

Symposium on Patent Litigation in Europe and Japan 2016 Panel Discussion

Theme 2: Case Study on Validity Issues -From “Case Study by Trial and Appeal Experts”-

Case Example: Patent No. 3229297

“Movable body operation tendency analysis method, operation management system,
component of same, and recording medium”

(JPO Docket Number: Invalidation No. 2011-800136, 2012 (Gyo-ke) 10129)

(Introduction)

“Case Study by Trial and Appeal Experts”

- The study group, hosted by the Trial and Appeal Department of the Japan Patent Office, which studies trial/appeal decisions on individual cases, with the cooperation of the Japan Intellectual Property Association, the Japan Patent Attorneys Association, the Japan Federation of Bar Associations and the Japanese Courts.
- The study group is divided into seven sub-groups: “Patent (General)”, “Patent (Machinery),” “Patent (Chemistry),” “Patent (Medicine and Food),” “Patent (Electronics),” “Design” and “Trademark.” (Each sub-group, consisting of five to seven members, totaling approximately 50 IP experts, studied a total of 20 cases in 2015.)
- The study group consists of experts on intellectual property, such as industry players, patent attorneys, lawyers and judges* as well as administrative judges of the Japan Patent Office. The group members hold unfettered discussions from their respective perspectives, and the outcome of their studies is compiled in a report. (The report in Japanese as well as its summaries in Japanese and English are published via the Japan Patent Office website.)

*Participated as observers from 2016

Case Example: Patent No. 3229297

History of the Case

| | |
|--------------------|---|
| October 12, 1999 | Application filed (Priority date: October 12, 1998) |
| September 7, 2001 | Patent registration (20 claims) |
| January 21, 2003 | Decision on opposition issued [Opposition No. 2002-71235] (Correction approved, and patent on claims maintained) |
| July 11, 2011 | Trial decision [Invalidation No. 2011-800013] (Demand for invalidation rejected) |
| August 4, 2011 | ★ <u>Trial for invalidation of the case demanded [Invalidation No.2011-800136]</u> |
| September 16, 2011 | ★ <u>Written correction request filed</u> |
| February 27, 2012 | ★ <u>First trial decision (Correction approved, demand rejected)</u> |
| April 5, 2012 | ★ <u>Lawsuit rescinding trial decision [2012 (Gyo-ke) 10129]</u> |
| October 17, 2012 | ★ <u>Court decision (Trial decision rescinded, final)</u> |
| April 15, 2013 | ★ <u>Written correction request filed</u> |
| October 28, 2013 | ★ <u>Second trial decision (Correction partially approved, patent invalidated)</u> |

Corrected Invention (1/2)

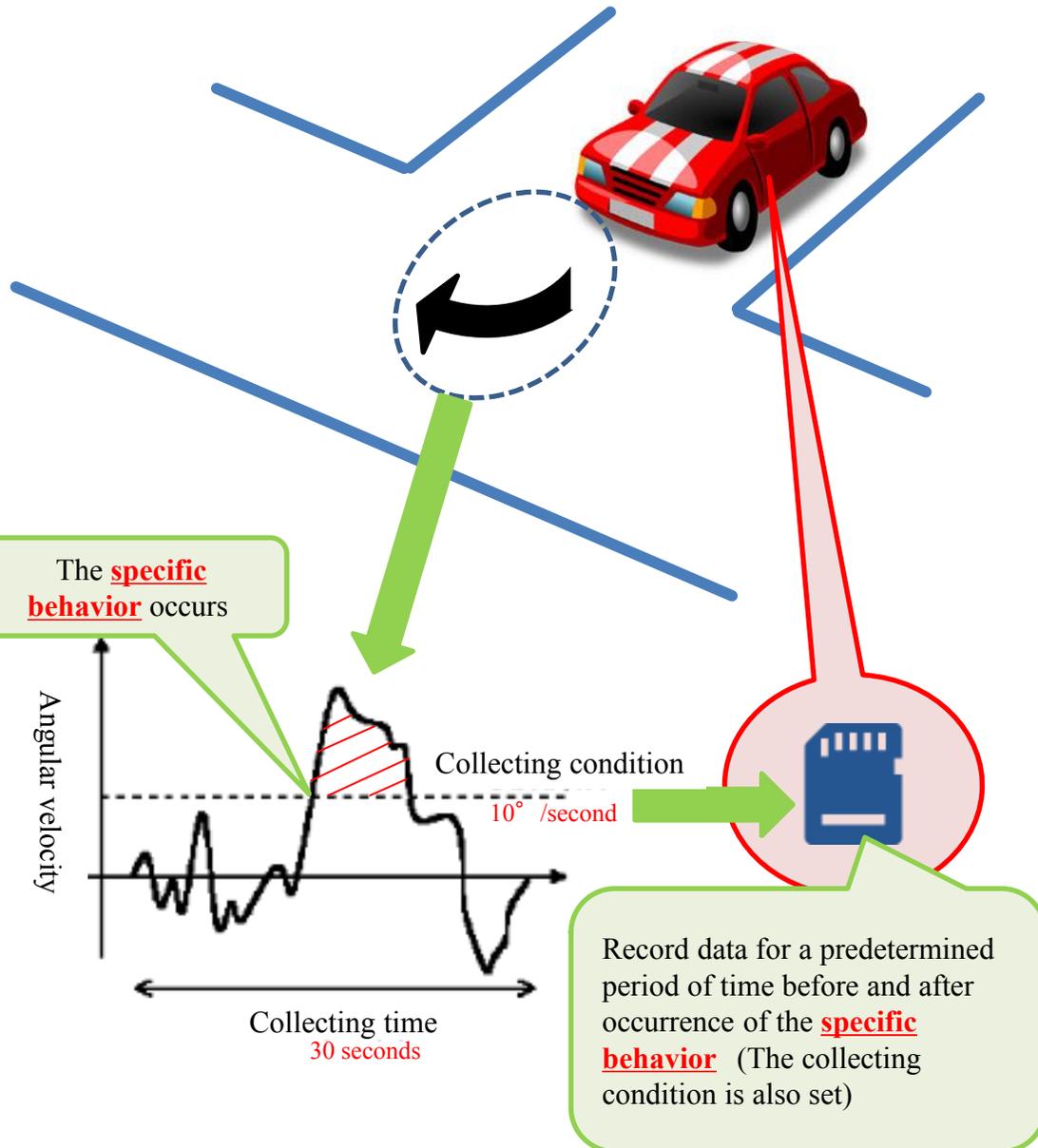
Problems to Be Solved by the Corrected Invention

【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 the 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 the steering wheel is required in addition to the operations of accelerator and brake. In conventional, there have not been made sufficient schemes to increase the 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.

Examples to determine the occurrence of the **specific behavior**

- (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, etc. occur (【0050】)



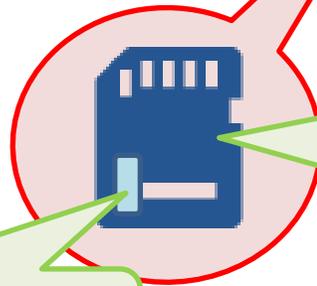
Corrected Invention (2/2)

The Corrected Invention (the Invention of the corrected Claim 9)

“The data recorder comprising a sensor section for detecting behavior of a mobile object and a 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 the 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.”

Invention A-3

(The Invention Described in Evidence A No. 3)



Driver identification code

- Determination of whether the vehicle speed exceeded the reference speed
- Determination of sudden acceleration/deceleration by comparison of the rate of change of speed and the reference rate of change of speed

<Purpose>

To provide a system to obtain the driver's drive control data with the following functions:

- Automatically determine the presence or absence of excessive speed and sudden acceleration/deceleration and the number of times of these events based on a predetermined reference value.
- Grasp a travel distance by classifying into the usage of the vehicle (e.g., for private use, public use, or commuting).

Comparison of the Corrected Invention and Invention A-3

The Corrected Invention

<Purpose>

Grasp the driver's tendency in the operation to prevent occurrence of accidents.

<Configurations>

- The data recorder comprising a sensor section and a recording means
- The sensor section detects the **specific behavior** of the mobile object.
- The recording means collects information relating to behavior before and after the occurrence of the **specific behavior** for a predetermined period of time in accordance with a collecting condition and records information relating to the behavior compatible with the said collecting condition on a card-like recording medium.
- The card-like recording medium is prepared on a classification-by-classification basis according to identification information of an operator.
- The collecting condition is set on the card-like recording medium.

Invention A-3

<Purpose>

Manage the driving status of a driver using a vehicle by classifying into usage of the vehicle by determining excessive speed and sudden acceleration/deceleration.

<Configurations>

- A drive management system of a vehicle with the detecting unit 5 for detecting a vehicle speed and the drive data recording device 2, etc.
- The drive data recording device 2 determines excessive speed and sudden acceleration/deceleration based on the vehicle speed data from the detecting unit 5 and write these drive data to the IC card 1.
- The driver's identification code is recorded on the IC card.

Different features

- The corrected invention 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 the occurrence of the **specific behavior** for a predetermined period of time and set the collecting condition on the card-like recording medium.
- Invention A-3 does not disclose such a feature.

Evidence regarding the Different Features

Evidence A No. 1

<Purpose>

Collect the vehicle drive data, including historical information on acceleration/deceleration of a vehicle, in order to manage fuel consumption and safe driving.

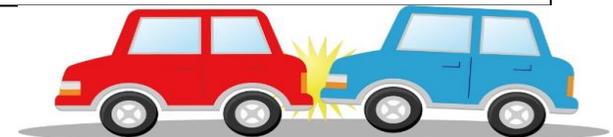
<Configurations>

- Rank acceleration/deceleration detected during the one cycle of acceleration/deceleration to determine the largest acceleration/deceleration rank, and increment a counter corresponding to the said rank in the IC card.
- The IC card has the acceleration rank data and the deceleration rank data used for ranking acceleration/deceleration.

Well-Known Art (Evidences A No. 4 to A No. 6-5)

- Collect and record information relating to behavior of a vehicle for a predetermined period of time before and after a certain trigger as the reference time.

(However, the trigger for Evidence A No. 4 is the occurrence of trouble with the device mounted on a vehicle, while the trigger for Evidences A No. 5 to A No. 6-5 is the occurrence of a traffic accident and a collision. Either trigger is determined by whether information obtained from the sensor has exceeded the threshold value.)



“Specific Behavior” (First Trial Decision) (1/4)

The “Specific Behavior” in the Corrected Invention described in the corrected description

“【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 the 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 the steering wheel is required in addition to the operations of accelerator and brake. In conventional, there have not been sufficient schemes made 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.**”

“Specific Behavior” (First Trial Decision) (2/4)

“【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 of dangerous behavior (hereinafter referred to as ‘event’).”

“【0034】 A condition pattern for each event recognized by the event extracting unit 132 is shown in Figure 2 and Figure 3, for example. Figure 2 shows the condition pattern of the sudden acceleration, Figure 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 set.”

“Specific Behavior” (First Trial Decision)(3/4)

“【0049】For example, as a data collecting condition, there can be named a case in which the angular velocity that changes during one second exceeds 10° , as illustrated in Figure 8 (b). When such a condition is satisfied, it is determined that the **specific behavior** occurred, and measured data for a given period of time before and after the 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° /second 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 the 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, etc., occur.

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

“Specific Behavior” (First Trial Decision) (4/4)

“【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.

“Specific Behavior” (Court Decision) (1/3)

According to the reasoning of the trial decision, the “specific behavior” in the scope of claims for the corrected invention means “a behavior of a vehicle due to a reckless operation which may lead to an accident;” at the time the sudden acceleration, and according to paragraphs 【0030】, 【0034】 and 【0050】 as well as Figure 2 and Figure 3 of the corrected description, it is recognized that the determination on whether or not “a reckless operation which may lead to an accident” was conducted is made, for example, by whether or not the data on angular velocity, etc. obtained from the sensor section exceeds the predetermined threshold value.

Furthermore, the “collecting condition” in the scope of claims for the corrected invention means the condition for the collection of information for a predetermined period of time on the moving object (vehicle) relating to behavior before and after the occurrence of the “specific behavior,” and according to paragraphs 【0011】 or 【0021】, 【0030】 or 【0035】, 【0043】, 【0048】 or 【0070】 as well as the drawings 2, 3 and 5 of the corrected description, it is recognized that more specifically, for example, the threshold value of acceleration, etc. or the combinations of the threshold values, or those with the addition of the limitations of GSP data, etc., correspond to the aforementioned “collecting condition.”

“Specific Behavior” (Court Decision) (2/3)

Whereas the defendant asserts that its own technical significance of the corrected invention to collect information relating to behavior before and after the occurrence of the **“specific behavior”** is the grasping of the driving operation of a vehicle that becomes clear only with the time-oriented acquisition of information, the paragraph **【0050】** of the corrected description cites **“(d) When angular velocity, acceleration and velocity, which are more than the predetermined threshold value, etc., occur”** as one of the timing for determining the occurrence of the “specific behavior.” Thus, **the corrected invention does not necessarily omit the configuration where, for example, the occurrence of the “specific behavior” is determined when the single physical amount exceeds the predetermined threshold value.**

“Specific Behavior” (Court Decision) (3/3)

Furthermore, the **“specific behavior”** in the corrected invention, as mentioned above, is “a behavior of a vehicle due to a reckless operation which may lead to an accident,” and does not assume the occurrence of an accident (it includes cases where a traffic accident does not occur). According to the descriptions of paragraphs **【0030】**, **【0034】**, **【0050】**, Figure 2 and Figure 3 of the corrected description, even in the case of the corrected invention, the presence or absence of the **“specific behavior”** is determined, for example, based on whether or not the data on the angular speed, etc., which is obtained from the sensor section, has exceeded the predetermined threshold. Thus, **focusing on the functions of the device**, it can be argued that the configuration to collect and record information for a predetermined period of time before and after the occurrence of the **“specific behavior”** in the corrected invention **is not substantially different from** the configuration to collect and record information for a predetermined period of time before and after the occurrence of a “traffic accident” in **well-known art**.

Conclusions of the First Trial Decision and the Court Decision

First Trial Decision

- “**Specific behavior**” means “a behavior of a vehicle due to a reckless operation which may lead to an accident.”
- Evidence A No. 4 is directed to obtain necessary information for servicing a vehicle and Evidences A No. 5 to A No. 6-5 are directed to record data for ex-post facto analysis of the occurrence of accidents, etc.
- None of Evidences A refers to the collection of information relating to behavior before and after the occurrence of “**specific behavior**” to enable an analysis of an operation tendency of the mobile object.
 - **Inventive step is recognized**

Court Decision

- Even in the case of the corrected invention, the presence or absence of the “**specific behavior**” is determined, for example, based on whether or not the data on the angular speed, etc., which is obtained from the sensor section, has exceeded the predetermined threshold.
- Focusing on the functions of the device, the configuration to collect and record information for a predetermined period of time before and after the occurrence of the “**specific behavior**” in the corrected invention is not substantially different from that in the above-mentioned well-known art.
 - by applying Invention A-1, which records and sets the condition for collecting information relating to behavior of a vehicle before and after the occurrence of the “specific behavior” on the recording medium, and well-known art that collects information relating to behavior of a vehicle for a predetermined period of time before and after the occurrence of a certain trigger (traffic accidents, etc.) that corresponds to the “specific behavior,” described in Evidences A No. 4 to A No. 6-5, to Invention A-3, **no inventive step is recognized.**

Major Issues Discussed by the Study Group of “Case Study by Trial and Appeal Experts”

(1) Recognition of the “Specific Behavior” in the Corrected Invention

Whereas the first trial decision interpreted the “specific behavior” in a limited manner by taking into consideration the objects, etc. described in the description, the court decision interpreted it more broadly than the trial decision by focusing on the functional aspects of the device.

(2) Application of Well-Known Art Having Different Objects and Purposes but the Same Functions

Whereas the first trial decision determined that the configuration of the corrected invention is different from that in the well-known art by focusing on the “objects and purposes,” the court decision recognized that the configuration of the corrected invention is substantially the same as that in the -well-known art by focusing on the “functions.”

(3) Reasoning for Denial of Inventive Step (Presence or Absence of Objects and Presence or Absence of Motivation Based on Commonality)

Whereas the defendant (patentee) asserted that there is no motivation to conceive of the corrected invention based on Evidences A having the objects different from that of the corrected invention, the court decision concluded that there is the motivation of the application by recognizing the commonality in the objects of Invention A-3 and Invention A-1.

Thank You Very Much.