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Paper 9
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HOPKINS MANUFACTURING CORPORATION and THE COAST DISTRIBUTION SYSTEM, INC.,
Petitioners,

v.

CEQUENT PERFORMANCE PRODUCTS, INC.,
Patent Owner.

Case IPR2015-00613
Patent 6,012,780

Before WILLIAM V. SAINDON, BARRY L. GROSSMAN, and JEREMY M. PLENZLER, *Administrative Patent Judges*.

GROSSMAN, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Maschio Exhibit 2023

I. INTRODUCTION

Hopkins Manufacturing Corporation and The Coast Distribution System, Inc. (collectively "Petitioner") filed a Petition requesting an *inter partes* review of claims 1, 2, and 4–10 of U.S. Patent No. 6,012,780 ("the '780 patent"). Paper 1 ("Pet."). Cequent Performance Products, Inc. ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). We review the Petition under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

Based on the record before us, we are not persuaded that the information presented in the Petition demonstrates a reasonable likelihood that Petitioner would prevail in proving that at least one challenged claim is unpatentable based on the cited references. Accordingly, we deny the Petition and do not institute an *inter partes* review.

A. The '780 Patent

The '780 patent discloses a system and method for controlling the brakes on a trailer being towed by a towing vehicle. Ex. 1001, col. 1, ll. 24–25. Figure 1 of the '780 patent, reproduced below, is a schematic illustration of the disclosed system.

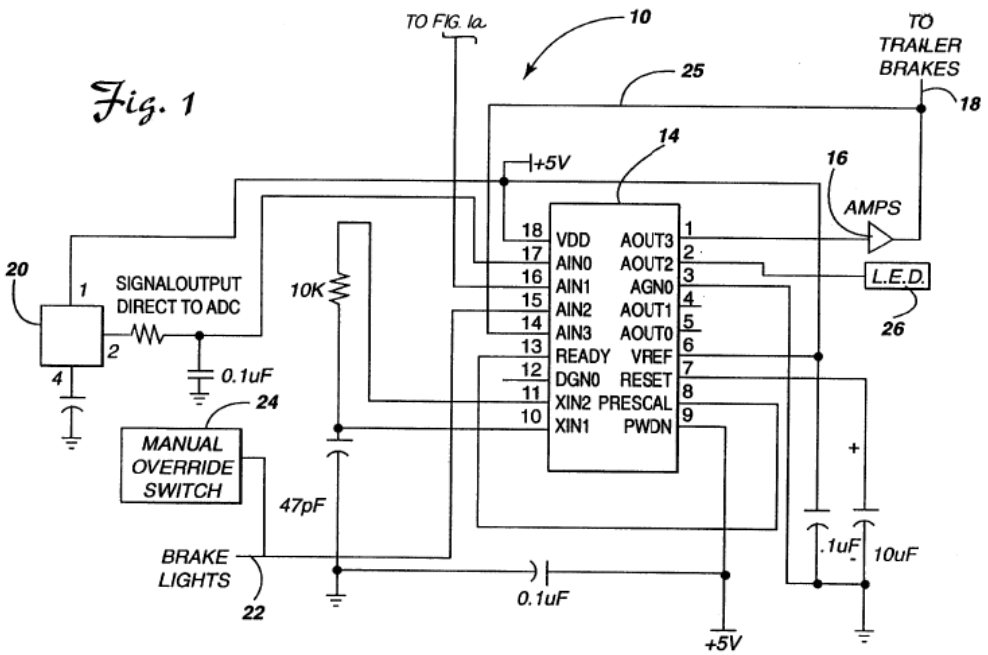

Figure 1 of the ’780 patent is a schematic illustration of the disclosed braking system.

Brake control system 10 includes accelerometer 12 (*see* Fig. 1a), which senses the rate of deceleration of the towing vehicle and the tilt or inclination of the vehicle, *i.e.*, whether the vehicle is traveling uphill or downhill. *Id.* at col. 3, ll. 46–55. As described in the Specification, one way of sensing deceleration and inclination is processing the lower bandwidth signals from the accelerometer as tilt or inclination and the higher bandwidth signals as deceleration. *Id.* at col. 3, ll. 56–58. The tilt angle is continually updated, sent to microcontroller 14 on pin 16, and stored. *Id.* at col. 3, ll. 60–61. Once the towing vehicle brakes are engaged, sensed on pin 15 when the brake lights are engaged or the manual override switch is depressed, the signal from the accelerometer on pin 16 is processed as a rate of deceleration, with uphill/downhill adjustments in brake amperage in accordance with the last stored value of the tilt angle. *Id.* at col. 3, ll. 61–67.

In its basic operation,

> accelerometer 12 provides an inclination control signal and a rate of deceleration control signal to the microcontroller 14 that are indicative of the inclination and rate of deceleration of the towing vehicle. The microcontroller 14 instantaneously processes this information and through its operative connection to the amplifier 16 sends a proportionate brake amperage output signal along the control line 18 to control the brakes on the trailer. The greater the rate of deceleration of the towing vehicle, the greater the brake amperage output signal to the trailer brakes in order to apply greater braking power. The strength of the brake amperage output signal is, however, modified by the sensed inclination of the towing vehicle. Accordingly, the normal brake amperage output signal for level terrain operation is modified and increased when downhill inclination is sensed and reduced when uphill inclination is sensed.

Id. at col. 4, ll. 7–25. As explained in the Specification, controller 14 is responsive to two distinct signals, an inclination signal and a rate of deceleration signal (however, in the example shown in Figure 1 above, it can only receive one or the other from the accelerometer through pin 16 at any given moment in time). Based on the inclination and rate of deceleration control signals received from the accelerometer, controller 14 functions to send a proportionate brake amperage output signal to control the brakes on the trailer. *Id.* at col. 2, ll. 7–14. Controller 14 only sends a proportionate brake amperage output signal to control the brakes of the trailer when both the rate of deceleration and the brake actuation control signals are received simultaneously by the controller. *Id.* at col. 2, ll. 18–22. In the absence of the brake actuation signal, the controller does not send a brake amperage output signal to initiate trailer braking. *Id.* at col. 2, ll. 22–24. This prevents inadvertent trailer braking in response to sensed deceleration occurring under non-braking conditions. *Id.* at col. 2, ll. 24–27.

C. Representative Claim

Claims 1, 8, and 10 are independent claims. Claim 1 is representative and is reproduced below.

> 1. A method for controlling brakes on a trailer being towed by a towing vehicle, comprising:
>
> sensing rate of deceleration of one of the towing vehicle and the trailer;
>
> sensing inclination of one of the towing vehicle and the trailer;
>
> generating a variable deceleration signal as a function of said rate of deceleration and a variable inclination signal as a function of said sensed inclination;
>
> sending a brake amperage output signal to control the brakes on the trailer; and
>
> continuously proportioning said brake amperage output signal in accordance with both said deceleration and said inclination signals.

D. References Relied Upon

Petitioner relies upon the following prior art references:

Reference	Date	Exhibit Number
Vangalis U.S. Pat. No. 3,897,979	Iss. Aug. 5, 1975	Ex. 1003
Brearley U.S. Pat. No. 4,712,839	Iss. Dec. 15, 1987	Ex. 1004
Tomecek U.S. Pat. No. 3,981,544	Iss. Sep. 21, 1976	Ex. 1005
Frait U.S. Pat. No. 4,726,627	Iss. Jan. 26, 1988	Ex. 1006
McGrath U.S. Pat. No. 5,620,236	Iss. Apr. 15, 1997	Ex. 1007
Gee U.S. Pat. No. 5,351,540	Iss. Oct. 4, 1994	Ex. 1008

E. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 3):

Claims Challenged	References	Statutory Basis
1, 2, and 8	Vangalis	102(b)
1 and 10	Brearley and Gee	103(a)
1, 8, and 10	McGrath, Vangalis, and Gee	103(a)
4–7 and 9	McGrath, Vangalis, Gee, Frait, and Tomecek	103(a)

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Technologies LLC*, _ F.3d _, No. 2014-1301, 2015 WL 4097949, at *7–8 (Fed. Cir. July 8, 2015) ("Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA," and "the standard was properly adopted by PTO regulation"). Claim terms also are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioner asserts several specific constructions for various claim terms. Pet. 8–11. Patent Owner does not suggest any specific claim constructions, nor does Patent Owner comment on the specific constructions asserted by Petitioner. We determine, for purposes of this Decision, that specific construction is required only for two claim terms, which are "deceleration signal" and "inclination signal," as used in independent claims 1 and 8.

1. Deceleration Signal

Petitioner asserts that the phrase "deceleration signal" should be construed "to mean a component of accelerometer output caused by the force of a change in velocity acting on the accelerometer." Pet. 10. The phrase "deceleration signal" appears only in independent claims 1 and 10. Petitioner bases its construction on the "well-known" principles of physics that "velocity is the change in position per unit time," and "acceleration is the change in velocity per unit time." *Id.* Petitioner also states that "deceleration" is "a negative value of acceleration." *Id.*

To support these well-known principles, Petitioner cites paragraphs 23 and 24 of the Declaration of Mark Horenstein, Ph.D (Ex. 1009). Dr. Horenstein opines that the phrase "deceleration signal," as used in the challenged claims, means "component of accelerometer output caused by the force of a change in velocity acting on the accelerometer." Ex. 1009 ¶ 24. The reason for the proffered construction is that "[i]t is a well-known principle of physics . . . that: velocity is the change in position per unit time, and acceleration is the change in velocity per unit time" and "[d]eceleration is a more specific term, meaning a negative value of acceleration (i.e., a slowing down)." *Id*.

Neither Petitioner nor Dr. Horenstein state how these well-known principles of physics result in the proffered construction of the phrase "deceleration signal," as that phrase would be understood by one of ordinary skill in the relevant technology in the context of the Specification of the '780 Patent. Neither Petitioner nor Dr. Horenstein direct us to any persuasive evidence to support the assertion that the broadest reasonable interpretation of the phrase "deceleration signal," as used in the '780 Patent, is limited to "a component of accelerometer output." The Petition also does not direct us to anything in the claims or

Specification that limits the "deceleration signal" to a signal generated by an accelerometer.

Patent Owner asserts Petitioner "incorrectly argues an unreasonable interpretation" that the "deceleration signal" is a component of accelerometer output. Prelim. Resp. 11. Patent Owner asserts that the "deceleration signal" is a separate and distinct signal and is not a component of a signal carrying other information, such as inclination information. *Id.*

The Specification states that the disclosed brake system senses "the rate of deceleration of the towing vehicle." Ex. 1001, col. 2, ll. 2–4. The mechanism for doing so, such as an accelerometer, is an example of a preferred mechanism. *Id.* As explained in the Specification, in a preferred embodiment of the disclosed brake system, an accelerometer may be used to sense the rate of deceleration for the towing vehicle and the tilt or inclination of the vehicle, *i.e.*, that is whether the vehicle is traveling uphill or downhill. *Id.* at col. 3, ll. 51–55.

The Specification also states that the accelerometer provides "an inclination control signal" and a "rate of deceleration control signal" to microcontroller 14. *Id.*, at col. 4, ll. 7–9. The Specification also states the tilt or inclination is monitored, updated, and stored. *Id.* at col. 3, ll. 58–61. "Once the vehicle brakes lights are engaged," *i.e.*, once the brakes are applied thereby creating a deceleration signal, the deceleration signal is "then processed" as a rate of deceleration. *Id.* at col. 3, ll. 61–65. This information is then utilized to create brake amperage output signal. *Id.* at col. 4, ll. 10–14. To compensate for the inclination of the towing vehicle, adjustments in the brake amperage output are made in accordance with the last stored value of the tilt angle, which is the inclination signal. Thus, as described in the Specification, the output signal is based on a real-time measured deceleration signal and an inclination signal stored in a memory. Accordingly, the

Specification makes clear that both of the claimed signals may be generated by the same output of a single accelerometer (*see* Ex. 1001, Fig. 1) that when read at different times gives rise to two separate signals—namely, the stored, pre-braking output as the inclination signal and the live, while-braking output of the accelerometer as the deceleration signal.

The claim language itself also refers to the separate and distinct signals. *See*, *e.g.*, claim 1 ("continuously proportioning said brake amperage output signal in accordance with both said deceleration and said inclination signals").

Based on the record before us, for purposes of this Decision, we determine that the broadest reasonable interpretation, in light of the Specification, of the phrase "deceleration signal," recited in independent claims 1 and 10, is *not* limited to an output signal generated by an accelerometer. We also determine that the deceleration signal is separate and distinct from the inclination signal.

2. Inclination Signal

Similar to its assertion for the term "deceleration signal," discussed above, Petitioner asserts that the phrase "inclination signal" in the challenged claims should be "interpreted herein to mean a component of accelerometer output caused by the force of gravity acting on the accelerometer when it is at an angle to the horizon." Pet. 10 (citing Ex. 1009 ¶¶ 23, 24). Dr. Horenstein states the identical definition, but does not limit the proffered construction only to when the accelerometer is at an angle to the horizon. Ex. 1009 ¶ 24. Dr. Horenstein's reason for the proffered construction is

> [f]or any accelerometer (a form of inertial sensor,) the 'proof mass', for example the weight on the end of a pendulum, will respond to whatever force it feels. In a brake controller, the force could have two components, one due to deceleration . . . , and one due to gravity. . . . When the vehicle is on an incline, the

> gravity, which is always downward, will cause the angle of the pendulum to change.

Id. Again, neither Dr. Horenstein, nor Petitioner, refers to the Specification for support for their proffered constructions.

Patent Owner makes the same argument as summarized above in our discussion of "deceleration signal."

Based on our analysis above and the record before us, and for purposes of this Decision, we determine that the broadest reasonable interpretation, in light of the Specification, of the phrase "inclination signal," is *not* limited to an accelerometer output caused by the force of gravity acting on the accelerometer. We also determine that the inclination signal is separate and distinct from the deceleration signal.

B. Asserted Grounds of Unpatentability

1. Claims 1, 2, and 8

Petitioner asserts claims 1, 2, and 8 are anticipated by Vangalis. Pet. 3, 20, 29–36.

A claim is anticipated only if each and every element is found within a single prior art reference, arranged as claimed. *See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). Because the hallmark of anticipation is prior invention, the prior art reference, in order to anticipate under 35 U.S.C. § 102, must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements "arranged as in the claim." *Id.* (citation omitted). The *Net MoneyIN* court further explained:

> [T]he "arranged as in the claim" requirement applies to all claims and refers to the need for an anticipatory reference to show all of the limitations of the claims arranged or combined in the same way as recited in the claims, not merely in a particular order. The test is thus more accurately understood to mean "arranged or

> combined in the same way as in the claim. . . ." Unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.

Id. at 1370–71.

Independent claim 1 requires "sensing [a] rate of deceleration," and "generating a variable deceleration signal as a function of said rate of deceleration." Claim 1 also requires "sensing inclination" and generating "a variable inclination signal as a function of said sensed inclination."

Independent claim 8 similarly requires "forwarding a towing vehicle brake actuation signal to a controller upon sensing the deceleration of said vehicle" and "forwarding a vehicle inclination signal as a function of said sensed inclination to said controller upon sensing said inclination."

The Specification distinguishes between "control signals" and an "output signal." As explained in the Specification, controller 14 receives two control signals from accelerometer 12. The first signal is an "inclination *control signal*." Ex. 1001, col. 4, ll. 7–8 (emphasis added). The second signal is a "rate of deceleration *control signal*." *Id.* (emphasis added). Based on these two control signals, controller 14 sends, through amplifier 16, a "brake amperage *output signal*" to the trailer brakes. *Id.* at col. 4, ll. 11–14 (emphasis added).

In a paragraph asserting that "claims 1 and 8 are anticipated," Petitioner appears to recognize that claims 1 and 8 require separate and distinct inclination and deceleration control signals. Pet. 20–21 ("Even though the claim lists inclination and deceleration as separate signals . . ."). Petitioner asserts, however, that Vangalis anticipates because "it is black letter law that a single structure may satisfy two limitations in a claim." *Id.* (citing *Powell v. Home Depot U.S.A.*, 663

F.3d 1221, 1231–32 (Fed. Cir. 2011)). The cited authority, however, determined that the Specification of the patent at issue did "not suggest that the *claim terms require separate structures*." *Powell*, 663 F. 3d at 1231–32 (emphasis added). As explained above, we determine, for purposes of this Decision, based on the Specification of the '780 patent, that claims 1 and 8 of the '780 patent in fact require that the deceleration signal and the inclination signal are separate and distinct. Accordingly, Petitioner's assertion is unpersuasive.

Patent Owner asserts "Vangalis cannot anticipate the challenged claims because it does not disclose a separate inclination signal and deceleration signal as required by the claims." Prelim. Resp. 1, 8. According to Patent Owner, the fact that Vangalis' disclosure of one signal with two components does not anticipate the claimed method, which requires two signals. *Id.* at 8 ("the claims require two signals"). Patent Owner also asserts Vangalis fails to disclose continuously proportioning a brake amperage output signal in accordance with both a deceleration signal and an inclination signal. *Id.*

Based on the analysis above, we determine that Petitioner has not demonstrated a reasonable likelihood that independent claims 1 and 8, and dependent claim 2, are anticipated by Vangalis.

2. Claims 1 and 10

Petitioner asserts that claims 1 and 10 would have been obvious based on Brearley and Gee. Pet. 21, 36–40.

Independent claim 1 is summarized above. Independent claim 10 is similar to claim 1 in that it requires sensing a rate of deceleration and sensing inclination. Claim 10 additionally requires the steps of monitoring the sensed rate of inclination and continually updating and storing the sensed inclination in a

memory. Claims 1 and 10 also require the step of "sending a brake amperage output signal to control the brakes."

According to Petitioner, Brearley discloses an electronic braking system measuring the vehicle load, operating gradient, and vehicle deceleration to calculate a correction to be added to braking demand. Pet. 21. Petitioner acknowledges that Brearley "does not explicitly disclose trailer braking." *Id.* Petitioner asserts that applying the braking system of Brearley to trailers would have been obvious in view of Gee. *Id.* at 21–22.

Patent Owner asserts that Brearley and Gee "fail to disclose trailer braking as required by [claims 1 and 10]." Prelim. Resp. 15. Patent Owner also asserts that Brearley does not disclose the step of "sending a brake amperage output signal to control the brakes of the trailer." *Id.* at 18.

Section 103(a) forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out a framework for applying the statutory language of § 103:

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Id., at 17–18. "While the sequence of these questions might be reordered in any particular case, the factors continue to define the inquiry that controls." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007).

The Supreme Court has made clear that we apply "an expansive and flexible approach" to the question of obviousness. *Id.* at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, requires "more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination." *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (citing *KSR*, 550 U.S. at 418). "Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Id.* "A reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect." *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985).

Against this general background, we consider the references, other evidence, and arguments on which the parties rely.

For independent claim 1, Petitioner relies on Gee only for the disclosure of trailer braking, asserting that Brearley discloses "an electronic braking system measuring the vehicle load, operating gradient, and vehicle deceleration to calculate a correction to be added to braking demand." Pet. 21–22. For claim 1, Petitioner asserts that applying the apparatus and method of electronic braking described in Brearley to electronic braking of trailers "would have been obvious to a person skilled in the art at the time of the invention, as evidenced by Gee." *Id.* The rationale provided by Petitioner for the proposed combination is that "Brearley

was in the same field as indicated by the fact that several of the cited references in Brearley were trailer brake controllers." *Id.* at 22 (citing Ex. 1009, ¶ 79).

For independent claim 10, Petitioner acknowledges that Brearley "does not expressly state the sensed inclination is stored," as required by claim 10. *Id.* Petitioner asserts, however, that Gee expressly discloses sensing and storing inclination. *Id.* (citing Ex. 1009, ¶ 85). Petitioner also asserts "the stored value helps determine the sign of the solution to the angle of inclination." *Id.* Petitioner concludes that "one of ordinary skill would be motivated to combine Gee with Brearley to accurately determine inclination as a mere matter of simple design choice." *Id.* (citing Ex. 1009, ¶¶ 79–89).

The only reference to "design choice" in Paragraphs 79–89 in Dr. Horenstein's Declaration (Ex. 1009) appears in Paragraph 85, where Dr. Horenstein opines in a single sentence that "One of ordinary skill would be motivated to combine Gee with Brearley as a matter of design choice to accurately determine the angle of inclination." Ex. 1009 ¶ 85. Neither Petitioner nor Dr. Horenstein identifies a persuasive fact-based "reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," *KSR*, 550 U.S. at 418. Nor do they explain why or how a person of ordinary skill in the art would have modified the prior art to render the claims obvious. *See Unigene Labs.*, 655 F.3d at 1360. Petitioner merely asserts that the cited references are "in the same field" and concludes that the proposed combination is based on "simple design choice," without further evidence or analysis. Pet. 22.

As stated by the Supreme Court,

> a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. . . . This is so because

> inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR, 550 U.S. at 418–19.

Under the statute, any petition for *inter partes* review must "identif[y] . . . with particularity . . . the grounds on which the challenge to each claim is based." 35 U.S.C. § 312(a)(3). Petitioner has the burden of proof to establish that it is entitled to the requested relief. 37 C.F.R. § 42.20(c). The petition must include a full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence. *Id*. § 42.22(a). "Thus, we will address only the basis, rationale, and reasoning put forth by the Petitioner in the petition, and resolve all vagueness and ambiguity in Petitioner's arguments against the Petitioner." *Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, Case CBM-2012-00003, slip op. at 10 (PTAB Oct. 25, 2012) (Paper 8). It is Petitioner's responsibility "to explain specific evidence that support its arguments, not the Board's responsibility to search the record and piece together what may support Petitioner's arguments." *Dominion Dealer Solutions, LLC v. Autoalert, Inc*., Case IPR2013-00225, slip op. at 4 (PTAB Oct. 10, 2013) (Paper 15).

Accordingly, we are not persuaded that claims 1 and 10 would have been obvious in view of Brearley and Gee.

3. Claims 1, 8, and 10

Petitioner asserts that claims 1, 8, and 10 would have been obvious based on McGrath, Vangalis, and Gee. Pet. 23, 40–53.

Petitioner asserts McGrath discloses a microprocessor based trailer brake controller utilizing a pendulum-type accelerometer; Vangalis discloses sensing inclination and its importance in trailer brake applications; and Gee discloses

sensing gravity and acceleration and solving for inclination. Pet. 23. Petitioner also asserts that the separate values of acceleration and inclination may be used by a utilization device. *Id.* According to Petitioner, "[g]iven the teaching of Vangalis, it would have been obvious to combine Gee with the microprocessor-based solution of McGrath." *Id.* (citing Ex. 1009, ¶ 136). Petitioner also asserts a person of ordinary skill would have been "motivated to combine Gee, which allows for continual correction to overcome this problem." *Id.* at 23–24. Petitioner also asserts that "use of a memory to store inclination values required by claim 10 as part of this process is merely a matter of design choice and is fully disclosed in Gee." *Id.* at 24.

Here again, as discussed above, Petitioner does not provide a persuasive fact-based rationale for the proposed combination of references. A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR*, 550 U.S. at 418. It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed invention does. *Id.* Petitioner's mere assertion that such a combination would have been an obvious "design choice," without facts and reasoning explaining why this is so, fails to provide such a reason for why the claimed invention would have been obvious. Accordingly, we are not persuaded that Petitioner has met its burden of establishing that claims 1, 8, or 10 would have been obvious based on McGrath, Vangalis, and Gee.

4. Claims 4–7 and 9

Petitioner asserts claims 4–7 and 9 would have been obvious based on McGrath, Vangalis, Gee, Frait, and Tomecek. Pet. 25. These claims depend,

directly or indirectly, from independent claims 1 or 8. Frait and Tomecek do not compensate for the deficiencies in the references discussed above

III. CONCLUSION

For the foregoing reasons, based on the information presented in the Petition, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in establishing that any of claims 1, 2, and 4–10 of the ’780 patent are unpatentable. Accordingly, we deny the Petition and do not institute an *inter partes* review.

IV. ORDER

For the reasons given, it is

ORDERED that the Petition challenging the patentability of claims 1, 2, and 4–10 of the ’780 patent is *denied*.

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