2 through 8,
characterized in that

the side elements provided on each side of the seat shell are connected with each other within a seat shell construction.

(10) Claim 10

A child safety seat according to any one of Claims 2 through 9,
characterized in that

the side element is designed as a folding part, which may be rotated around an axis for the purpose of switching from a resting position to a functional position, and also from the functional position to the resting position, wherein the folding part has at least one stop retainer onto which a locking bar locks, so that the folding part is locked in the functional position, and wherein the lock may be released by a user that actuates a release button or a release slider, one of which is assigned to the locking bar.

(11) Claim 11

A child safety seat according to Claim 10,
characterized in that

the locking bar is pre-loaded by an elastic element that energizes the stop retainer and the locking bar toward a position in which the stop retainer locks the folding part when the folding part is brought from the resting position into the functional position.

(12) Claim 12

A child safety seat according to Claim 11,
characterized in that

the locking bar in its resting position is held, by the folding part, in a position in which it is pre-loaded by the elastic element.

(13) Claim 13

A child safety seat according to any one of Claims 10 through 12,
characterized in that

the folding part has a cogging which is grabbed by the locking bar so that the folding part is locked in one of several positions between the resting position and the functional position.

(14) Claim 14

A child safety seat according to any one of Claims 2 through 13,
characterized in that

the side element comprises a receptor which receives a neighboring side element of another neighboring child safety seat and/or a contact apparatus for contacting with the neighboring side element and/or a bonding apparatus for bonding with the neighboring side element and/or a locking apparatus for locking with the neighboring side element.

(15) Claim 15

A child safety seat according to any one of Claims 2 through 14, characterized in that

the side element comprises a foldable or screw-on or slip-on mushroom-like end section.

(16) Claim 16

A side-collision protection comprising support sections that support the child or infant and a seat shell as a construction element for the support sections, wherein the support sections are on the inner side of the seat shell and the side-collision protection is designed to be attachable to a child safety seat or infant car seat,

and wherein the side-collision protection is formed as a folding part to be attached to the seat shell on the outer side of the seat shell, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and also from the functional position to the resting position, wherein the folding part has at least one stop retainer onto which a locking bar locks in the functional position where at least one part of the folding part projects from the outer side of the seat shell, so that the folding part is locked in a predefined position in said functional position, and wherein the locking of the folding part in the predefined position in the functional position may be released by actuation of a release button or a release slider, which is assigned to at least one of the locking bars.

3. Summary of the JPO Decision

(1) Grounds for invalidation

In the Invalidation Trial, the Plaintiff asserted the following grounds for invalidation (JPO Decision, No. 4, 1. [line 9 on page 10 to line 16 on page 11 of the JPO Decision]).

A. Grounds for Invalidation 1

Inventions 1, 2, 3, 6 through 9, and 14 should be invalidated based on Exhibit Ko 1 (EUROPEAN PATENT APPLICATION EP2384926A1 published on November 9, 2011; the inventions disclosed in Exhibit Ko 1 are hereinafter referred to as "Exhibit Ko 1 Inventions"), as they lack novelty, and even if they had any differences from Exhibit Ko 1, the differences would only be minor, and therefore they also lack an inventive step over Exhibit Ko 1 (Article 29, paragraph (1), item (iii) and Article 123, paragraph (1), item (ii) of the Patent Act).

The invention relating to Invention 4 should be invalidated based on Exhibit Ko 1

and Exhibit Ko 2 (Publication of Japanese Translation of PCT International Application 2008-515695 published on May 15, 2008), as it lacks an inventive step over Exhibits Ko 1 and 2 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

Inventions 5 and 15 should be invalidated based on Exhibit Ko 1, as they lack an inventive step over Exhibit Ko 1 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

Inventions 10 through 13 and 16 should be invalidated based on Exhibit Ko 1 and Exhibit Ko 3 (hereinafter includes all branch numbers; Exhibit Ko 3-1 is Unexamined Patent Application Publication No. 1999-268565 published on October 5, 1999; Exhibit Ko 3-2 is United States Patent Number 6,045,183), as they lack an inventive step over Exhibits Ko 1 and 3 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

B. Grounds for Invalidation 2

Inventions 1 through 3, 5, 6, 8, 14, and 15 should be invalidated based on Exhibit Ko 4 (Unexamined Patent Application Publication No. 1995-69109 published on March 14, 1995; the invention disclosed in Exhibit Ko 4 is hereinafter referred to as "Exhibit Ko 4 Invention"), as they lack novelty, and even if they had any differences from Exhibit Ko 4 Invention, the differences would only be minor, and therefore they also lack an inventive step over Exhibit Ko 4 (Article 29, paragraph (1), item (iii), or paragraph (2) of the same Article and Article 123, paragraph (1), item (ii) of the Patent Act).

Invention 4 should be invalidated based on Exhibits Ko 4 and 2, as it lacks an inventive step over Exhibits Ko 4 and 2 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

Inventions 7 and 9 should be invalidated based on Exhibit Ko 4, as they lack an inventive step over Exhibit Ko 4 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

Inventions relating to Inventions 10 through 13 and 16 should be invalidated based on Exhibits Ko 4 and 3, as they lack an inventive step over Exhibits Ko 4 and 3 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

C. Grounds for Invalidation 3

Inventions 1 through 8, 14, and 15 should be invalidated, as they lack novelty or an inventive step over Exhibit Ko 5 (United States Patent Application Publication Pub. No.: US 2011/0012398 A1) published on January 20, 2011; the invention disclosed in Exhibit Ko 5 is hereinafter referred to as "Exhibit Ko 5 Invention"), or lack an inventive step over Exhibits Ko 5 through 7 (Article 29, paragraph (1), item (iii), or paragraph (2) of

the same Article and Article 123, paragraph (1), item (ii) of the Patent Act).

Invention 9 should be invalidated, as it lacks an inventive step over Exhibits Ko 5 and 6 or over Exhibits Ko 5 through 7 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

Inventions 10 through 13 and 16 should be invalidated, as each of them lacks an inventive step over Exhibit Ko 5 or over Exhibits Ko 5, 3, 6, and 7 (Article 29, paragraph (2) and Article 123, paragraph (1), item (ii) of the Patent Act).

D. Grounds for Invalidation 5

The statement "the predefined width of the child safety seat" in Invention 1 violates the clarity requirement under Article 36, paragraph (6), item (ii) of the Patent Act, as it makes the outer limits of the scope of right unclear, and therefore the invention should be invalidated (Article 123, paragraph (1), item (iv) of the Patent Act).

(Grounds for Invalidation 4 were withdrawn.)

(2) Finding of the prior art and common features/differences between the Inventions and the prior art

A. Relationship with Exhibit Ko 1

(A) Exhibit Ko 1 Inventions

The JPO Decision found Exhibit Ko 1 Inventions to be as follows.

a. Exhibit Ko 1 Invention 1 (JPO Decision, No. 5, 1. (1) A. [lines 5 to 16 on page 18 of the JPO Decision])

A child vehicle seat 1, comprising a seat 3 having a backrest 5 with side supports 6, a seat portion 4, and a headrest 10, as members for supporting a child, and further comprising a base 2 to which the seat 3 is mounted, wherein, on both lateral sides, the backrest 5 is provided with side supports 6 being pivotably connected thereto by means of pivot axes, and the seat 3 is on the upper side of the base 2, and the side supports 6 pivot around pivot axes 7 from inward positions to outward positions situated toward the outside in the direction of projecting approximately outward from both sides of the backrest 5, and also from outward positions to inward positions.

b. Exhibit Ko 1 Invention 16 (JPO Decision, No. 5, 1. (1) B. [lines 18 to 28 on page 18 of the JPO Decision])

Side supports 6 being pivotably connected to a backrest 5 of a seat 3 of a child vehicle seat 1, comprising the seat 3 having the backrest 5 with side supports 6, a seat portion 4, and a headrest 10, as members for supporting a child, and further comprising

a base 2 to which the seat 3 is mounted,
wherein, the side supports 6 are pivotably connected to the backrest 5 on both lateral sides,
and the side supports 6 pivot around pivot axes 7 from inward positions to outward positions situated toward the outside in the direction of projecting approximately outward from both sides of the backrest 5, and also from outward positions to inward positions.

(B) Common features/differences between Invention 1 and Exhibit Ko 1 Inventions

The JPO Decision found the common features/differences between Invention 1 and Exhibit Ko 1 Inventions to be as follows.

a. Common features/differences between Invention 1 and Exhibit Ko 1 Invention 1

(a) Common features (JPO Decision, No. 5, 2. (1) (1-1) [lines 14 to 23 on page 48 of the JPO Decision])

A child safety seat or infant car seat for mounting onto a motor vehicle seat, comprising a seat member,
and further comprising side members attached to the seat member on the sides of the seat member,
wherein the side members are movable from inward positions to outward positions in the direction of projecting toward the sides of the seat member, and also from the outward positions to the inward positions.

(b) Difference 1 (JPO Decision, No. 5, 2. (1) (1-1) [lines 26 to 34 on page 48 of the JPO Decision])

Invention 1 "comprises support sections that support the child or infant, a seat shell as a construction element for the support sections, and a side-collision protection attached to the seat shell on the outer side of the seat shell, wherein the support sections are positioned on the inner sides of the seat shell," whereas Exhibit Ko 1 Invention 1 is an invention "comprising a seat 3 having a backrest 5 with side supports 6, a seat portion 4, and a headrest 10, as members for supporting a child, and further comprising a base 2 to which the seat 3 is mounted, wherein, on both lateral sides, the backrest 5 is provided with side supports 6 being pivotably connected thereto by means of pivot axes, and the seat 3 is on the upper side of the base 2."

(c) Difference 2 (JPO Decision, No. 5, 2. (1) (1-1) [line 36 on page 48 to line 7 on page 49 of the JPO Decision])

In Invention 1, "the side-collision protection is movable from a resting position situated within the predefined width of the child safety seat to a functional position situated outside of the predefined width of the child safety seat in the direction of

projecting from the outer side of the seat shell, and from the functional position to the resting position, and the side-collision protection is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell," whereas in Exhibit Ko 1 Invention 1, "the side supports 6 pivot around pivot axes 7 from inward positions to outward positions situated toward the outside in the direction of projecting approximately outward from both sides of the backrest 5, and also from outward positions to inward positions."

b. Common features/differences between Invention 16 and Exhibit Ko 1 Invention 16

(a) Common features (JPO Decision, No. 5, 2. (3) (3-1) [lines 4 to 10 on page 58 of the JPO Decision])

Side members comprising a seat member and designed to be attachable to a child safety seat or infant car seat member, wherein the side members are formed as parts attached to the seat member on the sides of the seat member, and those parts may be rotated around an axis for the purpose of changing from inward positions to outward positions, and also from the outward positions to the inward positions.

(b) Difference 1 (JPO Decision, No. 5, 2. (3) (3-1) [lines 13 to 20 on page 58 of the JPO Decision])

Invention 16 is "a side-collision protection comprising support sections that support the child or infant and a seat shell as a construction element for the support sections, wherein the support sections are on the inner side of the seat shell and the side-collision protection is designed to be attachable to a child safety seat or infant car seat," whereas Exhibit Ko 1 Invention 16 is "side supports 6 being pivotably connected to a backrest 5 of a seat 3 of a child vehicle seat 1, comprising the seat 3 having the backrest 5 with side supports 6, a seat portion 4, and a headrest 10, as members for supporting a child, and further comprising a base 2 to which the seat 3 is mounted."

(c) Difference 2 (JPO Decision, No. 5, 2. (3) (3-1) [lines 22 to 30 on page 58 of the JPO Decision])

In Invention 16, "the side-collision protection is formed as a folding part to be attached to the seat shell on the outer side of the seat shell, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and also from the functional position to the resting position," whereas in Exhibit Ko 1, "the side supports 6 are pivotably connected to the backrest 5 on both lateral sides, and the side supports 6 pivot around pivot axes 7 from inward positions to outward positions situated toward the outside in the direction of projecting

approximately outward from both sides of the backrest 5, and also from outward positions to inward positions."

(d) Difference 3 (JPO Decision, No. 5, 2. (3) (3-1) [lines 32 to 39 on page 58 of the JPO Decision])

Invention 16 is an invention "wherein the folding part has at least one stop retainer onto which a locking bar locks in the functional position, so that the folding part is locked in a predefined position in the functional position where at least one part of the folding part projects from the outer side of the seat shell, and wherein the locking of the folding part in the predefined position in the functional position may be released by actuation of a release button or a release slider, which is assigned to at least one of the locking bars," whereas Exhibit Ko 1 Invention 16 has no such specification.

B. Relationship with Exhibit Ko 4

(A) Exhibit Ko 4 Invention

The JPO Decision found Exhibit Ko 4 Invention to be as follows.

a. Exhibit Ko 4 Invention 1 (JPO Decision, No. 5, 1. (5) A. [lines 3 to 16 on page 29 of the JPO Decision])

A child safety seat 1 for an automobile, comprising a seat portion 2 and a backrest portion 3 for supporting a child and head guards 4 and 5 for protecting the head, wherein the backrest portion 3 and the head guards 4 and 5 have core members, cushion members and cover members for the backrest portion 3 and the head guards 4 and 5 are on the surface side of the core members for the backrest portion 3 and the head guards 4 and 5, and the head guards 4 and 5 forwardly extend from both side edges of the backrest portion 3, and are rendered rotatable around axes extending substantially parallel to the direction of upward extension of the backrest portion 3, and rotatable from inward positions to outward positions situated toward the outside, and also from outward positions to inward positions.

b. Exhibit Ko 4 Invention 16 (JPO Decision, No. 5, 1. (5) B. [lines 18 to 30 on page 29 of the JPO Decision])

Head guards 4 and 5 rotatably held by a backrest portion 3 of a child safety seat 1 for an automobile, comprising a seat portion 2 and the backrest portion 3 for supporting a child and the head guards 4 and 5 for protecting the head, wherein the backrest portion 3 and the head guards 4 and 5 have core members, cushion members and cover members for the backrest portion 3 and the head guards 4 and 5 are on the surface side of the core members,

the head guards 4 and 5 forwardly extend from both side edges of the backrest portion 3 and are rotatably held,

the head guards 4 and 5 are rotatable around a hinge portion 14 from inward positions to outward positions, and also from outward positions to inward positions, and locking means are employed for strictly fixing the head guards 4 and 5 after rotation by prescribed operations.

(B) Common features/differences between the Inventions and Exhibit Ko 4 Invention

The JPO Decision found the common features/differences between the Inventions and Exhibit Ko 4 Invention to be as follows.

a. Common features/differences between Invention 1 and Exhibit Ko 4 Invention 1

(a) Common features (JPO Decision, No. 5, 3. (1) (1-1) [lines 24 to 33 on page 62 of the JPO Decision])

A child safety seat or infant car seat for mounting onto a motor vehicle seat, comprising support sections that support the child or infant, a seat member as a construction element for the support sections, and side protection members attached to the seat member, wherein the support sections are positioned on the inner sides of the seat member, and the side protection members are movable from inward positions to outward positions, and also from the outward positions to the inward positions.

(b) Difference 1 (JPO Decision, No. 5, 3. (1) (1-1) [line 36 on page 62 to line 5 on page 63 of the JPO Decision])

Invention 1 is an invention "comprising ... a seat shell as a construction element for the support sections, and a side-collision protection attached to the seat shell on the outer side of the seat shell, wherein the support sections are positioned on the inner sides of the seat shell," whereas Exhibit Ko 4 Invention 1 is an invention comprising a "core member" for a backrest portion 3" and "head guards 4 and 5 that forwardly extend from both side edges of the backrest portion 3, and are rotatable around axes extending substantially parallel to the direction of upward extension of the backrest portion 3, wherein cushion members and cover members for the backrest portion 3 for supporting a child and head guards 4 and 5 for protecting the head are on the surface side of the core members for the backrest portion 3 and the head guards 4 and 5."

(c) Difference 2 (JPO Decision, No. 5, 3. (1) (1-1) [lines 7 to 18 on page 63 of the JPO Decision])

In Invention 1, "the side-collision protection is movable from a resting position situated within the predefined width of the child safety seat to a functional position

situated outside of the predefined width of the child safety seat in the direction of projecting from the outer side of the seat shell, and from the functional position to the resting position, and the side-collision protection is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell," whereas in Exhibit Ko 4 Invention 1, "head guards 4 and 5 are rotatable around axes extending substantially parallel to the direction of upward extension of the backrest portion 3" and "the head guards 4 and 5 forwardly extend from both side edges of the backrest portion 3 and are rotatable from inward positions to outward positions, and also from outward positions to inward positions."

b. Common features/differences between Invention 16 and Exhibit Ko 4 Invention 16

(a) Common features (JPO Decision, No. 5, 3. (3) (3-1) [lines 16 to 27 on page 69 of the JPO Decision])

A side protection member comprising support sections that support the child or infant and a seat member as a construction element for the support sections, wherein the support sections are on the inner side of the seat shell and the side-collision protection is designed to be attachable to a child safety seat or infant car seat, and wherein the side protection member is formed as a part to be attached to the seat member, which may be rotated around an axis for the purpose of changing the part from a first position to a second position, and also from the second position to the first position, wherein that part has at least one stop retainer that locks at least one portion of that part in the second position, so that it is locked in a predefined position in the second position.

(b) Difference 1 (JPO Decision, No. 5, 3. (3) (3-1) [lines 30 to 37 on page 69 of the JPO Decision])

Invention 16 discloses a "side-collision protection" comprising a "seat shell" as a construction element for the support sections, wherein the support sections are on the inner side of the "seat shell" and the side-collision protection is designed to be attachable to a child safety seat or infant car seat, whereas Exhibit Ko 4 Invention 16 discloses "head guards 4 and 5 rotatably held by a backrest portion 3 of a child safety seat 1 for an automobile, comprising core members for the backrest portion 3 and the head guards 4 and 5, wherein cushion members and cover members for the backrest portion 3 and the head guards 4 and 5 are on the surface side of the core members."

(c) Difference 2 (JPO Decision, No. 5, 3. (3) (3-1) [line 39 on page 69 to line 15 on page 70 of the JPO Decision])

In Invention 16, "the side-collision protection is formed as a folding part to be

attached to the seat shell on the outer side of the seat shell, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and also from the functional position to the resting position, wherein the folding part has at least one stop retainer onto which a locking bar locks in the functional position where at least one part of the folding part projects from the outer side of the seat shell, so that the folding part is locked in a predefined position in said functional position, and wherein the locking of the folding part in the predefined position in the functional position may be released by actuation of a release button or a release slider, which is assigned to at least one of the locking bars," whereas in Exhibit Ko 4 Invention 16, "the head guards 4 and 5 forwardly extend from both side edges of the backrest portion 3 and are rotatably held, the head guards 4 and 5 are rotatable around a hinge portion 14 from inward positions to outward positions, and also from outward positions to inward positions, and locking means are employed for strictly fixing the head guards 4 and 5 after rotation by prescribed operations."

C. Relationship with Exhibit Ko 5

(A) Exhibit Ko 5 Invention

The JPO Decision found Exhibit Ko 5 Invention to be as follows.

a. Exhibit Ko 5 Invention 1-1 (JPO Decision, No. 5, 1. (6) A. [lines 17 to 36 on page 40 of the JPO Decision])

A child safety seat with side impact protection 1, comprising
a seat part having a backrest and a seat portion, which is covered by pads and supports a child,
a carrying handle 8,
and an element absorbing and/or transmitting energy 2 attached to a fastening region 11 of the carrying handle 8 of the child safety seat 1 on the outer side (the lateral side) of the seat part,
wherein the element absorbing and/or transmitting energy 2 or 101 is movable from a rest position situated within the width including the fastening region 11 of the carrying handle 8 to a functioning position situated outside the width including the fastening region 11 of the carrying handle 8 in the direction of projecting from the outer side (the lateral side) of the seat part, and also from the functioning position to the rest position, and, when the child safety seat 1 is fastened to either of the seats of the vehicle, the element absorbing and/or transmitting energy 2 introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the

element absorbing and/or transmitting energy 2 to the child safety seat 1 or the base element, and finally transferred to the car body structure.

b. Exhibit Ko 5 Invention 16-1 (JPO Decision, No. 5, 1. (6) B. [line 38 on page 40 to line 18 on page 41 of the JPO Decision])

An element absorbing and/or transmitting energy 2 or 101, which is an element absorbing and/or transmitting energy 2 attached to a fastening region 11 of a carrying handle 8 of a child safety seat with side impact protection 1, comprising

a seat part having a backrest and a seat portion, which is covered by pads and supports a child,

a carrying handle 8,

and the element absorbing and/or transmitting energy 2,

wherein the element absorbing and/or transmitting energy 2 or 101 is formed as an arc-shaped part to be attached to the fastening region 11 of the carrying handle 8 on the outer side (the lateral side) of the seat part,

the element absorbing and/or transmitting energy 2 or 101 is rotated around an axis for the purpose of moving the arc-shaped part from a rest position to a functioning position, and also from the functioning position to the rest position,

and, when the child safety seat 1 is fastened to either of the seats of the vehicle, the element absorbing and/or transmitting energy 2 introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1 or the base element, and finally transferred to the car body structure.

c. Exhibit Ko 5 Invention 1-2 (JPO Decision, No. 5, 1. (6) C. (B) [lines 20 to 36 on page 42 of the JPO Decision])

A child safety seat with side impact protection 1, comprising

a seat part having a backrest and a seat portion, which is covered by pads and supports a child,

a carrying handle 8,

and an element absorbing and/or transmitting energy 2,

wherein, as a result that a cylinder 301 as an element absorbing and/or transmitting energy 2 is arranged in a fastening region 11 of a carrying handle, and is shifted in the projecting direction from a rest position where it is pushed into the inner side to a functioning position on the outer side,

and guiding pins 302 are taken to the functioning regions 306 of the recesses, the element absorbing and/or transmitting energy 2 is anchored in the functioning position 4,

and, when the child safety seat 1 is fastened to a seat of the vehicle, introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1.

d. Exhibit Ko 5 Invention 16-2 (JPO Decision, No. 5, 1. (6) C. (D) [line 26 on page 43 to line 13 on page 44 of the JPO Decision])

An element absorbing and/or transmitting energy 2 arranged in a fastening region 11 of a carrying handle 8 of a child safety seat with side impact protection 1, comprising a seat part having a backrest and a seat portion, which is covered by pads and supports a child,

a carrying handle 8,

and the element absorbing and/or transmitting energy 2,

wherein the element absorbing and/or transmitting energy 2 has the shape of a cylinder 301 at which guiding pins 302 are arranged, the cylinder 301 is guided in a cylinder guide 303 comprising recesses 304 in the form of connecting members for the guiding pins 302, the cylinder 301 is rotatable around an axis in the cylinder guide 303 for the purpose of shifting the cylinder 301 from a rest position 3 to a functioning position 4, the guiding pins 302 of the cylinder 301 are positioned in the functioning regions 306 of the recesses of the cylinder guide 303, the element absorbing and/or transmitting energy 2 is anchored in the functioning position 4, the functioning position 4 in which the element absorbing and/or transmitting energy 2 is anchored is a position in which the cylinder 301 projects from the outer side of the fastening region 11 of the carrying handle 8, and the positioning of the guiding pins 302 of the cylinder 301 in the functioning regions 306 of the recesses of the cylinder guide 303 and the anchoring of the element absorbing and/or transmitting energy 2 in the functioning position 4 may be released by operation of recessed grips 310,

and, when the child safety seat 1 is fastened to either of the seats of the vehicle, the element absorbing and/or transmitting energy 2 introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1 or the base element, and finally transferred to the car body structure.

(B) Common features/differences between the Inventions and Exhibit Ko 5 Invention

The JPO Decision found the common features/differences between the Inventions and Exhibit Ko 5 Invention to be as follows.

a. Common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1

(a) Common features (JPO Decision, No. 5, 4. (1) (1-1) [lines 2 to 18 on page 74 of the JPO Decision])

A child safety seat or infant car seat for mounting onto a motor vehicle seat, comprising support sections that support the child or infant, a seat member, and a member absorbing/transmitting forces attached to one part of the seat on the outer side of the seat member, wherein the support sections are positioned on the inner sides of the seat member, the member absorbing/transmitting forces is movable from a resting position situated within the predefined width of the child safety seat to a functional position situated outside of the predefined width of the child safety seat in the direction of projecting from the outer side of the seat member, and also from the functional position to the resting position, and the member absorbing/transmitting forces is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat.

(b) Difference 1 (JPO Decision, No. 5, 4. (1) (1-1) [line 21 on page 74 to line 3 on page 75 of the JPO Decision])

Invention 1 is an invention comprising a "seat shell" as a construction element for the support sections and a "side-collision protection" attached to the "seat shell" on the outer side of the "seat shell," wherein the support sections are positioned on the inner sides of the "seat shell," the "side-collision protection" is movable in the direction of projecting from the outer side of the "seat shell," and the "side-collision protection" is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the "seat shell," whereas Exhibit Ko 5 Invention 1-1 is an invention "comprising a seat part having a backrest and a seat portion, which is covered by pads and supports a child, a carrying handle 8, and an element absorbing and/or transmitting energy 2 attached to a fastening region 11 of the carrying handle 8 of the child safety seat 1 on the outer side (the lateral side) of the seat part, wherein the element absorbing and/or transmitting energy 2 or 101 is movable from a rest position situated within the

width including the fastening region 11 of the carrying handle 8 to a functioning position situated outside the width including the fastening region 11 of the carrying handle 8 in the direction of projecting from the outer side (the lateral side) of the seat part, and also from the functioning position to the rest position, and, when the child safety seat 1 is fastened to either of the seats of the vehicle, the element absorbing and/or transmitting energy 2 introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1 or the base element, and finally transferred to the car body structure."

b. Common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-2

(a) Common features (JPO Decision, No. 5, 4. (1) (1-3) [lines 8 to 24 on page 80 of the JPO Decision])

A child safety seat or infant car seat for mounting onto a motor vehicle seat, comprising support sections that support the child or infant, a seat member, and a member absorbing/transmitting forces attached to the seat on the outer side of the seat member, wherein the support sections are positioned on the inner sides of the seat member, the member absorbing/transmitting forces is movable from a resting position situated within the predefined width of the child safety seat to a functional position situated outside of the predefined width of the child safety seat in the direction of projecting toward the outer side of the seat member, and the member absorbing/transmitting forces is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat.

(b) Difference 1' (JPO Decision, No. 5, 4. (1) (1-3) [line 27 on page 80 to line 7 on page 81 of the JPO Decision])

Invention 1 is an invention comprising a "seat shell" as a construction element for the support sections and a "side-collision protection" attached to the "seat shell" on the outer side of the "seat shell," wherein the support sections are positioned on the inner sides of the "seat shell," the "side-collision protection" is movable in the direction of projecting from the outer side of the "seat shell," and the "side-collision protection" is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety

seat are led into the "seat shell," whereas Exhibit Ko 5 Invention 1-2 is an invention "comprising a seat part having a backrest and a seat portion, which is covered by pads and supports a child, a carrying handle 8, and an element absorbing and/or transmitting energy 2, wherein, as a result that a cylinder 301 as an element absorbing and/or transmitting energy 2 is arranged in a fastening region 11 of a carrying handle, and is shifted in the projecting direction from a rest position where it is pushed into the inner side to a functioning position on the outer side, and guiding pins 302 are taken to the functioning regions 306 of the recesses, the element absorbing and/or transmitting energy 2 is anchored in the functioning position 4, and, when the child safety seat 1 is fastened to a seat of the vehicle, introduces forces acting laterally on the child safety seat 1 into supporting elements or transmits kinetic energy from a lateral movement to such elements, and the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1."

(c) Difference 2' (JPO Decision No. 5, 4. (1) (1-3) [lines 9 to 12 on page 81 of the JPO Decision])

With regard to the member absorbing/transmitting forces, Invention 1 specifies that "the side-collision protection" is movable "from the functional position to the resting position," whereas Exhibit Ko 5 Invention 1-2 has no such specification regarding the "element absorbing and/or transmitting energy 2."

c. Common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1

(a) Common features (JPO Decision, No. 5, 4. (3) (3-1) [lines 9 to 17 on page 84 of the JPO Decision])

A member absorbing/transmitting forces comprising support sections that support the child or infant and a seat member, wherein the support sections are on the inner side of the seat shell and the side-collision protection is designed to be attachable to a child safety seat or infant car seat,

and wherein the member absorbing/transmitting forces is formed as a folding part to be attached to one part of the seat shell on the outer side of the seat member, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and also from the functional position to the resting position.

(b) Difference 1 (JPO Decision, No. 5, 4. (3) (3-1) [lines 20 to 32 on page 84 of the JPO Decision])

Invention 16 is an invention comprising support sections that support the child or infant and a "seat shell" as a construction element for the support sections, wherein the support sections are "on the inner side of the seat shell" and the side-collision protection

is designed to be attachable to a child safety seat or infant car seat, and wherein the "side-collision protection" is formed as a folding part to be attached to the "seat shell" on the outer side of the "seat shell," whereas Exhibit Ko 5 Invention 16-1 is "an element absorbing and/or transmitting energy 2 or 101, which is an element absorbing and/or transmitting energy 2 attached to a fastening region 11 of a carrying handle 8 of a child safety seat with side impact protection 1, comprising a seat part having a backrest and a seat portion, which is covered by pads and supports a child, a carrying handle 8, and the element absorbing and/or transmitting energy 2, wherein the element absorbing and/or transmitting energy 2 or 101 is formed as an arc-shaped part to be attached to the fastening region 11 of the carrying handle 8 on the outer side (the lateral side) of the seat part."

(c) Difference 2 (JPO Decision, No. 5, 4. (3) (3-1) [line 34 on page 84 to line 5 on page 85 of the JPO Decision])

Invention 16 is an invention "wherein the folding part has at least one stop retainer onto which a locking bar locks in the functional position where at least one part of the folding part projects from the outer side of the seat shell, so that the folding part is locked in a predefined position in said functional position, and wherein the locking of the folding part in the predefined position in the functional position may be released by actuation of a release button or a release slider, which is assigned to at least one of the locking bars," whereas in Exhibit Ko 5 Invention 16-1 has no such specification regarding the arc-shaped part (the folding part), although "the element absorbing and/or transmitting energy 2 or 101 is rotated around an axis for the purpose of moving the arc-shaped part from a rest position to a functioning position, and also from the functioning position to the rest position."

d. Common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-2
(a) Common features (JPO Decision, No. 5, 4. (3) (3-3) [line 35 on page 87 to line 7 on page 88 of the JPO Decision])

A member absorbing/transmitting forces comprising support sections that support the child or infant and a seat member, wherein the support sections are on the inner side of the seat shell and the side-collision protection is designed to be attachable to a child safety seat or infant car seat,

and wherein the member absorbing/transmitting forces is formed as a part to be attached to the seat on the outer side of the seat member, which may be rotated around an axis for the purpose of changing that part from a resting position to a functional position, wherein that part has at least one stop retainer that locks that part in the functional position where at least one portion of that part projects from the outer side of the seat

member, so that the part is locked in a predefined position in said functional position, and wherein the locking of that part in the functional position may be released by operation of an operation tool.

(b) Difference 1' (JPO Decision, No. 5, 4. (3) (3-3) [lines 10 to 17 on page 88 of the JPO Decision])

Invention 16 discloses a "side-collision protection" comprising support sections that support the child or infant and a "seat shell" as a construction element for the support sections, wherein the support sections are on the inner side of "the seat shell" and the side-collision protection is designed to be attachable to a child safety seat or infant car seat, whereas Exhibit Ko 5 Invention 16-2 discloses an "element absorbing and/or transmitting energy 2" "arranged in a fastening region 11 of a carrying handle 8 of a child safety seat with side impact protection 1, comprising ... and the element absorbing and/or transmitting energy 2" and "anchored in the functioning position 4."

(c) Difference 2' (JPO Decision, No. 5, 4. (3) (3-3) [line 19 on page 88 to line 4 on page 89 of the JPO Decision])

In Invention 16, the "side-collision protection" is formed as a "folding" part to be attached to the "seat shell" on the outer side of the "seat shell," which may be rotated around an axis for the purpose of changing the "folding" part from a resting position to a functional position, and also from the functional position to the resting position, wherein the "folding" part has at least one stop retainer "onto which a locking bar" locks in the functional position where at least one part of the "folding" part projects from the outer side of the "seat shell," so that the "folding" part is locked in a predefined position in said functional position, and wherein the locking of the "folding" part in the predefined position in the functional position may be released by "actuation of a release button or a release slider, which is assigned to at least one of the locking bars," whereas Exhibit Ko 5 Invention 16-2 is an invention "wherein the element absorbing and/or transmitting energy 2 has the shape of a cylinder 301 at which guiding pins 302 are arranged, the cylinder 301 is guided in a cylinder guide 303 comprising recesses 304 in the form of connecting members for the guiding pins 302, the cylinder 301 is rotatable around an axis in the cylinder guide 303 for the purpose of shifting the cylinder 301 from a rest position 3 to a functioning position 4, the guiding pins 302 of the cylinder 301 are positioned in the functioning regions 306 of the recesses of the cylinder guide 303, the element absorbing and/or transmitting energy 2 is anchored in the functioning position 4, the functioning position 4 in which the element absorbing and/or transmitting energy 2 is anchored is a position in which the cylinder 301 projects from the outer side of the fastening region 11 of the carrying handle 8, and the positioning of the guiding

pins 302 of the cylinder 301 in the functioning regions 306 of the recesses of the cylinder guide 303 and the anchoring of the element absorbing and/or transmitting energy 2 in the functioning position 4 may be released by operation of recessed grips 310."

(3) Summary of the JPO Decision

A summary of the JPO's determinations on the respective grounds for invalidation in the JPO Decision is as follows.

A. Regarding Grounds for Invalidation 1

(A) Regarding the ease in conceiving of Invention 1 (JPO Decision, No. 5, 2. (1) (1-2)

F. [lines 25 to 34 on page 56 of the JPO Decision])

Invention 1 is not an invention described in Exhibit Ko 1 (Exhibit Ko 1 Invention 1), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1 and the matters described in Exhibit Ko 1.

In addition, even if the matters described in Exhibit Ko 2 that were cited in relation to Invention 4, which indirectly cites Invention 1, and the matters described in Exhibit Ko 3 that were cited in relation to Inventions 10 through 13, which indirectly cite Invention 1, are examined, these matters do not disclose the matters specifying Invention 1 relating to Differences 1 and 2. Therefore, Invention 1 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1, the matters described in Exhibit Ko 1, the matters described in Exhibit Ko 2, and the matters described in Exhibit Ko 3.

(B) Regarding the ease in conceiving of Inventions 2 through 15 (JPO Decision, No. 5, 2. (2) [line 36 on page 56 to line 15 on page 57 of the JPO Decision])

Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention.

Accordingly, Inventions 2, 3, 6 through 9, and 14 are not an invention described in Exhibit Ko 1 (Exhibit Ko 1 Invention 1), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1 and the matters described in Exhibit Ko 1.

Due to the above, the grounds for invalidation based on Article 29, paragraph (1), item (iii), and paragraph (2) of the Patent Act do not exist for Inventions 2, 3, 6 through 9, and 14.

In addition, Invention 4 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1, the matters described in Exhibit Ko 1, and the matters described in Exhibit Ko 2.

Inventions 5 and 15 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1 and the matters described in Exhibit Ko 1.

Inventions 10 through 13 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 1, the matters described in Exhibit Ko 1, and the matters described in Exhibit Ko 3.

Due to the above, grounds for invalidation based on Article 29, paragraph (2) of the Patent Act also do not exist for Inventions 4, 5, 10 through 13, and 15.

(C) Regarding the ease in conceiving of Invention 16 (JPO Decision, No. 5, 2. (3) (3-2) F. [lines 17 to 19 on page 61 of the JPO Decision])

Invention 16 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 1 Invention 16, the matters described in Exhibit Ko 1, and the matters described in Exhibit Ko 3.

B. Regarding Grounds for Invalidation 2

(A) Regarding the ease in conceiving of Invention 1 (JPO Decision, No. 5, 3. (1) (1-2) E. [lines 16 to 25 on page 67 of the JPO Decision])

Invention 1 is not an invention described in Exhibit Ko 4 (Exhibit Ko 4 Invention 1), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4.

In addition, even if the matters described in Exhibit Ko 2 that were cited in relation to Invention 4, which indirectly cites Invention 1, and the matters described in Exhibit Ko 3 that were cited in relation to Inventions 10 through 13, which indirectly cite Invention 1, are examined, these matters do not disclose the matters specifying Invention 1 relating to Differences 1 and 2. Therefore, Invention 1 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 1, the matters described in Exhibit Ko 4, the matters described in Exhibit Ko 2, and the matters described in Exhibit Ko 3.

(B) Regarding the ease in conceiving of Inventions 2 through 15 (JPO Decision, No. 5, 3. (2) [line 27 on page 67 to line 6 on page 68 of the JPO Decision])

Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention.

Accordingly, Inventions 2, 3, 5, 6, 8, 14, and 15 are not an invention described in Exhibit Ko 4 (Exhibit Ko 4 Invention 1), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4.

Due to the above, the grounds for invalidation based on Article 29, paragraph (1), item (iii), and paragraph (2) of the same Article of the Patent Act do not exist for Inventions 2, 3, 5, 6, 8, 14, and 15.

In addition, Invention 4 could not have been easily conceived of by a person skilled

in the art based on Exhibit Ko 4 Invention 1, the matters described in Exhibit Ko 4, and the matters described in Exhibit Ko 2.

Inventions 7 and 9 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4.

Inventions 10 through 13 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 1, the matters described in Exhibit Ko 4, and the matters described in Exhibit Ko 3.

Due to the above, grounds for invalidation based on Article 29, paragraph (2) of the Patent Act also do not exist for Inventions 4, 7, 9, and 10 through 13.

(C) Regarding the ease in conceiving of Invention 16 (JPO Decision, No. 5, 3. (3) (3-2) E. [lines 8 to 10 on page 72 of the JPO Decision])

Invention 16 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 4 Invention 16, the matters described in Exhibit Ko 4, and the matters described in Exhibit Ko 3.

C. Regarding Grounds for Invalidation 3

(A) Regarding the ease in conceiving of Invention 1

a. Regarding the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1 (JPO Decision, No. 5, 4. (1) (1-2) E. [lines 7 to 16 on page 78 of the JPO Decision])

Invention 1 is not an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5.

Even if the matters described in Exhibit Ko 6 that were cited in relation to Inventions 2 through 15, which directly or indirectly cite Invention 1, the matters described in Exhibit Ko 7, and the matters described in Exhibit Ko 3 that were cited in relation to Inventions 10 through 13, which directly or indirectly cite Invention 1, are taken into consideration, the matters specifying Invention 1 relating to Difference 1 between Invention 1 and Exhibit Ko 5 Invention 1-1 could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-1, the matters described in Exhibit Ko 5, the matters described in Exhibit Ko 3, the matters described in Exhibit Ko 6, and the matters described in Exhibit Ko 7.

b. Regarding the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-2 (JPO Decision, No. 5, 4. (1) (1-4) C. [lines 11 to 21 on page 82 of the JPO Decision])

Without having to examine Difference 2' between Invention 1 and Exhibit Ko 5 Invention 1-2, Invention 1 is not an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-2), and could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 5 Invention 1-2 and the matters described in Exhibit Ko 5.

Even if the matters described in Exhibit Ko 6 that were cited in relation to Inventions 2 through 15, which directly or indirectly cite Invention 1, the matters described in Exhibit Ko 7, and the matters described in Exhibit Ko 3 that were cited in relation to Inventions 10 through 13, which directly or indirectly cite Invention 1, are taken into consideration, the matters specifying Invention 1 relating to Difference 1' between Invention 1 and Exhibit Ko 5 Invention 1-2 could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-2, the matters described in Exhibit Ko 5, the matters described in Exhibit Ko 6, the matters described in Exhibit Ko 7, and the matters described in Exhibit Ko 3.

(B) Regarding the ease in conceiving of Inventions 2 through 15 (JPO Decision, No. 5, 4. (2) [line 23 on page 82 to line 6 on page 83 of the JPO Decision])

Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention.

Inventions 1 through 8, 14, and 15 are not an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2) or could not have been easily conceived of by a person skilled in the art based on an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2) and the matters described in Exhibit Ko 5. Inventions 1 through 8, 14, and 15 also could not have been easily conceived of by a person skilled in the art based on an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2) and the matters described in Exhibits Ko 5 through 7.

Due to the above, the grounds for invalidation based on Article 29, paragraph (1), item (3), and paragraph (2) of the same Article of the Patent Act do not exist for Inventions 1 through 8, 14, and 15.

Invention 9 could not have been easily conceived of by a person skilled in the art based on an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2), the matters described in Exhibit Ko 5, and the matters described in Exhibit Ko 6, or based on an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2) and the matters described in Exhibits Ko 5 through 7.

Inventions 10 through 13 could not have been easily conceived of by a person skilled in the art based on an invention described in Exhibit Ko 5 (Exhibit Ko 5 Invention 1-1 or Exhibit Ko 5 Invention 1-2), the matters described in Exhibit Ko 5, the matters described in Exhibit Ko 3, the matters described in Exhibit Ko 6, and the matters described in Exhibit Ko 7.

Due to the above, the grounds for invalidation based on Article 29, paragraph (2) of

the Patent Act do not exist for Inventions 9 and 10 through 13.

(C) Regarding the ease in conceiving of Invention 16

a. Regarding the ease in conceiving of Invention 16 based on Exhibit Ko 5 Invention 16-1 (JPO Decision, No. 5, 4. (3) (3-2) C. [line 38 on page 85 to line 3 on page 86 of the JPO Decision])

Invention 16 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 5 Invention 16-1 and the matters described in Exhibit Ko 5, or based on Exhibit Ko 5 Invention 16-1, the matters described in Exhibit Ko 5, the matters described in Exhibit Ko 3, the matters described in Exhibit Ko 6, and the matters described in Exhibit Ko 7.

b. Regarding the ease in conceiving of Invention 16 based on Exhibit Ko 5 Invention 16-2 (JPO Decision, No. 5, 4. (3) (3-4) C. [line 38 on page 89 to line 3 on page 90 of the JPO Decision])

Invention 16 could not have been easily conceived of by a person skilled in the art based on Exhibit Ko 5 Invention 16-2 and the matters described in Exhibit Ko 5, or based on Exhibit Ko 5 Invention 16-2, the matters described in Exhibit Ko 5, the matters described in Exhibit Ko 3, the matters described in Exhibit Ko 6, and the matters described in Exhibit Ko 7.

D. Regarding Grounds for Invalidation 5 (JPO Decision, No. 5, 5. [lines 7 to 22 on page 90 of the JPO Decision])

The statement "the predefined width of the child safety seat" in Invention 1 is clear, and does not violate the clarity requirement under Article 36, paragraph (6), item (ii) of the Patent Act.

4. Grounds for rescission alleged by the Plaintiff

(1) Grounds for Rescission 1

Error in the determination of an inventive step based on Exhibit Ko 5 Invention (Re: Grounds for Invalidation 3)

A. If Exhibit Ko 5 Invention 1-1 is used as primary prior art

(A) Error in the finding of Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-1)

(B) Error in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-2)

(C) Error in the determination of the ease in conceiving of the relevant invention based on Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-3)

B. If Exhibit Ko 5 Invention 1-2 is used as primary prior art

Error in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-2 and error in the determination of the ease in conceiving of the

relevant invention based on Exhibit Ko 5 Invention 1-2 (Grounds for Rescission 1-2)

C. If Exhibit Ko 5 Invention 16-1 is used as primary prior art

Error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1 and error in the determination of the ease in conceiving of the relevant invention based on Exhibit Ko 5 Invention 16-1 (Grounds for Rescission 1-3)

D. If Exhibit Ko 5 Invention 16-2 is used as primary prior art

Error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-2 and error in the determination of the ease in conceiving of the relevant invention based on Exhibit Ko 5 Invention 16-2 (Grounds for Rescission 1-4)

(2) Grounds for Rescission 2

Error in the determination concerning violation of the clarity requirement (Re: Grounds for Invalidation 5)

(3) Grounds for Rescission 3

Error in the determination of an inventive step based on Exhibit Ko 1 Inventions (Re: Grounds for Invalidation 1)

(4) Grounds for Rescission 4

Error in the determination of an inventive step based on Exhibit Ko 4 Invention (Re: Grounds for Invalidation 2)

(omitted)

No. 4 Summary of the court decision

1. Regarding the meanings of the Inventions

According to the statements of the Description, etc. (Attachment 2-1), the meanings of the Inventions are found to be as follows.

(1) Technical field

The Inventions relate to a child safety seat onto which a side-collision protection is mounted, or to a side-collision protection (paragraphs [0001] and [0002]).

(2) Background art

Child safety seats offer protection for children, especially in the event of an accident. The means for mounting such child safety seats had problems in side collisions, as they did not sufficiently secure the child safety seat from a sideway motion of the seat. Thus, in the past, child safety seats were provided with a side-collision protection, which was an energy absorbing element in the form of a strap or an air cushion, stretching across

the child safety seats' side (paragraph [0003]).

(3) Problem to be solved by the invention

It has become clear that these conventional apparatuses are not capable of providing maximum safety for the child in the child safety seat, due to the fact they directly impact the child in the child safety seat, and the child safety seats cannot sufficiently absorb an impact and/or dissipate it (paragraph [0003]).

Therefore, the Inventions aim to avoid the aforementioned disadvantage and offer improved side-collision protection (paragraph [0005]).

(4) Means for solving the problem, etc. (Inventions 1 through 15)

Invention 1 adopts a constitution comprising support sections that support the child or infant on the inner sides of the seat shell and further comprising a side-collision protection mounted on the outer side of the seat shell, wherein the side-collision protection is movable from a resting position situated at the width of a child safety seat, to a functional position situated outside of the width, and vice versa, and wherein the side-collision protection is positioned in such a way, particularly on both sides of the seat shell, that possible side forces are led into the seat shell (Claim 1 and paragraphs [0007] and [0031]).

An important aspect of Invention 1 lies in the side-collision protection being attached to the seat shell in such a way that a transfer of power or energy does not directly impact the child's body, but is instead led away from the child's body and into the seat shell. The side-collision protection is positioned above the seat area or at the back section of the child safety seat, and thereby a tipping over of the child safety seat attached at its base may be prevented effectively. Also, the child is not in reach of the side-collision effects, but instead there is the construction element of the child safety seat, namely the seat shell, and therefore a direct energy transfer to the child is constructively avoided (Claims 6 and 7, and paragraphs [0008], [0018], [0019], [0031], and [0035]).

(5) Means for solving the problem, etc. (Invention 16)

Invention 16 is a side-collision protection that is formed as a folding part to be attached to the seat shell, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and vice versa, wherein the folding part has a stop retainer onto which a locking bar locks in the functional position so that the folding part is locked in a predefined position in said functional position where it projects from the outer side of the seat shell, and wherein the locking may be released by actuation of a release button or a release slider, which is assigned to the locking bar (Claim 16 and paragraph [0010]).

2. Technical matters described in the cited documents

(1) Regarding Exhibit Ko 5

A. Statements in Exhibit Ko 5

Exhibit Ko 5 relates to a patent application for an invention titled "Child safety seat with side impact protection." The "detailed description of the invention" and "drawings" therein are as described in Attachment 3 (Statements in Exhibit Ko 5).

B. Technical matters disclosed in Exhibit Ko 5

According to the statements in Exhibit Ko 5 (Attachment 3), Exhibit Ko 5 is found to disclose the following technical matters.

(A) Technical field

The invention relates to a child safety seat with side impact protection (paragraph [0002]).

(B) Background art/problem to be solved by the invention

A child safety seat is arranged on one of the side seats of the vehicle, and has a minor lateral distance to the inner side of the vehicle. This distance is not sufficient to sufficiently decelerate the relative movement of the child safety seat by means of the seat fastening means prior to an impact of the child safety seat on the inner side of the vehicle. In the case of a side impact on the vehicle comprising the child safety seat, the lateral movement of the child safety seat is stopped within a very short time, which corresponds to a strong deceleration. This deceleration in turn causes a substantial force on the child in the child safety seat, by which the child may be severely injured. It is therefore an object of the invention to solve such problems in conventional child safety seats, and to provide a child safety seat that improves the protective effect of the child safety seat in the case of a side impact (paragraphs [0003] through [0011]).

(C) Means for solving the problem, etc.

The invention adopts the following constitution. The child safety seat comprises an element absorbing and/or transmitting energy (paragraph [0013]). Also, the child safety seat may be designed in the form of an infant carrier comprising a carrying handle, and the element absorbing and/or transmitting energy may be arranged at this carrying handle or in other regions of the child safety seat (paragraph [0014]). The element absorbing and/or transmitting energy is transferred from the rest position to the functioning position and vice versa (paragraph [0015]). The design and arrangement of the elements absorbing and/or transmitting energy are decisive for the side impact protection of the child safety seat (paragraph [0029]), and the energy to be transmitted by the elements absorbing and/or transmitting energy is transmitted to supporting elements, the child safety seat, or the base element, and finally transferred to the car

body structure (paragraphs [0031] through [0034]).

(D) Embodiment 1 (paragraphs [0050] through [0052] and FIGS. 1 through 6)

The child safety seat is designed as an infant carrier 7 with a carrying handle 8, and regions of the child safety seat (infant carrier) in which a mounting of the element absorbing and/or transmitting energy 2 is of particular advantage are the fastening region of the carrying handle, the side arm 12 of the carrying handle, and the lower side region 13 of the infant carrier. In the region 13, the carrier material of the infant carrier is not covered by any pads, and therefore, this region is particularly suited to incorporate elements absorbing and/or transmitting energy 2. In regions of the child safety seat (infant carrier) which are covered by pads, the positioning of elements absorbing and/or transmitting energy 2 is basically also possible (paragraph [0051]). The element absorbing and/or transmitting energy 101 is designed in an arc-shaped manner and is pivotally mounted, and in the rest position 3, it fits perfectly to the carrying handle 8, whereas in the functioning position 4, it projects in an arc-shaped manner in lateral direction (paragraph [0052]).

(E) Embodiment 2 (paragraphs [0058] through [0060] and FIGS. 10 and 11)

The child safety seat is designed as an infant carrier 7 with a carrying handle 8, and the element absorbing and/or transmitting energy 2 has the shape of a cylinder 301 at which guiding pins 302 are arranged. The cylinder is guided in a cylinder guide 303 comprising recesses 304 in the form of connecting members for the guiding pins 302. In the rest position 3, the guiding pins 302 are positioned in the rest regions 305 of the recesses 304. By rotating the cylinder 301, the guiding pins 302 are guided out of these regions, so that the cylinder can be shifted in the cylinder guide 303 from the rest position 3 to the functioning position 4 and anchored (paragraph [0058]). The element absorbing and/or transmitting energy 2 is preferably arranged in the region 11 (paragraph [0059]).

(2) Regarding Exhibit Ko 1

A. Statements in Exhibit Ko 1

Exhibit Ko 1 relates to a patent application for an invention titled "A child vehicle seat." The "detailed description of the invention" and "drawings" therein are as described in Attachment 4 (Statements in Exhibit Ko 1).

B. Technical matters disclosed in Exhibit Ko 1

According to the statements in Exhibit Ko 1 (Attachment 4), Exhibit Ko 1 is found to disclose the following technical matters.

(A) Whereas a child vehicle seat comprising at least a seat portion, a backrest connected to the seat portion, and side supports being pivotable around pivot axes, wherein side

supports pivot away from each other when moving the slidable element in a direction away from a transition between the backrest and the seat portion and vice versa, is already known, it is an object of Exhibit Ko 1 to provide a child vehicle seat with improved pivotable side supports (paragraphs [0001] through [0003]).

(B) To achieve this object, the child vehicle seat adopts the following constitution. The connecting elements are each movable with respect to the slidable element by means of a guiding element being slidably located in a corresponding slot, and due to the arrangement of the first ends of the two slots and the second ends of the slots (paragraphs [0004] and [0005]) and the arrangement of the pivot axes of the side supports (paragraph [0018]), close contact between the shoulders is maintained at side impact, and an optimum is achieved between freedom of movement of the child and safety during side impact (paragraph [0019]).

(C) In particular, embodiments of the invention adopt the following constitutions. The child vehicle seat 1 comprises a seat 3, which comprises a seat portion 4 and backrest 5 connected to the seat portion 4, wherein the backrest 5 is provided with side supports 6 being pivotably connected by means of pivot axes to the backrest 5, and each side support 6 is provided with a support surface 8 for supporting a child in a sideways direction (paragraph [0023]). The seat 3 also comprises a headrest 10, which is located between the two side supports 6 and being slidably connected to the backrest 5 to be able to be moved away from and towards the seat portion 4 to adjust the headrest 10 to the size of the child using the child vehicle seat 1 (paragraph [0024]). The headrest 10 is provided with a plate shaped element 11 with two elongated slots 12, which enclose an angle with each other (paragraph [0025]). The seat 3 also comprises two connecting elements 13, each of which is swivelably connected by means of a swivel axis 14 to a flange 9 of one of the side supports 6 near a first end. Near a second end thereof, the connecting element 13 is provided with a guiding element 15 which is slidably located in one of the slots 12 of the headrest 10 (paragraph [0026]). In addition, the embodiments function as follows. When the headrest 10 is in the lowest position, the distance between the support surfaces 8 of the side supports 6 also becomes small, and in this position, the child vehicle seat 1 is suitable for a relatively small child. When the headrest 10 is moved upward, the support surfaces 8 of the side supports 6 pivot away from each other and become located at a larger distance from each other that is more suitable for the larger child (paragraphs [0023] through [0031] and FIGS. 1 through 4).

(3) Regarding Exhibit Ko 4

A. Statements in Exhibit Ko 4

Exhibit Ko 4 relates to a patent application for an invention titled "Child seat

apparatus." The "detailed description of the invention" and "drawings" therein are as described in Attachment 5 (Statements in Exhibit Ko 4).

B. Technical matters disclosed in Exhibit Ko 4

According to the statements in Exhibit Ko 4 (Attachment 5), Exhibit Ko 4 is found to disclose the following technical matters.

(A) Whereas a child safety seat for an automobile comprising a seat portion, and a backrest portion upwardly extending from a rear end of the seat portion, and further comprising head guards, in order to protect the head of the child on both sides, which are generally provided to forwardly extend from both side edges of the backrest portion, is already known (paragraphs [0001] through [0003]), an object of the invention is to provide a child seat apparatus which can satisfy both of the inconsistent requirements (paragraph [0008]) that the spacing distance between the pair of head guards is preferably reduced from the viewpoint of safety for the child (paragraph [0004]), but if the spacing distance between the head guards is too small, the child disadvantageously feels cramped (paragraph [0005]).

(B) To achieve this object, the invention adopts a constitution where the child seat apparatus comprises a seat portion, a backrest portion upwardly extending from a rear end of the seat portion, and a pair of head guards forwardly extending from both side edges of the backrest portion, and where a spacing distance between the head guards is changeable (paragraph [0009]).

(C) In particular, an embodiment of the invention adopts the following constitution. The child safety seat 1 comprises a seat portion 2, a backrest portion 3 upwardly extending from a rear end of the seat portion 2, and a pair of head guards 4 and 5 forwardly extending from both side edges of the backrest portion 3, wherein core members for the seat portion 2, the backrest portion 3, and the head guards 4 and 5 are covered with a cushion member and a cover member, the respective head guards 4 and 5 are rendered rotatable around axes extending substantially parallel to the direction of upward extension of the backrest portion 3 (paragraphs [0016] through [0018] and FIGS. 1 through 3), and the combination of the engaging projection 17 and the engaging portion 18 or a locking means is employed for fixing each of the head guards 4 and 5 at a desired angle (paragraph [0024]). In addition, the embodiment functions so that the spacing distance between the pair of head guards 4 and 5 is changed by the rotation of the respective head guards 4 and 5 (paragraph [0018]).

3. Determination of issues

(1) Regarding Grounds for Rescission 1 [error in the determination of an inventive step based on Exhibit Ko 5 Invention (Re: Grounds for Invalidation 3)]

A. Finding of the Inventions

(A) Regarding the meaning of the seat shell

a. Method of finding the gist of inventions

The gist of an invention should be found based on the statements of the claims, and it is reasonable to construe the statements of the claims based on the regular meanings taking into consideration the common general technical knowledge that existed before the priority date in the technical field to which the invention belongs. Indeed, if the meaning of any statement of a claim has been defined or explained in the description or drawings to be different from the regular meaning, there is room to construe it to have a different meaning from the regular meaning, but otherwise, it is reasonable to construe it as described above.

b. Statements of Claim 1 (Invention 1)

Claim 1 (Invention 1) has the following statements relating to a "seat shell."

(a) "Support sections that support the child or infant, and a seat shell as a construction element for the support sections" (Constituent Features 1B and 1C)

(b) "A side-collision protection attached to the seat shell on the outer side of the seat shell" (Constituent Feature 1D)

(c) "The support sections are positioned on the inner sides of the seat shell" (Constituent Feature 1E)

c. Common general technical knowledge

While Invention 1 is an invention of a product, a "child safety seat," the meaning of the term "seat shell" in the common general technical knowledge that existed before the priority date (June 18, 2012) in the technical field to which a child safety seat belongs is examined below.

The respective documents of Exhibits Ko 25-1 through 25-6, which are publications distributed before the priority date of the Patent, contain the following statements as described in Attachment 6 (Exhibits Ko 25-1 through 25-6).

According to the statements of Exhibits Ko 25-1 through 25-6 (Attachment 6), the meaning of the term "seat shell" or "shell" and the structure thereof are found to have been understood as follows in the technical field to which a child safety seat belongs.

(a) A seat shell is a fundamental structure of a child safety seat, made by using a hard material (Exhibits Ko 25-1 through 25-4 and 25-6).

(b) A seat shell has a shape comprising a seat portion and a backrest (Exhibits Ko 25-1 through 25-6). It may also comprise lateral sides and take a shape of wrapping around the side on which a child is placed (Exhibits Ko 25-2 through 25-6).

(c) A flexible material that supports a child is placed on the side on which the child is

seated (the inner side) in the seat shell or arranged to cover the area from the side on which the child is seated to the outer side of the seat shell (Exhibits Ko 25-2 through 25-4 and 25-6).

(d) The seat portion and the backrest portion in a seat shell may be formed by unitary molding or two-part molding (Exhibit Ko 25-1).

(The statements in (a) through (d) above are hereinafter referred to as the "common general technical knowledge relating to a seat shell.")

d. Meanings of "seat shell" and "support sections" of Invention 1

The "seat shell" of Invention 1 is defined to be "a construction element for the support sections" in Constituent Feature 1C (b. (a) above), and it is also defined in Constituent Feature 1D (b. (b) above) that "a side-collision protection is attached to the seat shell on its outer side," in other words, that the seat shell has lateral sides. Therefore, considering (a) and (b) of the common general technical knowledge relating to a seat shell (c. (a) and (b) above), the "seat shell" of Invention 1 is construed to be "a fundamental structure of a child safety seat made by using a hard material, comprising a seat portion and a backrest and taking a shape of wrapping around the side on which a child is placed."

In addition, the "support sections" of Invention 1 are defined in Constituent Feature 1B (b. (a) above) as sections that "support the child or infant," and Constituent Feature 1E (b. (c) above) defines the positional relationship that "the support sections are positioned on the inner sides of the seat shell." Therefore, considering (c) of the common general technical knowledge relating to a seat shell (c. (c) above), the "support sections" of Invention 1 are construed to be made by using flexible material that supports a child and placed on the side on which the child is seated (the inner side) in the seat shell or arranged to cover the area from the side on which the child is seated to the outer side of the seat shell.

Meanwhile, the Inventions have no specification that the support member only exists on the inner side of the seat shell or that it does not cover the lateral side or back side of the seat shell, and also have no specification that the support member comprises a separate frame structure from the seat shell. There are also no such statements in paragraph [0031] of the Description.

In the Description, the term "seat shell" is used in paragraphs [0007] through [0012], [0014], [0016], [0019], [0020], [0022], [0031], [0035], [0040], [0042], [0044], and [0047], and the term "support sections" is only used in paragraph [0031]. However, no statements can be found in the Description, etc. that correspond to a definition or explanation indicating that the meaning of the term "seat shell" or "support sections"

differs from the regular meaning. Accordingly, the terms "seat shell" and "support sections" in Claim 1 (Invention 1) should be construed based on the regular meanings taking into consideration the common general technical knowledge that existed before the priority date in the technical field to which the Inventions belong, as mentioned above.

e. Meanings of "seat shell" and "support sections" of Invention 16

Invention 16 is an invention of a product, a "side-collision protection," and similarly to Invention 1, it has the following constituent features. The invention comprises "support sections that support the child or infant, and a seat shell as a construction element for the support sections" (corresponding to b. (a) above), wherein the side-collision protection member is "attached to the seat shell on the outer side of the seat shell" (corresponding to b. (b) above), and "the support sections are positioned on the inner sides of the seat shell" (corresponding to b. (c) above). Therefore, the terms "seat shell" and "support sections" of Invention 16 should also be construed to have the same meaning as in Invention 1.

f. Appropriateness or inappropriateness of interpretation by the JPO Decision

(a) Explanation in the JPO Decision

The JPO Decision provides the following explanations on the seat shell.

(i) In "A. Matters specified by the 'seat shell' of Invention 1.," the JPO Decision states, "it is reasonable to construe that the 'seat shell' of Invention 1, ... is a different member from the 'support sections.' It follows that the 'seat shell,' which is a 'shell' of a 'seat' and is a different member from 'support sections that support the child or infant,' and wherein 'the support sections are positioned on the inner sides of the seat shell,' can be defined as a 'shell' which is 'a construction element for the support sections' having the support sections on its inner sides" (JPO Decision, No. 5, 2. (1) (1-2) A. [lines 9 to 17 on page 49 of the JPO Decision]).

(ii) The JPO Decision states, "Given the definition of the 'seat shell'" mentioned in (i) above, "'a backrest 5 with side supports 6, a seat portion 4, and a headrest 10' of Exhibit Ko 1 Invention 1 are members for supporting a child, and hence they correspond to the 'support sections' of Invention 1" (JPO Decision, No. 5, 2. (1) (1-2) B. [lines 19 to 21 on page 49 of the JPO Decision]).

(iii) The JPO Decision states, "It is apparent from the following statements in the description that the seat shell, unlike prior art, is a different member from a support member for supporting a child" (JPO Decision, No. 5, 2. (1) (1-2) E. (A) [lines 20 to 21 on page 53 of the JPO Decision]), and cites paragraphs [0008] and [0019] of the Description.

(b) Interpretation by the JPO Decision

Combining the explanations by the JPO Decision in (a) above, the JPO is found to construe that the "support section" of the Inventions corresponds to the "seat shell" and a "flexible material that supports a child" as understood according to (a) through (c) of the common general technical knowledge relating to a seat shell (c. (a) through (c) above), and that the "seat shell" of the Inventions is a construction element having "support sections" on the inner sides, which is different from and is further added to the "seat shell" and the "flexible material that supports a child" of prior art (common general technical knowledge).

(c) Appropriateness or inappropriateness of interpretation by the JPO Decision

The JPO Decision cites paragraphs [0008] and [0019] of the Description as the basis for construing that the Inventions' "seat shell, unlike prior art, is a different member from a support member for supporting a child" ((a), (iii) above), but these paragraphs only explain the arrangement of the "side-collision protection" and its action or effects, and contain no statements indicating that the "seat shell" is different from prior art, and also contain no statements concerning the support sections. Therefore, it cannot be said that these paragraph support the abovementioned interpretation by the JPO Decision. No basis can be found in the statements of the claims of the Inventions and the detailed description of the invention in the Description for adopting the interpretation by the JPO Decision referred to in (b) above. Accordingly, the interpretation by the JPO Decision referred to in (b) above cannot be adopted.

(d) Examination of the Defendant's allegations

The Defendant makes allegations including the following with regard to the interpretation of the "seat shell" of the Inventions. The seat shell is "a construction element like a shell (outer shell) which structurally holds the support sections from the back." It is "a construction element like a shell (outer shell) for the support sections, which is a single shell-shaped constituent element that differs from the support sections, and which structurally holds, from the outer side, the back section side of the support sections which support a child on the front section side, where the side-collision protection is positioned in such a way that side forces transmitted from a side of the motor vehicle are led into the seat shell." "The seat shell is a shell-shaped member which structurally holds, from the outer side, the back section side of the support sections on the inner sides of the seat shell, and which is hard enough to attach the side-collision protection (paragraph [0022])." "The back section side of the seat shell is exposed, and as the name 'shell' suggests, it has a curved surface shape" (No. 3, 1. (1) A. [Defendant's allegations] above). Indeed, FIGS. 2, 5, and 6 of the Drawings appear to show a curved

surface shape at the back section of the seat, and in the embodiment, that part is indicated to correspond to a seat shell. However, the Description contains no statements that serve as the basis for restrictively construing the seat shell of the Inventions to mean the outer shell-like structure as alleged by the Defendant. In addition, there is also no basis supporting that the term "seat shell" should be construed to have a different meaning from the regular meaning taking into consideration the common general technical knowledge that existed before the priority date in the technical field to which the Inventions belong. Accordingly, the Defendant's abovementioned allegations cannot be adopted.

(B) Regarding the positioning of the side-collision protection

a. Positioning of the side-collision protection indicated by Claim 1 (Invention 1)

As Invention 1 has the constitution of "a side-collision protection attached to the seat shell on the outer side of the seat shell" (Constituent Feature 1D), the side-collision protection of Invention 1 is attached to the seat shell on the outer side of the seat shell. Also, given that, as mentioned in (A) d. above, the "seat shell" is construed to be a fundamental structure of a child safety seat made by using a hard material, the forces received by the "side-collision protection" that is attached on the outer side of a lateral side of a "seat shell," which is such fundamental structure, are spontaneously transmitted to the "seat shell."

While Invention 1 has a constitution where "the side-collision protection is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell"(Constituent Feature 1G), as mentioned above, given that the side-collision protection is attached to the seat shell on the outer side of the seat shell (Constituent Feature 1D), and that seat shell is a fundamental structure of a child safety seat made by using a hard material ((A) d. above) and the forces received by the side-collision protection are spontaneously transmitted to the seat shell, the abovementioned constitution (Constituent Feature 1G) is found to only indicate that the position of the side-collision protection attached on the outer side of the seat shell (in other words, the "attached position") is the outer side of a lateral side of the seat shell, and is not found to make any more concrete specification regarding its position.

b. Examination of the Defendant's allegations

The Defendant alleges that as the wording of Claim 1 (Invention 1) that "the side-collision protection ... is positioned in such a way that ... side forces transmitted from a side ... are led into the seat shell" (Constituent Feature 1G) is a functional limitation, it should be restrictively interpreted based on the specific constitution described in the

Description, and that the wording should be interpreted to mean that "as a result that the side-collision protection is positioned above the seat portion area of the child safety seat and in the back section of the child safety seat," "side forces are not led to the support sections (the child), but are only led into the seat shell" (No. 3, 1. (1) B. [Defendant's allegations] above).

However, the gist of an invention should be found based on the statements of the claims, and this also applies in the case where the statements of the claims contain statements that try to specify a product by using an action or function. As the constitution of Invention 1 that "the side-collision protection is positioned in such a way that, when the child safety seat is attached to the seat of the motor vehicle, side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell" (Constituent Feature 1G) only states that "side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell," and does not state that "side forces are not led to the support sections (the child), but are only led into the seat shell," it cannot be restrictively interpreted as alleged by the Defendant. Claim 6 (Invention 6) describes a child safety seat characterized in that the side element of the side-collision protection is arranged above the seat area of the child safety seat, and Claim 7 (Invention 7) describes a child safety seat characterized in that the side element is arranged in the back section of the child safety seat. In addition, paragraphs [0008] and [0019] of the Description contain statements concerning a side-collision protection member being attached in such a way that side forces from a collision are not directly transmitted to the child's body, but are rerouted around it and led into the seat shell. However, as there are no reasons to restrictively interpret the wording of Claim 1 (Invention 1) based on the statements of Claims 6 and 7, which are dependent claims, and the statements of paragraphs [0008] and [0019] of the detailed description of the invention in the Description, the Defendant's abovementioned allegations cannot be adopted.

B. Regarding invalidation of the patent relating to Invention 1

(A) Error in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-2)

Error in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-2) is examined below.

a. Finding concerning the support sections

"A flexible material that supports a child is placed on the side on which the child is seated (the inner side) in the seat shell or arranged to cover the area from the side on which the child is seated to the outer side of the seat shell" ((c) of the common general

technical knowledge relating to a seat shell, (A) c. (c) above) was common general technical knowledge as of the priority date in question, and the "pads" of Exhibit Ko 5 Invention 1-1, on which a child is to be placed, are found to fall within the category of the "flexible material that supports a child" referred to in the common general technical knowledge above, and correspond to the "support sections that support the child or infant" of Invention 1.

b. Finding concerning the seat shell

As mentioned in 2. (1) B. (D) above, the child safety seat of embodiment 1 relating to Exhibit Ko 5 Invention 1-1 is designed as an infant carrier 7 comprising a carrying handle, and the infant carrier is described to be made by using a carrier material. In light of the common general technical knowledge that "a seat shell is a fundamental structure of a child safety seat made by using a hard material" ((a) of the common general technical knowledge relating to a seat shell, A. (A) c. (a) above), it is found that a person skilled in the art would have understood that the abovementioned carrier material means a material that is suitably hard for constituting a frame structure. The fact that the part covered by pads is a hard frame structure (called a "core member" by the parties) is not disputed between the parties. It follows that a person skilled in the art is found to have been able to identify the concrete structure of the "part covered by pads in the backrest and the seat portion" from the statements in Exhibit Ko 5. With regard to this point, the JPO Decision states that "the description, etc. of Exhibit Ko 5 do not mention the 'seat shell' or 'shell'" (JPO Decision, No. 5, 4. (1) (1-2) B. [lines 11 to 12 on page 75 of the JPO Decision]), and even if "the 'part covered with pads in the backrest and the seat portion' correspond to the 'seat shell,' the concrete structure of that part is unclear" (JPO Decision, No. 5, 4. (1) (1-2) B. [lines 36 to 37 on page 75 of the JPO Decision]), but according to the examination above, these determinations by the JPO Decision are erroneous.

When Invention 1 and Exhibit Ko 5 Invention 1-1 are compared based on the interpretation that the "seat shell" of Invention 1 is "a fundamental structure of a child safety seat made by using a hard material, comprising a seat portion and a backrest and taking a shape of wrapping around the side on which a child is placed" (A. (A) d. above) and based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5, it should be said that the "seat part having a backrest and a seat portion, which is covered by pads and supports a child" and the "outer side (the lateral side) of the seat part" of Exhibit Ko 5 Invention 1-1 correspond to the "seat shell" of Invention 1.

c. Finding concerning the side-collision protection

In Exhibit Ko 5 Invention 1-1, the "element absorbing and/or transmitting energy 2"

is "attached to a fastening region 11 of the carrying handle 8 ... on the outer side (the lateral side) of the seat part," and "the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1." Accordingly, it is clear that energy is transmitted to the "seat part having a backrest and a seat portion, which is covered by pads and supports a child" and "the outer side (the lateral side) of the seat part" (the part found to be a "seat shell" in b. above), which constitute the child safety seat.

Therefore, the "element absorbing and/or transmitting energy 2" of Exhibit Ko 5 Invention 1-1 corresponds to the "side-collision protection" of Invention 1, and its position corresponds to the constitution of Invention 1 that "the side-collision protection is positioned in such a way that, ..., side forces transmitted from a side of the motor vehicle to the child safety seat are led into the seat shell" (Constituent Feature 1G).

d. Common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1

As a result, it is found that Invention 1 and Exhibit Ko 5 Invention 1-1 differ in that, in Invention 1, the side-collision protection is attached to the seat shell on the outer side of the seat shell, whereas in Exhibit Ko 5 Invention 1-1, the element absorbing and/or transmitting energy is attached to the fastening region of the carrying handle (hereinafter referred to as "Difference A"), and have commonalities in the other points.

The Defendant alleges that significant and substantive differences exist between Invention 1 and Exhibit Ko 5 Invention 1-1, and that there is no error in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 made by the JPO Decision (No. 3, 1. (2) A. (B) [Defendant's allegations] above). However, the Defendant's allegation is premised on an allegation that Exhibit Ko 5 has no part corresponding to the seat shell of Invention 1, and this premise is erroneous as mentioned in b. above. Accordingly, the Defendant's allegation cannot be adopted.

e. Whether there is error in the finding by the JPO Decision (whether Grounds for Rescission 1-1-2 exist)

The common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 are as mentioned in d. above, and the finding of any common features/differences by the JPO Decision (No. 2, 3. (2) C. (B) a. above) that differ from them is erroneous. Accordingly, Grounds for Rescission 1-1-2 are well-grounded.

(B) Regarding error in the determination of the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-3)

Error in the determination of the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-3) is examined below.

a. Examination of the matters explained by the JPO Decision

(a) The JPO Decision states that the description, etc. of Exhibit Ko 5 do not mention the "seat shell" or "shell," on the premise of its interpretation of the "seat shell" of Invention 1 (JPO Decision, No. 5, 4. (1) (1-2) A., B. [lines 5 to 13 on page 75 of the JPO Decision]), and denies the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1 (JPO Decision, No. 5, 4. (1) (1-2) E. [lines 7 to 9 on page 78 of the JPO Decision]). However, as the JPO Decision's interpretation of the "seat shell" of Invention 1 cannot be adopted as mentioned in A. (A) f. (c) above, the abovementioned determination by the JPO Decision cannot be adopted in regard to its premise.

(b) The JPO Decision states that, even if the "part covered by pads in the backrest and the seat portion" in Exhibit Ko 5 correspond to the "seat shell" of Invention 1, Exhibit Ko 5 does not disclose "a side-collision protection attached to the seat shell on the outer side of the seat shell," which is a constituent feature of Invention 1 (JPO Decision, No. 5, 4. (1) (1-2) B. [lines 16 to 20 on page 75 of the JPO Decision]), and denies the ease in conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1 (JPO Decision, No. 5, 4. (1) (1-2) E. [lines 7 to 9 on page 78 of the JPO Decision]).

The JPO Decision's indication that Exhibit Ko 5 does not disclose "a side-collision protection attached to the seat shell on the outer side of the seat shell," which is a constituent feature of Invention 1, corresponds to Difference A referred to in (A) d. above, that is, in Invention 1, the side-collision protection is attached to the seat shell on the outer side of the seat shell, whereas in Exhibit Ko 5 Invention 1-1, the element absorbing and/or transmitting energy is attached to the fastening region of the carrying handle. However, as mentioned in 2. (1) B. (D) above, paragraph [0051] of Exhibit Ko 5 states that the element absorbing and/or transmitting energy 2 may be arranged at this carrying handle or in other regions of the child safety seat, and as regions of the child safety seat (infant carrier) in which a mounting of the element absorbing and/or transmitting energy 2 is of particular advantage, the paragraph not only indicates the lower side region 13 of the infant carrier of which the carrier material is not covered by any pads, along with the fastening region 11 of the carrying handle and the side arm 12 of the carrying handle, but also concretely suggests regions of the child safety seat (infant carrier) which are covered by pads. Since the lower side region 13 of the infant carrier of which carrier material is not covered by any pads and regions of the child safety seat (infant carrier) which are covered by pads are parts that constitute the "seat part having a backrest and a seat portion, which is covered by pads and supports a child" and the "outer side (the lateral side) of the seat part" of Exhibit Ko 5 Invention 1-1, as mentioned in (A) b. above, these regions correspond to the "seat shell" of Invention 1, and it is found that a person skilled in the art could have easily conceived of achieving

a constitution similar to Invention 1 relating to Difference A by providing, in Exhibit Ko 5 Invention 1-1, the lower side region 13 of which carrier material is not covered by any pads or regions of the child safety seat (infant carrier) which are covered by pads, in place of the fastening region 11 of the carrying handle, that is, by providing the element absorbing and/or transmitting energy 2 on the outer side of the "seat shell," based on the concrete suggestion above.

Regarding this point, the Defendant alleges that, when the element absorbing and/or transmitting energy 2 is to be positioned in a "region covered by pads" based on the statements in paragraph [0051] of Exhibit Ko 5, the element absorbing and/or transmitting energy 2 will be attached to the pad that exists on the surface of that region, and it cannot be directly attached to the "core member," and that, in order to directly attach it to the "core member," it will have to be attached to a part near the root of the carrying handle 8 where the pad does not exist (No. 3, 1. (2) A. (C) [Defendant's allegations] above). However, the statements in paragraph [0051] of Exhibit Ko 5 merely suggest the attachment regions, and it is apparent that, if a region where the pad exists is concretely selected as the attachment region for the element absorbing and/or transmitting energy 2, and the element absorbing and/or transmitting energy 2 is attached only to the pad itself, there will be problems, such as not being able to secure the necessary attachment strength. Therefore, avoiding the existence of the pad in the attachment region by, for example, changing the shape of the pad that exists in that region, and directly attaching the element absorbing and/or transmitting energy 2 to the carrier material of the infant carrier (the seat shell) to eliminate the problems, is merely a design matter that should be called a minor adjustment that is technically required as a natural course. Accordingly, the Defendant's abovementioned allegations cannot be adopted.

(c) The JPO Decision states that, even if the "part covered by pads in the backrest and the seat portion" in Exhibit Ko 5 correspond to the "seat shell," the specific constitution of that part is unknown, and that Exhibit Ko 5 does not disclose that the part is positioned in such a way that forces transmitted from a side of the motor vehicle are led into "the seat shell" (JPO Decision, No. 5, 4. (1) (1-2) B. [lines 36 to 39 on page 75 of the JPO Decision]), and denied the ease of conceiving of Invention 1 based on Exhibit Ko 5 Invention 1-1.

However, as mentioned in (A) c. above, the "element absorbing and/or transmitting energy 2" of Exhibit Ko 5 Invention 1-1 corresponds to the "side-collision protection" of Invention 1, and its position corresponds to the constitution of Invention 1 that "the side-collision protection is positioned in such a way that, ..., side forces transmitted

from a side of the motor vehicle to the child safety seat are led into the seat shell" (Constituent Feature 1G). Therefore, the abovementioned determination by the JPO Decision is erroneous.

b. Whether there is error in the finding by the JPO Decision

As mentioned in a. (b) above, the constitution of Invention 1 relating to Difference A between Invention 1 and Exhibit Ko 5 Invention 1-1 could have been easily conceived of by a person skilled in the art. Therefore, Invention 1 could have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5, and the determination by the JPO Decision that Invention 1 "could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5" (JPO Decision, No. 5, 4. (1) (1-2) E. [lines 8 to 9 on page 78 of the JPO Decision]) is erroneous. Accordingly, Grounds for Rescission 1-1-3 are well-grounded.

C. Regarding invalidation of the patent relating to Inventions 2 through 15

Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention. Therefore, the same grounds for rescission as those mentioned for Invention 1 exist (error in the finding of common features/differences between the Inventions and Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-2) (B. (A) e. above) and an error in the determination of the ease of conceiving of the relevant invention based on Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-3) (B. (B) b. above)). Accordingly, the determination by the JPO Decision that grounds for invalidation do not exist for Inventions 2 through 15 (JPO Decision, No. 5, 4. (2) [line 23 on page 82 to line 6 on page 83 of the JPO Decision]) is erroneous.

D. Regarding invalidation of the patent relating to Invention 16 (Grounds for Rescission 1-3)

An error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1 and an error in the determination of the ease in conceiving of Invention 16 based on Exhibit Ko 5 Invention 16-1 (Grounds for Rescission 1-3) are examined below.

(A) Regarding error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1

a. Finding concerning the seat shell

Similar to B. (A) b. above, when Invention 16 and Exhibit Ko 5 Invention 16-1 are compared based on the interpretation that the "seat shell" of Invention 1 is "a fundamental structure of a child safety seat made by using a hard material, comprising

a seat portion and a backrest and taking a shape of wrapping around the side on which a child is placed" and based on Exhibit Ko 5 Invention 16-1 and the matters described in Exhibit Ko 5, it should be said that the "seat part having a backrest and a seat portion, which is covered by pads and supports a child" and the "outer side (the lateral side) of the seat part" of Exhibit Ko 5 Invention 16-1 correspond to the "seat shell" of Invention 16.

b. Finding concerning the side-collision protection

In Exhibit Ko 5 Invention 16-1, the "element absorbing and/or transmitting energy 2 or 101" is "an arc-shaped part to be attached to the fastening region 11 of the carrying handle 8 on the outer side (the lateral side) of the seat part," and "the energy to be transmitted is transmitted by the element absorbing and/or transmitting energy 2 to the child safety seat 1." Therefore, the "element absorbing and/or transmitting energy 2" of Exhibit Ko 5 Invention 16-1 is found to correspond to the "side-collision protection" of Invention 16.

The JPO Decision determines that "even if the 'part covered by pads in the backrest and the seat portion' of Exhibit Ko 5 correspond to the 'seat shell' of Invention 16, Exhibit Ko 5 does not disclose that the 'side-collision protection' is formed as a folding part to be attached to the 'seat shell' on the outer side of the 'seat shell'" (JPO Decision, No. 5, 4. (3) (3-2) B. [lines 13 through 17 on page 85 of the JPO Decision]). However, in Exhibit Ko 5 Invention 16-1, the "element absorbing and/or transmitting energy 2 or 101" is formed as an arc-shaped part to be attached to the fastening region 11 of the carrying handle 8 on the outer side (the lateral side) of the seat part, and is rotated around an axis for the purpose of moving the arc-shaped part from a rest position to a functioning position, and also from the functioning position to the rest position, whereas the side-collision protection of Invention 16 is "formed as a folding part to be attached to the seat shell on the outer side of the seat shell, which may be rotated around an axis for the purpose of changing the folding part from a resting position to a functional position, and also from the functional position to the resting position." Therefore, the "element absorbing and/or transmitting energy 2 or 101" of Exhibit Ko 5 Invention 16-1 is found to be formed as a folding part to be attached to the seat shell on the outer side of the seat shell, similarly to the side-collision protection of Invention 16.

c. Common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1

As a result, it must be said that Invention 16 and Exhibit Ko 5 Invention 16-1 differ in that, in Invention 16, the side-collision protection is attached to the seat shell on the outer side of the seat shell, whereas in Exhibit Ko 5 Invention 16-1, the element absorbing and/or transmitting energy is attached to the fastening region of the carrying

handle (hereinafter referred to as "Difference B"; Difference B is the same as Difference A), and differ in respect to Difference 2 found by the JPO Decision (No. 2, 3. (2) C. (B) c. (c) above), and have commonalities in the other points.

The Defendant alleges that there is no error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1 made by the JPO Decision (No. 3, 1. (4) A. [Defendant's allegations] (A) above). However, as the Defendant's allegation is premised on an allegation that Exhibit Ko 5 has no part corresponding to the seat shell of Invention 1, the Defendant's allegation cannot be adopted in regard to its premise.

d. Whether there is error in the finding by the JPO Decision

The common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1 are as mentioned in c. above, and the finding of any common features/differences by the JPO Decision that differ from them is erroneous.

(B) Regarding error in the determination of the ease in conceiving of Invention 16 based on Exhibit Ko 5 Invention 16-1

a. Regarding Difference B

Difference B between Invention 16 and Exhibit Ko 5 Invention 16-1 ((A) c. above) is the same as Difference A between Invention 1 and Exhibit Ko 5 Invention 1-1 (B. (A) d. above). As mentioned in B. (B) a. (b) above, the constitution of Invention 1 relating to Difference A could have been easily conceived of based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5, and it is found that Difference B between Invention 16 and Exhibit Ko 5 Invention 16-1 could have been easily conceived of by a person skilled in the art due to the same reason.

b. Regarding Difference 2

With regard to a mechanism of a member for which multiple positions may be selected in the field of child safety seats, documents distributed before the priority date of the Patent contain the statements shown in Attachment 7 (Statements in Exhibits Ko 2 through 4). According to these statements, it is found to have been a well-known technical matter in the field of child safety seats to adopt an engaging means or a locking means in a mechanism for which multiple positions may be selected, so as to avoid unexpected displacement at each position, and to further provide a means for releasing that engagement or locking.

Adopting such well-known technical matter in Exhibit Ko 5 Invention 16-1 is merely means to adopt a design matter in line with specific application of art for making the side-collision protection rest or function in the resting position or the functional position. Therefore, adopting a constitution relating to Difference 2 in Exhibit Ko 5 Invention 16-

1 is found to be normal demonstration of the creative ability by a person skilled in the art, and could have been easily conceived of by a person skilled in the art.

With regard to Difference 2 (No. 2, 3. (2) C. (B) c. (c) above), a constitution that corresponds to the stop retainer, the release button, or the release slider of Invention 16 is not disclosed in Exhibit Ko 5 Invention 16-1. The JPO Decision examined the ease in conceiving of these constitutions based on the combination of Exhibit Ko 5 Invention 16-1 and the matters described in Exhibits Ko 3, 6, and 7, and determined that a person skilled in the art could not have easily conceived of these constitutions (JPO Decision, No. 5, 4. (3) (3-2) B. [lines 13 to 36 on page 85 of the JPO Decision]). However, as mentioned above, the constitution of Invention 16 relating to Difference 2 falls within the extent of adopting a design matter in line with specific application of art for solving a certain problem.

Accordingly, it is found that the constitution of Invention 16 relating to Difference 2 could have been easily conceived of based on Exhibit Ko 5 Invention 16-1 and well-known art.

c. Whether there is error in the finding by the JPO Decision

As mentioned in a. above, the constitution of Invention 16 relating to Difference B between Invention 16 and Exhibit Ko 5 Invention 16-1 could have been easily conceived of based on Exhibit Ko 5 Invention 16-1 and the matters described in Exhibit Ko 5, and as mentioned in b. above, the constitution of Invention 16 relating to Difference 2 between Invention 16 and Exhibit Ko 5 Invention 16-1 could have been easily conceived of based on Exhibit Ko 5 Invention 16-1 and well-known art. Therefore, Invention 16 could have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 16-1, the matters described in Exhibit Ko 5, and well-known art, and the determination by the JPO Decision that Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 16-1 and the matters described in Exhibits Ko 5, 3, 6, and 7 (JPO Decision, No. 5, 4. (3) (3-2) C. [line 38 on page 85 to line 3 on page 86 of the JPO Decision]) is erroneous.

(C) Whether Grounds for Rescission 1-3 exist

As mentioned in (A) d. above, there is an error in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1 by the JPO Decision, and as mentioned in (B) c. above, there is an error in the determination of the ease of conceiving of Invention 16 based on Exhibit Ko 5 Invention 16-1 by the JPO Decision. Therefore, Grounds for Rescission 1-3 are well-grounded.

(2) Regarding Grounds for Rescission 2 [error in the determination concerning violation of the clarity requirement (Re: Grounds for Invalidation 5)]

Whether the statements of the claims satisfy the clarity requirement (Article 36, paragraph (6), item (ii) of the Patent Act) should be determined from the viewpoint of whether the statements of the claims sufficiently clarify the contents of the invention and clarify the scope of the invention so as not to harm the legal stability, based on the common general technical knowledge of a person skilled in the art at the time of the filing, by taking into consideration the statements of the claims, as well as the statements in the description and drawings attached to the written application.

Claim 1 (Invention 1) contains the phrase "the predefined width of the child safety seat." The term "predefined" means "fixed; fixed in advance" (*Kojien* [Japanese dictionary], 7th ed.), and the term "width" means "the lateral distance from one end to the other end of an object" (*Kojien*, 7th ed.). Thus, the phrase "the predefined width of the child safety seat" can be construed to be "the lateral distance from one end to the other end of a child safety seat that has been fixed in advance." In the case of the child safety seat, it is possible to form an idea of the lateral distance from its one end to the other end based on the normal form or shape of a child safety seat, and it can be said that such distance has been fixed in advance for that child safety seat. Therefore, the statement "the predefined width of the child safety seat" in Claim 1 is found to sufficiently clarify the contents of the invention and clarify the scope of the invention so as not to harm the legal stability.

With regard to this point, the Plaintiff alleges that, in Claim 1 (Invention 1), the use of the term "predefined" makes it unclear what "the predefined width of the child safety seat" means; for example, if there are members attached to the outer side of the seat shell, such as the fastening region of the carrying handle of Exhibit Ko 5, the use of the term makes it unclear whether the phrase means the lateral distance between the outer ends of the attached members (No. 3, 2. [Plaintiff's allegations] above). However, if there are members attached to the outer side of the seat shell, and a part that is recognized to correspond to the seat shell and those members combined can be regarded as a child safety seat as a whole, the widthwise distance between the outer ends of those members is found to correspond to "the predefined width of the child safety seat." On the premise of such understanding, it is possible to understand the constitution of Claim 1 (Invention 1) that "the side-collision protection is movable from a resting position situated within the predefined width of the child safety seat to a functional position situated outside of the predefined width of the child safety seat ..." (Constituent Feature 1F). Therefore, the Plaintiff's abovementioned allegations cannot be adopted.

In addition, the Plaintiff alleges that determination by the JPO Decision ignored the wording "predefined," and only determined a case where the wording "the width of the

child safety seat" is used (No. 3, 2. [Plaintiff's allegations] above). However, the JPO Decision explains that "'the predefined width of the child safety seat' would mean the 'predefined lateral distance from one end to the other end of the child safety seat'" (JPO Decision, No. 5, 5. [lines 13 to 15 on page 90 of the JPO Decision]), and can be regarded to have made a determination based on the wording "predefined," and hence it cannot be said that there is an error in the determination by the JPO Decision.

According to the above, the statement "the predefined width of the child safety seat" in Claim 1 (Invention 1) does not make the outer limits of the scope of right unclear, and does not violate the clarity requirement under Article 36, paragraph (6), item (ii) of the Patent Act.

Accordingly, Grounds for Rescission 2 do not exist.

(3) Regarding Grounds for Rescission 3 [error in the determination of an inventive step based on Exhibit Ko 1 Inventions (Re: Grounds for Invalidation 1)]

A. Regarding invalidation of the patent relating to Invention 1

(A) Error in the finding of common features/differences between Invention 1 and Exhibit Ko 1 Invention 1

a. Regarding Difference 1

(i) With regard to Difference 1 between Invention 1 and Exhibit Ko 1 Invention 1, the JPO Decision found that, "in light of the definition of the 'seat shell,' 'a backrest 5 with side supports 6, a seat portion 4, and a headrest 10' of Exhibit Ko 1 Invention 1 are members for supporting a child, and therefore, they correspond to the 'support sections' of Invention 1" (JPO Decision, No. 5, 2. (1) (1-2) B. [lines 19 to 21 on page 49 of the JPO Decision]), and found that Exhibit Ko 1 Invention 1 does not have a part corresponding to the seat shell (JPO Decision, No. 5, 2. (1) (1-2) B. [lines 19 to 29 on page 49 of the JPO Decision]). However, given the interpretation that the "seat shell" of Invention 1 is "a fundamental structure of a child safety seat made by using a hard material, comprising a seat portion and a backrest and taking a shape of wrapping around the side on which a child is placed" ((1), A. (A) d. above), it is reasonable to construe that "a backrest 5 with side supports 6, a seat portion 4, and a headrest 10" of Exhibit Ko 1 Inventions correspond to the "seat shell" of Invention 1. Therefore, the abovementioned finding by the JPO Decision is inappropriate.

(ii) Meanwhile, in Invention 1, the side-collision protection is attached to the seat shell on the outer side of the seat shell (Constituent Feature 1D). In contrast, in light of the statements in Exhibit Ko 1, "side supports 6" of Exhibit Ko 1 Inventions support a child in a sideways direction (paragraph [0023] of Exhibit Ko 1), and they are located in the first position, which is suitable for a relatively small child, (paragraph [0029] of Exhibit

Ko 1) or located at a larger distance from each other that is more suitable for the larger child (paragraph [0030] of Exhibit Ko 1). Thus, "side supports 6" constitute the basic frame structure of a child seat, and are members that correspond to one element that constitutes the seat shell. It follows that "side supports 6" of Exhibit Ko 1 Inventions cannot be regarded to correspond to the side-collision protection of Invention 1, and this point is a difference between Invention 1 and Exhibit Ko 1 Invention 1 (hereinafter referred to as "Difference C"). In this regard, it is reasonable that the JPO Decision substantially found the existence of Difference C, stating that "'a side-collision protection attached to the seat shell on the outer side of the seat shell' in the matters specifying Invention 1 in Difference 1 provides a side-collision protection different from the seat shell on the outer side of the seat shell, and its functional constitution clearly differs from that of the 'side supports 6' of Exhibit Ko 1 Invention 1, which may be pivotably moved so as to adapt the child seat to the size of the child (paragraphs [0002] and [0007], etc. of the description of Exhibit Ko 1, etc.)" (JPO Decision, No. 5, 2. (1) (1-2) B. [lines 30 to 36 on page 49 of the JPO Decision]).

b. Regarding Difference 2

In light of the matters disclosed in Exhibit Ko 1 as referred to in 2. (2) B. (C) above, side supports 6 of Exhibit Ko 1 Invention 1 make the child vehicle seat 1 suitable for a relatively small child at positions where the distance between the support surfaces 8 become small, and make the child vehicle seat 1 suitable for a larger child at positions where the support surfaces 8 pivot away from each other, and they function as side supports 6 in either position. Therefore, the idea of the "resting position" of Invention 1 does not apply to the side supports 6. It follows that there is no error in the JPO Decision in finding Difference 2 (No. 2, 3. (2) A. (B) a. (c) above), and stating that "Exhibit Ko 1 does not disclose the concept of the 'resting position' itself, and it indicates a mode opposite to Invention 1 (a narrower position) as a functionally safer (more advantageous) position in the case of a side impact" (JPO Decision, No. 5, 2. (1) (1-2) C. [lines 6 to 8 on page 51 of the JPO Decision]).

(B) Regarding error in the determination of the ease in conceiving of Invention 1 based on Exhibit Ko 1 Invention 1

As mentioned in (A) above, Difference C exists between Invention 1 and Exhibit Ko 1 Invention 1, and the side supports 6 of Exhibit Ko 1 Inventions, which constitute the basic frame structure of the child seat, do not correspond to the "side-collision protection" provided on the outer side of the "seat shell" ((A) a. (ii) above). In addition, Difference 2 exists between Invention 1 and Exhibit Ko 1 Invention 1, and the side supports 6 of Exhibit Ko 1 Inventions are merely capable of adjusting the lateral width

of the basic frame structure of the child seat according to the body size of the child, and have multiple functional positions according to the body size of the child. As a state where the side supports 6 are closed is a functional position suitable for a relatively small child, it cannot be said that the concept of the "resting position" of the side-collision protection of Invention 1 itself is being disclosed in the side supports 6 of Exhibit Ko 1 Inventions ((A) b. above). It follows that, due to the existence of Difference C and Difference 2, the side-collision protection of Invention 1 and the side supports 6 of Exhibit Ko 1 Invention 1 differ in terms of their constitutions and functions, and therefore, it should be said that a person skilled in the art could not have easily conceived of the side-collision protection of Invention 1 based on the side supports 6 of Exhibit Ko 1 Invention 1.

Regarding this point, the Plaintiff alleges that the side supports 6 of Exhibit Ko 1 also sufficiently perform the function as a side-collision protection in the state shown in FIG. 2C, and are regarded to be in the "functional position" of Invention 1, whereas in a state where the side supports 6 are closed, it becomes difficult for the side supports 6 to transmit the forces from a side to the seat, and thus the side supports 6 would be regarded to be in the "resting position" of Invention 1 (No. 3, 3. (1) [Plaintiff's allegations] above). However, as mentioned above, the side supports 6 of Exhibit Ko 1 Invention 1 differ from the side-collision protection of Invention 1 in terms of their constitutions and functions, and they perform a similar function either in a closed state or in an open state, and therefore the Plaintiff's abovementioned allegations cannot be adopted.

Accordingly, Invention 1 could not have been easily conceived of based on Exhibit Ko 1 Invention 1 and the matters described in Exhibit Ko 1.

(C) Whether there is error in the finding by the JPO Decision

According to the above, there is no error in the JPO Decision in determining that Invention 1 is not Exhibit Ko 1 Invention 1, and could not have been easily invented based on Exhibit Ko 1 Invention 1 (JPO Decision, No. 5, 2. (1) (1-2) F. [lines 25 to 27 on page 56 of the JPO Decision]).

B. Regarding invalidation of the patent relating to Inventions 2 through 15

While Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention, Invention 1 is not Exhibit Ko 1 Invention 1, and could not have been easily invented based on Exhibit Ko 1 Invention 1 (A. (C) above). Therefore, Inventions 2 through 15 are also not Exhibit Ko 1 Invention 1, and could not have been easily invented based on Exhibit Ko 1 Invention 1. Thus, there is no error in the determination to the same effect made by the JPO Decision (JPO

Decision, No. 5, 2. (2) [line 36 on page 56 to line 15 on page 57 of the JPO Decision]).

C. Regarding invalidation of the patent relating to Invention 16

(A) Error in the finding of common features/differences between Invention 16 and Exhibit Ko 1 Invention 16

Between Invention 16 and Exhibit Ko 1 Invention 16, Difference C and Difference 2 (No. 2, 3. (2) A. (B) b. (c) above) are found due to the same reasons as that Difference C (A. (A) a. (ii) above) and Difference 2 (No. 2, 3. (2) A. (B) a. (c) above) were found between Invention 1 and Exhibit Ko 1 Invention 1, and Difference 3 (No. 2, 3. (2) A. (B) b. (d) above) is also found.

(B) Regarding error in the determination of the ease in conceiving of Invention 16 based on Exhibit Ko 1 Invention 16

Similarly to A. (B) above, the side-collision protection of Invention 16 and the side supports 6 of Exhibit Ko 1 Invention 16 differ in terms of their constitutions and functions due to the existence of Difference C and Difference 2 between Invention 16 and Exhibit Ko 1 Invention 16. Therefore, it should be said that a person skilled in the art could not have easily conceived of the side-collision protection of Invention 16 based on the side supports 6 of Exhibit Ko 1 Invention 16.

In addition, even if Exhibit Ko 1 Invention 16 and the matters described in Exhibit Ko 3 are combined, it cannot be said that a person skilled in the art could have conceived of the constitution of Invention 16 relating to Difference 3.

Accordingly, Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 1 Invention 16, the matters described in Exhibit Ko 1, and the matters described in Exhibit Ko 3.

(C) Whether there is error in the finding by the JPO Decision

It follows that there is no error in the JPO Decision in determining that Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 1 Invention 16, the matters described in Exhibit Ko 1, and the matters described in Exhibit Ko 3 (JPO Decision, No. 5, 2. (3) (3-2) F. [lines 17 to 19 on page 61 of the JPO Decision]).

D. Whether Grounds for Rescission 3 exist

With regard to the finding of common features/differences between Invention 1 and Exhibit Ko 1 Invention 1 made by the JPO Decision, the JPO Decision's finding that "a backrest 5 with side supports 6, a seat portion 4, and a headrest 10" of Exhibit Ko 1 Invention 1 correspond not to the "seat shell," but to the "support sections" of the Inventions, is inappropriate, but it is reasonable that the JPO Decision substantially found the existence of Difference C as Difference 1. The same applies to the finding of

common features/differences between Invention 16 and Exhibit Ko 1 Invention 16 (C. (A) above). There is also no error in the JPO Decision's determination of the ease in conceiving of Invention 1 based on Exhibit Ko 1 Invention 1 (A. (C) above), determination of the ease in conceiving of Inventions 2 through 15 based on Exhibit Ko 1 Invention 1 (B. above), and determination of the ease in conceiving of Invention 16 based on Exhibit Ko 1 Invention 16 (C. (C) above), and the inappropriate interpretation of the seat shell mentioned above does not affect the conclusion of the JPO Decision. Accordingly, Grounds for Rescission 3 do not exist.

(4) Regarding Grounds for Rescission 4 [error in the determination of an inventive step based on Exhibit Ko 4 Invention (Re: Grounds for Invalidation 2)]

A. Regarding invalidation of the patent relating to Invention 1

(A) Error in the finding of common features/differences between Invention 1 and Exhibit Ko 4 Invention 1

a. Regarding Difference 1

(i) With regard to Difference 1 between Invention 1 and Exhibit Ko 4 Invention 1, the JPO Decision found that Exhibit Ko 4 Invention 1, "in light of the definition of the seat shell, does not disclose a 'seat shell wherein support sections that support a child are provided on the inner sides,' which is a constituent feature of Invention 1" (JPO Decision, No. 5, 3. (1) (1-2) A. [lines 26 to 28 on page 63 of the JPO Decision]). However, while the abovementioned finding by the JPO Decision is based on the definition of the "seat shell" found thereby, as mentioned in (1) A. (A) f. (c) above, the interpretation of the "seat shell" by the JPO Decision cannot be adopted. Therefore, the abovementioned finding by the JPO Decision also cannot be adopted.

(ii) Meanwhile, in Invention 1, the side-collision protection is attached to the seat shell on the outer side of the seat shell (Constituent Feature 1D). In contrast, in light of the matters disclosed in Exhibit Ko 4 referred to in 2. (3) B. (A) and (B) above, Exhibit Ko 4 Invention 1, in short, comprises a pair of head guards, in order to protect the head of the child on both sides, which are generally provided to forwardly extend from both side edges of the backrest portion, wherein the spacing distance between the pair of head guards is changed so as to satisfy both of the inconsistent requirements of securing the child's safety and avoiding the child's feeling cramped. Therefore, the head guards of Exhibit Ko 4 Invention 1 constitute the basic frame structure of the child seat, and are members that correspond to one element that constitutes the seat shell. Thus, it cannot be said that the "head guards 4 and 5" of Exhibit Ko 4 Invention 1 correspond to the side-collision protection of Invention 1, and this point is a difference between Invention 1 and Exhibit Ko 4 Invention 1 (hereinafter referred to as "Difference D"). In this regard,

it is reasonable that the JPO Decision found the existence of Difference D in relation to Exhibit Ko 4 Invention 1, stating that "even if the core members for the backrest portion 3 correspond to the 'seat shell' of Invention 1 as there are cushion members and cover members on the surface side (the inner side) of the core members as support sections, the head guards 4 and 5 are provided to 'forwardly extend from both side edges of the backrest portion 3,' and differ from 'a side-collision protection attached to the seat shell on the outer side of the seat shell' of Invention 1" (JPO Decision, No. 5, 3. (1) (1-2) A. [line 35 on page 63 to line 2 on page 64 of the JPO Decision]).

b. Regarding Difference 2

In light of the matters disclosed in Exhibit Ko 4 as referred to in 2. (3) B. (A) and (B) above, the head guards 4 and 5 of Exhibit Ko 4 Invention 1 function so that, in order to satisfy both of the inconsistent requirements of securing the child's safety and avoiding the child's feeling cramped, the angle of each of the head guards 4 and 5 is changed to a desired angle, and the spacing distance between the pair of head guards 4 and 5 is changed by rotation of each of the head guards 4 and 5. While in particular, the spacing distance is preferably reduced in consideration of safety, they function as the head guards 4 and 5 in any of these positions. Therefore, the idea of the "resting position" of Invention 1 does not apply to the head guards 4 and 5. It follows that there is no error in the JPO Decision in finding Difference 2 (No. 2, 3. (2) B. (B) a. (c) above), and stating as follows: "In Exhibit Ko 4, a narrower position is rather a more preferable 'functional position.' This concept is rather opposite to the constitution of Invention 1, which defines 'a resting position situated within the predefined width' (i.e., a narrower position) and 'a functional position situated outside of the predefined width' (i.e., a wider position)" (JPO Decision, No. 5, 3. (1) (1-2) C. [lines 14 to 17 on page 64 of the JPO Decision]).

(B) Regarding error in the determination of the ease in conceiving of Invention 1 based on Exhibit Ko 4 Invention 1

As mentioned in (A) above, Difference D exists between Invention 1 and Exhibit Ko 4 Invention 1, and the head guards 4 and 5 of Exhibit Ko 4 Invention, which constitute the basic frame structure of the child seat, do not correspond to the "side-collision protection" provided on the outer side of the "seat shell" ((A) a. (ii) above). In addition, Difference 2 exists between Invention 1 and Exhibit Ko 4 Invention 1, and the head guards 4 and 5 of Exhibit Ko 4 Invention 1 are merely capable of adjusting the lateral width of the basic frame structure of the child seat according to the body size of the child, and the level of their function does not differ depending on the position. Therefore, it cannot be said that the concept of the "resting position" of the side-collision

protection of Invention 1 itself is disclosed in the head guards 4 and 5 of Exhibit Ko 4 Invention 1 ((A) b. above). It follows that, due to the existence of Difference D and Difference 2, the side-collision protection of Invention 1 and the head guards 4 and 5 of Exhibit Ko 4 Invention 1 differ in terms of their constitutions and functions, and therefore, it should be said that a person skilled in the art could not have easily conceived of the side-collision protection of Invention 1 based on the head guards 4 and 5 of Exhibit Ko 4 Invention 1.

Regarding this point, the Plaintiff alleges that, because a side impact transmitted to the head guards 4 and 5 of Exhibit Ko 4 Invention 1 is further transmitted to the "seat," the head guards 4 and 5 correspond to the "side-collision protection" of Invention 1, and because the head guards 4 and 5 perform the function as a "side-collision protection" more notably when they are in an open state as compared to when they are in a closed state, the "functional position" and the "resting position" are also being disclosed in the head guards 4 and 5 of Exhibit Ko 4 (No. 3, 4. (1) [Plaintiff's allegations] above). However, as mentioned above, the head guards 4 and 5 of Exhibit Ko 4 Invention 1 differ from the side-collision protection of Invention 1 in terms of their constitutions and functions, and they perform a similar function either in a closed state or in an open state, and therefore the Plaintiff's abovementioned allegations cannot be adopted.

Accordingly, it is found that Invention 1 could not have been easily conceived of based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4.

(C) Whether there is error in the finding by the JPO Decision

According to the above, there is no error in the JPO Decision in determining that Invention 1 is not Exhibit Ko 4 Invention 1, and could not have been easily invented based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4 (JPO Decision, No. 5, 3. (1) (1-2) E. [lines 16 to 18 on page 67 of the JPO Decision]).

B. Regarding invalidation of the patent relating to Inventions 2 through 15

While Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention, Invention 1 is not Exhibit Ko 4 Invention 1, and could not have been easily invented based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4 (A. (C) above). Therefore, Inventions 2 through 15 are also not Exhibit Ko 4 Invention 1, and could not have been easily invented based on Exhibit Ko 4 Invention 1 and the matters described in Exhibit Ko 4. Thus, there is no error in the determination to the same effect made by the JPO Decision (JPO Decision, No. 5, 3. (2) [line 27 on page 67 to line 6 on page 68 of the JPO Decision]).

C. Regarding invalidation of the patent relating to Invention 16

(A) Error in the finding of common features/differences between Invention 16 and Exhibit Ko 4 Invention 16

Between Invention 16 and Exhibit Ko 4 Invention 16, Difference D and Difference 2 (No. 2, 3. (2) B. (B) b. (c) above) are found due to the same reasons as that Difference D (A. (A) (ii) above) and Difference 2 (No. 2, 3. (2) B. (B) a. (c) above) were found between Invention 1 and Exhibit Ko 4 Invention 1.

(B) Ease in conceiving of Invention 16 based on Exhibit Ko 4 Invention 16

Similarly to A. (B) above, the side-collision protection of Invention 16 and head guards 4 and 5 of Exhibit Ko 4 Invention 16 differ in terms of their constitutions and functions due to the existence of Difference D and Difference 2 between Invention 16 and Exhibit Ko 4 Invention 16. Therefore, it should be said that a person skilled in the art could not have easily conceived of the side-collision protection of Invention 16 based on the head guards 4 and 5 of Exhibit Ko 4 Invention 16 and the matters described in Exhibit Ko 4. Even if the matters described in Exhibit Ko 3 are applied to Exhibit Ko 4 Invention 16, a person skilled in the art could not have easily conceived of the side-collision protection of Invention 16.

Accordingly, Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 4 Invention 16, the matters described in Exhibit Ko 4, and the matters described in Exhibit Ko 3.

(C) Whether there is error in the finding by the JPO Decision

It follows that there is no error in the JPO Decision in determining that Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 4 Invention 16, the matters described in Exhibit Ko 4, and the matters described in Exhibit Ko 3 (JPO Decision, No. 5, 3. (3) (3-2) E. [lines 8 to 10 on page 72 of the JPO Decision]).

D. Whether Grounds for Rescission 4 exist

With regard to the finding of common features/differences between Invention 1 and Exhibit Ko 4 Invention 1 made by the JPO Decision, the JPO Decision's interpretation of the "seat shell" of the Inventions is inappropriate, but it is reasonable that the JPO Decision substantially found the existence of Difference D as Difference 1. The same applies to the finding of common features/differences between Invention 16 and Exhibit Ko 1 Invention 16 (C. (A) above). There is also no error in the JPO Decision's determination of the ease in conceiving of Invention 1 based on Exhibit Ko 4 Invention 1 (A. (C) above), determination of the ease in conceiving of Inventions 2 through 15 based on Exhibit Ko 4 Invention 16 (B. above), and determination of the ease in conceiving of Invention 16 based on Exhibit Ko 4 Invention 16 (C. (C) above), and the

abovementioned error in the finding of differences does not affect the conclusion of the JPO Decision.

Accordingly, Grounds for Rescission 4 do not exist.

4. Conclusion

According to the above, the JPO Decision erred in the finding of common features/differences between Invention 1 and Exhibit Ko 5 Invention 1-1 (Grounds for Rescission 1-1-2)(3. (1) B. (A) e. above), and the JPO Decision erred in determining that Invention 1 could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibit Ko 5 (Grounds for Rescission 1-1-3) (3. (1) B. (B) b. above). In addition, as Inventions 2 through 15 all comprise all of the matters specifying Invention 1, and also limit those matters specifying the invention, and contain the same grounds for rescission as above, the JPO Decision erred in determining that grounds for invalidation do not exist for Inventions 2 through 15 (3. (1) C. above). Moreover, the JPO Decision erred in the finding of common features/differences between Invention 16 and Exhibit Ko 5 Invention 16-1, and the JPO Decision erred in determining that Invention 16 could not have been easily invented by a person skilled in the art based on Exhibit Ko 5 Invention 1-1 and the matters described in Exhibits Ko 5, 3, 6, and 7 (Grounds for Rescission 1-3) (3. (1) D. (C) above).

Therefore, without having to make determinations on the other points (Grounds for Rescission 1-2 and 1-4), Grounds for Rescission 1 are well-grounded.

Accordingly, as the JPO Decision contains illegality and should be rescinded, the Plaintiff's claim is upheld, and the judgment is rendered as indicated in the main text.

Intellectual Property High Court, Third Division

Presiding Judge: SHOJI Tamotsu

Judge: UEDA Takuya

Judge: NAKADAIRA Ken

(Attachment 1 omitted)

Attachment 2-1 (Corrected Description)

[Document title] Description

[Title of the invention] Child Safety Seat or Baby Carrier for Mounting on a Motor Vehicle Seat and Side Impact Bar for Such a Seat

[Technical field]

[0001]

The present invention relates to a child safety seat, or an infant car seat, to be mounted on a motor vehicle seat, as well as a side-collision protection that may be mounted to such a seat or such an infant car seat according to the first part of Claim 1.

[0002]

In the scope of this disclosure, the term "child safety seat" is to be understood as a generic term for child safety seats and infant car seats. Therefore, the features provided for a child safety seat within the scope of this disclosure generally also apply to an infant car seat and vice versa, except where otherwise noted. The same applies to the term "child," which is also to be understood as a generic term for children, as well as infants.

[Background art]

[0003]

Child safety seats and infant car seats, which may be mounted on a motor vehicle seat, have been known for quite some time. Such child safety seats or infant car seats serve as seats for infants, toddlers and children and offer them increased protection, especially in the event of an accident. The attachment of such child safety seats generally occurs by the use of the vehicle's seatbelt system or via ISOFIX latches. In the event of an accident, this type of attachment secures the child safety seat to the motor vehicle seat, so that it will remain on the motor vehicle seat and isn't catapulted forward, especially in the event of a rear-end collision. However, these seats revealed problems in side collisions, as neither the belt's attachment, nor the ISOFIX latches sufficiently secured the child safety seat or the infant car seat from a sideways motion of the seat. Yet, this is important to the safety of the child in the child safety seat. Thus, in the past, existing child safety seats were provided with a side-collision protection, such as described in Patent Document 1 or Patent Document 2. The apparatus disclosed therein is an energy absorbing element in the form of a strap or an air cushion and stretches across the child safety seats' side. However, in the past, it has become clear that apparatuses, such as described in Patent Document 1 or Patent Document 2, are not capable of providing a maximum of safety for the child in the child safety seat, due to the fact, that according to the disclosure, an exchange of power directly impacts the

child in the child safety seat, and the child safety seats cannot sufficiently absorb an impact and/or dissipate it.

[Prior art documents]

[Patent documents]

[0004]

[Patent Document 1] DE 20 2009 010 536 U1

[Patent Document 2] US 2009/0152913 A1

[Outline of the invention]

[Problem to be solved by the invention]

[0005]

The present invention aims to provide a child safety seat for mounting to a motor vehicle seat which avoids the aforementioned disadvantage and offers improved side-collision protection, which reduces the kinetic impact on the child placed in the child safety seat.

[Means for solving the problem]

[0006]

This problem is solved by a child safety seat according to Claim 1.

[0007]

In particular, this problem is solved by a child safety seat, to be mounted on a motor vehicle seat, particularly on a motor vehicle side seat, with a seat shell and a side-collision protection mounted thereon, wherein the side-collision protection is movable from the resting position, situated for example at a standard width of a child safety seat of 440 mm, according to the AGREEMENT CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS, (Revision 2, including the amendments which entered into force on 16 Oct. 1995), E/ECE/324, E/ECE/TRANS/505, Rev. I/Add. I5/Rev.6 on 19 May 2009, Annex 17-Appendix 2 relating to child safety seats, to for example a functional position situated outside of the standard width and vice versa, and wherein the side-collision protection is positioned in such a way, particularly on both sides of the seat shell, that possible side forces are led behind the back of the child placed in the child safety seat and into the seat shell.

[0008]

In this connection, an important aspect of the present invention lies in the side-

collision protection being attached to the seat shell in such a way that a transfer or power or energy does not directly impact the child's body, but is instead led away from the child's body and into the seat shell. In this way, the side-collision protection for one serves as a crush zone, and also as a force transfer device, which would in the event of a collision lead the possibly occurring side-powers away from the child's side linearly, instead of into the child's body, and which exhibits damping features. Very advantageously, this helps reduce the energy impacting the child in a child safety seat, so that the child's risk of injury is significantly reduced in comparison to the presently known child safety seats.

[0009]

According to one embodiment of the present invention, the side-collision protection comprises a side element, which, in its resting position, is in contact with the seat shell's side surface, particularly in a flat manner, or essentially inserted in or on, or retracted in or on the seat shell's side surface. In doing so, it can be ensured that the child safety seat according to the present invention does not extend the provided side-collision protection further than a predefined width, particularly the standard width, or the child safety seat's shell is curved in its resting position, and does not exceed a common width of a child safety seat in case of a mounted or inserted side element, which additionally improves the child safety seat's manageability.

[0010]

Furthermore, the side element may be folded out, retracted, extended or pulled out and pushed in, for use in the functional position, or alternatively in such an embodiment in which the child safety seat is essentially bonded, removable from a resting position of the side element and attachable to an according receptor for the side element on the child safety seat, i.e. particularly attachable to the child safety seat's seat shell and also particularly mountable. At this point, it shall be noted that according to the present invention, it is just as well possible not only to attach the side element to the child safety seat, but also that a child safety seat may thus be upgraded, by mounting such a side-collision protection with a side element, which may for example be designed as a folding part, to a predefined position, wherein the side-collision protection may be bonded to the child safety seat's seat shell, e.g. by adhesive bonding, clinching, or screwing. For this purpose, the side-collision protection features a side element which is formed as a folding part that may be rotated around an axis for the purpose of transferring from a resting position into a functional position and vice versa, wherein the folding part comprises at least one stop retainer, of which a locking bar takes hold, so that the folding part is locked in its functional position, wherein the interlock may be released by a user

via an unlock button or an unlock slider, which is in each case assigned to one or two or more locking bars. Such a side-collision protection advantageously comprises a base plate or an attachment plate, via which the side-collision protection is in contact with the child safety seat's seat shell, as well as bonded therewith. The above described system consisting of a folding part, axis, stop retainer and a locking bar is mounted on this base plate or attachment plate.

[0011]

According to a further embodiment of the present invention, the side-collision protection may also be constructively integrated into the child safety seat's seat shell, wherein for example, a special receptor for such a side-collision protection on the child safety seat's seat shell is preferable.

[0012]

According to the present invention, a telescopic slider version of the side element is intended, which preferably features a mushroom or disc-shaped end section, which in its resting position is in direct, and essentially flat contact with the seat shell's side area, and in its functional position may be brought from a position in which it is pushed into the seat shell, into a position in which it is pulled or pushed out of the seat shell. In this functional position, the side element's mushroom or disc-shaped end section is then in contact with the motor vehicle contact surface, or with a neighboring child safety seat or a neighboring side element of another child safety seat.

[0013]

According to the present invention, the side element's length and/or height are configurable. A configurable side element length is particularly advantageous for the use of the child safety seats with regard to using the invented items in different types of motor vehicles, due to the fact that different types of vehicles usually feature different distances with regard to the distance of the attachment apparatus for child safety seats from the motor vehicle door. Such a difference in distance may easily be remedied by a side element, as intended by the present invention, which is adjustable with regard to length. For the purpose of such a length configuration and preferably fixation at the desired length, a snap-in control (click lock) mechanism, snapping mechanism, folding mechanism, ratchet mechanism, telescope mechanism, thread or screwing mechanism or pulley mechanism is intended by the present invention, wherein the aforementioned mechanisms may also be implemented in combination with each another, for example to first configure the side element's desired length, and subsequently, to lock it into the desired position, wherein the fixation may again be released from the functional position after using the child safety seat in order to bring the side element back into its resting

position. Preferably a telescope mechanism is used in connection with this, by which, for example, a tubular designed side element is configured to the desired length. A subsequent fixation at the desired length may then, for example, be achieved by using a snapping mechanism.

[0014]

According to a further embodiment, the side element, as previously mentioned, may also be designed as a folding part. This folding part may either be brought from a closed resting position into an open functional position, or, according to another advantageous embodiment of the present invention, may also assume an inclined position between the resting and the fully open functional position by opening the folding part at an angle of less than 90° relative to the child safety seat's seat shell. In this case, the folding part may, for example, feature a cogging, by which a multitude of stop retainers are defined, which are grabbed by corresponding locking bars—of which there may be one or two—during the process of locking in a predefined position and of the fixation of the folding part. Thereby the side element's lateral reach may be varied with regards to its length, wherein the folding part is securely locked in a predefined position and supported by the locking bar grabbing the stop retainer. Therefore, according to the present invention, it is possible to compensate for the distance between the child safety seat and a lateral motor vehicle contact surface, which may differ in each type of vehicle. For this purpose, the folding part may feature a ratchet mechanism.

[0015]

Concerning this matter it shall be noted, that a contact of the side-collision protection side of the mushroom or disc-shaped end section is usually stabilized by a shut vehicle door, wherein the side element, if the child safety seat is correctly positioned and mounted, e.g. by means of ISOFIX straps, may be extended or unfolded until the side element's mushroom or disc-shaped end section rests on another solid body part or a neighboring child safety seat. In connection therewith, it is noted, that a combination of folding and sliding mechanism is also conceivable for the side element, e.g. by the side element being unfolded first, and then pulled out in a telescopic manner until a proper contact of the end section to a motor vehicle side area is ensured. With regards to this, it shall further be noted, that the end section, as previously mentioned, may be designed in a mushroom or disc-like shape. According to a further embodiment of the present invention, it is, however, also possible to plug, screw or otherwise attach, preferably in a reversible manner, such an end section on the side element's end section. A mushroom or disc-shaped end section may also be realized by a suitable unfolding of the end section elements provided for that purpose. In connection with that, it is also

intended to mount a connecting element to the side element's end section of a neighboring child safety seat, according to the present invention. Such a connecting element may, for example, be slid onto an appropriate side element's end section and locked in a predefined position by use of clamps, bolts or other known attachment mechanisms. A direct attachment of side elements, which are attached to two different child safety seats, is also possible according to the present invention. In doing so, optimal protection is ensured, not only for the child sitting closest to a motor vehicle contact surface, but also for a child that sits in a child safety seat or lays in an infant car seat which is attached to the rear middle seat of the motor vehicle. A child safety seat attached in such a manner, or an infant car seat attached in such a manner, respectively, may thus be supported against a motor vehicle contact surface via a neighboring child safety seat or infant car seat, respectively.

[0016]

Furthermore, according to the present invention, the side element may optionally be adjusted with regard to its height. Such a height adjustment may, for example, take place in a longitudinal slot of the seat shell, wherein means of fixation are provided for each height position, by which the side element is firmly and reliably held in a predefined position at the respective height.

[0017]

With regards to the side element's lateral reach, it shall further be noted, that it essentially extends between a motor vehicle contact surface and the child safety seat. Thus optimal transfer and redirection of energy are possible.

[0018]

Moreover, according to the present invention, the side element is positioned above the seat area of the child safety seat. Thereby, a tipping over of the child safety seat attached at its base may be prevented effectively. Thereby a stabilization of the child safety seat in its normal functional position is perfectly achievable.

[0019]

In addition, according to the present invention, in order to ensure that possible side forces will not directly impact the child in the child safety seat in the case of a side collision, as is the case with prior art child safety seats, but instead are rerouted around it and led into the seat shell, it is provided that the side element is arranged in a back section, particularly rearward of a back contact area of the child safety seat, or alternatively along the rear periphery of the child safety seat's back section. In doing so, an optimal rerouting by the side-collision protection is possible, as the child is in not in reach of the side-collision effects, but instead there is the construction element of the

child safety seat, namely the seat shell, and therefore a direct energy transfer to the child is constructively avoided.

[0020]

According to a further embodiment of the present invention, the child safety seat features side elements on each side of the seat shell, particularly usable and configurable independent of each other. These side elements may, for example, be in contact with a contact surface of the motor vehicle at different heights, whereby, for one, a buffer area is created, but also the rerouting of energy in the case of a side collision may be improved. In each case it is important, that the side-collision protection is extended, unfolded or pushed or pulled open toward a contact surface of the motor vehicle as far as possible, so that preferably a flat contact of the side element's mushroom or disc-like end section on the motor vehicle surface is ensured.

[0021]

In the case that several side elements are provided on one side of the child safety seat, these may essentially extend horizontally or at an angle to one another.

[0022]

The side elements provided on each side of the seat shell may, particularly within a seat shell construction, be bonded together. Such a construction, for one, increases the seat shell's rigidity, and, on the other hand, allows for an especially simple and precise mounting. Such an embodiment is best suited for telescopic extendible side elements.

[0023]

A side element according to the present invention may feature a receptor and/or contact and/or bonding and/or locking apparatus for grabbing or locking in a neighboring side element, particularly a neighboring child safety seat. If such an embodiment is desired, the side element's mushroom or disc-like end section may accordingly be provided with a receptor and/or contact and/or bonding and/or locking apparatus, so that two child safety seats with appropriate side-collision protection according to the present invention may be connected to each other via these, and essentially support each other as previously mentioned.

[0024]

As also previously mentioned, the side element may be designed as a folding part, which may be rotated around an axis to be brought from a resting position into the functional position and vice versa, wherein the folding part features at least one locking bar, onto which a stop retainer locks in its functional position, so that the folding part in a functional position is locked in a predefined position, wherein the fixation may be released by a user by using the unlock button or slider, of which one is preferably

allocated per locking bar.

[0025]

Furthermore, according to the present invention, the locking bar in its resting position is, particularly by a spring element, pre-loaded in such a way that the locking bar is automatically brought into a predefined relaxed position during a change from the resting position into the functional position, and thus moves with the stop retainer in the locking position and is thereby locked in a predefined position in the functional position.

[0026]

For this purpose, according to the present invention, the locking bar in the resting position is held in a predefined position in its pre-loaded position by the folding part, particularly by side pieces of the folding part. When the locking bar is folded from its resting position into its functional position, the locking bar is released by an accompanying unfolding of the side pieces of the folding part, which holds the locking bar(s) in its or their pre-loaded position, so that the locking bar slides past or falls out of the locking bar's side pieces and comes in contact with, preferably in locking contact with, the folding part's stop retainer. The stop retainer may also be designed from the folding part's side pieces or a nose formed from the folding piece, wherein the stop retainer may be designed either on the folding piece itself, or alternatively on one of the holding devices which are tightly bonded with the folding piece.

[0027]

Further embodiments of the present invention result from the sub claims.

[0028]

The present invention is described below by using an embodiment example, which is presented in detail by using drawings.

[Brief description of the drawings]

[0029]

FIG. 1 shows a schematic illustration of the child safety seat according to the present invention, facing forward and backward.

FIG. 2 shows a detailed view of a schematic illustration of the child safety seat's back section according to the present invention.

FIG. 3 shows an embodiment of a side-collision protection in the functional position according to an embodiment of the present invention.

FIG. 4 shows a detailed illustration of a schematic view of the side-collision protection according to the present invention as shown in FIG.3.

FIG. 5 shows a schematic illustration of a further embodiment of a side-collision protection according to the present invention on an infant car seat in the resting position.

FIG. 6 shows a schematic illustration of a further embodiment of a side-collision protection according to the present invention on an infant car seat in the functional position.

FIG. 7 shows a detailed schematic illustration of the side-collision protection according to FIGS. 5 and 6 of the present invention comprising a one-button activator.

FIG. 8 shows a detailed schematic illustration of the side-collision protection according to FIGS. 5 and 6 of the present invention comprising a one-button activator.

FIG. 9 shows a side view in a schematic illustration of the one-button activated embodiment according to FIG. 7.

FIG. 10 shows a schematic, as well as an application illustration of a further embodiment of the side-collision protection according to the present invention, in a functional position.

FIG. 11 shows a schematic, as well as an application illustration of a further embodiment of the side-collision protection according to the present invention, in a functional position.

FIG. 12 shows a schematic illustration of a further embodiment of the side-collision protection according to the present invention, in a functional position.

FIG. 13 shows a schematic illustration of a further embodiment of the side-collision protection according to the present invention, in a resting position.

FIG. 14 shows a detailed schematic illustration of the function mechanism of the embodiment of a side-collision protection according to FIGS. 12 and 13 of the present invention.

FIG. 15 shows a detailed schematic illustration of the function mechanism of the embodiment of a side-collision protection according to FIGS. 12 and 13 of the present invention.

FIG. 16 shows a detailed schematic illustration of the function mechanism of the embodiment of a side-collision protection according to FIGS. 12 and 13 of the present invention.

FIG. 17 shows a detailed schematic illustration of the function mechanism of the embodiment of a side-collision protection according to FIGS. 12 and 13 of the present invention.

FIG. 18 shows a further schematic illustration of an infant car seat according to the present invention with a side-collision protection that can be pushed into a side area of the infant car seat, in its resting position.

FIG. 19 shows a further schematic illustration of an infant car seat according to the present invention with a side-collision protection that can be pushed into a side area of

the infant car seat, in its functional position.

[Mode for working the invention]

[0030]

The following description uses same reference numerals for like parts or parts fulfilling the same function.

[0031]

FIG. 1 shows, in two different illustrations, a child safety seat 10 according to the present invention, attached to a motor vehicle seat 100 in positions facing forward and backward. The child safety seat 10 of this embodiment is designed in such a manner, that it can be rotated, wherein the child safety seat features a seat shell 20, as well as a side element 30, which are in their resting position according to the illustration. In this case, the resting position refers to a pushed-in position of the side element 30. According to FIG. 1 it is recognizable that the side element according to the present invention is located above the seat area 60 in the child seat 10's back section 70. The child safety seat 10 has support sections that support the child or infant on the inner sides of the seat shell 20.

[0032]

FIG. 2 shows a rear view of back sections 70 of the child safety seat 10, wherein each side of the back section 70 recognizably shows a side element 30 with respective end section 80. End section 80 is designed in a disc-like shape and is in contact with the back section 70 of the child safety seat 10. The side-collision protection is in the resting position, i.e. in contact with the back section 70 in a pushed-in position.

[0033]

FIG. 3 shows the back section 70 of FIG. 2, wherein the side element 30 is extended to the left in a telescopic manner and in contact with a motor vehicle contact area 40, which is shown schematically. The side element 30 features a fixation mechanism 90, in which a cam latch extends through an opening. Pushing the cam latch in allows the side element 30 to be pushed together in a telescopic manner and to be brought into a resting position. For this purpose, the side element is pushed back into the back section 70 behind a back contact area of the child safety seat.

[0034]

FIG. 4 shows the side-collision protection according to FIG. 3—viewed from the front, wherein the mushroom or disc-like end section 80 of the side elements 30 is easy to recognize. FIG. 4 also shows how the length of the side element 30 is extendable in a telescopic manner and can be locked in a predefined position via a fixation mechanism 90.

[0035]

FIGS. 5 and 6 each show in a schematic illustration, a child safety seat in the form of an infant car seat 10. The child safety seat features a seat shell 20, which has a side-collision protection attached to each side of its rearward, behind a back section located area. The side-collision protection consists of a side element 30, formed from a folding part 31, which can be rotated around an axis 32. The folding part 31 features two side pieces 36 as well as an end section 80. In FIG. 5, a folding part 31, in its resting position, essentially rests flat on the side area 35 of seat shell 20, while in FIG. 6, the side element 30, shown therein on the right, is present in an unfolded manner, wherein a folding part 31 essentially sticks out from seat shell 20 of the child safety seat 10. A folding part 31 of the side-collision protection, as arranged on the left side of the child safety seat in FIGS. 5 and 6 is in each case in its resting position, i.e. essentially resting flat on the side area 35 of the seat shell 20.

[0036]

In FIGS. 7 and 8, the side element 30 from FIG. 6 is shown in a detailed illustration, wherein the side-collision protection solution according to the present invention shows a one-button solution, featuring the folding part 31 on one side only, i.e. featuring a stop retainer 33, shown on the right side of FIGS. 7 and 8, which grabs onto a locking bar 34. FIG. 7 shows a schematic illustration of the side-collision protection, as used with a child safety seat or an infant car seat, namely in such a way, that a mechanism, by which the locking bar 34 is actuated, is covered by a cover plate 42. Locking bar 34 extends from this cover plate sideways in such a way that it comes in contact with a stop retainer 33, so that the folding part 31 is securely held in its functional position and can only be released by pressing the release button 37 and, at the same time, is brought into its initial resting position, wherein the locking bar 34 may be moved out of its lock with the stop retainer 33 by using the release button 37.

[0037]

FIG. 8 shows a detailed view of the underlying fixation mechanism allowing for an automatic interlocking of the stop retainer 33 with the locking bar 34, wherein a part of the cover plate 42 was removed for the purpose of demonstrating the mechanism. In FIG. 8, it is recognizable that the locking bar 34, as well as the release button 37 are formed in one piece and create a lever which may be deviated around the locking bar axis 44 and is thereby pre-loaded by the spring element 39, that locking bar 34 is automatically brought into a locking position with the stop retainer 33 as soon as the folding part 31 is moved from its resting position into its functional position. As long as the folding part 31 is in its resting position, the locking bar 34 will be pushed back into

its pre-loaded position by side piece 36 of the folding part 31, which has been assigned to it, from which the locking bar 34 will automatically be moved into the locking position with the stop retainer 33 in the event of it being flipped up.

[0038]

As long as the folding part 31 is in its resting position, the locking bar 34 will be pushed back into its intended position by side piece 36 of the folding part 31, from which the locking bar 34 is automatically moved into the locking position with the stop retainer 33 in the event of the folding part 31 being flipped up, when the side piece 36 of the folding parts 31 has flipped up and away so much, that holding back of the locking bar 34 by side piece 36 is no longer possible. At this point it shall be noted, that, in this description, the terms "top" "bottom" "right" and "left" only serve as a better demonstration of the illustrations shown in each of the figures and therefore, these terms are not to be understood as limiting the scope of the present invention, for the side-collision protection according to the present invention is indeed preferably attached to a child safety seat or an infant car seat in the illustrated manner, yet another functional arrangement is also possible, e.g. by the folding part being brought from its resting position into its functional position from top to bottom, rather than from bottom to top. Therefore, the folding part 31 may functionally also be folded from behind, from the front or from front to back or diagonally, wherein finally it is of significance that support of the child safety seat or the infant car seat by side element 30, or the folding part 31, respectively, may occur.

[0039]

As can also be recognized in FIGS. 7 and especially 8, the release button 37 located on the same level as the locking bar 34 is pushed to the side in the event of an expansion of the locking bar 34 and a locking with the stop retainer 33, so that release button 37 extends outward through the cover plate 42. For releasing the locking bar 34 from the stop retainer 33, the release button 37 may be pushed in the direction of the cover plate 42 by a user, wherein the locking bar 34 is simultaneously released from its lock with the stop retainer 33, so that a flipping back of the folding part 31 from its functional position into its resting position becomes possible.

[0040]

FIG. 9 shows an embodiment of a side-collision protection according to the present invention, positioned on side area 35 of the seat shell 20 and illustrated according to the embodiment shown in FIGS. 7 and 8 in schematic view. Here, it needs to be noted that the axis 32, around which the folding part 31 can be moved, is located outside of the seat shell.

[0041]

FIGS. 10 and 11 show a further embodiment of a side-collision protection according to the present invention, wherein according to this embodiment, in each case, two locking bars 34 and two release buttons 37 are provided, and the locking bar area 34 locks onto the stop retainer 33, which is formed on each of both side pieces 36 of the folding part 31. The two locking bars 34, or release buttons 37, respectively, are pre-loaded by the spring elements 39, so that in their resting position, they are pushed back by the side pieces 36 of the folding part 31 and are present in pre-loaded form and snap back into their relaxed position blocking the folding part 31, so that the folding part 31 is secured against falling back into its resting position and remains in its functional position until the actuation of both release buttons 37. FIG. 10 shows a side-collision protection as it is actually applied, namely with a cover plate 42, covering base plate 46, which is visible in FIG. 11 with the cover plate 42 removed.

[0042]

FIGS. 12 and 13 show another embodiment of a side-collision protection according to the present invention with the side element 30 formed as the folding part 31, in each case in a schematic illustration, wherein the folding part 31 is in its functional position in FIG. 12, and in its resting position in FIG. 13. In its resting position, the folding part 31 essentially rests flat on the side area 35 of the seat shell 20, wherein it can be recognized in FIG. 12 that the folding part 31 is linked to two holding devices 48, which extend through the seat shell 20 via respective openings. Furthermore, in FIG. 12, it can be recognized that a release slider 38 also extends through a respective opening through the seat shell 20 and is movable in a vertical direction, according to the indicated arrow, as well as in opposite direction.

[0043]

FIGS. 14 through 17 show the functional mechanism of the embodiment according to FIGS. 12 and 13 schematically and in detail. Thus, in FIGS. 14 through 17, it can be recognized, that the holding devices 48 are movable around the axis 32 and stored on the axis 32. Each of the holding devices 48 features a stop retainer 33 which locks with locking bar 34, when the folding part 31 is moved from its resting position into its functional position. This interlock is particularly easy to recognize in FIGS. 15 and 17, as the folding part 31 is in its functional position in FIGS. 15 and 17. Here, the locking bar 34 is operatively connected with the release slider 38, that is, mostly designed therewith as a single part, wherein the component comprising the locking bar 34 and the release slider 38 is brought into a functional position by the spring element 39, so that the locking bar 34 is present in a pre-loaded position as long as the folding part 31 is in

a resting position. Here, holding devices 48 are formed in such a way that they hold the component featuring the locking bar 34 in the pre-loaded position, as long as the folding part 31 is not completely folded out into its functional position. As soon as the folding part 31 reaches its functional position, the locking bar 34 locks with a stop retainer 33 which is formed on the holding devices 48. This function is especially easy to recognize in FIGS. 16 and 17.

[0044]

FIGS. 18 and 19 show a further embodiment of a child safety seat according to the present invention in the form of an infant car seat 10, wherein according to this embodiment, the folding part 31 may be folded into the side area 35 of the seat shell 20 in such a way that the folding part 31 sits even with side area 35 when in its resting position. This position is shown in FIG. 18. FIG. 19 shows the folding part 31 folded out in a functional position, wherein the release button 37 is visible. In the embodiment according to the present invention shown in FIGS. 18 and 19, the rotary axis 32 of a folding part 31 is located within the seat shell 20, so these are not visible in FIGS. 18 and 19. This case again comprises a swivel mechanism as described in FIGS. 12 through 17, in which the component featuring locking bar 34, as well as the release slider 38, are shown in a resting position in a pushed back bottom position, and in a functional position in a resting top position, wherein once again it shall be noted that the terms "top" "bottom" "right" and "left" only serve as a better demonstration of the illustrations shown in each of the figures and that the side-collision protection according to the present invention may also be appropriate for other functional arrangements with regard to a child safety seat or an infant car seat. For releasing the folding part 31, according to this embodiment, the release slider 38 is moved downward in the manner indicated by the arrow in FIG. 12. In doing so, the stop retainer 30 is released from the lock of locking bar 34, so that the holding devices 48 can be swiveled back according to FIGS. 16 and 17, wherein the folding part 31 comes in contact with the seat shell 20, and, depending on the embodiment, is brought into its resting position on the outside of the seat shell or pushed into the side area 35 of the seat shell.

[0045]

At this point it shall be noted, that all above described parts, individually and in any combination, especially those details illustrated in the drawings, are claimed as essential to the present invention.

[0046]

Variations thereof are known to the person skilled in the art.

[List of reference numerals]

[0047]

10 Child safety seat, infant car seat

20 Seat shell

30 Side element

31 Folding part

32 Axis

33 Stop retainer

34 Locking bar

35 Side area

36 Side pieces

37 Release button

38 Release slider

39 Spring element

40 Motor vehicle contact area

42 Cover plate

44 Locking bar axis

46 Base plate

48 Holding device

50 Length

60 Seat area

70 Back section

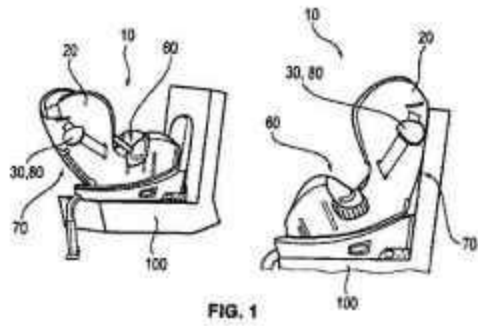
80 End section

90 Fixation mechanism

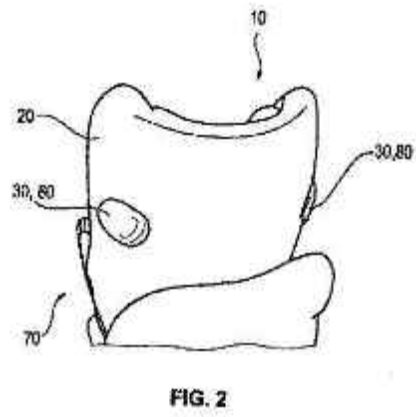
100 Motor vehicle seat

Attachment 2-2 (Drawings)

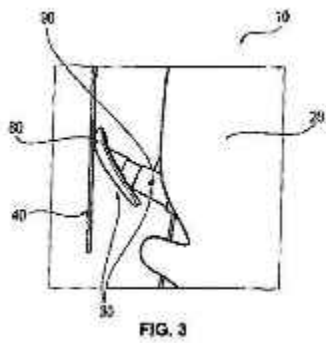
[FIG. 1]



[FIG. 2]



[FIG. 3]



[FIG. 4]

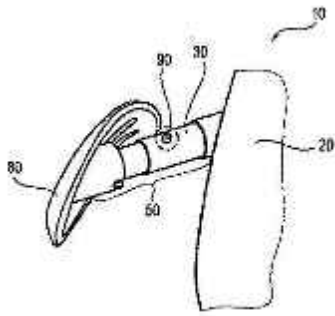


FIG. 4

[FIG. 5]

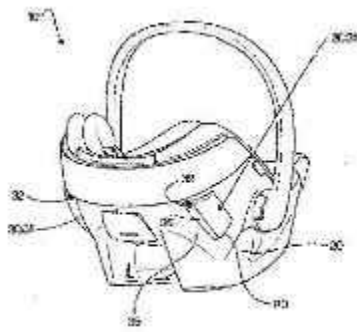


FIG. 5

[FIG. 6]

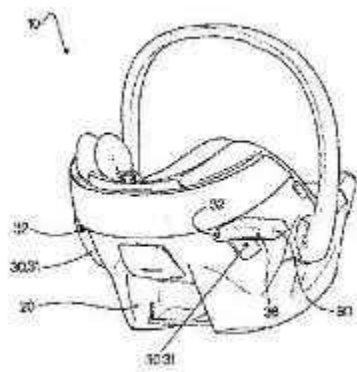


FIG. 6

[FIG. 7]

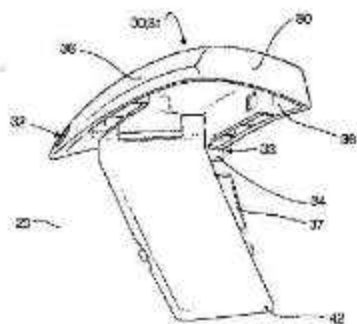


FIG. 7

[FIG. 8]

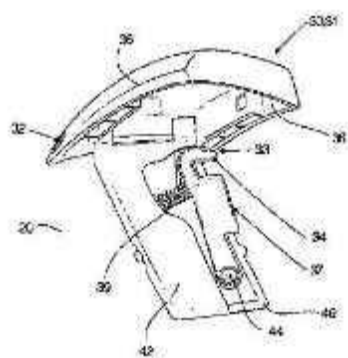


FIG. 8

[FIG. 9]

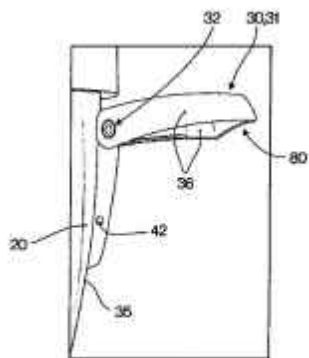
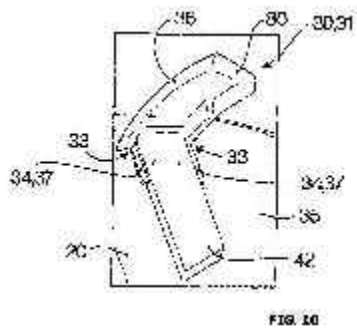
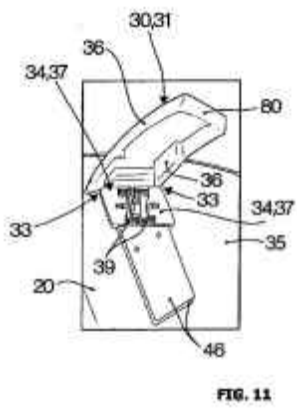


FIG. 9

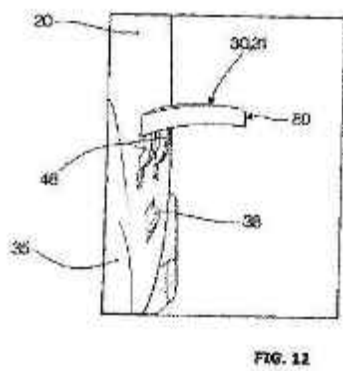
[FIG. 10]



[FIG. 11]



[FIG. 12]



[FIG. 13]

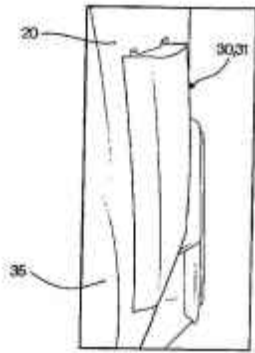


FIG. 13

[FIG. 14]

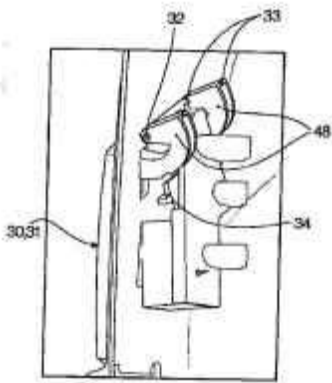


FIG. 14

[FIG. 15]

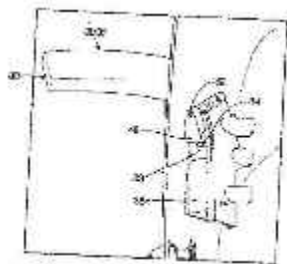
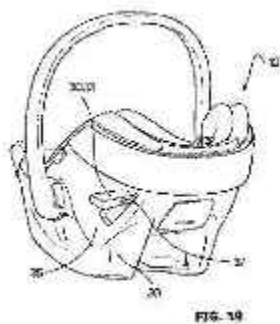


FIG. 15

[FIG. 19]



End

Attachment 3 (Statements in Exhibit Ko 5)

Exhibit Ko 5

(United States Patent Application Publication Pub. No.: US 2011/0012398 A1)

[0002] The subject matter of the present invention is a child safety seat with side impact protection.

[0003] From prior art, child safety seats for the safe transport of children in vehicles have been known long since. Usually, such child safety seats are fastened to one of the seats of a vehicle. In so doing, they are either fixed by a safety belt or anchored on the vehicle seat by means of a particular fastening mechanism.

[0004] In both cases, the relative movement of the child safety seat with respect to the vehicle seat is to be minimised by the fastening. In the case of a heavy acceleration or deceleration of the vehicle, such a movement may nevertheless occur.

[0005] In the case of a heavy braking process or the impact of the vehicle on an obstacle in longitudinal direction of the vehicle, the child safety seat may consequently, as compared to the vehicle, be decelerated in a delayed manner, so that the child safety seat is displaced on the vehicle seat in driving direction.

[0007] Fundamentally different is the situation in the case of a relative movement of the child safety seat in transverse direction of the vehicle. Such a movement may, for instance, be caused by the impact of another vehicle on the side of the vehicle in transverse direction of the vehicle. Since the child safety seat is usually arranged on one of the side seats of the vehicle, it regularly has a minor lateral distance to the inner side of the vehicle. This distance is, as a rule, not sufficient to sufficiently decelerate the relative movement of the child safety seat by means of the seat fastening means prior to an impact of the child safety seat on the inner side of the vehicle.

[0008] In the case of a side impact on the vehicle comprising the child safety seat there will hence be the danger that the child safety seat hits on the inner side of the vehicle at a speed that is not unsubstantial. In the case of this side impact the lateral movement of the child safety seat is stopped within very short time, which corresponds to a strong deceleration. This deceleration in turn causes a substantial force on the child in the child safety seat by which the child may be strongly injured.

[0011] It is therefore an object of the present invention to provide a child safety seat that improves the protective effect of the child safety seat in the case of a side impact of various kinds.

[0013] The child safety seat with side impact protection according to the invention

comprises at least one element absorbing and/or transmitting energy which is arranged and designed to be transferred from a rest position to a functioning position to absorb a laterally impacting energy in the functioning position.

[0014] The child safety seat may particularly be designed in the form of an infant carrier comprising a carrying handle. The element absorbing and/or transmitting energy will then expediently be arranged at this carrying handle. In accordance with the invention it may, however, also be arranged in other regions of the child safety seat, in particular 5 in the lower side region.

[0015] Advantageously, the element absorbing and/or transmitting energy is pivotally mounted and is designed in an arc-shaped manner. By a pivotal movement the element absorbing and/or transmitting energy is transferred from the rest position to the functioning position and vice versa.

[0017] In a further preferred embodiment of the present invention the element absorbing and/or transmitting energy is designed to be substantially cylinder-shaped, wherein the transfer between the rest position and the functioning position is advantageously performed by means of a winding.

[0021] The transferring of the elements absorbing and/or transmitting energy between the rest position and the functioning position may either be performed manually or automatically, or else as a combination of these two possibilities.

[0022] If it is performed manually, the user of the child safety seat has to take care himself/herself that the desired elements absorbing and/or transmitting energy are brought to the functioning position when the child safety seat is positioned in a vehicle. If an improved side impact protection is no longer necessary or desired, the elements absorbing and/or transmitting energy may be returned to the rest position again.

[0023] In order to increase the comfort of use of the child safety seat or to avoid a maloperation, means may be provided which take care that in particular specific elements absorbing and/or transmitting energy are transferred from the rest position to the functioning position when the child safety seat is positioned at its destination, for instance, the seat of a vehicle. Correspondingly, care may be taken that the elements absorbing and/or transmitting energy are brought to the rest position when the child safety seat is removed from its destination.

[0024] Such means may in particular be mechanical or electric means. Thus, the elements absorbing and/or transmitting energy might be transferred to the functioning position, for instance, via a toothed rack drive or via a lever drive when the child safety seat is fastened. It is also conceivable that a contact is closed on fastening of the child safety seat, so that, for instance, an electromagnet is activated which initiates the

transfer of the elements absorbing and/or transmitting energy to the functioning position. An electric motor adjusting the elements absorbing and/or transmitting energy might also be activated via the contact.

[0029] The design and arrangement of the elements absorbing and/or transmitting energy is decisive for the side impact protection of a child safety seat according to the invention.

[0030] One object of these elements is to decelerate an undesired lateral movement, for instance, an absolute movement of the child safety seat or a relative movement of an object toward the child safety seat. To this end, the elements absorbing and/or transmitting energy withdraw kinetic energy from this movement in that the elements absorbing and/or transmitting energy absorb it and convert it to some other form of energy, for instance, heat.

[0031] Another object of the elements absorbing and/or transmitting energy is to introduce forces acting laterally on the child safety seat into supporting elements or to transmit kinetic energy from a lateral movement to such elements, respectively. In accordance with the invention, the energy to be transmitted is transmitted by the elements absorbing and/or transmitting energy to the child safety seat or the base element, and finally transferred to the car body structure via non-positive and/or positive elements.

[0032] Such an element absorbing and/or transmitting energy therefore has to be designed such that it is suited to absorb kinetic energy and to convert it to some other form of energy or to transmit it to supporting elements (e.g. ISOFIX® anchoring and car body).

[0033] Expediently the element absorbing and/or transmitting energy is designed such that it converts kinetic energy to heat preferably by plastic deformation or by friction. In the case of a movement of the child safety seat in lateral direction toward an object it is important to decelerate this movement as smoothly as possible so as to avoid too heavy a deceleration of the child safety seat. Therefore, it has to be ensured for this case that the absorption of the kinetic energy takes place sufficiently slowly. For the case of a movement of an object toward the child safety seat, the speed of the energy absorption is quite negligible. In practice, however, there will usually exist an interaction of these two movements, i.e. a movement of the child safety seat in the direction toward an object (for instance, the inner side of a vehicle door), and a movement of an object toward the child safety seat. Therefore, it will basically be of advantage to pay attention to the speed of energy absorption when designing the elements absorbing and/or transmitting energy.

[0034] If the element absorbing and/or transmitting energy is intended to transmit kinetic energy predominantly to a supporting element, it will have to be designed such that it does not deform significantly in the case of a side impact. To this end, a suitable material has to be chosen for the element absorbing and/or transmitting energy. This may, for instance, be a conventional thermoplastic material, carbon fibre reinforced plastics, alloys, or a combination thereof.

[0039] FIG. 1 a child safety seat with side impact protection according to the invention with an element absorbing and/or transmitting energy in rest position;

[0040] FIG. 2 a child safety seat with side impact protection according to the invention with an element absorbing and/or transmitting energy in functioning position;

[0041] FIG. 3 a child safety seat with regions in which an element absorbing and/or transmitting energy is preferably arranged being emphasised;

[0042] FIG. 4 a perspective illustration of a preferred embodiment of the present invention in rest position;

[0043] FIG. 5 a perspective illustration of the embodiment of FIG. 4 in functioning position;

[0044] FIG. 6 a front view of the embodiment of FIG. 5 in functioning position;

[0048] FIG. 10 an exploded view of a further preferred embodiment of the present invention;

[0049] FIG. 11 a perspective illustration of the embodiment of FIG. 10 at the carrying handle of an infant carrier.

[0050] The child safety seat with side impact protection 1 according to the invention as illustrated in FIG. 1 comprises an element absorbing and/or transmitting energy 2 which is in rest position 3. FIG. 2 shows a child safety seat 1 according to the invention with the element absorbing and/or transmitting energy 2 in functioning position 4.

[0051] FIG. 3 shows an infant carrier 7 with a carrying handle 8. Dashed lines illustrate regions of the child safety seat in which a mounting of the element absorbing and/or transmitting energy 2 is of particular advantage. These are the fastening region of the carrying handle at the infant carrier 11, the side arm 12 of the carrying handle, and the lower side region 13 of the infant carrier. In the region 13 the carrier material of the infant carrier is not covered by any pads, so that this region is particularly suited to incorporate elements absorbing and/or transmitting energy 2. In regions of the child safety seat which are covered by pads, the positioning of elements absorbing and/or transmitting energy 2 is basically also possible.

[0052] FIGS. 4 to 6 show detailed views of the preferred embodiment 100 of the present invention which has already been illustrated in FIGS. 1 and 2. In this embodiment the

element absorbing and/or transmitting energy 101 is designed in an arc-shaped manner and is pivotally mounted at the child safety seat. In the rest position 3 shown in FIG. 4, it snuggles to the carrying handle 8 in the region 11. For transfer to the functioning position 4 shown in FIG. 5, it is pivoted about approx. 90° in the direction of the arrow 102, so that it projects in an arc-shaped manner in lateral direction from the region 11. FIG. 6 shows a front view of this element absorbing and/or transmitting energy 101 in the functioning position 4. The element absorbing and/or transmitting energy 101 may be designed such that it is adapted to absorb kinetic energy by deformation. It may, for instance, be designed such that, in the case of a deformation, kinetic energy is converted to heat by inner friction. To this end, a suitable material such as a specific plastic material has to be chosen for the element absorbing and/or transmitting energy 101. According to the invention, the element absorbing and/or transmitting energy 101 may, however, also be designed such that a persistent deformation is basically not possible so as to absorb the laterally impacting energy substantially completely and transmit it to the supporting elements.

[0058] In a further preferred embodiment 300 of the present invention, the element absorbing and/or transmitting energy 2 is substantially cylinder-shaped. FIG. 10 shows an exploded view of such an element absorbing and/or transmitting energy 2. Here, the element absorbing and/or transmitting energy 2 has the shape of a cylinder 301 at which guiding pins 302 are arranged. The cylinder is guided in a cylinder guide 303 comprising recesses 304 in the form of connecting members for the guiding pins 302. In the rest position 3 (not illustrated) the guiding pins 302 are positioned in the rest regions 305 of the recesses 304. By rotating the cylinder 301 in the direction of the arrow 307 the guiding pins 302 are guided out of these regions, so that the cylinder can be shifted in the cylinder guide 303 from the rest position 3 (not illustrated) in the direction of the arrow 308 to the functioning position 4 (not illustrated). Preferably, this shifting 308 is driven by a spring. By a further rotation of the cylinder 301 in the direction of the arrow 309 the guiding pins 302 are taken to the functioning regions 306 of the recesses, so that the element absorbing and/or transmitting energy 2 is anchored in the functioning position 4.

[0059] In this embodiment 300 the element absorbing and/or transmitting energy 2 is preferably arranged in the region 11 of an infant carrier 7. This arrangement is illustrated in FIG. 11. The recessed grips 310 facilitate the twisting and shifting of the cylinder 301.

[0060] Also in the embodiment 300 kinetic energy can, in analogy to the embodiments 100 and 200, be absorbed and converted to heat by a deformation of the cylinder 301. It

may, however, also be expedient to design the cylinder 301 and the guiding pins 302 such that the guiding pins 302 sever from the cylinder 301 during an impact and in so doing kinetic energy is converted to heat.

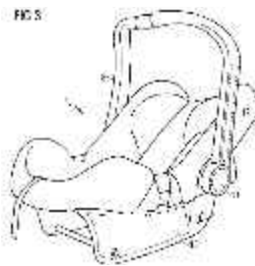
[FIG. 1]



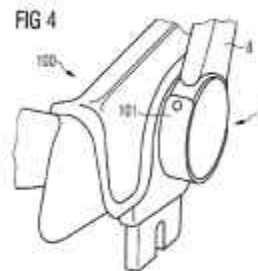
[FIG. 2]



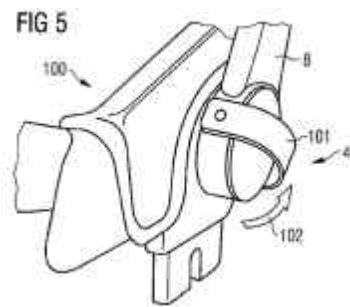
[FIG. 3]



[FIG. 4]



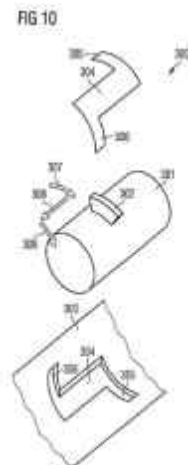
[FIG. 5]



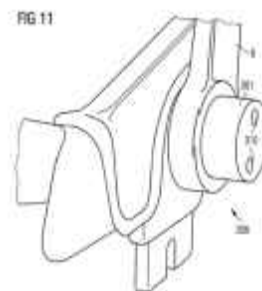
[FIG. 6]



[FIG. 10]



[FIG. 11]



End

Attachment 4 (Statements in Exhibit Ko 1)

Exhibit Ko 1

(EUROPEAN PATENT APPLICATION EP2384926A1)

FIELD OF THE INVENTION

[0001] The invention relates to a child vehicle seat comprising at least a seat portion, a backrest connected to the seat portion, and side supports being pivotably about pivot axes, wherein each side support is provided with a connecting element being swivelably connected to the side support about a swivel axis near a first end thereof and being movably connected to a slideable element near a second end thereof, for pivoting the side supports away from each other when moving the slideable element in a direction away from a transition between the backrest and the seat portion and vice versa.

BACKGROUND OF THE INVENTION

[0002] Such a child vehicle seat is known from EP 1 122 120 A1. By the child vehicle seat as disclosed in EP 1 122 120 A1 side supports are pivotably connected to the backrest. The side supports are provided with link bars. Ends of the link bars are connected to an adjusting nut. In the middle of the backrest a vertical slot is provided for guiding the adjusting nut. By moving the adjusting nut in the vertical slot, the ends of the link bars directly connected thereto are also being moved along the vertical slot, whereby the side supports are being pivoted towards or away from each other. In this manner the seat can easily be adapted to the size of the child. However, a disadvantage of such a direct coupling between the link bars and the adjusting nut is that the freedom for the design of the seat is limited.

SUMMARY OF THE INVENTION

[0003] It is an object of the invention to provide a child vehicle seat with improved pivotable side supports.

[0004] This object is achieved by the child vehicle seat according to the invention in that the connecting elements are each movable with respect to the slideable element by means of a guiding element being slidably located in a corresponding slot, wherein first ends of the two slots are located closer to each other than second ends of the slots.

[0005] By having connecting elements which are movable with respect to the slideable element and having two slots with a different distance between the first ends than between the second ends the freedom of design is enlarged.

[0018] Another embodiment of the child vehicle seat according to the invention is characterized in that the pivot axes of the side supports enclose an angle with each other, wherein the pivot axes are located further away from to each other near the transition between the backrest and the seat portion than at a distance thereof.

[0019] Due to such an orientation of the pivot axes, close contact between the shoulders is maintained at side impact. It is an optimum between freedom of movement of the child and safety during side impact. Of course the same orientation of the pivot axes can be used for the side supports near the seat portion.

DETAILED DESCRIPTION OF EMBODIMENTS

[0023] Fig. 1A, 2A, 3A and 4A show different views of a child vehicle seat 1 according to the invention. The child vehicle seat 1 comprises a base 2 and a seat 3 mounted on the base 2. The seat 3 comprises a seat portion 4 and backrest 5 connected to the seat portion 4 near a transition between the backrest 5 and the seat portion 4. On both lateral sides, the backrest 5 is provided with side supports 6 being pivotably connected by means of pivot axes to the backrest 5. Each side support 6 is provided with a support surface 8 for supporting a child in a sideways direction. On a side of the pivot axis 7 avert of the support surface 8, the side support 6 is provided with a flange 9.

[0024] The seat 3 also comprises a headrest 10 as slideable element, which headrest 10 is located between the two side supports 6 and being slidably connected to the backrest 5 to be able to be moved away from and towards the seat portion 4 to adjust the headrest 10 to the size of the child using the child vehicle seat 1.

[0025] The headrest 10 is provided with a plate shaped element 11 with two elongated slots 12. The slots 12 enclose an angle with each other wherein the slots are located closer to each other near the seat portion 4 than at a distance thereof.

[0026] The seat 3 also comprises two connecting elements 13. Each connecting element 13 is swivelably connected by means of a swivel axis 14 to a flange 9 of one of the side supports 6 near a first end. Near a second end thereof, the connecting element 13 is provided with a guiding element 15 which is slidably located in one of the slots 12 of the headrest 10.

[0027] The child vehicle seat 1 works as follows.

[0028] In the first position as shown in figures 1A , 2A , 3A , 4A the headrest 10 is in the lowest position, meaning that it is relatively close to the seat portion 4. The distance between the support surfaces 8 is also relatively small, compared with the distances in the positions of the child vehicle seat 1 as shown in figures 1B and 1C.

[0029] In the first position, the child vehicle seat 1 is suitable for a relatively small child.

[0030] As is shown in figures 1B, 2B, 3B, 4B, the headrest 10 is being moved in a direction as indicated by arrow P1 to adjust the headrest 10 to a larger child. By doing so, slots 12 will be moved along the guiding elements 15 on the connecting elements 13 and the guiding elements 15 will be moved towards each other in the directions as indicated by arrows P2, P3. Also the flanges 9 of the side supports 6 will be moved in these directions P2, P3, wherein the side supports 6 will be pivoted about the pivot axes 7 in directions as indicated by arrows R1, R2. The support surfaces 8 of the side supports 6 pivot away from each other and are now located at a larger distance of each other that is more suitable for the larger child.

[0031] The headrest 10 can be moved from the lowest position as shown in fig. 1A via a middle position as shown in fig. 1B to the highest position as shown in fig. 1C, 2C, 3 and 4C and vice versa. In the highest position, the guiding elements 15 of the connecting elements 13 are located near ends of the slots 12. The support surfaces 8 of the supports 6 are pivoted further away from each other to be a suitable for a relatively large child.

Claims

1. A child vehicle seat (1, 101, 201, 301) comprising at least a seat portion (4., 104), a backrest (5) connected to the seat portion (4, 104), and side supports (6, 106, 206) being pivotably about pivot axes (7), wherein each side support (6, 106, 206) is provided with a connecting element (13) being swivelably connected to the side support (6, 106, 206) about a swivel axis (14) near a first end thereof and being movably connected to a slideable element near a second end thereof, for pivoting the side supports (6, 106, 206) away from each other when moving the slideable element (10, 104) in a direction away from a transition between the backrest (5) and the seat portion (4., 104) and vice versa, characterised in that the connecting elements (13) are each movable with respect to the slideable element by means of a guiding element (15) being slidably located in a corresponding slot (12, 212), wherein first ends of the two slots (12, 212) are located closer to each other second ends of the slots (12, 212).
2. A child vehicle seat (1, 101, 201, 301) according to claim 1, characterised in that the slideable element is provided with the two slots (12, 212), whereas each connecting element (13) is provided near its second end with the guiding element (15) being slidably located in corresponding slot (12, 212).
3. A child vehicle seat (1, 101, 201, 301) according to claim 1 or 2, characterised in that the first or second ends are located closer to the transition between the backrest (5) and the seat portion (4., 104) than the other ends.
4. A child vehicle seat (1, 101, 201, 301) 301) according to one of the preceding claims,

characterised in that the slideable element is a headrest (10) being movably connected to the backrest (5), whereas the headrest (10) cooperates with the side supports (6, 106, 206) for pivoting the side supports (6, 106, 206) away from each other when moving the headrest (10) in a direction away from the transition between the backrest (5) and the seat portion (4, 104) and vice versa.

5. A child vehicle seat (1, 101, 201, 301) according to one of the preceding claims 1, 2 or 3, characterised in that the slideable element is the seat portion (104) being movably connected to a base (102) of the child vehicle seat, whereas the seat portion (104) cooperates with the side supports (6, 106, 206) for pivoting the side supports (6, 106, 206) away from each other when moving the seat portion (104) in a direction away from the transition between the backrest (5) and the seat portion (104) and vice versa.

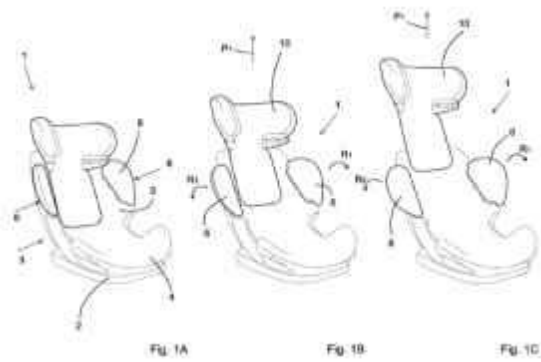
6. A child vehicle seat (1, 101, 201, 301) 301) according to one of the preceding claims 1-4, characterised in that the side supports (6, 106, 206) being pivotably connected to the backrest (5) about pivot axes (7).

7. A child vehicle seat (1, 101, 201, 301) according to one of the preceding claims, characterised in that the side supports (6, 106, 206) being pivotably connected to a base (102, 202) of the child vehicle seat about pivot axes.

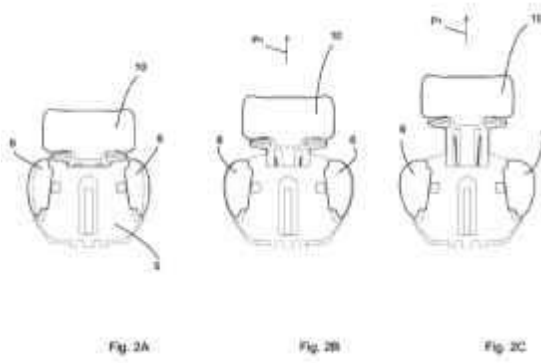
8. A child vehicle seat (1, 101, 201, 301) according to one of the preceding claims, characterised in that the pivot axes (7) of the side supports (6, 106, 206) enclose an angle with each other, wherein the pivot axes (7) are located further away from to each other near the transition between the backrest (5) and the seat portion (4, 104) than at a distance thereof.

9. A child vehicle seat (1, 101, 201, 301) according to one of the preceding claims, characterised in that the pivot axis (7) and the swivel axis (14) of the side support (6, 106, 206) extend parallel at a distance of each other.

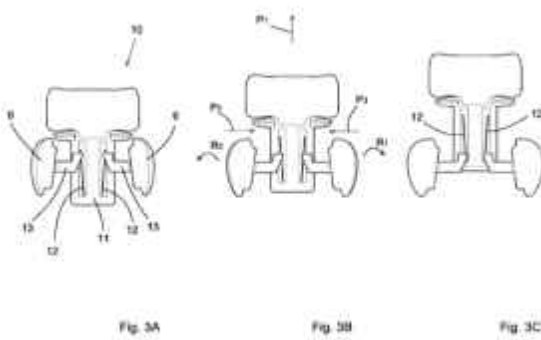
[Fig. 1A, 1B, and 1C]



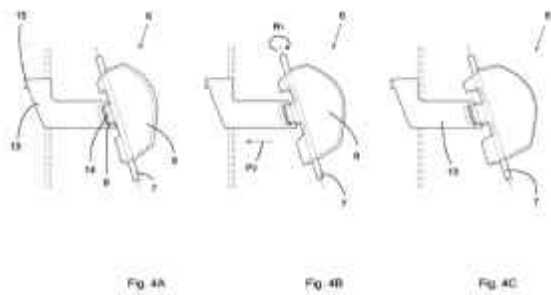
[Fig. 2A, 2B, and 2C]



[Fig. 3A, 3B, and 3C]



[Fig. 4A, 4B, and 4C]



End

Attachment 5 (Statements in Exhibit Ko 4)

Exhibit Ko 4

(Unexamined Patent Application Publication No. 1995-69109, published on March 14, 1995)

[0001]

[Field of industrial application] The present invention relates to a child seat apparatus, and more particularly, it relates to a child seat apparatus which comprises head guards forming walls on both sides of the head of a child seated on the seat apparatus for protecting the child's head.

[0002]

[Prior art] An exemplary child seat apparatus is a child safety seat for an automobile, which is to be mounted on an original seat of an automobile for providing a seat for safely seating a child in the automobile.

[0003] Such a child safety seat for an automobile comprises a seat portion, and a backrest portion upwardly extending from a rear end of the seat portion. The child safety seat may further comprise head guards, in order to protect the head of the child on both sides. Such head guards are generally provided to frontwardly extend from both side edges of the backrest portion.

[0004]

[Problem to be solved by the invention] Since the head guards are provided in consideration of safety for the child, the spacing distance between the pair of head guards is preferably reduced to be capable of locating or positioning the head of the child by closely surrounding the child's head. Particularly when the child is asleep, the spacing distance between the head guards is preferably reduced in consideration of safety.

[0005] If the spacing distance between the head guards is too small, however, the child disadvantageously feels cramped. When the child is awake, for example, the child generally enjoys looking out the car window. In this case, the head guards unpreferably narrow the field of view of the child if the guards are in proximity to the head of the child.

[0006] In consideration of such a background, the spacing distance between the head guards is generally designed to satisfy the aforementioned inconsistent requirements. However, it is difficult to sufficiently satisfy both of these requirements.

[0007] Apparatuses providing child seats include not only the aforementioned child

safety seat for an automobile, but also a baby carriage, a child chair and the like. All of such child seat apparatuses meet the aforementioned problem.

[0008] Accordingly, an object of the present invention is to provide a child seat apparatus which can satisfy both of the aforementioned inconsistent requirements.

[0009]

[Means for solving the problem] The present invention is directed to a child seat apparatus which comprises a seat portion, a backrest portion upwardly extending from a rear end of the seat portion, and a pair of head guards forwardly extending from both side edges of the backrest portion. In order to solve the aforementioned technical problem, the present invention provides that a spacing distance between the head guards is changeable.

[0016]

[Embodiment] FIG. 1 is a perspective view showing the overall appearance of a child safety seat 1 for an automobile according to an embodiment of the present invention.

[0017] The child safety seat 1 comprises a seat portion 2, a backrest portion 3 upwardly extending from a rear end of the seat portion 2, and a pair of head guards 4 and 5 forwardly extending from both side edges of the backrest portion 3 ...

[0018] In such a child safety seat 1, the respective head guards 4 and 5 are rendered rotatable about axes extending substantially parallel to the direction of upward extension of the backrest portion 3. In other words, the head guards 4 and 5 are rotatable in the directions of arrows 12 and 13 in FIG. 1 respectively. The spacing distance between the pair of head guards 4 and 5 is changed by such rotation. The rotatable structure of the head guards 4 and 5 will now be described in detail with reference to FIGS. 2 and 3.

[0019] FIGS. 2 and 3 are enlarged perspective views showing a mounting portion of the head guard 4. The spacing distance between the pair of head guards 4 and 5 is increased and decreased in FIGS. 2 and 3 respectively. These figures show core members for the head guard 4 and the backrest portion 3 respectively, while omitting a cushion member and a cover member. The structure relating to the other head guard 5, which is not shown in FIGS. 2 and 3, is substantially similar to and symmetrical with the structure relating to the head guard 4.

[0020] Referring to FIGS. 2 and 3, the core member of the head guard 4 is preferably a resin product. A mounting portion 15 is integrally coupled to the head guard 4 through a hinge portion 14 having a reduced thickness. This mounting portion 15 is fixed to a corresponding part of the backrest portion 3 by rivets 16, so that the head guard 4 is held by the backrest portion 3. The hinge portion 14 provides an axis for rotating the head guard 4, so that the head guard 4 is rotatable with respect to the backrest portion 3 about

the hinge portion 14. The axis provided by the hinge portion 14 extends substantially in parallel with the direction of upward extension of the backrest portion 3.

[0021] The backrest portion 3 is provided with an engaging projection 17 which projects toward the head guard 4. According to this embodiment, the core member of the backrest portion 3 is a resin product, and the engaging projection 17 is integrally formed with this resin product. On the other hand, the head guard 4 is provided with an engaging portion 18 which is engaged with the engaging projection 17. When the head guard 4 is rotated from the position shown in FIG. 2 to that shown in FIG. 3 and vice versa, the engaging portion 18 must pass over the engaging projection 17 with slight elastic deformation. After the engaging portion 18 thus passes over the engaging projection 17, therefore, the positions of the head guard 4 are stably maintained as shown in FIGS. 2 and 3 respectively.

[0022] It is possible to rotate the head guards 4 and 5 based on the aforementioned structure by applying slightly strong force to the head guards 4 and 5. According to this embodiment, the head guards 4 and 5 can be rotated, for example, in angular ranges of about 15° respectively. Such angular ranges can be arbitrarily set as desired.

[0023] While the hinge portion 14 has been described as a resin part having a reduced thickness employed for rotatably holding each of the head guards 4 and 5 in the aforementioned embodiment, alternatively the hinge 14 may be formed by a pivotal support structure employing a shaft.

[0024] While the combination of the engaging projection 17 and the engaging portion 18 is employed in the aforementioned embodiment for fixing each of the head guards 4 and 5 at a desired angle, the same may be replaced by another means. For example, locking means may be employed for strictly fixing the head guards after rotation by prescribed operations.

[0025] While the angle of each of the head guards 4 and 5 is adjustable in two stages in the aforementioned embodiment, the angle may alternatively be changed in three or more stages.

[0026] FIGS. 4 to 6 show a child seat apparatus 21 according to another embodiment of the present invention. The child seat apparatus 21 shown in these figures is intended to provide a baby carriage or a child chair, for example. FIGS. 4 to 6 show only a part of a backrest portion 22 of the child seat apparatus 21 and only one head guard 23. FIG. 4 shows a rear surface of the backrest portion 22, while FIGS. 5 and 6 show sections taken along the lines V—V and VI—VI in FIG. 4 respectively.

[0027] The head guard 23 is connected to the backrest portion 22 by a shaft 24 so as to be rotatable about the shaft 24. The head guard 23 has a first part engaging and

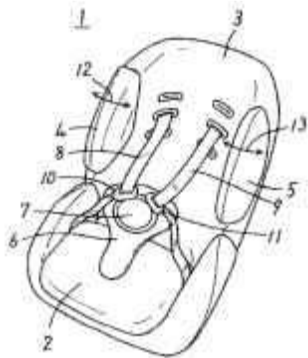
positioning the shaft 24, and has a second part extending rearward to the rear side of the backrest portion 22 beyond the first part so that a second shaft 25 is mounted on an end of this second part.

[0028] A rotation operating member 26 is rotatably mounted on the rear surface of the backrest portion 22. In more concrete terms, the rotation operating member 26 has an axial part 27, which is inserted in a bearing part 28 provided on the backrest portion 22. A collar 29 engages an end of the axial part 27 and bears against the bearing part 28, thereby preventing disengagement of the axial part 27 from the bearing part 28. A plurality of, e.g., three key ways 30, 31 and 32 are provided in a peripheral surface of the rotation operating member 26. The rotation operating member 26 is further provided with an operating rib 33, for facilitating the rotation thereof. In addition, the rotation operating member 26 is provided with pivot holes 34 and 35 in two positions, respectively, between which the rotation center thereof is located. According to this embodiment, the pivot holes 34 and 35 are located on a single diameter.

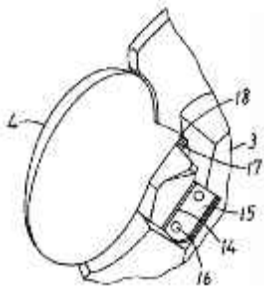
[0029] An end of a rigid rod 36 is operably coupled to the aforementioned second shaft 25. According to this embodiment, a ring-shaped portion 37 is formed on one end of the rigid rod 36, to receive the shaft 25 therein. Another end of the rigid rod 36 is perpendicularly bent to be received in one pivot hole 34 provided in the rotation operating member 26. Another head guard (not shown) has a structure which is horizontally symmetrical with that of the head guard 23, so that one end of another rigid rod 38 is coupled to this head guard and another end of the rigid rod 38 is received in the other pivot hole 35 of the rotation operating member 26.

[0030] In such a structure, the rotation operating member 26 is rotated so that its rotation is transmitted to the head guard 23 through the rigid rod 36 to rotate the head guard 23, and further transmitted to the other head guard (not shown) through the rigid rod 38 to rotate the same. FIG. 6 shows rotated states of the head guard 23 in solid and phantom lines respectively. The head guard 23 and the other head guard (not shown) are symmetrically rotated at the same time.

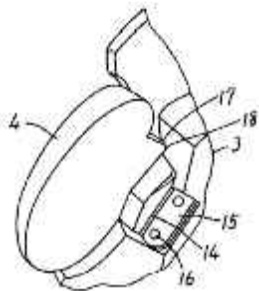
[FIG. 1]



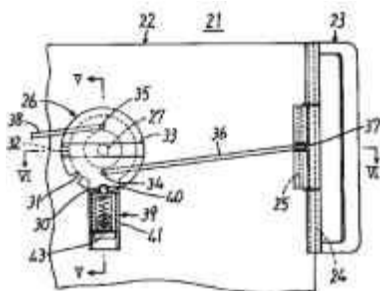
[FIG. 2]



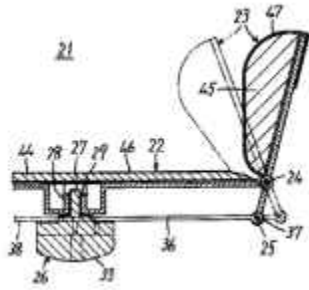
[FIG. 3]



[FIG. 4]



[FIG. 6]



Attachment 6 (Statements in Exhibits Ko 25-1 through 25-6)

(The words "seat shell" and "shell" are indicated in red.)

1. Exhibit Ko 25-1 (Publication No. of Japanese Translation of PCT International Application 2007-529353, published on October 25, 2007)

[0001]

The present invention relates to a safety seat, particularly though not exclusively a child safety seat for a vehicle.

[0020]

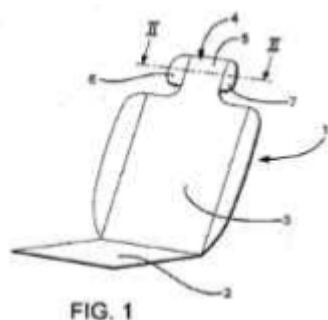
...

Referring first to FIG. 1 of the drawings, a child safety seat has a chassis or **shell 1** comprising a squab 2 and a back 3. The **shell** can be a unitary moulding or a two part moulding of the squab and the back. Above the back, the **shell** has a head part 4 having a rear head support 5 and a pair of right and left forwards-and-sideways extending support wings 6,7. The shell is a polypropylene moulding with the head rest being moulded integrally with the rest of the moulding.

[0025]

... In such impact, and under inertia of the occupant reacting against shoulder wings of the **seat shell**, the remote end of the front portion 20 can strike the window W before the head strikes the lining. This action causes the front portion to pivot about its living hinge 19.

[FIG. 1]



2. Exhibit Ko 25-2 (Unexamined Patent Application Publication No. 2010-64737, published on March 25, 2010)

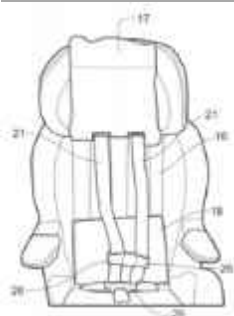
[0024]

... The car seat 10 is constructed to include a generally horizontal seat member 12, a generally vertical back rest 13 projecting upwardly from the rear portion of the seat member 12, and preferably a pair of arm rests 14 on the laterally opposing sides of the seat member 12. The car seat 10 can also include a head rest 15 that is mounted on the upper portion of the seat back 13 and can be vertically positionally adjustable relative to the seat back 13 to accommodate and properly support growing children. The car seat 10 is generally formed with a rigid shell 16 defining the external surfaces of the car seat 10 but padding is mounted on the shell 16 to provide a soft surface on which the child is supported while seated in the car seat 10. The padding includes, among others, a head rest pad 17, a back panel pad 18 and a seat pad 19.

[0028]

... The first step, as depicted in FIG. 2, is to remove the crotch strap 23 from the forward portion of the seat shell 16. In the alternative, the crotch strap 23 can be lengthened and passed underneath the seat pad 19 to exit at the rear of the seat pad 19 so that the harness buckle 25 can reach the harness storage cavity 30. In most situations, the crotch strap 23 is most easily disconnected from the seat shell 16. The head rest pad 17 is then loosened from the other adjacent padding members and folded upwardly over the head rest 15, or the back of the back rest 13, as is depicted in FIG. 3. The movement of the head rest pad 17 positions the shoulder straps 21 against the back rest shell 16.

[FIG. 3]



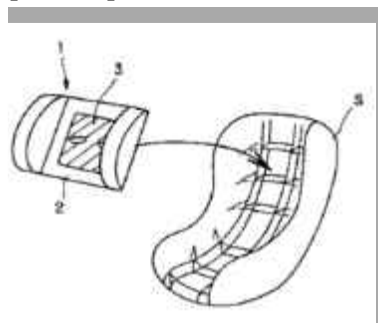
3. Exhibit Ko 25-3 (Unexamined Patent Application Publication No. 2003-252092, published on September 9, 2003)

[0018]

[Mode for working the invention] FIG.1 shows an example of a support device for an infant or toddler formed according to the present invention. A support device for an

infant or toddler (which may be abbreviated as a "support") 1 comprises a pad 2 and a shock absorbing material 3 provided such a manner that it is buried in the pad 2. The support 1 is incorporated into various supplies for an infant or toddler, including for example a child seat 4 and baby strollers 5 and 6, in order to support an infant or toddler. In the case of the child seat 4, for example, as is shown in FIG. 2, the support 1 is mounted on a shell S molded by using hard resin, such as polypropylene, and then the shell S is covered with a cover material (not shown in the figure) to form seat body. The pad 2 is a foam molded product using foam resin as a material. The pad 2 is given a shape suitable for supporting an infant or toddler.

[FIG. 2]



4. Exhibit Ko 25-4 (Unexamined Patent Application Publication No. 2005-28942, published on February 3, 2005)

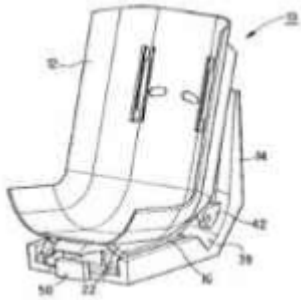
[0017]

As its basic constitution, a child seat 10 relating to the present embodiment comprises a shell 12, which is the seat body where a toddler or infant is to be seated, and a first base 14, which is a base for mounting and fixing the shell 12.

[0018]

The shell 12 is formed into the shape of a so-called bucket seat by using a high-rigidity, lightweight material, and the shell 12 is covered with a cushion material, such as urethane, to be used as a protection seat for an infant or toddler. ...

[FIG. 1]



5. Exhibit Ko 25-5 (Unexamined Patent Application Publication No. 2008-184133, published on August 14, 2008)

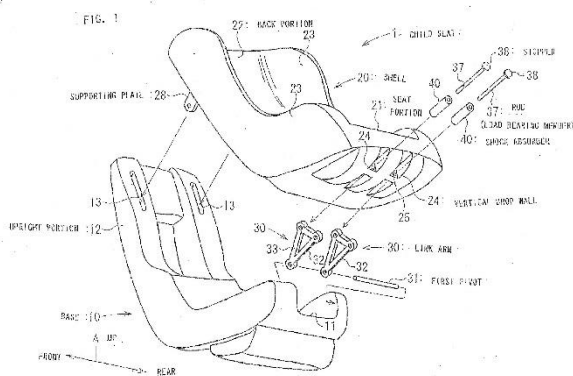
[0027]

As shown in FIG. 1, a child seat 1 has a base 10 and a shell 20 for accommodating a child occupant, both having an L-shape when viewed from the side. The shell 20 is provided with known child restraint webbing (not shown) used to restrain a child occupant.

[0029]

The shell 20 has a seat portion 21 on which a child occupant sits, a back portion 22 for supporting the back of the child occupant, and left and right sidewall portions 23.

[FIG. 1]



6. Exhibit 25-6 (Unexamined Patent Application Publication No. 2008-290587, published on December 4, 2008)

[0031]

The seat body 10 is constituted by a **shell 11** and a seat cover 12. The **shell 11** is a fundamental structure of the child seat 1, and is formed into a shape in which an infant can be held in a seated state using a material such as hard resin having a required hardness. ... The seat cover 12 covers the shell 11 from the front side thereof, and is formed into a shape that substantially conforms to the front surface of the seat cover 12 using a soft material such as urethane. By detachably attaching the seat cover 12 to the **shell 11**, the comfort when an infant is seated can be improved.

[FIG. 1]



End

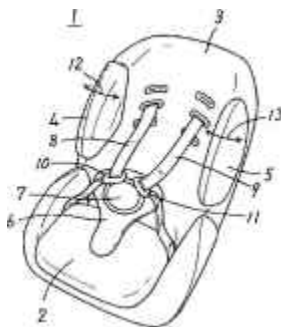
Attachment 7 (Statements in Exhibits Ko 2 through 4)

1. Exhibit Ko 4 (Unexamined Patent Application Publication No. 1995-69109, published on March 14, 1995)

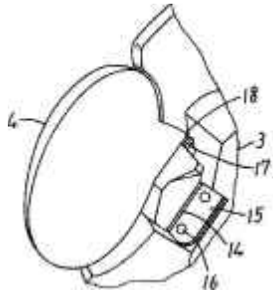
[0021] The backrest portion 3 is provided with an engaging projection 17 which projects toward the head guard 4. According to this embodiment, the member serving as the core or base for the backrest portion 3 is a resin product, and the engaging projection 17 is integrally formed with this resin product. On the other hand, the head guard 4 is provided with an engaging portion 18 which is engaged with the engaging projection 17. When the head guard 4 is rotated from the position shown in FIG. 2 to that shown in FIG. 3 and vice versa, the engaging portion 18 must pass over the engaging projection 17 with slight elastic deformation. After the engaging portion 18 thus passes over the engaging projection 17, therefore, the positions of the head guard 4 are stably maintained as shown in FIGS. 2 and 3 respectively.

[0024] While the combination of the engaging projection 17 and the engaging portion 18 is employed in the aforementioned embodiment for fixing each of the head guards 4 and 5 at a desired angle, the same may be replaced by another means. For example, locking means may be employed for strictly fixing the head guards 4 and 5 after rotation by prescribed operations.

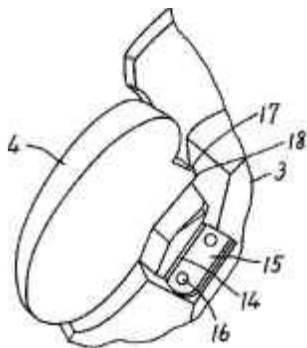
[FIG. 1]



[FIG. 2]



[FIG. 3]



2. Exhibit Ko 2 (Publication No. of Japanese Translation of PCT International Application 2008-515695, published on May 15, 2008)

[0022]

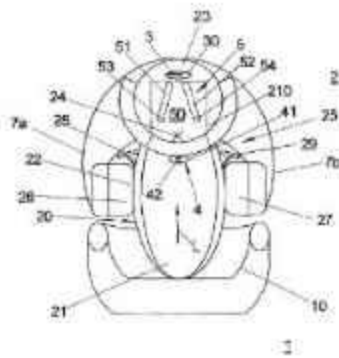
In order to set the height of the head restraint, the backrest 2 is overall of telescopic design and comprises two backrest parts 21, 22 which can be adjusted with respect to each other in the backrest longitudinal direction L and of which the one, lower back rest part 21, forms the back support and the other, upper back rest part 22, which can be displaced with respect thereto in the backrest longitudinal direction L, forms the head restraint. In order to set the length of the backrest, use is made of an actuating handle 3 which is arranged in a recessed grip 30 and is in the form of an actuating lever which is arranged on a head receptacle 23 (for receiving a child's head) provided on the head restraint subassembly 22 and which takes on a dual function:

Firstly, by pivoting the actuating lever 3, a locking mechanism, which is formed by latching elements prestressed elastically into their locked state and with which the respectively current setting of the length of the backrest is locked, can be released. This makes it possible for the first time to reset the height of the head restraint by displacing

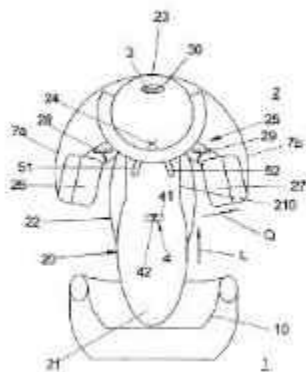
the head restraint 22 with respect to the back support 21 in the backrest longitudinal direction L.

Secondly, after release of the locking mechanism by exerting a tensile force, which acts in the backrest longitudinal direction L, on the actuating handle 3, a desired resetting of the height of the head restraint can be undertaken, with the two backrest parts 21, 22 forming the corresponding setting mechanism, namely the back support 21 and the head restraint 22 mounted movably thereon, being displaced with respect to each other in the backrest longitudinal direction L (cf. FIG. 2).

[FIG. 1]



[FIG. 2]



3. Exhibit Ko 3-1 (Unexamined Patent Application Publication No. 1999-268565, published on October 5, 1999)

[0017] The swivel connection 22 between the structural part 18 and the guiding foot 19 can be locked in certain swiveling positions so that an unintentional changing of the

swivel position is prevented. In the protective side wall function of the structural parts 18 (FIG. 2), the swivel connection 22 is locked in a 0°-position so that the protective side walls 20 cannot be pressed to the outside by the child 10. The detent of the swivel connection 22 can be constructed in various manners, but they are not described here for conciseness. Locking devices are arranged on the guiding feet 19, by way of which locking devices each guiding foot 19 can be locked in various displacement positions in the guide rail 17. Like the detent devices, these locking devices can also be operated manually, that is, can be released and/or activated manually.

[FIG. 2]



[FIG. 3]



End