

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UBER TECHNOLOGIES, INC,
Petitioner,

v.

FARE TECHNOLOGIES LLC,
Patent Owner.

IPR2023-000746

Patent RE 46,727 (US 6,122,591)

**PATENT OWNER'S PRELIMINARY RESPONSE TO
PETITION FOR *INTER PARTES* REVIEW**

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Exhibit	Exhibit Description
2001	<i>Purportedly</i> Definition & Meaning - Merriam-Webster Source: https://www.merriam-webster.com/dictionary/purportedly
2002	<i>Purportedly</i> Definition - Cambridge English Dictionary Source: https://dictionary.cambridge.org/us/dictionary/english/purportedly
2003	Understanding Ground Ambulance Charges Source: https://www.quickmedclaims.com/2018/03/understanding-ground-ambulance-charges/

I. INTRODUCTION

On March 27, 2023, Petitioner Uber Technologies, Inc (“Petitioner”) submitted a Petition for *Inter Partes* Review (“Petition”) of U.S. Patent No. RE46,727 (“the ‘727 Patent,” “EX-1001”), challenging Claims 1-4, 7-8, 11-13, 17-20, 26-31, and 37-41 (“Challenged Claims”). Pursuant to 37 C.F.R. § 42.107, Patent Owner Fare Technologies LLC, (“Patent Owner”) files this Preliminary Response to the Petition, setting forth reasons the Board should deny institution.

Petitioner challenges the patentability of Claims 1-4, 7-8, 11-13, 17-20, 26-31, and 37-41 of the ’727 Patent based on the following three references:

International Publication No. WO 97/18521 (“Smith”);

European Patent Publication No. 032 607 B1, (“Baumann”); and

Korean Patent Publication No. 1998-016705 (“Choi”)

Petitioner requests institution of the IPR proceeding on the following grounds.

Ground	Claims	Basis
1	7, 8, 11	§102– Smith
2	7, 8, 11	§103– Smith
3	1-4, 7-8, 11-13, 17-20, 26-31, and 37-41	§103– Smith in view of Baumann

4	12-13, 17, 19-20, 26-28, 30-31, and 37-40	§103– Baumann in view of Choi
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Petitioner fails to establish a reasonable likelihood that the Challenged Claims are unpatentable. Patent Owner will specifically address each of Petitioners arguments in the following sections.

II. OVERVIEW OF THE '727 PATENT

A. Brief Description

There is a long-standing problem about taxi fares. 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. EX-1001, 1:24-28. Accordingly, the objects of the '727 Patent are to:

Provide an estimated shortest trip distance for an estimated best route;

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

Calculate an actual average speed for the trip;

Indicate a violation if an estimated average speed limit for an actual travel route is exceeded by the actual average speed;

Provide an estimated taxi fare based on the estimated shortest trip distance and an estimated waiting time in traffic; and

Indicate a violation if the estimated taxi fare is exceeded by an actual taxi fare by a permissible margin. EX-1001, 1:35-51.

The '727 Patent discloses a taxi trip meter system including a taximeter and a location sensor connected to a computer loaded with street information and driver evaluation software. In the 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. 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. EX-1001, 1:58-2:7.

B. The '727 Patent Prosecution History

The '727 Patent is a reissued Patent of US6,122,591, which was issued September 19,2000, the Application No. is 09/136,144, filed on August 18,1998.

On May 28, 2015, Patent Owner filed a reissue application to reissue U.S. Patent No. 6,122,591. EX-1003. because “[t]he inventor or the inventor’s attorney failed to previously present narrower claims” and to “add structure” to claim 12 “in light of recent case law requirements.” EX-1002, 12. The examiner stated claim 12

was unpatentable Over U.S. Patent No. 4,212,069 and U.S. Patent No. 6,067,502. EX-1002, 148-151. The applicant elected claims 1-8, which were rejected as anticipated or obvious. *Id.*, EX-1002, at 180, 189-192. Patent Owner amended claim 12 as shown in the '727 Patent, EX-1002, 176.

C. Claim Construction

According to 37 C.F.R. §42.100(b), in an *inter partes* review, claim terms are construed using the same standard used in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.

The ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art. However, the best source for determining the meaning of a claim term is the specification – the greatest clarity is obtained when the specification serves as a glossary for the claim terms. The words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir.2004).

No formal claim constructions are necessary because “claim terms need only be construed to the extent necessary to resolve the controversy.” *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011).

III. LEVEL OF ORDINARY SKILL IN THE ART

For purposes of this Response, PO adopt Petitioner’s proffered level of ordinary skill in the art because it comports with the technology and claims of the ’727 Patent as well as the asserted prior art.

IV. THE ASSERTED PRIOR ART

A. Smith (EX-1006)

Smith describes a system for “controlling vehicles to provide transportation services” EX-1006, Abstract.

The architecture of the system is shown in Figure 1 (reproduced below).

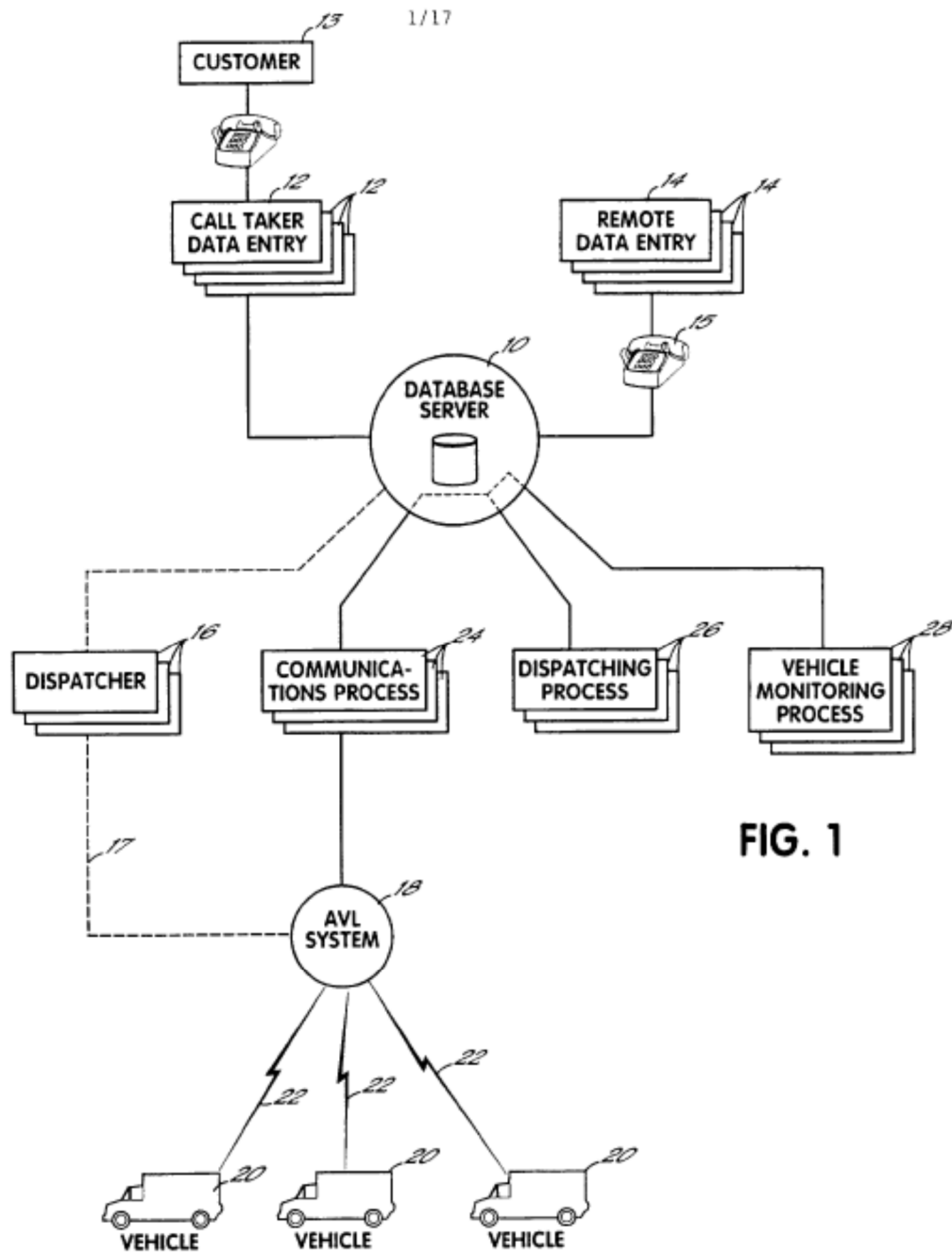


FIG. 1

Fig. 1 - Smith

The system includes a database server 10 for storing records indicating requested vehicle services and associated information. This database is created initially at one of two data entry sites 12, 14. Call takers 12 located at the dispatching facility receive telephone requests from customers such as customer 13 and, in response, generate request records in the database in several tests. EX-1006, at 12.

The system also includes communications processes 24, dispatching processes 26 and vehicle monitoring processes 28 to perform the local and remote call taking and data entry, dispatcher record monitoring, automated vehicle location and vehicle communication for vehicle dispatching. EX-1006, at 16.

The records of database server 10 include a dispatch record, which includes a number of fields for tracking the vehicle activity. These fields are filled out as the vehicle performs the desired task. This information is also extremely important for customer invoicing due to insurance and Government requirements, and therefore is also transferred to invoice records upon completion of the task. EX-1006, at 29.

the dispatch records, which accumulate over time, include sufficient information to collectively determine the movements of each vehicle throughout each business day. Accordingly, these records can be collectively analyzed to determine the extent to which vehicles are being properly utilized and to potentially develop and revise marketing and vehicle positioning strategies for optimizing performance. EX-1006, at 31.

The system uses the “existing AVL technology to compute routing and mileage based on invoiced pickup and destination sites, and then compare the mileage of the computed route to the mileage charged in the invoice.” In this way, “excessive mileage charges.” can be detected. EX-1006, 12.

The system uses algorithms for route calculation and other software for performing tasks, such as vehicle location and communications. EX-1006, 18-22. This computed route can be the “shortest route from said starting point to said ending point.” The system can compare a mileage associated with said shortest route to said mileage purportedly travelled EX-1006, claim 33.

B. Baumann (EX-1007)

Baumann discloses a method of paratransit fare computation and dispatching. Information relating to routes and distances between street addresses and historical data as to time for normal transit therebetween under different times of day and traffic conditions is stored in a computer. A communications link peripherally interfaces the central station, and, also, the central dispatcher, with each of a plurality of taxicabs. The taxicab operator communicates customer pick-up and deposit addresses to the central station along the communications link. Using the stored time and distance information, the customer fares are calculated and time of transit are estimated and are transmitted along the communications link to the selectively

addressed vehicle. Finally, the respective vehicle receives and automatically displays the transmitted fares and times. (EX-1007, 2:60-3:18.)

Baumann discloses a “taxi meter” and that “the meter distance fare rate and time fare rate [are] adjustable to accommodate virtually any fare rate structure.” (EX-1007, 5:14-19, Fig. 1.) Baumann further explains that these adjustments can be made “using wire jumpers that determine the cents/minute, cents/mile, and threshold velocity (e.g., the point at which the instantaneous time fare rate is the same as the distance fare rate). Below the threshold velocity, fares are based on time; above, only on distance.” (EX-1007, 6:11-17.)

Smith does not teach the use of any meter, or automated process for determining trip distance. Rather, it clearly relies on driver reported information. In Smith, the system provides for automated system population of fields 16-23, which does not include trip distance. Ironically, field 23 in Smith is not really automated as it relies on driver self-reported information (“the time that they completed their task and reported themselves as available”). The process for determining distance for ambulance service (the primary example cited in Smith) is typically based on driver reported odometer readings. See e.g., EXH-2003. This would be consistent with the plain and ordinary meaning of the term “purported mileage.” Baumann relates to estimated distance only, the meter activates only in the event of a power

failure, etc. Neither Smith, Bauman, nor any combination of the two, teaches an active meter together with fare estimation.

C . Choi (EX-1008)

Choi discloses “a taxi meter and a driving system using a Global Positioning System (GPS) capable of recording and reading the taxi passenger pick-up and drop-off points.” EX-1008, 10.

The taxi meter is characterized by having a distance detecting means to detect business distance for each business area, a fare calculation means to calculate fare for each business area and at the same time an input means to input locations of taxi dropping off passengers, and a storage means to store data of business distance for each business area, fare, and pick-up and drop-off locations in the taxi meter. EX-1008, 10.

V. PETITIONER HAS NOT DEMONSTRATED A REASONABLE LIKELIHOOD OF SUCCESS FOR THE GROUNDS ADVANCED IN THE PETITION, AND THE PETITION SHOULD BE DENIED

A. Requirements for Showing Anticipation Under 35 U.S.C. § 102 and Obviousness Under 35 U.S.C. § 103

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051,1053 (Fed. Cir. 1987).

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The Board has held that a failure to identify the differences between the claimed subject matter and the prior art is fatal to an obviousness challenge. *See, Apple, Inc. v. Contentguard Holdings, Inc.*, IPR2015-00355, Decision Denying Institution of *Inter Partes* Review, Paper 9 at 9-10 (P.T.A.B. June 26, 2015) (denying institution for failure to identify the differences between the claimed subject matter and the prior art).

In arriving at an obviousness determination, the Board must sufficiently explain and support the conclusions that the prior art references disclose all the elements recited in the Challenged Claims and a relevant skilled artisan not only could have made but would have been motivated to combine all the prior-art references in the way the patent claims. *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017). That is, even if all the claim elements are found across a number of references, an obviousness determination must consider whether a person of ordinary skill in the art would have been motivated to combine those references. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1368 (Fed. Cir. 2016); *Los Angeles Biomedical Res. Inst. at Harbor-UCLA Med. Ctr.*

v. Eli Lilly Co., 849 F.3d 1049, 1067 (Fed. Cir. 2017) (vacating and remanding an obviousness determination, in part, because the Board did not make factual findings as to whether there was an apparent reason to combine all three prior art references to achieve the claimed invention and whether a POSITA would have had a reasonable expectation of success from such a combination). This combination determination, as supported by an articulated motivation to combine, requires a plausible rationale as to why those prior art references would have worked together. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1335 (Fed. Cir. 2013). Absent some articulated rationale, a “common sense” finding is no different than the conclusory statement “would have been obvious.” *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017). Of additional importance, “knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references.” *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008).

B. Petitioner Fails to Establish in Grounds 1 and 2 that Challenged Claims 7, 8 and 11 are Anticipated by or Obvious Over Smith

1. Claim 7

Independent claim 7 has been divided into elements for consideration by the Petitioner as follows:

[1pre]. A taxi trip distance violation detection method, comprising:

[7a]. determining a starting point for a trip;

[7b] determining a destination point for said trip;
geographical location information about said taxi to said computer; and
[7c] determining an estimated shortest trip distance between said starting point and said destination point;
[7d] determining an actual trip distance traveled by a vehicle after said trip is completed
[7e] comparing said estimated shortest trip distance with said actual trip distance; and
[7f] indicating a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

a. Smith does not teach the limitations [7d], [7e] and [7f]

To argue that Smith discloses the limitation [7d] “determining an actual trip distance traveled by a vehicle after said trip is completed.” Petitioner proffers that:

Smith determines the mileage traveled, which can be stored in the invoice record. (EX-1006.) For example, Smith claims “said records indicating ... a mileage purportedly travelled in providing said transportation services.” (EX-1006.) “Invoice file 34 contains information for generating an invoice for the activities performed by vehicles 20 upon customer request.” (EX-1006, 23:17-19.) A POSITA understands that the trip is completed to determine actual trip distance and generate an invoice. (Citing EX-1005, ¶81.) Pet., 15-16.

Petitioner thus equates “mileage purportedly travelled” in Smith with “an actual trip distance” in the ’727 Patent.

In the ’727 Patent, “the actual trip distance” is determined at block 29 with input from the trip meter or with street information. EX-1001, 2:52-54.

The ’727 Patent describes that 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**. EX-1001, 1:24-28. Thus, even the taximeter records “an actual trip distance,” a taxi driver can still cheat a rider to take a roundabout route to inflate the fare.

Smith does not define “mileage purportedly travelled” in the specification, the context of “mileage purportedly travelled” is claim 33 of Smith which recites:

A system for ensuring that appropriate mileage charges are being applied to transportation services submitted for reimbursement to a governmental or insurance entity, comprising: a database including records each documenting transportation services provided and submitted for reimbursement, said records indicating a starting and ending point of said transportation services and **a mileage purportedly travelled in providing said transportation services**; processing circuitry reviewing said records, determining from a record said starting and ending points

and mileage purportedly travelled, determining a shortest route from said starting point to said ending point, and comparing a mileage associated with said shortest route to said mileage purportedly travelled to determine if said mileage purportedly travelled is appropriate for said services. EX-1006, Claim 33.

An ordinary meaning of the term “purportedly,” as known in the art, is defined in Merriam-Webster Dictionary (EX-2001) as “ostensibly, allegedly,” and defined in the Cambridge English dictionary (EX-2002) as “in a way that is stated to be true, although this may not be the case.”

Thus, a POSITA would have understood from the ’727 Patent and an ordinary meaning that the term “mileage purportedly travelled” means alleged mileage (in the invoice), obviously, “an alleged mileage” is distinct from “an actual trip distance,” Smith does not disclose “an actual trip distance” , thus Smith does not disclose the limitation [7d] “determining an actual trip distance traveled by a vehicle after said trip is completed.”

Since the limitations [7e] and [7f] includes “the actual trip distance,” similarly, Smith does not disclose the limitations [7e] and [7f].

b. Smith does not anticipate claim 7

Petitioner has not met his burden to show how Smith teaches the limitations [[7d], [7e] and [7f], claim 7 is not anticipated by Smith, since “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or

inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051,1053 (Fed. Cir. 1987).

c. Smith does not render obvious claim 7

Regarding “the actual trip distance,” argues:

Taxis are also different because they typically calculate fares and charge customers using a taxi meter, not an invoice system. Accordingly, if the Board determines that Smith’s System fails to disclose “determining an actual trip distance traveled by a vehicle after said trip is completed,” it would be obvious to use the taximeter and trip meter in taxis to determine actual trip distance after the trip is completed and the driver has stopped the meter. (EX-1005, ¶¶103-104.) Further, it would be obvious to connect the taxi meter to Smith’s AVL system to communicate the actual trip distance to Smith’s System for comparison to the estimated shortest trip distance. (EX-1005, ¶104.) Pet., at 20.

Patent Owner respectfully submits that Smith does not teach the use of any meter, or automated process for determining trip distance. Rather, it clearly relies on driver reported information.

Just as admitted by Petitioner, “the majority of Smith is directed to its ambulance implementation, rather than its taxi implementation,” Pet., at 18. “Taxis are also different because they typically calculate fares and charge customers using a taxi meter, not an invoice system.” Pet., at 20.

Regarding the invoice system, Smith describes that:

The dispatch record also includes a number of fields (fields 16-23) for tracking the vehicle activity. These fields are filled out as the vehicle performs the desired task. This information is also extremely important for customer invoicing due to insurance and Government requirements, and therefore is also transferred to invoice records upon completion of the task. EX-1006, at 29.

Fields 16-23 in the dispatch record are also included in the invoice system of Smith. Fig. 3A (Reproduced below) shows dispatch record, Fields 16-23 are all relate to time, none of them relates to trip distance traveled by the vehicle.

Smith's "invention encompasses systems which make use of existing AVL [Automatic Vehicle Locator] technology to compute routing and mileage based on invoiced pickup and destination sites, and then compare the mileage of the computed route to the mileage charged in the invoice." "Such a system might be used by an insurance or governmental agency to locate excessive mileage charges." (EX-1006, at 12)

<u>Dispatch File</u>	
1	Transport ID Number
2	Status Flag (= " ", "D", "C", or "F")
3	Date of Service
4	Appointment Time (= <time> or "ASAP")
5	Lead Time
6	Transport Type (Wheelchair/Basic/AdvancedLifeSupport)
7	Vehicle ID Number
8	Driver Employee Number
9	Attendant Employee Number
10	Pickup Location
11	Pickup Latitude
12	Pickup Longitude
13	Destination Location
14	Destination Latitude
15	Destination Longitude
16	Time of Call
17	Time Crew Notified
18	Time Crew Dispatched
19	Time Crew En Route to Pickup (Scene)
20	Time Crew Arrived at Pickup (Scene)
21	Time Crew En Route to Destination
22	Time Crew Arrived at Destination
23	Time Crew Reported as Available
24	Reason for transport 1
25	Reason for transport 2
26	Reason for transport 3
27	Reason for transport 4
28	Patient ID number
29	Name of caller
30	Contract number
31	Base rate codes
32	Mileage rate codes
33	Extra services rate codes
34	Billing address codes

FIG. 3A

Smith ascertains mileage based on the amount “purported” on an invoice.

Purported is essentially alleged, not an actual trip distance.

In the '727 Patent, “the actual trip distance” is determined at block 29 with input from the trip meter or with street information. EX-1001, 2:52-54.

The '727 Patent describes that 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**. EX-1001, 1:24-28. Thus, even the taximeter records “an actual trip distance,” a taxi driver can still cheat a rider to take a roundabout route to inflate the fare. To determine whether or not the taxi driver takes a roundabout route, the '727 Patent compares estimated shortest trip distance with the actual trip distance.

Smith neither teaches the use of any meter, or automated process for determining trip distance, nor teaches determining whether the taxi driver takes a roundabout route. Petitioner fails to undertake a Graham analysis, the motivation of combination Smith and “use the taximeter and trip meter in taxis to determine actual trip distance after the trip is completed and the driver has stopped the meter” is problematic. “Indeed, where the invention is less technologically complex, the need for Graham findings can be important to ward against falling into the forbidden use of hindsight. Simply because the technology is readily understood does not mean that it satisfies the legal standard of obviousness. In fact, objective consideration of

simple technology is often the most difficult because, once the problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that “forgets” the invention and analyzes the prior art and understanding of the problem at the date of invention.” *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377 (Fed. Cir. 2012).

Petitioner’s combination of Smith and “use the taximeter and trip meter in taxis to determine actual trip distance after the trip is completed and the driver has stopped the meter” lack evidence of crucial claim limitations of claim 7, particularly limitations [7e] and [7f], and Petitioner fails to show with particularity why and how required for its obviousness combinations. Therefore, the Board should deny the Petition because it has not established its *prima facie* case.

2. Claims 8 and 11

Claims 8 and 11 depend from claim 7 and are not anticipated by or obvious over Smith for at least the same reasons.

Further, claim 11 adds “recording an actual route traveled during said trip for subsequent review for excusable causes for said fare violation.” Although Smith discloses using “a database server 10 for storing records indicating requested vehicle services and associated information.” (EX1006, 14:17-19.) These records “accumulate over time” and “include sufficient information to collectively determine the movements of each vehicle throughout each business day.” (EX1006,

33:17-21.) In Smith’s system, all records, including dispatch record and invoice record do not include “an actual route traveled during said trip,” claim 11 is not anticipated by and not obvious over Smith.

C. Petitioner Fails to Establish in Ground 3 that Challenged Claims 1-4, 7-8, 11-13, 17-20, 26-31, 37-41 are Obvious Over Smith in View of Baumann

1. Claim 1

Independent claim 1 has been divided into elements for consideration by the Petitioner as follows:

[1pre] A taxi trip meter system for a taxi, comprising:

[1a] a computer;

[1b] 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;

[1c] a location sensor providing geographical location information about said taxi to said computer; and

[1d][i] instructions loaded in said computer instructing said computer

[1d][ii] to calculate an estimated shortest trip distance between said starting point and said destination point

[1d][iii] to compare said estimated shortest trip distance with said actual trip distance, and

[1d][iv] to indicate a distance violation when said estimated shortest trip distance is exceeded by said actual trip distance by a predetermined distance margin.

a. The combination of Smith and Baumann does not teach the limitations [1d][iii] and [1d][iv]

In arguing that Smith and Baumann teach the limitation [1d][iii], Petitioner proffers that:

As described with respect to limitation [7e], Section VIII.A.1.e, Smith claims “comparing a mileage associated with said shortest route to said mileage purportedly travelled.” (EX1006, Claim 33.) “The mileage associated with the shortest route is the estimated shortest trip distance, while the mileage purportedly traveled is the actual trip distance.” (EX1005, ¶148.) Pet., 31-32.

As set forth in above Section V. B. 1.C, Smith ascertains mileage based on the amount “purported” on an invoice. Purported is essentially alleged, not an actual trip distance, thus Smith does not teach the limitation [1d][iii].

Baumann discloses a trip meter as a speedometer cable sensor “connected to [a] vehicle driveshaft” for measuring trip distance in a taxi. (EX1007, 5:57-6:4, 6:38-44, Fig. 1.)

Petitioner also argues:

“Thus, it would be obvious to connect Baumann’s trip meter to Smith’s AVL

system. Smith teaches that it uses the “mileage purportedly travelled” for determining whether such mileage was appropriate. (EX1006, Claim 33.) In taxi embodiments, this is the actual distance measured by the trip meter when operating in a “conventional taxi mode.” (EX1007, 5:5-19, 6:11-17; EX1005, ¶137.) Connecting Baumann’s trip meter to Smith’s AVL system would provide Smith’s System with direct access to the mileage traveled for use in Smith’s calculations.” Pet., 28-29.

As set forth in above Section V. B. 1.C, to determine whether or not the taxi driver takes a roundabout route, the ’727 Patent compares estimated shortest trip distance with the actual trip distance. Smith teaches that it uses the “mileage purportedly travelled” for determining whether such mileage was appropriate, but Smith does not mention “roundabout route,” even connecting Baumann’s trip meter to Smith’s AVL system would provide Smith’s System with direct access to the mileage traveled, it is not necessarily that Smith will compare estimated shortest trip distance with the actual trip distance.

It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way to achieve a desired result. *See e.g., Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, 1012, 217 USPQ 193, 199 (Fed. Cir. 1983); Petitioner’s usage of the ’727 Patent’s teaching to

explain the combination of prior art references is an obvious exercise in impermissible hindsight.

Thus, Petitioner has not met his burden to show how the combination of Smith and Baumann teaches the limitation [[1d]][iii].

Since the limitation [1d][iv] includes “the actual trip distance,” similarly, the combination of Smith and Baumann does not disclose the limitation [1d][iv] .

b. Smith in view of Baumann Does Not Render Claim 1 Obvious

Petitioner fails to undertake a Graham analysis, because Petitioner’s combination of Smith and Baumann lacks evidence of crucial limitations of claim 1, such as the elements [[1d]][iii] and [1d][iv]. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Therefore, combination of Smith and Baumann does not render claim 1 obvious because it has not established its *prima facie* case, since “obviousness requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003).

2. Claims 2-4, and 18

Claims 2-4 and 18 depend from claim 1 and are not obvious over Smith in View of Baumann for at least the same reasons.

3. Claims 7, 8 and 11

Claim 7 is a method claim that has many similar limitations as claim 1, similarly, the combination of Smith and Baumann does not teach limitations [7d],

[7e] and [7f] which include “comparing said estimated shortest trip distance with said actual trip distance,” thus claim 7 is not obvious over Smith in View of Baumann.

Claims 8 and 11 depend from claim 7 and are not obvious over Smith in View of Baumann for at least the same reasons.

4. Claim 12

Independent claim 12 has been divided into elements for consideration by the Petitioner as follows:

[12Pre] An automated taxi fare estimating method, comprising:

[12a] using a computer including street information accessible thereon,

[12b][i] the computer including program instructions

[12b][ii] to receive geographical location information from at least one network connected location sensor and

[12b][iii] to access the street information based on the received geographical location information,

[12c][i] the computer program instructions comprising:

[12c][ii] receiving geographical location information from the at least one location sensor;

[12c][iii] determining a starting point for a trip based on the received geographical location information;

[12c][iv] determining a destination point for said trip;

[12c][v] determining an estimated shortest trip distance between said starting point and said destination point based on the street information or on a straightline distance determined between the starting point and destination point;

[12c][vi] determining an estimated waiting time encountered in traffic during said trip based on the geographical location information and the street information; and

[12c][vii] determining an estimated taxi fare based on said estimated shortest trip distance and said estimated waiting time.

Regarding the limitation [12c][vii], Petitioner proffers that:

Like the '727 Patent, Baumann discloses determining an estimated taxi fare based on estimated shortest trip distance and estimated waiting time. “[T]he fare may be calculated on the basis of estimated travel distance and travel time.” (EX1007, 8:40-44.) Unlike the '727 Patent, Baumann actually discloses how to do so in a section titled “Calculation of fares.” (Id., 10:23-11:63.) Baumann expresses this formula as a function of distance (x) and time (t) to be: $f(x,t) = f_0 + ax + bt$ (Id., 10:52-58.) a POSITA implementing Smith’s taxi system would use Baumann’s

disclosure of actual fare calculation to evaluate whether a taxi fare was appropriate for the ride. (EX1005, ¶¶117, 196.) Pet., at 43.

Baumann discloses “[T]he fare may be calculated on the basis of estimated travel distance and travel time.” An “estimated travel distance” is not equivalent to an “estimated shortest trip distance.” Baumann expresses the formula as a function of distance (x) and time (t) to be: $f(x,t) = f_0 + ax + bt$, wherein the $f(x,t)$ is the metered taxi fare, it is dependent on distance X and time t of the ride. Since the distance X is metered, it is the actual trip distance, not the “estimated shortest trip distance.”

The purpose of fare estimating method of the '727 Patent is to evaluate whether a taxi fare was appropriate for the ride, it needs to estimate shortest trip distance to determine whether or not the taxi driver takes a roundabout route to inflate the fare. Baumann only needs to calculate taxi fare, thus the fare is calculated on the basis of estimated actual travel distance and travel time, not based on shortest trip distance.

Smith's taxi system does not disclose “determining an estimated taxi fare based on estimated shortest trip distance and estimated waiting time” either. Therefore, combination of Smith and Baumann does not render claim 12 obvious because it has not established its *prima facie* case, since “obviousness requires a

suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003).

5. Claim 30

Claim 30 is similar to claim 12 but styled as a system claim rather than a method claim. Claim 30 contains similar elements of Claim 12. Obviousness requires that all elements of the claim are disclosed by the cited references. Similar to argued above, neither Smith nor Baumann teaches “determining an estimated fare based on the estimated shortest trip distance and the estimated waiting time” as required by claim 30, and therefore fail to teach or suggest all elements in Claim 30. Therefore, combination of Smith and Baumann does not render claim 30 obvious.

6. Claims 13, 17, 19-20 and 26-29

Claims 13, 17, 19-20 and 26-29 depend from claim 12 and are not obvious over Smith in View of Baumann for at least the same reasons.

7. Claims 31 and 37-41

Claims 31 and 37-41 depend from claim 30 and are not obvious over Smith in View of Baumann for at least the same reasons.

D. Petitioner Fails to Establish in Grounds 4 and 5 that Challenged Claims 12, 13, 17, 19-20, 26-28, 30-31, and 37-40 are Obvious over Baumann in View of Choi

1. Claim 12

Regarding the limitation [12c][vii], as set forth in Ground 3, Section V.C.4, Baumann does not disclose “determining an estimated taxi fare based on said estimated shortest trip distance and said estimated waiting time.”

According to Choi, existing taxi meters record only the distances and the times from when the passenger is picked up to when the passenger is dropped off. It only lets the taxi's driving status and income be known, and because the passenger pick-up and drop-off locations and driving routes are not known, it was difficult for taxi companies to efficiently manage the operation and also to meet the taxi dispatch time. Choi intends to provide a taxi meter using a Global Positioning System capable of recording and reading the taxi passenger pick-up and drop-off locations and current location data. EX-1008, at 10.

The taxi meter of Choi comprises a fare calculation means to calculate fare for each business area, EX-1008, at 10. Choi does not mention evaluating whether a taxi fare was appropriate for the ride, thus calculating fare for each business area is based on actual trip distance, not on the “estimated shortest trip distance.”

Therefore, combination of Baumann and Choi does not render claim 12 obvious because it has not established its *prima facie* case, since “obviousness

requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003).

2. Claim 30

Claim 30 is similar to claim 12 but styled as a system claim rather than a method claim. Claim 30 contains similar elements of Claim 12. Obviousness requires that all elements of the claim are disclosed by the cited references. Similar to argued above, neither Baumann nor Choi teaches “determining an estimated fare based on the estimated shortest trip distance and the estimated waiting time” as required by claim 30, and therefore fails to teach or suggest all elements in Claim 30. Therefore, combination of Baumann and Choi does not render claim 30 obvious.

3. Claims 13, 17, 19-20 and 26-28

Claims 13, 17, 19-20 and 26-28 depend from claim 12 and are not obvious over Baumann in View of Choi for at least the same reasons.

4. Claims 31 and 37-40

Claims 31 and 37-40 depend from claim 30 and are not obvious over Baumann in View of Choi for at least the same reasons.

VI. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of the Petition in its entirety.

Date: June 28, 2023

Respectfully submitted,
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CERTIFICATION OF WORD NUMBER

Counsel for Patent Owner hereby certifies the foregoing Patent Owner's Preliminary Response contains 6523 words as calculated using the word count function of Microsoft Word, not including material excluded under 37 C.F.R. 42.24(a)(1).

Date: June 28, 2023

/Jacob B. Henry/
Jacob B. Henry

CERTIFICATE OF SERVICE

I hereby certify that all counsel of record who have appeared in this case are being served on this day of July 27, 2023, with a copy of the foregoing Patent Owner's Preliminary Response via e-mail.

/s/ Jacob B. Henry
Jacob B. Henry