

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC,

Patent Owner.

IPR2024-01084
Patent 10,649,578

PATENT OWNER PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Ex. No.	Short Ref.	Exhibit
2001	JCC	Excerpts of Joint Claim Construction Chart
2002	Stay Order	October 2, 2024 Order Granting in Part Apple's Motion to Stay in <i>Smith Interface Technologies, LLC v. Apple Inc.</i> , 3-23-cv-01187, S.D. Cal. (DKT. No. 127).

I. INTRODUCTION

Institution should be denied because the Petition fails to establish a reasonable likelihood of prevailing on any Challenged Claim.¹ First, all independent claims recite, in part, “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer.” Relying on a single reference—Shiplacoff—Petitioner asserts that Shiplacoff teaches this claimed portion by disclosing a “card” displayed at a greater size and “focus” than other cards and an alleged “background layer,” which are both instead “blurr[ed] (e.g., out of focus).” Paper 2 (“Pet.”), 17-21. However, a mere resizing does not teach the claimed difference in apparent depth. Further, Shiplacoff does *not* use the word “focus” to describe an *objective* visual property, such as focal depth, but instead uses “focus” only in the *subjective* sense: to signify where *the user’s attention* is directed. Indeed, Shiplacoff never teaches or mentions the use of “blurring” or changing depth.

Second, all independent claims recite “a second input,” along with repeated references back to “*the* second input.” Specifically, as recited across numerous limitations, this “second input” is detected “by a second contact that includes *movement* across the display in a direction,” and is used for performing either a

¹ Petitioner challenges Claims 1-4, 8-18, 22-30, and 34-39 (“Challenged Claims”) (Pet., 2), the independent claims of which are Claims 1, 15, and 27.

“displaying” or “replacing” step. Yet, Petitioner fails to map to a single, common input as required by the claims.

Petitioner instead maps to Shiplacoff’s “swipe up gesture” (or Nan’s “edge gesture”) as “*the* second input” for performing the “displaying” step, but then maps solely to Shiplacoff’s “tap or flick” (and thus nothing from Nan) as “*the* second input” for performing the “replacing” step. *Compare, e.g., id.*, 15-16, and 46-47, *with id.*, 21-23. Petitioner’s mapping thus fails to follow the plain claim language. Petitioner also fails to show how a “tap” discloses a “*movement* across the display” as required by the claims, and also fails to identify any teaching or suggestion to use Shiplacoff’s “flick” for performing the claimed “replacing” step.

Further, the Board should exercise its discretion to deny the Petition under 35 U.S.C. § 325(d). The first of Petitioner’s failures discussed above matches the Examiner’s findings during prosecution, namely that the patent resulting from Shiplacoff does not disclose the claimed “first virtual display layer that appears at a lesser depth as compared to a second virtual display layer”—particularly when coupled with the remaining claim language. And, again, Petitioner relies solely on Shiplacoff and not Nan for this claimed portion. Thus, Petitioner cites only the same and cumulative prior art already presented to the Office while failing to show how the Office materially erred in evaluating the art, thus warranting discretionary denial.

II. OVERVIEW OF THE '578 PATENT

The Challenged Claims recite apparatuses including a touch interface/surface as well as methods performed at such apparatuses for detecting inputs by contacts and taking responsive actions. Specifically, in response to detecting “a first input by a first contact,” a home screen on the display is replaced with a user interface of an application. And in response to detecting “a second input by a second contact that includes movement across the display in a direction,” different actions are taken in accordance with a determination that this second input meets—or does not meet—certain “criteria.”

Regarding these “criteria,” independent Claims 1 and 15 recite “one or more criteria that is met with the second input being detected to include a movement parameter that is above a movement threshold.” In accordance with a determination that the second input meets this “movement” criteria, the claims recite “displaying at least a portion of the user interface of the application in a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer, where the at least portion of the user interface of the application is reduced in size and is further displayed in its entirety in the first virtual display layer.” On the other hand, in accordance with a determination that the second input does not meet this “movement” criteria, the claims recite “replacing the user interface of the application with the home screen.”

Independent Claim 27 also recites this “movement” criteria but also recites a similarly worded “duration” criteria. In accordance with a determination that the second input meets both the “movement” and “duration” criteria, the claim recites performing a “display” step similar to the claimed “displaying” above. On the other hand, in accordance with a determination that the second input meets the “movement” criteria but not the “duration” criteria, the claim recites performing a “replace” step similar to the claimed “replacing” above.

A. Prosecution History

During prosecution, the application for the '578 Patent faced one prior art rejection, which was issued by the Office on September 27, 2019. EX1002, 200-01. Three days later on September 30, 2019, before responding to the rejection, the Applicant submitted an Information Disclosure Statement that included, as Petitioner acknowledges, “the issued patent corresponding to Shiplacoff:” U.S. Patent No. 8,683,362 (“Shiplacoff362”). Pet., 52; EX1002, 302.

Thereafter, on October 3, 2019, the Applicant filed an amendment that, among other changes, added the following claim language to proposed claim 1: “in response to detecting the second input and in accordance with a determination that the second input meets first criteria that is met when the second input is detected to include a movement parameter that is above a movement threshold, ~~perform an operation~~ display at least a portion of the first user interface of the first application

in a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer” EX1002, 467 (emphasis in original). Other independent claims with similar claim language were also added. *Id.*, 468-69, 472-74.

Months later, on February 21, 2020, the Examiner initiated a telephonic interview with the Applicant that, as documented by the Examiner, was “to expedite a NOA” (Notice of Allowance). *Id.*, 755. As the Examiner found, the independent claims would be allowable if the above language was further amended to include the following condition recited in a dependent claim: “such that the at least portion of the user interface of the application is reduced in size and is further displayed in its entirety when displayed in the first virtual display layer.” *Id.*, 755, 762, 777. And reflecting this finding, the Examiner subsequently issued a NOA on March 2, 2020, proposing an Examiner’s amendment adding this claimed condition. *Id.* As the Examiner explicitly stated, “***the prior art of record*** fails to teach or suggest” the proposed combination of claim limitations. *Id.*, 777. Indeed, concurrently with the NOA, the Examiner provided an Examiner-signed copy of the aforementioned Information Disclosure Statement listing Shiplacoff362, in which the Examiner marked Shiplacoff362 as having been “CONSIDERED.” *Id.*, 601.

The Applicant thereafter agreed with the Examiner’s findings—while also noting that other independent claims included further claim language such as a

“duration” criteria—and paid the issuance fee, leading to the issuance of the ‘578 Patent. *Id.*, 820-29.

B. Claim Construction (37 C.F.R. § 42.104(b)(3))

In the Litigation,² Petitioner contends that the phrase “movement parameter” recited in the Challenged Claims is indefinite. EX2001, 9-12/15. Contrary to its Litigation position, Petitioner does not assert in its Petition that this phrase is indefinite and, indeed, had no problem understanding the phrase to map it (albeit in a flawed mapping). Pet., 21-24, 46-47.

Patent Owner disputes that this term Petitioner identified in the Litigation is indefinite. The words are common, understandable words, and the arrangement of those words and the surrounding claim language make the plain and ordinary meaning of the phrase apparent, as demonstrated by the Petition itself. As explained in more detail below, the plain and ordinary meaning of the term is readily understandable, and Patent Owner believes no formal constructions are necessary.

² *Smith Interface Technologies, LLC v. Apple Inc.*, 3-23-cv-01187, S.D. Cal. (the “Litigation”). On October 2, 2024, the Court granted in part Petitioner’s request to stay the Litigation, staying the Litigation “pending the issuance of the last of the PTAB’s institution decisions on Apple’s pending IPR petitions,” with any “further stay” to be addressed after those decisions. EX2002.

III. LEVEL OF ORDINARY SKILL IN THE ART

Patent Owner does not agree with all aspects of Petitioner’s proposed level of ordinary skill but does not believe that resolving that level is necessary to resolve the issues raised in this Preliminary Response.

IV. OVERVIEW OF THE CITED PRIOR ART

A. Shiplacoff

Shiplacoff discloses a device in which “two or more [display] modes are available for interacting with [the] device.” EX1004, ¶ [0068]. One such mode is “a ‘card’ mode, in which at least two cards are presented.” *Id.*, ¶ [0070]. As Shiplacoff explains, “a card that has focus (i.e., that the user is interacting with) is visible in full, while at least one other card is only partially visible.” *Id.*, ¶ [0015]. Shiplacoff’s Figure 3 depicts an embodiment of this “card” mode:

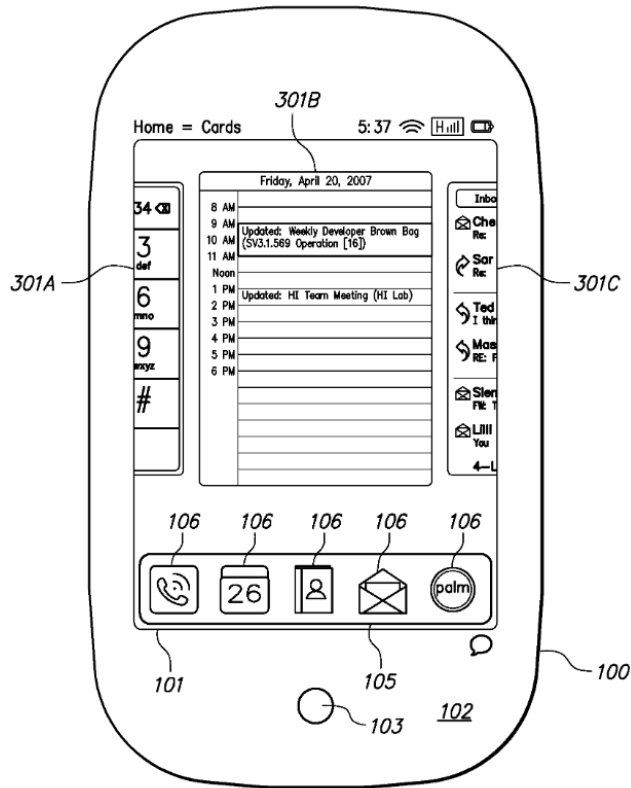


FIG. 3

Id., Fig. 3, ¶ [0077].

While in “card” mode, “the user can dismiss activities, for example by closing a card.” *Id.*, ¶ [0100]. As Shiplacoff teaches, a card can be closed or dismissed “by clicking on a control within a card” or “performing a flicking action in an upward direction.” *Id.* “In general, when a card is dismissed, other cards move to fill the gap.” *Id.*, ¶ [0101] (item numbering omitted). These other cards thus become the target of the user’s “focus.” *Id.*, ¶ [0167]. In some instances, closing a card also causes the card’s application to either “close” or “remain[] open even when” the card is closed. *Id.*, ¶ [0102].

Separately, Shiplacoff teaches that the user may also switch to “card” mode from another mode, such as “a ‘full-screen’ mode, in which a card representing an application or other activity occupies substantially the entire display screen.” *Id.*, ¶¶ [0127], [0069]. Shiplacoff’s Figure 2 depicts an embodiment of this “full-screen” mode:

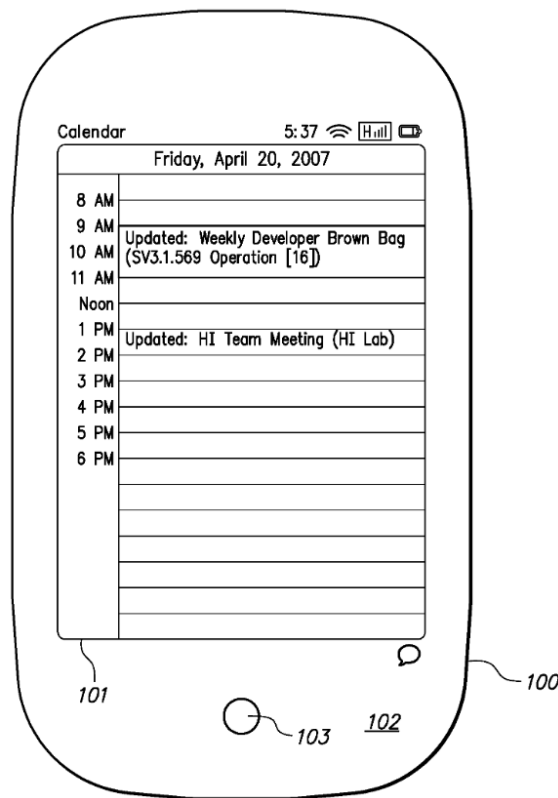


FIG. 2

Id., Fig. 2, ¶ [0075]. As Shiplacoff teaches, “the user can switch among the various modes by performing a gesture.” *Id.* One such “gesture” is a “‘swipe up’ gesture” beginning in an off-screen “gesture area 102 and extending onto screen 101.” *Id.*, ¶ [0127].

Lastly, Shiplacoff also teaches that “the user can launch additional activities by returning to the launch screen as shown in FIG. 1. In one embodiment, this is performed by performing a gesture or other command.” *Id.*, ¶ [0099]. Shiplacoff’s Figure 1 is reproduced below:

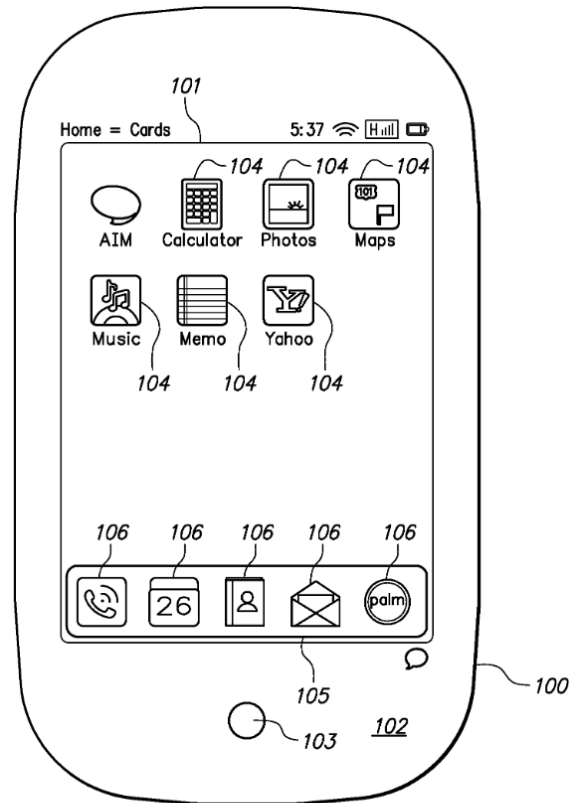


FIG. 1

Id., Fig. 1.

B. Nan

Similar to Shiplacoff’s “swipe up gesture,” Nan discloses an “edge gesture” that “has a start point at an edge of [a] user interface and a later point not within the edge.” *Compare* EX1004, ¶ [0127], *with* EX1005, *Abst. and* 7:17-22. *See also* Pet.,

46 (proposing, for Ground 2, combining Shiplacoff and Nan such that Nan’s “edge gesture . . . would substitute the swipe up gesture in Shiplacoff alone”). “[B]ased on one or more factors” of the edge gesture such as “length,” “speed,” “hold time,” and/or “number of inputs,” a “user interface not currently exposed” may be selected. EX1005, 7:9-46, Abst.

V. THE PETITION FAILS TO ESTABLISH A REASONABLE LIKELIHOOD OF SUCCESS FOR ANY CLAIMS

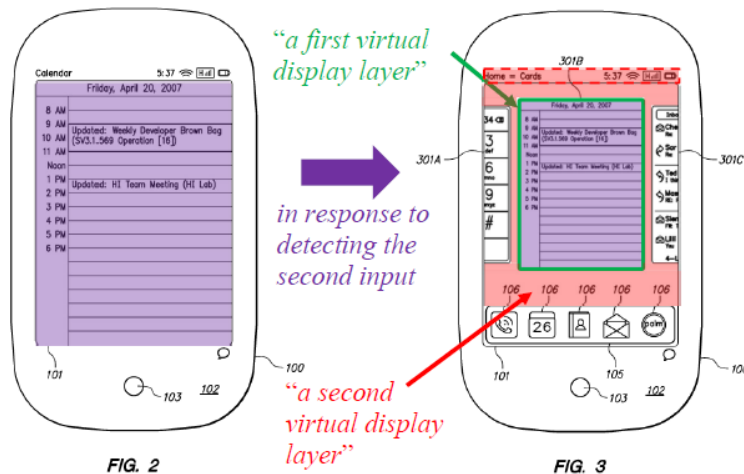
A. Grounds 1 and 2: Shiplacoff Does Not Disclose “a First Virtual Display Layer that Appears at a Lesser Depth as Compared to a Second Virtual Display Layer”

Limitations [1j], [15f], and [27e] each recite, in part, “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer.” For this specific portion of claim language, Petitioner relies solely on Shiplacoff. *Compare* Pet., 17-21 (Ground 1, Limitation [1j]), 34 (Ground 1, referencing Limitation [1j] for Limitation [15f]), *and* 36-39 (Ground 1, referencing Limitation [1j] for the pertinent parts of Limitation [27e]), *with id.*, 46 (“Any limitations not specifically addressed below are obvious in view of SNC for the same reasons noted above in Ground 1.”), 46-47 (Ground 2, referencing Limitation [1j] of Ground 1 for the pertinent parts of Limitation [1j]), 47 (Ground 2, Limitation [15f], referencing Limitation [1j] of Ground 2 and Limitation [15f] of Ground 1), *and* 48-49.

Petitioner has not shown, much less alleged, that this feature was inherent despite the lack of explicit disclosure in Shiplacoff. Thus, all Grounds fall with Shiplacoff's failure to anticipate this feature.

1. *Petitioner fails to show that Shiplacoff's "cards" and alleged "background layer" appear at different depths*

Petitioner asserts that Shiplacoff teaches "a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer" as claimed. Petitioner appears to provide two separate mappings on the basis of Shiplacoff's Figures 2-3 and related disclosure that discusses Shiplacoff's "card mode":



Pet., 17-21 (reproducing and annotating EX1004, Figs. 2-3).

First, although not directly indicated in Petitioner's annotations above, Petitioner appears to map Shiplacoff's "card 301B" shown in Figure 3 as being displayed in the claimed "first virtual display layer," while "cards 301A and 301C" are displayed in the "second virtual display layer." See *id.*, 19-20. According to

Petitioner, Shiplacoff teaches “resizing and blurring (e.g., out of focus) of side cards 301A and 301C” to “thereby caus[e] card 301B to appear at a lesser depth” as claimed. *Id.*

Second, Petitioner again maps card 301B as being displayed in the claimed “first virtual display layer,” but instead maps an alleged “background layer” in Figure 3 (annotated above by Petitioner in red) as being the claimed “second virtual display layer.” *See id.*, 18; *see also id.*, 20 (mapping alleged “use of resizing and blurring (e.g., out of focus) of side cards 301A and 301C” (i.e., first mapping) “***or the appearance of card 301B as a foreground layer superimposed onto a background layer***” (i.e., second mapping)).

Notably, neither mapping asserts an obviousness theory for modifying Shiplacoff. Thus, Petitioner’s mapping requires Shiplacoff to anticipate this feature. However, as explained below, neither mapping identifies a teaching in Shiplacoff that any of cards 301A-301C or the alleged background layer appear at different “depth[s]” as claimed.

(a) Shiplacoff’s “card 301B” is not displayed at a lesser depth than “cards 301A, 301C”

In its first mapping to Shiplacoff, Petitioner argues that Shiplacoff teaches “resizing and blurring (e.g., out of focus) of side cards 301A and 301C,” “thereby causing card 301B to appear at a lesser depth.” *See Pet.*, 20, 19. However, Shiplacoff never discusses any such “blurring,” or relative “depth,” of cards 301A

and 301C. Shiplacoff also does not mention any “layer,” much less multiple layers. And, while Shiplacoff does teach that cards 301A and 301C are “shown slightly smaller” than card 301B (*see* EX1004, ¶ [0078]), a mere difference in size does not teach the claimed difference in “depth” between two virtual display layers.

Regarding the alleged “blurring,” Shiplacoff discusses centering and enlarging a card 301B relative to cards 301A and 301C to “focus” on card 301B in its Figure 3. *See, e.g.*, EX1004, ¶ [0078] (“[P]artially displayed cards 301A, 301C are shown slightly smaller than card 301B having *focus*, so as to further emphasize the fact that card 301B has *focus*.”). However, Shiplacoff does *not* use “focus” to describe an *objective*³ visual property such as focal depth, as Petitioner’s theory

³ Petitioner simultaneously argues that the recited “appear[ance] at a lesser depth” is a “subjective” term “directed to how a user perceives certain user interface elements,” which “carr[ies] no patentable weight.” Pet., 17 n.4. Aside from being mere attorney argument that cites no support for how a POSITA would have construed the claim, Petitioner’s argument ignores the specification, which explains that “simulated depth” between “virtual display layers” can—just like actual depth between two non-virtual display layers—be objectively measured and varied, such as made “equal to the distance between a front display and a backtouch interface.” *Compare, e.g.*, EX1001, 69:43-48, 70:42-45, *with id.*, Fig. 22, 68:51-67.

requires. *See* Pet., 20 (alleging that cards 301A and 301C are “blurr[ed] (e.g., out of focus)”).

Rather, Shiplacoff uses “focus” only in the *subjective* sense to signify the card on which *the user’s attention* is directed. *See, e.g.*, EX1004, ¶¶ [0015] (“[A] card that has focus (*i.e., that the user is interacting with*) is visible in full, while at least one other card is only partially visible.”), [0078] (“Usually, card 301B having focus represents the same activity that was displayed in full-screen mode immediately before the switch to card mode.”), [0074] (“[C]ard mode is optimized for easily switching focus from one activity to another and for easily initiating and terminating activities.”). Indeed, such usage is consistent with how the ’578 Patent also uses the word “focus”: to “refer[] to a point or area on a display which is the visual and/or interactive focus *of the user*.” *Compare id., with* EX1001, 23:14-17.

Petitioner thus improperly reads more into Shiplacoff than what Shiplacoff actually teaches. In fact, not only does Shiplacoff fail to suggest the alleged “blurring” of cards 301A and 301C, Shiplacoff’s Figure 3 depicts the exact opposite—i.e., the displayed text in cards 301A and 301C is not blurred but is instead *just as legible* as that of card 301B:

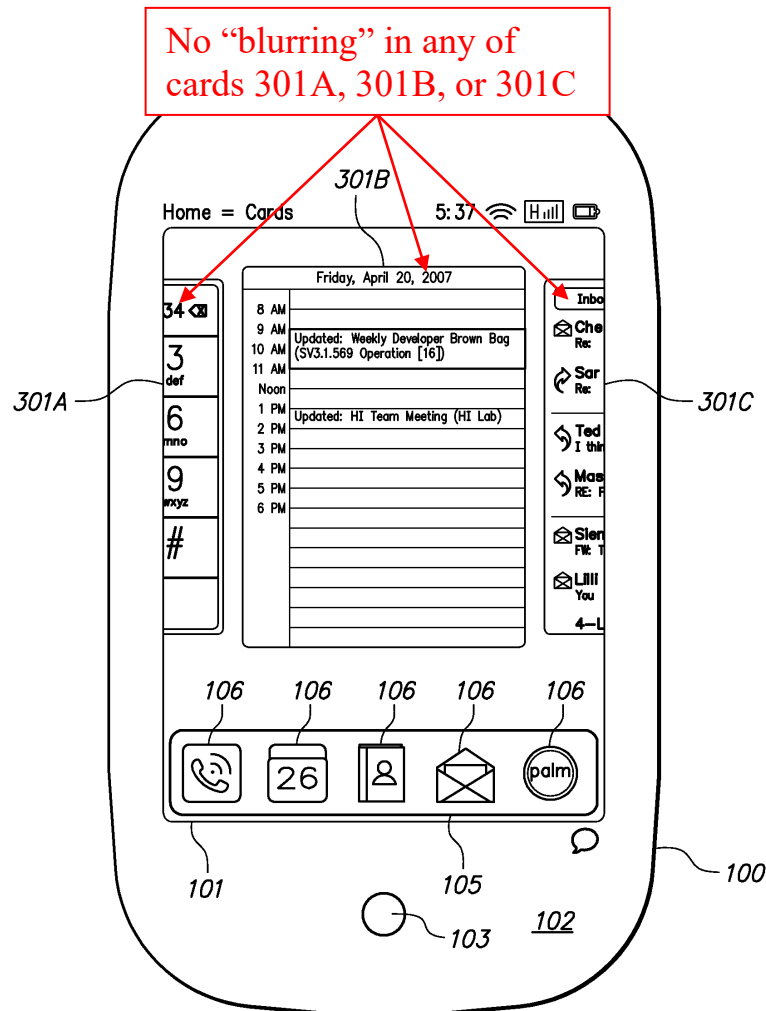


FIG. 3

EX1004, Fig. 3 (annotations added).

Petitioner’s only other evidence of any alleged “blurring” or changing of “depth” of cards 301A and 301C comes not from Shiplacoff but instead expert testimony and a separate, unrelated reference, which together allegedly establish that “the use of depth perception to create an appearance of different distances is a well-known concept.” Pet., 20 (citing EX1003, ¶ 56; EX1012). However, even assuming *arguendo* that use of depth perception is “well-known,” Petitioner fails to provide

the required rationale for why a POSITA would have modified Shiplacoff to include this allegedly “well-known concept” that is not already present. *See Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1337-38 (Fed. Cir. 2020) (holding that, when supplying a missing claim limitation with a POSITA’s general knowledge, “the relevant inquiry is . . . whether a skilled artisan would have been motivated to combine [the primary reference] with his general knowledge”).

Ultimately, Petitioner and its expert, Dr. Terveen, cite to Petitioner’s own accused device (*see* Pet., 19 (citing EX-1007, 10)) and then simply *assume* that Shiplacoff’s discussion of subjective focus is the same as Petitioner’s use of objective blurring. *See, e.g.*, Pet., 19 (“As described by Shiplacoff, cards 301A and 301C are smaller in size and less focused, thereby causing card 301B to appear at a lesser depth.”). However, for the reasons explained above, Shiplacoff does not disclose or suggest *blurring*. And neither the Petition nor Dr. Terveen go so far as to suggest that a difference in size *alone* is sufficient to give the perception of a different depth. *See*, Pet., 18-21 (citing EX1003, ¶¶77-78, 55-57).

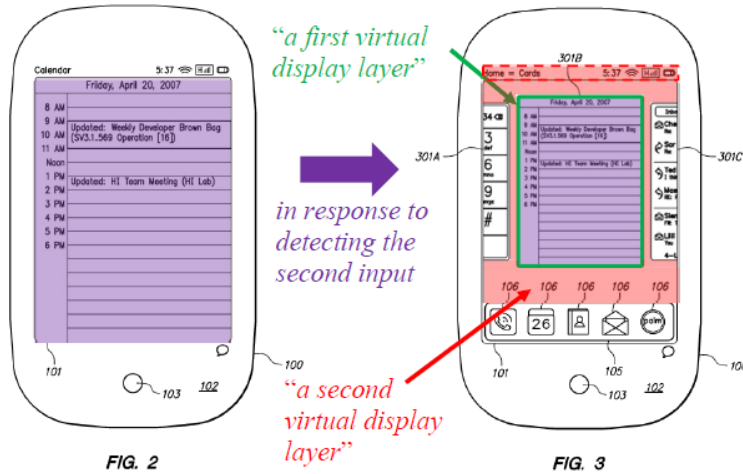
As for Shiplacoff’s disclosure that “cards 301A, 301C are shown slightly smaller than card 301B” (*see* EX1004, ¶ [0078]), that likewise does not establish that card 301B appears at a lesser “depth.” The ’578 Patent’s specification makes clear that a mere difference in size is insufficient to create the claimed difference in apparent “depth” of virtual display layers. As the specification teaches, “the

appearance of depth through the use of 3D depth cues” may be created through “a blur operation,” “a shadow element,” “a depth-based fog,” “a depth-based apparent rate of movement,” and/or “animated visual elements which appear to exist in between layers.” EX1001, 69:43-70:21. And the amount of depth applied between layers may be based upon “detected user gaze and/or head position,” “changes in device orientation,” “thickness of the device,” and/or “distance between a front display and a backtouch interface.” *Id.*, 70:22-45. Nowhere in this discussion does the specification mention size alone, much less suggest that a mere change in size is sufficient to change perceived depth.

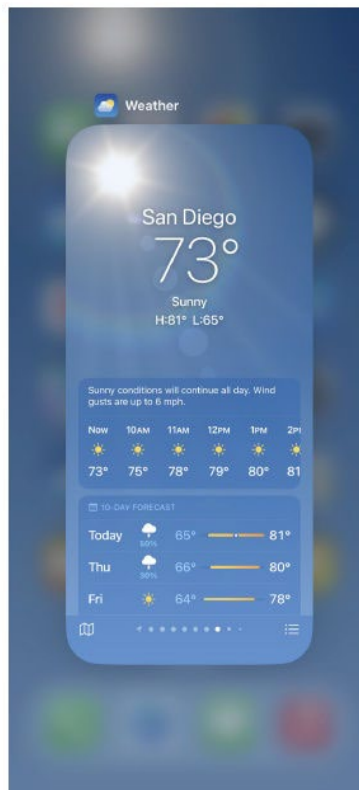
Thus, Shiplacoff does not disclose or suggest depth or blurring, and Shiplacoff’s teachings on different sizing of its cards—like its teachings on directing *the user’s attention* (i.e., “focus”) specifically to card 301B—fail to disclose “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer” as claimed.

(b) Shiplacoff’s “card 301B” is not displayed at a lesser depth than the alleged “background layer”

As for Petitioner’s second mapping noted above, Petitioner, like in its first mapping, maps Shiplacoff’s card 301B as being displayed in the claimed “first virtual display layer” but maps an alleged “background layer behind calendar application card 301B” as the claimed “second virtual display layer,” as shown in Petitioner’s annotations of Shiplacoff’s Figures 2-3:



Pet., 18-19. According to Petitioner, this second mapping is a “similar mapping” to that provided in Patent Owner’s infringement contentions, which, in Petitioner’s words, “point[s] to a weather application window ‘that appears at a lesser depth (e.g., foreground, etc.)’ than the background behind it”:



Id. (citing EX1007, 10).

Based on Petitioner's comparison above, Petitioner's second mapping thus appears to be similar to its first mapping: that, in the same way the "background" shown in Patent Owner's infringement contentions is blurred (thereby making the depicted "weather application window" appear at a lesser depth), the alleged "background layer" in Shiplacoff's Figure 3 is likewise blurred (thereby making card 301B appear at a lesser depth). *See id.*; *see also id.*, 20 (explaining that "an appearance of the cards 301A-301C **and the background layer** having different distances can be achieved" through the "well-known concept" of using a "depth perception technique").

It bears noting that any perception of depth in Petitioner's annotated version of Shiplacoff's Figure 3 is due to the colors added by Petitioner. As inset below, Shiplacoff's original Figure 3 does not show any blurring or difference in color or shading that might otherwise suggest depth:

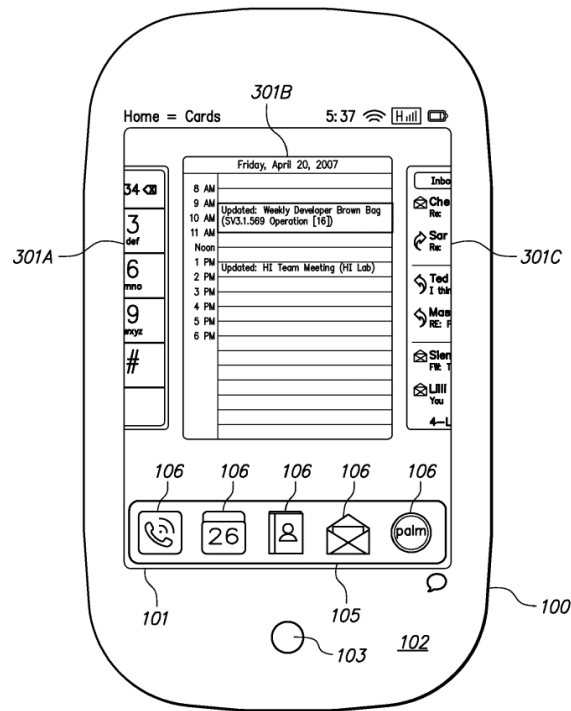


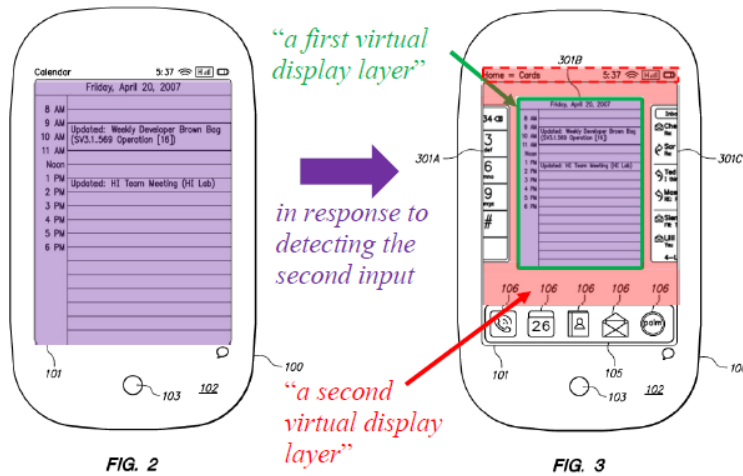
FIG. 3

EX1004, Fig. 3.

Likewise, the portions of Shiplacoff cited by Petitioner never discuss the relative depth of the alleged “background layer” in Figure 3, despite Petitioner’s contentions otherwise. *Id.*, ¶¶ [0077]-[0078], *cited in Pet.*, 18-21. In fact, these cited portions do not discuss or suggest the existence of such a “background layer” at all. EX1004, ¶¶ [0077]-[0078]. Rather, Petitioner is only able to support the apparent existence of such a “background layer” through Petitioner’s expert. *See Pet.*, 18 (citing—in addition to EX1004, ¶¶ [0077]-[0078]—EX1003, ¶ 54 to assert that “Shiplacoff’s FIG. 3 also shows a background layer is displayed behind card 301B”).

But Petitioner’s expert merely parrots Petitioner with no additional support. *Compare id.*, with EX1003, ¶ 54 (citing only EX1004, ¶¶ [0077]-[0078] to assert *verbatim* that “Shiplacoff’s FIG. 3 also shows a background layer is displayed behind card 301B”). Neither Petitioner nor its expert explains how a POSITA would have understood Shiplacoff’s Figure 3 as including such an alleged “background layer,” much less how this “background layer” is taught, or otherwise would have been understood, to have a different depth than card 301B. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 9, 15 (PTAB Aug. 24, 2022) (precedential) (holding that, when expert testimony “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support,” such expert testimony “is entitled to little weight”).

To the contrary, Shiplacoff’s Figure 3 itself depicts the exact opposite of these assertions. Even if such a “background layer” in Figure 3 were to hypothetically exist, Petitioner states that this “background layer” “could optionally include the icons such as the battery, time.” Pet., 18. Petitioner highlights these “icons” of Figure 3’s “background layer” using red-dotted annotations as shown below:



Id. However, as depicted, none of these “icons” of Figure 3’s alleged “background layer” are blurred in comparison to card 301B; rather, like cards 301A and 301C as explained above, these icons are *just as legible* as card 301B:

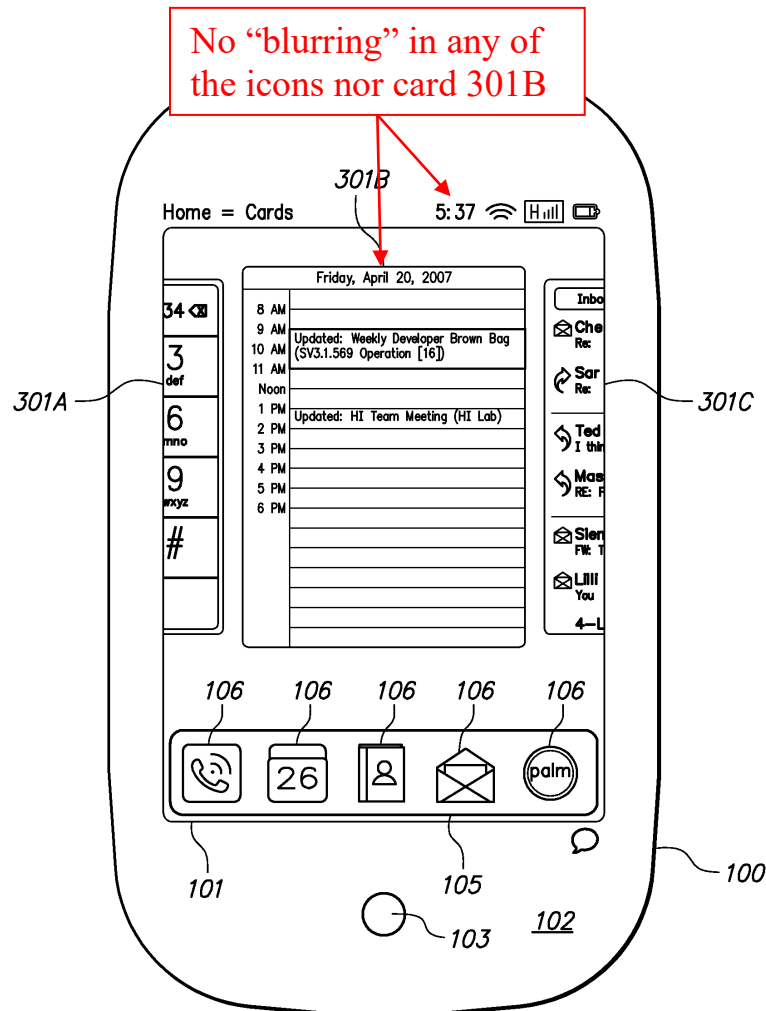
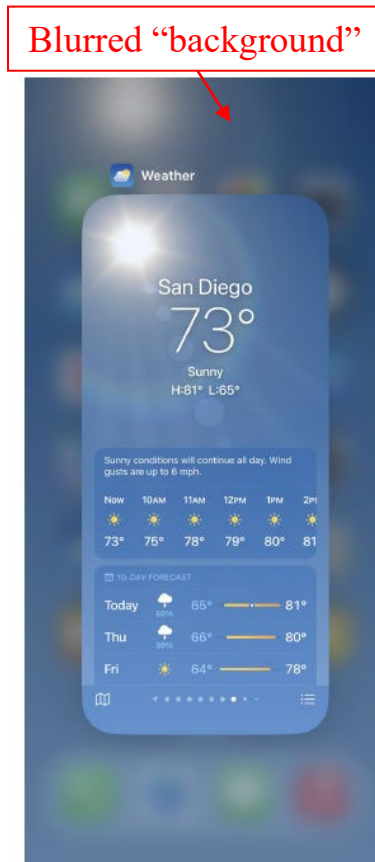


FIG. 3

EX1004, Fig. 3 (annotations added).

Thus, despite Petitioner’s assertion that Petitioner’s second mapping to Shiplacoff is a “similar mapping” to that in Patent Owner’s infringement contentions (see Pet., 18-19), no such similarity exists. To the contrary, Patent Owner’s infringement contentions depict a “background” that—unlike Shiplacoff’s alleged “background layer”—is blurred along with, in Petitioner’s words, “a weather

application window ‘that appears at a lesser depth (e.g., foreground, etc.)’ than the background behind it”:



See id., 19 (reproducing EX1007, 10) (annotations added). But, again, Shiplacoff does not disclose a “background layer” behind card 301B in Figure 3, and does not disclose that such “background layer,” if one were to hypothetically exist, would have a different depth than card 301B.

Accordingly, Petitioner fails to establish, under either of its first and second mappings, that Shiplacoff discloses “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer.” And because this claim

language is recited in each independent claim, Petitioner therefore fails to show a reasonable likelihood of unpatentability of any claim for this reason alone.

B. Grounds 1 and 2: Petitioner Fails to Establish Obviousness of, “In Accordance with a Determination that the Second Input Does Not Meet [Certain] Criteria . . . , Replacing the User Interface of the Application with the Home Screen”

Limitations [1j]-[1k], [15f]-[15g], and [27e]-[27f] each recite, “in accordance with a determination that [a] *second input* meets”—or “does not meet”—certain “criteria,” either to “display”/“displaying at least a portion of the user interface of the application in a first virtual display” or “replace”/“replacing the user interface of the application with the home screen.” Critically, the claimed “second input” is an input detected by a “contact that *includes movement* across the display in a direction.” EX1001, Limitations [1i], [15e], and [27d].

More specifically, Limitations [1j]-[1k], [15f]-[15g], and [27e]-[27f] each recite “one or more criteria” that is met when the second input is “detected to include a movement parameter that is above a movement threshold.” For purposes of this Preliminary Response, this criteria will be referred to hereinafter as the “*movement criteria*.”

Limitations [1j], [15f], and [27e]⁴ recite performing the claimed “displaying” “in accordance with a determination that the second input *meets*” the movement criteria.

On the other hand, Limitations [1k] and [15g] recite performing instead the claimed “replacing” “in accordance with a determination that the second input *does not meet*” the movement criteria. Limitation [27f] also recites performing the claimed “replac[ing]” but “in accordance with a determination that the second input *meets*” the movement criteria *but “does not meet”* a “duration” criteria.

Petitioner asserts that Shiplacoff, alone (Ground 1) (Pet., 21-24, 34, 36-40) or combined with Nan (Ground 2)—i.e., the “Shiplacoff-Nan Combination (SNC)” (*id.*, 46-49)—teaches these features.

1. Ground 1: The Petition fails to identify a common input for the claims’ “second input” and instead points to three different inputs

Petitioner’s Ground 1 asserts, with respect to Limitations [1i], [15e], and [27d], that Shiplacoff’s “swipe up gesture” teaches the claimed “second input” that is detected “by a second contact that includes movement across the display in a direction.” Pet., 15-16, 34, 36. And on that basis, Petitioner’s Ground 1 then asserts

⁴ Limitation [27e]’s “display[ing],” is “in accordance with a determination that the second input meets” both the movement criteria *and* a “duration” criteria.

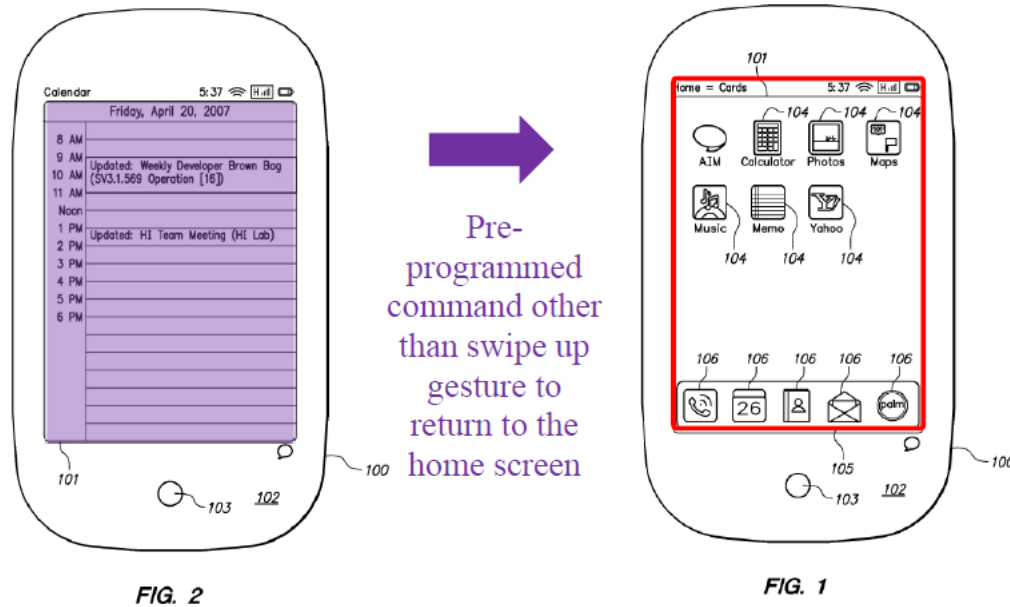
for Limitations [1j], [15f], and [27e] that this “swipe up gesture” also teaches “*the* second input [that] *meets*” *not only* the movement criteria (as recited in Limitations [1j] and [15f]) (Pet., 17, 21-23) *but also* the duration criteria (as recited in Limitation [27e]) (*id.*, 36-38). Further, according to Petitioner, Shiplacoff discloses “switch[ing] from the full-screen mode to the card mode” in accordance with this “swipe up gesture,” which allegedly teaches performing the claimed “displaying” “in accordance with a determination that the second input meets” the discussed criteria. *Id.*, 17, 36.

However, for Limitations [1k], [15g], and [27f], Petitioner maps other “gesture[s] *different* from the swipe up gesture” to “*the* second input [that] *does not meet*” either the movement criteria (as recited in Limitations [1k] and [15g]) or the duration criteria (as recited in Limitation [27f]). *Id.*, 23, 39-40. Petitioner specifically relies on two admittedly “*different*” “gesture[s]” from Shiplacoff’s ¶ [0100]: (1) “clicking (e.g., tapping) on a control within the card,” and (2) “performing a flicking action in an upward direction.” Pet., 39, 23-24.

By relying on the “tap or flick” “gesture[s],” which Petitioner expressly admits are “*different* from the swipe up gesture” relied on previously for Limitations [1i]-[1j], [15e]-[15f], and [27d]-[27e], Petitioner’s mapping thus violates the plain claim language, which requires the “second input” found in these earlier-recited limitations to be “*the*”—i.e., the *same*—“second input” evaluated in the later-recited

Limitations [1k], [15g], and [27f]. *See Insituform Techs., Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098, 1105 (Fed. Cir. 1996) (holding that “the cup” later in claim is same as “a cup” earlier in claim where claim “specifically describes using the same cup repeatedly” and “nothing in the text of [the] claim suggests the use of more than one cup”).

Indeed, Petitioner repeatedly confirms in its mapping that Shiplacoff’s “tap or flick” “gesture[s]” and “swipe up gesture” are, in fact, “different.” Pet., 23-24 (“When gesture ***different*** from the swipe up gesture is used . . . Shiplacoff’s device can distinguish ***different*** gestures . . . [I]t would have been obvious, if not understood, to use a ***different*** gesture, such as a tap or flick . . . Accordingly, it would have been obvious to a POSITA that when a ***different*** pre-programmed gesture, such as a tap or flick, is used, such a gesture (‘second input’) ‘does not meet the one or more criteria”). Petitioner itself provides annotations to Shiplacoff’s Figures 1-2 reflecting the same—i.e., using a “[p]re-programmed command ***other than*** swipe up gesture to return to the home screen”:



Id., 24. By relying on multiple, admittedly “different” gestures rather than a common, singular input across the claimed limitations, Petitioner’s mapping thus fails to identify any disclosure in Shiplacoff of “*the* second input” recited in Limitations [1k], [15g], and [27f].

2. *Ground 1: The Petition fails to show that Shiplacoff’s “tap” would meet the claimed “second input [that] does not meet [certain] criteria”*

Setting aside that Shiplacoff’s “tap or flick” “gesture[s]” are “different from the swipe up gesture,” Petitioner also fails to identify any disclosure in Shiplacoff that the “tap or flick” may be used for performing the claimed “replacing” “in accordance with a determination that the second input *does not meet*” the movement criteria (as recited in Limitations [1k] and [15g]) or duration criteria (as recited in Limitation [27f]). Specifically, for this claimed function, Petitioner points to

Shiplacoff's separate disclosure at ¶ [0099] that a user can "return[] to the launch screen . . . by performing a gesture or other command." Pet., 23-24, 39. According to Petitioner, this disclosure, together with Shiplacoff's "tap or flick" disclosure in ¶ [0100], thus teaches—or POSITA would have otherwise understood—using either the "tap or flick" for "returning to the launch screen." Pet., 23-24, 39. And according to Petitioner, this "returning to the launch screen" in accordance with either the "tap or flick" renders obvious performing the claimed "replacing" "in accordance with a determination that the second input *does not meet*" the criteria recited in Limitations [1k], [15g], and [27f].

However, Petitioner's mappings fail. With respect first to Petitioner's "tap" mapping, Limitations [1i], [15e], and [27d] each explicitly state that the claimed "second input" is detected by a "contact that includes *movement across the display in a direction.*" A mere "tap," however, contains no such "movement across the display" and thus cannot qualify as the claimed "second input" in Limitations [1i], [15e], and [27d], let alone a "second input [that] does not meet" the criteria recited later in Limitations [1k], [15g], and [27f]. *See, e.g.,* EX1004, ¶ [0104] (distinguishing "tapping" on a card and "dragging" the card "from one position to another" as different actions).

3. *Ground 1: The Petition fails to show that Shiplacoff's "flick" would meet the claimed "second input [that] does not meet [certain] criteria"*

As for Petitioner's mapping to Shiplacoff's "flicking" discussed above, Shiplacoff likewise never discloses or suggests that its "flick" is a gesture or other command that can be used for "returning to the launch screen," contrary to Petitioner's assumptions otherwise. *See* Pet., 23 ("In some examples, a card can be dragged or flicked off screen . . . to close a display card and, in some cases, return to the launch screen." (citing EX1004, ¶¶ [0100]-[0102], [0167]; EX1003, ¶ 60)).

Shiplacoff solely teaches "flicking" a card to "close" or "dismiss" the card while in the card mode or shuffle mode. *Compare id.*, with EX1004, ¶¶ [0100]-[0102] ("[A] card 301 can be closed by dragging the card upward off screen 101, or performing a flicking action in an upward direction."), [0167] ("In shuffle mode and/or in card mode, a user can remove a card 301 from a group by dragging the card 301 to an area of the screen not occupied by a card group."). Nowhere in these teachings does Shiplacoff disclose or suggest that such "flicking" and closing/dismissing of a card results in, or can be made to result in, "returning to the launch screen." Rather, Shiplacoff only teaches that "flicking" a card causes other cards to "fill in the gap" left by the flicked card and, in some instances, causes the flicked card's application to either "close" or "remain[] open even when" the card is closed. EX1004, ¶¶ [0101]-[0102], [0167].

By attempting to combine Shiplacoff's "flicking" disclosures in ¶¶ [0100]-[0102] and [0167] with Shiplacoff's "returning to the launch screen" disclosures in ¶ [0099], despite no teaching or reasoning in Shiplacoff otherwise for doing so, Petitioner's mapping thus amounts to an attempt to mix Shiplacoff's different embodiments. Petitioner, however, fails to provide the required rationale on why a POSITA would have recognized or been motivated to perform such mixing of embodiments.

As the Federal Circuit has held, when "combining multiple embodiments from a single reference" in an obviousness analysis, "there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination." *In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017). Aside from Shiplacoff which, as discussed, fails to teach Petitioner's combination of Shiplacoff's embodiments, Petitioner's only other support for such a combination lies in its expert's testimony. Specifically, citing its expert, Petitioner asserts that Shiplacoff's disclosures on using gestures to return to the launch screen are an invitation to apply "flexible design choice," from which a POSITA would have thereafter found obvious using "a gesture different from the swipe up gesture"—specifically, Shiplacoff's "tap or flick." Pet., 23-24 (citing EX1003, ¶¶ [0060]-[0061]), 39-40 (citing EX1003, ¶¶ [0083]-[0085]).

Petitioner’s expert, however, again merely parrots *verbatim* these exact conclusory assertions by Petitioner without additional support, which thus “is entitled to little weight.” *Xerox*, Paper No. 9, 15. *Compare, e.g., Pet.*, 40 (“It would have been obvious to a POSITA that, as a matter of a flexible design choice, the gesture to switch back to the home screen would have involved a gesture that is different from the slide up gesture” (citing EX1003, ¶ 85)), *with* EX1003, ¶ 85 (repeating the same while citing no support). But that is the sum total of “analysis” from Petitioner or its expert—i.e., a naked assertion. Neither Petitioner nor its expert consider or address the fact that Shiplacoff discloses its flick gesture for a different function, much less articulate or explain why it would have been desirable to modify Shiplacoff to cause a flick gesture to perform a function that is suggested by the Challenged Claims (rather than Shiplacoff itself).

Because Petitioner fails to show that a POSITA would have used Shiplacoff’s “flick” for “returning to a launch screen” as alleged—and because Shiplacoff’s “tap” fails at the outset to meet the claimed requirements for a “second input” as explained previously—Petitioner’s Ground 1 fails to establish the obviousness of performing the claimed “replacing” “in accordance with a determination that the second input *does not meet*” the criteria recited in Limitations [1k], [15g], and [27f].

4. Ground 2 fails to cure Ground 1's defects

Petitioner's Ground 2 fares no better than its Ground 1. As Petitioner asserts in its Ground 2, Petitioner's SNC utilizes Nan's "edge gesture" only to "substitute the *swipe up* gesture in Shiplacoff alone" that was discussed in Ground 1. Pet., 46, 48. As discussed above in Section V.B.1, Petitioner's Ground 1 maps Shiplacoff's "*swipe up*" gesture to Limitations [1j], [15f], and [27e]'s "second input [that] *meets*" the movement criteria (as recited in Limitations [1j] and [15f]) and the duration criteria (as recited in Limitation [27e]).

However, the primary defects of Petitioner's Ground 1 discussed in Sections V.B.1-V.B.3 relate *not* to Limitations [1j], [15f], and [27e] *but instead Limitations [1k], [15g], and [27f]* and "*the* second input [that] *does not meet*" the criteria recited therein. Petitioner's Ground 2 thus does not address, let alone cure, the defects of Ground 1. Indeed, Petitioner's Ground 2 does not anywhere mention Shiplacoff's "tap or flick" mapped in Ground 1, much less attempt to substitute the "tap or flick" with any elements or disclosure from Nan. Pet., 41-49.

Accordingly, because neither of Petitioner's Grounds 1 or 2 establish the obviousness of Limitations [1k], [15g], and [27f] and thus all independent claims, Petitioner therefore fails to show a reasonable likelihood of unpatentability of any claim.

VI. INSTITUTION SHOULD BE DENIED UNDER 35 U.S.C. § 325(d)

The Petition should also be denied under 35 U.S.C. § 325(d) because, as explained below, the Petition presents the same or cumulative art already presented to—but fails to show any material error was committed by—the Office during the prosecution of the '578 Patent.

Section 325(d) grants the Board the discretion to “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.” In determining whether to exercise its discretion to deny under § 325(d), the Board applies the two-step framework laid out in *Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH* (“AB”), which examines:

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.

IPR2019-01469, Paper 6, 8 (PTAB Feb. 13, 2020) (precedential).

A. *AB* Step One: Shiplacoff is One of, and Nan is Cumulative of, the References Already Presented to the Office

Regarding first Shiplacoff, under *AB* step one, Petitioner correctly admits that the issued patent corresponding to Shiplacoff was cited by the Examiner during prosecution of the '578 Patent. Pet., 52; EX1002, 302 (presenting U.S. Pat. No. 8,683,362 (“Shiplacoff362”)—the issued patent resulting from Shiplacoff—in an Applicant-submitted Information Disclosure Statement), 601 (identifying Shiplacoff362 as having been “CONSIDERED” by the Examiner). This alone sufficiently renders Shiplacoff as “[p]reviously presented art” under *AB* step one. *AB*, 7-8 (“Previously presented art includes . . . art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.”).

Turning next to Nan, although not cited during prosecution, Nan is nonetheless cumulative of Shiplacoff. Specifically, as explained above in Section V.A, Petitioner relies solely on Shiplacoff for the claimed portion in each of Limitations [1j], [15f], and [27e] reciting “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer.” However, this claimed portion—particularly, when combined with the additional qualifying condition that “the at least portion of the user interface of the application is reduced in size and is further displayed in its entirety when displayed in the first virtual display layer”—was explicitly found by the Examiner to be missing from the prior art, *including*

Shiplacoff (via Shiplacoff362). EX1002, 601 (marking Shiplacoff362 as “CONSIDERED”), 755 (“Examiner indicated claim 22 as allowable and Applicant amended the claims[.]”), 777 (“However, *the prior art of record* fails to teach or suggest Applicant’s specifically claimed ‘. . . in response to detecting the second input and in accordance with a determination that the second input meets one or more [movement] criteria . . . displaying at least a portion of the user interface of the application in a **first virtual display layer that appears at a lesser depth as compared to a second virtual display layer**, such that the at least portion of the user interface of the application is **reduced in size and is further displayed in its entirety when displayed in the first virtual display layer**’” (underlining and underline-bolding in original)); *accord* Pet., 3 (acknowledging that the Examiner “indicated that the prior art did not disclose feature [1j]”). And indeed, as explained above in Sections V.A.1(a)-V.A.1(b), Petitioner fails to show how Shiplacoff discloses this claimed portion.

Given Petitioner’s sole reliance on Shiplacoff, Petitioner thus likewise fails to show, much less allege, that Nan discloses this missing claimed portion, thereby providing no indication that Nan discloses any more than Shiplacoff with respect to the ’578 Patent’s claims. Nor may Petitioner attempt at this stage to allege otherwise. *See Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29, 13 (PTAB Dec. 20, 2019) (precedential) (explaining that 35 U.S.C. § 312(a)

“requires that the petition identify *with particularity* the grounds for institution and evidence supporting such grounds” (emphasis in original)). Under *AB* step one, Nan is therefore substantially the same prior art as already-presented Shiplacoff.

B. *AB* Step Two: Petitioner Fails to Show Material Error

As for *AB* step two, Petitioner fails to carry its burden to show that the Office materially erred in its evaluation of the prior art. *See AB*, 8 (requiring, in step two, “the *petitioner* [to] demonstrate[] that the Office erred in a manner material to the patentability of challenged claims”). Again, as noted, the Examiner explicitly found that the prior art, *including Shiplacoff*, did not disclose the claimed portion in each of Limitations [1j], [15f], and [27e] reciting “a first virtual display layer that appears at a lesser depth as compared to a second virtual display layer, such that the at least portion of the user interface of the application is reduced in size and is further displayed in its entirety when displayed in the first virtual display layer.” EX1002, 601, 755, 777. And again, Petitioner’s only attempted explanation against this finding is that Shiplacoff discloses this claimed portion. *See* Section V.A. But as explained in Sections V.A.1(a)-V.A.1(b), Petitioner’s explanation fails to show that Shiplacoff teaches the claimed portion, and thus Petitioner fails to show that the Office materially erred in finding otherwise.

Nor does Petitioner explain how Nan cures Shiplacoff’s deficiency. Petitioner asserts that “Nan, by itself or in combination with Shiplacoff, was never considered

by the Examiner with respect to any of the issued claims” and thus [t]he Examiner erred by never considering this combination.” Pet., 56. But again, Petitioner never actually relies on Nan, let alone explains why the Examiner erred by not considering Nan, for the claimed portion above that the Examiner found missing from Shiplacoff. *See* Section V.A. Nor may Petitioner attempt at this stage to provide such an explanation. *See Hulu*, Paper 29, 13.

Additionally, Petitioner also asserts that the Board’s discretion to deny under § 325(d) should not be exercised because Shiplacoff³⁶² was merely “cited as one reference amongst hundreds of prior art references,” and thus “no evaluation or rejection during prosecution involved Shiplacoff.” Pet., 52-53. The Board, however, has previously explained that an indication from the Examiner that a reference was “CONSIDERED,” such as here with Shiplacoff (via Shiplacoff³⁶²) (*see* EX1002, 601), indicates that the reference was “evaluated to some extent,” which “weighs slightly in favor of [the Board] exercising discretion to deny institution under § 325(d).” *E.g., Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 18, 19 (PTAB June 13, 2023). Coupled with Petitioner’s failure to identify any material error by the Office, all factors weigh in favor of the Board exercising its discretion to deny the Petition under § 325(d). The Board should thus deny institution accordingly.

VII. CONCLUSION

For the above reasons, institution should be denied.

Dated: October 30, 2024

Respectfully submitted,

/Eagle H. Robinson/
Eagle H. Robinson

Lead Counsel for Petitioner

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(b)(i), the undersigned certifies that this Paper—exclusive of the table of contents, table of authorities, certificate of service, and this certificate of word count—includes 7,400 words. The undersigned relies upon the word count generated by Microsoft Word.

/Eagle H. Robinson/
Eagle H. Robinson (Reg. No. 61,361)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on October 30, 2024, copies of the foregoing PATENT OWNER PRELIMINARY RESPONSE and EX2001-EX2002 were served on counsel for Petitioner via email (by consent) to:

IPR50095-0164IP1@fr.com

/Eagle H. Robinson/
Eagle H. Robinson (Reg. No. 61,361)