

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD**

In re U.S. Patent No. 7,229,129

Issued: June 12, 2007

Inventors: Brennon L. White et al. *Inter Partes* Review No. _____

For: VENTILATED SEAT

Attorney Docket No. 09004.032

IGB Automotive Ltd.,
Petitioner,
v.
W.E.T. Automotive Systems, AG,
Patent Owner

PETITION FOR INTER PARTES REVIEW

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 35 U.S.C. §§ 311 – 319, IGB Automotive Ltd. (“Petitioner”) hereby petitions the Patent Trial and Appeal Board to institute an *inter partes* review of claims 1 – 12 (all claims) of United States Patent No. 7,229,129 (“the ’129 patent,” Ex. 1001) that issued on June 12, 2007, to Brennon L. White et al. According to USPTO records, the ’129 patent is currently assigned to W.E.T. Automotive Systems, AG.

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I. COMPLIANCE WITH REQUIREMENTS FOR A PETITION FOR INTER PARTES REVIEW

A. Grounds for Standing

Petitioner certifies that it is not barred or 1topped from requesting *inter partes* review of U.S. Patent No. 7,229,129 (“the ‘129 patent”) (Ex. 1001). Neither Petitioner, nor any party in privity with Petitioner, has filed a civil action challenging the validity of any claim of the ‘129 patent. The ‘129 patent has not been the subject of a prior *inter partes* review by Petitioner or a privy of Petitioner.

Petitioner also certifies that this petition for *inter partes* review has been filed within one year of the date of service on Petitioner of a complaint alleging infringement of the subject patent. Petitioner was served with a complaint alleging infringement of certain W.E.T. Automotive Systems AG patents (not including the ‘129 patent) on April 19, 2013 in Civil Action No. 2:13-cv-11536-AJT-PJK in Eastern District of Michigan. (Ex. 1002). The complaint was filed April 4, 2013. Petitioner was served with a first amended complaint specifically alleging infringement of the ‘129 patent on July 23, 2013. (Ex. 1003). Because the date of this petition is at least not more than one year after July 23, 2013, this petition complies with 35 U.S.C. § 315(b).

Petitioner also certifies that the ‘129 patent is eligible for *inter partes* review. The ‘129 patent was granted on June 12, 2007 based on an application filed on October 26, 2005. (Ex. 1001). The ‘129 patent is therefore a patent that is

not described in section 3(n)(1) of the Leahy-Smith America Invents Act. The filing date of this petition is after the date of grant of the '129 patent.

B. Mandatory Notices

1. Real Party-in-Interest

The real party-in-interest of this petition pursuant to 37 CFR 42.8(b)(1) is IGB Automotive Ltd. located at 3090 Marentette Avenue, Windsor, Ontario N8X 4G2, Canada. I.G. Bauern GmbH located at Wiesenstraße 29, 63584 Gründau, Germany is also a real party-in-interest.

2. Related Matters

As of the filing date of this petition, the '129 patent was asserted against the Petitioner in W.E.T. Automotive Systems, Ltd. v. IGB Automotive Ltd., Civil Action No. 2:13-CV-11536-AJT-PJK (E.D. Michigan). For further information, this petition for *Inter Partes* Review of the '129 patent is also being filed concurrently with five other distinct petitions for *Inter Partes* Review of U.S.P.N.'s 7,775,602; 7,735,932; 8,360,517; 7,637,573; and 6,840,576, which have also been asserted against the Petitioner in said Civil Action.

3. Lead and Back-up Counsel

Lead Counsel

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FILDES & OUTLAND, P.C.

Back-up Counsel

Jeremy J. Gajewski
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FILDES & OUTLAND, P.C.

4. Service Information

Service on Petitioner may be made by mail or hand-delivery to: Fildes & Outland, P.C., 20916 Mack Avenue, Suite 2, Grosse Pointe Woods, MI 48236. The telephone number for lead and back-up counsel is (313) 885-1500 and the facsimile number is (313) 885-0340. Lead and back-up counsel also may be contacted by email at fildespat@teleweb.net.

C. Fee for Inter Partes Review

The fee for the petition as specified by 37 CFR 42.15(a) in the amount of \$23,000 is submitted herewith. The petition challenges 12 claims of the '129 patent.

D. Certificate of Service

A certificate of service of this petition is provided in Attachment B.

II. IDENTIFICATION OF CLAIMS BEING CHALLENGED AND RELIEF REQUESTED

Claims 1 – 12 of the '129 patent are unpatentable as being anticipated under 35 U.S.C. § 102(a), (b), or (e) and/or for being obvious over the prior art under 35 U.S.C. § 103(a). Specifically:

(1) Claims 1 – 3, 6, and 7 are obvious under § 103(a) over U.S. Patent No. 5,918,930 to Kawai et al. (“Kawai”) (Ex 1004) in view of U.S. Patent No. 6,511,125 to Gendron (“Gendron”) (Ex. 1005), U.S. Patent No. 6,062,641 to

Suzuki et al. (“Suzuki”) (Ex. 1006), and U.S. Patent No. 4,997,230 to Spitalnick; (“Spitalnick”) (Ex. 1014);

(2) Claims 1 – 3, 6, and 7 are obvious under § 103(a) over U.S. Patent No. 4,946,220 to Wyon et al. (“Wyon”) (Ex 1007) in view of Gendron, Suzuki, and Spitalnick;

(3) Claims 1 – 3, 6, and 7 are obvious under § 103(a) over U.S. Patent No. 2,992,604 to Trotman et al. (“Trotman”) (Ex. 1008) in view of Gendron, Suzuki, and Spitalnick;

(4) Claims 4 and 5 are obvious under § 103(a) over Kawai, Gendron, Suzuki, and Spitalnick in further view of U.S. Patent No. 6,003,950 to Larsson (“Larsson”) (Ex. 1009);

(5) Claims 4 and 5 are obvious under § 103(a) over Wyon, Gendron, Suzuki, and Spitalnick in further view of Larsson;

(6) Claims 4 and 5 are obvious under § 103(a) over Trotman, Gendron, Suzuki, and Spitalnick in further view of Larsson;

(7) Claims 8 – 12 are anticipated under § 102(b) by Kawai;

(8) Claims 8 – 12 are anticipated under § 102(b) by Wyon;

(9) Claims 8 – 12 are anticipated under § 102(b) by Trotman; and

(10) Claims 8 – 12 are obvious under § 103(a) over Kawai in view of Wyon and Trotman.

Petitioner requests that the Board review the following analysis and the accompanying prior art, institute a trial for *inter partes* review of claims 1 – 12 of the ‘129 patent, and cancel those claims as invalid.

III. RELEVANT INFORMATION CONCERNING THE CONTESTED PATENT

A. Effective Filing Date and Prosecution History of the ‘129 Patent

The ‘129 patent was filed as U.S. Application No. 11/258,645 on October 26, 2005. The ‘645 application is a continuation of U.S. application No. 09/755,505 filed on January 5, 2001 (now U.S.P.N. 7,040,710). Claims 1 and 8 of the ‘129 patent are the independent claims.

The ‘645 application which issued as the ‘129 patent was filed with 5 independent claims and 30 total claims. The first Office Action was mailed January 27, 2006 and rejected the claims on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 29 of U.S.P.N. 6,869,140. Also, claims 1 – 8, 10 – 14, 16 – 18, and 19 – 30 were rejected under § 102(e) as being anticipated by Gendron (U.S.P.N. 6,511,125). (Ex. 1010: pp. 3-6). In response, a terminal disclaimer was filed to overcome the double patenting rejection, claims 1 – 18 were canceled, clarifying amendments were made to claims 19, 22, and 25, and arguments were presented regarding the patentability of claims 19 – 30. Specifically, applicant argued that Gendron did not disclose “the total cross-sectional area of each group of holes being greater than the

total cross-sectional area of any group of holes nearer the chamber opening” or “an elongate tail extending between the bag and the air mover, the elongate tail being formed from an extension of the top portion of the bag and an extension of the bottom portion of the bag.” On July 18, 2006 a second non-final Office Action was mailed, again withdrawing the previous rejections and presenting new grounds of rejection. Specifically, claims 19 – 25 were rejected as being indefinite, claims 19 – 30 were rejected under § 102(b) as being anticipated by Lord (U.S.P.N. 5,715,695), and claims 22 – 30 were rejected under § 103(a) as being unpatentable over Lord in view of Inoue et al. (U.S.P.N. 5,450,894). (Ex. 1011: pp. 3-6). In response, applicant argued that the same limitations noted above were also not disclosed by Lord. On November 6, 2006, a Final Office Action was mailed, again rejecting claims 19 – 25 as being indefinite, and maintaining the rejection of at least claims 19 – 25 based on the disclosures of Lord and Inoue; claims 26 – 30 were allowed. The examiner’s statement of reasons for allowance was as follows: “Prior art does not teach the elongate tail extending between the bag and the air mover, the elongate tail being formed from an extension of the top portion of the bag and an extension of the bottom portion of the bag and including an opening coupled to the air mover; and a trim cover extending around at least a portion of the cushion and the bag.” (Ex. 1012: pp. 3-7). Subsequently, on February 6, 2007 the examiner issued a Notice of Allowance and Interview Summary, in which the

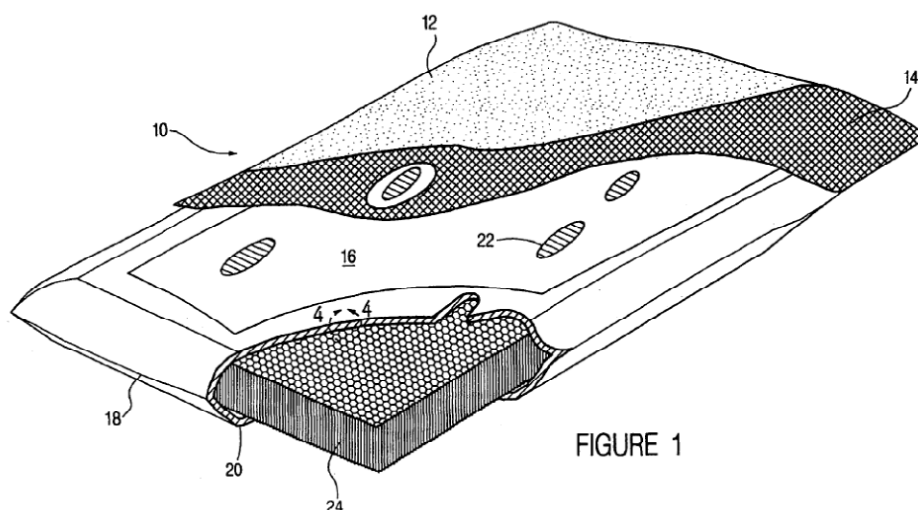
examiner amended claim 19 based on the substance of the interview, and allowed claims 19 – 30. (Ex. 1013: pp. 5-6, 8). In the Interview Summary, the examiner indicated that the clarifying amendment discussed pertaining to the cross-sectional area of the defined groups of holes made it clear that the total cross-section area of each defined group of holes increases the farther each defined group of holes is from the chamber opening to distinguish the present invention over the disclosure of Lord.

B. Overview of the ‘129 Patent

The ‘129 patent has two independent claims (claim 1 and 8) and 12 total claims. Independent claim 1 is directed to a ventilated seat assembly for use with an air mover, and independent claim 8 is directed to a ventilated seat assembly. The ventilated seat assembly includes a trim cover, an enclosed chamber, a spacer, and a cushion. The enclosed chamber is formed by a top portion and an air impermeable bottom portion and includes an opening for receiving air from an air mover. The top portion includes a plurality of holes configured to provide air movement through the chamber. The spacer is located within the chamber. (Ex. 1001: Abstract).

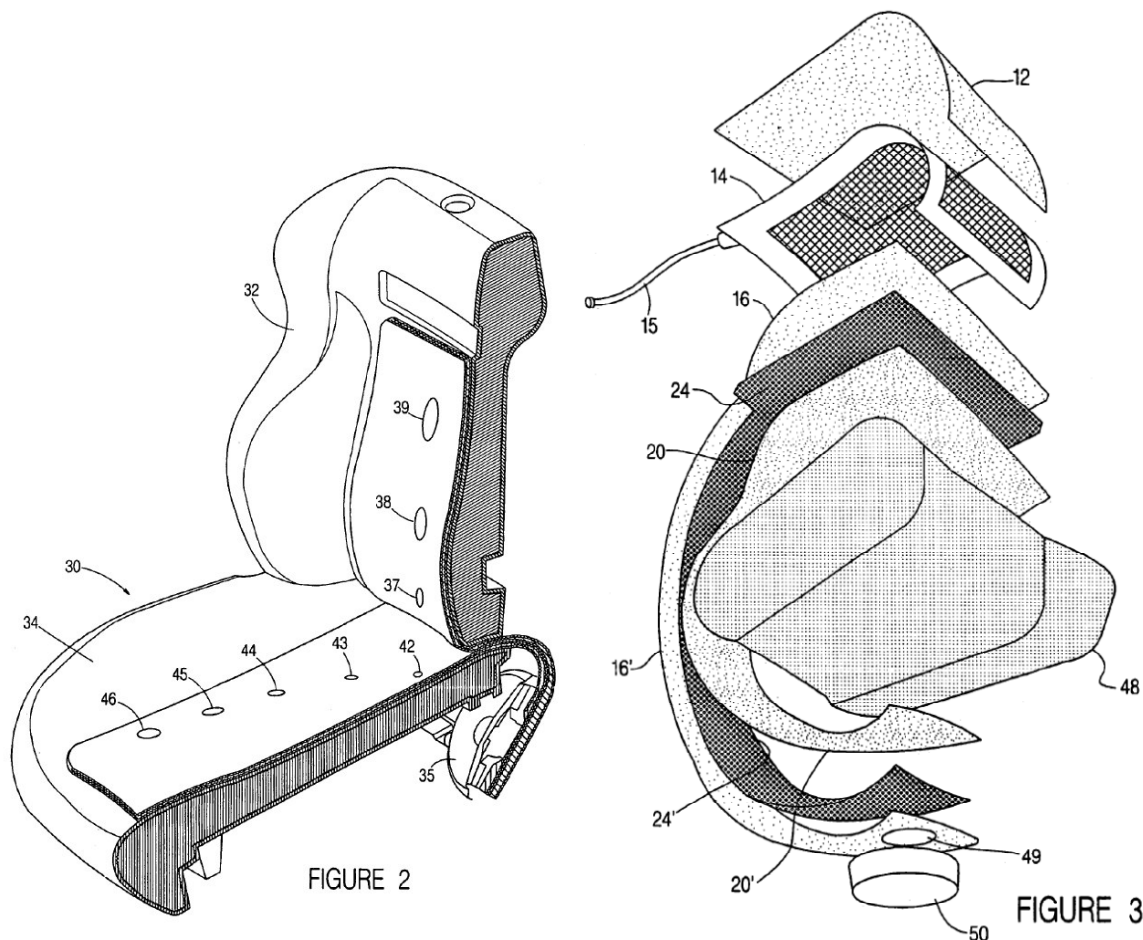
The claimed seat assembly 10 includes a perforated trim 12, an air permeable heater layer 14, and a bag 18 including a top layer 16 and a bottom layer 20. The bag 18 is impermeable except for a plurality of holes 22 formed in the top

layer 16. A spacer material 24 is located within the bag 18. (Ex. 1001: col. 4, ll. 8-18, 25-32; FIG. 1).



The seat 30 includes a seatback 32 and a seat cushion or seat base 34. The bags 10 are coupled to a fan 35. In one embodiment, the sizes of the holes 22 vary as the distance from the air mover increases, with the smaller holes being nearer the air mover. (Ex. 1001: col. 4, ll. 33-37, 40-57; FIG. 2). In another embodiment, the bag top 16, spacer 24, and bag bottom 20 each includes elongate tails 16', 24', 20', and a fan 50 is coupled to an opening 49 in the bag top 16'. The elongate tails

extend between the main bag portion and the fan. (Ex. 1001: col. 5, ll. 3-8; FIG. 3).



None of these features were novel and nonobvious when the application that issued as the '129 patent was filed on October 26, 2005 having a priority date of January 5, 2001.

C. Person of Ordinary Skill in the Art

A person of ordinary skill in the art in the field of the '129 patent would have been someone with a good working knowledge of vehicle seats, including those employing heating and/or ventilation systems. The person would have

gained this knowledge either through education and training, several years of practical work experience, or through a combination of these.

IV. PRECISE REASONS FOR RELIEF REQUESTED

A. Construction of Terms Used in the Claims

In this proceeding, the claims must be given their broadest reasonable construction in light of the specification. (37 CFR 42.100(b)). The broadest reasonable construction should encompass subject matter a patent owner contends infringes the claims, and constructions a patent owner has advanced in litigation. Also, if a patent owner contends terms in the claims should be read to have a special meaning in this proceeding, those contentions should be disregarded unless the patent owner presents amendments to the claims compliant with 35 U.S.C. § 112 that conform the claim language to such contentions. (See 77 Fed. Reg. 48764 at II.B.6 (August 14, 2012); *In re Youman*, 679 F.3d 1335, 1243 (Fed Cir. 2012)). Petitioner consequently has identified subject matter that falls within the scope of the claims read in their broadest reasonable construction, which Petitioner submits is sufficient for the purposes of this proceeding.

Claim terms are given their ordinary and accustomed meaning as would be understood by one of ordinary skill in the art, unless the inventor, as a lexicographer, has set forth a special meaning for a term. (See *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998); *York*

Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1572 (Fed. Cir. 1996)). In the '129 patent, the inventor did not act as a lexicographer and did not provide a special meaning for any of the claim terms. Accordingly, using the broadest reasonable interpretation standard, the terms should be given their ordinary and custom meaning as understood by a person of ordinary skill in the art:

1. Cushion (Claims 1, 3, 6, 8, 9, 11, 12)

The '129 patent does not define the term “cushion.” As best understood, the term “cushion” means “a component of a seat assembly that provides cushioning for the occupant of the seat assembly.” (Ex. 1001: FIG. 2).

2. Trim Cover (Claims 1, 2, 4, 6, 8, 9)

The broadest reasonable interpretation of the term “trim cover” should include “perforated leather, cloth, or the like which covers components of a seat assembly.” (Ex. 1001: col. 2, ll. 16-17; col. 3, ll. 49-51).

3. Generally Enclosed Chamber (Claims 1 – 3, 5 – 7)

The '129 patent does not define the term “generally enclosed chamber.” The term “generally enclosed chamber” does not appear in the specification of the '129 patent. As best understood, the term “generally enclosed chamber” means “a closed space defined by two or more layers including openings provided in one or more of the layers.” (Ex. 1001: col. 2, ll. 19-22; col. 4, ll. 14-18; FIG. 1).

4. Top Portion (Claims 1, 2, 5, 8)

The '129 patent does not define the term “top portion.” The term “top portion” does not appear in the specification of the '129 patent. As best understood, the term “top portion” means “a layer configured to be closer to a seat occupant.”

5. Bottom Portion (Claims 1, 3, 8)

The '129 patent does not define the term “bottom portion.” The term “bottom portion” does not appear in the specification of the '129 patent. As best understood, the term “bottom portion” means “a layer opposite the top portion.”

6. Air Mover (Claims 1, 7, 8, 10 – 12)

The broadest reasonable interpretation of the term “air mover” should include “a device that moves air, such as a fan.” (Ex. 1001: col. 5, l. 8; FIG. 3).

7. Spacer (Claims 1, 6, 8, 9)

The broadest reasonable interpretation of the term “spacer” should include “a material that is intermediate of a top and bottom portion.” (Ex. 1001: col. 3, ll. 46-47, 52-66).

8. Cross-sectional Area (Claim 1)

The '129 patent does not define the term “cross-sectional area.” The term “cross-sectional area” does not appear in the specification of the '129 patent. The

broadest reasonable interpretation of the term “cross-sectional area” should include “the size of an opening.” (Ex. 1001: col. 4, ll. 40-59; FIGS. 1, 2).

9. Heater (Claims 4, 5)

The ‘129 patent does not define the term “heater.” The broadest reasonable interpretation of the term “heater” should include “a device that provides heat.” (Ex. 1001: col. 2, ll. 46-49).

10. Generally Enclosed Bag (Claims 8, 9, 11, 12)

The ‘129 patent does not define the term “generally enclosed bag.” As best understood, the term “generally enclosed bag” means “a closed space defined by two or more layers including openings provided in one or more of the layers.” (Ex. 1001: col. 2, ll. 19-22; col. 4, ll. 14-18; FIG. 1).

11. Elongate Tail (Claims 8 – 10, 12)

The ‘129 patent does not define the term “elongate tail.” The broadest reasonable interpretation of the term “elongate tail” should include “an extension connected to a main portion of a bag.” (Ex. 1001: col. 5, ll. 3-10; FIGS. 2, 3).

12. Extending Between (Claim 8)

The ‘129 patent does not define the term “extending between.” The broadest reasonable interpretation of the term “elongate tail” should include “extending at least part of the distance between the bag and the air mover.”

The foregoing proposed claim construction is presented by Petitioner using the broadest reasonable interpretation standard applied for purposes of *inter partes* review. Petitioner reserves the right to advocate a different claim interpretation in district court or any other forum in accordance with the claim construction standards applied in such forum.

B. Detailed Explanation of How the Claims are Unpatentable

1. Claims 1 – 3, 6, and 7 Are Obvious Over U.S. Patent No. 5,918,930 to Kawai et al. (“Kawai”) in View of U.S. Patent No. 6,511,125 to Gendron (“Gendron”), U.S. Patent No. 6,062,641 to Suzuki et al. (“Suzuki”), and U.S. Patent No. 4,997,230 to Spitalnick; (“Spitalnick”)

Kawai (Ex. 1004) issued on July 6, 1999 from U.S. Patent Application No. 08/944,886, filed October 6, 1997. Kawai is prior art under §§ 102(a), (b), and (e). Gendron (Ex. 1005) issued on January 28, 2003 from U.S. Patent Application No. 09/668,165, filed September 25, 2000. Gendron is prior art at least under §102(e). Suzuki (Ex. 1006) issued on May 16, 2000 from U.S. Patent Application No. 09/188,152, filed November 10, 1998. Suzuki is prior art at least under §§ 102(a) and (e). Spitalnick (Ex. 1014) issued on March 5, 1991 from U.S. Patent Application No. 07/472,666, filed January 30, 1990. Spitalnick is prior art under §§ 102(a), (b), and (e). Gendron, Suzuki, and Spitalnick are presented to

supplement the teachings of Kawai with respect to at least the cross-sectional area of the holes in the top portion of the chamber. It would have been obvious to combine the prior art elements related to the cross-sectional area of the holes in the top portion of the chamber (e.g., the ventilated vehicle seats of Gendron, Suzuki, and Spitalnick having specific hole patterns in the top layer) with the ventilated vehicle seat of Kawai including a permeable top surface. This combination amounts to use of a known technique to improve a similar device in a similar way.

**i. Kawai in View of Gendron, Suzuki, and Spitalnick Renders
Obvious Claim 1**

Kawai discloses a vehicle seat capable of providing a comfortable seated condition. The vehicle seat 2 includes a seat pad 6 which is mounted on a seat cushion frame 4 and a seat pad 7 for a back rest which is mounted on a seat back frame 5. (Ex. 1004: col. 2, ll. 3-5; col. 3, ll. 57-60; FIG. 1). Kawai therefore discloses “*a seat having a seat base and a backrest, at least one of the seat base and the backrest comprising: a cushion.*” A trim cover extends around the frame 4, 5 and the seat pads 6, 7, and is integral with an upper layer 12 of the ventilating structure of the vehicle seat 2. (Ex. 1004: FIGS. 1, 2). Kawai therefore discloses “*a trim cover.*” The vehicle seat 2 includes a lower layer 10 formed by a sheet-like member (non-permeable member) such as formed from vinyl chloride, leather or the like, an intermediate permeable layer 11 mounted on top of the lower layer 10

and formed by a cushion member (air channel member) through which air can flow, and upper layer 12 mounted on the upper surface of the permeable layer 11 and including a non-permeable section 13 and a permeable section 14 disposed at given locations thereon. The lower layer 10, the permeable layer 11, and the upper layer 12 are formed in an integrally continuous manner and disposed toward the front surface of the vehicle seat 2. The permeable section 14 is formed by a permeable textile fabric or meshy cloth, the non-permeable section 13 is formed by a sheet-like member having a heat insulating capability, and the cushion member 11 is formed by weaving a plastic mono-filament yarn in the manner of a pile yarn on a double pile loom into a honeycomb structure. (Ex. 1004: col. 3, l. 61 through col. 4, l. 24; FIGS. 1, 2). An air inlet port 15 which is used to introduce air into the permeable layer 11 is formed in the ventilating structure 10, 11, 12 and is connected at an open end to a hose (introduction passage) 20 which introduces air from an air conditioner (air discharging mechanism) 3. (Ex. 1004: col. 3, ll. 55-57; col. 4, ll. 25-33; FIGS. 1, 2). Kawai therefore discloses “*a generally enclosed chamber formed by a top portion and an air-impermeable bottom portion and including an opening for receiving air from the air mover, the top portion of the chamber including a plurality of holes configured to provide air movement through the chamber*” and “*a spacer located within the chamber.*”

The permeable section 14 of the upper layer 12 of the ventilation structure of Kawai is formed by a permeable textile fabric or meshy cloth, and therefore presumably has a random array of holes that extend through the upper layer 12. The permeable section 14 is disposed substantially in conformity to locations C1 (thigh and buttocks) and C2 (back) which are contacted by a user as he sits on the seat. (Ex. 1004: col. 4, ll. 6-11; FIGS. 1, 3). In a related disclosure, Gendron discloses a ventilated seat pad 10 for an occupant which provides comfort to an occupant and can be integrated as part of a complete seat sold to an original equipment manufacturer. The pad 10 is sized to cover substantial portions of a seat back 102 and a seat bottom 104 of a vehicular seat 100. (Ex. 1005: Abstract; col. 1, ll. 66 through col. 2, ll. 8; FIGS. 1, 2). The pad 10 includes a third layer 60 (adjacent air permeable spacer material 72 in fourth layer 70) having a selected hole pattern 62. The hole pattern 62 includes relatively large, aligned holes 68 passing through the third layer. The hole pattern 62 directs air to the upper surface of back portion 13 and seat portion 14 of the pad 10. The spacing of the holes in the third layer with respect to the occupant and the air flow management of the fibrous second layer combine to cool or heat the occupant uniformly throughout the contact area. (Ex. 1005: col. 2, ll. 45-52; col. 3, ll. 28-32; FIGS. 3, 5). The holes 68 in Gendron therefore have a defined pattern corresponding to occupant contact areas of the seat, but presumably have generally the same size throughout

the pattern 62. It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosure of Kawai as taught by Gendron, because both references disclose providing a flow of air to occupant contact areas of a vehicle seat, and Gendron teaches an improvement in which the holes are provided only in specific locations in the contact areas of the seat in order to uniformly heat or cool the occupant of the seat. (Ex. 1005: col. 3, ll. 27-31). However, as noted in the prosecution history in Section III.A. above, Gendron may not specifically disclose relative sizes of groups of the holes. In this regard, in another related disclosure Suzuki discloses a vehicle seat apparatus 10 including a seat cushion 20 and a seat back 40 constituting sitting portions of the apparatus. The seat cushion 20 includes a urethane member 21 constituting a filling member and having an air vent 23 that extends upwardly from the lower side of the cushion 20. A series of grooves 24 is formed on the upper side of the urethane member 21, with each of the grooves 24 being connected with the air vent 23 and extending outwardly from the air vent 23 in several directions. A first three-dimensional mesh 25 (spacer material) is positioned in each of the grooves 24, a second three-dimensional mesh 26 covers the first three-dimensional mesh 25 as well as a portion of the urethane member 21, and a breathable fabric cover member 27 provides an outer covering. Temperature controlled air produced by a thermoelectric converter 30 is conveyed or blown to

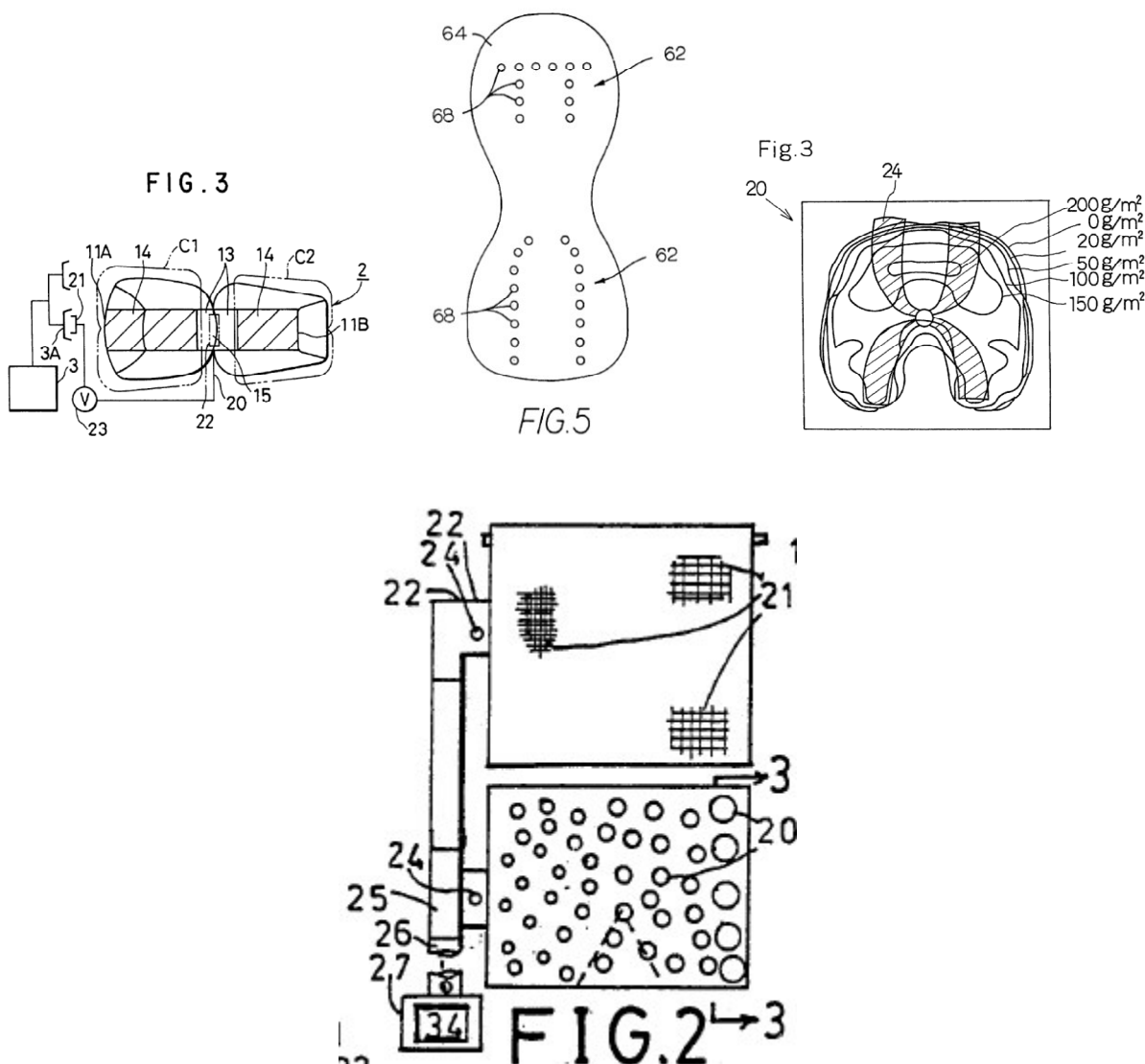
an individual sitting on the seat cushion 20 through an air duct 28, the air vent 23, the first mesh 25 positioned in the grooves 24, the second mesh 26, and the fabric 27. (Ex. 1006: Abstract; col. 2, ll. 19-55; col. 2, l. 64 through col. 3, l. 10; col. 3, ll. 36-43; FIGS. 1-4). The grooves 24 are arranged to direct air to the portions of the seat cushion generally corresponding to the position of the individual sitting on the seat cushion 20 and selected based on the pressure distribution associated with an individual sitting on the seat cushion 20. As shown in FIG. 3, the width and hence the cross-sectional area of the grooves 24 increases as the distance from the air vent 23 (circle in the center of FIG. 3), which supplies air to the grooves 24, increases. (Ex. 1006: col. 5, l. 51 through col. 6, l. 10; FIGS. 3, 4). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosure of Gendron as taught by Suzuki so that the cross-sectional size of the holes of Gendron increases as the distance from the air source increases, because both references disclose uniformly and efficiently providing a flow of air to occupant contact areas of a vehicle seat, and Suzuki teaches an improvement in which the size of the groove opening varies based on the amount of pressure applied by an occupant positioned in the seat, thus leading to a groove shape in which the size increases as the distance from the air source increases in order to uniformly heat or cool the occupant of the seat. (Ex. 1006: col. 3, l. 59 through col. 4, l. 10; FIG. 3). Further, in yet another related

disclosure Spitalnick discloses a cushion cover for a vehicle seat that blows temperature and humidity controlled air through an air permeable front cover to the body surface. The cushion cover includes a first segment 1 that covers the back rest cushion 2 of the vehicle seat and a second segment 3 that covers the seat cushion 4. Each segment includes an air-impervious rear panel 14, an air-pervious front panel 15, and an air pervious space 11 therebetween. The air permeability of the front panel 15 may be made non-uniform to ensure equal air flow at regions close and far from the air inlet; specifically, the front panel 15 is constructed with reduced air permeability in that area close to the duct connecting means (connections 22, 25 to air duct 23) and increased air permeability in those areas remove from said connecting means to equalize flow of air through the front panel. The non-uniformity may be achieved by variable perforations 20 or a variably woven fabric 21. In the case of variable perforations 20, the groups of perforations 20 closer to the air connection 25 have a smaller total cross-sectional area than groups of perforations 20 farther from the air connection 25, and the total cross-sectional area of the groups increases as the distance from the air connection 25 increases. (Ex. 1014: Abstract; col. 2, ll. 33-37, 39-43, 54-58; col. 4, ll. 48-53; FIGS. 1, 2). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosures of Kawai and/or Gendron as taught by Spitalnick, because these references all

disclose providing a flow of air to occupant contact areas of a vehicle seat, and Spitalnick teaches an improvement in which the cross-sectional area of the perforations increases as the distance from the air source increases in order to ensure equal air flow at regions close and far from the air source. (Ex. 1014: col. 2, ll. 54-56). (Similarly, the '129 patent itself states that “[t]his size and arrangement of the air holes, with the smaller holes being near the air mover, contributes to a more uniform flow of air from the air mover.”) (Ex. 1001: col. 4, ll. 54-57). Kawai, Gendron, Suzuki, and Spitalnick all disclose similar ventilated vehicle seats that provide a flow of air from a supply of air to an upper contact surface of the seat in order to provide sufficient and effective comfort for the seat occupant. Kawai in combination with Gendron, Suzuki, and Spitalnick therefore discloses *“each of the plurality of holes has a cross-sectional area, the holes located substantially the same distance from the chamber opening defining a group having a total cross-sectional area, the top portion of the chamber including more than one group of holes, with the total cross-sectional area of each defined group of holes increasing the farther each defined group of holes is from the chamber opening.”*

Also, during the prosecution of the '129 patent, the examiner indicated that he believed the patentable feature of claim 1 of the '129 patent was the specifically claimed relationship of the cross-sectional area of the holes in the top portion of

the chamber. (See Section III.A. above). Based upon the analysis above, clearly these claim limitations were disclosed in the prior art well before the January 5, 2001 priority date of the '129 patent.



ii. Dependent Claim 2

Kawai does not explicitly disclose that the trim cover and the upper layer 12 of the chamber are separate elements. In a related disclosure, Suzuki discloses that the second three-dimensional mesh 26 (upper layer) which covers the first three-

dimensional mesh 25 in the grooves 24 is covered by the seat cover member 27. (Ex. 1006: col. 2, l. 64 through col. 3, l. 1; FIGS. 1, 2). Kawai in combination with Suzuki therefore discloses “*the trim cover and the top portion of the chamber are separate elements.*”

iii. Dependent Claim 3

The lower layer 10 of the ventilating structure of Kawai is separate from the seat pad 6 of the seat 2. (Ex. 1004: col. 3, ll. 55-62; FIGS. 1, 2). Kawai therefore discloses “*the bottom portion of the chamber and the cushion are separate elements.*”

iv. Dependent Claim 6

Both the seat cushion frame 4 and the seat back frame 5 of Kawai include a seat pad (6, 7 respectively), a trim cover integral with upper layer 12, a ventilating structure 10, 11, 12 defining a chamber, and a permeable spacer layer 11 in between the upper and lower layers 12, 10. (Ex. 1004: FIGS. 1, 2). Kawai therefore discloses “*each of the seat base and the backrest comprises a cushion, a trim cover, a chamber, and a spacer.*”

v. Dependent Claim 7

The ventilating structures 10, 11, 12 defining chambers in the seat cushion and seat back portions of the seat 2 of Kawai both receive air from the same air discharging mechanism 3 via common air inlet port 15. (Ex. 1004: col. 3, ll. 55-

60; col. 4, ll. 25-33; FIGS. 1, 2). Kawai therefore discloses “*the chamber in the seat base and the chamber in the backrest are configured to receive air from a single air mover.*”

2. Claims 1 – 3, 6, and 7 Are Obvious Over U.S. Patent No. 4,946,220 to Wyon et al. (“Wyon”) in View of Gendron, Suzuki, and Spitalnick

Wyon (Ex. 1007) issued on August 7, 1990 from U.S. Patent Application No. 07/346,830, filed August 9, 1988. Wyon is prior art under §§ 102(a), (b), and (e). Gendron, Suzuki, and Spitalnick are presented to supplement the teachings of Wyon with respect to at least the cross-sectional area of the holes in the top portion of the chamber. It would have been obvious to combine the prior art elements related to the cross-sectional area of the holes in the top portion of the chamber (e.g., the ventilated vehicle seats of Gendron, Suzuki, and Spitalnick having specific hole patterns in the top layer) with the ventilated vehicle seat of Wyon including a top having a specific pattern of holes. This combination amounts to use of a known technique to improve a similar device in a similar way.

i. Wyon in View of Gendron, Suzuki, and Spitalnick Renders Obvious Claim 1

Wyon discloses a body-supporting device forming the seat and/or back rest of a chair, to avoid sweating caused by the thermal insulation of the chair, such as

a driver's seat of a conventional vehicle. The body-supporting device includes a seat 1 and backrest 15 each including a woollen layer 2 which forms supporting (cushioning) surfaces for parts of the body of a person sitting in the chair, and a second woollen layer 5 underneath the woollen layer 2. The seat 1 and backrest 15 also include a porous body 9 of foamed plastic. The seat 1 and backrest 15 are constructed in the same way. (Ex. 1007: Abstract; col. 1, ll. 5-15; col. 2, ll. 46-51, 62-69; col. 3, ll. 11-13; col. 4, ll. 18-19; FIGS. 1-3). Wyon therefore discloses "*a seat having a seat base and a backrest, at least one of the seat base and the backrest comprising: a cushion.*" An airtight layer 3, such as plastic or leather, covers around the outside of the seat. The bag 6, woollen layers 2, 5, and foamed plastic body 9 are within the airtight outer layer 3 and partially or completely covered by the outer layer 3. (Ex. 1007: col. 2, ll. 46-54; FIGS. 1, 3). Wyon therefore discloses "*a trim cover.*" In a manner different than Kawai, Wyon discloses that the seat 1 includes an internal bag member 6 of virtually airtight material such as an elastic sheet rubber material which tightly encloses (around the top, bottom, and all sides) and is in close contact with elements arranged in the bag. The internal bag member 6 includes a number of holes 7 with a diameter of preferably about 20 mm, the holes being formed on the top surface of the bag 6. Immediately inside the internal bag member 6 are a first layer 8 of fibrous material such as a disc of horsehair, and a second horsehair layer 10. Both of the horsehair

layers 8, 10 are permeable to air. A preferably flexible tube 12 is connected to an opening 11 in the bag 6 and is also connected to the negative pressure side of a suction turbine 13. (Ex. 1007: col. 3, ll. 1-11, 14-20, 29-30; FIGS. 1, 2). Wyon therefore discloses “*a generally enclosed chamber formed by a top portion and an air-impermeable bottom portion and including an opening for receiving air from the air mover, the top portion of the chamber including a plurality of holes configured to provide air movement through the chamber*” and “*a spacer located within the chamber.*”

The holes 7 in the upper surface of the bag 6 of Wyon are arranged in a pattern which substantially corresponds to the shape of the projection on the seat and the backrest of those parts of the body that would normally bear thereupon. The suction-equalizing device formed by the perforated sheet rubber material (bag 6) and its contents causes substantially equal amounts of air to be drawn through the woollen layers 2, 5 in the vicinity of each of the holes. The effect is that a coherent area corresponding to the support surfaces against which a person's thighs and buttocks bear will have air drawn through it. (Ex. 1007: col. 3, l. 40 through col. 4, l. 5; FIG. 2). In a related disclosure, Gendron similarly discloses a ventilated seat pad 10 for an occupant which provides comfort to an occupant and can be integrated as part of a complete seat sold to an original equipment manufacturer. The pad 10 is sized to cover substantial portions of a seat back 102

and a seat bottom 104 of a vehicular seat 100. (Ex. 1005: Abstract; col. 1, l. 66 through col. 2, l. 8; FIGS. 1, 2). The pad 10 includes a third layer 60 (adjacent air permeable spacer material 72 in fourth layer 70) having a selected hole pattern 62. The hole pattern 62 includes relatively large, aligned holes 68 passing through the third layer. The hole pattern 62 directs air to the upper surface of back portion 13 and seat portion 14 of the pad 10. The spacing of the holes in the third layer with respect to the occupant and the air flow management of the fibrous second layer combine to cool or heat the occupant uniformly throughout the contact area. (Ex. 1005: col. 2, ll. 45-52; col. 3, ll. 28-32; FIGS. 3, 5). The holes 68 in Gendron therefore have a defined pattern corresponding to occupant contact areas of the seat, but presumably have generally the same size throughout the pattern 62. It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosure of Wyon as taught by Gendron, because both references disclose providing a flow of air to occupant contact areas of a vehicle seat, and both references teach that the holes are provided only in specific locations in the contact areas of the seat in order to uniformly heat or cool the occupant of the seat. (Ex. 1005: col. 3, ll. 27-31). However, as noted in the prosecution history in Section III.A. above, Gendron may not specifically disclose relative sizes of groups of the holes. In this regard, in another related disclosure Suzuki discloses a vehicle seat apparatus 10 including a

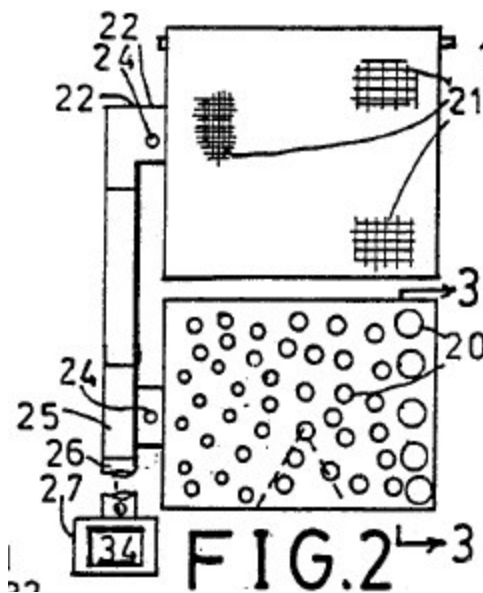
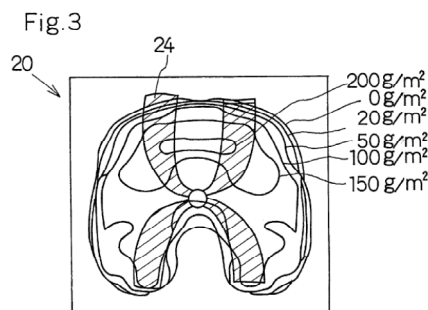
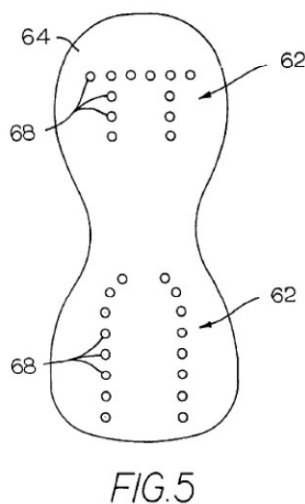
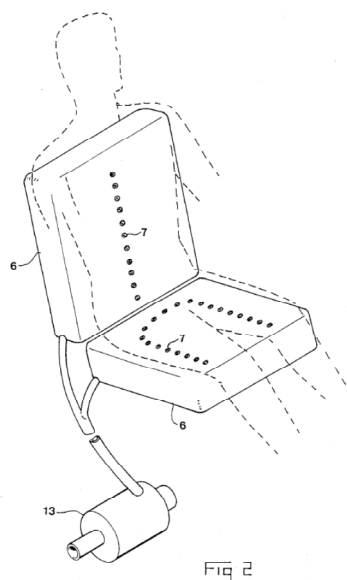
seat cushion 20 and a seat back 40 constituting sitting portions of the apparatus. The seat cushion 20 includes a urethane member 21 constituting a filling member and having an air vent 23 that extends upwardly from the lower side of the cushion 20. A series of grooves 24 is formed on the upper side of the urethane member 21, with each of the grooves 24 being connected with the air vent 23 and extending outwardly from the air vent 23 in several directions. A first three-dimensional mesh 25 (spacer material) is positioned in each of the grooves 24, a second three-dimensional mesh 26 covers the first three-dimensional mesh 25 as well as a portion of the urethane member 21, and a breathable fabric cover member 27 provides an outer covering. Temperature controlled air produced by a thermoelectric converter 30 is conveyed or blown to an individual sitting on the seat cushion 20 through an air duct 28, the air vent 23, the first mesh 25 positioned in the grooves 24, the second mesh 26, and the fabric 27. (Ex. 1006: Abstract; col. 2, ll. 19-55; col. 2, l. 64 through col. 3, l. 10; col. 3, ll. 36-43; FIGS. 1-4). The grooves 24 are arranged to direct air to the portions of the seat cushion generally corresponding to the position of the individual sitting on the seat cushion 20 and selected based on the pressure distribution associated with an individual sitting on the seat cushion 20. As shown in FIG. 3, the width and hence the cross-sectional area of the grooves 24 increases as the distance from the air vent 23 (circle in the center of FIG. 3), which supplies air to the grooves 24, increases. (Ex. 1006: col.

5, 1. 51 through col. 6, 1. 10; FIGS. 3, 4). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosures of Wyon and Gendron as taught by Suzuki so that the cross-sectional size of the holes of Wyon and Gendron increases as the distance from the air source increases, because both references disclose uniformly and efficiently providing a flow of air to occupant contact areas of a vehicle seat, and Suzuki teaches an improvement in which the size of the groove opening varies based on the amount of pressure applied by an occupant positioned in the seat, thus leading to a groove shape in which the size increases as the distance from the air source increases in order to uniformly heat or cool the occupant of the seat. (Ex. 1006: col. 3, 1. 59 through col. 4, 1. 10; FIG. 3). Further, in yet another related disclosure Spitalnick discloses a cushion cover for a vehicle seat that blows temperature and humidity controlled air through an air permeable front cover to the body surface. The cushion cover includes a first segment 1 that covers the back rest cushion 2 of the vehicle seat and a second segment 3 that covers the seat cushion 4. Each segment includes an air-impervious rear panel 14, an air-pervious front panel 15, and an air pervious space 11 therebetween. The air permeability of the front panel 15 may be made non-uniform to ensure equal air flow at regions close and far from the air inlet; specifically, the front panel 15 is constructed with reduced air permeability in that area close to the duct connecting means

(connections 22, 25 to air duct 23) and increased air permeability in those areas remove from said connecting means to equalize flow of air through the front panel. The non-uniformity may be achieved by variable perforations 20 or a variably woven fabric 21. In the case of variable perforations 20, the groups of perforations 20 closer to the air connection 25 have a smaller total cross-sectional area than groups of perforations 20 farther from the air connection 25, and the total cross-sectional area of the groups increases as the distance from the air connection 25 increases. (Ex. 1014: Abstract; col. 2, ll. 33-37, 39-43, 54-58; col. 4, ll. 48-53; FIGS. 1, 2). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosures of Wyon and/or Gendron as taught by Spitalnick, because these references all disclose providing a flow of air to occupant contact areas of a vehicle seat, and Spitalnick teaches an improvement in which the cross-sectional area of the perforations increases as the distance from the air source increases in order to ensure equal air flow at regions close and far from the air source. (Ex. 1014: col. 2, ll. 54-56). (Similarly, the '129 patent itself states that “[t]his size and arrangement of the air holes, with the smaller holes being near the air mover, contributes to a more uniform flow of air from the air mover.”) (Ex. 1001: col. 4, ll. 54-57). Wyon, Gendron, Suzuki, and Spitalnick all disclose similar ventilated vehicle seats that provide a flow of air from a supply of air to an upper contact

surface of the seat in order to provide sufficient and effective comfort for the seat occupant. Wyon in combination with Gendron, Suzuki, and Spitalnick therefore discloses “*each of the plurality of holes has a cross-sectional area, the holes located substantially the same distance from the chamber opening defining a group having a total cross-sectional area, the top portion of the chamber including more than one group of holes, with the total cross-sectional area of each defined group of holes increasing the farther each defined group of holes is from the chamber opening.*”

Also, during the prosecution of the ‘129 patent, the examiner indicated that he believed the patentable feature of claim 1 of the ‘129 patent was the specifically claimed relationship of the cross-sectional area of the holes in the top portion of the chamber. (See Section III.A. above). Based upon the analysis above, clearly these claim limitations were disclosed in the prior art well before the January 5, 2001 priority date of the ‘129 patent.



ii. Dependent Claim 2

The airtight layer 3 and top portion of bag 6 of Wyon are separate elements. (Ex. 1007: FIG. 1). Wyon therefore discloses “*the trim cover and the top portion of the chamber are separate elements.*”

iii. Dependent Claim 3

The bottom portion of bag 6, the woollen layers 2, 5, and the foamed plastic body 9 of Wyon are separate elements. (Ex. 1007: FIG. 1). Wyon therefore discloses “*the bottom portion of the chamber and the cushion are separate elements.*”

iv. Dependent Claim 6

Both the seat 1 and the backrest 15 of Wyon include woollen layers 2, 5 and a foamed plastic body 9, an airtight layer 3, a bag 6, and first and second fibrous (horsehair) layers 8, 10 in the bag 6. (Ex. 1007: col. 2, ll. 46-48; FIG. 1). Wyon therefore discloses “*each of the seat base and the backrest comprises a cushion, a trim cover, a chamber, and a spacer.*”

v. Dependent Claim 7

The bags 6 in the seat 1 and backrest 15 of Wyon both receive air from the same air suction turbine 13. (Ex. 1007: FIG. 2). Wyon therefore discloses “*the chamber in the seat base and the chamber in the backrest are configured to receive air from a single air mover.*”

3. Claims 1 – 3, 6, and 7 Are Obvious Over U.S. Patent No. 2,992,604 to Trotman et al. (“Trotman”) in View of Gendron, Suzuki, and Spitalnick

Trotman (Ex. 1008) issued on July 18, 1961 from U.S. Patent Application Serial No. 740,884, filed June 9, 1958. Trotman is prior art under §§ 102(a), (b),

and (e). Gendron, Suzuki, and Spitalnick are presented to supplement the teachings of Trotman with respect to at least the cross-sectional area of the holes in the top portion of the chamber. It would have been obvious to combine the prior art elements related to the cross-sectional area of the holes in the top portion of the chamber (e.g., the ventilated vehicle seats of Gendron, Suzuki, and Spitalnick having specific hole patterns in the top layer) with the ventilated vehicle seat of Trotman including a permeable top surface. This combination amounts to use of a known technique to improve a similar device in a similar way.

**i. Trotman in View of Gendron, Suzuki, and Spitalnick
Renders Obvious Claim 1**

Trotman discloses a forced air under body ventilating device for supplying a forced flow of ventilating air under supported human body portions, particularly for use as an attachment over the seat and back cushions of a seat 1 of a conventional passenger automobile. The forced air distributing and cushioning seat pad 40 generally includes two seat portions 41, 42 and two back sections 44, 45. (Ex. 1008: col. 1, ll. 10-25; col. 3, ll. 6-10; FIG. 1). Trotman therefore discloses “*a seat having a seat base and a backrest, at least one of the seat base and the backrest.*” The seat and back portions 41, 42, 44, 45 include a layer of springy sponge or open foam material 75 under a cover 74 to give a softer seating surface. (Ex. 1008: col. 6, ll. 61-75; FIGS. 1, 2). Trotman therefore discloses “*a*

cushion.” The upper surfaces of all four portions 41, 42, 44, 45 are covered by porous cloth layer 74 which is sufficiently porous to permit the even and non-jet-like flow therethrough of forced air but which has a small restrictive effect or back pressure to force a sufficiently equal distribution of forced air throughout the device. (Ex. 1008: col. 6, ll. 40-56; FIG. 1). Trotman therefore discloses “*a trim cover.*”

In a manner different than Kawai and Wyon, Trotman discloses that the under or cushion-engaging surfaces of the seat and back portions 41, 42, 44, 45 are covered by a non-porous sheet material such as a flexible plastic film or sheet above or under a decorative cloth, or a latex or plastic treated layer 65 of cloth that is an air impervious backing. An upper layer 77 protects the cover 74 and foam material 75 from internal springs 51, 52 which are disposed between the backing 65 and upper layer 77. A seam 66 and tape 72 seal the edge between the upper and lower layers. A flexible but non-collapsible layer of fine springy wires, which may be side-by-side and interwoven or interthreaded horizontally extending spring steel wire coil springs 51 form the open center body or air passage within the forced air distributing and cushioning pad 40, between backing layer 65 and upper layer 77. A blower unit 10, which is disposed on the floor 2 of the automobile, includes a neck 22 that connects to an opening in the lower part 85 of the air supply duct 80. (Ex. 1008: col. 3, ll. 15-20; col. 5, ll. 9-13, 19-29; col. 6, ll. 25-40, 71-75; FIGS. 1,

2). Trotman therefore discloses “*a generally enclosed chamber formed by a top portion and an air-impermeable bottom portion and including an opening for receiving air from the air mover, the top portion of the chamber including a plurality of holes configured to provide air movement through the chamber*” and “*a spacer located within the chamber.*”

The porous cloth layer 74 is sufficiently porous to permit the even and non-jet-like flow therethrough of forced air to force a sufficiently equal distribution of forced air throughout the device, and to give the desired air circulation under and against the passenger's body. Also, the layer 77 is formed of very coarse open weave cloth or fiber netting to keep the desired low but definite air flow resistance adjacent the pad's discharge surface. Therefore, the upper surfaces of Trotman presumably have a random array of holes that extend through the upper surfaces. (Ex. 1008: col. 6, ll. 40-56; col. 6, l. 71 through col. 7, l. 2; FIGS. 1, 2). In a related disclosure, Gendron discloses a ventilated seat pad 10 for an occupant which provides comfort to an occupant and can be integrated as part of a complete seat sold to an original equipment manufacturer. The pad 10 is sized to cover substantial portions of a seat back 102 and a seat bottom 104 of a vehicular seat 100. (Ex. 1005: Abstract; col. 1, l. 66 through col. 2, l. 8; FIGS. 1, 2). The pad 10 includes a third layer 60 (adjacent air permeable spacer material 72 in fourth layer 70) having a selected hole pattern 62. The hole pattern 62 includes relatively large,

aligned holes 68 passing through the third layer. The hole pattern 62 directs air to the upper surface of back portion 13 and seat portion 14 of the pad 10. The spacing of the holes in the third layer with respect to the occupant and the air flow management of the fibrous second layer combine to cool or heat the occupant uniformly throughout the contact area. (Ex. 1005: col. 2, ll. 45-52; col. 3, ll. 28-32; FIGS. 3, 5). The holes 68 in Gendron therefore have a defined pattern corresponding to occupant contact areas of the seat, but presumably have generally the same size throughout the pattern 62. It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosure of Trotman as taught by Gendron, because both references disclose providing a flow of air to occupant contact areas of a vehicle seat, and Gendron teaches an improvement in which the holes are provided only in specific locations in the contact areas of the seat in order to uniformly heat or cool the occupant of the seat. (Ex. 1005: col. 3, ll. 27-31). However, as noted in the prosecution history in Section III.A. above, Gendron may not specifically disclose relative sizes of groups of the holes. In this regard, in another related disclosure Suzuki discloses a vehicle seat apparatus 10 including a seat cushion 20 and a seat back 40 constituting sitting portions of the apparatus. The seat cushion 20 includes a urethane member 21 constituting a filling member and having an air vent 23 that extends upwardly from the lower side of the cushion 20. A series of grooves 24 is

formed on the upper side of the urethane member 21, with each of the grooves 24 being connected with the air vent 23 and extending outwardly from the air vent 23 in several directions. A first three-dimensional mesh 25 (spacer material) is positioned in each of the grooves 24, a second three-dimensional mesh 26 covers the first three-dimensional mesh 25 as well as a portion of the urethane member 21, and a breathable fabric cover member 27 provides an outer covering. Temperature controlled air produced by a thermoelectric converter 30 is conveyed or blown to an individual sitting on the seat cushion 20 through an air duct 28, the air vent 23, the first mesh 25 positioned in the grooves 24, the second mesh 26, and the fabric 27. (Ex. 1006: Abstract; col. 2, ll. 19-55; col. 2, l. 64 through col. 3, l. 10; col. 3, ll. 36-43; FIGS. 1-4). The grooves 24 are arranged to direct air to the portions of the seat cushion generally corresponding to the position of the individual sitting on the seat cushion 20 and selected based on the pressure distribution associated with an individual sitting on the seat cushion 20. As shown in FIG. 3, the width and hence the cross-sectional area of the grooves 24 increases as the distance from the air vent 23 (circle in the center of FIG. 3), which supplies air to the grooves 24, increases. (Ex. 1006: col. 5, l. 51 through col. 6, l. 10; FIGS. 3, 4). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosure of Gendron as taught by Suzuki so that the cross-sectional size of the holes of Gendron increases as the distance

from the air source increases, because both references disclose uniformly and efficiently providing a flow of air to occupant contact areas of a vehicle seat, and Suzuki teaches an improvement in which the size of the groove opening varies based on the amount of pressure applied by an occupant positioned in the seat, thus leading to a groove shape in which the size increases as the distance from the air source increases in order to uniformly heat or cool the occupant of the seat. (Ex. 1006: col. 3, l. 59 through col. 4, l. 10; FIG. 3). Further, in yet another related disclosure, Spitalnick discloses a cushion cover for a vehicle seat that blows temperature and humidity controlled air through an air permeable front cover to the body surface. The cushion cover includes a first segment 1 that covers the back rest cushion 2 of the vehicle seat and a second segment 3 that covers the seat cushion 4. Each segment includes an air-impervious rear panel 14, an air-pervious front panel 15, and an air pervious space 11 therebetween. The air permeability of the front panel 15 may be made non-uniform to ensure equal air flow at regions close and far from the air inlet; specifically, the front panel 15 is constructed with reduced air permeability in that area close to the duct connecting means (connections 22, 25 to air duct 23) and increased air permeability in those areas remove from said connecting means to equalize flow of air through the front panel. The non-uniformity may be achieved by variable perforations 20 or a variably woven fabric 21. In the case of variable perforations 20, the groups of perforations

20 closer to the air connection 25 have a smaller total cross-sectional area than groups of perforations 20 farther from the air connection 25, and the total cross-sectional area of the groups increases as the distance from the air connection 25 increases. (Ex. 1014: Abstract; col. 2, ll. 33-37, 39-43, 54-58; col. 4, ll. 48-53; FIGS. 1, 2). It would have been obvious to one of ordinary skill in the art at the time of the invention that resulted in the '129 patent to modify the disclosures of Trotman and/or Gendron as taught by Spitalnick, because these references all disclose providing a flow of air to occupant contact areas of a vehicle seat, and Spitalnick teaches an improvement in which the cross-sectional area of the perforations increases as the distance from the air source increases in order to ensure equal air flow at regions close and far from the air source. (Ex. 1014: col. 2, ll. 54-56). (Similarly, the '129 patent itself states that “[t]his size and arrangement of the air holes, with the smaller holes being near the air mover, contributes to a more uniform flow of air from the air mover.”) (Ex. 1001: col. 4, ll. 54-57). Trotman, Gendron, Suzuki, and Spitalnick all disclose similar ventilated vehicle seats that provide a flow of air from a supply of air to an upper contact surface of the seat in order to provide sufficient and effective comfort for the seat occupant. Trotman in combination with Gendron, Suzuki, and Spitalnick therefore discloses *“each of the plurality of holes has a cross-sectional area, the holes located substantially the same distance from the chamber opening defining a group*

having a total cross-sectional area, the top portion of the chamber including more than one group of holes, with the total cross-sectional area of each defined group of holes increasing the farther each defined group of holes is from the chamber opening.”

Also, during the prosecution of the ‘129 patent, the examiner indicated that he believed the patentable feature of claim 1 of the ‘129 patent was the specifically claimed relationship of the cross-sectional area of the holes in the top portion of the chamber. (See Section III.A. above). Based upon the analysis above, clearly these claim limitations were disclosed in the prior art well before the January 5, 2001 priority date of the ‘129 patent.

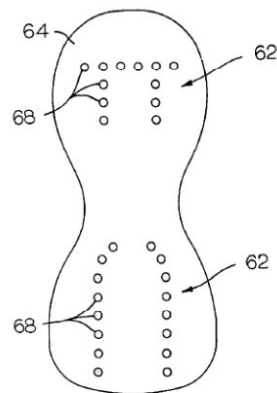
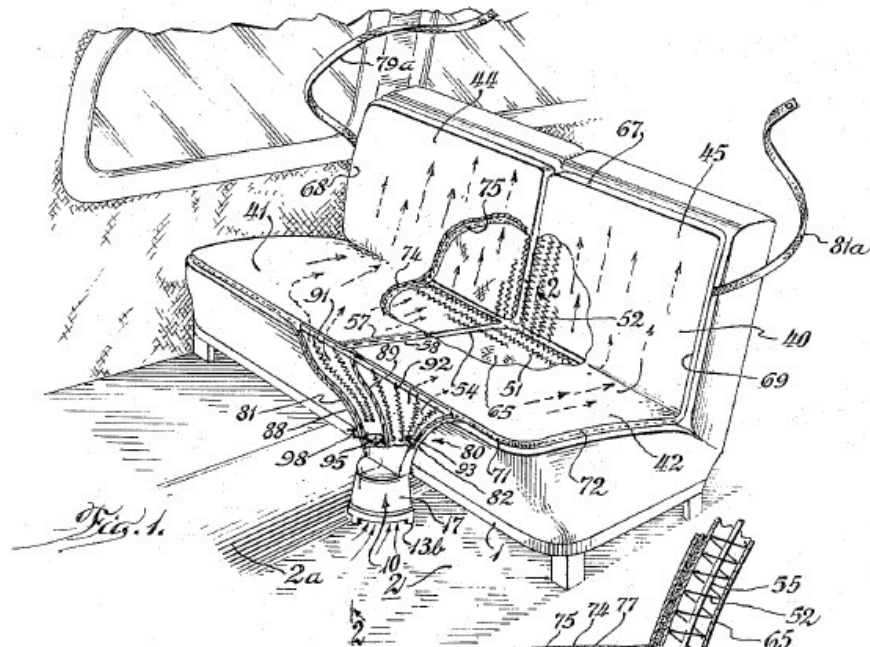


FIG. 5

Fig. 3

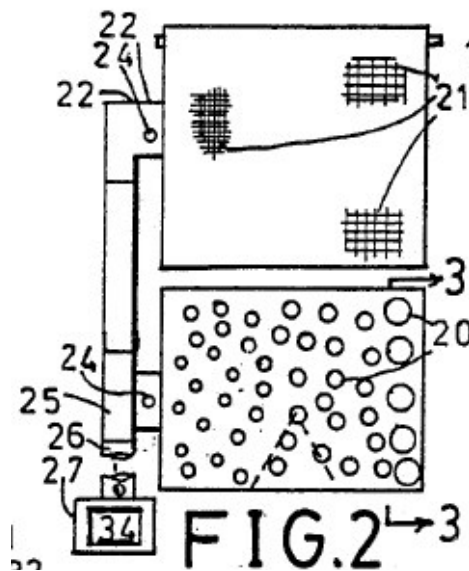
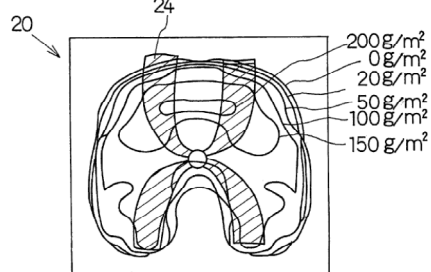


FIG. 2

ii. Dependent Claim 2

The trim cover (outer cover/cloth layer 74) and upper surfaces (layer 77) of the chamber of Trotman are separate elements. (Ex. 1008: FIG. 1). Trotman therefore discloses “*the trim cover and the top portion of the chamber are separate elements.*”

iii. Dependent Claim 3

The under surfaces (air impervious backing 65) of the chamber and the cushion (layer 75) of Trotman are separate elements. Trotman therefore discloses “*the bottom portion of the chamber and the cushion are separate elements.*”

iv. Dependent Claim 6

The forced air distributing and cushioning pad 40 of Trotman includes two foldably-hinged-together seat portions 41, 42, and two separately-swingable back sections 44, 45 having the same construction. (Ex. 1008: col. 5, ll. 9-29; FIG. 1). Trotman therefore discloses “*each of the seat base and the backrest comprises a cushion, a trim cover, a chamber, and a spacer.*”

v. Dependent Claim 7

The seat portions 41, 42 and back sections 44, 45 of Trotman all receive air from a single blower unit 10. (Ex. 1008: FIG. 1). Trotman therefore discloses “*the chamber in the seat base and the chamber in the backrest are configured to receive air from a single air mover.*”

4. Claims 4 and 5 Are Obvious Over Kawai, Gendron, Suzuki, and Spitalnick in Further View of U.S. Patent No. 6,003,950 to Larsson (“Larsson”)

Larsson (Ex. 1009) issued on December 21, 1999 from U.S. Patent Application No. 09/043,028, filed September 12, 1996. Larsson is prior art under §§ 102(a), (b), and (e). It would have been obvious to combine the prior art elements of Kawai, Gendron, Suzuki, and Spitalnick with Larsson, as all of the references are specifically related to ventilation, cooling, and/or heating of an automotive vehicle seat. This combination amounts to use of a known technique to improve a similar device in a similar way.

i. Dependent Claim 4

The ventilated vehicle chair 1 of Larsson includes an electric heater 12 underneath the covering 9 and integral with a plate-formed insert 15 having a fibrous air-permeable material 16, and an upper layer 17 of airtight material including openings 56. (Ex. 1009: col. 3, ll. 42-46; col. 3, l. 63 through col. 4, l. 7; col. 4, ll. 13-22; col. 6, ll. 11-14, 58-63; FIGS. 1, 2). Larsson therefore discloses “a heater for raising the temperature of the air exiting the ventilated seat, the heater positioned beneath the trim cover.” It would have been obvious to one of ordinary skill in the art to include the electric heater 12 of Larsson with vehicle seat of Kawai in order to provide additional heating capabilities.

ii. Dependent Claim 5

The electric heater 12 and upper layer 17 of the plate-formed insert 15 of Larsson are separate elements. (Ex. 1009: FIGS. 1, 2). Larsson therefore also discloses “*the top portion of the chamber and the heater are separate elements.*”

5. Claims 4 and 5 Are Obvious Over Wyon, Gendron, Suzuki, and Spitalnick in Further View of Larsson

It would have been obvious to combine the prior art elements of Wyon, Gendron, Suzuki, and Spitalnick with Larsson, as all of the references are specifically related to ventilation, cooling, and/or heating of an automotive vehicle seat. This combination amounts to use of a known technique to improve a similar device in a similar way.

i. Dependent Claim 4

The ventilated vehicle chair 1 of Larsson includes an electric heater 12 underneath the covering 9 and integral with a plate-formed insert 15 having a fibrous air-permeable material 16, and an upper layer 17 of airtight material including openings 56. (Ex. 1009: col. 3, ll. 42-46; col. 3, l. 63 through col. 4, l. 7; col. 4, ll. 13-22; col. 6, ll. 11-14, 58-63; FIGS. 1, 2). Larsson therefore discloses “*a heater for raising the temperature of the air exiting the ventilated seat, the heater positioned beneath the trim cover.*” It would have been obvious to one of

ordinary skill in the art to include the electric heater 12 of Larsson with vehicle seat of Wyon in order to provide additional heating capabilities.

ii. Dependent Claim 5

The electric heater 12 and upper layer 17 of the plate-formed insert 15 of Larsson are separate elements. (Ex. 1009: FIGS. 1, 2). Larsson therefore also discloses “*the top portion of the chamber and the heater are separate elements.*”

6. Claims 4 and 5 Are Obvious Over Trotman, Gendron, Suzuki, and Spitalnick in Further View of Larsson

It would have been obvious to combine the prior art elements of Trotman, Gendron, Suzuki, and Spitalnick with Larsson, as all of the references are specifically related to ventilation, cooling, and/or heating of an automotive vehicle seat. This combination amounts to use of a known technique to improve a similar device in a similar way.

i. Dependent Claim 4

The ventilated vehicle chair 1 of Larsson includes an electric heater 12 underneath the covering 9 and integral with a plate-formed insert 15 having a fibrous air-permeable material 16, and an upper layer 17 of airtight material including openings 56. (Ex. 1009: col. 3, ll. 42-46; col. 3, l. 63 through col. 4, l. 7; col. 4, ll. 13-22; col. 6, ll. 11-14, 58-63; FIGS. 1, 2). Larsson therefore discloses “*a heater for raising the temperature of the air exiting the ventilated seat, the*

heater positioned beneath the trim cover.” It would have been obvious to one of ordinary skill in the art to include the electric heater 12 of Larsson with vehicle seat of Trotman in order to provide additional heating capabilities.

ii. Dependent Claim 5

The electric heater 12 and upper layer 17 of the plate-formed insert 15 of Larsson are separate elements. (Ex. 1009: FIGS. 1, 2). Larsson therefore also discloses “*the top portion of the chamber and the heater are separate elements.*”

7. Claims 8 – 12 Are Anticipated By Kawai

i. Kawai Anticipates Claim 8

Kawai discloses a vehicle seat capable of providing a comfortable seated condition. The vehicle seat 2 includes a seat pad 6 which is mounted on a seat cushion frame 4 and a seat pad 7 for a back rest which is mounted on a seat back frame 5. (Ex. 1004: col. 2, ll. 3-5; col. 3, ll. 57-60; FIG. 1). Kawai therefore discloses “*a seat having a seat base and a backrest, at least one of the seat base and the backrest comprising: a cushion.*” The vehicle seat 2 further comprises a lower layer 10 formed by a sheet-like member (non-permeable member) such as formed from vinyl chloride, leather or the like, an intermediate permeable layer 11 mounted on top of the lower layer 10 and formed by a cushion member (air channel member) through which air can flow, and an upper layer 12 mounted on the upper surface of the permeable layer 11 and including a non-permeable section

13 and a permeable section 14 disposed at given locations thereon. The lower layer 10, the permeable layer 11, and the upper layer 12 are formed in an integrally continuous manner and disposed toward the front surface of the vehicle seat 2. The permeable section 14 is formed by a permeable textile fabric or meshy cloth, the non-permeable section 13 is formed by a sheet-like member having a heat insulating capability, and the permeable layer 11 is formed by weaving a plastic mono-filament yarn in the manner of a pile yarn on a double pile loom into a honeycomb structure. (Ex. 1004: col. 3, l. 61 through col. 4, l. 24; FIGS. 1, 2). Kawai therefore discloses “*a generally enclosed bag including a top portion and an air-impermeable bottom portion, the top portion of the bag including a plurality of holes for providing air movement through the bag*” and “*a spacer located within the bag.*” An air inlet port 15 which is used to introduce air into the permeable layer 11 is formed in the ventilating structure 10, 11, 12 (by extending portions of the structure 10, 11, 12) and is connected at an open end to a hose (introduction passage) 20 which introduces air from an air conditioner (air discharging mechanism, i.e., air mover) 3 spaced from the ventilating structure 10, 11, 12. (Ex. 1004: col. 3, ll. 55-57; col. 4, ll. 25-33; FIGS. 1, 2). Kawai therefore discloses “*an air mover spaced apart from the bag*” and “*an elongate tail extending between the bag and the air mover, the elongate tail being formed from an extension of the top portion of the bag and an extension of the bottom portion of the bag and including*

an opening coupled to the air mover.” A trim cover extends around the frame 4, 5 and the seat pads 6, 7, and is integral with the upper layer 12 of the ventilating structure. (Ex. 1004: FIGS. 1, 2). Kawai therefore discloses “*a trim cover extending around at least a portion of the cushion and the bag.*”

ii. Kawai Anticipates Claim 9

Kawai discloses that seat cushion (base) frame 4 and seat back frame 5 of the seat 2 each include the same structure, including a cushion (pads 6 and 7, respectively), a bag and spacer formed by layers 10, 11, 12, an extension forming air inlet port 15, and a trim cover covering over the inner components of the seat. (Ex. 1004: col. 3, l. 53 through col. 4, l. 33; FIGS. 1, 2). Kawai therefore discloses “*each of the seat base and the backrest comprises a cushion, a bag, a spacer, an elongate tail, and a trim cover.*”

iii. Kawai Anticipates Claim 10

The inlet port 15 extending from the seat cushion (base) portion and the seat back rest portion of the seat 2 are both coupled to the same air discharging mechanism 3. (Ex. 1004: FIG. 2). Kawai therefore discloses “*the elongate tail of the seat base and the elongate tail of the backrest are coupled to the same air mover.*”

iv. Kawai Anticipates Claim 11

The air inlet port 15 is formed at a location corresponding to the rear end of the seating pad 6 and the bottom of the back rest 7, and extends from the front to the back of the seat 2, where it connects with introduction passage 20 that introduces air from the air discharging mechanism 3. (Ex. 1004: col. 4, ll. 25-31; FIG. 2). Kawai therefore discloses “*the air mover is located on the opposite side of the cushion as the bag.*”

v. Kawai Anticipates Claim 12

The air inlet port 15 extends between the main portion of the ventilating structure and the introduction passage 20 of the air discharging mechanism 3 on the outside of the seat pad 6 and seat back rest pad 7. (Ex. 1004: FIG. 2). Kawai therefore discloses “*the elongate tail extends between the bag and the air mover on the outside of the cushion.*”

8. Claims 8 – 12 Are Anticipated By Wyon

i. Wyon Anticipates Claim 8

Wyon discloses a body-supporting device forming the seat and/or back rest of a chair, to avoid sweating caused by the thermal insulation of the chair, such as a driver’s seat of a conventional vehicle. The body-supporting device includes a seat 1 and backrest 15 each including a woollen layer 2 which forms supporting (cushioning) surfaces for parts of the body of a person sitting in the chair, and a

second woollen layer 5 underneath the woolen layer 2. The seat 1 and backrest 15 also include a porous body 9 of foamed plastic. The seat 1 and backrest 15 are constructed in the same way. (Ex. 1007: Abstract; col. 1, ll. 5-15; col. 2, ll. 46-51, 62-69; col. 3, ll. 11-13; col. 4, ll. 18-19; FIGS. 1-3). Wyon therefore discloses “*a seat having a seat base and a backrest, at least one of the seat base and the backrest comprising: a cushion.*” The seat 1 includes an internal bag member 6 of virtually airtight material such as an elastic sheet rubber material which tightly encloses (around the top, bottom, and all sides) and is in close contact with elements arranged in the bag. The internal bag member 6 includes a number of holes 7 with a diameter of preferably about 20 mm. Immediately inside the internal bag member 6 are a first layer 8 of fibrous material such as a disc of horsehair, and a second horsehair layer 10. Both of the horsehair layers 8, 10 are permeable to air. (Ex. 1007: col. 3, ll. 1-11, 14-15, 29-30; FIGS. 1, 2). Wyon therefore discloses “*a generally enclosed bag including a top portion and an air-impermeable bottom portion, the top portion of the bag including a plurality of holes for providing air movement through the bag*” and “*a spacer located within the bag.*” In a different manner than Kawai, Wyon discloses a preferably flexible tube 12 that is connected to an opening 11 in the bag 6 and is also connected to the negative pressure side of a suction turbine 13. The suction turbine 13 is spaced from the bag 6 and creates a negative pressure at the opening 11. Air arrives at the

opening 11 by passing through the horsehair layers 8, 10 and the porous foamed plastic body 9. The opening 11 in the bag 6 is an extension of the sheet material forming the bag 6 and the second horsehair layer 10. (Ex. 1007: col. 3, ll. 17-39; FIGS. 1, 2). Wyon therefore discloses “*an air mover spaced apart from the bag*” and “*an elongate tail extending between the bag and the air mover, the elongate tail being formed from an extension of the top portion of the bag and an extension of the bottom portion of the bag and including an opening coupled to the air mover.*” An airtight layer 3, such as plastic or leather covers around the outside of the seat. The bag 6, woollen layers 2, 5, and foamed plastic body 9 are within the airtight outer layer 3 and partially or completely covered by the outer layer 3. (Ex. 1007: col. 2, ll. 46-54; FIGS. 1, 3). Wyon therefore discloses “*a trim cover extending around at least a portion of the cushion and the bag.*”

ii. Wyon Anticipates Claim 9

Wyon discloses that the seat 1 and the backrest 15 have the same construction. The construction of the seat 1 includes a foamed plastic body 9, an internal bag 6, permeable horsehair layers 8, 10, extended opening 11, flexible tube 12, woollen layers 2, 5, and airtight layer 3. (Ex. 1007: col. 2, l. 46 through col. 3, l. 20; FIGS. 1-3). Wyon therefore discloses “*each of the seat base and the backrest comprises a cushion, a bag, a spacer, an elongate tail, and a trim cover.*”

iii. Wyon Anticipates Claim 10

The openings 11 in the seat 1 and backrest 15 are each coupled to the same suction turbine 13 via flexible tubes 12. (Ex. 1007: FIGS. 1, 2). Wyon therefore discloses “*the elongate tail of the seat base and the elongate tail of the backrest are coupled to the same air mover.*”

iv. Wyon Anticipates Claim 11

The suction turbine 13 is located on an opposite side of the woollen layers 2, 5 as the bag 6. (Ex. 1007: FIGS. 1, 2). Wyon therefore discloses “*the air mover is located on the opposite side of the cushion as the bag.*”

v. Wyon Anticipates Claim 12

The opening 11 connected to tubing 12 extends between the bag 6 and the suction turbine 13 on the outside of the woollen layers 2, 5 and the seat 1. (Ex. 1007: FIGS. 1-3). Wyon therefore discloses “*the elongate tail extends between the bag and the air mover on the outside of the cushion.*”

9. Claims 8 – 12 Are Anticipated By Trotman

i. Trotman Anticipates Claim 8

Trotman discloses a forced air under body ventilating device for supplying a forced flow of ventilating air under supported human body portions, particularly for use as an attachment over the seat and back cushions of a seat 1 of a conventional passenger automobile. The forced air distributing and cushioning

seat pad 40 generally includes two seat portions 41, 42 and two back sections 44, 45. (Ex. 1008: col. 1, ll. 10-25; col. 3, ll. 6-10; FIG. 1). Trotman therefore discloses “*a seat having a seat base and a backrest, at least one of the seat base and the backrest.*” The seat and back portions 41, 42, 44, 45 include a layer of springy sponge or open foam material 75 under a cover 74 to give a softer seating surface. (Ex. 1008: col. 6, ll. 61-75; FIGS. 1, 2). Trotman therefore discloses “*a cushion.*” The under or cushion-engaging surfaces of the seat and back portions 41, 42, 44, 45 are covered by a non-porous sheet material such as a flexible plastic film or sheet above or under a decorative cloth, or a latex or plastic treated layer 65 of cloth that is an air impervious backing. An upper layer 77 protects the cover 74 and foam material 75 from internal springs 51, 52 which are disposed between the backing 65 and upper layer 77. A seam 66 and tape 72 seal the edge between the upper and lower layers. (Ex. 1008: col. 5, ll. 9-13; col. 6, ll. 25-40, 71-75; FIGS. 1, 2). Trotman therefore discloses “*a generally enclosed bag including a top portion and an air-impermeable bottom portion, the top portion of the bag including a plurality of holes for providing air movement through the bag.*” A flexible but non-collapsible layer of fine springy wires, which may be side-by-side and interwoven or interthreaded horizontally extending spring steel wire coil springs 51 form the open center body or air passage within the forced air distributing and cushioning pad 40, between backing layer 65 and upper layer 77. (Ex. 1008: col.

5, ll. 19-29; FIGS. 1, 2). Trotman therefore discloses “*a spacer located within the bag.*” In a different manner than Kawai and Wyon, Trotman discloses edges of the pad 40 are extended to form a flexible air supply duct 80 connected or integral along an adequate length of the edges and preferably with the same thickness (gradually increasing as the width decreases) to thus maintain an adequate air-carrying cross-sectional area all the way down to the blower unit 10 which is disposed on the floor 2 of the automobile. The neck 22 of the blower unit 10 connects to an opening in the lower part 85 of the air supply duct 80. In one embodiment, the air supply duct 180 is a single integral piece that has its wider upper end connected along the right hand front portion of the edge of the driver’s side of the pad and extends down to the narrower and thicker portion that connects to the blower unit 110. (Ex. 1008: col. 3, ll. 15-20; col. 7, ll. 3-10, 13-24; col. 8, ll. 24-29; FIGS. 1, 2, 5, 8). Trotman therefore discloses “*an air mover spaced apart from the bag*” and “*an elongate tail extending between the bag and the air mover, the elongate tail being formed from an extension of the top portion of the bag and an extension of the bottom portion of the bag and including an opening coupled to the air mover.*” The upper surfaces of all four portions 41, 42, 44, 45 are covered by porous cloth layer 74 which is sufficiently porous to permit the even and non-jet-like flow therethrough of forced air but which has a small restrictive effect or back pressure to force a sufficiently equal distribution of forced air throughout the

device. Cloth layer 74 covers cushion layer 75 and the bag formed by layer 77 and backing 65 surrounding coil springs 51, 52. (Ex. 1008: col. 6, ll. 40-56; FIG. 1). Trotman therefore discloses “*a trim cover extending around at least a portion of the cushion and the bag.*”

ii. Trotman Anticipates Claim 9

Trotman discloses that the seat portions 41, 42 and the back sections 44, 45 each have the same construction. Each portion includes cushion layer 75, bag formed by upper layer 77 and backing layer 65, spacer formed by coil springs 51, 52, extension 80, and outer cloth cover layer 74. (Ex. 1008: FIGS. 1, 2). Trotman therefore discloses “*each of the seat base and the backrest comprises a cushion, a bag, a spacer, an elongate tail, and a trim cover.*”

iii. Trotman Anticipates Claim 10

The seat portions 41, 42 and the back sections 44, 45 are coupled to the same blower unit 10. (Ex. 1008: FIGS. 1, 2). Trotman therefore discloses “*the elongate tail of the seat base and the elongate tail of the backrest are coupled to the same air mover.*”

iv. Trotman Anticipates Claim 11

The blower unit 10 is located on an opposite side of the cushion layer 75 as the bag formed by upper layer 77 and backing layer 65. (Ex. 1008: FIGS. 1, 2).

Trotman therefore discloses “*the air mover is located on the opposite side of the cushion as the bag.*”

v. Trotman Anticipates Claim 12

Trotman discloses that the air supply conduit extension 80 extends between the seat and back portions 41 to 45 of the bag 40 and the blower unit 10 outside of cushion layer 75. (Ex. 1008: FIGS. 1, 2). Trotman therefore discloses “*the elongate tail extends between the bag and the air mover on the outside of the cushion.*”

10. Claims 8 – 12 Are Obvious Over Kawai in View of Wyon and Trotman

Kawai, Wyon, and Trotman all disclose similar ventilated vehicle seats that provide a flow of air from a supply of air to an upper contact surface of the seat in order to provide sufficient and effective comfort for the seat occupant. It would have been obvious to combine and modify the prior art elements related to the similar corresponding features of the ventilated vehicle seats of Kawai, Wyon, and Trotman. This combination amounts to use of a known technique to improve a similar device in a similar way.

i. Kawai in View of Wyon and Trotman Renders Obvious

Claim 8

Patent Owner may contend that any one of Kawai, Wyon, or Trotman does not anticipate claims 8. However, the slight modifications of any one of Kawai, Wyon, or Trotman based on any of the other two disclosures made to obtain the subject matter claimed in the '129 patent would have been obvious to one of ordinary skill in the art. The combination is of similar and familiar elements according to known methods and would yield predictable results. For example, it would have been obvious to include the elongate tail of Trotman (air supply duct 80) in the ventilated seat system of Kawai or Wyon (in place of the port 15 and introduction passage 20 of Kawai or the opening 11 and tube 12 of Wyon), because all three structures similarly provide a passageway for air between an air supply device and a main portion of a ventilation bag.

Thus, Kawai, Wyon, and Trotman, either alone or in combination, disclose all of the limitations of claim 8 as explained above in Sections B.7, B.8, and B.9.

ii. Dependent Claim 9

Kawai, Wyon, and Trotman disclose a ventilated seat assembly meeting the requirements of dependent claim 9 as explained above in Section B.7.ii, B.8.ii, and B.9.ii. Further, the combined teachings of Kawai, Wyon, and Trotman would have rendered obvious the limitations of independent claim 8 as explained above in

Section B.10.i. For these reasons, all of the limitations of claim 9 are disclosed by the combination of Kawai with Wyon and Trotman.

iii. Dependent Claim 10

Kawai, Wyon, and Trotman disclose a ventilated seat assembly meeting the requirements of dependent claim 10 as explained above in Section B.7.iii, B.8.iii, and B.9.iii. Further, the combined teachings of Kawai, Wyon, and Trotman would have rendered obvious the limitations of independent claim 8 as explained above in Section B.10.i. For these reasons, all of the limitations of claim 10 are disclosed by the combination of Kawai with Wyon and Trotman.

iv. Dependent Claim 11

Kawai, Wyon, and Trotman disclose a ventilated seat assembly meeting the requirements of dependent claim 11 as explained above in Section B.7.iv, B.8.iv, and B.9.iv. Further, the combined teachings of Kawai, Wyon, and Trotman would have rendered obvious the limitations of independent claim 8 as explained above in Section B.10.i. For these reasons, all of the limitations of claim 11 are disclosed by the combination of Kawai with Wyon and Trotman.

v. Dependent Claim 12

Kawai, Wyon, and Trotman disclose a ventilated seat assembly meeting the requirements of dependent claim 12 as explained above in Section B.7.v, B.8.v, and B.9.v. Further, the combined teachings of Kawai, Wyon, and Trotman would

have rendered obvious the limitations of independent claim 8 as explained above in Section B.10.i. For these reasons, all of the limitations of claim 12 are disclosed by the combination of Kawai with Wyon and Trotman.

V. CONCLUSION

Petitioner submits that the information presented in this Petition establishes that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged herein. In fact, Petitioner has set forth multiple independent cases in which there is a reasonable likelihood of prevailing with respect to claims 1 – 12 of the ‘129 patent. Therefore, Petitioner respectfully requests that the Board institute an *inter partes* review trial and cancel claims 1 – 12 as unpatentable.

Respectfully submitted,

IGB Automotive Ltd., Petitioner

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ATTORNEYS FOR PETITIONER

Dated: April 18, 2014

ATTACHMENT A
PETITIONER'S EXHIBIT LIST

| Exhibit # | Name |
|-----------|---|
| 1001 | U.S. Patent No. 7,229,129 to Brennon L. White et al. |
| 1002 | W.E.T. Automotive Systems Ltd. Original Complaint in <i>W.E.T. Automotive Systems Ltd. v. IGB Automotive Ltd.</i> , 2:13-CV-11536-AJT-PJK (4/4/2013 E.D. Mich.) |
| 1003 | W.E.T. Automotive Systems Ltd. First Amended Complaint in <i>W.E.T. Automotive Systems Ltd. v. IGB Automotive Ltd.</i> , 2:13-CV-11536-AJT-PJK (7/23/2013 E.D. Mich.) |
| 1004 | U.S. Patent No. 5,918,930 to Yoshiaki Kawai et al. |
| 1005 | U.S. Patent No. 6,511,125 to Timothy D. Gendron |
| 1006 | U.S. Patent No. 6,062,641 to Seiji Suzuki et al. |
| 1007 | U.S. Patent No. 4,946,220 to David Wyon et al. |
| 1008 | U.S. Patent No. 2,992,604 to H. H. Trotman et al. |
| 1009 | U.S. Patent No. 6,003,950 to Stefan Gunnar Larsson |
| 1010 | First Office Action in U.S. Application No. 11/258,645, dated January 27, 2006 |
| 1011 | Non-final Office Action in U.S. Application No. 11/258,645, dated July 18, 2006 |
| 1012 | Final Office Action in U.S. Application No. 11/258,645, dated November 6, 2006 |
| 1013 | Notice of Allowance and Interview Summary in U.S. Application No. 11/258,645, dated February 6, 2007 |
| 1014 | U.S. Patent No. 4,997,230 to Samuel Spitalnick |

ATTACHMENT B

CERTIFICATE OF SERVICE OF THE PETITION

CERTIFICATE OF SERVICE

In accordance with 37 C.F.R. § 42.105, I hereby certify that a copy of this Petition for *Inter Partes* Review of U.S. Patent No. 7,229,129, including all attachments, appendices, exhibits, power of attorney, and related documents, was served in its entirety this 18th day of April, 2014 via FEDERAL EXPRESS on the patent owner's counsel of record at the following correspondence address of record:

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