Apple Inc. (Petitioner)
v.
Smith Interface Technologies, LLC (Patent Owner)
Petitioner Demonstratives

Case Nos. IPR2024-01115, IPR2024-01116, IPR2024-01119
U.S. Patent No. 10,656,754

Before Hon. Miriam L. Quinn, Sharon Fenick, and Brian P. Murphy
Administrative Patent Judges

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

APPLE 1028
Apple v. Smith Interface
IPR2024-01115, -01116, -01119

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Overview of the Instituted Grounds

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Overview of the Instituted Grounds

IPR2024-01115

Ground	Challenged Claims	Basis for Rejection
1A	**2,** 27, 37, 58, 60-64, 67-79, 223	§103–Ahn (US 2008/0207188), Chaudhri '842 (US 2007/0150842)

IPR2024-01116

Ground	Challenged Claims	Basis for Rejection
1A	**2,** 27, 186, 187, 189, 191, 192, 197, 199-204, **225**, 230	§103–Ahn (US 2008/0207188), Chaudhri '842 (US 2007/0150842)

IPR2024-01119

Ground	Challenged Claims	Basis for Rejection
1A	**2**	§103–Ahn (US 2008/0207188), Chaudhri-842 (US 2007/0150842)
1B	**1**, 208-216	§103–Ahn (US 2008/0207188), Chaudhri-842 (US 2007/0150842), Shiplacoff (US 2010/0095240)

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-01115 Pet., 1; -01116 Pet., 1; -01119 Pet., 1

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Background Info: The ‘754 Patent and Prior Art

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Exemplary Claim 2 of the '754 Patent

2. An apparatus, comprising:
at least one non-transitory memory;
a touch screen; and
one or more processors in communication with the at least one non-transitory memory, and the touch screen, wherein the one or more processors execute instructions in the at least one non-transitory memory, to cause the apparatus to:
display an object and at least one other object;
detect at least part of a gesture on the touch screen; and
during detection of at least a portion of the gesture before a completion thereof is detected, blur, based on a change in a magnitude of the gesture being detected on the touch screen, at least a portion of the at least one other object.

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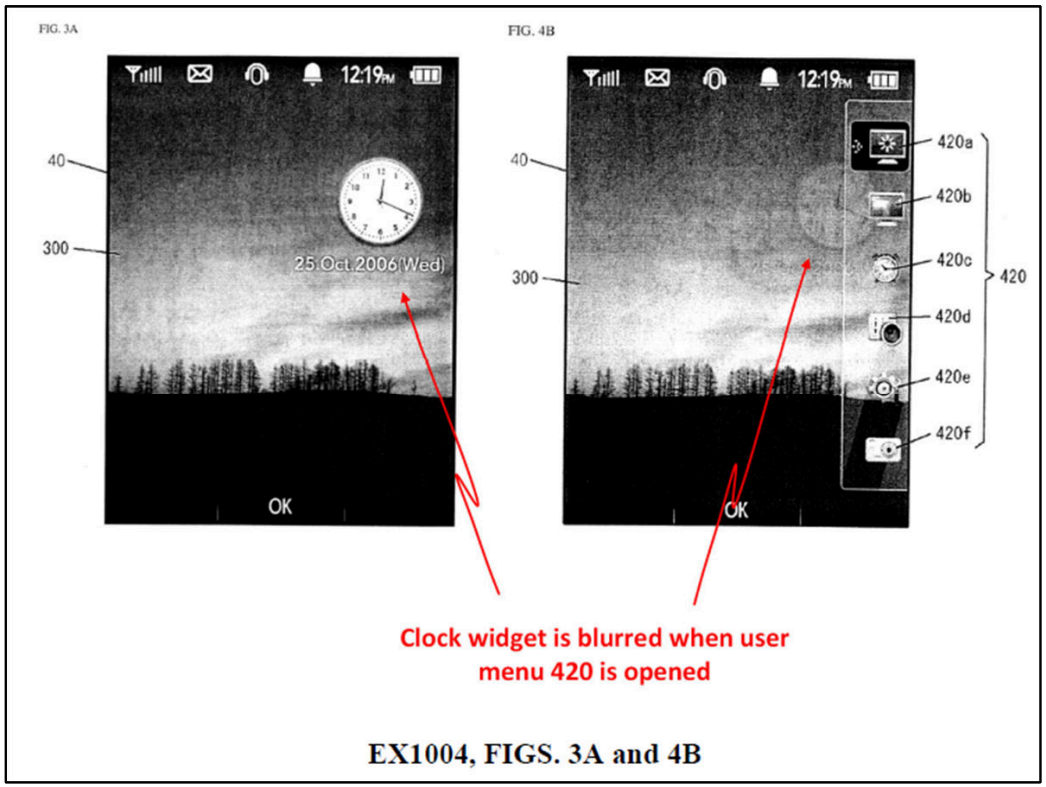
Exemplary Claim 1 of the '754 Patent

1. An electronic device, comprising:
a display;
one or more processors;
memory; and
one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including instructions for:
displaying a plurality of user interface elements on the display including a first user interface element and a second user interface element;
detecting a first contact moving across the display; and,
while the first contact is detected moving across the display:
moving the first user interface element in a first direction on the display at a first speed;
moving the second user interface element on the display at a second speed greater than the first speed;
displaying an object and at least one other object;
detecting at least part of a gesture on the display; and
during detection of at least a portion of the gesture before a completion thereof is detected, blur, based on a change in a magnitude of the gesture being detected on the display, at least a portion of the at least one other object.

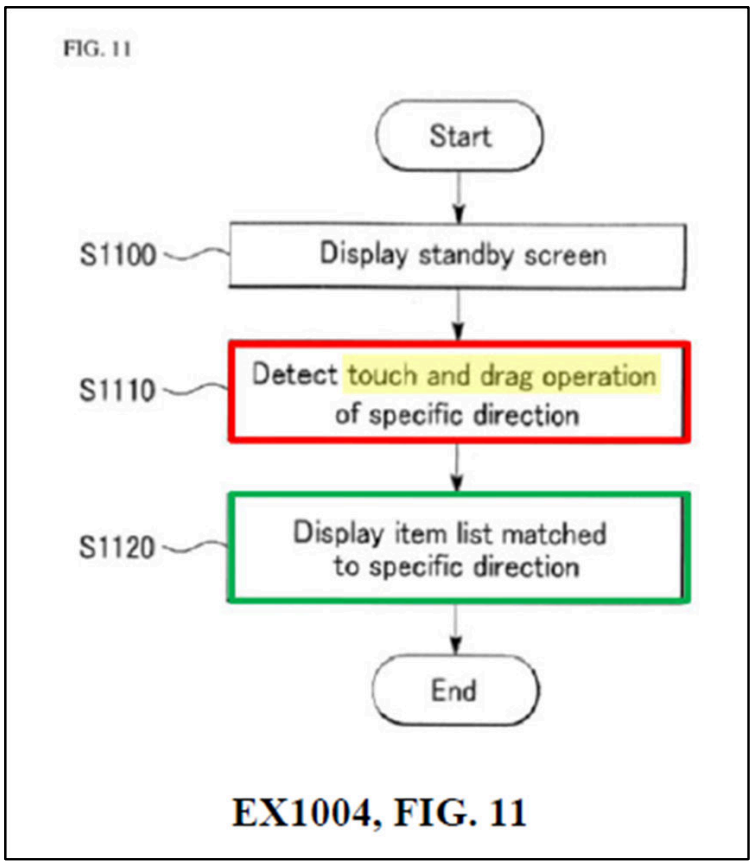
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Ahn



EX1004, FIGS. 3A and 4B



EX1004, FIG. 11

Chaudhri-842

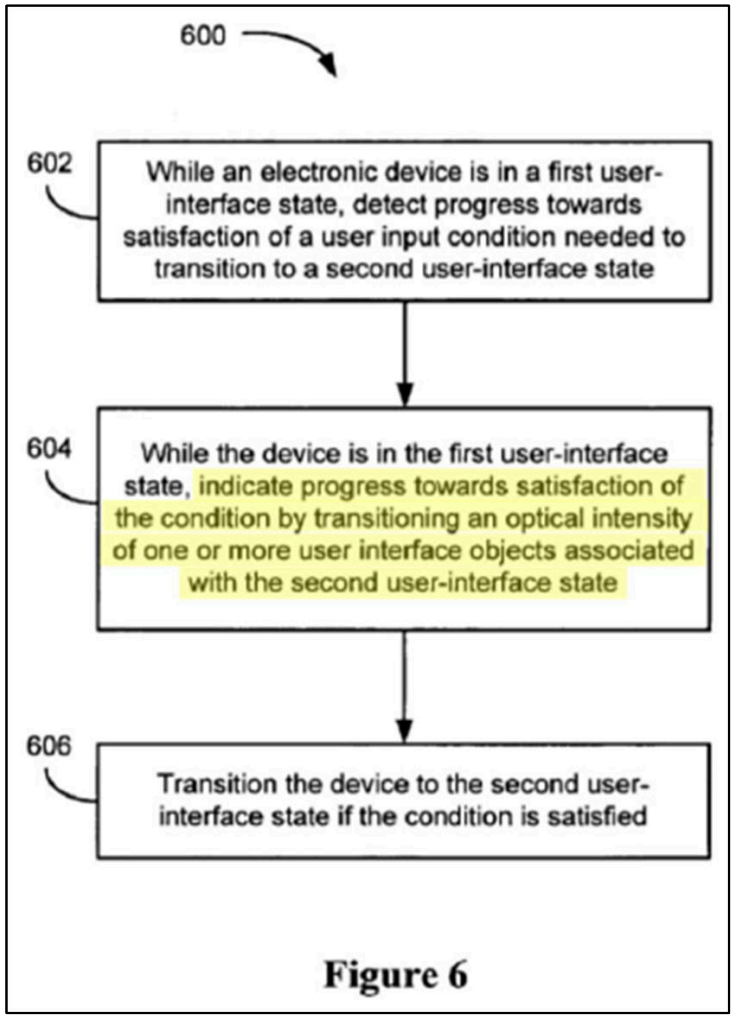


Figure 6

[0006] Accordingly, there is a need for more efficient, user-friendly procedures for unlocking such devices, touch screens, and/or applications. More generally, there is a need for more efficient, user-friendly procedures for transitioning such devices, touch screens, and/or applications between user interface states (e.g., from a user interface state for a first application to a user interface state for a second application, between user interface states in the same application, or between locked and unlocked states). In addition, there is a need for sensory feedback to the user regarding progress towards satisfaction of a user input condition that is required for the transition to occur.

[0048] The device **100** may have a plurality of user interface states. A user interface state is a state in which the device **100** responds in a predefined manner to user input. In some embodiments, the plurality of user interface states includes a user-interface lock state and a user-interface unlock state. In some embodiments, the plurality of user interface states includes states for a plurality of applications.

In some embodiments, as the user transitions from a first application and to a second application, a user interface for the second application may fade in (i.e., increase in intensity) and a user interface for the first application may fade out (i.e., decrease in intensity). The fade in and fade out may occur smoothly over a pre-determined time interval, such as 0.2 s, 1s or 2s.

APPLE-1005, FIG. 6, [0006], [0048], [0079]
-01115 Pet., 14, 16

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Shiplacoff

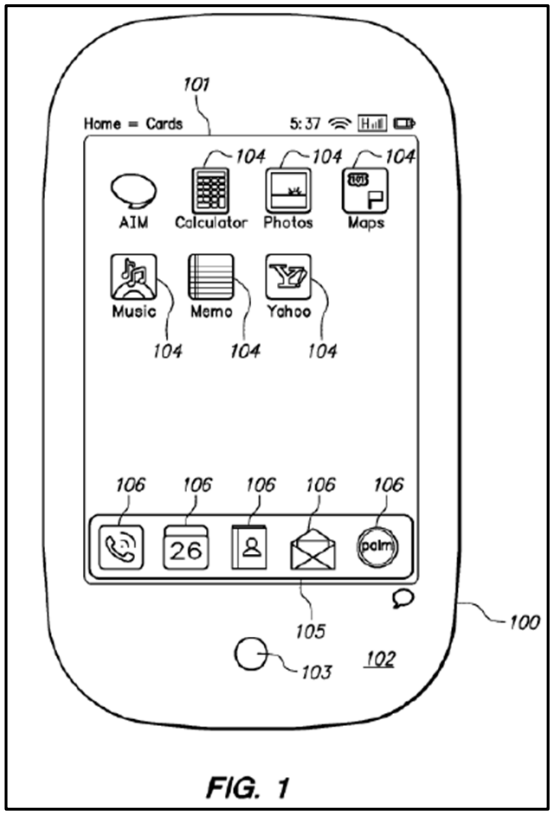


FIG. 1

Launcher Mode

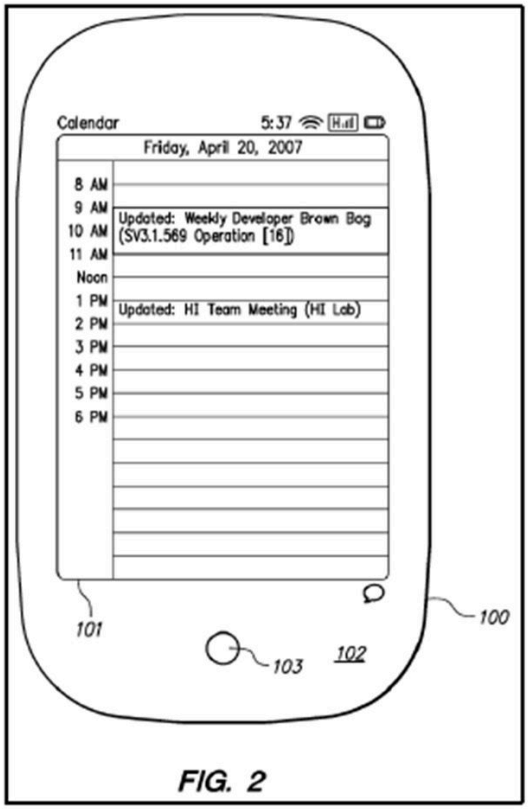


FIG. 2

Full screen mode

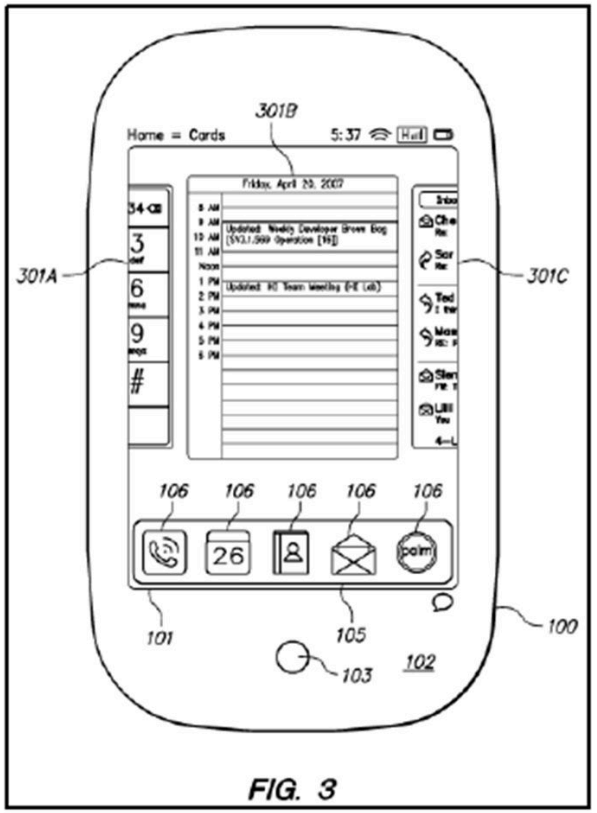


FIG. 3

Card Mode

APPLE-1013, FIGS. 1-3
-01119 Pet., 36-37

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Issue 1

Ahn-Chaudhri Renders Progressively Blurring Obvious

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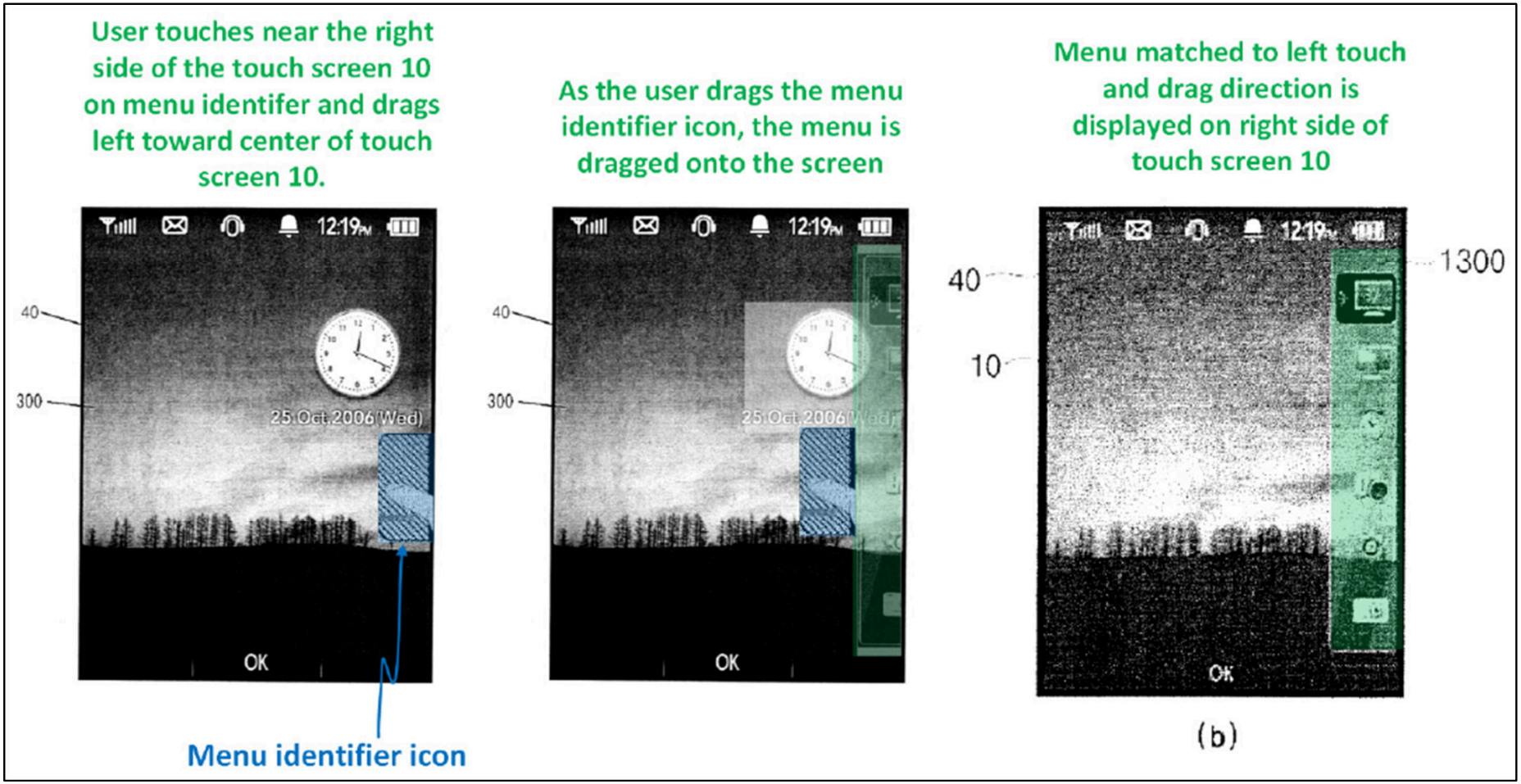
Issue 1A

Ahn and Chaudhri-842 Both Teach the Menu Following the User's Finger

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Ahn's Menu Follows the User's Finger



Amalgamation of APPLE-1004, FIGS. 3a and 13b
-01119 Pet. 26-33; Reply 6

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Ahn's Menu Follows the User's Finger

[0117] In the above-described implementations, if the touch and drag operation of a specific direction is performed in the touch input device **10**, an identifier for notifying the user that an item list matched to the specific direction is displayed in the display **40** can be displayed in the display **40**. The identifier may be graphical in form, such as an icon. For example, the identifier may be a specific icon for notifying a start position of the touch and drag operation.

[0118] FIG. **18** illustrates an example of a screen for displaying a graphical display for notifying a start position of a touch and drag operation to a user. For example, referring to FIG. **18**(*a*), if the user drags in a right direction after touching the screen, a graphical shadow **1800** is displayed in the display **40**, and the menu list **1500** shown in FIG. **15**(*b*) can be displayed in the display **40**. In this case, as the user drags the graphic shadow **1800**, the menu list **1500** can be displayed along the dragged graphic **1800**.

[0119] Further, for example, referring to FIG. **18**(*b*), if the user touch drags to the left, the menu list **1500** shown in FIG. **15**(*b*) can be displayed in the display **40**. In this case, as the user may press the graphic **1800** with a finger, the graphic **1800** gradually disappears in the display **40**, and the menu list **1500** can be displayed as emerging from the left side of the display **40** while the graphic **1800** disappears in the display **40**.

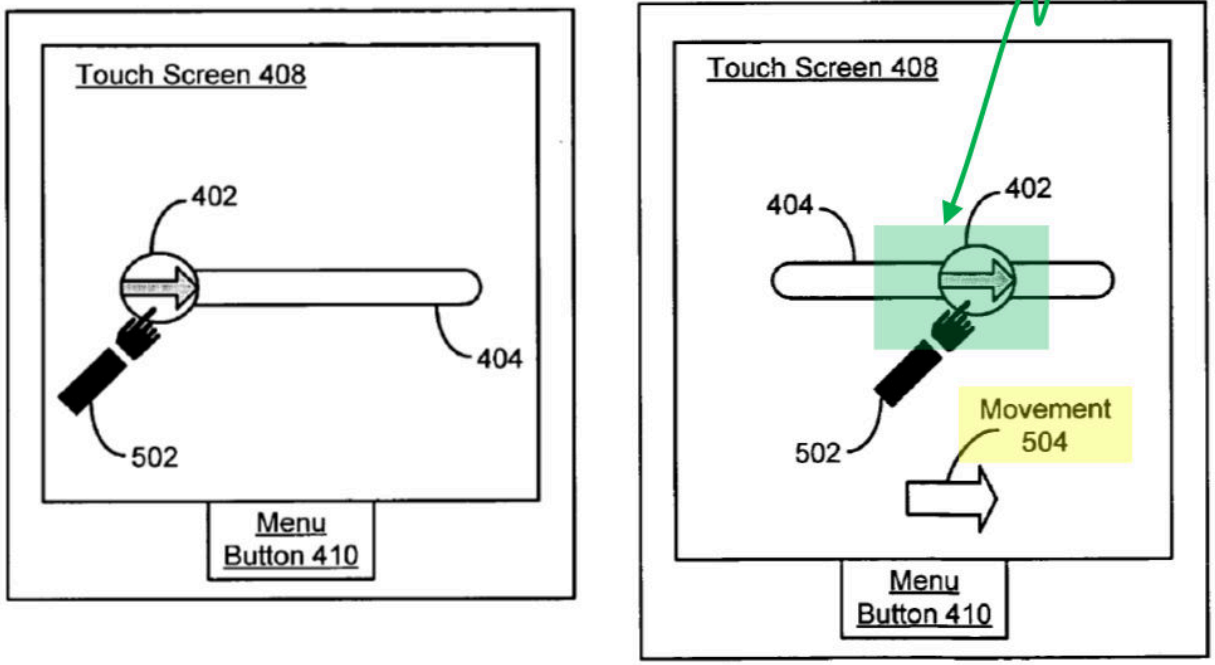
APPLE-1004, [0117]-[0119]
-01119 Pet., 36-39, Reply, 3-6

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Chaudhri-842 Teaches Graphic Follows the User's Finger

Graphic following user's finger during transition gesture



APPLE-1005, FIGS. 5A-5B
-01115 Pet., 32-35; Reply, 4-5

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Chaudhri-842 Teaches Graphic Follows the User's Finger

[0075] In FIG. **5**B, the user is in the process of performing the gesture by moving her finger, which is in continuous contact with the touch screen **408**, in the direction of movement **504**. The unlock image **402** is dragged along the channel **404** as a result of the gesture. The channel **404** reminds the user that the unlock gesture is a horizontal

APPLE-1005, [0075]
-01115 Pet., 33-34; Reply, 5-6

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Purpose of Ahn and Chaudhri-842 Graphics the Same

Chaudhri-842

[0054] In some embodiments, the locked device displays on the touch screen one or more visual cues of an unlock action that the user may perform to unlock the device (**204**). The visual cue(s) provide hints or reminders of the unlock action to the user. The visual cues may be textual, graphical or any combination thereof. In some embodiments, the

Ahn

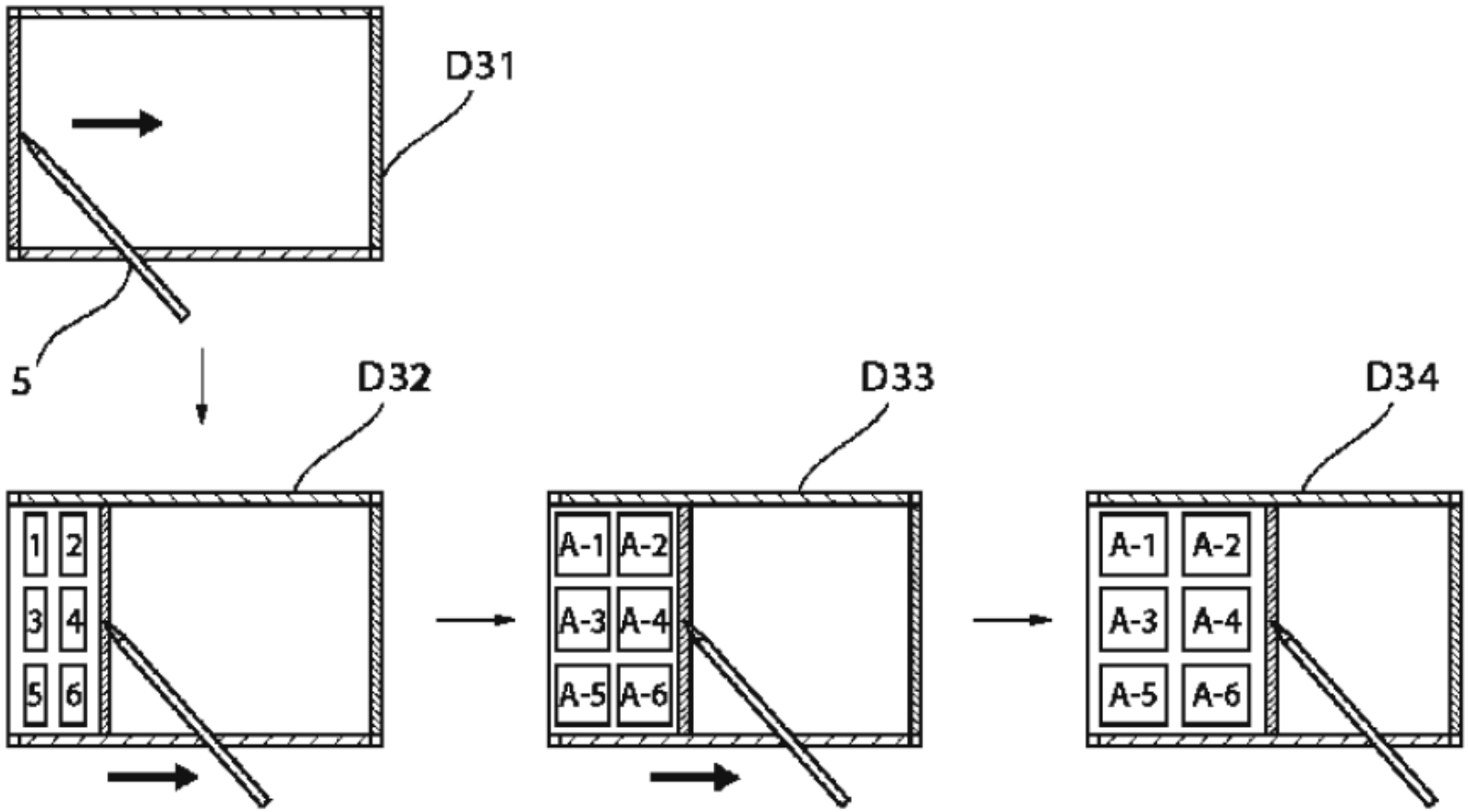
[0117] In the above-described implementations, if the touch and drag operation of a specific direction is performed in the touch input device **10**, an identifier for notifying the user that an item list matched to the specific direction is displayed in the display **40** can be displayed in the display **40**. The identifier may be graphical in form, such as an icon. For example, the identifier may be a specific icon for notifying a start position of the touch and drag operation.

APPLE-1005, FIGS. 5A-5B
-01115 Pet., 34-35; Reply, 4-6

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Ahn and Chaudhri-842 Teachings Consistent with Broader Prior Art



APPLE-1011, FIG. 21
Reply, 7

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Ahn and Chaudhri-842 Teachings Consistent with Broader Prior Art

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[0052] Note that method **200** and other methods described hereafter can be performed in real-time, such as while a gesture is being made and received. This permits, among other things, a user interface presented in response to a gesture to be presented prior to completion of the gesture. Further, the user interface can be presented progressively as the gesture is received. This permits a user experience of dragging out the user interface from the edge as the gesture is performed with the user interface appearing to "stick" to the gesture (e.g., to a mouse point or person's finger making the gesture).

APPLE-1010, [0052]
Reply, 7

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Petition Relied Upon Obviousness Based on Ahn and Chaudhri-842

Rebuttal to: "As there is no motivation/modification for sliding Ahn's menu before a gesture is completed, Petitioner cannot establish obviousness." *Sur-reply, 5-8*

[0119]; EX1003, [94]. Ahn explains that "as the user drags the graphic shadow 1800, the menu list 1500 can be displayed along the dragged graphic 1800." EX1004, [0118]. Similarly, Chaudhri '842 describes moving displayed graphics in correspondence with the magnitude of gestures associated with those graphics in order to provide the user who is performing the gesture a visual confirmation of the gesture and help direct them on how to complete the gesture. *See* EX1005, [0054] (describing the display of "visual cue(s)" to provide "hints or reminders" regarding the action necessary to transition between user interface states), [0060] (describing

-01115 Pet. 33-34

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petition Relied Upon Obviousness Based on Ahn and Chaudhri-842

Rebuttal to: "As there is no motivation/modification for sliding Ahn's menu before a gesture is completed, Petitioner cannot establish obviousness." *Sur-reply, 5-8*

is detected). A POSITA would have understood and found obvious from these teachings that, in at least implementations like those described with respect to FIG. 18, Ahn's menu list would have been graphically displayed as sliding onto the display based on a change in a magnitude of the "touch and drag" gesture being detected on the touch screen. EX1003, [94].

-01115 Pet. 34

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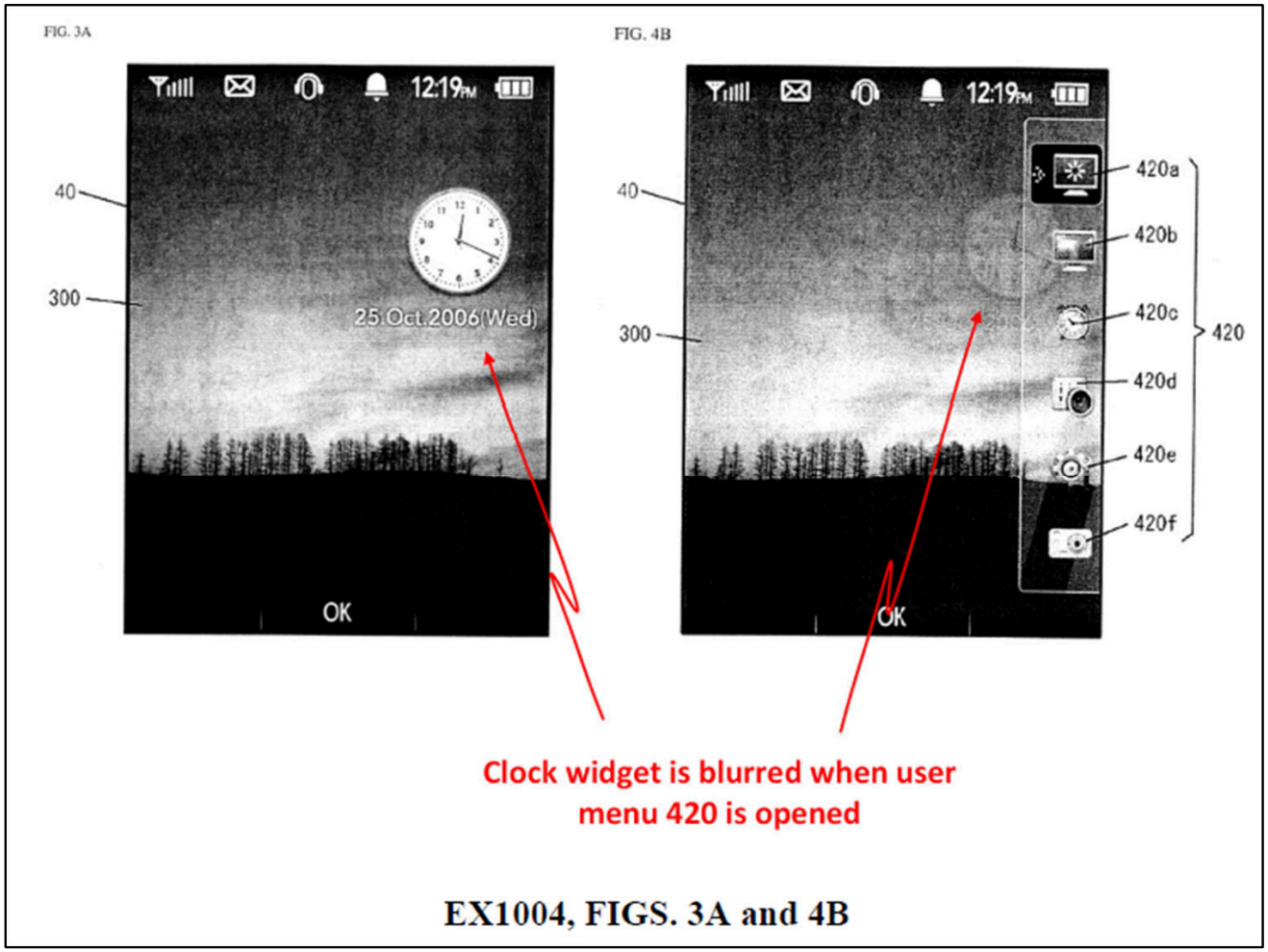
Issue 1B

Motivation to Combine with Chaudhri-842

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Ahn's Menu Blurs Underlying UI Object



APPLE-1004, FIGS. 3A, 4B
-01116 Pet., 12, 36

Chaudhri-842 Teaches Transition in Optical Intensity During UI Transitions

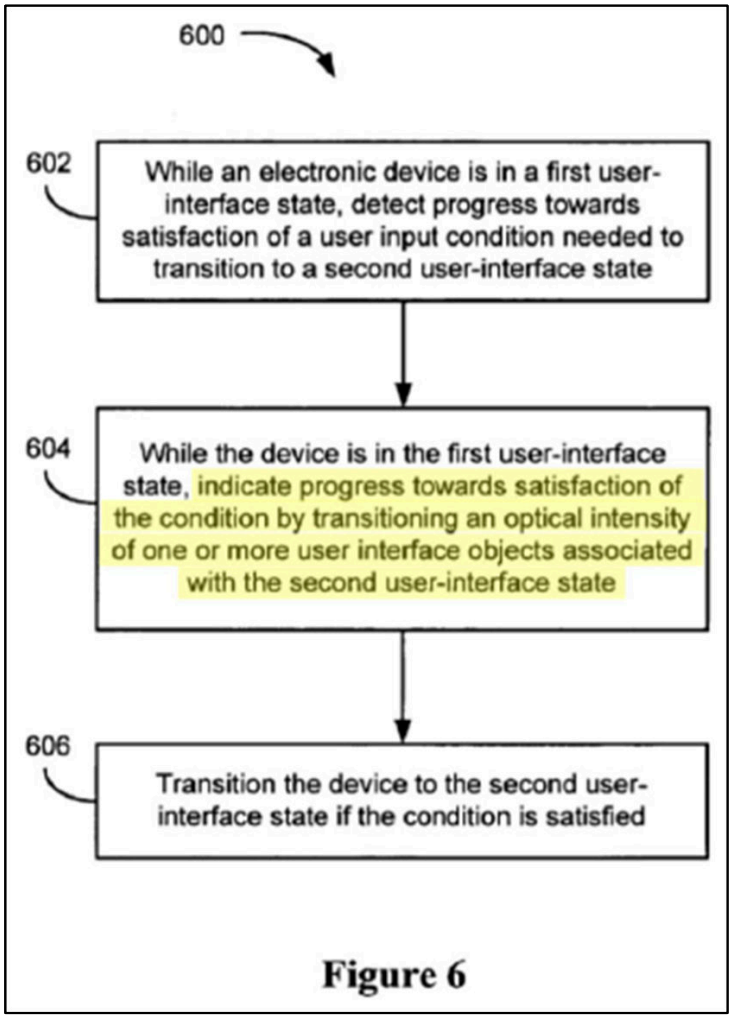


Figure 6

[0006] Accordingly, there is a need for more efficient, user-friendly procedures for unlocking such devices, touch screens, and/or applications. More generally, there is a need for more efficient, user-friendly procedures for transitioning such devices, touch screens, and/or applications between user interface states (e.g., from a user interface state for a first application to a user interface state for a second application, between user interface states in the same application, or between locked and unlocked states). In addition, there is a need for sensory feedback to the user regarding progress towards satisfaction of a user input condition that is required for the transition to occur.

[0048] The device **100** may have a plurality of user interface states. A user interface state is a state in which the device **100** responds in a predefined manner to user input. In some embodiments, the plurality of user interface states includes a user-interface lock state and a user-interface unlock state. In some embodiments, the plurality of user interface states includes states for a plurality of applications.

In some embodiments, as the user transitions from a first application and to a second application, a user interface for the second application may fade in (i.e., increase in intensity) and a user interface for the first application may fade out (i.e., decrease in intensity). The fade in and fade out may occur smoothly over a pre-determined time interval, such as 0.2 s, 1s or 2s.

APPLE-1005, FIG. 6, [0006], [0048], [0079]
-01116 Pet., 14

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Petition's Unrebutted Motivation

> Fourth, a POSITA would have known that varying optical intensity for a user interface object (*e.g.*, the blurring of Ahn's clock widget) as a function of the magnitude of the user's touch and drag gesture would have been one of a limited number of ways of implementing the blurring effect that's shown in FIGS. 4B, 10, and 13B of Ahn. EX1003, [67]; *Uber Technologies, Inc. v. X One, Inc.*, 957 F. 3d 1334, 1339-40 (Fed. Cir. 2020). Either a POSITA could have implemented the blurring effect in a binary fashion (*e.g.*, toggling instantaneously between unblurred and blurred) or progressively varied the blur as a function of the user's gesture, as taught by Chaudhri-842. EX1003, [67].

-01116 Pet., 19

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivations Taught by Chaudhri-842

To help direct a user with respect to successfully performing the predefined gesture, Chaudhri '842 teaches that the user interface may additionally include "cues" to help the user know what gesture to utilize and whether they are correctly perming the gesture (*e.g.*, graphics such as movable images that, when combined with the transition in optical intensity help the user visualize the correct gesture and how to complete it successfully). *See* EX1005, Abstract, [0054], [0062], [0073]; EX1003, [65]. Furthermore, Chaudhri '842 teaches that changes in optical intensity help to create "visual differentiation between the user-interface object and the background," which a POSITA would have understood and found obvious would have been visually helpful to a user both during the predefined gesture and after it is complete.

-01116 Pet., 21

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivations Taught by Chaudhri-842

[0054] In some embodiments, the locked device displays on the touch screen one or more visual cues of an unlock action that the user may perform to unlock the device (**204**). The visual cue(s) provide hints or reminders of the unlock action to the user. The visual cues may be textual, graphical or any combination thereof. In some embodiments, the visual cues are displayed upon particular events occurring while the device is locked. The particular events that trigger display of the visual cues may include an incoming call,

[0062] While the device is locked, the device may display one or more visual cues of the unlock action, as described above. In some embodiments, the device may also display, along with the visual cues, an unlock image. The unlock image is a graphical, interactive user-interface object with which the user interacts in order to unlock the device. In other words, the unlock action is performed with respect to the unlock image. In some embodiments, performing the unlock action with respect to the image includes dragging the unlock image in a predefined manner, which moves the unlock image across the touch screen. In some embodiments, if the unlock action is not completed, the GUI display can show reverse progress towards the locked state by gradually returning the unlock image to its position in the locked state

[0085] The optical intensity of a user-interface object, as used herein, is the object's degree of visual materialization. The optical intensity may be measured along a scale between a predefined minimum and a predefined maximum. In some embodiments, the optical intensity may be measured along a logarithmic scale. In some embodiments, the optical intensity may be perceived by users as a transparency effect (or lack thereof) applied to the user-interface object. In some embodiments, the minimum optical intensity means that the object is not displayed at all (i.e., the object is not perceptible to the user), and the maximum optical intensity means that the object is displayed without any transparency effect (i.e., the object has completely materialized visually and is perceptible to the user). In some other embodiments, the optical intensity may be the visual differentiation between the user-interface object and the background, based on color, hue, color saturation, brightness, contrast, transparency, and any combination thereof.

APPLE-1005, [0054], [0062], [0085]
-01116 Pet., 17-18

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Testimony Regarding Limited Number of Ways to Implement the Blurring Taught by Ahn Unrebutted By Evidence

Rebuttal to: *"There are numerous ways to 'blur' an object that are not progressively as a function of the user's gesture." Sur-reply, 10-11.*

Apple's Expert's Declaration

67. Fourth, a POSITA would have known that varying optical intensity for a user interface object (*e.g.*, the blurring of Ahn's clock widget) as a function of the magnitude of the user's touch and drag gesture would have been one of a limited number of ways of implementing the blurring effect that's explicitly shown in FIGS. 4B, 10, and 13B of Ahn. Either a POSITA could have implemented the blurring effect in a binary fashion (*e.g.*, toggling instantaneously between unblurred and blurred) or progressively varied the blur as a function of the user's gesture, as taught by Chaudhri '842.

2. Applying Hinkley's teachings about bezel gestures and associated user interface elements in the context of the Ahn-Chaudhri touch screen mobile device

68. A POSITA would have been motivated to integrate Hinkley's teachings about bezel gestures and associated user interface elements, including the bezel menus and radial menus, in conjunction with the Ahn-Chaudhri touch screen mobile device. The predictable result of this Ahn-Chaudhri-Hinkley combination is a mobile device that utilizes various gestures on a touchscreen and techniques for discerning between them to implement, among other user interface objects, bezel menus and radial menus. A POSITA would have recognized and found obvious that Ahn's touch input device 100, memory 20, display 40, and controller 50 would have been capable of implementing the gesture functionality and user interface objects described by Hinkley, because Hinkley describes its gestures in the context of a

Smith's Expert's Declaration

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC

Patent Owner

Case: IPR2024-01119
IPR2024-01116
IPR2024-01115

Patent 10,656,754

DECLARATION OF CRAIG ROSENBERG, Ph.D.

Silence

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PO Waived Argument Rebutting Number of Ways to Blur

Rebuttal to: *"There are numerous ways to 'blur' an object that are not progressively as a function of the user's gesture." Sur-reply, 10-11.*

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Paper 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner

v.

SMITH INTERFACE TECHNOLOGIES, LLC

Patent Owner

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IPR2024-01116
IPR2024-01115
Patent 10,656,754

PATENT OWNER RESPONSE

Silence

Sur-Reply

identified, predictable solutions' that would lead to an expectation of success." *Grunenthal GMBH v. Alkem Labs. Ltd.*, 919 F.3d 1333, 1345 (Fed. Cir. 2019); *Uber Technologies, Inc. v. X One, Inc.*, 957 F. 3d 1334, 1339 (Fed. Cir. 2020) (Petitioner established (1) the prior art references and the challenged patent "***all attempt to solve the same problem***" and (2) there existed only two possible methods of achieving the identified solution). Here, Petitioner fails to articulate a design need or problem (Pet., 19), rendering its analysis legally deficient. *Ivantis Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 888 (Fed. Cir. 2024) (rev'g PTAB obviousness finding based on "no evidence of a design need or market pressure"). Further, Ahn's "problem" cannot be how to implement blurring, which Ahn already achieves in "at least [illegible]." Pet.

Further, Dr. Terveen's framing of blurring as being 'binary' (EX1003, ¶67) is incorrect and unsupported. There are numerous ways to 'blur' an object that are not progressively as a function of the user's gesture. For example, blurring after a keypad input (EX1004, ¶¶[0049]-[0051]); providing an intermediate animation before the blurring operation (EX1004, FIG. 4A); blurring the object instantaneously at the start of the gesture, during the gesture, or after the gesture is complete; blurring gradually at the start of the gesture or after the gesture, blurring over a predetermined time (EX1005, ¶[0079]) at the start, during, or after the gesture. Dr. Terveen's blatant neglect of alternatives does not somehow narrow the choices to two.

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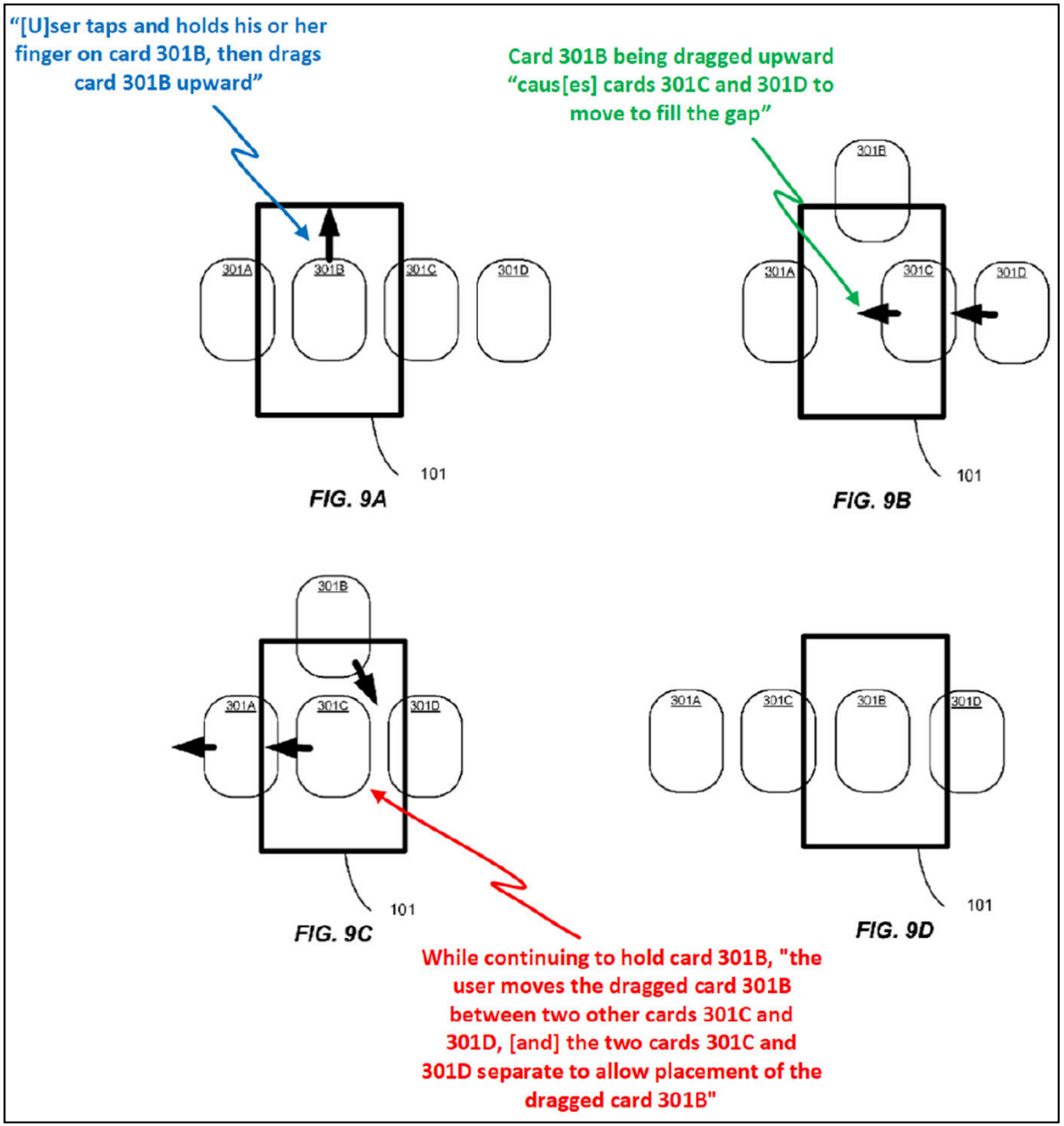
Issue 2

Shiplacoff Renders Varying the Speed of Displayed Cards Obvious

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Shiplacoff Teaches Varying Speed of User Input to Drag Card



-01119 Pet., 45

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Shiplacoff Teaches Varying Speed of User Input to Drag Card

Testimony of Apple's Expert (Dr. Terveen)

accordance with the touch input). Implemented in this fashion, as the touch-sensitive screen 101 detects movement of the user's finger across the display, the display location of the card 301B would have been updated such that the speed of the card 301B moving across the display would have matched the speed of the user's finger moving across the touch-sensitive screen. In the example shown in FIGS. 9A-9D, a POSITA would have understood and found obvious that the dragging speed—and thus the speed of the card 301B—would naturally vary throughout the gesture, including coming to or nearly to a stop at the top of the upward drag shown in FIG. 9B to allow cards 301C and 301D to move to fill in the gap. *See* EX1013, [0104]-[0106].

APPLE-1003, ¶361
-01119 Pet., 46

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Shiplacoff Teaches Varying Speed of User Input to Drag Card

[0104] In one embodiment, the user can also rearrange cards **301** while in card mode, by tapping and holding a card **301** for a period of time (such as, for example, 500 milliseconds), and then dragging a card **301** from one position to another. An example is shown in FIGS. **9**A through **9**D. The user taps and holds his or her finger on card **301**B, then drags card **301**B upward, causing cards **301**C and **301**D to move to fill the gap. The user does not immediately release card **301**B however; instead, he or she moves card **301**B into a position between cards **301**C and **301**D, as shown in FIG. **9**C. As the user moves the dragged card **301**B between two other cards **301**C and **301**D, the two cards **301**C and **301**D separate to allow placement of the dragged card **301**B. The result is the sequence shown in FIG. **9**D, where card **301**B is now positioned between cards **301**C and **301**D.

[0106] Once the movement action has been initiated, the user can continue to drag card **301** in any direction in order to place card **301** at the desired position within the sequence of cards **301**. The sequence of cards **301** scrolls left or right in response to the dragging operation; for example, if the user drags card **301** near the right edge of the screen, the sequence scrolls to the left to cause additional cards **301** in the sequence to be shown while others scroll off the screen. When the user releases card **301**, ending the drag operation, card **301** is placed at the indicated position, thus completing the card sequence rearrangement action.

APPLE-1013, [0104], [0106]
Pet., 46

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Shiplacoff Teaches Varying Speed of User Input to Drag Card

Testimony of Apple's Expert (Dr. Terveen)

42. Dr. Rosenberg further argues that FIGS. 9B and 9c show that "the user's finger and card 301B are stationary as card 301C fills the gap." EX2018, [184]. However, Shiplacoff contains no such limitation. Rather, Shiplacoff's description of FIGS. 9A through 9D describes a user dragging and moving card 301B, but says nothing about card 301B being "stationary," as alleged by Smith.

APPLE-1023, ¶42
Reply, 25-26

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Shiplacoff Teaches Other Cards "Snap" Into Position

Shiplacoff

[0094] In one embodiment, a transition effect is performed to enhance the smoothness of the transition as cards **301** move and/or snap into place. In one embodiment, the card **301** that is centrally displayed at any given time is shown slightly larger than other cards **301**.

Testimony of Dr. Terveen

366. A POSITA would have understood and found obvious that, in filling the gap, cards 301C and 301D move with a particular speed in the direction of the arrow shown in FIG. 9B. Shiplacoff does not specify or otherwise limit the speed at which cards 301C and 301D move when fillings the gap, leaving the speed as a design choice to the POSITA. *See* EX1013, [0104]. Notably, though, Shiplacoff describes that "a transition effect is performed to enhance the smoothness of the transition as cards 301 move and/or snap into place." *See* EX1014, [0094]. Based on the use of the word "snap," a POSITA would have at least found obvious that the cards 301C and 301D could move quickly on the display.

APPLE-1013, [0094]; APPLE-1003, ¶366
Pet., 48-49; Reply 21-23

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

35

Prior Art Confirms "Snap" Is Fast

Patent Owner's Jaeger Reference

[0008] Another concern with respect to the "snap to grid" option is that, when this option is active, a text or object being moved over the grid by the user jumps from one position to another in predefined distances. Thus, the user cannot move the text or object in a continuously smooth fashion, which presents an unusual or unnatural movement for a dragged text or object.

SMITH-2014, [0098]
Reply 23-24

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

36

Prior Art Confirms "Snap" Is Fast

Hoover

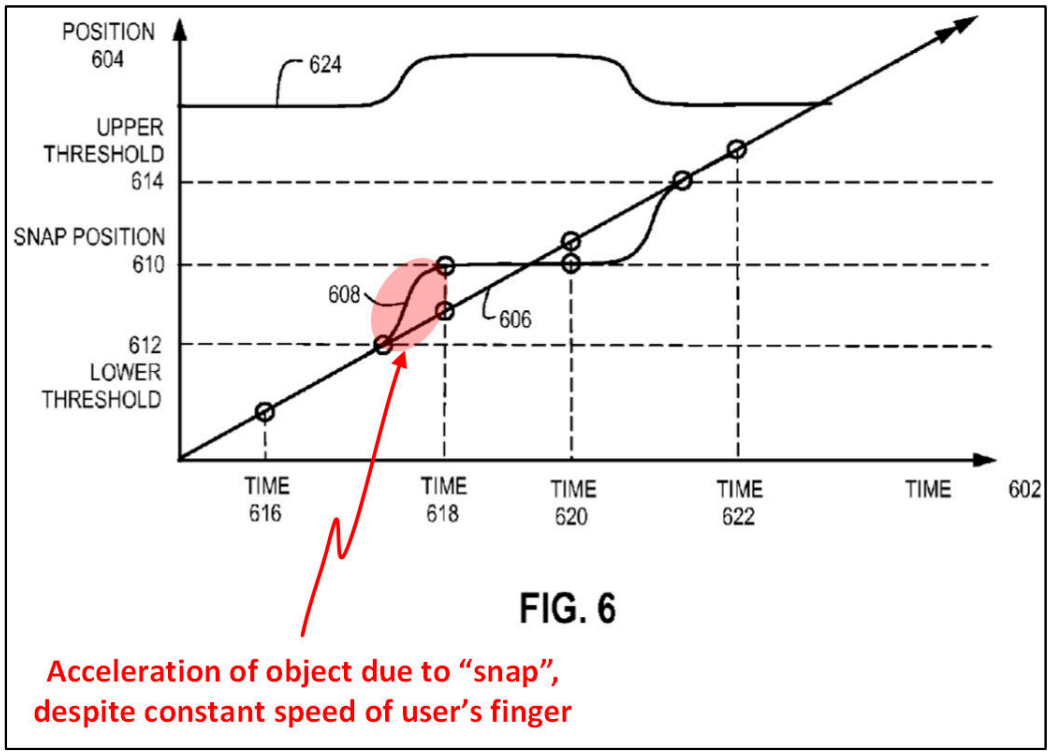


FIG. 6

Acceleration of object due to "snap", despite constant speed of user's finger

[0049] The graph depicted in FIG. **6** plots time on the x-axis **602**, and position from a reference point (as opposed to an absolute position) on the y-axis **604**. Plotted on the graph are the position of a user's finger(s) over time **606**, and the position of an element manipulated by the user over time **608**. As depicted by the plot of the position of the user's finger(s) over time **606**, the user moves his finger(s) at a constant rate of speed. The user moves his finger(s) to manipulate an element, but as depicted by the plot of the position of the element over time **608**, the element does not move at a constant rate of speed. Rather, the element snaps to a snap position **610** when the element's position reaches a lower snap threshold **612**. That is, as the user moves the element and it approaches the snap threshold (such as an edge of a display area), the element is snapped to the snap position **610** (shown in that the element's position does not change over time for a period, even though the user's finger(s), which is/are manipulating the element does/do).

[0050] It may be appreciated that the element does not instantly snap to the snap position **610** when the lower snap threshold **612** is reached (if this were the case, the position of the element between the lower snap threshold **612** and the snap position **610** would be graphed as a vertical line). Rather, the movement of the element is accelerated toward the snap position **610**, as is reflected by that portion of the plot of the position of the element over time **608** having a steeper slope during that portion than during the preceding portion.

APPLE-1027, FIG. 6, [0049]-[0050]
Reply 24-25

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

37

Dr. Terveen's Position on Movement of Card 901B Consistent Throughout Proceeding

44. My deposition testimony does not indicate that the card 301B needs to be stationary before card 301C and 301D move to fill the gap. Rather, I acknowledged that the card 301B would not be moving "**if** the user's finger is not moving on the screen." *See* EX2009, 80:14-81:15. I went onto explain that Shiplacoff describes "a gesture of dragging the card" and "what that means is that the finger and the card move in tandem." EX2009, 81:16-82:8. My Original Declaration explained that natural variation of the user's dragging speed would encompass her finger coming to a stop and also coming "nearly to a stop" or "slow[ing] substantially while the other cards in the sequence shift." EX1003, [361], [367]-[368].

APPLE-1023, ¶44
Reply 26-27

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

38

Dr. Terveen's Position on Movement of Card 901B Consistent Throughout Proceeding

Dr. Terveen's Deposition Testimony

Q Gotcha.
So from Figure 9A to 9B, the user's finger and the card both move upward, and then from Figure 9B to 9C, the user's finger and the card both move downward, and then the user releases their finger to rearrange that card 301B?
A I think -- yeah, you're describing a number of steps. The user

SMITH-2009, 23:9-17
Reply 27-28

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issue 3

Dependent Claim 208

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Dependent Claim 208

208. The apparatus of claim **2**, wherein the apparatus is configured such that:

the at least part of the gesture on the touch screen is detected when the object is displayed;

the at least part of the gesture on the touch screen is detected when a particular application interface of a particular application is displayed;

the gesture includes a swipe gesture;

the at least part of the gesture on the touch screen is detected on the object;

the at least part of the gesture on the touch screen is detected at or adjacent to an edge of the touch screen;

when the magnitude, including a distance magnitude, of the gesture detected on the touch screen is not detected to increase above a distance threshold, a home screen for choosing among a plurality of application is displayed; and

when the magnitude, including the distance magnitude, of the gesture detected on the touch screen is detected to increase above the distance threshold, a multitasking interface for choosing among a plurality of active applications is displayed, such that:

the multitasking interface is displayed in at least one first virtual display layer that appears above a second virtual display layer including the at least portion of the at least one other object that is blurred, and

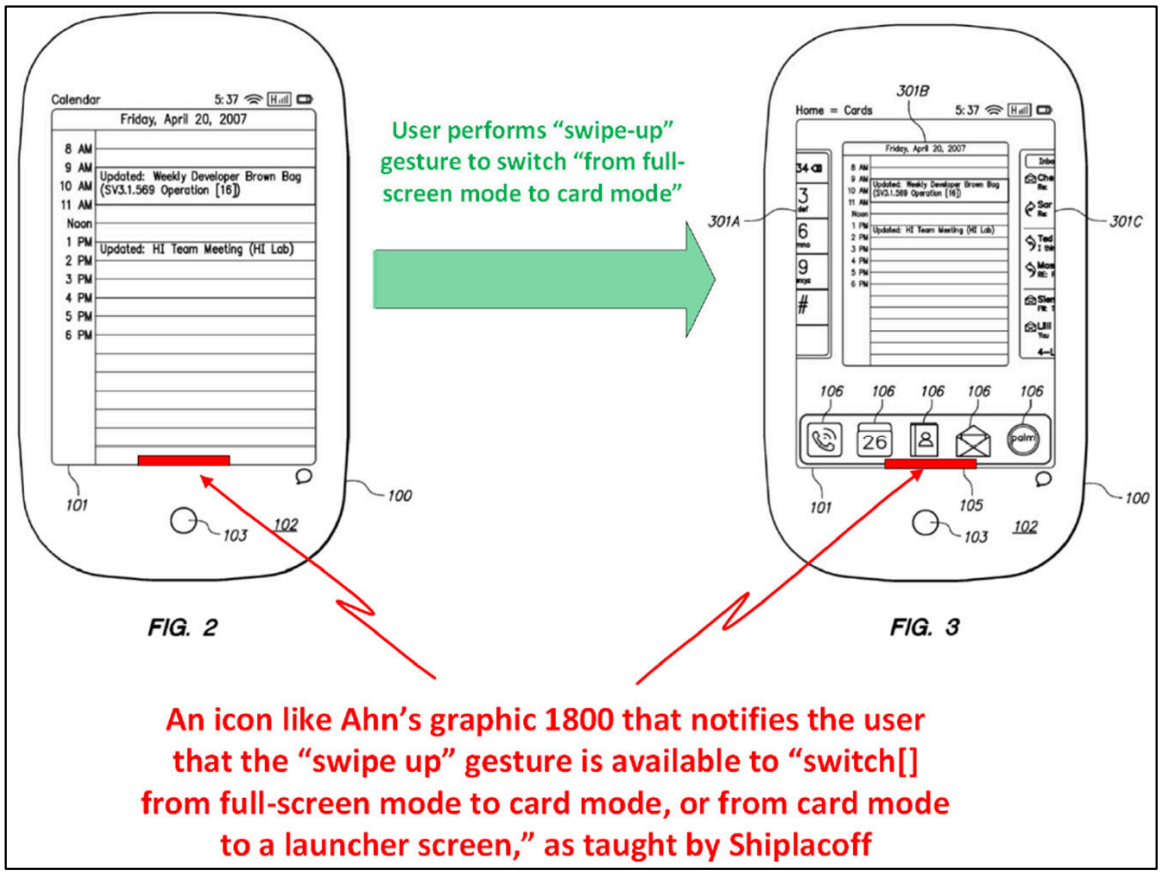
the multitasking interface remains displayed after the completion of the gesture.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

41

Where the Petition's Mapping with Respect to Independent Claim 2 Changed, the Petition Explained Those Changes

> EX1004, EX1004, [0118]. A POSITA would have found obvious that in those implementations that include a graphic shadow 1800, it is also an ***object***, as in Element [2.b]. Element [2.b], *supra* (describing a POSITA's understanding of the term "object").



Shiplacoff's Card Mode Acts as One of Ahn's Menus

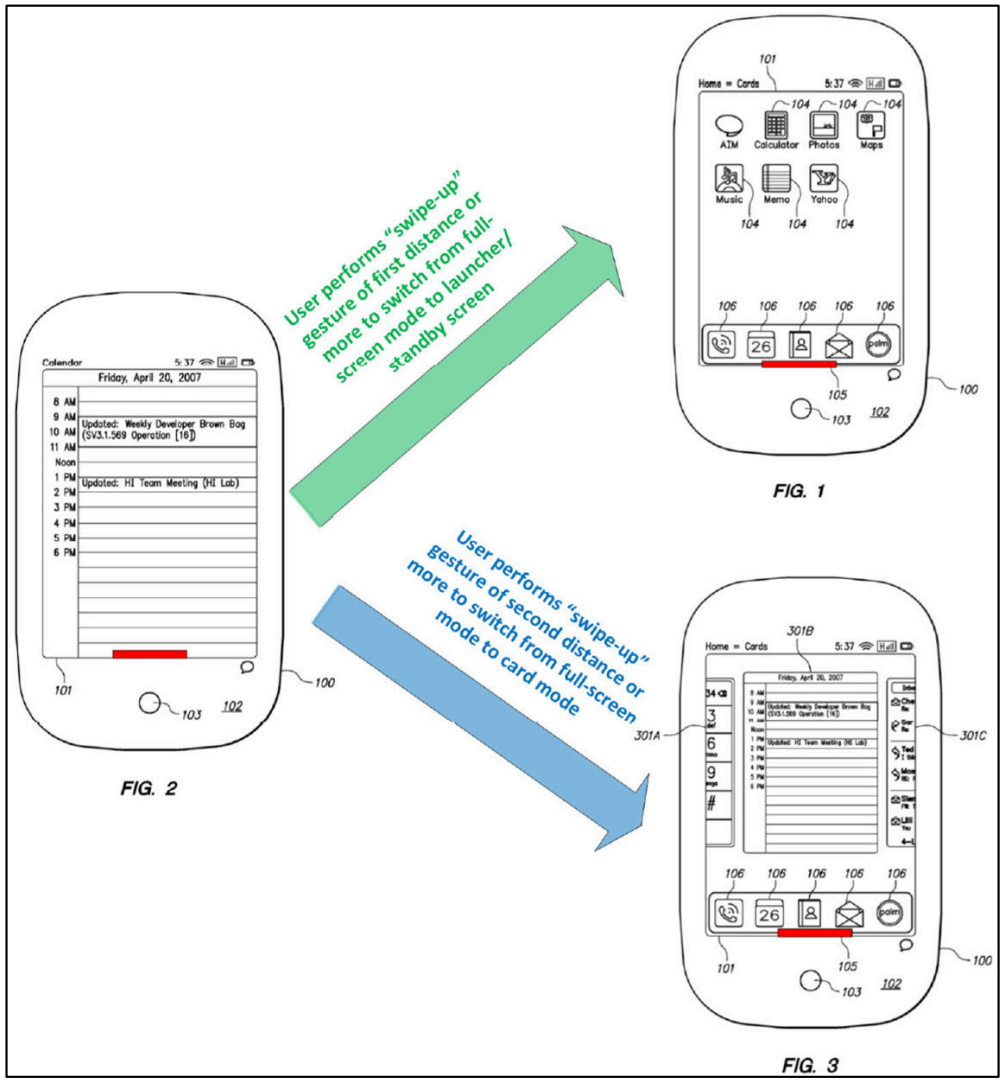


FIG. 2

FIG. 1

FIG. 3

The "At Least One Other Object," Ahn's Clock Widget, Is Still Blurred in the Same Manner as Described for Claim 2

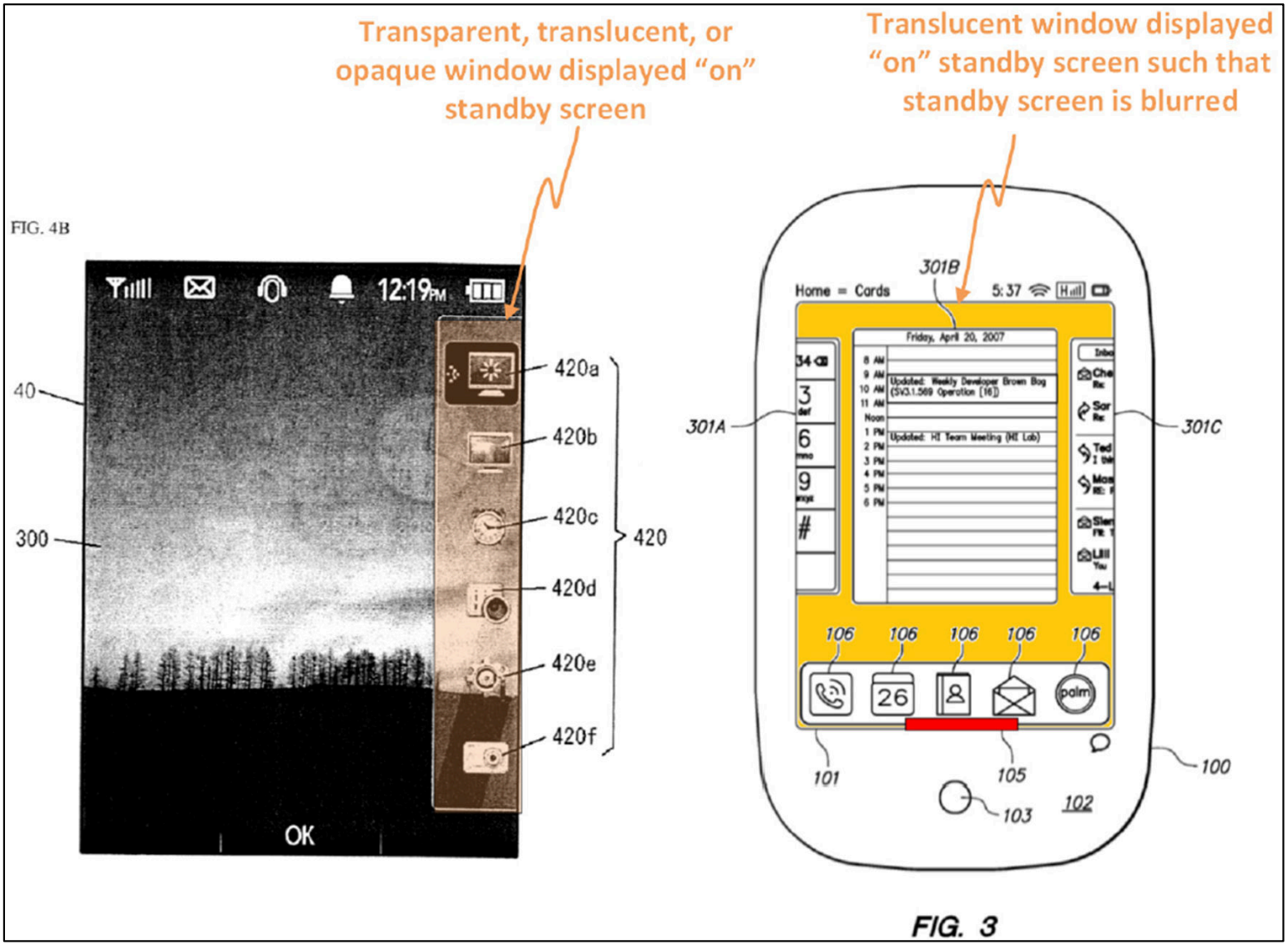


FIG. 3

-01119 Pet., 66; Reply, 35

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The "Window" On Which Shiplacoff's Multi-Tasking Menu is Displayed is Translucent, Per Ahn

60. In Shiplacoff's card mode, the cards are the menu items and the area between the cards would be the "window" described by Ahn as being transparent, translucent, or opaque. *See* EX1003, [381]-[384] (describing how the various active applications/activities shown in Shiplacoff's card mode are the menu "options" or items). Consistent with the menus described by Ahn, a POSITA would have found obvious that Shiplacoff's cards would be displayed as opaque menu items, and the "window" on which the cards are displayed would be translucent and "displayed on" the standby screen. *See* EX1004, [0038]-[0039], [0070].

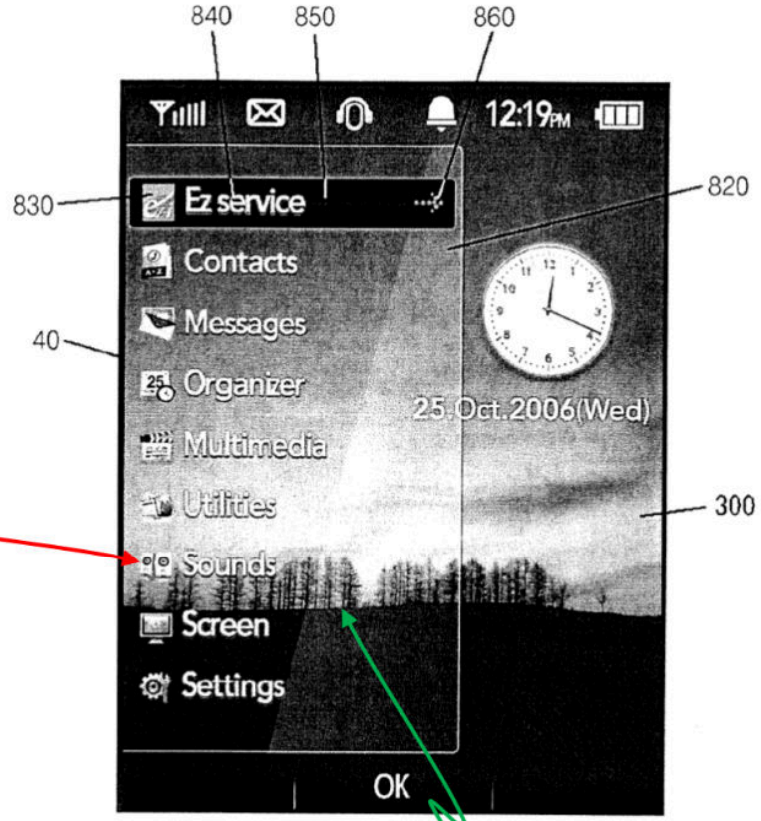
FISH.

APPLE-1023, ¶60; Reply, 36-37

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

45

The "Window" On Which Shiplacoff's Multi-Tasking Menu is Displayed is Translucent, Per Ahn



Menu items are displayed as opaque (*e.g.*, trees in thumbnail obscured)

When menu "window" is transparent, standby screen thumbnail can be seen through the menu

Shiplacoff's Transition Effect Results in Progressive Blurring

Switching Among Modes

[0124] In one embodiment, the user can switch among modes pressing physical button **103** or some other button on device **100**. In another embodiment, the user can touch or double-tap a card **301** in shuffle mode to initiate a switch to full-screen mode or to card mode. In yet another embodiment, device **100** switches from shuffle mode to full-screen mode (or to card mode) after some period of inactivity. Other mechanisms can also be provided for switching among the modes. In one embodiment, a transition effect is performed when switching from one mode to another.

[0094] In one embodiment, a transition effect is performed to enhance the smoothness of the transition as cards **301** move and/or snap into place. In one embodiment, the card **301** that is centrally displayed at any given time is shown slightly larger than other cards **301**.

APPLE-1013, [0124], [0094]
Reply, 33-34

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The "Gesture" of Claims 2 and 208 Is Ahn's "Touch-and-Drag" Operation to Open a Menu

Element [2.c]

The Ahn-Chaudhri combination renders obvious Element [2.b]. *See* EX1003, [88]-[91]. As discussed in Section VI.A.1, Ahn describes "a method of displaying a menu in a mobile communication terminal having a touch input device," in which a menu is displayed in response to a "touch and drag operation." EX1004, [0095]-[0099]. Initially, a controller 50 of the mobile communication terminal "detects a touch and drag operation of a specific direction on the touch screen 10 (S1110)." EX1004, [0098].

▪ ▪ ▪

of the display. EX1004, FIG. 13a, [0102]. A POSITA would have found obvious that Ahn's "touch and drag operation" is a gesture. EX1005, [0055] ("As used herein, a gesture is a motion of the object/appendage making contact with the touch screen.").

Starting from Shiplacoff's Full-Screen Mode Consistent with Requirements of Independent Claim 2

54. Dr. Rosenberg finds fault in my analysis because the examples I utilized in describing the operation of the combinations "start on two different interfaces." EX2018, [188]-[190]. However, Dr. Rosenberg does not point to any Element in claim 2 that dictates what is displayed at the time that the gesture is detected. *See id.* Absent such a claim element, my analysis of independent claim 2 turning to Ahn's standby screen as an example starting point for the detected gesture when explaining the obviousness of Elements [2.a] to [2.d] is not incompatible with my analysis of dependent claim 208 turning to Shiplacoff's full screen mode as an example starting point for the detected gesture when explaining the obviousness of Elements [208.a] to [208.i]. For example, Element [2.b] recites "display an object and at least one other object," but does not limit when the object and at least one other object are displayed or even that they be displayed simultaneously.

APPLE-1023, ¶54; Reply, 31-32

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issue 4

Other Dependent Claims

FISH.

Issue 4A

Dependent claims 27, 186, 230

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping

Claim 27

> **27**. The apparatus of claim **2**, wherein the apparatus is configured such that, when the magnitude, including a distance magnitude, of the gesture detected on the touch screen is detected to increase above a distance threshold, a menu is displayed with at least one option.

Claim 186

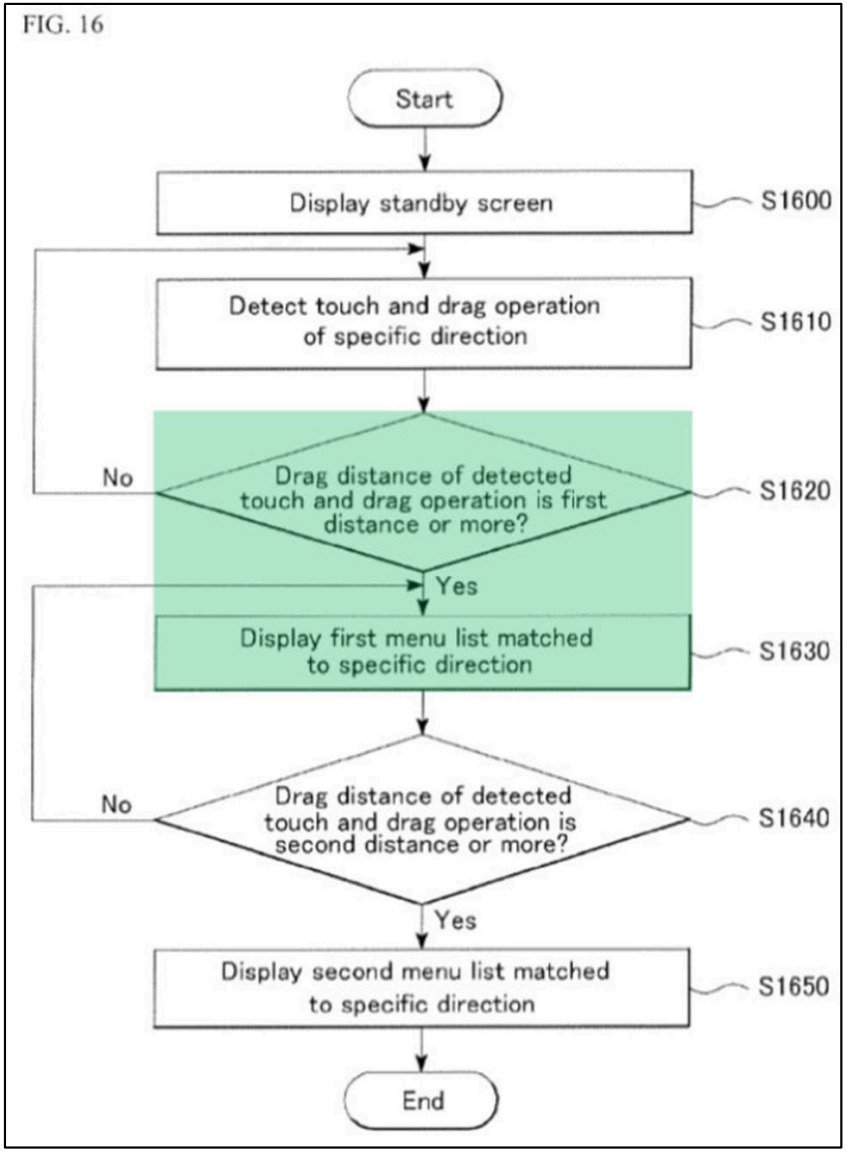
> when the magnitude of the gesture detected on the touch screen is detected to increase above a distance threshold, a menu is displayed with at least one option, such that:

Claim 230

> **230**. The method of claim **225**, wherein, in response to the magnitude, including a distance magnitude, of the gesture detected on the touch screen being detected to increase above a distance threshold, a menu is displayed with at least one option.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping



APPLE-1004, FIG. 16
-01116 Pet., 40-41

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping

A Well, I think there is another interpretation, which is -- if you read, when a drag instance of the touch operation reaches the distance D1, the first menu list 1700 is displayed.

It could also mean that the displaying of the menu list 1700 is completed when the drag distance reaches the distance D1.

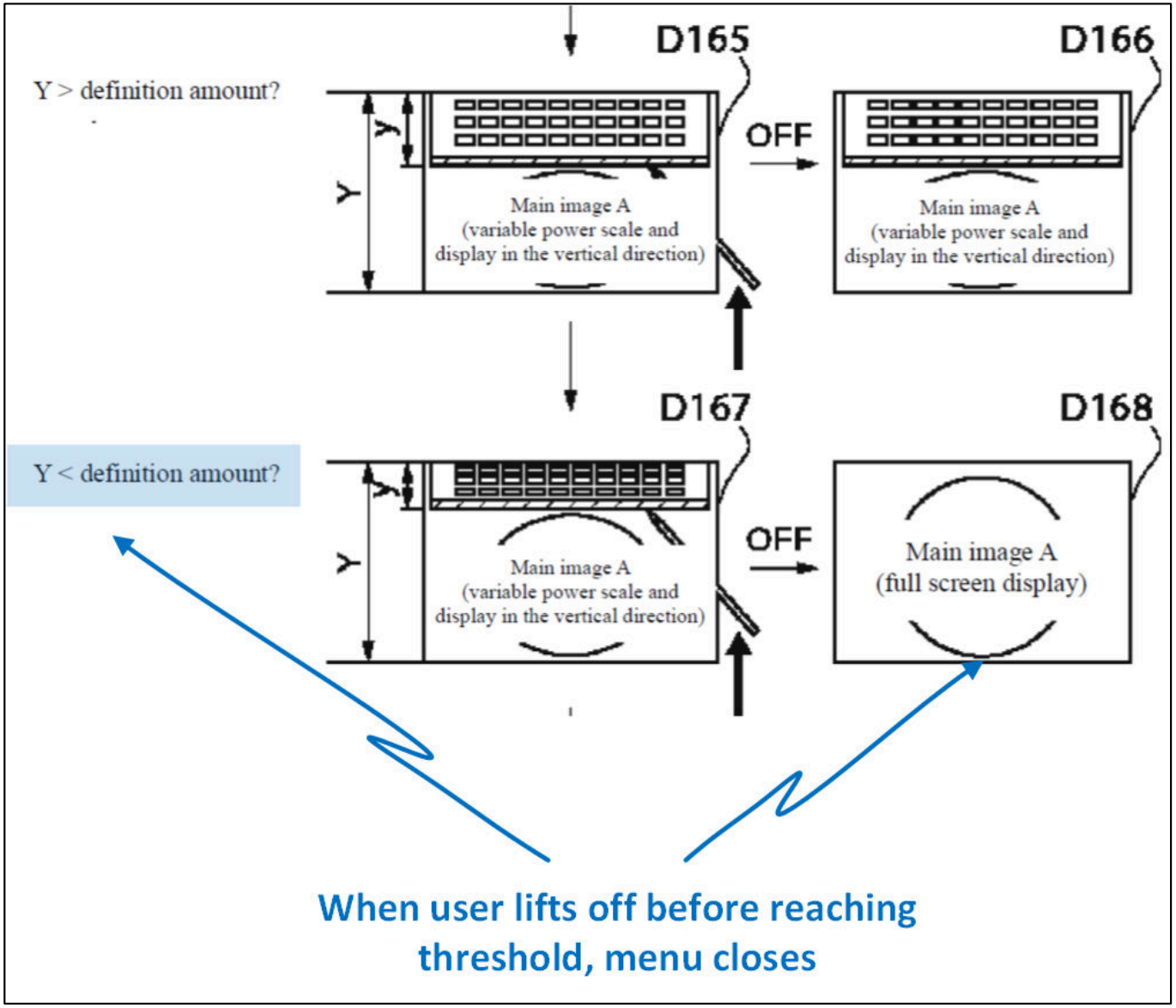
So I think either one of those could be consistent with that sentence.

So in the one case, you could read the first menu list as displayed meaning the displaying is completed by then, and in another case you could say that that means the display happens only then. And I think either one of those would be consistent with that sentence.

SMITH-2008, 39:15-40:10
Reply, 18-19

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping



APPLE-1011, FIG. 50
Reply, 19-20

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping

containing four states. By managing state transitions in event recognizer state machine **400** based on received sub-events, an event recognizer effectively expresses an event definition. For example, a tap gesture may be effectively defined by a sequence of two, or optionally, three sub-events. First, a touch should be detected, and this will be sub-event **1**. For example, the touch sub-event may be a user's finger touching a touch-sensitive surface in a view that includes the event recognizer having state machine **400**. Second, an optional measured delay where the touch does not substantially move in any given direction (e.g., any movement of the touch position is less than a predefined threshold, which may be measured as a distance (e.g., 5 mm) or as a number of pixels (e.g., 5 pixels) on the display), and the delay is sufficiently short, would serve as sub-event **2**. Finally, termination of the touch (e.g., liftoff of the user's finger from the touch-sensitive surface) will serve as sub-event **3**. By coding the event recognizer state machine **400** to transition between states based upon receiving these sub-events, the event recognizer state machine **400** effectively expresses a tap gesture event definition. However,

APPLE-1025, 28:37-62

Reply, 17

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Apple's Arguments with Respect to Dependent Claims 27, 186, and 230 Are Consistent with Claim 2 Mapping

The gesture engine **280** is configured to determine tells which gesture is being performed by the user at the computing device **215**. For instance, the gesture engine **280** is capable of processing a continuous, uninterrupted movement of a gesture and/or a duration of the gesture utilizing a timer. If the duration of the gesture does not comprise a distance of uninterrupted movement above a predefined distance or does not meet a predefined threshold time period, the gesture is considered a tap-type operation (e.g., tap simulating a mouse click). Otherwise, the gesture is considered a drag operation.

APPLE-1026, 10:65-11:7
Reply, 17

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issue 4B

Dependent claims 37, 64, 75-79, 187, 189, and 223

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Example Dependent Claims 37 and 64

Claim 37

> **37**. The apparatus of claim **27**, wherein the apparatus is configured such that the menu is sharpened and magnified when displayed.

Claim 64

> **64**. The apparatus of claim **27**, wherein the apparatus is configured such that the menu fades-in, and includes a wide area network option, a local area network option, and a volume option.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Smith's Arguments for Dependent Claims 37 and 64

Claim 37

> Further, referring to Ahn's FIG. 4B (below), menu 420 already spans the entire length of the display screen and is clearly displayed; thus, there would be no need to magnify the menu. EX2018, ¶151.

Claim 64

> At the outset, Petitioner's alleged local area network option is not selectable and would not be implemented into menu 420. EX2018, ¶153 (the sub-menus 420a-f of Ahn's menu 420 are associated with selectable functionality); EX1004, FIGs. 5A-

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Smith's Arguments Assume Combination Must Implement Ahn's Menu Items Exactly as Taught in Ahn

187, 189, and 223, Dr. Rosenberg assumes that a POSITA would have implemented the combinations exactly as examples in the prior art used to explain aspects of the combination. EX2018, [117]-[125], [144]-[155], [166]-[171]. However, a POSITA would not have been so constrained, as evidenced by the references themselves. *See* EX1004, [0071] ("Please note however that this is an exemplary illustration, and various menus can be displayed, depending on implementation."); EX1005, [0025] ("it will be apparent to one of ordinary skill in the art that the present invention may be practiced without [the] specific details" set forth to provide an understanding of the invention), [0080] ("it should be apparent" that the process flow 600 "can include more or fewer operations")

APPLE-1023, ¶63
Reply, 39-40

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issue 4C

Dependent claims 67-74, 197, 201-204, and 216

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Smith's Arguments Regarding Certain Dependent Claims Rely Upon Same Disproven Arguments

64. With respect to dependent claims 67-74, 197, 201-204, and 216 Smith's arguments rely upon or extend arguments made with respect to other claims, each of which is rebutted above. *See* EX2018, [156]-[165], [127]-[129], [133]-[142]. For example, Dr. Rosenberg's argument with respect to claim 197, rests on the same arguments related to claim 186 that I previously explained were incorrect. *See* EX2018, [127]-[129]. Similarly, Dr. Rosenberg's arguments with respect to claims 67-74 and 201-204 rely upon his assumption that the combination does not display the menu opening until after the gesture is completed, which I explained above was incorrect. *See* EX2018, [156]-[170], [133]-[142]. And Dr. Rosenberg's argument with respect to claim 216 rests upon his incorrect assumption that the combination requires a "separate gesture area 102." *See* EX2018, [209]-[211].

APPLE-1023, ¶64
Reply, 39-40

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Issue 4D

Dependent claims 199 and 210

FISH.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Dependent Claims 199 and 210

Claim 199

199. The apparatus of claim **186**, wherein the apparatus is configured such that the magnitude of the blurring is continuously increased, until the at least one other object is completely obscured by the second display layer that overlays the at least one other object.

Claim 210

210. The apparatus of claim **209**, wherein the apparatus is configured such that a third virtual display layer is displayed between the first virtual display layer and the second virtual display layer.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Smith's Arguments Regarding Certain Dependent Claims Are Not Consistent with the Full Breadth of the Combination

65. With respect to dependent claims 199 and 210, Dr. Rosenberg's arguments misrepresent the breadth of my Original Declaration's obviousness arguments. *See* EX2018, [130]-[131]. [207-[208]. Dr. Rosenberg's arguments with respect to claims 199 and 210 focus solely on "varying the optical intensity of the clock widget" (*see id.*), but my Original Declaration explained how it would have been obvious "to vary...the optical intensity of the standby screen or at least portions thereof," of which the clock widget may be only one example. *See, e.g.*, EX1003, [101], [222]-[226], [413]-[417].

APPLE-1023, ¶65
Reply, 39-40

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

66