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Paper 11
Date: April 22, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CHEMTRONICS USA, INC.,
Petitioner,

v.

FLATFROG LABORATORIES AB,
Patent Owner.

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IPR2024-00015
Patent 10,775,935 B2

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Before DANIEL J. GALLIGAN, SHEILA F. McSHANE, and JOHN R. KENNY, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge* DANIEL J. GALLIGAN.

Opinion Dissenting filed by *Administrative Patent Judge* JOHN R. KENNY.

GALLIGAN, *Administrative Patent Judge*.

# DECISION
Granting Institution of *Inter Partes* Review
*35 U.S.C. § 314*

# I. INTRODUCTION

## *A. Background*

Chemtronics USA, Inc. ("Petitioner") filed a petition for *inter partes* review (Paper 1 ("Pet." or "Petition")) challenging claims 1–14 of U.S. Patent 10,775,935 B2 (Ex. 1001 (the "'935 patent")). Flatfrog Laboratories AB ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp."). With Board authorization (Paper 7), Petitioner filed a reply to Patent Owner's Preliminary Response (Paper 8 ("Prelim. Reply")), and Patent Owner filed a sur-reply to Petitioner's preliminary reply (Paper 10 ("Prelim. Sur-reply")).

Under 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

For the reasons explained below, we institute an *inter partes* review of all challenged claims on all grounds raised in the Petition.

## *B. Related Matters*

As required by 37 C.F.R. § 42.8(b)(2), the parties identify various related matters. Pet. 117–18; Paper 4 at 1.

## *C. Real Parties in Interest*

Petitioner identifies itself and Chemtronics Co. Ltd. as the real parties in interest. Pet. 117. Patent Owner identifies itself as the real party in interest. Paper 4 at 1.

*D. The '935 Patent and Illustrative Claim*

The '935 patent relates to "[a]n assembly for holding and controlling curvature of a glass plate for an optical touch sensitive system." Ex. 1001, code (57). Claim 1 is reproduced below.

> 1. A method for assembling a touch sensing apparatus, the touch sensing apparatus comprising a display panel, a plate including a touch surface, and a frame assembly,
>
> wherein the frame assembly includes:
>
> a first edge extending between a first end point and an opposite second end point; and
>
> a second edge extending between the second end point and a third end point;
>
> the method comprising:
>
> configuring the frame assembly to support the display panel;
>
> arranging a plurality of emitters adjacent to a periphery of the plate, said plurality of emitters configured to emit light to propagate over the touch surface;
>
> arranging a plurality of detectors arranged adjacent to the periphery of the plate, said plurality of detectors configured to receive light from the set of emitters; and
>
> configuring the frame assembly to support the plate;
>
> wherein configuring the frame assembly to support the plate includes inducing a parabolic curvature in the touch surface relative to a first axis and relative to a second axis perpendicular to the first axis, said first axis is parallel to a line between the first end point and the second end point and said second axis is parallel to a line between the second end point and the third end point.

### *E. Asserted Grounds of Unpatentability*

Petitioner presents the following grounds:

| Claim(s) Challenged | 35 U.S.C. § | Reference(s)/Basis |
|---|---|---|
| 1–14 | 103[1] | Cheng,[2] Han,[3] Zhao[4] |
| 1–11, 14 | 103 | Cao,[5] Han, Shin[6] |

## II. ANALYSIS

### *A. Principles of Law*

A patent claim is unpatentable "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. § 103; *see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). 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 ordinary skill in the art; and (4) any secondary

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. The earliest application to which the '935 patent claims priority was filed in 2017, so we apply AIA § 103.
[2] CN 203386188 U, published Jan. 8, 2014 (Ex. 1003). In this Decision, we cite Exhibit 1004, which is an English translation of Cheng.
[3] US 2019/0235701 A1, published Aug. 1, 2019 (Ex. 1005).
[4] US 2017/0123257 A1, published May 4, 2017 (Ex. 1012).
[5] US 9,983,626 B2, issued May 29, 2018 (Ex. 1010).
[6] US 9,291,845 B2, issued Mar. 22, 2016 (Ex. 1011).

considerations, if in evidence.[7] *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

*B. Level of Ordinary Skill in the Art*

Petitioner argues that a person of ordinary skill in the art would have had "at least a bachelor-of-science or comparable degree in mechanical engineering or an equivalent discipline and at least five years of experience designing touch sensors, provided that the educational level can offset the experience level, and vice versa." Pet. 18 (citing Ex. 1002 ¶¶ 23–24).

Patent Owner does not comment on the level of ordinary skill in the Preliminary Response.

To the extent necessary, and for purposes of this Decision, we accept the uncontested assessment offered by Petitioner, which appears consistent with the '935 patent and the asserted prior art, except that we delete the qualifier "at least."

*C. Claim Construction*

Neither party proposes any claim terms for construction. On this record, we determine that no terms need express construction to determine whether we should institute. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

*D. Alleged Obviousness over Cheng, Han, and Zhao*

Petitioner asserts that claims 1–14 are unpatentable as obvious over the combined teachings of Cheng, Han, and Zhao. Pet. 27–73. Our

[7] Patent Owner has not introduced secondary considerations evidence.

Decision focuses on Petitioner's contentions for claim 1 for the "reasonable likelihood" determination of 35 U.S.C. § 314(a). The relevant disclosures of the prior art references are discussed below in the analysis of claim 1.

For much of the structural subject matter recited in claim 1, Petitioner relies on Cheng's Figure 1 below.

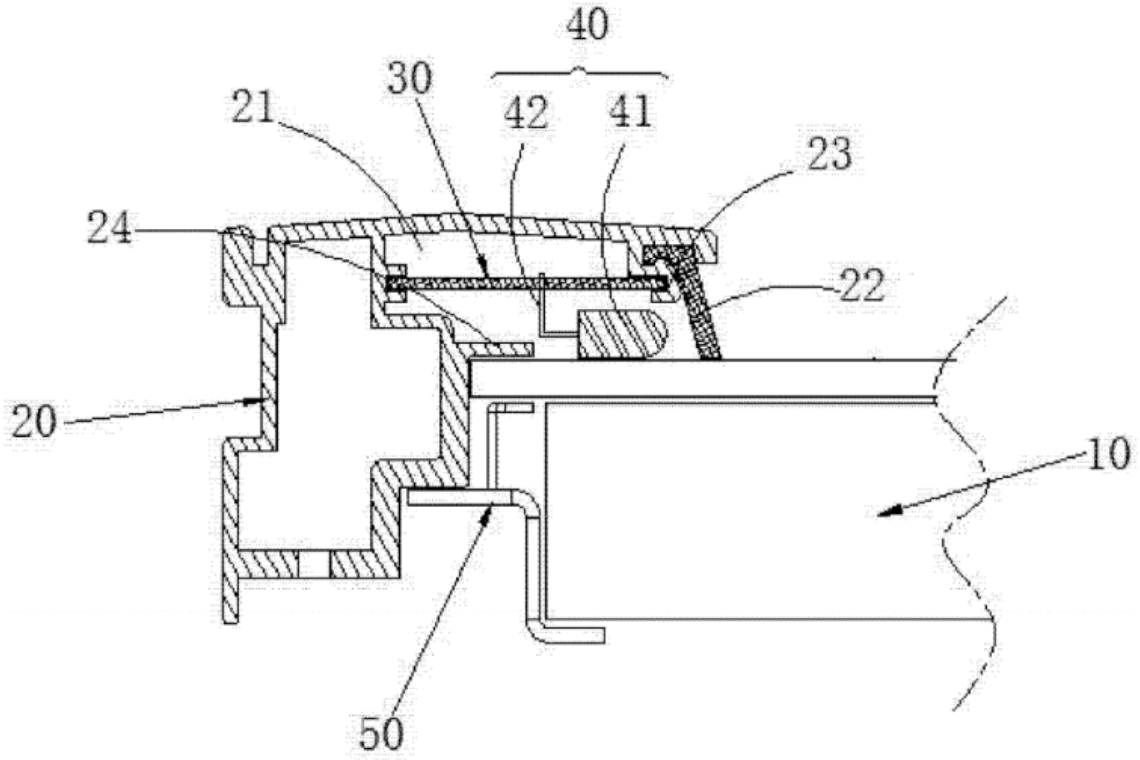



Fig. 1

Cheng's Figure 1 illustrates a touch screen frame structure holding touch panel 10. Ex. 1004 ¶¶ 11, 13. In Cheng's Figure 1, Petitioner identifies frame 20 and touch panel 10 as teaching the preamble's recited structure: a "a touch sensing apparatus, the touch sensing apparatus comprising a display panel, a plate including a touch surface, and a frame assembly." Pet. 33 (citing Ex. 1004 ¶¶ 2–3, 13–16, Fig. 1; Ex. 1002 ¶ 128).

Claim 1 recites that "the frame assembly includes: a first edge extending between a first end point and an opposite second end point; and a second edge extending between the second end point and a third end point." Petitioner argues that a person of ordinary skill in the art would have understood that Cheng's frame 20 is a rectangular frame structure such that it would include first (horizontal) and second (vertical) edges defined between end points. Pet. 34–35 (citing Ex. 1004 ¶ 2, Fig. 1; Ex. 1002 ¶¶ 130–132); *see* Ex. 1004 ¶ 2 (disclosing that "X and Y coordinates" are determined on a touch screen). Petitioner also relies on Han's disclosure of a four-sided touch panel frame. Pet. 35–36 (citing Ex. 1005, Fig. 2; Ex. 1002 ¶ 35).

Claim 1 recites that the method for assembling the touch sensing apparatus comprises "configuring the frame assembly to support the display panel." Petitioner argues that Cheng discloses that the frame supports the touch panel with protrusion 24 and support 50. Pet. 36–37 (citing Ex. 1004 ¶¶ 15–16,[8] Fig. 1; Ex. 1002 ¶ 136); *see* Ex. 1004 ¶¶ 15 ("A protrusion 24 is provided on the frame 20 . . . ."), 16 ("A support 50 is provided below the protrusion 24; the support 50 and the protrusion 24 together clamp the touch panel 10.").

Claim 1 recites "arranging a plurality of emitters adjacent to a periphery of the plate, said plurality of emitters configured to emit light to propagate over the touch surface" and "arranging a plurality of detectors arranged adjacent to the periphery of the plate, said plurality of detectors configured to receive light from the set of emitters." Petitioner argues that

[8] Petitioner quotes material from paragraph 16 of Cheng but mistakenly cites paragraph 15.

Cheng discloses infrared receivers and transmitters that form a scanning network to achieve touch sensing functionality, and Petitioner identifies lamp tube 41 of infrared element 40 as emitting light. Pet. 37–39 (citing Ex. 1004 ¶ 2, Fig. 1; Ex. 1002 ¶¶ 138–141); *see* Ex. 1004 ¶ 2 ("In infrared positioning, infrared receivers and transmitters distributed densely around a display region form a scanning network in horizontal and vertical directions, and it is thus possible to determine X and Y coordinates by means of the position of infrared rays in the horizontal and vertical directions that are blocked.").

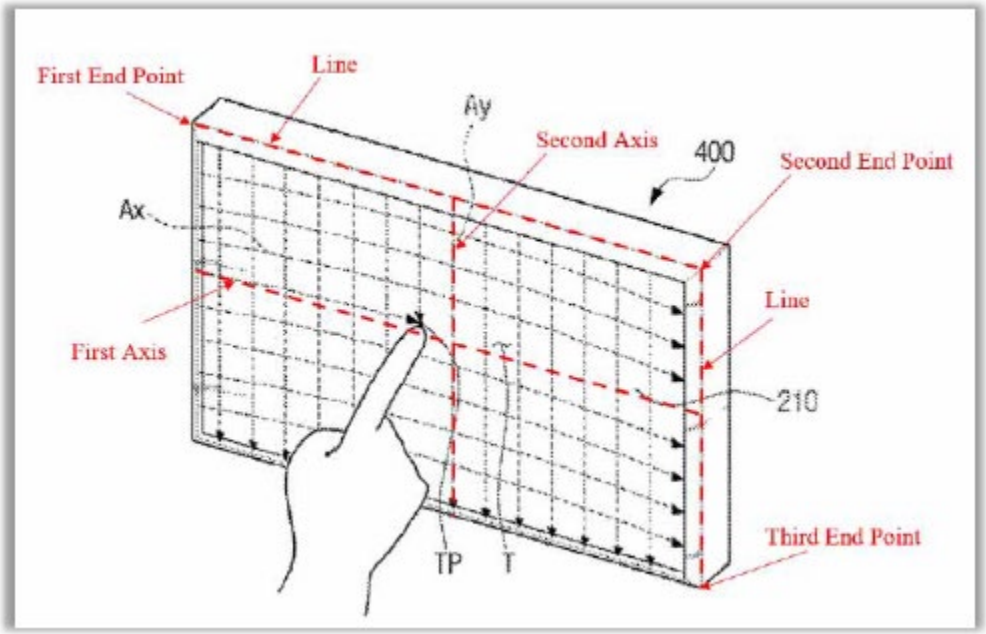
The final step of claim 1 recites:

> configuring the frame assembly to support the plate; wherein configuring the frame assembly to support the plate includes inducing a parabolic curvature in the touch surface relative to a first axis and relative to a second axis perpendicular to the first axis, said first axis is parallel to a line between the first end point and the second end point and said second axis is parallel to a line between the second end point and the third end point,

which Petitioner labels as limitation f. *See* Pet. 40.

Petitioner relies on the combination of Cheng, Han, and Zhao for this subject matter. Pet. 40–42. As noted above, Petitioner argues that Cheng discloses that frame 20 supports touch panel 10 using support 50. Pet. 40 (citing Ex. 1004, Fig. 1; Ex. 1002 ¶ 142). Petitioner relies on Han for teaching the parabolic curvature that is recited in limitation f, and Petitioner relies on Zhao for teaching a process that induces curvature during installation of the panel. *See* Pet. 27 ("[I]t would have been obvious for a [person of ordinary skill in the art] to combine the touch screen display device and frame elements of Cheng, with the parabolically curved touch screen elements of Han and the curvature-inducing frame elements of Zhao." (citing Ex. 1002 ¶ 118)).

In support of its contentions for limitation f, Petitioner provides the annotated version of a portion of Han's Figure 2 below.




Pet. 41–42. Han's Figure 2 shows a finger touching display apparatus 10 at touch point TP. Ex. 1005 ¶¶ 27, 48. In the annotated figure above, Petitioner identifies the x and y axes as the recited first and second axes, respectively, and identifies the upper left, upper right, and lower right corners of the display as the first, second, and third end points, respectively. Pet. 41–42. Petitioner argues that the x (first) axis is parallel to a line between the first end point and the second end point and that the y (second) axis is parallel to a line between the second end point and the third end point, as recited in limitation f. Pet. 41 (citing Ex. 1002 ¶ 144). Petitioner argues that Han teaches a touch surface that is parabolically curved along the x and y axes to improve touch recognition accuracy. Pet. 41 (citing Ex. 1002 ¶ 144); *see also* Pet. 22–23 (discussion of Han's curved touch surface).

Petitioner argues that a person of ordinary skill in the art would have combined Han's curved touch panel teachings with Cheng to improve the accuracy of touch detection, as disclosed by Han. Pet. 29–30 (citing Ex. 1005 ¶¶ 58, 86, 106, Fig. 6(a); Ex. 1002 ¶¶ 121–124), 32; *see* Ex. 1005 ¶¶ 85–86 (describing that, by using a concave touch surface, "accuracy of touch recognition through the touch detector 200 can be enhanced").

Petitioner further argues that Zhao teaches a process to induce curvature in a display cover plate during installation. Pet. 23–24 (citing Ex. 1012, code (57), ¶¶ 50, 55, Fig. 1; Ex. 1002 ¶¶ 95–98, 127), 31 (citing Ex. 1012 ¶¶ 50–55). Petitioner argues that a person of ordinary skill in the art "would have been motivated to implement Zhao's teaching of inducing curvature in the plate via a curved support member 30 during plate installation" because it would result in "a simplified manufacturing process with reduced cost" to achieve the benefits of Han's parabolically-curved touch surface. Pet. 32–33 (citing Ex. 1002 ¶ 127).

In its arguments for denial under 35 U.S.C. § 325(d), Patent Owner argues that Han "does not teach a touch sensitive device that includes the claimed first edge and second edge where the frame assembly to support the plate includes inducing a parabolic curvature in the touch surface." Prelim. Resp. 26. According to Patent Owner, "Han discusses curving just the 'front' side of the glass, whereas the claims require that the parabolic curvature is 'induced' in the touch surface 'relative to a first axis **and relative to a second axis perpendicular to the first axis**,' and configuring the frame assembly to support the plate." Prelim. Resp. 26 (citing Ex. 1005, Figs. 3, 7). Patent Owner contends that Han's Figures 3 and 7 "show[] that no part of the frame is inducing any curve." Prelim. Resp. 26.

Patent Owner's argument that Han does not disclose inducing curvature does not account for Petitioner's reliance on Zhao to teach this feature and is therefore not persuasive. *See* Pet. 31 ("Zhao teaches inducing curvature . . . ."), 32 ("To achieve Han's parabolic plate curvature in Cheng, a [person of ordinary skill in the art] would have been motivated to implement Zhao's teaching of inducing curvature in the plate via a curved support member 30 during plate installation.").

We disagree with Patent Owner's argument that Han's disclosure of curving the front side of the glass is insufficient because, as Petitioner correctly points out (Pet. 41–42), Han's touch surface has x and y axes that are perpendicular to each other. Ex. 1005, Fig. 2. Patent Owner's argument suggests that one of the claimed axes must be the z axis, but we see nothing in the claim that requires this. Furthermore, Patent Owner's argument that Han does not teach first and second edges is conclusory and also does not account for Petitioner's reliance on Cheng's frame having edges. *See* Pet. 34–35 (asserting that Cheng discloses the claimed edges). Furthermore, on this record, we find persuasive Petitioner's contention that Han teaches first and second edges. *See* Pet. 36 (providing annotated version of a portion of Han's Figure 2 identifying first and second edges).

For the reasons discussed above and based on Petitioner's contentions and evidence, summarized above, we are persuaded, on this record, that Petitioner shows a reasonable likelihood of prevailing in demonstrating that claim 1 is unpatentable as obvious over the combined teachings of Cheng, Han, and Zhao.

### *E. Discretionary Denial under 35 U.S.C. § 325(d)*

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 325(d). Prelim. Resp. 18–32; Prelim.

Sur-reply 1–8; *see also* Prelim. Resp. 8–15 (Patent Owner's discussion of the prosecution history). For the reasons stated below, we decline to exercise discretion to deny on this basis.

Section 325(d) provides that the Director may elect not to institute[9] a proceeding if the challenge to the patent is based on matters previously presented to the Office. 35 U.S.C. § 325(d) states, in pertinent part, "[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." We use the following two-part framework in determining whether to exercise our discretion under § 325(d):

> (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

*Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH,* IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

In applying the two-part framework, we consider the following non-exclusive factors:

> (a) the similarities and material differences between the asserted art and the prior art involved during examination;
>
> (b) the cumulative nature of the asserted art and the prior art evaluated during examination;

[9] The Board institutes trial on behalf of the Director. 37 C.F.R. § 42.4(a) (2019).

> (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
>
> (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
>
> (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
>
> (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (Dec. 15, 2017) (precedential as to § III.C.5, first paragraph). If, after review of factors (a), (b), and (d), we determine that the same or substantially the same art or arguments previously were presented to the Office, then we consider factors (c), (e), and (f), which relate to whether the petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims. *Advanced Bionics*, Paper 6 at 10.

As background for the § 325(d) analysis, during prosecution, the Examiner entered amendments to claim 1 that led to allowance, and the Examiner cited these amendments in the reasons for allowance. Ex. 1013, 100, 103–04. In particular, the Examiner stated that the "subject matter of the independent claims [that] could either not be found or was not suggested in the prior art of record" is the following:

> a first edge extending between a first end point and an opposite second end point; and
>
> a second edge extending between the second end point and a third end point . . .
>
> wherein configuring the frame assembly to support the plate includes inducing a parabolic curvature in the touch surface relative to a first axis and relative to a second axis perpendicular to the first axis, said first axis is parallel to a line between the first

> end point and the second end point and said second axis is parallel to a line between the second end point and the third end point.

Ex. 1013, 100–01 (also discussing then-pending independent claim 10); *see* Prelim. Resp. 14–15 (discussing this prosecution history).

*1.* Advanced Bionics *Part One*

Patent Owner argues that the first part of the *Advanced Bionics* framework is met because Petitioner's contentions present substantially the same art and arguments that were already before the Examiner during prosecution of the '935 patent. Prelim. Resp. 18–30; Prelim. Sur-reply 1–7. According to Patent Owner, the "Examiner relied on Kukulj as a primary reference for its teachings of a touch screen device with a frame assembly having multiple edges and supporting a display panel" and "then combined Kukulj with Christiansson for its alleged teachings that its frame assembly induces a curvature on the touch surface," resulting in a combination in which the "curvature is parabolic concave in view of Kukulj's teachings of parabolic reflectors." Prelim. Resp. 25 (citing Ex. 1013, 505–08, 511–15). Patent Owner argues that Petitioner sets forth substantially the same argument, "substituting Kukulj with Cheng (ground 1) or Cao (ground 2) for their teachings of a frame assembly of a touch-sensitive apparatus, and substituting Christiansson with Han and Zhao (Ground 1) or Han and Shin (Ground 2) for their teachings of a curved touch screen." Prelim. Resp. 25–26.

Petitioner responds that "the Examiner's previously considered Christiansson and Kukulj references do not disclose a touch screen parabolically curved in both an Ax and Ay direction. Han does." Prelim. Reply 2. Petitioner argues that "Han's multi-axis touch screen parabolic

curvature embodies *the very same limitations* PO approved in an Examiner's Amendment to overcome Christiansson and Kukulj and which were cited in the Notice of Allowance." Prelim. Reply 2–3.

For the reasons explained below, we determine that the first part of the *Advanced Bionics* framework is satisfied.

There is no dispute that Han was cited in an Information Disclosure Statement (IDS). *See* Pet. 18 ("Han was included in an IDS but was not cited by the Examiner."); Prelim. Resp. 20 ("Han was specifically cited in an Information Disclosure Statement and expressly signed off by the Examiner as considered during allowance."); Ex. 1013, 124 (IDS listing Han and signed by the Examiner). "Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent." *Advanced Bionics*, Paper 6 at 7–8. Thus, under our binding precedent, Han was previously presented to the Office.

For the reasons discussed above in § II.D, we are sufficiently persuaded by Petitioner's contentions that Han teaches

> a parabolic curvature in the touch surface relative to a first axis and relative to a second axis perpendicular to the first axis, said first axis is parallel to a line between the first end point and the second end point and said second axis is parallel to a line between the second end point and the third end point.

*See* Pet. 41–42. This is a portion of the subject matter that the Examiner indicated was the reason for allowance. *See* Ex. 1013, 100–01. The remainder of the wherein clause recites "configuring the frame assembly to support the plate includes inducing a parabolic curvature." As Patent Owner correctly notes (Prelim. Resp. 28–29), the Examiner found that Chritiansson teaches inducing a curve, which would be parabolic in combination with

Kukulj. Ex. 1013, 507 (finding that Christiansson teaches "configuring the frame assembly . . . to support the plate . . . includes inducing a curvature"), 508 (finding that "Kukulj teaches the curvature . . . is parabolic concave"). Thus, the disclosure of Han relied on by Petitioner appears to fill the gap in the wherein clause that formed the basis for the Examiner's allowance.

The Examiner also cited the following limitations of claim 1 as not being in the prior art: "a first edge extending between a first end point and an opposite second end point; and a second edge extending between the second end point and a third end point." Ex. 1013, 100–01. It is not clear why the Examiner cited this subject matter because the Examiner had already found that Kukulj teaches "a first edge . . . [and] a second edge . . . perpendicular to . . . the first edge," with "a flat plane . . . defined by . . . the first edge and the second edge." Ex. 1013, 505–06; *see* Prelim. Resp. 25 ("[T]he Examiner relied on Kukulj as a primary reference for its teachings of a touch screen device with a frame assembly having multiple edges and supporting a display panel." (citing Ex. 1013, 505–06, 511–13)). Thus, it appears that the prior art upon which the Examiner relied to reject the claims teaches the recited first and second edges. On this record, we are sufficiently persuaded by Petitioner's contention that Han teaches the first and second edges, as noted above in § II.D. *See* Pet. 36 (providing annotated version of a portion of Han's Figure 2 identifying first and second edges). Thus, regardless of whether the Examiner considered the combination of Christiansson and Kukulj to teach the recited first and second edges, the prior art before the Examiner, which included Han, teaches this subject matter.

Based on the foregoing, we determine that the prior art of record during examination of the '935 patent teaches all of the limitations of

claim 1. Thus, as relevant to claim 1, the prior art asserted in this proceeding is cumulative of the prior art of record during examination (*Becton, Dickinson* factor (a)), both being similar in material respects with regard to the claimed subject matter (*Becton, Dickinson* factor (b)).

We also consider *Becton, Dickinson* factor (d) (the extent of the overlap between arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art) in evaluating the first part of the *Advanced Bionics* framework. *Advanced Bionics*, Paper 6 at 10. Patent Owner provides a chart comparing the Examiner's Christiansson findings to Petitioner's Han assertions to show that "Petitioner uses Han in the same way as Christiansson." Prelim. Resp. 27–29 (citing Ex. 1013, 507–08; Pet. 4–5, 40–42). Patent Owner's arguments, however, ignore the fact that these were findings of the Examiner before the amendment to the claims that achieved allowance. *See* Ex. 1013, 502–21 (April 7, 2020 Office Action), 103 (noting that authorization for amendment resulting in allowance was given on June 29, 2020). Here, Petitioner relies on Han to teach much of what the Examiner found lacking in the relied-on art. *See* Prelim. Reply 2–3 ("Han's multi-axis touch screen parabolic curvature embodies *the very same limitations* PO approved in an Examiner's Amendment to overcome Christiansson and Kukulj and which were cited in the Notice of Allowance . . . ."). Thus, we do not agree with Patent Owner that Petitioner's contentions based on Han are similar to the Examiner's Christiansson findings.

We find that the first part of the *Advanced Bionics* framework is satisfied based on *Becton, Dickinson* factors (a) and (b) because the art in this proceeding is materially similar to, and cumulative of, the art of record during prosecution. As noted above for *Becton, Dickinson* factor (d),

Petitioner relies on Han's disclosure in a manner different from the Examiner's reliance on the art of record, which leads us to the second part of the *Advanced Bionics* framework.

*2.* Advanced Bionics *Part Two*

In the second part of the *Advanced Bionics* framework, we consider *Becton, Dickinson* factors (c), (e), and (f) to determine whether the Office erred in a manner material to the patentability of the challenged claims. *Advanced Bionics*, Paper 6 at 10.

> Factor (c) focuses on the record developed by the Office in previously reviewing the art or arguments. It informs, therefore, the petitioner's showing under factors (e) and (f), which focus on the petitioner's evidence of previous Office error regardless of the context in which the same or substantially the same art or arguments were previously presented. For example, if the record of the Office's previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under factors (e) and (f). On the other hand, if the alleged error is a disagreement with a specific finding of record by the Office, then ordinarily the petitioner's required showing of material error must overcome persuasively that specific finding of record.

*Advanced Bionics*, Paper 6 at 10–11. For the reasons explained below, we find that Petitioner has shown the Office erred.

Han was prior art of record during examination, as discussed above, but the Examiner did not issue a rejection based on Han or even substantively discuss Han during examination. The record reflects that the Examiner considered Han, but it does not reflect the extent of the evaluation of Han. *See* Ex. 1013, 124 (signed IDS listing Han and stating that "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH"). Furthermore, Petitioner relies on Han to teach the particular "parabolic curvature in the touch surface" recited in the wherein clause that the

Examiner found lacking in the prior art. *See* Prelim. Reply 2–3 ("Han's multi-axis touch screen parabolic curvature embodies *the very same limitations* PO approved in an Examiner's Amendment to overcome Christiansson and Kukulj and which were cited in the Notice of Allowance . . . ."). As discussed above in § II.D, we find sufficiently persuasive Petitioner's contentions that Han teaches this subject matter, notwithstanding Patent Owner's arguments to the contrary. *See* Pet. 41–42; Prelim. Resp. 26. Thus, we find that *Becton, Dickinson* factors (c) (the extent to which the asserted references were evaluated during prosecution, including whether a rejection rested on any reference) and (f) (the extent to which additional evidence and facts presented in the petition warrant reconsideration of the asserted references or arguments) weigh against denying institution.

*Becton, Dickinson* factor (e) concerns whether Petitioner has pointed out sufficiently how the Examiner erred in evaluating the asserted prior art. Although the Examiner indicated that Han was considered, the record does not reflect the extent of the evaluation of Han. As noted above, *Advanced Bionics* advises that, "if the alleged error is a disagreement with a specific finding of record by the Office, then ordinarily the petitioner's required showing of material error must overcome persuasively that specific finding of record." *Advanced Bionics*, Paper 6 at 10–11. Here, the Examiner made no finding based on Han in which to show error. Patent Owner argues that "Petitioner never identifies any relevant differences between how it combines Zhao/Shin with references such as Cheng/Cao and Han, versus how the Examiner used Christiansson with Kukulj." Prelim. Sur-reply 7. We disagree with this assertion because Petitioner relies on "Han's multi-axis touch screen parabolic curvature [to teach] *the very same*

*limitations* PO approved in an Examiner's Amendment to overcome Christiansson and Kukulj and which were cited in the Notice of Allowance." Prelim. Reply 2–3. Thus, Petitioner's persuasive contentions based on Han demonstrate that the Office overlooked Han's disclosures in allowing the claims.

For the reasons given above, we determine that the Office erred in a manner material to the patentability of the challenged claims, and we do not deny institution under 35 U.S.C. § 325(d).

## III. CONCLUSION

We determine that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in challenging at least one claim of the '935 patent, and we decline to deny institution under 35 U.S.C. § 325(d). Based on the foregoing, we institute *inter partes* review of all challenged claims on all grounds raised in the Petition. *See* 37 C.F.R. § 42.108(a) ("When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim."). At this stage of the proceeding, we have not made a final determination with respect to the patentability of any of the challenged claims or the construction of any claim term.

## IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a) and 37 C.F.R. § 42.4, an *inter partes* review is hereby instituted as to claims 1–14 of the '935 patent on all challenges raised in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which will commence on the entry date of this decision.

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Paper 11
Date: April 22, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CHEMTRONICS USA, INC.,
Petitioner,

v.

FLATFROG LABORATORIES AB,
Patent Owner.

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IPR2024-00015
Patent 10,775,935 B2

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Before DANIEL J. GALLIGAN, SHEILA F. McSHANE, and JOHN R. KENNY, *Administrative Patent Judges*.

KENNY, *Administrative Patent Judge*, dissenting.

I respectfully dissent and would deny the Petition under *Advanced Bionics*. As the majority explains, *Advanced Bionics* sets forth a two-part framework for analyzing discretionary denials under section 325(d). *Advanced Bionics*, Paper 6 at 8. I agree with the majority's analysis of the first part of the *Advanced Bionics* framework, but disagree with its analysis of the second part, in which the Board determines whether the petitioner demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Id.*

For me, it is difficult to conclude that Petitioner demonstrated that the Office erred in a manner material to the patentability of challenged claims,

when Petitioner did not argue, let alone demonstrate, such an error, after having ample opportunity to do so.

Petitioner's first opportunity was in the Petition, where Petitioner addressed the first part of the *Advanced Bionics* framework, but not the second. Pet. 18. In its discussion of section 325(d) in the Petition, Petitioner did not assert, let alone demonstrate, any material error by the Office. *Id.* In its Preliminary Response, Patent Owner correctly observed that Petitioner did not argue, under the second part of the *Advanced Bionics* framework, that the Office erred in a manner material to the patentability of the challenged claims. Prelim. Resp. 30–32.

We gave Petitioner another opportunity to address section 325(d) in a Preliminary Reply. Paper 7, 2. In that Reply, Petitioner again addressed the first part of the *Advanced Bionics* framework, arguing that "Grounds 1 and 2 of the Petition each present new, non-cumulative arguments that are 'stronger' and simply not the same as references previously before the Examiner, and which are directly relevant to the patentability of '935 Patent's claims." Prelim. Reply 7–8; *see also id.* at 1–6. Petitioner continued: "[a]ccordingly, part one of the *Advanced Bionics* test cannot be satisfied and PO's request for discretionary denial under § 325(d) should be denied." *Id.* at 8. As with the Petition, Petitioner did not address the second part of the *Advanced Bionics* framework and did not argue, let alone demonstrate, that the Office erred in a manner material to the patentability of the challenged claims. *Id.* at 1–8. Nor did Petitioner identify any error by the Examiner under *Becton Dickinson* factor (e). *Id.* In fact, in neither the Petition nor the Preliminary Reply did Petitioner even argue that it should prevail on the second part of the *Advanced Bionics* framework. Pet. 18; Prelim. Reply 1–8.

In my opinion, Petitioner has not demonstrated that the Office erred in a manner material to the patentability of challenged claims. Accordingly, under *Advanced Bionics*, I would deny the Petition under 35 U.S.C. § 325(d).

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