

Trial decision

Invalidation No. 2011-800136

Tokyo, Japan

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The case of trial regarding the invalidation of Japanese Patent No. 3229297, entitled "MOVABLE BODY OPERATION TENDENCY ANALYSIS METHOD, OPERATION MANAGEMENT SYSTEM, COMPONENT OF SAME, AND RECORDING MEDIUM" between the parties above has resulted in the following trial decision:

Conclusion

The correction shall be approved.

The demand for trial of the case was groundless.

The costs in connection with the trial shall be borne by the demandant.

Reason

No. 1 History of the procedures

Application filed on October 12, 1999 (Priority Date: October 12, 1998)
Registration on September 7, 2001 (20 Claims)
Opposition to the patent filed on May 20, 2002 (Opposition No. 2002-71235)
Notification of Reasons for Revocation issued on August 16, 2002
Request for Correction filed on October 25, 2002 (correction of Claims 1 to 16, and cancellation of Claims 17 to 20)
Decision on Opposition issued on January 21, 2003 (correction approved, and patent of claims 1 to 16 maintained)
Registration of Decision on Opposition on February 18, 2003
Trial for Invalidation demanded on January 28, 2011 (Invalidation No. 2001-800013)
Trial Decision on July 11, 2011 (Invalidation No. 2011-800013; Demand rejected)
Trial for Invalidation of the case demanded on August 4, 2011
Action to Intellectual Property High Court (2011 (Gyo-Ke) 10265) on August 16, 2011
Written Reply and Written Correction Request filed on September 16, 2011
Written Amendment for Written Correction Request filed on September 21, 2011
Written Statement (Demandant) filed on October 27, 2011
Notification of Trial Examination issued on November 17, 2011
Written Amendment and Oral Proceedings Statement Brief (Demandant) filed on December 26, 2011
Written Statement (Demandant) filed on January 10, 2012
Oral Proceedings Statement Brief (Demandee) filed on January 31, 2012
Oral Proceeding on February 17, 2012

No. 2 Allegation by the Parties

1. Demandant's Allegation

In the Written Demand for Trial, the demandant demands the decision, "The patent for the inventions according to claims 9 and 15 of Japanese Patent No. 3229297 is invalid. The costs in connection with the trial shall be borne by the demandee," and submitted the following documentary evidence as a means of proof. The following allegations (1) to (4) are made in the Written Demand for Trial, and (5)

to (8) are made in the Written Amendment and Oral Proceedings Statement Brief dated December 26, 2011.

(1) The inventions of claims 9 and 15 of the case are identical to the invention disclosed in Evidence A No. 1. For this reason, the inventions of claims 9 and 15 violate the provisions of Article 29(1)(iii) of the Patent Act, and should be invalidated under Article 123(1)(ii) of the Act.

(2) The inventions of claims 9 and 15 of the case are identical to the invention disclosed in Evidence A No. 2. For this reason, the inventions of claims 9 and 15 violate the provisions of Article 29(1)(iii) of the Patent Act, and should be invalidated under Article 123(1)(ii) of the Act.

(3) The inventions of claims 9 and 15 of the case could be easily made by applying the invention of Evidence A No. 1 to the invention of Evidence A No. 2. Thus, such inventions violate the provisions of Article 29(2) of the Patent Act, and should be invalidated under Article 123(1)(ii) of the Act.

(4) The inventions of claims 9 and 15 of the case could be easily made by applying the invention of Evidence A No. 1 to the invention of Evidence A No. 3. Thus, such inventions violate the provisions of Article 29(2) of the Patent Act, and should be invalidated under Article 123(1)(ii) of the Act.

(5) The invention of the corrected claim 15 is identical to the invention disclosed in Evidence A No. 4, and is lacking in novelty.

(6) The inventions of corrected claims 9 and 15 are identical to the invention disclosed in Evidence A No. 5, and are lacking in novelty.

(7) The inventions of corrected claims 9 and 15 could be easily made by applying the invention of Evidence A No. 1 or well-known art to the invention of Evidence A No. 4, and are lacking in inventive step.

(8) The inventions of corrected claims 9 and 15 could be easily made by applying the invention of Evidence A No. 1 or well-known art to the invention of Evidence A No. 5, and are lacking in inventive step.

<Means of proof>

Evidence A No. 1: Microfilm of Japanese Utility Model Application No. H03-026831 (Japanese Unexamined Utility Model Application Publication No. H04-123472)

Evidence A No. 2: Japanese Unexamined Patent Application Publication No.

	H06-223249
Evidence A No. 3:	Japanese Unexamined Patent Application Publication No. S62-144295
Evidence A No. 4:	Japanese Unexamined Patent Application Publication No. H10-024784
Evidence A No. 5:	Japanese Unexamined Patent Application Publication No. H10-177663
Evidence A No. 6-1:	Japanese Unexamined Patent Application Publication No. H05-150314
Evidence A No. 6-2:	Japanese Unexamined Patent Application Publication No. H05-258144
Evidence A No. 6-3:	Japanese Unexamined Patent Application Publication No. H06-004733
Evidence A No. 6-4:	Japanese Unexamined Patent Application Publication No. H06-300773
Evidence A No. 6-5:	Japanese Unexamined Patent Application Publication No. H10-063905
Evidence A No. 7:	Japanese Unexamined Patent Application Publication No. H09-147159
Evidence A No. 8:	Tokyo District Court Decision on November 30, 2011 (2010 (Wa) 40331)

Evidences A No. 1 to A No. 3 are filed concurrently with the Written Demand for Trial, and Evidences A No. 4 to A No. 8 are filed concurrently with the Written Amendment and Oral Proceedings Statement Brief dated December 26, 2011.

2. Demandee's Allegation

In Written Reply, demandee demands the decision "Demand for Trial is dismissed. The costs in connection with the trial shall be borne by the demandant." In view of the Oral Proceedings Statement Brief dated January 31, 2012, the demandee's allegation can be outlined as follows.

The demandee has also submitted Evidences B No. 1-1 to B No. 1-3 (printed-out copy of Google Search Result display screen) regarding the wordings such as "behavior of a vehicle."

(1) Regarding Evidence A No. 1, accelerating/decelerating rank data is provided only

as a reference which can be checked in converting accelerating/decelerating data dimension detected during vehicle travelling, and is not a condition required to "determine the behavior of the mobile object as a specific behavior."

(2) Regarding Evidence A No. 2, an abnormal status or an abnormal operation that may indicate an accident is anticipated from strong external impact such as activation of an air bag. Thus, such a feature cannot be recognized as being identical to the "specific behavior" of the corrected invention.

(3) Evidences A No. 1 to A No. 3 fail to disclose "collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time."

No. 3 Correction

1. Details of Correction

Request for correction dated September 16, 2011 (hereinafter referred to as the "Correction") is directed to correct the specification attached to the application of Japanese Patent No. 3229297 (hereinafter referred to as the "Previously Presented Specification") as shown in the corrected specification attached to the Written Correction Request (hereinafter referred to as the "Corrected Specification"). The following are the corrections (underlines added by demandant).

(1) Correction A

Claim 9 in the Previously Presented Specification recites:

"The data recorder comprising: a sensor section for detecting behavior of a mobile object; and recording means for determining the presence or absence of occurrence of a specific behavior in the behavior of the mobile object detected by said sensor section in accordance with a behavioral condition for determining said behavior as the specific behavior, and recording, on a predetermined recording medium, information relating to the specific behavior of the corresponding mobile object in accordance with occurrence of said specific behavior, thereby enabling analysis of an operation tendency of said mobile object, wherein the recording medium is a card-like recording medium that is classified in accordance with at least one of identification information of said mobile object, identification information of an operator that operates said mobile object, and behavioral environment of said mobile object, and that is generated on a classification-by-classification basis, the card-like recording medium having at least said behavioral condition recorded thereon."

The above recitation is corrected as follows:

"The data recorder comprising: a sensor section for detecting behavior of a mobile object; and recording means for determining the presence or absence of occurrence of a specific behavior in the behavior of the mobile object detected by said sensor section in accordance with a collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time by determining said behavior as the specific behavior, and recording, on a predetermined recording medium, information relating to the behavior compatible with said collecting condition in accordance with occurrence of said specific behavior, thereby enabling analysis of an operation tendency of said mobile object, wherein the recording medium is a card-like recording medium that is classified in accordance with at least one of identification information of said mobile object, identification information of an operator that operates said mobile object, and behavioral environment of said mobile object, and that is generated on a classification-by-classification basis, the card-like recording medium having at least said collecting condition set thereon."

(2) Correction B

Claim 11 in the Previously Presented Specification recites:

"The data recorder according to claim 9, wherein said recording means intermittently records information relating to the behavior of the corresponding mobile object on said recording medium as distinguished from information relating to said specific behavior when determined that no said specific behavior has occurred."

The above recitation is corrected as follows:

"The data recorder according to claim 9, wherein said recording means intermittently records information relating to the behavior of the corresponding mobile object on said recording medium as distinguished from information relating to behavior before and after occurrence of said specific behavior when determined that no said specific behavior has occurred."

(3) Correction C

Claim 15 in the Previously Presented Specification recites:

"A computer-readable recording medium having digital information recorded thereon, said digital information is causing a computer to execute procedures for: setting a collecting condition for collecting information relating to a specific behavior of a mobile object on a predetermined recording medium; reading recorded

information from said recording medium on which information relating to behavior compatible with the set collecting condition is recorded; and analyzing an operation tendency of the corresponding mobile object from said read information."

The above recitation is corrected as follows:

"A computer-readable recording medium having digital information recorded thereon, said digital information is causing a computer to execute procedures for: setting a collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time by determining the behavior of a mobile object as a specific behavior on a predetermined recording medium; reading recorded information from said recording medium on which information relating to behavior compatible with the set collecting condition is recorded; and analyzing an operation tendency of the corresponding mobile object from said read information."

(4) Correction D

Paragraph [0016] of the Previously Presented Specification describes:

"A data recorder of the present invention comprises: a sensor section for detecting behavior of a mobile object; and recording means for determining the presence or absence of occurrence of a specific behavior in the behavior of the mobile object detected by said sensor section in accordance with a behavioral condition for determining said behavior as the specific behavior, and recording, on a predetermined recording medium, information relating to the specific behavior of the corresponding mobile object in accordance with occurrence of said specific behavior, thereby enabling analysis of an operation tendency of said mobile object. If the specific behavior is dangerous behavior, the recording means may determine the presence or absence of occurrence of the dangerous behavior based on compatibility between a condition pattern that fixes the condition of the corresponding dangerous behavior and the behavior pattern detected by the sensor section, and the recording means may record information of the corresponding behavior when the dangerous behavior occurs. The recording means may intermittently record information relating to the behavior of the corresponding mobile object on the recording medium as distinguished from information relating to the specific behavior when determined that no said specific behavior has occurred. Preferably, the recording medium is a card-like recording medium that is classified in accordance with at least one of identification information of the mobile object, identification information of an operator of the mobile object, and behavioral environment of the mobile object, and

that is generated on a classification-by-classification basis, and at least the behavioral condition may be recorded on the card-like recording medium."

The above description is corrected as follows:

" A data recorder of the present invention comprises: a sensor section for detecting behavior of a mobile object; and recording means for determining the presence or absence of occurrence of a specific behavior in the behavior of the mobile object detected by said sensor section in accordance with a collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time by determining said behavior as the specific behavior, and recording, on a predetermined recording medium, information relating to the behavior compatible with said collecting condition in accordance with occurrence of said specific behavior, thereby enabling analysis of an operation tendency of said mobile object. The recording medium is a card-like recording medium that is classified in accordance with at least one of identification information of the mobile object, identification information of an operator of the mobile object, and behavioral environment of the mobile object, and that is generated on a classification-by-classification basis, and at least the collecting condition may be set on the card-like recording medium. If the specific behavior is dangerous behavior, the recording means may determine the presence or absence of occurrence of the dangerous behavior based on compatibility between a condition pattern that fixes the condition of the corresponding dangerous behavior and the behavior pattern detected by the sensor section, and the recording means may record information of the corresponding behavior when the dangerous behavior occurs. The recording means may intermittently record information relating to the behavior of the corresponding mobile object on the recording medium as distinguished from information relating to the behavior before and after occurrence of the specific behavior when determined that no said specific behavior has occurred."

(5) Correction E

Paragraph [0020] of the Previously Presented Specification describes:

"The recording medium of the present invention is a computer-readable recording medium having digital information recorded thereon, the digital information is causing a computer to execute procedures for: setting a collecting condition for collecting information relating to a specific behavior of the mobile object on a predetermined recording medium; reading recorded information from the recording medium on which information relating to behavior compatible with the set

collecting condition is recorded; and analyzing an operation tendency of the corresponding mobile object from the read information."

The above description is corrected as follows:

"The recording medium of the present invention is a computer-readable recording medium having digital information recorded thereon, the digital information is causing a computer to execute procedures for: setting a collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time by determining the behavior of the mobile object as the specific behavior on a predetermined recording medium; reading recorded information from the recording medium on which information relating to behavior compatible with the set collecting condition is recorded; and analyzing an operation tendency of the corresponding mobile object from the read information."

(6) Correction F

Paragraph [0051] of the previously presented specification describes:

"In the first embodiment, the condition patterns for recognizing danger were stored in the form of the condition steps as illustrated in FIGS. 2 and 3. However, the condition pattern is not always stored in such form. The second embodiment set forth below uses a form in which a condition pattern obtained from two-dimensional measurement is modeled."

The above description is corrected as follows:

"In the first embodiment, the condition patterns for recognizing danger were stored in the form of the condition steps as illustrated in FIGS. 2 and 3. However, the condition pattern is not always stored in such form. The embodiment set forth below uses a form in which a condition pattern obtained from two-dimensional measurement is modeled."

2. Judgment on Propriety of Correction

Propriety of the corrections of the claims should be judged individually on a claim-by-claim basis.

(1) Discussion on propriety of Corrections A and B

Correction A is directed to correct claim 9. Meanwhile, claims 10 and 11 are dependent on claim 9 and thus, Correction A is also directed to correct claims 10 and 11 in the same manner as claim 9. Correction A is directed to restrict the scope of

the claims, and the claims are corrected within the scope of the matters in the specification or the drawings attached to the application. Thus, Correction A is not directed to practically expand or change the scope of the claims.

Correction B is made to correct claim 11. This Correction B is directed to explain the unclear recitations and the claim is corrected within the scope of the matters in the specification or the drawings attached to the application. Thus, Correction B is not directed to practically expand or change the scope of the claims.

Based on the above, correction of claim 9 in Correction A is legitimate.

Meanwhile, a demand for trial is not submitted for claims 10 and 11. Thus, correction of claim 10 in Correction A and correction of claim 11 in Corrections A and B should meet so-called independent requirements for patentability so that these corrections can be recognized as legitimate corrections. This can be determined after reviewing the reasons for invalidation (lack of novelty and inventive step) of corrected claim 9 asserted by the demandant.

(2) Discussion on propriety of Correction C

Correction C is made to correct claim 15. This Correction C is directed to restrict the scope of the claim, and claim is corrected within the scope of the matters in the specification or the drawings attached to the application. Thus, Correction C is not directed to practically expand or change the scope of the claims. For this reason, correction of claim 15 in Correction C is legitimate.

(3) Discussion on propriety of Corrections D to F

Correction D is made to correct the descriptions in paragraph [0016] of the specification. This Correction D is directed to explain the unclear descriptions, and the descriptions are corrected within the scope of the matters in the specification or the drawings attached to the application. Thus, Correction D is not directed to practically expand or change the scope of the claims.

Correction E is made to correct the descriptions in paragraph [0020] of the specification. This Correction E is directed to explain the unclear descriptions, and the descriptions are corrected within the scope of the matters in the specification or the drawings attached to the application. Thus, Correction E is not directed to practically expand or change the scope of the claims.

Correction F is made to correct the descriptions in paragraph [0051] of the specification. This Correction F is directed to correct the typographical errors, and the descriptions are corrected within the scope of the matters in the specification or

the drawings attached to the application. Thus, Correction F is not directed to practically expand or change the scope of the claims.

For the above reasons, Corrections D to F are legitimate.

3. Summary

As can be seen from the above, the Correction other than at least corrections of claims 10 and 11 are directed to the matters prescribed under Article 134-2(1), proviso (i)(ii)(iii) of the Patent Act, and comply with the provisions of Article 126(3)(4) of the Act which is applied mutatis mutandis in the provisions of Article 134-2(5) of the Act.

The determination of whether the corrections of claims 10 and 11 conform with the provision of Article 126(5) of the Patent Act (independent requirements for patentability) which is applied mutatis mutandis in the provisions of Article 134-2(5) of the Act is made in the statement in "No. 5" set forth below.

No. 4 Judgment on the Body regarding the Reasons for Invalidation

As confirmed in the oral proceeding, a written statement entitled "Written Amendment and Oral Proceedings Statement Brief" submitted by the demandant on December 26, 2011 is an oral proceedings statement brief and is a written statement requesting the chief administrative judge to allow amendment of "reasons for request" as set forth in the "Written Amendment and Oral Proceedings Statement Brief" due to the fact that such an amendment conform to the provisions of Article 131-2(2)(i) of the Patent Act. However, the chief administrative judge did not allow such an amendment (Article 131-2(2) main paragraph of the Patent Act). The amended "reasons for request" is directed to assert, by newly citing Evidences A No. 4 and A No. 5, lack of novelty over Evidence A No. 4, lack of novelty over Evidence A No. 5, lack of inventive step by citing Evidence A No. 4 as a main Cited Document, lack of inventive step by citing Evidence A No. 5 as a main Cited Document, etc. Thus, such corrected "reasons for request" cannot be recognized as the one additionally required in response to the request for correction.

In addition, the demandant's assertion in the above written statement (submitted as an Oral Proceedings Statement Brief) is based on the premise that the above amendment is allowed and thus, such an assertion cannot be accepted.

In judging the propriety of the reasons for invalidation, the inventions of the corrected claim 9 and the corrected claim 15 are compared with Evidence A No. 1 to A No. 3. Hereinafter, the invention of the corrected claim 9 is referred to as

"Corrected Invention 1" and the invention of the corrected claim 15 is referred to as "Corrected Invention 2." If Corrected Invention 1 and Corrected Invention 2 are not distinguished from one another, they can be merely referred to as "Corrected Invention."

1. Described matters in Publication

(1) Evidence A No. 1

Microfilm of Japanese Utility Model Application No. H03-26831 (Japanese Unexamined Utility Model Application Publication No. H04-123472) is a publication distributed before filing of the patent (before the priority date) submitted by the demandant as Evidence A No. 1. This relates to a vehicle-drive-data collecting device and discloses the following features together with the drawings.

1a) "[0001]

[Industrial Fields of Application]

The present invention relates to a vehicle-drive-data collecting device which is mounted on a vehicle for use, and in particular, to a vehicle-drive-data collecting device configured to collect vehicle drive data including historical information on acceleration/deceleration of a vehicle which is effective in grasping the drive status of a driver.

[0002]

[Related Art]

The historical information on acceleration/deceleration of a vehicle is vehicle drive data effective in grasping the drive status of the driver and managing fuel consumption and safe-driving, etc.

1b) "[0005]

Thus, the collected vehicle drive data is highly dependent on conditions of a road on which the vehicle is travelling. High-ranked acceleration is likely to be achieved by frequent travelling on general roads and low-ranked acceleration is likely to be achieved by frequent travelling on expressways. For this reason, it is not appropriate to determine that a driver of a vehicle who has travelled frequently with high-ranked acceleration has travelled frequently on expressways, and is not an economical or safe driver compared to a driver of a vehicle who has driven frequently with low-ranked acceleration. Thus, use of the data collected by such a device may not be so effective for the above reason.

[0006]

In view of the above conventional problems, the object of the present invention

is to provide a vehicle-drive-data collecting device capable of collecting vehicle drive data including historical information on acceleration/deceleration effective in grasping the driving status of a driver independent of road conditions."

1c) "[0010]

[Examples]

The examples of the present invention will now be described by referring to the drawings. FIG. 2 shows an example of a vehicle-drive-data collecting device of the present invention configured to collect vehicle drive data including momentarily changing vehicle speed data and travel distance, etc. in addition to historical information on sudden acceleration and sudden deceleration.

[0011]

In the same figure, the vehicle-drive-data collecting device is coupled to a transmission of a vehicle by a coupling means (not shown), and the device comprises: a travelling sensor 1 configured to generate travelling signals of a frequency corresponding to vehicle speed of a travelling vehicle; a microcomputer (CPU) 2 configured to have travelling signals sampled and input thereto from the travelling sensor 1; a calendar and clock 3 configured to generate time information showing actual time; and a card connector 5 into/from which an IC memory card 4 is inserted/removed as a recording medium.

[0012]

The CPU 2 contains: a ROM 21 having a control program stored therein; and a RAM 22 having a data area for storing various types of data and a work area to be used for operation of the CPU 2. The CPU 2 is thus configured to execute various types of work by operating in accordance with the control program stored in the ROM 21.

[0013]

As shown in FIG. 3, the IC memory card 4 comprises: a card ID area 41 configured to have a card ID written thereto for identification of a card; a setup data area 42 configured to store various types of setup data Ds written by a drive data analyzer described hereinafter; a drive data area 43 configured to have collected vehicle speed data and travel distance data written thereto; and an optional data area 44. In the setup data area 42, acceleration rank data (m/sec^2) of ranks 1 to 8 and deceleration rank data (m/sec^2) of ranks 1 to 8 shown in FIG. 4 are stored.

[0014]

As shown in FIG. 5, the optional data area 44 is provided with an area 44a for eight acceleration rank counters RUC1 to RUC8 and an area 44b for eight

deceleration rank counters RDC1 to RDC8 so as to store vehicle drive data regarding acceleration/deceleration as the number of times of appearance of the acceleration/deceleration ranks."

1d) "[0021]

The vehicle drive data written to the IC memory card 4 and collected by the vehicle-drive-data collecting device described above is read and analyzed by an analyzer 10 comprising a personal computer, as shown in FIG. 10, by inserting the IC memory card 4 into an RW 11 connected to the analyzer 10.

[0022]

The analyzer 10 allows a menu display to be displayed on a CRT 10b once an FD 12 is inserted into an FD driver 10a. The menu includes a card initialization process, a termination process, an FD reading process, and a card reading process. Once the initialization process is selected, the IC memory card 4 inserted into the RW 11 is initialized, and acceleration/deceleration rank data are written onto the setup data area of the IC memory card 4 at this time. Note that 10c is a keyboard configured to be used in instructing operations of the analyzer 10 and creating setup data."

1e) "[0049]

[Effects of the Invention]

As set forth above, the present invention increments a maximum acceleration/deceleration rank of the preceding one cycle every time the vehicle stops, every time sudden deceleration of a maximum rank or a near-maximum rank is detected, and every time continuous reduction in vehicle speed for a predetermined value from the start of deceleration is detected. With the above feature, the present invention is capable of collecting vehicle drive data including acceleration/deceleration historical information which is effective in grasping the driving status of the driver independent of road conditions."

(2) Evidence A No. 2

Japanese Unexamined Patent Application Publication No. H06-223249 is a publication distributed before filing of the patent (before the priority date) submitted by the demandant as Evidence A No. 2. This relates to a method and an apparatus for recording operational events of a vehicle and discloses the following features together with the drawings.

2 a) "[0001]

[Industrial Fields of Application] This invention relates to automotive radar systems,

and more particularly to an apparatus and method for recording operational events in an automotive radar system."

2 b) "[0006] In addition to recording data useful for accident reconstruction, it would also be desirable for such a device to record standard data such as vehicle performance, operational status, and/or environment data. In addition, it would be desirable that such a device to be configurable for a driver's particular preferences, to provide an authorization function that prohibits unauthorized personnel from driving the vehicle, or to provide a convenient means for upgrading system-wide software for an automotive electronic control system or an automotive radar system."

2c) "[0015] The input/output module 4 which provides information from a variety of vehicle sensors 4a to the microcontroller 3b for use in calculating the hazard level presented by targets indicated from the received radar signal and/or in detecting the operational status and environment of the vehicle. Commonly known typical sensors may be used to measure vehicle speed, engine temperature, oil pressure, engine RPM, oil temperature, transmission fluid temperature, coolant temperature, and other values relating to the environment or performance of the vehicle. The signal processing unit 3 itself generates information from the transmitted and received radar signal, such as the closing rate (CR) of a target with respect to the vehicle, the distance (D) of various targets, and the direction of movement (towards or away from) of the targets with respect to the vehicle. Additional information can be obtained by providing other sensors, such as a brake pedal pressure sensor, brake hydraulic line pressure sensor, tire pressure, accelerometer sensors (for example, fore and aft acceleration/deceleration, and left and right (yaw) acceleration of the vehicle), turning rate and turn angle sensor, impact sensors (such as the type used to trigger vehicle air bags), windshield wiper status sensor (to determine if it is raining), fog light status sensor, defroster status sensor, and geographic positioning information sensor. Recording some or all of this data or similar relevant data would make accident reconstruction more reliable and less expensive."

2d) "[0030] In operation, a RAM card 20 would be inserted into the RAM card receptacle 21. In the preferred embodiment, selected data would be gathered from the vehicle sensors 4a and/or the signal processing module 3 by the microcontroller 22, typically after the vehicle is started."

2e) "[0032] Different modes of operation can be used for operation of the RAM card. In a first mode, selected data is stored approximately every 0.5 seconds, until the memory 54 on the RAM card 20 is full (which, in the illustrated embodiment, takes about 15 minutes). Thereafter, the address sent to the RAM card 20 by the

microcontroller 22 is reset to the first address used, causing the oldest data in the memory 54 to be overwritten with new data (i.e., the memory 54 is operated as a circular queue). This provides a 'moving window' of the last 15 minutes of operation (or longer, if longer intervals or a larger capacity memory 54 are used). Recording can be stopped when external power to the RAM card 20 is turned off (for example, when the vehicle is turned off voluntarily or because of an accident), or when the vehicle is not moving. If desired, a delayed turn-off time can be used to continue recording for some period of time after external power is removed, to record, for example, such things as the engine coolant temperature as a measure of residual heat in the engine."

2f) "[0035] In another variation of the second mode of operation, recording to a page other than the current page may be triggered by an unusual event, such as a vehicle operational or performance value exceeding a preset threshold value, or an accident. For instance, it may be desirable to record drive train sensor values only if one or more values, such as engine temperature, exceed a threshold value. As another example, such recording may be triggered by an unusual condition that may indicate an accident, such as a sudden acceleration or deceleration, sudden application of the brakes, activation of an air bag, etc. Recording can also be triggered manually. Recording such information on a separate page in memory, and only upon being triggered by a particular event, permits capturing data for later analysis of vehicle and/or driver performance.

[0036] In a third mode of operation, the recording rate may be increased upon the occurrence of an unusual condition, such as a sudden acceleration or deceleration, sudden application of the brakes, activation of an air bag, etc., in order to store more data values surrounding the event, for later analysis."

2g) "[0041] When a RAM card 20 is removed from a vehicle system, the card is inserted into the interface receptacle 21 for data retrieval by the PC 60. Data is then read out of the RAM card 20 under control of the microcomputer of the PC, using the same process described above with respect to the microcontroller 22. That is, data is transmitted serially through the bidirectional connector 61, through the parallel port and to the microcontroller. The microcontroller converts the serial data to parallel form under software control, in known fashion.

[0042] Once data has been retrieved from the RAM card 20, it can be displayed on the PC in a variety of ways, such as in various tabular forms, depending on whether the information represents event recording information, trip monitoring information, maintenance information, or other information. The manner of presentation of the

data is a matter of design.

[0043] Since the RAM card 20 is removable and relatively inexpensive, each driver of a particular vehicle, such as a fleet car or bus, could be given a personalized RAM card 20."

2h) "[0047] This aspect of the invention can also be used to 'customize' or 'personalize' the operational characteristics of a vehicle to a driver's preferences. For example, each driver of a fleet vehicle or bus can use the RAM card 20 to upload into the vehicle the driver's preferences relating to desired headway distance, warning thresholds, or any other parameter that can be set through a vehicle's electronic control system."

2i) "[0052]

[Effects of the Invention] Thus, an event recording device of the present invention records data until an event, such as an accident, stops the recording. In the preferred embodiment, the RAM card 20 can then be removed and the events leading up to the event read back using a standard personal computer with a matching interface. The invention is thus extremely useful for accident reconstruction as well as more standard vehicle performance, operational status, and/or environment data."

(3) Evidence A No. 3

Japanese Unexamined Patent Application Publication No. S62-144295 is a publication distributed before filing of the patent (before the priority date) submitted by the demandant as Evidence A No. 3. This relates to a drive control system of a vehicle and discloses the following features together with the drawings.

3a) "[Industrial Fields of Application]

The present invention relates to a system for controlling driving status of a driver using a vehicle, and more particularly to a drive control system of a vehicle capable of determining safe speed/reckless driving and grasping a travel distance by classifying into usage of the vehicle (time of travelling).

[Related Art]

Conventionally, presence or absence of excessive speed and sudden acceleration/deceleration, the number of times of these events, or control of travel distance in accordance with the usage of the vehicle (e.g., for private use, public use, or commuting) have been controlled by a driver driving an automobile or other vehicles. Thus, it has been difficult to evaluate these in an objective way.

If the vehicle is a company-owned car or a car for company use, a need to clarify a control classification or responsibilities is particularly increased and a reliable drive

control system is desired.

[Problem to be solved by the Invention]

The present invention is made in view of the above. The first object of the invention is to provide a system configured to: automatically determine presence or absence of excessive speed and sudden acceleration/deceleration, and the number of times of these events based on a predetermined reference value; and obtain the driver's drive control data by grasping a travel distance by classifying into the usage of the vehicle (e.g., for private use, public use, or commuting).

Besides the above, the second object of the invention is to provide a system configured to obtain data input from other data processing devices integrally together with the driver's drive control data" (page 2, lower left column, line 9 to lower right column, line 17).

3b) "Transmission of data from a drive data recording device 2 to the control data processing device 3 can be carried out by, for example, storing the data in an external storage body 1 via a writing unit 10A (reading the data at the control data processing device 3) or transferring data via a data communication unit 10B" (page 3, lower right column, line 16 to page 4, upper left column, line 1.)

3c) "[Examples]

A preferred example which applies the drive control system of a vehicle of the present invention to a company-owned car and uses an IC card as an external storage body will now be described by referring to FIGS. 3 and 4.

FIG. 3 is a schematic view showing a hardware configuration of the drive control system of a vehicle, comprising: a drive data recording device 2 mounted on a vehicle V; an IC card 1 to which drive data is written by the drive data recording device 2; a magnetic-tape-readout data processing device 4 provided at a business facility or a sales place for reading identification data from an identification data storage unit 1b of a magnetic stripe of the IC card 1; and a control data processing device 3 provided at facilities such as a control office.

The IC card 1 is provided with a CPU and an IC memory, and comprises a drive data storing unit 1a configured to write drive data thereto, and an identification data storing unit 1b configured to store identification data with a magnetic stripe attached to the outer surface of the card.

In the present example, the identification data storing unit 1b has an operator's identification code (ID code) appropriately pre-written thereto with writing means.

The drive data recording device 2 has a microcomputer configuration including a data reading/writing unit 2a, and has an I/O port, a CPU, and an operation unit 20.

The drive data recording device 2 is connected to a detecting unit 5 via an interface, and the detecting unit 5 being provided at a drive wheel system or a speed indicator of the vehicle V to detect a vehicle speed at predetermined sampling intervals inputs detection signals to the drive data recording device 2.

Those drive data not detected by the detecting unit 5 are configured to be input from a manual input switch 2b (which includes, in the present example, a rotary switch for determining a type of input data and a digital switch for setting a value of the determined type of the input data) at any time.

The drive data recording device 2 is also provided with a clock function 6 including a battery backed-up clock generator which allows clock signals such as date and time to input the operation unit 20.

The above acquired drive data is then written to the drive data storing unit 1a of the IC card 1 with data input from the manual input switch 2b via a data reading/writing unit 10A of the drive data recording device 2.

When a driver in working is, for example, refueling at a gas station, the identification code stored in the identification data storing unit 1b composed of a magnetic stripe of the above IC card 1 is allowed to be read by a magnetic-tape-readout data processing device 41 at the gas station. The read identification code is then integrated with processing data such as fuel amount and charge to be recorded" (page 4, upper left column, line 7 to lower left column, line 19).

3d) "As such, the data in association with the driving processed in the magnetic-tape-readout data processing device 4 by the driver using the IC card 1 as a magnetic card is then integrally data-processed or recorded at a control data processing device 3 in accordance with the driver's identification code" (page 4, lower right column, lines 9 to 13).

3e) "In the above system, the drive data can be controlled by the configuration as shown in FIG. 4.

In short, the vehicle speed data input from the detecting unit 5 is input into the operation unit 20 of the recording device 2.

In the operation unit 20, the vehicle speed data is input into a safe speed determining means 13.

The safe speed determining means 13 has a reference speed preset thereto for enforcement of safe driving and is configured to determine whether the input vehicle speed exceeds the above reference speed.

The safe speed reference value determined by the safe speed determining means

13 is, for example, divided into two stages of a first reference of over 80 km/h and less than 110 km/h and a second reference of over 110 km/h for determination.

The vehicle speed data is input into speed change rate calculation means 11 such that a speed change rate for a certain period of time can be calculated. A sudden acceleration and deceleration are then determined depending on whether the calculated speed change rate is determined by reckless driving determining means 12 to be the one exceeding a reference change rate preset as a sudden acceleration or the one below a reference change rate set as a sudden deceleration (page 5, upper left column, line 13 to upper right column, line 13).

3f) "The driving evaluation means 31 is directed to evaluate driving based on each of the above data. In one example, a safe speed driving evaluation means 33 counts the number of times the speed has exceeded the reference speed determined by the safe speed determining means 13, and calculates a product of the counted number of times and a predetermined coefficient as a point.

Here, the safe speed reference value is set to over 80 km/h and less than 110 km/h for a first reference, and over 110 km/h for a second reference. Thus, the number of times the speed has exceeded each of these references are counted by the safe speed driving evaluation means 31 and a product of each of the counted number of times and a corresponding coefficient is calculated.

Reckless driving evaluation means 32 then counts the number of times of sudden acceleration and deceleration determined by the reckless driving determining means 12, and a product with the corresponding predetermined coefficient is calculated as a point" (page 5, lower right column, lines 1 to 15).

3g) "The above configuration is performed in the operation unit 20 of the drive data recording device 2 and an operation unit 30 of the control data processing device 3. The present invention is not intended to limit to one of the above operation units but, in the present example, the driving evaluation means 31 and the subsequent means are processed in the operation unit 30 of the control data processing device 3 (page 6, upper left column, line 15 to upper right column, line 1).

With reference to the above 3a to 3g and the drawings, Evidence A No. 3 discloses the following invention (hereinafter referred to as "Invention A-3"):

"A drive control system of a vehicle for controlling driving status of a driver using a vehicle by determining excessive speed and sudden acceleration/deceleration, the system comprising: a drive data recording device 2 mounted on the vehicle; an IC card 1 having a drive data storing unit 1a and an identification data storing unit 1b to

which an identification code of the driver is written, wherein the IC card 1 has drive data written thereto by the drive data recording device 2; a magnetic-tape-readout data processing device 4 provided at facilities such as a gas station; and a control data processing device 3 provided at a control office, wherein the drive data recording device 2 has a detecting unit 5 for detecting a vehicle speed connected thereto, an operation unit 20 of the drive data recording device 2 comprises safe speed determining means 13, speed change rate calculation means 11, reckless driving determining means 12, etc, the operation unit 20 is configured to determine whether a vehicle speed data exceeds a reference speed and to determine sudden acceleration/deceleration by comparing a speed change rate obtained from vehicle speed data with a preset reference change rate, these drive data are thus written to the IC card 1 and can be read at a control data processing device 3, an operation unit 30 of the control data processing device 3 comprises a safe speed driving evaluation means 33, a reckless driving evaluation means 32, etc., wherein the number of times the speed has exceeded the reference speed determined by the safe speed determining means 13 is counted to calculate a point and the number of times of sudden acceleration and deceleration determined by the reckless driving determining means 12 is counted to calculate a point, when the driver refuels the vehicle at a gas station, an identification code is allowed to be read from the IC card 1 by a magnetic-tape-readout data processing device 4 at the gas station, and the read identification code is then integrated with data such as fuel amount to be recorded, the data processed in the magnetic-tape-readout data processing device 4 is then integrally data-processed by the control data processing device 3 in accordance with the driver's identification code."

2. "Specific behavior" in Corrected Invention

The "specific behavior" in the Corrected Invention is described in the corrected specification as follows:

"[0006] Moreover, in the conventional operation management system, there is no viewpoint in which the driver's tendency in the operation is grasped to generate information for preventing occurrence of accidents. For example, in the case of automobiles, about 70 percent of the traffic accidents occur at locations such as an intersection and like where the complex operations are required to the drivers. At such a location, as a driving operation, the operation of steering wheel is required in addition to the operations of accelerator and brake. In conventional, there have not been made sufficient schemes to increase recognition of danger with respect to the

driving operation at the locations where the incidence of traffic accidents is high.

[0007] A first object of the present invention is to provide a mobile object operation tendency analyzing technique that is capable of grasping the operation tendency of the mobile object such as a vehicle."

"[0030] The reading unit 133 recognizes the condition pattern recorded on the memory card 20, that is, vehicle characteristic behavior and transmits it to the event extracting unit 132. Particularly, the data reading unit 133 recognizes one threshold value or combinations of a plurality of threshold values, or behavior patterns such as curving at the intersection in order to recognize the fact (hereinafter referred to as "event") of dangerous behavior."

"[0034] A condition pattern for each event recognized by the event extracting unit 132 is shown in Figs. 2 and 3, for example. FIG. 2 shows the condition pattern of the sudden acceleration, FIG. 3 shows the condition pattern at the intersection, 'return ON' denotes event recognition, and 'return OFF' denotes event non-recognition, respectively. It is noted that these condition patterns are only examples, and that they can be corrected ex post facto and additionally added."

"[0049] For example, as a data collecting condition, there can be named a case in which the angular velocity that changes for one second exceeds 10[deg.] as illustrated in FIG. 8B. When such a condition is satisfied, it is determined that the specific behavior occurs, and measured data for given time before and after occurrence (for example, 30 seconds before and after) is recorded on the memory card 20. For example, a collecting condition is set onto the memory card 20 in order to collect measured data of a pattern of making a turn at a curve (specific behavior). More specifically, when a case in which a turn is made with curve driving at more than 20[deg.]/sec is set as a collecting condition, measured data with respect to the behavior that satisfies this condition (behavior exceeding a set value) is collected using a high-frequency signal (for example, 10 MHz). Regarding measured data collected, the driver's operation tendency of mobile object is analyzed using an analytical method to be described later.

[0050] As timing for determining the occurrence of the specific behavior as an analytical target, the following can be named:

- (a) when the vehicle pulls away the stop position;
- (b) when curve driving occurs at the intersection;
- (c) when the vehicle passes through a specific point; and
- (d) when angular velocity, acceleration, and velocity, which are more than a predetermined threshold value.

The condition is set to collect measured data during only a fixed time period before and after the above timing."

"[0069] The aforementioned data analysis is carried out after the behavior analyzer 30 reads data from the memory card 20. The collection of measured data and the analysis are repeated based on the aforementioned setting of the collecting conditions, whereby making it possible to collect the driving patterns as a target and to convert the driving tendency to numerical values as well as the detection of dangerous behavior. Moreover, the collecting condition may be set onto the memory card 20 based on the analyzed driving tendency."

As can be seen from the above descriptions, the "specific behavior" in the corrected invention can be recognized as a behavior of a vehicle due to a reckless operation which may lead to an accident, the behavior being determined at a time: when the vehicle pulls away the stop position; when curve driving occurs at the intersection; and when angular velocity, acceleration, and velocity, which are more than a predetermined threshold value, etc., occur.

3. Inventive step of Corrected Invention 1

Corrected Invention 1 will now be compared with Invention A-3.

The "vehicle," "vehicle speed," "detecting unit 5," "excessive speed, sudden acceleration/deceleration," "IC card 1," "drive data recording device 2," "driver's identification code" of Invention A-3 correspond respectively to the "mobile object," "behavior of the mobile object," "sensor section," "specific behavior," "card-like recording medium," "recording means," and "identification information of an operator that operates the mobile object" of Corrected Invention 1. The "detecting unit 5," "IC card 1," and "drive data recording device 2" etc. in the drive control system of a vehicle in Invention A-3 correspond to the "data recorder" of Corrected Invention 1.

Invention A-3 is directed to determine excessive speed and sudden acceleration/deceleration. Thus, Invention A-3 conforms to the requirement of "enabling analysis of an operation tendency of said mobile object" in Corrected Invention 1.

The IC card 1 of Invention A-3 has an identification data storage unit 1b to which an identification code of a driver is written. Thus, Invention A-3 conforms to the requirement of Corrected Invention 1, i.e., "the recording medium is ... classified in accordance with at least one of identification information of the mobile object, identification information of an operator that operates the mobile object, and

behavioral environment of the mobile object, and that is generated on a classification-by-classification basis."

If adhered to the recitation of Corrected Invention 1, Corrected Invention 1 and Invention A-3 are common in the following feature:

"The data recorder comprising: a sensor section for detecting behavior of a mobile object; and recording means for determining the presence or absence of occurrence of a specific behavior in the behavior of the mobile object detected by said sensor section, and recording, on a predetermined recording medium, information relating to the behavior in accordance with occurrence of said specific behavior, thereby enabling analysis of an operation tendency of said mobile object, wherein the recording medium is a card-like recording medium that is classified in accordance with at least one of identification information of the mobile object, identification information of an operator that operates the mobile object, and behavioral environment of the mobile object, and that is generated on a classification-by-classification basis." Meanwhile, these Inventions are different in the following feature.

[The different feature]

Corrected Invention 1 is directed to: record, on a card-like recording medium, information on the behavior compatible with the collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time; and set the collecting condition on the card-like recording medium. Meanwhile, Invention A-3 does not disclose such a feature.

In view of the above different feature, both Evidences A No. 1 and A No. 2 fail to disclose: collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time to record on a card-like recording medium; and setting the collecting condition on the card-like recording medium.

Thus, Corrected Invention 1 could not be easily made by a person skilled in the art based on the inventions disclosed in Evidences A No. 1 to A No. 3.

The demandant has submitted Evidence A No. 4 and Evidences A No. 6-1 to A No. 6-5, and asserted that collecting "information relating to behavior before and after occurrence for a predetermined period of time" is a well-known art. The invention disclosed in Evidence A No. 4 is directed to obtain necessary information for

servicing a vehicle (maintenance) and the inventions disclosed in Evidences A No. 6-1 to A No. 6-5 are directed to record data for later analysis upon an accident or application of strong external impact. Thus, none of these inventions is directed to collect information relating to behavior before and after occurrence of the specific behavior, thereby enabling analysis of an operation tendency of the mobile object.

4. Inventive step of Corrected Invention 2

Corrected Invention 2 will now be compared with Invention A-3.

The "vehicle," "excessive speed, sudden acceleration/deceleration," "drive data," "IC card 1," and "control data processing device 3" of Invention A-3 correspond respectively to the "mobile object," "specific behavior," "information relating to the behavior," "recording medium," and "computer" of Corrected Invention 2.

Invention A-3 discloses that: drive data written to an IC card 1 is read at a control data processing device 3; an operation unit 30 of the control data processing device 3 counts the number of times the speed has exceeded a reference speed determined by the safe speed determining means 13 to calculate a point, and counts the number of times of sudden acceleration/deceleration determined by reckless driving determining means 12 to calculate a point. Thus, Invention A-3 conforms to the requirement of "causing a computer to execute procedures for" "reading recorded information from a recording medium on which information relating to the behavior is recorded" and "analyzing an operation tendency of the corresponding mobile object from the read information."

If adhered to the recitation of Corrected Invention 2 as closely as possible, Corrected Invention 2 is substantially the same as Invention A-3 in the feature of:

"a computer-readable recording medium having digital information recorded thereon, the digital information is causing a computer to execute procedures for: reading recorded information from recording medium on which information relating to behavior of a mobile is recorded by determining the behavior of the mobile object as the specific behavior; and analyzing an operation tendency of the corresponding mobile object from the read information." Meanwhile, these Inventions are different in the following feature.

[The different feature]

Corrected Invention 2 is directed to: cause a computer to execute procedures for setting, on a recording medium, a collecting condition for collecting information relating to behavior before and after occurrence of the specific behavior for a

predetermined period of time. Meanwhile, Invention A-3 does not disclose such a feature.

In view of the above different feature, both Evidences A No. 1 and A No. 2 fail to disclose: collecting information relating to behavior before and after occurrence of the specific behavior for a predetermined period of time to record on a recording medium; and setting the collecting condition on the recording medium.

Thus, Corrected Invention 2 could not be easily made by a person skilled in the art based on the inventions disclosed in Evidences A No. 1 to A No. 3.

5. Summary

Corrected Inventions 1 and 2 could not be easily made by a person skilled in the art based on the inventions disclosed in Evidences A No. 1 to A No. 3. It is also evident that Corrected Inventions 1 and 2 are not the inventions disclosed in any of Evidences A No. 1 to A No. 3.

No. 5 Independent Requirements for Patentability

Corrected Invention 1 could not be easily made by a person skilled in the art based on the inventions disclosed in Evidences A No. 1 to A No. 3, and for this reason, the inventions of corrected claims 10 and 11 which introduce a more specific concept of Corrected Invention 1 also could not be easily made by a person skilled in the art based on the inventions disclosed in Evidences A No. 1 to A No. 3.

The corrections of claims 10 and 11 satisfy the provisions of Article 126(5) of the Patent Act (Independent Requirements for Patentability) which is applied *mutatis mutandis* in the provisions of Article 134-2(5) of the Act.

For the above reason, the correction of the case is believed legitimate if considered together with "2. Judgment on Propriety of Correction" in "No. 3."

No. 6 Conclusion

As described above, the correction of the case is legitimate, and it cannot be concluded that the patent for inventions according to claims 9 and 15 are regarded as violation of the provisions of Article 29(1) or (2) of the Patent Act.

In addition, no other reasons can be found to conclude that the inventions of claims 9 and 15 should be invalidated.

The costs in connection with the trial shall be borne by the demandant under the provisions of Article 61 of the Code of Civil Procedure which is applied *mutatis*

mutandis in the provisions of Article 169(2) of the Patent Act.

Therefore, the trial decision shall be made as described in the conclusion.

February 27, 2012

Chief administrative judge: SENBA, Takayuki

Administrative judge: SUGIURA, Takayuki

Administrative judge: OZEKI, Mineo