

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DEERE & COMPANY,
Petitioner,

v.

DAVID'S DOZER V-LOC SYSTEM INC,
Patent Owner.

Case IPR2024-01442
Patent 10,533,300

PETITIONER'S REQUEST FOR DIRECTOR REVIEW

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All emphasis in this brief is added unless otherwise indicated

I. INTRODUCTION

The Board Panel's decision to deny institution ignores decades of Federal Circuit precedent on the narrow doctrine of teaching away. In a stunning departure from the law, the Panel found teaching away without identifying a single prior art teaching that criticizes, discredits, or discourages investigation into the claimed invention. *Infra*, §III.A.1. Rather than a prior art teaching, the Panel's erroneous teaching away conclusion teeters on unsubstantiated expert testimony that merely parrots back Patent Owner's inaccurate attorney argument. *Infra*, §III.B. The Panel further erred by reaching a conclusion of teaching away without finding that the prior art combination results in inoperability and without considering the breadth of the claimed invention. *Infra*, §III.A.2–3. Compounding these mistakes, the Panel failed to evaluate the multiple uncontested advantages of the combination set forth in Deere's Petition and to weigh those advantages against Patent Owner's alleged teaching away. *Infra*, §III.C.

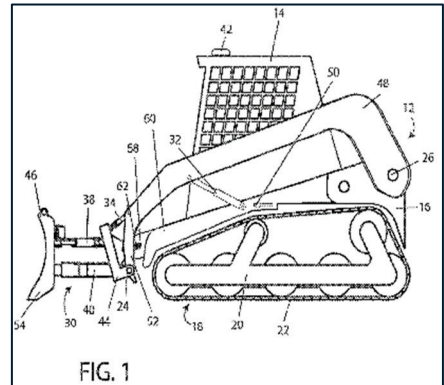
These clear errors in the Panel's decision severely prejudiced Deere and prevented the Board from serving as an efficient alternative to a district court litigation that the parties jointly moved to stay during this *inter partes* review. Deere, an industry-leading domestic manufacturer of products that fuel the U.S. economy, respectfully asks the Director to rectify this unjust outcome by vacating the Panel's erroneous decision and applying the correct law on teaching away.

II. STATEMENT OF THE CASE

Deere sought *inter partes* review of the '300 patent based on Grounds 1A–1D, involving the Funk-Lewis combination, and Grounds 2A–2D, involving the Eckrote-Lumpkins combination. Pet. at 1. Because this Request concerns only the former, the discussion below is limited to Funk and Lewis.

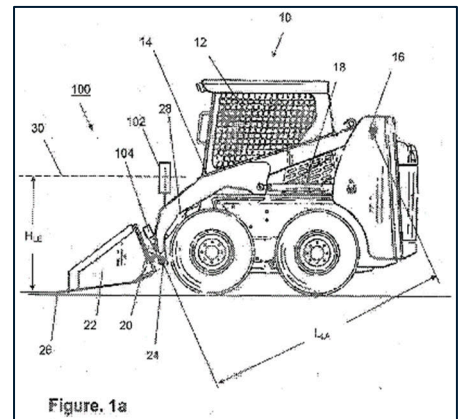
A. Petitioner Deere Asserts the '300 Patent is Obvious Over a Funk-Lewis Combination With Multiple Distinct Reasons to Combine

The '300 patent is about “skid steer vehicles used to grade earth using a dozer blade...[and] automatic grade control equipment.” EX1001, Abstract, Fig. 1 (right); Pet. at 2. Admitting that skid steers and automatic grading were well known, the '300 patent



characterizes its alleged advance as “stabiliz[ing] the dozer blade attachment assembly by limiting the main arm...movement.” EX1001, 1:43–2:3; *see also id.*, 1:18–45, 3:44–45, 3:61–66; Pet. at 3–4.

Funk describes the same kind of skid steer vehicle with an automatic grading system. EX1004, Abstract, ¶13, Fig. 1A (right); Pet. at 5–6. To keep the “grading edge” at a desired elevation during grading,



Funk’s system includes “[a] controller [that] is configured for generating a control signal...to adjust *at least one* of a height of the lift arms and the tilt angle of the work

For example, the Petition explains that Funk’s teaching to make “adjustments to ‘*at least one*’ of lift arm height or blade tilt” would have encouraged a combination with teachings from a reference, like Lewis, that immobilizes the main lift arm, “leaving just ‘one’ of Funk’s two adjustment mechanisms—blade tilt—available for grade control.” Pet. at 9–10 (citing EX1003, ¶84). The Petition also establishes multiple predictable advantages of the Funk-Lewis combination, including “maximizing the horizontal load rating,” “enhanc[ing] the accuracy...by narrowing the degrees of freedom,” “[i]ncreasing the speed [of] grading,” “[r]educing power usage, and thus fuel consumption,” and “[e]xtending the life of the main arm hydraulic.” *Id.*, 9–11 (citing EX1003, ¶¶80–83, ¶¶87–89).

B. Patent Owner Argues Funk Teaches Away From Combination With Lewis

Patent Owner’s Preliminary Response does not contest Deere’s asserted advantages of combining Funk and Lewis. Instead, the Preliminary Response says “Funk teaches away” from the claimed solution of “preventing...*any lifting force*” by the main arms of the skid steer. Prelim. Resp. at 30 (original emphasis). In Patent Owner’s view, copied in nearly verbatim words by its expert, “adjusting the arm height [in Funk] is *necessary* to correct the lateral tilt signal,” and “[t]hus, preventing ‘any lifting force’...would deactivate, and render inoperable, half of the control corrections contemplated by Funk.” *Id.*, 32 (original emphasis).

C. The Board Panel Denies Institution Based on Teaching Away

The Panel’s determination that Deere’s Grounds 1A–1D “do[] not establish a reasonable likelihood of proving the unpatentability of independent claim 1 of the ’300 patent” is the result of its conclusion that “Funk teaches away from the identified claim limitation and from the proposed combination.” Inst. Dec. at 30. The Panel agreed with the assertions Patent Owner made, and that its expert mimicked, about how Funk’s system works and about Funk purportedly teaching away. *See id.*, 27–30.

III. ARGUMENT

A. The Panel Ruled Against Black-Letter Law on Teaching Away

The Panel ruled against decades-old black-letter law when it concluded that Funk teaches away from the ’300 patent’s claimed invention merely because holding the main arms still, as claimed, would “decreas[e] the system’s accuracy” by “deactivat[ing], and render[ing] inoperable, half of the control corrections contemplated by Funk.” Inst. Dec. at 27 (quoting EX2001, ¶114). Even if assumed true, the Panel’s understanding of Funk is not a legally valid teaching away: It does not show criticism or discrediting of the claimed invention; it does not reveal a system inoperable for its intended purpose of automatic grading; and it is not commensurate in scope with the claimed invention.

1. The Panel Failed to Identify Discouragement of the Claimed Invention by Funk

It is well settled that “a reference does not teach away if it does not criticize, discredit, or otherwise discourage investigation into the invention claimed.” *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 739 (Fed. Cir. 2013) (cleaned up); *see also In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (holding the same). The threshold level of discouragement is not trivial. For example, the Federal Circuit has upheld teaching away conclusions when a prior art reference indicates that the claimed invention is “inoperative” by “warning” that the route the patentee pursued would lead to “failure.” *Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326–28 (Fed. Cir. 2009). By contrast, in *Galderma*, the Federal Circuit reversed a district court’s conclusion of teaching away where the prior art said the claimed solution was not “optimal” and would tend to produce “increased side effects.” 737 F.3d at 738–39.

Worse than *Galderma*, the Board Panel did not (and could not) identify even “a single negative statement” by Funk about the claimed solution of keeping the arms still during grading. *GE v. Raytheon Techs. Corp.*, 983 F.3d 1334, 1349 (Fed. Cir. 2020) (“For that reason, substantial evidence does not support the Board’s conclusion that ‘Wendus teaches away...’”). Instead, the Panel acknowledged Funk’s equal and alternative solutions for conducting automatic grading with or without use of the main lift arms—i.e., “adjust[ing] **at least one** of a height of the

lift arms and the tilt angle of the work attachment [e.g., blade] mounting structure.” Inst. Dec. at 20 (quoting EX1004, ¶13). This “at least one” teaching permeates Funk’s abstract, invention summary (¶13), detailed description (¶33, ¶43), and claims (ind. cl. 1).

Nothing in the Panel’s analysis suggests that Funk embraces *only* the disclosed alternative of adjusting the lift arms or that Funk *disparages* the equally disclosed alternative of fixing the lift arms and adjusting only blade tilt, as the ’300 patent claims. Funk’s “disclosure of alternative designs does not teach away” from one of the alternatives. *Fulton*, 391 F.3d at 1201; *see also Bayer Schering Pharma AG v. Barr Labs., Inc.*, 575 F.3d 1341, 1349 (Fed. Cir. 2009) (explaining that different prior art “options” do not teach away).

Unmoored from Funk’s disclosure, the Panel found a teaching away solely based on testimony from Patent Owner’s expert that holding the lift arms still, as claimed, “would deactivate, and render inoperable, half of the control corrections contemplated by Funk.” Inst. Dec. at 27 (quoting EX2001 ¶114). Disregarding Funk’s disclosure in this way does not follow the law and is reason enough to vacate the Panel’s decision. Indeed, *teaching away* cannot be established without an actual prior art *teaching*. *See Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1364 (Fed. Cir. 2006) (“We will not read into a reference a teaching away from a [claimed invention] where no such language exists.”).

What's more, there would be no teaching away even were Patent Owner's words somehow injected into Funk. At best, Patent Owner and its expert merely allege that implementing the claimed invention would make Funk's system inferior from the perspective of so-called "control corrections" during grading. EX2001, ¶114. But, merely alleging "that [the claimed solution] may be inferior" does not establish teaching away. *In re Mouttet*, 686 F.3d 1322, 1333–34 (Fed. Cir. 2012) (citing *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)); see also *Bayer Pharma AG v. Watson Labs., Inc.*, 874 F.3d 1316, 1327 (Fed. Cir. 2017) ("In assessing whether prior art teaches away, that 'better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes.'" (quoting *Mouttet*)).

2. The Panel Failed to Find That Configuring Funk's System As Claimed Would Destroy Its Automatic Grading Purpose

The Panel reached an erroneous conclusion on teaching away by confusing Patent Owner's allegations of inferiority for inoperability. The Panel melded and conflated these concepts, but the law does not. A characterization of the claimed invention as merely "inferior" does not teach away absent a "suggest[ion] that the claimed invention would be unlikely to work." *Mouttet*, 686 F.3d at 1334.

In *Mouttet*, the claimed invention featured a computing device having a particular array of electrical circuitry. *Id.* at 1324–28. The prior art, despite disclosing many of the claimed features, "recognize[d] a 'fundamental difference' between circuit types, and even suggest[ed] that electrical circuits are an inferior to

optical circuitry for certain purposes,” such as “fewer interconnect possibilities” and slower “computation time.” *Id.* at 1333–34. Nevertheless, the Federal Circuit upheld the Board’s conclusion against teaching away because the reference gave no indication that the claimed solution of electrical circuitry “should not or cannot be implemented.” *Id.* (quotes omitted). The *Tec Air* case that the Panel relied on provides powerful contrast. *See* Inst. Dec. at 28. There, as opposed to mere inferiority, the prior art taught away from the claimed invention because the proposed combination would produce a fundamentally inoperative device—i.e., “smooth-headed screws” that “no screw driver would be able to turn.” *Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1360 (Fed. Cir. 1999). The factual findings here are like *Mouttet*, not *Tec Air*.

Patent Owner and its expert never asserted, and the Panel properly never found, that Funk’s system could not operate to perform automatic grading via the ’300 patent’s claimed invention. After all, it is common ground that Funk teaches adjusting “at least *one* of” lift arm height and blade tilt during grading. Inst. Dec. at 20, 27; Prelim. Resp. at 31–32, Pet. at 5, 9–10. And, again, this “at least one” teaching is an integral part of Funk’s preferred embodiments. EX1004, Abstract, ¶13, ¶33, ¶43. *Tec Air* did not involve a scenario like this one where the prior art discloses both claimed and unclaimed alternatives, nor did any of the other “inoperability” cases cited by the Panel. *See* Inst. Dec. 10–11 (citing *McGinley v.*

Franklin Sports, Inc., 262 F.3d 1339, 1353–56 (Fed. Cir. 2001) (teaching away where modifying the reference would “eliminat[e]” a feature “required for successful operation of [the] invention”); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) (teaching away where modifying the disclosed gasoline filtering device would be inoperative because “[t]he gasoline to be filtered would be trapped in [a] pocket”); *In re Sponnoble*, 405 F.2d 578, 587 (CCPA 1969) (teaching away where “the operability and utility” of the prior art “depends upon [a] frictionally induced rolling action” and “a sliding engagement is absolutely essential to the operability” of the claimed invention)).

Although Patent Owner’s expert shoehorned the word “inoperable” into his analysis, he never said Funk’s system would not work if configured like the claimed invention. Inst. Dec. 27 (quoting EX2014 ¶114). He merely suggested that the claimed alternative of holding the lift arms still and adjusting only blade tilt would cut Funk’s contemplated “control corrections” in “half” by eliminating the ability to “correct the lateral tilt signal.” *Id.*¹ In the Panel’s view, pursuing the claimed approach of “leaving just one of Funk’s adjustment mechanisms—blade tilt—

¹ To be clear, Deere does not accept this incorrect view of Funk. The Panel’s factual findings are merely assumed true here for the sake of argument. Section III.B below explains how the Panel was led to misread Funk by Patent Owner and its expert.

available for grade control” would “decreas[e] the system’s accuracy.” *Id.*, 28 (cleaned up). But just as the Federal Circuit found a prior art disclosure of “fewer interconnect possibilities” and slower “computation time” insufficient to teach away in *Mouttet*, 686 F.3d at 1333–34, and just as the Federal Circuit found a prior art suggestion of “increased side effects” insufficient to teach away in *Galderma*, 737 F.3d at 738–39, the Panel should have reached the same conclusion. Even if the claimed invention would reduce Funk’s accuracy, that is not a teaching away.

3. The Panel Failed to Consider Whether the Alleged Teaching Away Is Commensurate with the Claimed Invention

The Panel’s erroneous teaching away conclusion violates yet another basic legal tenet: “Evidence concerning whether the prior art teaches away from a given invention *must* relate to and be commensurate in scope with the ultimate claims at issue.” *Idemitsu Kosan Co. v. SFC Co.*, 870 F.3d 1376, 1381–82 (Fed. Cir. 2017). So, for example, even if a prior art reference discloses “poor performance under [certain] criteria,” there is no teaching away when “it is undisputed that the claims at issue do not include limitations with respect to [those criteria].” *Id.*

Likewise, here, the Panel’s factual finding that implementing the claimed solution of keeping the arms still in Funk would “decreas[e] the system’s accuracy,” (Inst. Dec. at 28), is not commensurate in scope with the ’300 patent’s exceptionally broad claims. The claims do not include any “accuracy” limitations, nor do they require the ability to make “corrections” that account for “lateral tilt” during

automatic grading. Inst. Dec. at 27–28 (citing EX2001, ¶114). Thus, as in *Idemitsu* (and multiple other controlling Federal Circuit decisions), “poor performance under those criteria” is not enough for teaching away. *Idemitsu*, 870 F.3d at 1381–82; *see also In re ICON Health & Fitness*, 496 F.3d 1374, 1381–82 (Fed. Cir. 2007) (explaining that the patentee’s teaching away argument “may have carried some weight with more narrow claims, which it could have obtained by amendment”); *Zhang*, 654 F. App’x at 490 (concluding no teaching away in view of an alleged loss of “a soft hand feel” benefit because, among other things, “the claims of the [rejected] application are not limited to fabrics that are soft to the touch”).

B. The Panel’s Teaching Away Conclusion Rests on Expert Testimony That Parrots Attorney Argument and Mischaracterizes Funk

Compounding its legal mistakes, the Panel also made a clear factual error by premising its teaching away conclusion on expert testimony that merely parrots back Patent Owner’s attorney argument and severely mischaracterizes Funk’s disclosure. *Compare* Prel. Resp. at 30–32, *with* EX2001, ¶¶113–114. In short, the Panel credited inaccurate copycat testimony that “adjusting the arm height [in Funk] is *necessary* to correct the lateral tilt signal.” Inst. Dec. at 27 (quoting EX2001, ¶114 (original emphasis)). Funk’s system senses lateral tilt but does not correct it.

In Funk, the sensed “lateral tilt β ” signal corresponds to an “error ϵ of the height H_1 measured by the laser sensor.” EX1004, ¶34; *see also id.*, ¶31. A controller uses this height measurement to determine “necessary adjustment[s]”

during grading, and Funk is explicit that such adjustments are made by “actuating *at least one* of a height of the lift arms 14 and the tilt angle of the work attachment [e.g., blade] mounting structure 20.” *Id.*, ¶33; *see also id.*, Abstract, ¶43, ind. cl. 1. Additionally, “the lateral tilt β is displayed to an operator” who has “the opportunity to stop the automatic leveling processes if the lateral tilt β is above a threshold.” *Id.*, ¶34. Not once does Funk suggest that lateral tilt is corrected by moving the lift arms.

To sum up, Patent Owner’s expert misread Funk, and by relying on his testimony, the Panel adopted this misreading as its own. Once the misreading is corrected, the path forward on teaching away is clear. Configuring Funk’s system based on the claimed solution of holding the main arms still during grading could not possibly eliminate the ability to correct lateral tilt. Inst. Dec. at 27–28 (citing EX2001, ¶114). Funk’s system never had such an ability in the first place.

C. The Panel Erroneously Viewed Funk’s Supposed Teaching Away As Necessarily Case Dispositive on Obviousness

The Panel’s sole substantive focus in evaluating the Funk-Lewis combination was teaching away, treating this issue as necessarily case dispositive. But “obviousness must be determined in light of *all* the facts, and there is no rule that a single reference that teaches away will mandate a finding of nonobviousness.” *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006). Instead, there are “degree[s] of teaching away.” *Gurley*, 27 F.3d at 553. And the determined degree of teaching away “must” be weighed against evidence supporting the

combination. *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1380–81 (Fed. Cir. 2000) (upholding a court’s obviousness determination despite a teaching away).

Notably, the Panel’s decision recites the multiple undisputed advantages that Deere set forth regarding the Funk-Lewis combination. *See* Inst. Dec. at 24–26 (citing EX1003, ¶¶80–83, ¶¶87–90). But the Panel did not assess the merits of these advantages, much less consider their counterweight against Patent Owner’s alleged teaching away.² In at least this way, the Panel failed to account for “all the facts.” *Medichem*, 437 F.3d at 1165. The Panel also disregarded the “degree of [alleged] teaching away,” *Gurley*, 27 F.3d at 553, which could not possibly be more than tepid given the express concession by Patent Owner’s expert that Funk’s system could still make automatic grading corrections, merely reduced by “half” (in his view). Inst. Dec. at 27 (quoting EX2001, ¶114).

“Where the prior art contains apparently conflicting teachings (i.e., where some references teach the combination and others teach away from it) each reference ***must*** be considered for its power to suggest solutions to an artisan of ordinary skill

² Although the Board stated in a footnote that “the ***same*** reasons” would support a conclusion that “[Deere] does not persuasively argue that there would have been a sufficient reason to combine,” the footnote also fails to address the multiple undisputed advantages of the Funk-Lewis combination. Inst. Dec. 30 n9.

considering the degree to which one reference might accurately discredit another.”
Medichem, 437 F.3d at 1165 (cleaned up). The Panel skipped this step in its obviousness analysis and, as a result, reached the wrong conclusion.

IV. CONCLUSION AND RELIEF REQUESTED

Petitioner Deere respectfully requests Director Review or rehearing by the Delegated Review Panel to vacate the Board Panel’s decision, to correct the Panel’s legal and factual errors on teaching away, and to reverse or remand as appropriate.

Respectfully submitted,

Dated: April 17, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on April 17, 2025, a complete and entire copy of Petitioner's Request for Director Review was provided by email to Patent Owner by serving the email correspondence addresses of record as follows:

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