

FILE HISTORY
US 6,122,591

PATENT: 6,122,591
INVENTORS: POMERANTZ DAVID

TITLE: Taxi trip meter system with indication of fare
and distance violations

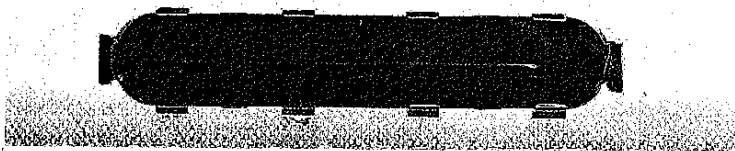
APPLICATION NO: US1998136144A
FILED: 18 AUG 1998
ISSUED: 19 SEP 2000

COMPILED: 19 APR 2022

jc588 U.S. PTO
09/136144



701	201
Class	Subclass
ISSUE CLASSIFICATION	



PATENT NUMBER

6122591



6122591

U.S. UTILITY PATENT APPLICATION

SCANNED	O.I.P.E. Sm ⁵	PATENT DATE SEP 19 2000
Q.A. K103		

SECTOR	CLASS 701	SUBCLASS 201	ART UNIT 3661	EXAMINER PIPALA
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PREPARED AND APPROVED FOR ISSUE

ISSUING CLASSIFICATION					
ORIGINAL		CROSS REFERENCE(S)			
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)		
701	201	701	208		
INTERNATIONAL CLASSIFICATION		705	417		
G06F	17/00				
G06F	165/00				

☐ Continued on Issue Slip Inside File Jacket

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Formal Drawings (3 shs) 1

8/18/98 ML

☐ TERMINAL DISCLAIMER	DRAWINGS			CLAIMS ALLOWED	
	Sheets Drwg. 3	Figs. Drwg. 3	Print Fig. 3	Total Claims 17	Print Claim for O.G. 1
☐ a) The term of this patent subsequent to _____ (date) has been disclaimed.	Edward Pipala 2/7/00 (Assistant Examiner) (Date)			NOTICE OF ALLOWANCE MAILED	
☐ b) The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. _____	William A. Cuchlinski, Jr. SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600 2/4/00 (Primary Examiner) (Date)			2-09-00	
☐ c) The terminal _____ months of this patent have been disclaimed.	J. Holmes 2/15/00 (Legal Instruments Examiner) (Date)			ISSUE FEE	
			Amount Due 605.00		Date Paid 5/1/00
			ISSUE BATCH NUMBER 1192		

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Form PTO-436A
(Rev. 10/97)

Issue Fee In File

(LABEL AREA)
Formal Drawings (3 shs) set

(FACE)

6,122,591

TAXI TRIP METER SYSTEM WITH INDICATION OF FARE AND
DISTANCE VIOLATIONS

Transaction History

Date	Transaction Description
08-18-1998	Workflow - Drawings Finished
08-18-1998	Workflow - Drawings Matched with File at Contractor
08-18-1998	Workflow - Drawings Received at Contractor
08-18-1998	Information Disclosure Statement (IDS) Filed
08-18-1998	Information Disclosure Statement (IDS) Filed
08-21-1998	Initial Exam Team nn
09-15-1998	Application Dispatched from OIPE
10-04-1998	Case Docketed to Examiner in GAU
10-08-1998	Case Docketed to Examiner in GAU
04-05-1999	Correspondence Address Change
09-13-1999	Non-Final Rejection
09-15-1999	Mail Non-Final Rejection
12-20-1999	Response after Non-Final Action
12-27-1999	Date Forwarded to Examiner
02-09-2000	Mail Notice of Allowance
02-09-2000	Notice of Allowance Data Verification Completed
03-06-2000	Workflow - File Sent to Contractor
05-01-2000	Issue Fee Payment Verified
05-01-2000	Supplemental Papers - Oath or Declaration
05-01-2000	Workflow - Incoming Correspondence - Finish
05-01-2000	Workflow - Incoming Correspondence - Begin
08-02-2000	Workflow - Complete WF Records for Drawings
08-06-2000	Application Is Considered Ready for Issue
09-01-2000	Issue Notification Mailed
09-19-2000	Recordation of Patent Grant Mailed
04-30-2015	Correspondence Address Change
05-01-2015	Change in Power of Attorney (May Include Associate POA)

PATENT APPLICATION



09136144

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08/18/98

INITIALS

AUG 20 1998

CONTENTS

	Date received (Incl. C. of M.) or Date Mailed		Date received (Incl. C. of M.) or Date Mailed
1. Application <i>cdw</i> papers.		42.	
2. <i>IDS</i>	<i>8/18/98</i>	43.	
3. Change of Address	<i>4/9/99</i>	44.	
4. <i>Ref 3 group</i>	<i>4/15/99</i>	45.	
5. <i>Amend A</i>	<i>12-15-99</i>	46.	
6. Notice of Allowability	<i>2-9-00</i>	47.	
7. Notice of Allowance	<i>2-9-00</i>	48.	
8. Supplemental Declaration	<i>5/1/00</i>	49.	
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ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	PS		8/24
O.I.P.E. CLASSIFIER		10029	8/25/99
FORMALITY REVIEW			9-298

INDEX OF CLAIMS

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Claim		Date									
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ADS text search (inside flap)	Date	Exmr.
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INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
701	201, 204, 207, 208, 209, 213	2/7/60	SP
705	417		

(RIGHT OUTSIDE)

(FILE 'USPAT' ENTERED AT 13:53:41 ON 02 SEP 1999)
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80 TAXIMETER
1121 TAXI
111823 METER
27 TAXI METER
(TAXI(W)METER)
L3 9 (701 OR 340)/CLAS AND (TAXIMETER OR TAXI METER)
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1. 5,917,434, Jun. 29, 1999, Integrated **taximeter**/GPS position tracking system; Michael D Murphy, 340/991, 994, 995; 701/201, 207, 217 [IMAGE AVAILABLE]

US PAT NO: 5,917,434 [IMAGE AVAILABLE] L3: 1 of 9

ABSTRACT:

A **taximeter** system includes a **taximeter** or trip meter for a truck integrated with an integral GPS receive/computer for providing GPS position and time information. The odometer input pulses to the **taximeter** are accurately calibrated by using GPS position, velocity, and time information to generate corrected odometer pulses which are provided to the odometer input terminal of the **taximeter**. The GPS system is integrated into the **taximeter** for calibrating and cross checking of input odometer pulses to provide reliable, consistent distance measurements by the **taximeter**. The integrated **taximeter** and GPS system provided according to the invention uses GPS position, velocity, and time information to produce incontrovertibly accurate corrected, odometer input pulses and GPS time signals for the **taximeter** to precisely compute elapsed time and distance traveled. Dead reckoning operation of the system is available when the GPS receiver has service outages. A calibrated mileage meter for trucks also includes an integral GPS receive/computer for providing accurately calibrated odometer pulses to the mileage meter. Certain locations can be tagged and a printer and recorder are recorded for documentation of trip information such as when a vehicle enters or leaves a state, proof of a path followed by a vehicle, delivery of good at a certain site, operation within speed limits, certification of operation within a certain geographic area.

2. 5,787,366, Jul. 28, 1998, Communication interface between a computer and a vehicle device; Jurgen Adams, 701/1; 341/33; 361/763, 766; 701/29, 35; 710/62, 72 [IMAGE AVAILABLE]

US PAT NO: 5,787,366 [IMAGE AVAILABLE] L3: 2 of 9

ABSTRACT:

A communication interface between a computer and a vehicle device employs at least one large-area function element of the vehicle device which is

developed as counter-electrode for an electrode of a capacitive coupling adapter. The adapter connected to a computer, and can be applied from the outside to the vehicle device.

3. 5,629,856, May 13, 1997, Process and device for avoiding fraud on a taxi equipped with a **taximeter** or on a truck equipped with a chronotachograph; Claude Ricard, 705/417; 235/30R, 45; 340/434 [IMAGE AVAILABLE]

US PAT NO: 5,629,856 [IMAGE AVAILABLE]

L3: 3 of 9

ABSTRACT:

An electronic device, placed in an impregnable envelope and electrically connected between an electronic sensor and a **taximeter** or chronotachograph, tests at least one of the internal characteristics of the active dipole present between two output wires of the sensor or electrical characteristics of a signal present at its terminals. The test values are then compared with one or several reference values. An electronic anti-fraud action is triggered in the event of non-conformity between the test values and the reference values. One anti-fraud action includes preventing the functioning of the **taximeter** or chronotachograph.

4. 5,121,097, Jun. 9, 1992, System for preventing fraud in the use of a **taximeter**; Wilhelm A. van Zeggeren, 340/434, 438; 705/417 [IMAGE AVAILABLE]

US PAT NO: 5,121,097 [IMAGE AVAILABLE]

L3: 4 of 9

ABSTRACT:

A system for preventing fraud when using a **taximeter** that utilizes a stage for detecting a load condition in a taxi and for recording signals corresponding to the load and driving condition of the taxi and to whether the **taximeter** is switched on or off. The load detection stage is adapted to detect the load on at least the rear wheels (2b) of the taxi (1), and to detect a change from a zero point indicating the unloaded condition. Another stage detects the fuel consumption and emits a signal for adjusting, at least at intervals, the load zero point in correspondence with this consumption. The load detection stage (13) is adapted to emit an alarm signal when the detected load change exceeds a given threshold value while the **taximeter** (4) is switched on.

5. 4,882,570, Nov. 21, 1989, Vehicle and distress indicator therefor; Antonio Martinez, 340/574, 434, 472, 691.5 [IMAGE AVAILABLE]

US PAT NO: 4,882,570 [IMAGE AVAILABLE]

L3: 5 of 9

ABSTRACT:

A foot switch operated by a driver of a vehicle such as a taxicab actuates a circuit which disables the indicating lamps in the taxi's roof light and energizes distress signaling lamps in the roof light so that it flashes on and off. The flashing roof light calls attention to the cab and informs others that the taxi is in a distress situation.

6. 4,800,502, Jan. 24, 1989, Fare computer; Eugene A. Stewart, et al., 705/417; 235/30R; 701/1; D10/65 [IMAGE AVAILABLE]

US PAT NO: 4,800,502 [IMAGE AVAILABLE]

L3: 6 of 9

ABSTRACT:

A fare computer for a taxi, a freight carrier, or other use calculates the fare, display the fare as it accrues and displays visual representations of each charge contributing to the accrued fare. The fare computer is particularly suited for use in those localities in which the

taxi fare is based upon zones of travel, in accordance with a zone tariff schedule, rather than total distance travelled. In first mode, or ZONE TARIFF MODE, the fare computer calculates the fare from primary charge data, derived from the number of zones traversed in travelling from the origin of the trip to the destination, and secondary charge data, derived from such events as the handling of luggage or pets, extra stops, extra passengers or responding to a telephone request for passenger pick up. A display presents visual representations of the origin and destination zones and of each secondary charge contributing to the accrued fare, along with display of the total accrued fare. Alternatively, in a second mode, or HOURLY RATE MODE, the fare computer computes a fare based upon primary charges derived from the time the vehicle is under hire, such as for limousine or sight-seeing services, and particular secondary charges. The fare computer of the present invention is a microprocessor-based, solid state, integrated unit.

7. 4,550,304, Oct. 29, 1985, System for signalling conditions of, including an emergency within, a vehicle; Joseph P. Saitta, 340/472, 434 [IMAGE AVAILABLE]

US PAT NO: 4,550,304 [IMAGE AVAILABLE]

L3: 7 of 9

ABSTRACT:

A system for signalling conditions of, including an emergency within, a vehicle comprises a main housing mountable on the vehicle at a location visible from substantially all lateral points. A warning light is mounted within the housing and light which it generates is projected from the housing by an optical system as a plurality of substantially collimated beams each of which is oblique with respect to the major axis of the vehicle. A switch for actuating the warning light is located within the vehicle for unobtrusive operation. The system also includes additional signal lights for signalling different conditions of the vehicle and circuitry which prevents simultaneous operation of certain of the signal lights that have contradictory meanings.

8. 4,212,069, Jul. 8, 1980, Paratransit fare computation and dispatching method; Dwight M. Baumann, 705/418; 455/517; 701/117 [IMAGE AVAILABLE]

US PAT NO: 4,212,069 [IMAGE AVAILABLE]

L3: 8 of 9

ABSTRACT:

This disclosure is concerned with rendering more flexible and useful the fare computations and dispatching services in the taxi industry and the like, by a novel type of centralized computed control of and cooperating and interfacing with, vehicular meters, enabling overlapping multiple-location pick-up and delivery for a plurality of customers and with automatic route, time, traffic condition and related information and/or corrections remotely introduced into the meter calculations and display.

9. 4,001,777, Jan. 4, 1977, Taximeter protection system; Elmore Alexander, 340/434; 180/288; 200/85A; 340/667; 705/417, 418 [IMAGE AVAILABLE]

US PAT NO: 4,001,777 [IMAGE AVAILABLE]

L3: 9 of 9

ABSTRACT:

A monitoring system for a vehicle for hire, such as a taxicab, including a source of direct current, electrically controlled switching means in the form of a relay, and condition responsive switching means connected to the source and to the relay. The condition responsive switching means is operated in response to tampering or other unauthorized activity with the vehicle, the fare recording meter of the vehicle, and the monitoring system itself. This in turn operates the relay causing it to change from

a normal position to a fault-indicating position, for example to operate a suitable indicator such as an audible alarm or to operate the vehicle operating circuit including the storage battery and ignition coil thereby disabling the vehicle. Operation of the relay disconnects the condition responsive switching means from the source thereby minimizing current drain therefrom. A test circuit including an electrically operated indicator and a normally open switch is enabled by operation of the relay whereby a subsequent inspection can be made by closing the test circuit switch. The system includes passenger detecting means operatively connected to time delayed switching means and to the fare recording meter for tripping a counter or similar registering device which records segments of time a passenger is transported in the vehicle without operation of the fare recording meter. The system also includes means allowing selective operation for flat rate fares and recording the number of such fares.

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1.	5,917,434	[IMAGE AVAILABLE]
2.	5,787,366	[IMAGE AVAILABLE]
3.	5,629,856	[IMAGE AVAILABLE]
4.	5,121,097	[IMAGE AVAILABLE]
5.	4,882,570	[IMAGE AVAILABLE]
6.	4,800,502	[IMAGE AVAILABLE]
7.	4,550,304	[IMAGE AVAILABLE]
8.	4,212,069	[IMAGE AVAILABLE]
9.	4,001,777	[IMAGE AVAILABLE]



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United States Patent

Pomerantz

[11] Patent Number:

6,122,591

[45] Date of Patent:

Sep. 19, 2000

[54] TAXI TRIP METER SYSTEM WITH INDICATION OF FARE AND DISTANCE VIOLATIONS

[76] Inventor: David Pomerantz, 251 174th St., Apt. 504, Miami Beach, Fla. 33160

[21] Appl. No.: 09/136,144

[22] Filed: Aug. 18, 1998

[51] Int. Cl.⁷ G06F 17/00; G06F 165/00

[52] U.S. Cl. 701/201; 701/208; 705/417

[58] Field of Search 701/201, 204, 701/207, 208, 209, 213; 705/417

5,612,875 3/1997 Haendel et al. .

5,638,280 6/1997 Nishimura et al. .

5,689,423 11/1997 Sawada .

5,729,731 3/1998 Yajima et al. .

5,734,348 3/1998 Aoki et al. .

5,917,434 6/1999 Murphy 340/991

Primary Examiner—William A. Cuchlinski, Jr.

Assistant Examiner—Edward Pipala

Attorney, Agent, or Firm—Jack Lo

[57] ABSTRACT

A taxi trip meter system includes a taximeter and a location sensor connected to a computer loaded with street information and driver evaluation software. In a first embodiment, the estimated shortest route and distance between the starting and ending points of a trip are determined. If the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin, a distance violation is indicated. An actual average speed is calculated based on an actual trip duration and the actually traveled distance. If an estimated average speed limit for the actual route is exceeded by the actual average speed, a speed violation is indicated. In a second embodiment, an estimated taxi fare is calculated based on the estimated shortest route. If the estimated taxi fare is exceeded by an actual taxi fare calculated by the taximeter by a permissible margin, a fare violation is indicated.

17 Claims, 3 Drawing Sheets

[56] References Cited

U.S. PATENT DOCUMENTS

4,543,572 9/1985 Tanaka et al. .

4,570,228 2/1986 Ahlberg .

4,571,684 2/1986 Takanaabe et al. .

4,675,676 6/1987 Takanaabe et al. .

4,796,189 1/1989 Nakayama et al. .

4,800,502 1/1989 Steward et al. .

4,984,168 1/1991 Neukrichner et al. .

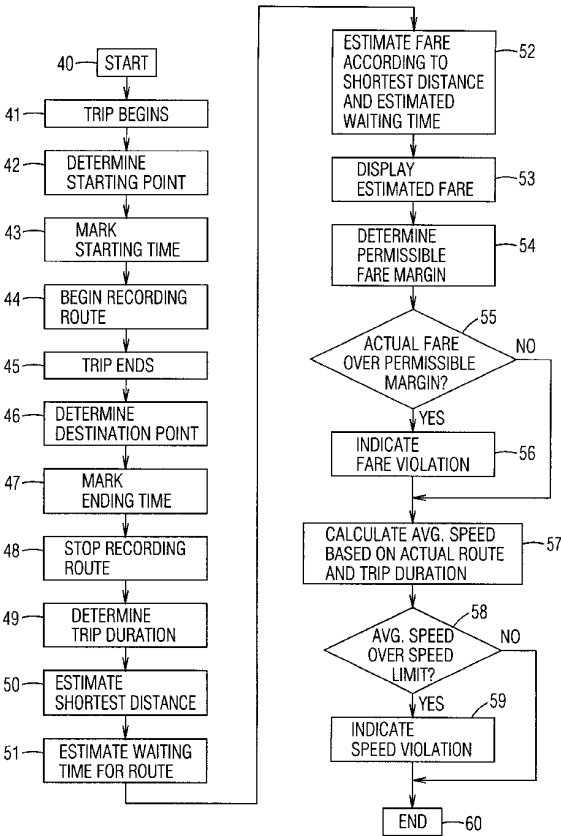
5,107,433 4/1992 Helldorfer et al. .

5,359,528 10/1994 Haendel et al. .

5,459,667 10/1995 Odagaki et al. .

5,475,598 12/1995 Fushimi et al. .

5,608,635 3/1997 Tamai .



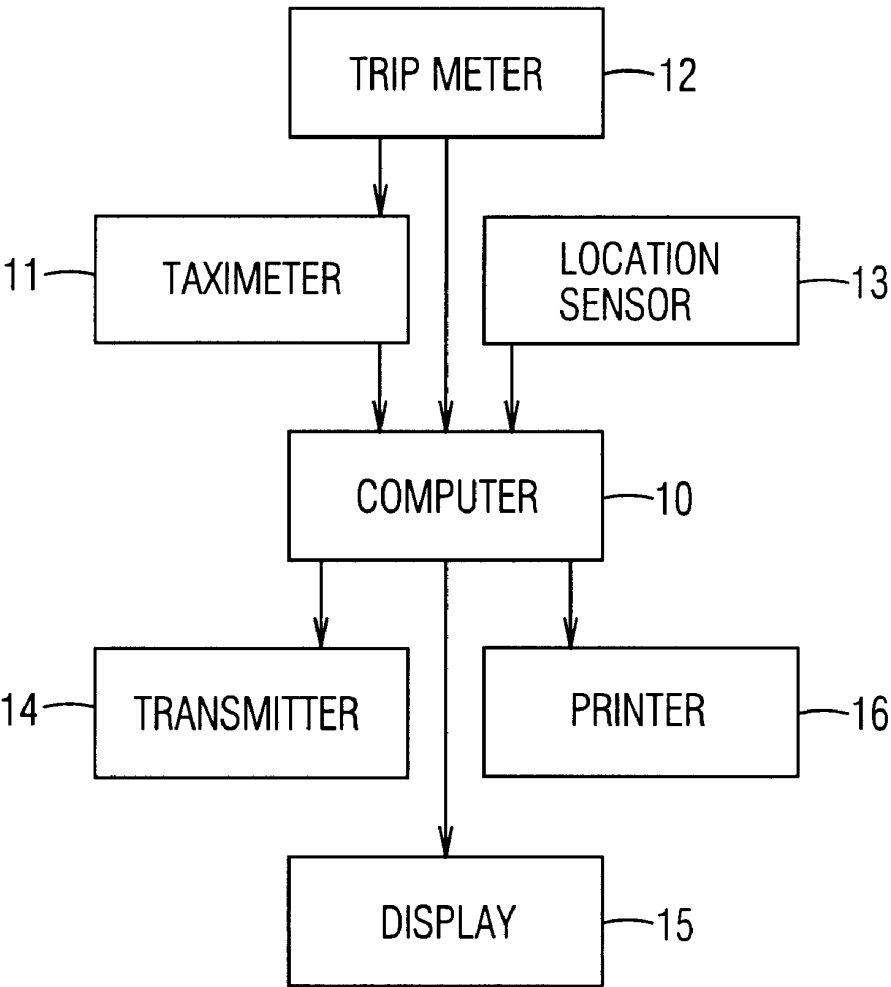


Fig. 1

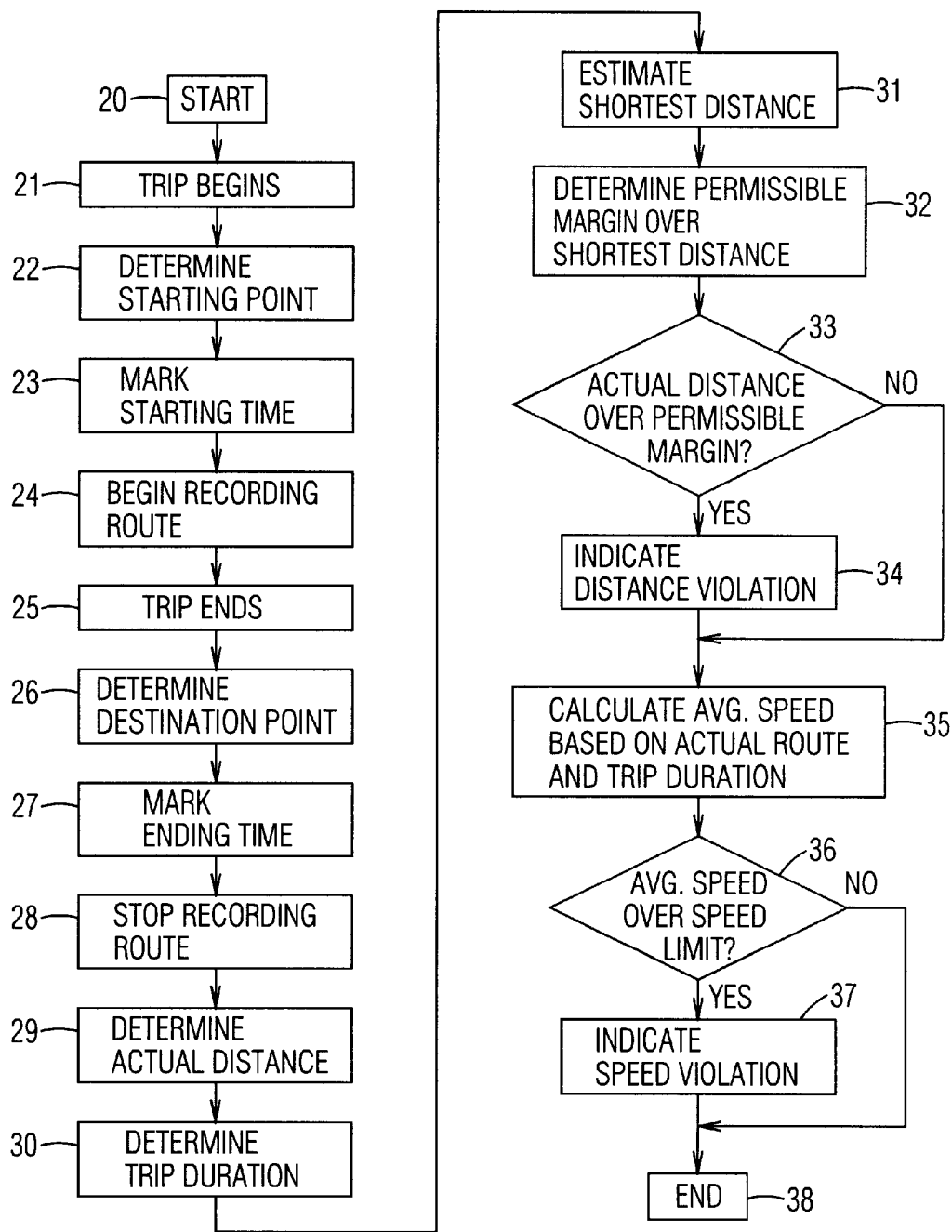


Fig. 2

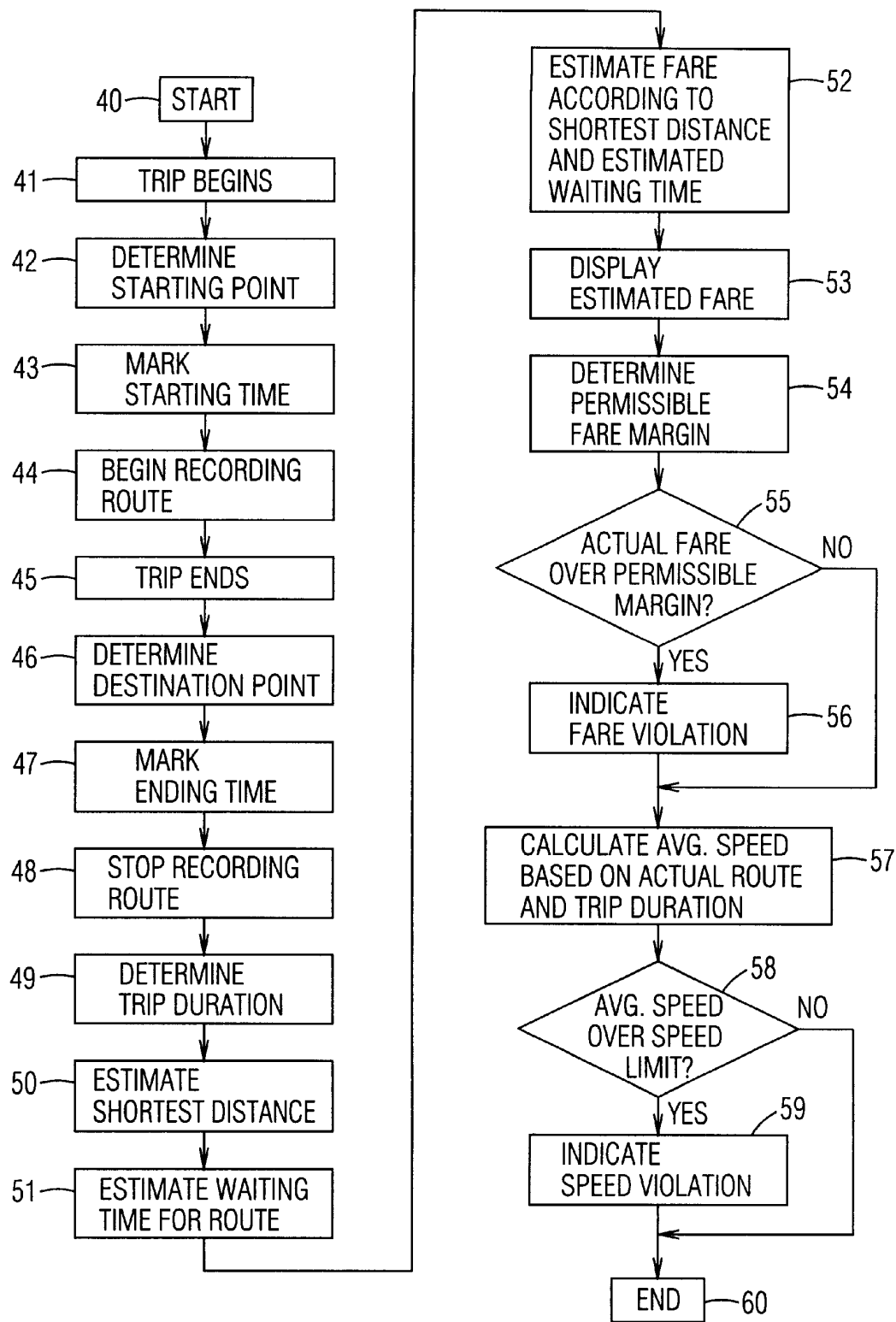


Fig. 3

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**TAXI TRIP METER SYSTEM WITH
INDICATION OF FARE AND DISTANCE
VIOLATIONS**

BACKGROUND OF THE INVENTION

1. Field of the Invention
This invention relates generally to taximeters.
2. Prior Art

A taxi fare is typically determined by a taximeter based on trip distance and waiting time in traffic. Taxi drivers are free to take whichever route they choose. Riders who are unfamiliar with the area being traversed are sometimes cheated by unscrupulous taxi drivers who take a roundabout route to inflate the fare. Other taxi drivers try to increase income by driving very fast to minimize travel time and thus increasing customer turnover, but at the expense of safety.

OBJECTS OF THE INVENTION

- Accordingly, objects of the present taxi trip meter system are:
- to provide an estimated shortest trip distance for an estimated best route;
 - to indicate a violation if the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin;
 - to calculate an actual average speed for the trip;
 - to indicate a violation if an estimated average speed limit for an actual travel route is exceeded by the actual average speed;
 - to provide an estimated taxi fare based on the estimated shortest trip distance and an estimated waiting time in traffic; and
 - to indicate a violation if the estimated taxi fare is exceeded by an actual taxi fare by a permissible margin.
- Further objects of the present invention will become apparent from a consideration of the drawings and ensuing description.

BRIEF SUMMARY OF THE INVENTION

A taxi trip meter system includes a taximeter and a location sensor connected to a computer loaded with street information and driver evaluation software. In a first embodiment, the estimated shortest route and distance between the starting and ending points of a trip are determined. If the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin, a distance violation is indicated. An actual average speed is calculated based on an actual trip duration and the actually traveled distance. If an estimated average speed limit for the actual route is exceeded by the actual average speed, a speed violation is indicated. In a second embodiment, an estimated taxi fare is calculated based on the estimated shortest route. If the estimated taxi fare is exceeded by an actual taxi fare calculated by the taximeter by a permissible margin, a fare violation is indicated.

**BRIEF DESCRIPTION OF THE SEVERAL
VIEWS OF THE DRAWING**

- FIG. 1 is a block diagram of the present taxi trip meter system.
- FIG. 2 is a flowchart for a first embodiment of a method implemented by the taxi trip meter system.

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FIG. 3 is a flowchart for a second embodiment of the method implemented by the taxi trip meter system.

**DETAILED DESCRIPTION OF THE
INVENTION**

FIG. 1: A first embodiment of the present taxi trip meter system is shown in FIG. 1. It is mounted in a vehicle, e.g., a taxi, and includes a computer 10 receiving taxi fare information from a taximeter 11, trip distance information from a trip meter 12, and geographical location information from a location sensor 13. Taximeter 11 also receives input from trip meter 12. Computer 10 may be any type of programmable processor, and is preferably loaded with detailed street and highway information, e.g., from a CD-ROM street navigation program. Location sensor 13 may be any type of device that indicates the precise geographical location of the vehicle, such as a GPS (global positioning satellite) receiver. A radio transmitter 14, a display 15, and a printer 16 connected to computer 10 enable the output of driver evaluation information in different forms.

FIG. 2: A first embodiment of a taxi trip meter method implement by the system of FIG. 1 is shown in FIG. 2. It is preferably implemented as software or firmware in the computer. The process is started at block 20. When a trip is begun at block 21, e.g., when the taximeter is activated or a specific initiating input is provided to the computer, the geographical starting point is determined at block 22, and the starting time is marked at block 23. A recording of the actual route being traveled is begun at block 24. When the vehicle has reached its destination and the trip is ended at block 25, e.g. when the taximeter is deactivated or a specific terminating input is provided to the computer, the geographical destination point is determined at block 26, and the ending time is marked at block 27. The starting and ending points are determined with the location sensor and the street information loaded in the computer. The recording of the actual route is stopped at block 28. The actual trip distance is determined at block 29 with input from the trip meter or with street information. The actual trip duration is determined at block 30 by calculating the difference between the starting and ending times. Alternatively, a timer may be employed.

Based on available street information, the optimal route and shortest trip distance between the starting and ending points are estimated at block 31 with any suitable method well known in the art. The shortest trip distance is preferably determined for an actual street route, but if the computer is not provided with street information, the straight-line distance between the starting and end points may be considered as the estimated shortest trip distance. A permissible margin over the estimated shortest trip distance is determined at block 32. The margin may be a fixed percentage over the estimated shortest distance, or it may be a variable percentage that is greater for shorter distances, or smaller for longer distances.

The actual trip distance is compared to the estimated shortest trip distance at block 33. If the estimated shortest trip distance is exceeded by the actual trip distance by the permissible margin, a distance violation is indicated at block 34. The indication for the violation may be provided in various forms, e.g., as a transmission to the taxi company headquarters through the transmitter, as information on the display, or as a printout from the printer. The taxi customer and the taxi company are thus notified of an excessively long route taken by the taxi driver. A powerful deterrent is thus provided against cheating by the taxi driver.

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A further feature is provided for monitoring driving speed. The average actual speed for the trip is calculated at block 35 based on the actual trip distance and trip duration. If an estimated average speed limit for the actual route, which may be provided as part of the street information, is exceeded by the average actual speed at block 36, a speed violation is indicated at block 37. The process is ended at block 38. A powerful deterrent is thus provided against speeding by the taxi driver.

FIG. 3: A second embodiment of the taxi trip meter method implement by the system of FIG. 1 is shown in FIG. 3. It is preferably implemented as software or firmware in the computer. The process is started at block 40. When a trip is begun at block 41, e.g., when the taximeter is activated or a specific initiating input is provided to the computer, the geographic starting point is determined at block 42, and the starting time is marked at block 43. A recording of the actual route being traveled is begun at block 44. When the vehicle has reached the destination point and the trip is ended at block 45, e.g. when the taximeter is deactivated or a specific terminating input is provided to the computer, the geographic destination point is determined at block 46, and the ending time is marked at block 47. The starting and ending points are determined with the location sensor and the street information loaded in the computer. The recording of the actual route is stopped at block 48. The trip duration is determined at block 49 by calculating the difference between the starting and ending times. Alternatively, a timer may be employed.

Based on available street information, the optimal route and shortest trip distance between the starting and ending points are estimated at block 50 with any suitable method well known in the art. The shortest trip distance is preferably determined for an actual street route, but if the computer is not provided with street information, the straight-line distance between the starting and end points may be considered as the estimated shortest trip distance. An estimated waiting time in traffic along the optimal route is determined at block 51 based on location traffic information and the time of day to account for traffic lights, traffic congestion, etc. An estimated fare is determined at block 52 based on the estimated shortest trip distance and estimated waiting time, and displayed at block 53. A permissible margin over the estimated fare is determined at block 54. The margin may be a fixed percentage over the estimated fare, or it may be a variable percentage that is greater for lower fares, or smaller for higher fares.

An actual fare computed by the taximeter is compared to the estimated fare at block 55. If the estimated fare is exceeded by the actual fare by the permissible margin, a fare violation is indicated at block 56. The indication for the violation may be provided in various forms, e.g., as a transmission to the taxi company headquarters through the transmitter, as information on the display, or as a printout from the printer. The taxi customer and the taxi company are thus notified of an excessive fare charged by the taxi driver. A powerful deterrent is thus provided against cheating by the taxi driver.

A further feature is provided for monitoring driving speed. The actual average speed for trip is calculated at block 57 based on the actual trip distance and trip duration. If an estimated average speed limit for the actual route, which may be provided as part of the street information, is exceeded by the actual average speed at block 58, a speed violation is indicated at block 59. The process is ended at block 60. A powerful deterrent is thus provided against speeding by the taxi driver.

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SUMMARY AND SCOPE

Accordingly, a taxi trip meter system is provided. It provides an estimated shortest trip distance. It indicates a distance violation if the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin. It calculates an actual average speed for the trip. It indicates a speed violation if an estimated average speed limit for the actual route is exceeded by the actual average speed. It provides an estimated fare based on the estimated shortest trip distance and an estimated waiting time. It indicates a fare violation if the estimated fare is exceeded by an actual fare by a permissible margin.

Although the above description is specific, it should not be considered as a limitation on the scope of the invention, but only as an example of the preferred embodiment. Many substitutes and variations are possible within the teachings of the invention. For example, the starting and ending points may be inputted before the trip to provide advance notice of the fare. The estimated fare based on the optimal route may be used as the actual fare to completely eliminate the possibility of cheating. The trip meter may be eliminated, and the trip distance may be determined with GPS and map data. When a violation is indicated, the recorded route may be reviewed by the taxi company or government authority for excusable causes, such as accidents, parades, road closures, etc. A printed ticket may be provided for the customer for subsequent resolution with the taxi company. The fares calculated by the taximeter and the taxi trip meter system may be considered as including distance information. The trip meter may be indirectly connected to the computer through the taximeter. Therefore, the scope of the invention should be determined by the appended claims and their legal equivalents, not by the examples given.

I claim:

1. A taxi trip meter system for a taxi, comprising:

- a computer;
- a trip meter connected to said computer, said trip meter for measuring an actual trip distance traveled by said taxi between a starting point and a destination point;
- a location sensor providing geographical location information about said taxi to said computer; and
- instructions loaded in said computer instructing said computer to calculate an estimated shortest trip distance between said starting point and said destination point, to compare said estimated shortest trip distance with said actual trip distance, and to indicate a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

2. The taxi trip meter system of claim 1, wherein said location sensor comprises a GPS receiver.

3. The taxi trip meter system of claim 1, further including a transmitter connected to said computer for transmitting violation information.

4. The taxi trip meter system of claim 1, further including a display connected to said computer for displaying violation information.

5. The taxi trip meter system of claim 1, further including a printer connected to said computer for printing violation information.

6. The taxi trip meter system of claim 1, further including a taximeter connected to said computer, and instructions instructing said computer to calculate an estimated taxi fare for said estimated shortest trip distance, and to compare said estimated taxi fare to an actual taxi fare calculated by said taximeter for said actual trip distance, and to indicate a fare

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violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.

7. A taxi trip distance violation detection method, comprising:

- determining a starting point for a trip;
- determining a destination point for said trip;
- determining an estimated shortest trip distance between said starting point and said destination point;
- determining an actual trip distance traveled by a vehicle after said trip is completed;
- comparing said estimated shortest trip distance with said actual trip distance; and
- indicating a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

8. The taxi trip distance violation detection method of claim 7, wherein said estimated shortest trip distance comprises a driving distance through known roads.

9. The taxi trip distance violation detection method of claim 7, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.

10. The taxi trip distance violation detection method of claim 7, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating a speed violation when said estimated average speed limit is exceeded by said actual average speed.

11. The taxi trip distance violation detection method of claim 7, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said distance violation.

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12. A taxi fare estimating method, comprising:
determining a starting point for a trip;
determining a destination point for said trip;
determining an estimated shortest trip distance between said starting point and said destination point;
determining an estimated waiting time encountered in traffic during said trip; and
determining an estimated taxi fare based on said estimated shortest trip distance and said estimated waiting time.

13. The taxi fare estimating method of claim 12, wherein said estimated shortest trip distance comprises a driving distance through known roads.

14. The taxi fare estimating method of claim 12, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.

15. The taxi fare estimating method of claim 12, further including determining an actual taxi fare with a taximeter for an actual trip distance traveled during said trip, comparing said estimated taxi fare to said actual taxi fare, and indicating a fare violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.

16. The taxi fare estimating method of claim 12, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating a speed violation when said estimated average speed limit is exceeded by said actual average speed.

17. The taxi fare estimating method of claim 12, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said fare violation.

* * * * *

SERIAL NUMBER 09/136,144	FILING DATE 08/18/98	CLASS 701	GROUP ART UNIT 3614 3661	ATTORNEY DOCKET NO.
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APPLICANT

DAVID POMERANTZ, MIAMI BEACH, FL.

****CONTINUING DOMESTIC DATA******* *none*

VERIFIED

NONE *ef*

****371 (NAT'L STAGE) DATA******* *none*

VERIFIED

NONE *ef*

****FOREIGN APPLICATIONS******* *none*

VERIFIED

NONE *ef*

FOREIGN FILING LICENSE GRANTED 09/02/98

***** SMALL ENTITY *****

Foreign Priority claimed 35 USC 119 (a-d) conditions met ☐ yes ☒ no Verified and Acknowledged <i>ef</i>	☐ yes ☒ no ☐ Met after Allowance Examiner's Initials _____	STATE OR COUNTRY FL	SHEETS DRAWING 3	TOTAL CLAIMS 17	INDEPENDENT CLAIMS 3
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ADDRESS

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TITLE

a DRIVER EVALUATION SYSTEM Taxi Trip Meter System with
Indication of Fare and Distance Violations

FILING FEE RECEIVED \$395	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT NO. _____ for the following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit
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PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

08/24/1998 PSTANBAC 00000019 09136144

01 FC:201

395.00 OP

PTO-1556
(5/87)

App. No.:
Filing Date:
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner:
Art Unit:

New Utility Patent Application Transmittal

Released Application Elements:

New Utility Patent Application Transmittal
Fee Transmittal
12 Sheets of Description, Claims, and Abstract
3 Sheet(s) of Drawings
Declaration For Patent Application
Small Entity Declaration – Independent Inventor
Information Disclosure Statement
Set of references
Check for \$395
Return Receipt Postcard

JC588 U.S. PRO
09/136144
08/18/98

Respectfully,

Jack Lo
Reg. No. 40,070

Express Mail Label No: EE235702557US

Filing Date:

8/18/98

App. No.:
Filing Date:
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner:
Art Unit:

Fee Transmittal

Check(s) are enclosed for the following small entity fee(s):

☒	Utility filing fee (\$395)	\$395
☐	Design filing fee (\$165)	
☐	independent claim(s) over 3 (\$41)	
☐	total claim(s) over 20 (\$11)	
☐	Petition fee for extension of time (\$55)	
☐	Assignment recordation fee (\$40)	
Total		\$395

Respectfully,

Signature of Jack Lo

Jack Lo

Reg. No. 40,070

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TITLE OF THE INVENTION

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Driver Evaluation System

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APPLICANT

4

David Pomerantz

5

BACKGROUND OF THE INVENTION

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1. Field Of The Invention:

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This invention relates generally to taximeters.

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2. Prior Art:

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A taxi fare is typically determined by a taximeter based on trip distance and waiting time in traffic. Taxi drivers are free to take whichever route they choose. Riders who are unfamiliar with the area being traversed are sometimes cheated by unscrupulous taxi drivers who take a roundabout route to inflate the fare. Other taxi drivers try to increase income by driving very fast to minimize travel time and thus increasing customer turnover, but at the expense of safety.

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OBJECTS OF THE INVENTION

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Accordingly, objects of the present ~~driver evaluation system~~ *taxi trip meter* are:

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to provide an estimated shortest trip distance for an estimated best route;

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to indicate a violation if the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin;

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to calculate an actual average speed for the trip;

1 to indicate a violation if an estimated average speed limit for an actual travel route is exceeded by
2 the actual average speed;
3 to provide an estimated taxi fare based on the estimated shortest trip distance and an estimated
4 waiting time in traffic; and
5 to indicate a violation if the estimated taxi fare is exceeded by an actual taxi fare by a permissible
6 margin.

7 Further objects of the present invention will become apparent from a consideration of the
8 drawings and ensuing description.

9 BRIEF SUMMARY OF THE INVENTION

a 10 *taxi trip meter*
A driver evaluation system includes a taximeter and a location sensor connected to a computer
11 loaded with street information and driver evaluation software. In a first embodiment, the
12 estimated shortest route and distance between the starting and ending points of a trip are
13 determined. If the estimated shortest trip distance is exceeded by an actual trip distance by a
14 permissible margin, a distance violation is indicated. An actual average speed is calculated based
15 on an actual trip duration and the actually traveled distance. If an estimated average speed limit
16 for the actual route is exceeded by the actual average speed, a speed violation is indicated. In a
17 second embodiment, an estimated taxi fare is calculated based on the estimated shortest route. If
18 the estimated taxi fare is exceeded by an actual taxi fare calculated by the taximeter by a
19 permissible margin, a fare violation is indicated.

20 BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

a 21 *taxi trip meter*
Fig. 1 is a block diagram of the present driver evaluation system.

1 Fig. 2 is a flowchart for a first embodiment of a method implemented by the ^{taxi trip meter} driver evaluation
2 system.

3 Fig. 3 is a flowchart for a second embodiment of the method implemented by the ^{taxi trip meter} driver
4 evaluation system.

5 DETAILED DESCRIPTION OF THE INVENTION

6 Fig. 1:

7 A first embodiment of the present ^{taxi trip meter} driver evaluation system is shown in Fig. 1. It is mounted in a
8 vehicle, e.g., a taxi, and includes a computer 10 receiving taxi fare information from a taximeter
9 11, trip distance information from a trip meter 12, and geographical location information from a
10 location sensor 13. Taximeter 11 also receives input from trip meter 12. Computer 10 may be any
11 type of programmable processor, and is preferably loaded with detailed street and highway
12 information, e.g., from a CD-ROM street navigation program. Location sensor 13 may be any
13 type of device that indicates the precise geographical location of the vehicle, such as a GPS
14 (global positioning satellite) receiver. A radio transmitter 14, a display 15, and a printer 16
15 connected to computer 10 enable the output of driver evaluation information in different forms.

16 Fig. 2:

17 A first embodiment of a ^{taxi trip meter} driver evaluation method implement by the system of Fig. 1 is shown in
18 Fig. 2. It is preferably implemented as software or firmware in the computer. The process is
19 started at block 20. When a trip is begun at block 21, e.g., when the taximeter is activated or a
20 specific initiating input is provided to the computer, the geographical starting point is determined
21 at block 22, and the starting time is marked at block 23. A recording of the actual route being

1 traveled is begun at block 24. When the vehicle has reached its destination and the trip is ended
2 at block 25, e.g. when the taximeter is deactivated or a specific terminating input is provided to
3 the computer, the geographical destination point is determined at block 26, and the ending time is
4 marked at block 27. The starting and ending points are determined with the location sensor and
5 the street information loaded in the computer. The recording of the actual route is stopped at
6 block 28. The actual trip distance is determined at block 29 with input from the trip meter or with
7 street information. The actual trip duration is determined at block 30 by calculating the
8 difference between the starting and ending times. Alternatively, a timer may be employed.

9 Based on available street information, the optimal route and shortest trip distance between the
10 starting and ending points are estimated at block 31 with any suitable method well known in the
11 art. The shortest trip distance is preferably determined for an actual street route, but if the
12 computer is not provided with street information, the straight-line distance between the starting
13 and end points may be considered as the estimated shortest trip distance. A permissible margin
14 over the estimated shortest trip distance is determined at block 32. The margin may be a fixed
15 percentage over the estimated shortest distance, or it may be a variable percentage that is greater
16 for shorter distances, or smaller for longer distances.

17 The actual trip distance is compared to the estimated shortest trip distance at block 33. If the
18 estimated shortest trip distance is exceeded by the actual trip distance by the permissible margin,
19 a distance violation is indicated at block 34. The indication for the violation may be provided in
20 various forms, e.g., as a transmission to the taxi company headquarters through the transmitter,
21 as information on the display, or as a printout from the printer. The taxi customer and the taxi
22 company are thus notified of an excessively long route taken by the taxi driver. A powerful
23 deterrent is thus provided against cheating by the taxi driver.

24 A further feature is provided for monitoring driving speed. The average actual speed for the trip
25 is calculated at block 35 based on the actual trip distance and trip duration. If an estimated
26 average speed limit for the actual route, which may be provided as part of the street information,

1 is exceeded by the average actual speed at block 36, a speed violation is indicated at block 37.
2 The process is ended at block 38. A powerful deterrent is thus provided against speeding by the
3 taxi driver.

4 Fig. 3:

a 5 A second embodiment of the *taxi trip meter* driver evaluation method implement by the system of Fig. 1 is
6 shown in Fig. 3. It is preferably implemented as software or firmware in the computer. The
7 process is started at block 40. When a trip is begun at block 41, e.g., when the taximeter is
8 activated or a specific initiating input is provided to the computer, the geographic starting point
9 is determined at block 42, and the starting time is marked at block 43. A recording of the actual
10 route being traveled is begun at block 44. When the vehicle has reached the destination point and
11 the trip is ended at block 45, e.g. when the taximeter is deactivated or a specific terminating input
12 is provided to the computer, the geographic destination point is determined at block 46, and the
13 ending time is marked at block 47. The starting and ending points are determined with the
14 location sensor and the street information loaded in the computer. The recording of the actual
15 route is stopped at block 48. The trip duration is determined at block 49 by calculating the
16 difference between the starting and ending times. Alternatively, a timer may be employed.

17 Based on available street information, the optimal route and shortest trip distance between the
18 starting and ending points are estimated at block 50 with any suitable method well known in the
19 art. The shortest trip distance is preferably determined for an actual street route, but if the
20 computer is not provided with street information, the straight-line distance between the starting
21 and end points may be considered as the estimated shortest trip distance. An estimated waiting
22 time in traffic along the optimal route is determined at block 51 based on location traffic
23 information and the time of day to account for traffic lights, traffic congestion, etc. An estimated
24 fare is determined at block 52 based on the estimated shortest trip distance and estimated waiting
25 time, and displayed at block 53. A permissible margin over the estimated fare is determined at

1 block 54. The margin may be a fixed percentage over the estimated fare, or it may be a variable
2 percentage that is greater for lower fares, or smaller for higher fares.

3 An actual fare computed by the taximeter is compared to the estimated fare at block 55. If the
4 estimated fare is exceeded by the actual fare by the permissible margin, a fare violation is
5 indicated at block 56. The indication for the violation may be provided in various forms, e.g., as
6 a transmission to the taxi company headquarters through the transmitter, as information on the
7 display, or as a printout from the printer. The taxi customer and the taxi company are thus
8 notified of an excessive fare charged by the taxi driver. A powerful deterrent is thus provided
9 against cheating by the taxi driver.

10 A further feature is provided for monitoring driving speed. The actual average speed for trip is
11 calculated at block 57 based on the actual trip distance and trip duration. If an estimated average
12 speed limit for the actual route, which may be provided as part of the street information, is
13 exceeded by the actual average speed at block 58, a speed violation is indicated at block 59. The
14 process is ended at block 60. A powerful deterrent is thus provided against speeding by the taxi
15 driver.

16 SUMMARY AND SCOPE

a 17 Accordingly, a *taxi trip meter* driver evaluation system is provided. It provides an estimated shortest trip
18 distance. It indicates a distance violation if the estimated shortest trip distance is exceeded by an
19 actual trip distance by a permissible margin. It calculates an actual average speed for the trip. It
20 indicates a speed violation if an estimated average speed limit for the actual route is exceeded by
21 the actual average speed. It provides an estimated fare based on the estimated shortest trip
22 distance and an estimated waiting time. It indicates a fare violation if the estimated fare is
23 exceeded by an actual fare by a permissible margin.

1 Although the above description is specific, it should not be considered as a limitation on the
2 scope of the invention, but only as an example of the preferred embodiment. Many substitutes
3 and variations are possible within the teachings of the invention. For example, the starting and
4 ending points may be inputted before the trip to provide advance notice of the fare. The
5 estimated fare based on the optimal route may be used as the actual fare to completely eliminate
6 the possibility of cheating. The trip meter may be eliminated, and the trip distance may be
7 determined with GPS and map data. When a violation is indicated, the recorded route may be
8 reviewed by the taxi company or government authority for excusable causes, such as accidents,
9 parades, road closures, etc. A printed ticket may be provided for the customer for subsequent
10 resolution with the taxi company. The fares calculated by the taximeter and the ^{taxi trip meter} driver evaluation
11 system may be considered as including distance information. The trip meter may be indirectly
12 connected to the computer through the taximeter. Therefore, the scope of the invention should be
13 determined by the appended claims and their legal equivalents, not by the examples given.

CLAIMS

I claim:

1. A driver evaluation system for a taxi, comprising:
a computer;
a trip meter connected to said computer, said trip meter for measuring an actual trip distance traveled by said taxi between a starting point and a destination point;
a location sensor providing geographical location information about said taxi to said computer;
and
instructions loaded in said computer instructing said computer to calculate an estimated shortest trip distance between said starting point and said destination point, to compare said estimated shortest trip distance with said actual trip distance, and to indicate a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.
2. The driver evaluation system of claim 1, wherein said location sensor comprises a GPS receiver.
3. The driver evaluation system of claim 1, further including a transmitter connected to said computer for transmitting violation information.
4. The driver evaluation system of claim 1, further including a display connected to said computer for displaying violation information.
5. The driver evaluation system of claim 1, further including a printer connected to said computer for printing violation information.

6. The driver evaluation system of claim 1, further including a taximeter connected to said computer, and instructions instructing said computer to calculate an estimated taxi fare for said estimated shortest trip distance, and to compare said estimated taxi fare to an actual taxi fare calculated by said taximeter for said actual trip distance, and to indicate a fare violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.

7. A driver evaluation method, comprising:

determining a starting point for a trip;

determining a destination point for said trip;

determining an estimated shortest trip distance between said starting point and said destination point;

determining an actual trip distance traveled by a vehicle after said trip is completed;

comparing said estimated shortest trip distance with said actual trip distance; and

indicating a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

8. The driver evaluation method of claim 7, wherein said estimated shortest trip distance comprises a driving distance through known roads.

9. The driver evaluation method of claim 7, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.

10. The driver evaluation method of claim 7, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating a speed violation when said estimated average speed limit is exceeded by said actual average speed.

11. The driver evaluation method of claim 7, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said distance violation.

12. A driver evaluation method, comprising:
determining a starting point for a trip;
determining a destination point for said trip;
determining an estimated shortest trip distance between said starting point and said destination point;
determining an estimated waiting time encountered in traffic during said trip; and
determining an estimated taxi fare based on said estimated shortest trip distance and said estimated waiting time.

13. The driver evaluation method of claim 12, wherein said estimated shortest trip distance comprises a driving distance through known roads.

14. The driver evaluation method of claim 12, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.

15. The driver evaluation method of claim 12, further including determining an actual taxi fare with a taximeter for an actual trip distance traveled during said trip, comparing said estimated taxi fare to said actual taxi fare, and indicating a fare violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.

16. The driver evaluation method of claim 12, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating

a speed violation when said estimated average speed limit is exceeded by said actual average speed.

17. The driver evaluation method of claim 12, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said fare violation.

09/136 144

ABSTRACT OF THE DISCLOSURE

1
2 A ~~driver evaluation~~ *taxi trip meter* system includes a taximeter and a location sensor connected to a computer
3 loaded with street information and driver evaluation software. In a first embodiment, the
4 estimated shortest route and distance between the starting and ending points of a trip are
5 determined. If the estimated shortest trip distance is exceeded by an actual trip distance by a
6 permissible margin, a distance violation is indicated. An actual average speed is calculated based
7 on an actual trip duration and the actually traveled distance. If an estimated average speed limit
8 for the actual route is exceeded by the actual average speed, a speed violation is indicated. In a
9 second embodiment, an estimated taxi fare is calculated based on the estimated shortest route. If
10 the estimated taxi fare is exceeded by an actual taxi fare calculated by the taximeter by a
11 permissible margin, a fare violation is indicated.

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3/1
3 Fig 2

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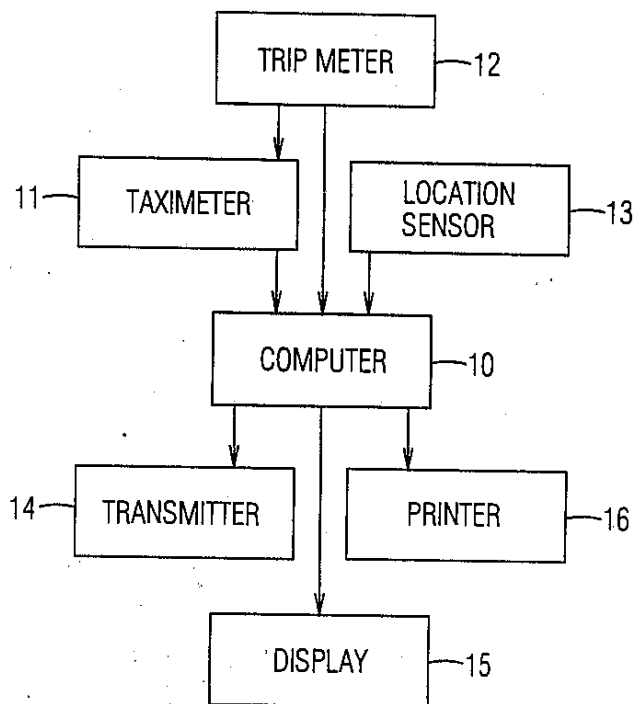


Fig. 1

Fig 3

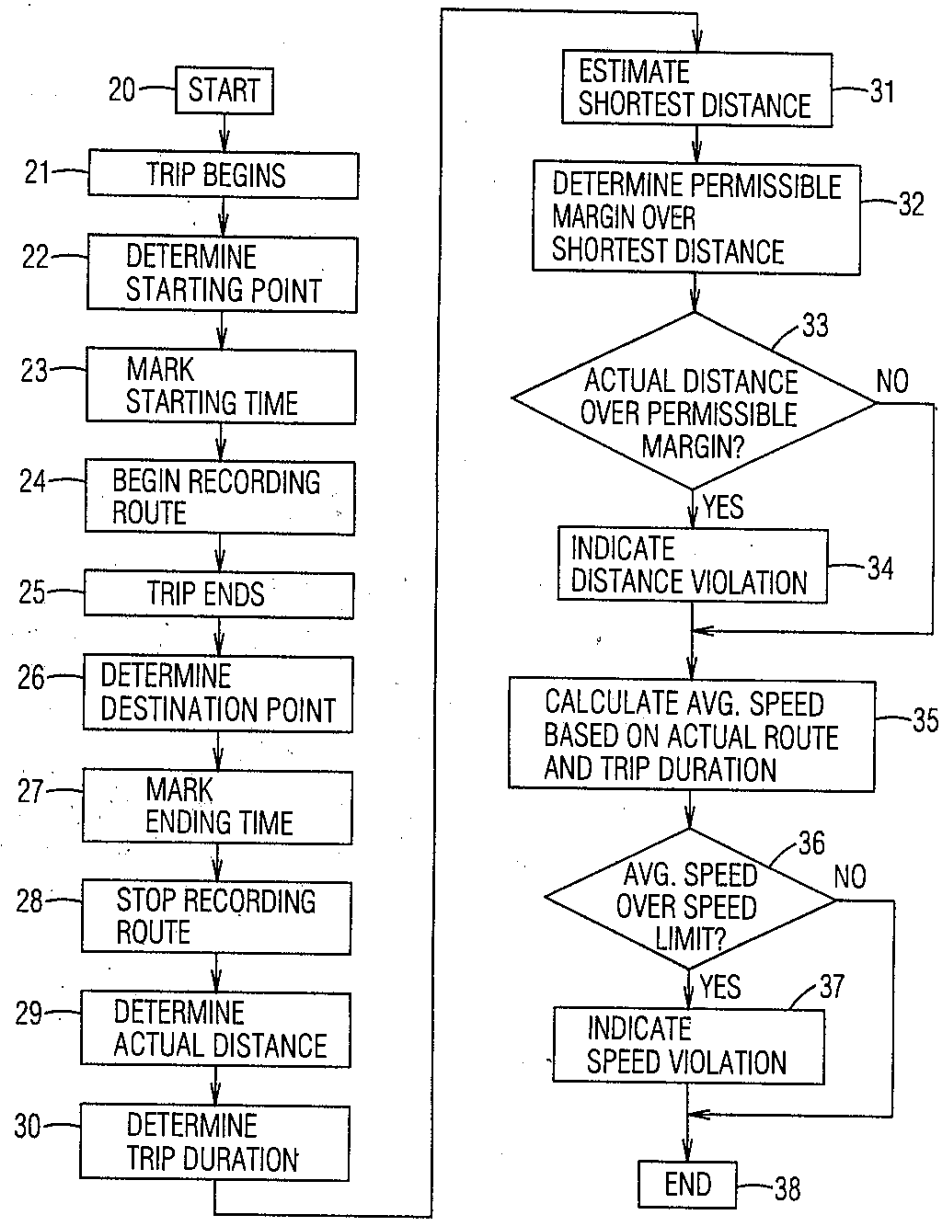


Fig. 2

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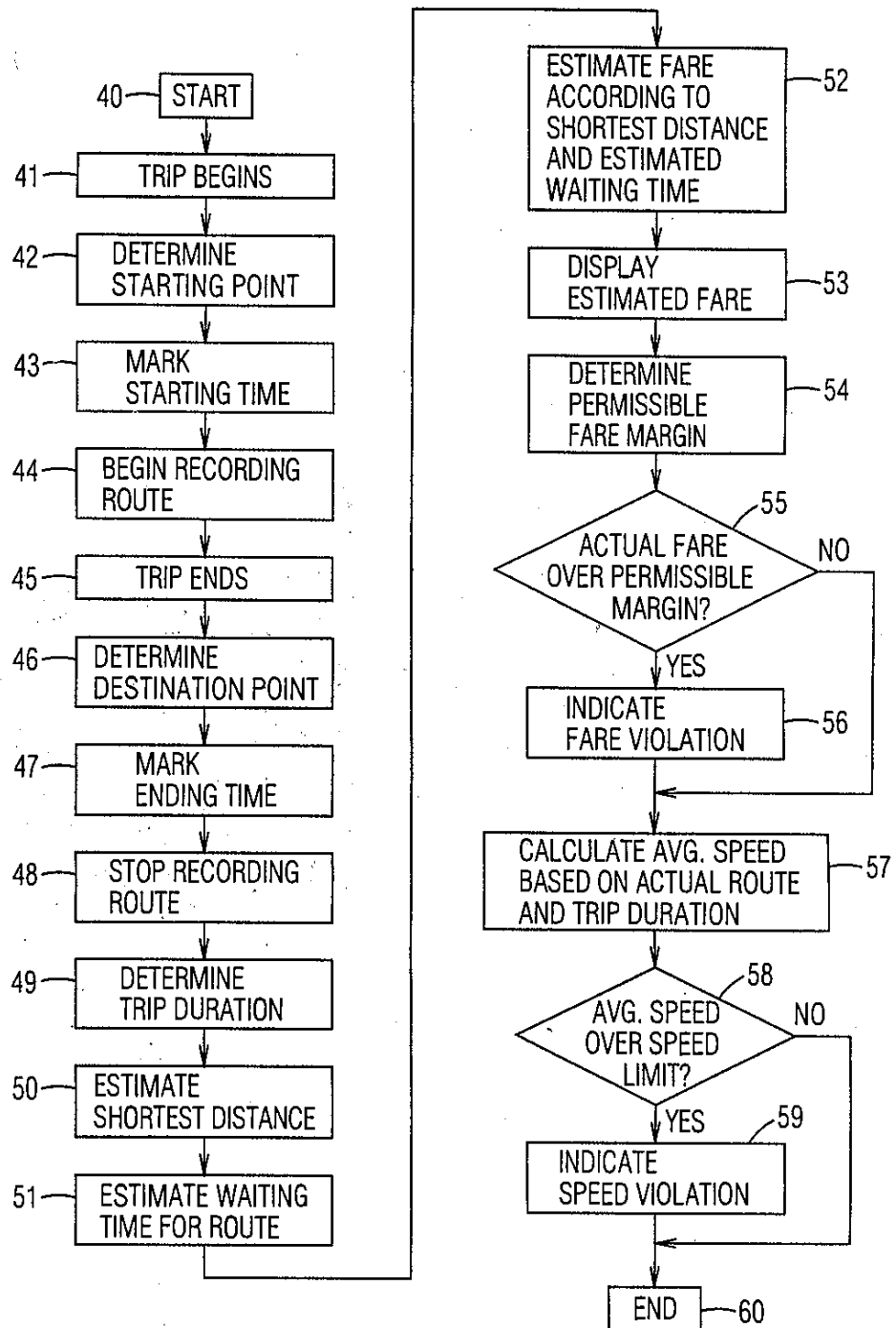


Fig. 3

APPROVED	O.G. FIG. 3	
BY	CLASS	SUBCLASS
DEFTSMAN	701	201

3/1
3/1/82

1/3

6122591

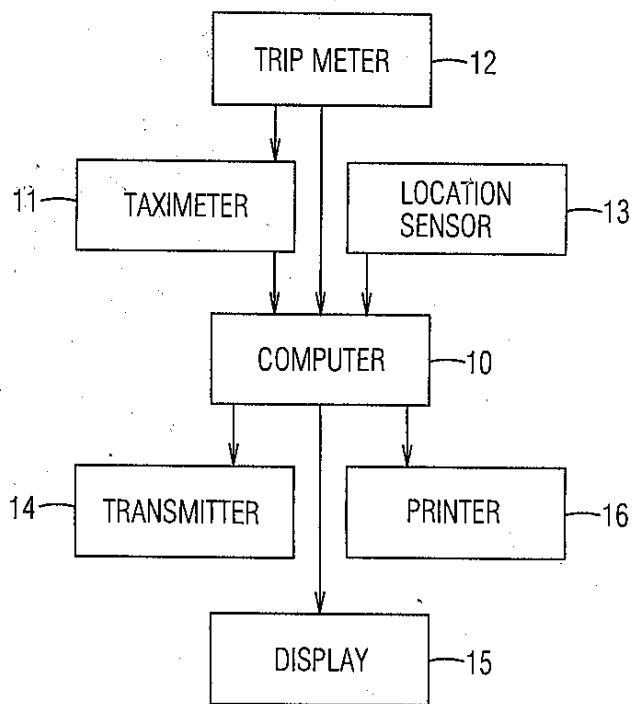


Fig. 1

fig 3

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DATE		

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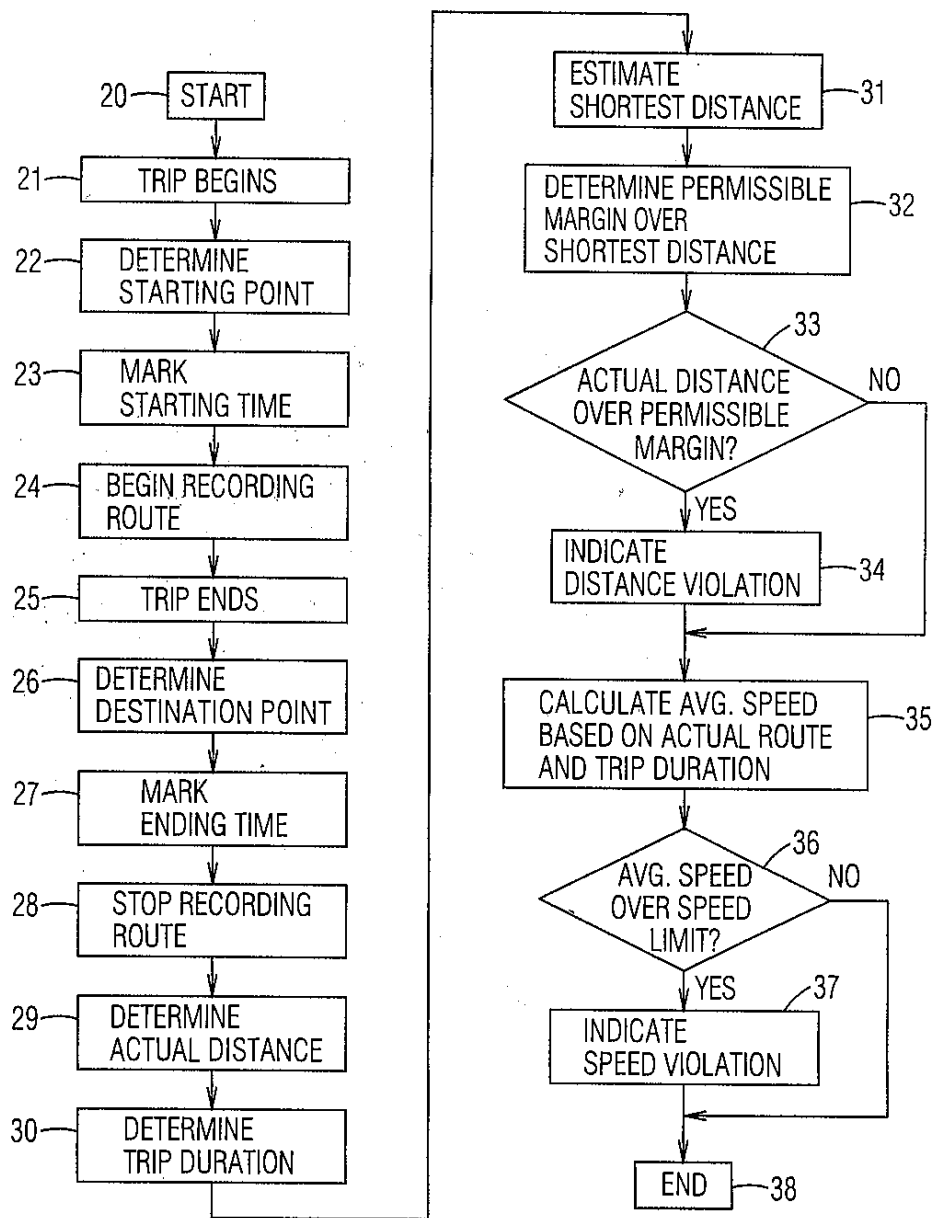


Fig. 2

APPROVED	O.G. FIG. 3	
BY	CLASS	SURCLASS
CLAFISMAN	701	201

3/3

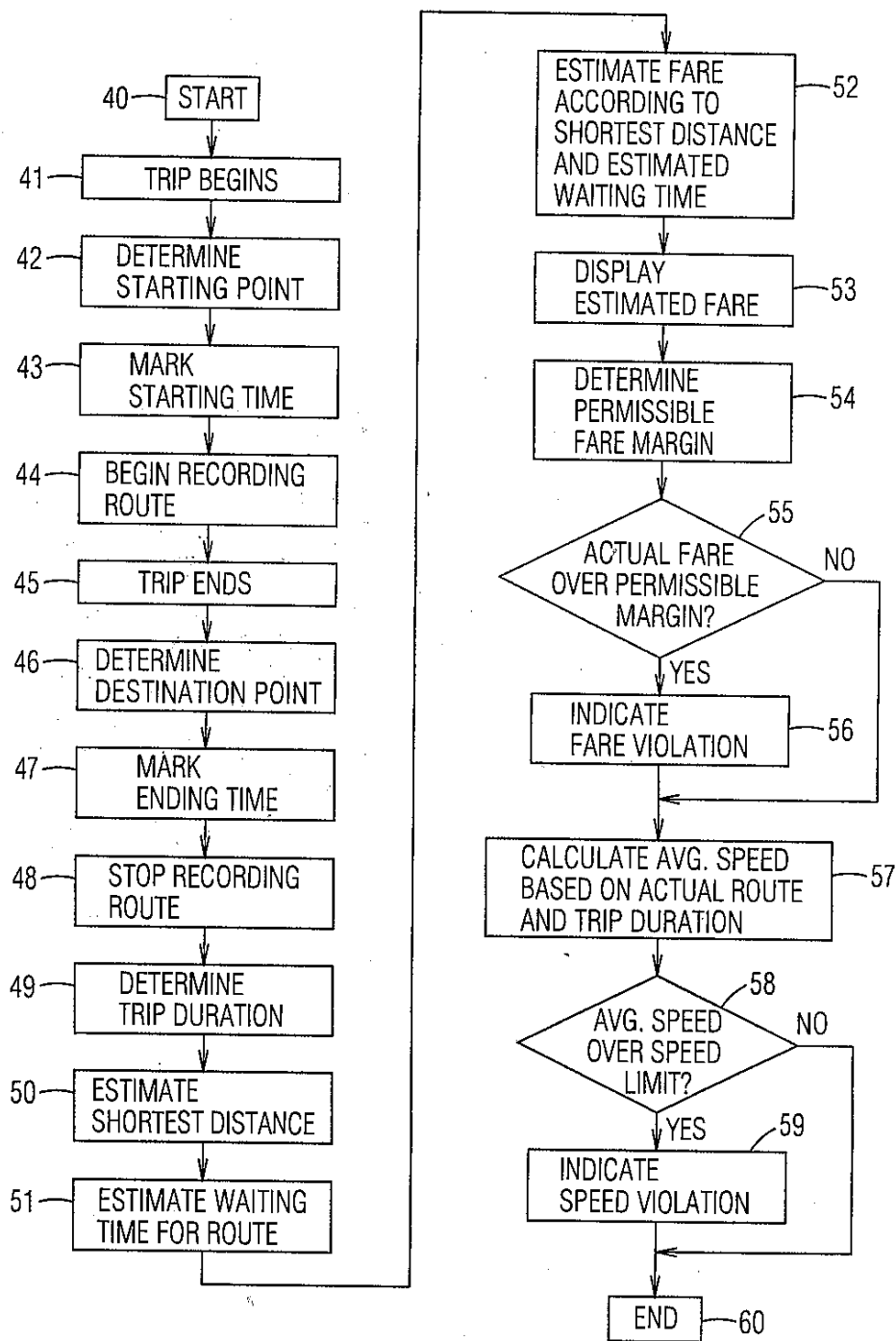


Fig. 3

App. No.:
Filing Date:
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner:
Art Unit:

Declaration For Patent Application

As a below named inventor, I hereby declare that my residence, post office address, and citizenship are as stated below next to my name. I believe that I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Driver Evaluation System

the specification of which is attached hereto.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge a duty to disclose information which is material to the examination of this application in accordance with 37 CFR §1.56.

I hereby claim the benefit under 35 USC § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Parent Application No. _____, filed _____, ☐ expressly abandoned.

As a named inventor, I hereby authorize the following registered practitioner to prosecute this application and transact all business in the Patent and Trademark Office connected herewith:

Jack Lo, registration number 40,070

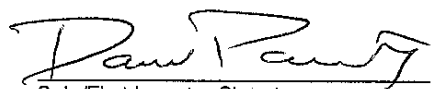
Direct all correspondence and telephone calls to:

Jack Lo, 1415 Eddington Lane, Daly City, CA 94014. Tel: 415-586-3005 Fax: 415-333-5444

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 18 USC §1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Sole/First Inventor: David Pomerantz
Address: 251 174th Street, Apt. 504
Residence: Miami Beach, FL 33160
Citizenship: U.S.A.

Joint/Second Inventor:
Address:
Residence:
Citizenship:

 8/3/98
Sole/First Inventor Signature Date

Joint/Second Inventor Signature Date

Joint/Third Inventor:
Address:
Residence:
Citizenship:

Joint/Fourth Inventor:
Address:
Residence:
Citizenship:

Sole/Third Inventor Signature Date

Joint/Fourth Inventor Signature Date

App. No.:
Filing Date:
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner:
Art Unit:

Small Entity Declaration — Independent Inventor(s)

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office with regard to my above-identified invention described in:

- ☒ the specification filed herewith.
☐ the application identified above.

I have not assigned, granted, conveyed, or licensed — and am under no obligation under any contract or law to assign, grant, convey, or license — any rights in the invention to either (a) any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or (b) any concern which would not qualify as either (i) a small business concern under 37 CFR 1.9(d) or (ii) a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed — or am under an obligation under contract or law to assign, grant, convey, or license — any rights in the invention is listed below:

- ☒ There is no such person, concern, or organization.
☐ Any applicable person, concern, or organization is listed below:

Name:
Address:

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37CFR 1.27)

I acknowledge a duty to file, in the above application for patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Sole/First Inventor: David Pomerantz

Joint/Second Inventor:

 8/10/98
Sole/First Inventor Signature Date

Joint/Second Inventor Signature Date

Joint/Third Inventor:

Joint/Fourth Inventor:

Sole/Third Inventor Signature Date

Joint/Fourth Inventor Signature Date

App. No.:
Filing Date:
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner: Ed Ripala
Art Unit: 3661

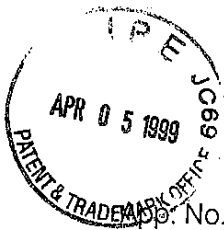
2/10/98
X. Smith
10/3/98

jc588 U.S. PTO
09/136144
08/18/98

Information Disclosure Statement

Sheet 1 of 1

Examiner Initial*	DOC	Document Number	Date	Name	Class	Sub-class	Filing Date
U. S. Patent Documents							
40	AA	5,734,348	3/1998	Aoki et al.	—	—	
	AB	5,729,731	3/1998	Yajima et al.	—	—	
	AC	5,689,423	11/1997	Sawada	—	—	
	AD	5,638,280	6/1997	Nishimura et al.	—	—	
	AE	5,612,875	3/1997	Haendel et al.	—	—	
	AF	5,608,635	3/1997	Tamai	—	—	
	AG	5,475,598	12/1995	Fushimi et al.	—	—	
	AH	5,459,667	10/1995	Odagaki et al.	—	—	
	AI	5,359,528	10/1994	Haendel et al.	—	—	
	AJ	5,107,433	4/1992	Heildorfer et al.	—	—	
	AL	4,984,168	1/1991	Neukrichner et al.	—	—	
	AM	4,800,502	1/1989	Steward et al.	—	—	
	AN	4,796,189	1/1989	Nakayama et al.	—	—	
	AO	4,675,676	6/1987	Takanabe et al.	—	—	
	AP	4,571,684	2/1986	Takanabe et al.	—	—	
40	AQ	4,570,228	2/1986	Ahlberg	—	—	
	AR	4,543,572	9/1985	Tanaka et al.	—	—	
Foreign Patent Documents							
	AK						
	AL						
	AM						
	AN						
Other Prior Art (include Author, Title, Date, Pertinent Pages, Etc.)							
	AO						
	AP						
Examiner Ed Ripala				Date Considered Sept. 2, 1999			



Gru 3614

#3
Change of
Address
3/12/99

App. No.: 09/136,144
Filing Date: 8/18/1998
Applicant: David Pomerantz
App. Title: Driver Evaluation System
Examiner:
Art Unit: 3614

Change of Correspondence Address

Please change the correspondence address for the agent of record to the following:

Jack Lo
617 Viewridge Drive
Pacifica, CA 94044
Tel: 650-355-6666
Fax: 650-355-5550

RECEIVED
TECHNOLOGY CENTER 3600
99 APR -9 AM 9:32

Respectfully,

Jack Lo

Jack Lo
Reg. no. 40,070

Certificate Of Mailing

I hereby certify that this paper will be deposited on the date below with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to "Commissioner of Patents and Trademarks, Box Non-Fee Amendments, Washington, DC 20231".

Jack Lo

Jack Lo

Date

4-2-1999



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/136,144 08/18/98 POMERANTZ

D

EXAMINER

PM82/0915

ART UNIT A E PAPER NUMBER

JACK LO
617 VIEWRIDGE DRIVE
PACIFICA CA 94044

3661

DATE MAILED: 09/15/99

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. ☒ Notice of References Cited by Examiner, PTO-892. | 2. ☒ Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. ☒ Notice of Art Cited by Applicant, PTO-1449. | 4. ☐ Notice of Informal Patent Application, PTO-152. |
| 5. ☐ Information on How to Effect Drawing Changes, PTO-1474. | 6. ☐ _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-17 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-17 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The ~~corrected or substitute~~ ^{Formal} drawings have been received on 8/18/98. Under 37 C.F.R. 1.84 these drawings are ☒ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

PTOL-326 (Rev. 2/93)

Application/Control Number: 09/136,144

Page 2

Art Unit: 3661

DETAILED ACTION

This Office action is in response to Patent Application Ser. No. 09/136,144 filed on August 18, 1998 by David Pomerantz for the invention titled Driver Evaluation System.

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. It is suggested that the new title refer to a taxi trip meter with detection of trip fare violations based on location sensing.

Information Disclosure Statement

The IDS filed with the application on August 18, 1998 has been fully considered by the examiner, as indicated by the accompanying initialed copies of Applicant's form PTO-1449.

Drawings

The Drawings filed with the application on August 18, 1998 have been approved by the Official Draftsperson, indicated by the accompanying form PTO-948 (drawings not objected to).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Application/Control Number: 09/136,144

Page 3

Art Unit: 3661

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Murphy (5,917,434).

Murphy discloses an integrated taximeter and GPS position tracking system which includes a trip meter with an integral GPS computer for providing position and time information. It is further taught that in addition to the use of the GPS system for odometer calibration, this integrated GPS taximeter also determines the velocity of the vehicle, as well as precisely determining elapsed time and distance traveled (from a start location to a destination location). Lastly, Murphy also teaches that certain locations can be tagged and trip information can be printed out as proof of a path followed by the vehicle, certification of operation within a certain geographic area and operation within speed limits.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is (703) 305-9785. The examiner can normally be reached on Monday through Friday from 9:30 to 6:00.

Application/Control Number: 09/136,144

Page 4

Art Unit: 3661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Cuchlinski, can be reached on (703) 308-3873. The fax phone number for this Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 305-7687, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park V (Five), 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Edward Pipala
(703) 305-9785



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Notice of References Cited				Application No. <i>09/136,144</i>		Applicant(s) <i>David Pomerantz</i>	
				Examiner <i>Ed Pipala</i>		Group Art Unit <i>3665</i>	
U.S. PATENT DOCUMENTS							
*	DOCUMENT NO.	DATE	NAME			CLASS	SUBCLASS
A	<i>5,917,434</i>	<i>6/99</i>	<i>Murphy</i>			<i>340</i>	<i>991</i>
B							
C							
D							
E							
F							
G							
H							
I							
J							
K							
L							
M							
FOREIGN PATENT DOCUMENTS							
*	DOCUMENT NO.	DATE	COUNTRY	NAME		CLASS	SUBCLASS
N							
O							
P							
Q							
R							
S							
T							
NON-PATENT DOCUMENTS							
*	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE	
U							
V							
W							
X							

* A copy of this reference is not being furnished with this Office action.
(See Manual of Patent Examining Procedure, Section 707.05(a).)

NOTICE OF DRAFTPERSON'S
PATENT DRAWING REVIEWThe drawing filed (insert date) 8/18/98 are:A. ☒ not objected to by the Draftperson under 37 CFR 1.84 or 1.152.B. ☐ objected to by the Draftperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings where necessary. Corrected drawings must be submitted according to the instructions on the back of this notice.1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:
Black ink. Color.☐ Color drawing are not acceptable until petition is granted.

Fig.(s) _____

☐ Pencil and non black ink is not permitted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)

☐ Photographs are not acceptable until petition is granted,☐ 3 full-tone sets are required. Fig(s) _____☐ Photographs not properly mounted (must bristol board or photographic double-weight paper), Fig(s) _____☐ Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER. 37 CFR 1.84(e)

☐ Paper not flexible, strong, white and durable.

Fig.(s) _____

☐ Erasures, alterations, overwritings, interlineations, folds, copy machine marks not acceptable. (too thin)☐ Mylar, vellum paper is not acceptable (too thin).

Fig(s) _____

4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

☐ 21.0 cm by 29.7 cm (DIN size A4)☐ 21.6 cm by 27.9 cm (8 1/2 x 11 inches)☐ All drawings sheets not the same size.

Sheet(s) _____

5. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: A4 SizeTop 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: 8 1/2 x 11☐ Margins not acceptable. Fig(s) _____☐ Top (T) _____ Left (L) _____☐ Right (R) _____ Bottom (B) _____

6. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

☐ Views connected by projection lines or lead lines.

Fig.(s) _____

Partial views. 37 CFR 1.84(h)(2)

☐ Brackets needed to show figure as one entity.

Fig.(s) _____

☐ Views not labeled separately or properly.

Fig.(s) _____

☐ Enlarged view not labeled separately or properly.

Fig.(s) _____

7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)

☐ Hatching not indicated for sectional portions of an object.

Fig.(s) _____

☐ Sectional designation should be noted with Arabic or

Roman numbers. Fig.(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

☐ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned, so that the top becomes the right side, except for graphs. Fig.(s) _____☐ Views not on the same plane on drawing sheet. Fig.(s) _____

9. SCALE. 37 CFR 1.84(k)

☐ Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.

Fig.(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

☐ Lines, numbers & letters not uniformly thick and well defined, clean, durable and black (poor line quality).

Fig.(s) _____

11. SHADING. 37 CFR 1.84(m)

☐ Solid black areas pale. Fig.(s) _____☐ Solid black shading not permitted. Fig.(s) _____☐ Shade lines, pale, rough and blurred. Fig.(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.48(p)

☐ Numbers and reference characters not plain and legible.

Fig.(s) _____

☐ Figure legends are poor. Fig.(s) _____☐ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(3) Fig.(s) _____☐ English alphabet not used. 37 CFR 1.84(p)(3) Fig.(s) _____☐ Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig.(s) _____

13. LEAD LINES. 37 CFR 1.84(q)

☐ Lead lines cross each other. Fig.(s) _____☐ Lead lines missing. Fig.(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.48(t)

☐ Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Fig.(s) _____

15. NUMBERING OF VIEWS. 37 CFR 1.84(u)

☐ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig.(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

☐ Corrections not made from PTO-948 dated _____

17. DESIGN DRAWINGS. 37 CFR 1.152

☐ Surface shading shown not appropriate. Fig.(s) _____☐ Solid black shading not used for color contrast.

Fig.(s) _____

COMMENTS

REVIEWER

can

DATE

9/14/98

TELEPHONE NO.

ATTACHMENT TO PAPER NO.

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PTO COPY



Ap 3661
A
Cofler
12-27-99

App. No.: 09/136,144

Filing Date: 8/18/98

Applicant: David Pomerantz

App. Title: Driver Evaluation System

Examiner: Pipala, E

Art Unit: 3661

Response A

Assistant Commissioner for Patents

Box Non-Fee Amendments

Washington, DC 20231

In response to the Office action mailed 9/15/99, applicant hereby amends the present application as follows:

Title

Please change the title to —Taxi Trip Meter System with Indication of Fare and Distance Violations—.

Description

Please change "driver evaluation" to —taxi trip meter— as follows:

page 1, line 15;

page 2, line 10;

page 2, line 21;

- ✓ page 3, lines 1-2;
- ✓ page 3, lines 3-4;
- ✓ page 3, line 7;
- ✓ page 3, line 17;
- ✓ page 5, line 5;
- ✓ page 6, line 17;
- ✓ page 7, lines 10-11;
- ✓ page 12, line 1.

Claims

Please amend the claims as follows:

- A!*
cont.
1. (Amended) A taxi trip meter [driver evaluation] system for a taxi, comprising:
 - a computer;
 - a trip meter connected to said computer, said trip meter for measuring an actual trip distance traveled by said taxi between a starting point and a destination point;
 - a location sensor providing geographical location information about said taxi to said computer;
 - and
 - instructions loaded in said computer instructing said computer to calculate an estimated shortest trip distance between said starting point and said destination point, to compare said estimated shortest trip distance with said actual trip distance, and to indicate a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.
 2. (Amended) The taxi trip meter [driver evaluation] system of claim 1, wherein said location sensor comprises a GPS receiver.

- A1
Cont.
3. (Amended) The taxi trip meter [driver evaluation] system of claim 1, further including a transmitter connected to said computer for transmitting violation information.
 4. (Amended) The taxi trip meter [driver evaluation] system of claim 1, further including a display connected to said computer for displaying violation information.
 5. (Amended) The taxi trip meter [driver evaluation] system of claim 1, further including a printer connected to said computer for printing violation information.
 6. (Amended) The taxi trip meter [driver evaluation] system of claim 1, further including a taximeter connected to said computer, and instructions instructing said computer to calculate an estimated taxi fare for said estimated shortest trip distance, and to compare said estimated taxi fare to an actual taxi fare calculated by said taximeter for said actual trip distance, and to indicate a fare violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.
 7. (Amended) A taxi trip distance violation detection [driver evaluation] method, comprising:
 - determining a starting point for a trip;
 - determining a destination point for said trip;
 - determining an estimated shortest trip distance between said starting point and said destination point;
 - determining an actual trip distance traveled by a vehicle after said trip is completed;
 - comparing said estimated shortest trip distance with said actual trip distance; and
 - indicating a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

8. (Amended) The taxi trip distance violation detection [driver evaluation] method of claim 7, wherein said estimated shortest trip distance comprises a driving distance through known roads.
9. (Amended) The taxi trip distance violation detection [driver evaluation] method of claim 7, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.
10. (Amended) The taxi trip distance violation detection [driver evaluation] method of claim 7, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating a speed violation when said estimated average speed limit is exceeded by said actual average speed.
11. (Amended) The taxi trip distance violation detection [driver evaluation] method of claim 7, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said distance violation.
12. (Amended) A taxi fare estimating [driver evaluation] method, comprising:
determining a starting point for a trip;
determining a destination point for said trip;
determining an estimated shortest trip distance between said starting point and said destination point;
determining an estimated waiting time encountered in traffic during said trip; and
determining an estimated taxi fare based on said estimated shortest trip distance and said estimated waiting time.

13. (Amended) The taxi fare estimating [driver evaluation] method of claim 12, wherein said estimated shortest trip distance comprises a driving distance through known roads.
14. (Amended) The taxi fare estimating [driver evaluation] method of claim 12, wherein said estimated shortest trip distance comprises a straight line distance between said starting point and said destination point.
15. (Amended) The taxi fare estimating [driver evaluation] method of claim 12, further including determining an actual taxi fare with a taximeter for an actual trip distance traveled during said trip, comparing said estimated taxi fare to said actual taxi fare, and indicating a fare violation when said estimated taxi fare is exceeded by said actual taxi fare by a predetermined fare margin.
16. (Amended) The taxi fare estimating [driver evaluation] method of claim 12, further including determining an actual trip duration after said trip is completed, determining an actual average speed, determining an estimated average speed limit for an actual route traveled during said trip, and indicating a speed violation when said estimated average speed limit is exceeded by said actual average speed.
17. (Amended) The taxi fare estimating [driver evaluation] method of claim 12, further including recording an actual route traveled during said trip for subsequent review for excusable causes for said fare violation.

13

Remarks

Title

1. The title of the invention was considered not descriptive.

The title has been changed based on the suggestion in the Office Action. The description has been amended throughout for consistency with this change.

Claim Rejections – 35 U.S.C. § 102

1. Claims 1-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Murphy.

The Prior Art

Murphy discloses a taxi meter with a GPS location sensor (column 5, lines 15-18). At the start of a trip, the starting location is marked upon receiving input from a driver (column 4, line 39-41). The trip distance is measured by a trip distance module based on input from odometer pulses (column 4, lines 45-49). The measured trip distance is an **actually traveled** distance because it is based on “odometer pulses” which are provided by an odometer only when the taxi is actually moving. The travel route is recorded during the trip (column 6, lines 55-59). Other recorded trip information includes operation within safe speed limits (column 7, lines 1-4). The ending location is marked upon receiving input from the driver (column 4, lines 41-44). The **actual fare** is calculated as a function of the **actual** trip distance, elapsed time, etc (column 4, lines 61-64).

Murphy calculates an **actual** taxi fare at the end of a taxi trip, **even if the actual travel distance is unnecessarily long**.

Base Claim 1 Defines Over Murphy

Claim 1 recites “a computer” arranged to “calculate an **estimated** shortest trip distance between said starting point and said destination point ...” This is not disclosed in Murphy, which only measures **actual** travel distance.

Claim 1 further recites that the computer is arranged to “**compare** said **estimated** shortest trip distance with said **actual** trip distance ...” This is not disclosed in Murphy.

Claim 1 further recites that the computer is arranged to “**indicate a distance violation** when said **estimated** shortest trip distance is **exceeded** by said **actual** trip distance by a predetermined distance margin.” This is not disclosed in Murphy.

The claimed taxi trip meter system thus **alerts a passenger to being taken for an unnecessarily long ride**, which is something that cannot be achieved by Murphy, which only calculates a fare based on actual travel distance. Accordingly, applicant respectfully submits that claim 1 defines over Murphy under 35 U.S.C. § 102(e).

Claim 7 Defines Over Murphy

Claim 7 recites “a taxi trip **distance violation** detection method”, including “determining an **estimated** shortest trip distance between said starting point and said destination point ...” This is not disclosed in Murphy, which only measures actual travel distance.

Claim 7 also recites “**comparing** said **estimated** shortest trip distance with said **actual** trip distance ...” This is not disclosed in Murphy.

Claim 7 also recites “**indicating a distance violation** when said **estimated** shortest trip distance is **exceeded** by said **actual** trip distance by a predetermined distance margin.” This is not disclosed in Murphy.

The claimed method thus **alerts a passenger to being taken for an unnecessarily long ride**, which is something that cannot be achieved by Murphy, which only calculates a fare based on actual travel distance. Accordingly, applicant respectfully submits that claim 7 defines over Murphy under 35 U.S.C. § 102(e).

Claim 12 Defines Over Murphy

Claim 12 recites a taxi fare estimating method, including “determining an **estimated** shortest trip distance between said starting point and said destination point.” This is not disclosed in Murphy, which only measures actual travel distance.

Claim 12 further recites “determining an **estimated** waiting time encountered in traffic during said trip ...” This is not disclosed in Murphy.

Claim 12 further recites “determining an **estimated taxi fare** based on said estimated shortest trip distance and said estimated waiting time.” This is not disclosed in Murphy, which only calculates an actual taxi fare at the end of a taxi ride. The claimed method can thus provide an **estimated fare** for a passenger **before** the ride begins. Accordingly, applicant respectfully submits that claim 12 defines over Murphy under 35 U.S.C. § 102(e).

Conclusion

Applicant respectfully submits that all the rejections have been overcome, and therefore requests reconsideration of the application and allowance of the claims.

Respectfully,



Jack Lo

Reg. No. 40,070

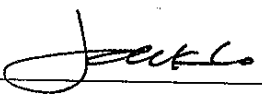
617 Viewridge Dr.

Pacifica, CA 94044

650-355-6666

Certificate Of Mailing

I hereby certify that this paper will be deposited on the date below with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to "Assistant Commissioner for Patents, Box Non-Fee Amendments, Washington, DC 20231"



Jack Lo_____
Date

12-15-99



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/136,144	08/18/98	POMERANTZ	D

JACK LO
617 VIEWRIDGE DRIVE
PACIFICA CA 94044

PM82/0209

EXAMINER

ART UNIT	PAPER NUMBER
----------	--------------

3661
DATE MAILED:

02/09/00

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to the amendment and remarks filed 12-20-99

☒ The allowed claim(s) is/are 1-17

☒ The drawings filed on 8/18/98 are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☐ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

PM82/0209

JACK LO
617 VIEWRIDGE DRIVE
PACIFICA CA 94044

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/136,144	08/18/98	017	PIPALA, E 3661	02/09/00
First Named Applicant	POMERANTZ,	35 USC 154(b) term ext. =	0 Days.	

TITLE OF INVENTION TAXI TRIP METER SYSTEM WITH INDICATION OF FARE AND DISTANCE VIOLATIONS
(AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	701-201.000	H92	UTILITY	YES	\$605.00	05/09/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B—ISSUE FEE TRANSMITTAL

Complete and mail this form together with applicable fees, to:

Box ISSUE FEE
Assistant Commissioner for Patents
Washington, D.C. 20231

MAY 01 2000

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

Note: The certificate of mailing below can only be used for domestic mailings of the Issue Fee Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

JACK LO

(Depositor's name)

JACK LO

(Signature)

4-26-00

(Date)

JACK LO
617 VIEWRIDGE DRIVE
PACIFICA CA 94044

PM82/0209

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/136,144	08/18/98	017	PIPALA, L	3561 05/07/00
First Named Applicant	POMERANTZ,	35 USC 154(b) term ext.		0 days

TITLE OF INVENTION TAXI TRIP METER SYSTEM WITH INDICATION OF FARE AND DISTANCE VIOLATIONS (AS AMENDED)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	701-201.000	H92	UTILITY	YES	\$605.00	05/09/00

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

☒ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 JACK LO

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY & STATE OR COUNTRY)

Please check the appropriate assignee category indicated below (will not be printed on the patent)

☐ Individual ☐ corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

☒ Issue Fee☐ Advance Order - # of Copies 11

4b. The following fees or deficiency in these fees should be charged to:

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☐ Issue Fee☐ Advance Order - # of Copies

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature)

JACK LO

(Date)

4-26-00

NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

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05/02/2000 KZEWIE1 00000036 09136144

01 FC:242

02 FC:561

605.00 DP

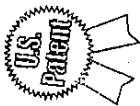
33.00 DP

OK to Enter

TRANSMIT THIS FORM WITH FEE

OL-85B (REV. 10-96) Approved for use through 06/30/99. OMB 0651-0033

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



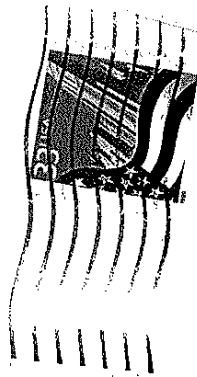
Jack Lo
Patent Agent Licensed to File and Prosecute Patent Applications
Author of *How to Make Patent Drawings Yourself* (Nolo Press)

www.ThePatentFirm.com

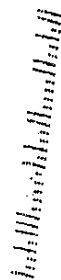
617 Viewridge Drive
Pacific, CA 94044
#105

MAY -1 2000

AT P10 MAIL CENTER



Assistant Commissioner for Patents
Box Issue Fee
Washington, DC 20231





*8
3/2

App. No.: 09/136,144
Filing Date: 8/18/98
Applicant: David Pomerantz
App. Title: Taxi Trip Meter System with Indication of Fare and Distance Violations
Examiner: Pipala, E
Art Unit: 3661

Supplemental Declaration For Patent Application

I believe that I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Taxi Trip Meter System with Indication of Fare and Distance Violations

the specification of which was filed on 8/18/98 as U.S. application number 09/136,144 and was amended on 12/20/99.

I hereby declare that the subject matter of the amendment filed on 12/20/99 was part of my or our invention and was invented before the filing date of the original application identified above for such invention.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above. I acknowledge a duty to disclose information which is material to the examination of this application in accordance with 37 CFR §1.56.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 18 USC §1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

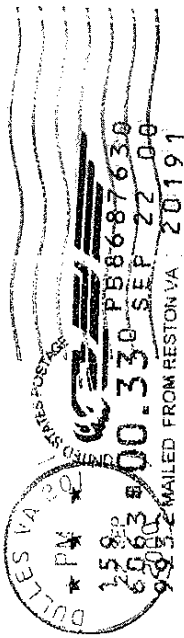
Sole/First Inventor: David Pomerantz


Sole/First Inventor Signature

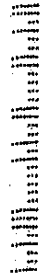
4/3/00
Date

OK to Enter

LAW OFFICES
GREENBLUM & BERNSTEIN, P.L.C.
INTELLECTUAL PROPERTY CAUSES
1941 ROLAND CLARKE PLACE
RESTON, VA 22091



Commissioner
U.S. Patent and Trademark Office
Washington, DC 20231

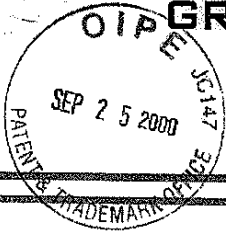


File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2000-09-19
Document Title - USPTO Grant

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GREENBLUM & BERNSTEIN, P.L.C.

1941 ROLAND CLARKE PLACE

RESTON, VA 22091

(703) 716-1191

B

DATE Sept. 18, 2000

TO USPTO
Washington, DC 20231

SUBJECT Issue Notification
for Application No.
09/136,144

The above-referenced firm is returning the enclosed
Issue Notification due to the fact that we are
not attorneys of record in the above-listed case.

SIGNED

ISSUE NOTIFICATION



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

B

APPLICATION NUMBER	PATENT NUMBER	ISSUE DATE	ATTORNEY DOCKET NO.
09/136,144	6122591	09/19/00	

2591
JACK LO
617 VIEWRIDGE DRIVE
PACIFICA CA 94044

7707

2128133

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SEP 26 2000

GREENBLUM & BERNSTEIN, P.L.C.



APPLICANT(S) DAVID POMERANTZ, MIAMI BEACH FLORIDA



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

PAYOR NUMBER
21632

DAVID POMERANTZ
P O BOX 205
CEDARHURST NY 11516

P75M

DATE PRINTED

03/31/08

MAINTENANCE FEE REMINDER

According to the records of the U.S. Patent and Trademark Office (USPTO) the maintenance fee for the patent(s) listed below (for which the above address is on record as the fee address under 37 CFR 1.363) has not been paid within the six-month period set forth in 37 CFR 1.362(d). THE MAINTENANCE FEE MAY STILL BE PAID WITH THE APPLICABLE SURCHARGE SET FORTH IN 37 CFR 1.20(h), WITHIN THE SIX-MONTH GRACE PERIOD SET FORTH IN 37 CFR 1.362(e).

Unless payment of the maintenance fee and the applicable surcharge is received in the USPTO within the six-month grace period, THE PATENT WILL EXPIRE AS OF THE END OF THE GRACE PERIOD. 35 U.S.C. 41(b).

The total payment due is the amount required on the date the fee is paid (and not necessarily the amount indicated below). All USPTO fees (including maintenance fees) are subject to change. Customers should refer to the USPTO Web site (www.uspto.gov) or call the Maintenance Fee Branch at 571-272-6500 for the most current fee amounts for the correct entity status before submitting payment. The total payment due indicated below is based on the entity status according to current Office records (shown below).

Timely payment of the total payment due is required in order to avoid expiration of the patent. A maintenance fee payment can be timely made using the certificate of mailing or transmission procedure set forth in 37 CFR 1.8.

PATENT NUMBER	FEE MAINT. AMT SURCHG	U.S. APPL NUMBER	PATENT ISSUE DATE	APPL. FILING DATE	PAY- MENT YEAR	SMALL ENTITY?	TOTAL PYMT DUE	ATTORNEY DOCKET NUMBER
6122591	P180 65	09136144	09/19/00	08/18/98	8	YES	1245	

The maintenance fee and the applicable surcharge can be paid quickly and easily over the Internet at www.uspto.gov by electronic funds transfer (EFT), credit card, or USPTO deposit account payment methods. The mailing address for all maintenance fee payments not electronically submitted over the Internet is: U.S. Patent and Trademark Office, P.O. Box 979070, St. Louis, MO 63197-9000.

Direct any questions about this notice to: Mail Stop M Correspondence, Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

NOTE: This notice was automatically generated based on the amount of time that elapsed since the date a patent was granted. It is possible that the patent term may have ended or been shortened due to a terminal disclaimer that was filed in the application. Also, for any patent that issued from an application filed on or after June 8, 1995 containing a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, or 365(c), the patent term ends 20 years from the date on which the earliest such application was filed, unless the term was adjusted or extended under 35 U.S.C. 154 or 156. Patentee should determine the relevant patent term for a patent before paying the maintenance fee.

MF4401 (7/2007)

File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2015-05-01
Document Title - USPTO Communication Re: Power of Attorney

This page is not part of the official USPTO record. It has been determined that content identified on this document is missing from the original file history record.

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 1997

Application or Docket Number

9/136144

CLAIMS AS FILED - PART I

(Column 1)

(Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	17 minus 20 = *	
INDEPENDENT CLAIMS	3 minus 3 = *	
MULTIPLE DEPENDENT CLAIM PRESENT		

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY
TYPE ☐

OR

OTHER THAN
SMALL ENTITY

RATE	FEE
	395.00
x\$11=	
x41=	
+135=	
TOTAL	395

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CLAIMS AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	*	17	Minus	** 20	=
Independent	*	3	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

SMALL ENTITY

OR

OTHER THAN
SMALL ENTITY

RATE	ADDI- TIONAL FEE
x\$11=	
x41=	
+135=	
TOTAL ADDIT. FEE	

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AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	*		Minus	**	=
Independent	*		Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

RATE	ADDI- TIONAL FEE
x\$11=	
x41=	
+135=	
TOTAL ADDIT. FEE	

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AMENDMENT C		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	*		Minus	**	=
Independent	*		Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					

RATE	ADDI- TIONAL FEE
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x41=	
+135=	
TOTAL ADDIT. FEE	

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* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Search results for: PNS=(US6122591);

Collections searched: DWPI; ARIPO grant; Argentina UM; Argentina app; Armenia grant; Australia UM; Australia app; Australia grant; Austria UM; Austria app; Austria grant; Belarus UM; Belarus grant; Belgium app; Belgium grant; Brazil UM; Brazil app; Brazil grant; Bulgaria UM; Bulgaria app; Bulgaria grant; Canada app; Canada grant; China, Mainland UM; China, Mainland app; China, Mainland grant; Colombia app; Costa Rica UM; Costa Rica app; Croatia UM; Croatia app; Croatia grant; Cuba app; Cuba grant; Czech Republic UM; Czech Republic app; Czech Republic grant; Czechoslovakia grant; Denmark UM; Denmark app; Denmark grant; Estonia UM; Estonia app; Estonia grant; Eurasian (EAPO) grant; Europe (EP) app; Europe (EP) grant; Finland app; Finland grant; France app; France grant; Georgia grant; German Democratic Republic app; German Democratic Republic grant; Germany UM; Germany app; Germany grant; Greece app; Greece grant; Gulf Cooperation Council grant; Hong Kong UM; Hong Kong app; Hong Kong grant; Hungary grant; Iceland grant; India app; India grant; Indonesia UM; Indonesia app; Ireland UM; Ireland app; Ireland grant; Israel grant; Italy grant; Italy grant; Italy grant; Italy grant; Japan UM; Japan app; Japan grant; Korea UM; Korea app; Korea grant; Latvia grant; Lithuania grant; Luxembourg app; Luxembourg grant; Malaysia app; Malaysia grant; Mexico app; Mexico grant; Moldova UM; Moldova grant; Monaco grant; Mongolia UM; Mongolia grant; Morocco app; Morocco grant; Netherlands app; Netherlands grant; New Zealand grant; Norway app; Norway grant; OAPI grant; PCT (WO) app; Philippines UM; Philippines app; Philippines grant; Poland UM; Poland grant; Portugal UM; Portugal app; Portugal grant; Romania UM; Romania app; Romania granted; Russia UM; Russia app; Russia grant; Serbia UM; Serbia app; Serbia grant; Singapore app; Singapore grant; Slovakia UM; Slovakia app; Slovakia grant; Slovenia UM; Slovenia grant; South Africa app; Spain UM; Spain app; Spain grant; Sweden app; Sweden grant; Switzerland app; Switzerland grant; Taiwan UM; Taiwan appl; Taiwan grant; Thailand UM; Thailand app; Thailand grant; Tunisia app; Turkey UM; Turkey app; Turkey grant; UK app; UK grant; USSR grant; Ukraine UM; Ukraine grant; United States app; United States grant; Uruguay app; Vietnam UM; Vietnam app; Vietnam grant; Other

Table of Contents

1. US6122591A Taxi trip meter system with indication of fare and distance violations

Family 1/1

1 record(s) per family

Record 1/1 US6122591A Taxi trip meter system with indication of fare and distance violations

Title: Taxi trip meter system with indication of fare and distance violations

Title - DWPI: Global positioning system taximeter with fare validation and using a computer to determine if distance, speed or fare violations are indicated using street information and driver evaluation software

Priority Number: US1998136144A

Priority Date: 1998-08-18

Application Number: US1998136144A

Application Date: 1998-08-18

Publication Date: 2000-09-19

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
G01C002134	G	G01	G01C	G01C0021	G01C002134
G07B001300	G	G07	G07B	G07B0013	G07B001300
G08G0001123	G	G08	G08G	G08G0001	G08G0001123

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
G06F001700 (IPC 1-7)	G	G06	G06F	G06F0017	G06F001700 (IPC 1-7)
G08G0001123 (IPC 1-7)	G	G08	G08G	G08G0001	G08G0001123 (IPC 1-7)
G06F016500 (IPC 1-7)	G	G06	G06F	G06F0165	G06F016500 (IPC 1-7)
G01C002134	G	G01	G01C	G01C0021	G01C002134
G06G000778	G	G06	G06G	G06G0007	G06G000778
G07B001300	G	G07	G07B	G07B0013	G07B001300
G08G0001123	G	G08	G08G	G08G0001	G08G0001123

Assignee/Applicant: POMERANTZ; DAVID

JP F Terms:

JP FI Codes:

Assignee - Original:

Any CPC Table:

Type	Invention	Additional	Version	Office
Current	G01C 21/3697	-	20130101	EP
Current	G01C 21/34		20130101	EP
Current	G06Q 30/0284		20130101	EP
Current	G07B 13/00		20130101	EP
Current	G08G 1/123		20130101	EP

ECLA: G01C002136W | G01C002134 | G06Q00300284 | G07B001300 | G08G0001123

Abstract:

A taxi trip meter system includes a taximeter and a location sensor connected to a computer loaded with street information and driver evaluation software. In a first embodiment, the estimated shortest route and distance between the starting and ending points of a trip are determined. If the estimated shortest trip distance is exceeded by an actual trip distance by a permissible margin, a distance violation is indicated. An actual average speed is calculated based on an actual trip duration and the actually traveled distance. If an estimated average speed limit for the actual route is exceeded by the actual average speed, a speed violation is indicated. In a second embodiment, an estimated taxi fare is calculated based on the estimated shortest route. If the estimated taxi fare is exceeded by an actual taxi fare calculated by the taximeter by a permissible margin, a fare violation is indicated.

Language of Publication: EN

INPADOC Legal Status Table:

Gazette Date	Code	INPADOC Legal Status Impact
2018-02-26	AS	-
Description: ASSIGNMENT FARE TECHNOLOGIES LLC, TEXAS NUNC PRO TUNC ASSIGNMENT; ASSIGNOR:POMERANTZ, DAVID; REEL/FRAME:045038/0134 2014-04-08		
2015-06-23	RF	-
Description: REISSUE APPLICATION FILED 2015-05-28		

2015-04-24	AS	-
Description: ASSIGNMENT FARE TECHNOLOGIES LLC, TEXAS NUNC PRO TUNC ASSIGNMENT; ASSIGNOR:POMERANTZ, DAVID, MR.; REEL/FRAME:035491/0638 2014-04-08		
2012-09-14	SULP	+
Description: SURCHARGE FOR LATE PAYMENT FEE PAYMENT YEAR 11		
2012-09-14	FPAY	+
Description: FEE PAYMENT FEE PAYMENT YEAR 12		
2012-04-30	REMI	-
Description: MAINTENANCE FEE REMINDER MAILED		
2008-08-29	SULP	+
Description: SURCHARGE FOR LATE PAYMENT FEE PAYMENT YEAR 7		
2008-08-29	FPAY	+
Description: FEE PAYMENT FEE PAYMENT YEAR 8		
2008-03-31	REMI	-
Description: MAINTENANCE FEE REMINDER MAILED		
2004-02-03	FPAY	+
Description: FEE PAYMENT FEE PAYMENT YEAR 4		
2000-09-01	STCF	-
Description: INFORMATION ON STATUS: PATENT GRANT PATENTED CASE		

Post-Issuance (US): REIS Reissue Statement 2015-05-28 2015 2015-06-23 2015 Reissue Application Re. S.N.: 14/723,731, filed May 28, 2015 (O.G. Jun 23, 2015) Ex. Gp.: 3661 | REIS Reissue Statement 2018-02-20 2018 2018-02-20 2018

Reassignment (US) Table:

Assignee	Assignor	Date Signed	Reel/Frame	Date
FARE TECHNOLOGIES LLC,PLANO,TX,US	POMERANTZ, DAVID	2014-04-08	045038/0134	2018-02-26

Conveyance: NUNC PRO TUNC ASSIGNMENT (SEE DOCUMENT FOR DETAILS).				
Corresponent: STEVEN H. WASHAM PO BOX 25015 DALLAS, TX 75225-1015				
FARE TECHNOLOGIES LLC,TYLER,TX,US	POMERANTZ, DAVID, MR.	2014-04-08	035491/0638	2015-04-24
Conveyance: NUNC PRO TUNC ASSIGNMENT (SEE DOCUMENT FOR DETAILS).				
Corresponent: STEVEN H. WASHAM PO BOX 601526 DALLAS, TX 75360-1526				

Maintenance Status (US):

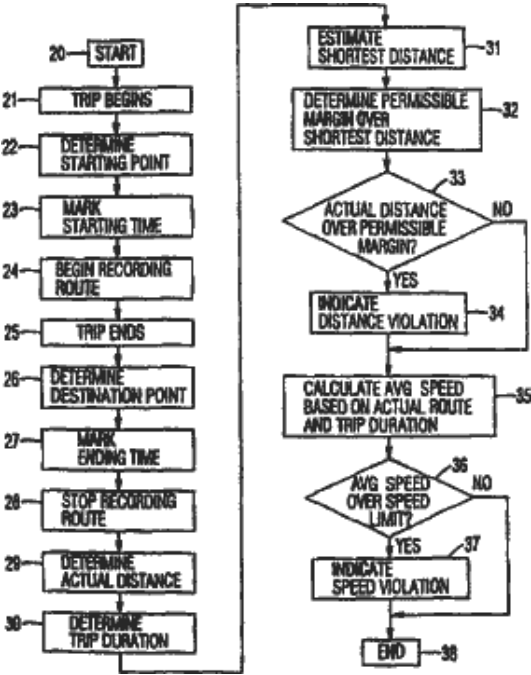
Litigation (US):

Opposition (EP):

License (EP):

EPO Procedural Status:

Front Page Drawing:



Priority Number - DWPI: US1998136144A | US14723731A

Priority Date - DWPI: 1998-08-18 | 2015-05-28

Assignee - Current US: FARE TECHNOLOGIES LLC



United States Patent and Trademark Office

Office of the Commissioner for Patents

TAXI TRIP METER SYSTEM WITH INDICATION OF FARE AND DISTANCE VIOLATIONS

PATENT #6122591

APPLICATION #09136144

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WINDOW11.5 Year

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RE46727/14723731.

Window	First Day to Pay	Surcharge Starts	Last Day to Pay	Status	Fees
3.5 Year	09/19/2003	03/20/2004	09/20/2004	Closed	Paid
7.5 Year	09/19/2007	03/20/2008	09/19/2008	Closed	Paid
11.5 Year	09/19/2011	03/20/2012	09/19/2012	Not Open	Not Due

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