

Application No.: 90/015,035

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First Named Inventor: Yves Behar
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For: PORTABLE COMPUTER WITH MULTIPLE DISPLAY
CONFIGURATIONS
Examiner: A. K. Deb
Art Unit: 3992

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Dated November 14, 2023

Electronic Signature for MacAulay S. Rush: /MacAulay S. Rush/

APPEAL BRIEF UNDER 37 CFR 41.37

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

In response to the Final Office Action of May 18, 2023 (“Final Office Action” or “FOA”), the *Ex Parte* Reexamination Advisory Action Before the Filing of an Appeal Brief of August 21, 2023 (“Advisory Action”), and further to the Notice of Appeal submitted on September 15, 2023, the following Appeal Brief is submitted herewith.

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I. REAL PARTY-IN-INTEREST

The Real Party-In-Interest is the Patent Owner, LiTL LLC (“LiTL”).

II. RELATED APPEALS, INTERFERENCES, AND TRIALS

LiTL is aware of the following prior and concurrent proceedings in which U.S. Patent No. 8,289,688 (“’688 Patent”, Ex. 1001, included in Appendix A¹) is or was involved.

1. *LiTL LLC v. Lenovo (United States), Inc. et al*, Civ. No. 1-20-cv-00689 (D. Del.). In this proceeding, the requestor of this Reexamination (“Lenovo”) was accused of infringing the ’688 Patent. The parties have settled the suit and the case was dismissed with prejudice.
2. *LiTL LLC v. HP Inc.*, Civ. No. 1:23-cv-00120 (D. Del.) (pending). In this proceeding, Defendant HP Inc. is accused of infringing the ’688 Patent. Microsoft Corporation has intervened in this action and is seeking a declaratory judgment that it does not infringe several of the asserted patents. Microsoft has not alleged that it does not infringe the ’688 Patent.
3. *LiTL LLC v. ASUSTeK Computer Inc., et al*, Civ. No. 1:23cv-00122 (D. Del.) (pending). In this proceeding, Defendants ASUSTeK Computer Inc., Asus Global Pte. Ltd. and Asus Technology Pte. Limited are accused of infringing the ’688 Patent. Microsoft Corporation has intervened in this action and is seeking a declaratory judgment that it does not infringe several of the asserted patents. Microsoft has not alleged that it does not infringe the ’688 Patent.
4. *LiTL LLC v. Dell Technologies Inc., et al*, Civ. No. 1:23-cv-00121 (D. Del.) (pending). In this proceeding, Defendants Dell Technologies Inc. and Dell Inc. are accused of infringing the ’688 Patent. Microsoft Corporation has intervened in this action and is seeking a declaratory judgment that it does not infringe several of the asserted patents. Microsoft has not alleged that it does not infringe the ’688 Patent.
5. *Lenovo (United States) Inc. v. LiTL LLC*, IPR2021-00681 (P.T.A.B.) (institution denied).

LiTL is aware of the following prior and concurrent proceedings in which patents or applications related to the ’688 Patent are or were involved.

¹ For the Board’s convenience, in accordance with MPEP 1205.02, LiTL has included an evidence appendix with the ’688 Patent and other evidence relied on heavily in this brief.

Proceeding	Patent / Application	Status
<i>Lenovo (United States) Inc. v. LiTL LLC</i> , IPR2021-00800	10,289,154	Institution denied
<i>Lenovo (United States) Inc. v. LiTL LLC</i> , IPR2021-00822	8,624,844	Institution denied
<i>Lenovo (United States) Inc. v. LiTL LLC</i> , IPR2021-00786	9,880,715	Institution denied
<i>Lenovo (United States) Inc. v. LiTL LLC</i> , IPR2021-00821	8,612,888	Institution denied
<i>Microsoft Corporation v. LiTL LLC</i> , IPR2021-01011	8,577,957	Institution denied
<i>Ex parte</i> reexamination of 10,289,154	10,289,154 90/015,025	Appeal Brief Filed
<i>Ex parte</i> reexamination of 8,624,844	8,624,844 90/014,965	Reexamination Certificate Issued
<i>Ex parte</i> reexamination of 9,880,715	9,880,715 90/014,958	Reexamination Certificate Issued

III. INTRODUCTION

This brief is lengthy because the appealed claims include a number of different independent claims with different limitations, and because the Examiners rejected these claims with numerous rejections (Rejections 1-12) that all require reversal.

The Board should reverse for a reason common to all the appealed claims across all the rejections. As detailed below, every appealed claim relates to a portable computer configurable by the user into various physical configurations (*e.g.*, laptop mode, easel mode, frame mode) called “display modes.” While the exact claim language differs, every appealed claim also requires that the computer be capable of **determining** or **detecting** the display mode that the user has put the computer into, and the specification explains that this advantageously allows the computer to invoke specific functionality that varies across different display modes. Every rejection of every appealed claim should be reversed because the cited prior art only discloses a computer configurable by the

user into different display modes. None of the prior art teaches a computer capable of *determining* or *detecting* the display mode the user has configured the computer into.

The rejections for several appealed claims should be reversed for additional reasons (*e.g.*, some require that the computer detect a degree of rotation between the computer's base and display which is not taught by the cited prior art).

IV. SUMMARY OF CLAIMED SUBJECT MATTER

Before LiTL introduced its Webbook product (shown below) that commercialized an embodiment of the '688 Patent, home computers were essentially the same as office computers. *See* February 23, 2023 Declaration of Eric J. Gould Bear In Support of Patent Owner Response to Non-Final Office Action Under 37 CFR 1.111 ("Bear Decl-1," included in Appendix B), ¶ 61. LiTL recognized that the home environment could lend itself to more and different ways in which consumers would use computers and sought to design a computer more suitable to home use. '688 Patent, 5:43-63, 11:27-12:5, 14:14-29, 16:51-62, 1:15-17, 1:59-64, 2:6-9, 2:19-22; Bear Decl-1, ¶ 61. LiTL recruited leading user experience design ("UXD") experts and worked closely with some of the world's leading technology and UXD consultancies in a multi-year development effort that led to the Webbook computer. Bear Decl-1, ¶ 61. LiTL's Webbook included a number of new inventions initially described in provisional application no. 61/041,365 on April 1, 2008. The '688 Patent is one of several LiTL patents stemming from that provisional. '688 Patent, 1.

LiTL's Webbook allowed the user to manipulate the computer into various physical configurations (referred to in the '688 Patent as "display modes") described in § IV.B below. These display modes include "laptop mode" and "easel mode" shown immediately below in images of LiTL's Webbook. Bear Decl-1, ¶ 61. The inventors recognized that users would benefit from being

able to manipulate the computer into different display modes at different times for different uses of the computer. '688 Patent, 5:43-63, 11:27-12:5, 14:14-29, 16:51-62, 1:15-17, 1:59-64, 2:6-9, 2:19-22; Bear Decl-1, ¶ 61. The inventors also recognized that it would be beneficial for the computer to be capable of detecting the physical configuration (display mode) into which the user had manipulated the computer so the computer could provide “different display formats and functionality in the different modes.” '688 Patent, 5:49-51.



LiTL Webbook, Bear Decl-1, ¶ 61

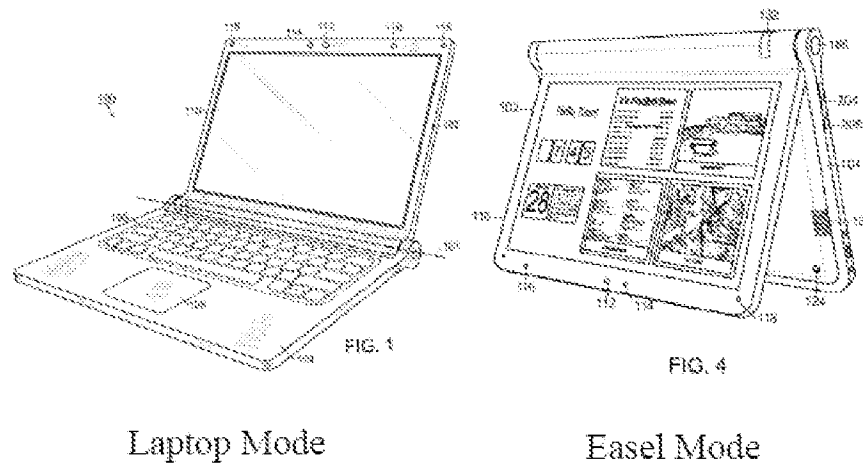
The LiTL Webbook earned contemporaneous praise. Bear Decl-1, ¶ 61. Many of its innovations have become industry standards that are ubiquitous today. *Id.* They were anything but standard in the timeframe relevant to the reexamination that is the subject of this appeal. *Id.*

A. Subject Matter of the Rejected Claims²**1. Subject Matter Common to All Claims****a. Display Modes Such as Laptop Mode and Easel Mode**

All rejected claims are directed to a “portable computer” that is configurable between a plurality of different overall physical configurations of the computer which the ’688 Patent calls “display modes,” including a “laptop mode” and an “easel mode” which are illustrated in the figures below. ’688 Patent, 18:20-24, 19:47-55, 20:32-36, 21:39-22:12,³ 2:19-35, 6:24-28, 7:48-61, Fig. 1 (laptop mode), Fig. 4 (easel mode); Bear Decl-1, ¶ 62. The claims require that the portable computer have a “base” and a “display” and be configurable into at least “laptop mode” and “easel mode” by rotating or orienting the display and base relative to each other. *Id.* The specification explains that the “portable computer is configurable between various modes, including a closed mode, a laptop mode, an easel mode, a flat mode and a frame mode.” ’688 Patent, 2:19-22; Bear Decl-1, ¶ 62. These “various modes” – which correspond to different overall physical configurations of the computer – are what is meant by “display modes.” ’688 Patent, Abstract, Figs. 1-2, 4-5, 17, 26-27, 2:3-9, 2:19-38, 2:49-3:2, 4:40-44, 4:47-50, 5:13-15, 5:35-39, 5:43-53, 6:24-38, 6:63-7:7, 7:48-61, 8:49-66, 9:19-30, 10:42-53, 13:64-14:29, 15:60-16:32, 16:51-55, 18:20-23, 19:47-55, 20:32-36, 21:39-22:12; Bear Decl-1, ¶¶ 62-63.

² Claims 12-16, 20, 24-26 were canceled and are not addressed in the appeal brief.

³ Rejected dependent claims 30-32 incorporate all of the limitations of disclaimed independent claim 29 from which they depend.



Figs. 1 and 4 of the '688 Patent

b. Detecting an Orientation or a Degree of Rotation of the Display Relative to the Base

All rejected claims require detecting an orientation or physical configuration of the base relative to the display (or the display relative to the base) or detecting a degree of rotation of the display relative to the base. '688 Patent, 18:33-34, 19:36-37, 20:23-24, 22:13-15. The specification discloses, for example, use of an accelerometer in the base and display components to make these detections. *Id.*, 8:17-48, 9:30-45, 2:44-49, 3:19-25; Bear Decl-1, ¶¶ 70-90. The accelerometers generate orientation information that indicates the orientation of the base and display components relative to gravity and can be used to determine the orientation of the base and display components relative to each other as discussed in § IV.D below.

c. Detecting the Display Mode and Transitions Between Display Modes

Every rejected claim requires determining the “display mode” the computer has been configured into or detecting (or identifying) the computer’s transition (or change) between “display modes” such as between “laptop mode” and “easel mode.” '688 Patent, 18:33-37, 19:42-44, 20:32-

36, 22:13-15. As explained in detail in § IV.D below, the '688 Patent describes sensors that provide sufficient information to differentiate among all the computer's display modes so the computer can identify the current display mode and transitions between display modes the user has configured the computer into. Bear Decl-1, ¶¶ 72-90.

d. Orienting Displayed Content

Every rejected claim requires orienting displayed content responsive to a determination that the computer is in laptop or easel mode, or responsive to a determination that there was a transition between those display modes, where the displayed content is rotated 180 degrees between those display modes. '688 Patent, 18:24-32, 19:56-20:4, 20:25-31, 22:16-26. The '688 Patent discloses configuring the orientation of displayed content to appear “right-way-up” on the display screen in both laptop and easel modes, and is 180 degrees rotated between laptop and easel modes. *Id.*, 8:7-16; Bear Decl-1, ¶¶ 69-71.

2. Independent Claim 11

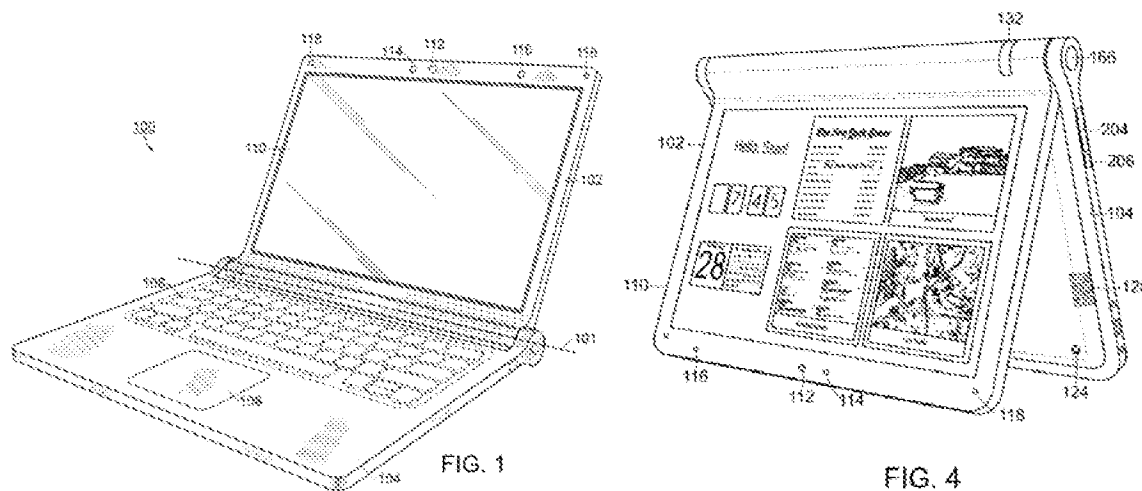
a. “Means for Rotating”

Claim 11 further requires the “display component” be “rotatably coupled to the base” and a “means for rotating the display component in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode.” '688 Patent, 18:20-23.

The function recited by this means-plus-function limitation requires that the “display component” of the claimed computer “rotat[e] in a single direction relative to the base to configure the portable computer between a laptop mode and an easel mode.” *Id.*

The particular structure disclosed in the specification for performing this function is not at issue in this appeal. However, for context, the '688 Patent discloses hinge assemblies that can be

“configured to permit rotation of the display component about any of the multiple parallel axes to configure the portable computer between the plurality of display modes.” *Id.*, 2:49-54. For example, one such hinge assembly, shown in Figures 1 and 4 (reproduced below), allows the display component 102 to be rotated in a single direction relative to the base 104 so the computer can be configured into laptop mode (Fig. 1) and easel mode (Fig. 4). *Id.*, 6:24-38, 8:62-9:30, 4:40-42, 4:47-48, Figs. 1, 4. Hinge assemblies that accomplish the recited function are further detailed in the specification and figures of the '688 Patent. *Id.*, 1:64-2:6, 2:22-24, 2:49-54, 2:60-3:2, 3:57-64, 4:40-44, 4:47-48, 4:53-64, 5:24-39, 6:28-38, 8:62-9:45, 9:61-10:53, Figs. 1-2, 4, 7A-10, 25-27.



Figs. 1 and 4 of the '688 Patent

b. “Means for Detecting”

Claim 11 also requires a “means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.” *Id.*, 18:33-37. This means-plus-function limitation performs two functions: (1) “detect[] an orientation of the base

relative to the display component,” and (2) “identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.” *Id.*

The '688 Patent explains that “the display component [can be rotated] about the longitudinal axis up to approximately 180 degrees from the closed mode” to “configure the portable computer into the laptop mode” and that further “[r]otating the display component about the longitudinal axis beyond approximately 180 degrees axis from the closed mode may configure the portable computer into the easel mode.” *Id.*, 2:28-35, Figs. 1, 4.

As explained in detail in § IV.D below, the '688 Patent describes structures (accelerometers and/or detents) that detect the orientation of the base relative to the display and identify the laptop mode and the easel mode from amongst the different display modes the computer can be configured into, and that detect transitions between them based on a threshold orientation like 180 degrees. *Id.*, 2:44-49, 3:19-25, 8:17-48, 8:59-61, 9:30-45, 14:1-6, 2:28-35; Bear Decl-1, ¶¶ 69-90. In particular, the '688 patent describes an “orientation sensor [that] includes an accelerometer” that can be incorporated into the base, display, and/or the hinge to “determine a precise relative orientation of the base component 104 with respect to the display component 102, or vice versa, for example, to determine whether the device is in the laptop mode, easel mode, or some point in between the two modes.” '688 Patent, 8:17-34, 9:30-45. “Accelerometers” are used “to detect a configuration of the portable computer 100 (*e.g.*, laptop mode or easel mode), particularly, to detect an orientation of the display component 102 relative to the base component 104.” *Id.*, 8:35-48. The '688 Patent further explains that “the orientation sensor may include electronic or mechanical components, or a combination thereof” and that “[f]or example, the hinge assembly may be provide[d] with detents that provide an indication of the mode of the portable computer.” *Id.*, 9:41-45. Detents are physical

depressions or protrusions, or magnetic markers, which resist motion and indicate when a certain degree of rotation has been reached. Bear Decl-1, ¶ 77. Thus, detents distributed along the circumference of a hinge axis could be used to detect the relative orientation between the base and display components (*e.g.*, an angle between them). '688 Patent, 9:41-45; Bear Decl-1, ¶ 77.

c. “Display Orientation Module”

Claim 11 also requires a “display orientation module configured to automatically orient [displayed] content [] responsive to at least a transition between the laptop mode and the easel mode.” '688 Patent, 18:24-27. As explained above in § IV.A.1.d, the '688 Patent describes a display orientation module that orients content “right-way-up” responsive to transitions between display modes. *Id.*, 8:7-16 (“when the portable computer 100 is configured into the easel mode, the visual display on the display screen 110 is automatically rotated 180 degrees such that the information appears ‘right-way-up,’ even through the display screen is upside-down compared to when the portable computer is in the laptop mode”); Bear Decl-1, ¶ 69.

3. Independent Claim 17

Claim 17 is a method claim relating to a computer with a body having “a single display component including a display screen and a base including an integrated keyboard.” '688 Patent, 19:27-31. The '688 Patent discloses such a portable computer. *Id.*, 6:24-45, Fig. 1.

Claim 17 requires “rotating the single display component [] about a longitudinal axis running along an interface between the single display component and the base.” *Id.*, 19:32-35. The '688 Patent discloses a portable computer that can be rotated in that manner. *Id.*, 6:24-45, Fig. 1.

Claim 17 also requires “detecting a degree of rotation of the single display component relative to the base” and “providing a signal representative of the degree of rotation” of the “display

component relative to the base.” *Id.*, 19:36-39. As explained in detail in § IV.D below, the ’688 Patent describes sensors that “may be used to detect, either approximately or precisely, the angle [between the base and display] and to provide the information to the computer operating system.” *Id.*, 8:58-61; *see also id.* at 8:17-48, 9:30-45; Bear Decl-1, ¶¶ 69-90.

Claim 17 also requires “comparing the degree of rotation with respect to a threshold degree of rotation,” and “determining a display mode based, at least in part” on that comparison. ’688 Patent, 19:40-44. As explained in detail in § IV.D below, the ’688 Patent describes comparing the degree of rotation between the display and base to threshold values and using that information, in combination with other information like the orientation of a part of the computer relative to gravity, to determine the display mode. *Id.*, 8:58-61; *see also id.* at 8:17-48, 9:30-45; Bear Decl-1, ¶¶ 69-90.

Claim 17 also requires “automatically configuring [displayed] content [] responsive to the signal and the determined display mode [] includ[ing] displaying [content] in a first content orientation [when] the degree of rotation that is less than the threshold degree of rotation and the portable computer is determined to be configured in the laptop mode, and displaying [content] in a second content orientation [when] the degree of rotation [] is greater than the threshold degree of rotation and the portable computer is determined to be configured in the easel mode, the second content orientation being at 180 degrees relative to the first orientation.” ’688 Patent, 19:56-20:4. As explained in detail in § IV.D below and § IV.A.1.d above, the ’688 Patent discloses automatically orienting content “right-way-up” responsive to determinations that the computer is in the laptop and the easel mode, where the content displayed in those two display modes is 180 degrees relative to each other. *Id.*, 8:7-16; Bear Decl-1, ¶¶ 69-71.

4. Independent Claim 19

Claim 19 is an apparatus claim that further requires a computer with a “base unit comprising an integrated keyboard” and a “single display unit including a single display screen.” ’688 Patent, 20:20-22. The ’688 Patent discloses such a portable computer. *Id.*, 6:24-45, Fig. 1.

Claim 19 also requires a “display orientation module [that] further [] detect[s] a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit” and “trigger[s an] inversion [of displayed content] responsive to [] detecting the change between the laptop mode and the easel mode [and] responsive to [] detecting the change between the easel mode and the frame mode.” *Id.*, 20:32-47. As explained in detail in § IV.D below, the ’688 Patent describes use of accelerometers to detect the orientation of the base relative to the display and the orientation of the computer relative to gravity, and to identify the laptop, easel, and frame modes from amongst the display modes the computer can be configured into and changes between those display modes. *Id.*, 8:17-48, 8:59-61, 9:30-45, 14:1-6; Bear Decl-1, ¶¶ 69-90.

5. Independent Claim 29

Disclaimed independent claim 29, from which rejected claims 30-32 depend, is a method claim for managing interaction with a computer having “a single display component including a display screen, a base including a keyboard, and a hinge assembly.” ’688 Patent, 21:36-37. The method requires “rotating the single display component [] about a longitudinal axis running along an interface between the single display component and the base [] to transition the portable computer between the plurality of display modes, including a laptop mode and an easel mode.” *Id.*, 21:39-22:6. The ’688 Patent discloses such a method. *Id.*, 6:24-45, 7:48-61, Figs. 1, 4.

* * *

The preceding summary provides a concise explanation of the claimed subject matter for purposes of example only and is not limiting as to the scope of the claims. The citations to the specification are for the purposes of example only and are not limiting as to the scope of the claims or the breadth of the disclosure in the specification.

B. “Display Modes,” Such as “Laptop Mode,” “Easel Mode,” and “Frame Mode”

As explained in § IV.A.1.a above, the ’688 Patent claims require a “portable computer” configurable between a plurality of display modes, such as laptop mode, easel mode, and frame mode. ’688 Patent, 18:20-23, 19:47-20:2, 20:32-36, 21:39-22:12; Bear Decl-1, ¶¶ 60, 62.

The specification explains that the “portable computer is configurable between various modes, including a closed mode, a laptop mode, an easel mode, a flat mode and a frame mode” which are illustrated in the figures of the ’688 Patent reproduced below. ’688 Patent, 2:19-22; Bear Decl-1, ¶ 62. These “various modes” – which correspond to different overall physical configurations of the computer – are what is meant by “display modes.” ’688 Patent, Abstract, Figs. 1-2, 4-5, 17, 26-27, 2:3-9, 2:19-38, 2:49-3:2, 3:46-56, 4:40-44, 4:47-50, 5:13-15, 5:35-39, 5:43-53, 6:24-38, 6:63-7:7, 7:48-61, 8:7-9:30, 10:42-53, 13:64-14:29, 15:60-16:32, 16:51-55, 18:20-23, 19:47-55, 20:32-36, 21:39-22:12, Figs. 1, 2, 4, 17, 26, 27; Bear Decl-1, ¶¶ 62-63.

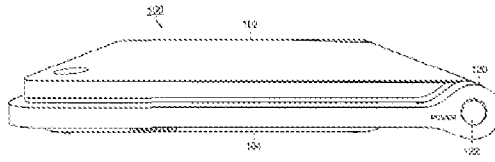
Closed Mode

FIG. 2

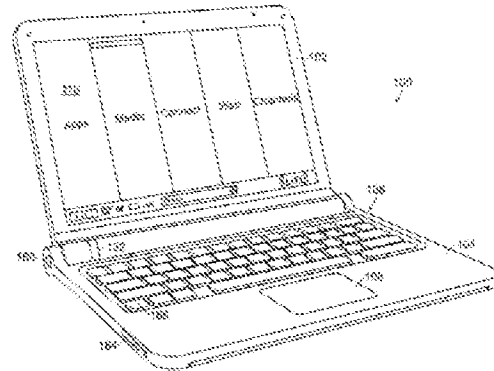
Laptop Mode

FIG. 17

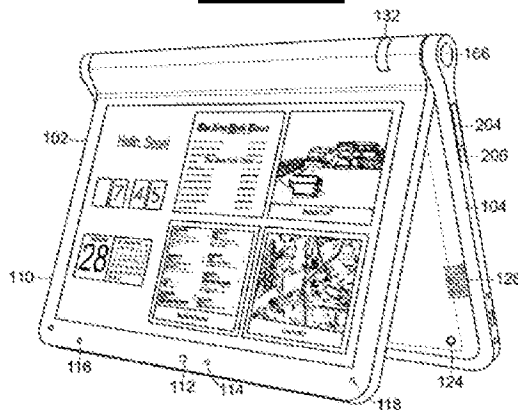
Figs. 2 and 17 of the '688 PatentEasel Mode

FIG. 4

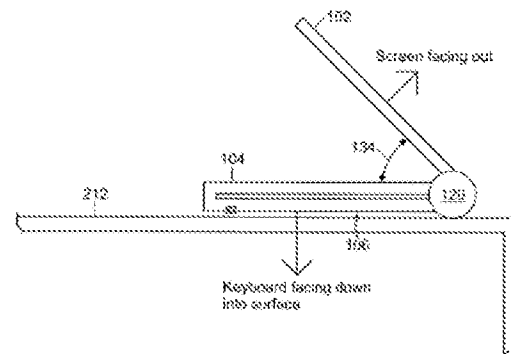
Frame Mode

FIG. 26

Figs. 4 and 26 of the '688 Patent

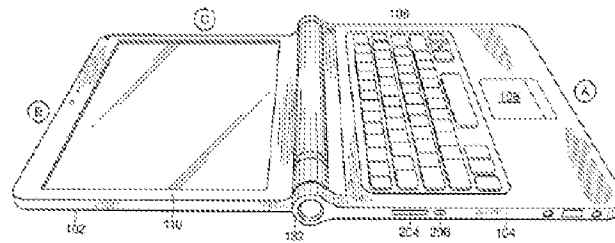
Flat Mode

FIG. 27

Fig. 27 of the '688 Patent

LiTL's expert (Mr. Bear) and Requester's expert (Mr. Schmandt) agreed that a person of skill in the art ("POSA") would interpret "display mode" to refer to the overall physical configuration of the computer. Bear Decl-1, ¶ 62; Ex. 1004 (Schmandt Decl.), ¶¶ 23, 56, 63, 99, 105, 110, 138, 151-152, 154.

This proper interpretation of "display mode" was undisputed below. The Examiners repeatedly acknowledged that a display mode corresponds to the computer's physical configuration. *See e.g.*, FOA, 40 ("Lane discloses manipulating a physical configuration of a single display component about a hinge assembly relative to a base to transition a portable computer between a plurality of display modes, including a laptop mode and an easel mode"), 42 (similar).

C. Detecting the Display Mode Allows Different Display Formats and/or Functionality to Be Invoked in Different Display Modes

Because the claimed computer can detect the display mode the user has manipulated the computer into, the computer can invoke different display formats and different functionality tailored for the different display modes. '688 Patent, 5:49-51 (the "portable computer is capable of *different*

display formats and functionality in the *different modes*.”);⁴ Bear Decl-1, ¶¶ 64, 69-70. The ’688 Patent describes examples of different display formats and functionality that may be invoked for different display modes:

- enlarging content for more comfortable viewing in some display modes like easel mode (’688 Patent, 14:6-13);
- acting as a digital photo frame in some display modes when the user is not actively interacting with the computer (*id.*, 14:16-19); and
- disabling the keyboard to eliminate risk of inadvertent key presses in certain modes (easel or frame mode) (*id.*, 16:13-17).

See also Bear Decl-1, ¶ 69.

D. The Display Mode Is Detected by Detecting the Physical Configuration the User Manipulated the Portable Computer Into

For the computer to be capable of detecting the display mode the user has manipulated the computer into, the computer needs technology capable of differentiating among all the computer’s display modes and the ’688 Patent describes just that. The ’688 Patent’s portable computer uses sensors, like accelerometers and/or detents, to detect the current display mode and transitions between display modes by detecting the computer’s overall physical configuration. ’688 Patent, 8:17-48, 8:59-61, 9:30-45, 2:44-49, 3:19-25; Bear Decl-1, ¶¶ 70-90.

⁴ Emphasis added unless otherwise noted.

1. The '688 Patent's Sensors Provide Sufficient Information to Detect the Display Mode and Transitions Between Display Modes

One piece of information the portable computer detects as part of determining the display mode is “an orientation of the display component 102 relative to the base component 104.” '688 Patent, 8:39-44; *see also id.*, 8:59-61 (one or more sensors are used to “detect, either approximately or precisely, the angle 134 [between the display and base] and to provide the information to the computer operating system.”), Fig. 5 (annotated below). Bear Decl-1, ¶ 73.

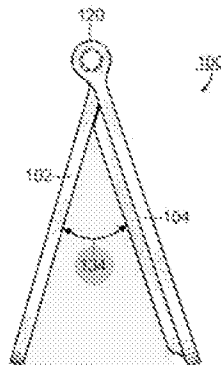


FIG. 5

Annotated Fig. 5 of the '688 Patent, Bear Decl-1, ¶ 73

Distinguishing between some display modes (*e.g.*, easel and frame modes) requires detecting the orientation of the base and/or the display relative to gravity, in addition to detecting the relative orientation of the base to the display. Bear Decl-1, ¶¶ 79-90; *see infra* § IV.D.2.b.

As detailed below, the '688 Patent discloses sensors that provide such information.

a. Accelerometers

Two accelerometers can be used to “*detect a configuration of the portable computer 100* (*e.g.*, laptop mode or easel mode).” '688 Patent, 8:35-43; *see also id.*, 8:17-34, 8:59-61; Bear Decl-

1, ¶ 74. As Mr. Bear explained, “an accelerometer mounted to an object is used to determine the angle of the object with respect to the surface of the Earth (*i.e.*, gravity).” Bear Decl-1, ¶ 76.

Mr. Bear explained how the relative orientation between the base and display components (*e.g.*, an angle between them) can be detected using two accelerometers – one incorporated into each of the base and display components. *Id.*, ¶¶ 76, 78-79. A first accelerometer mounted to the base can be used to determine the angle of the base with respect to gravity, and a second accelerometer mounted to the display can determine the angle of the display relative to gravity. *Id.*, ¶¶ 81-82. The two angles determined by the two accelerometers can then be used to calculate the relative angle between the base and display. *Id.* In this way, the accelerometers can be used “to detect a configuration of the portable computer 100 (*e.g.*, laptop mode or easel mode), particularly, to detect an orientation of the display component 102 relative to the base component 104.” ’688 Patent, 8:41-44; *see also id.* at 8:59-61, 9:30-45; Bear Decl-1, ¶¶ 72-79.

b. Detents

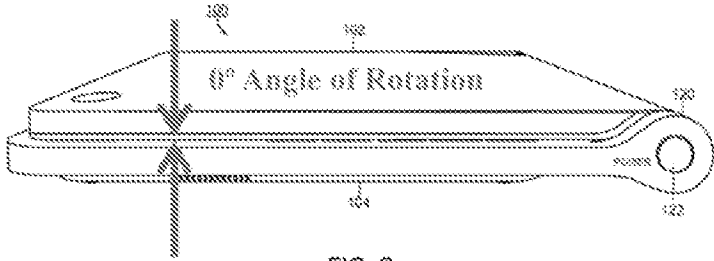
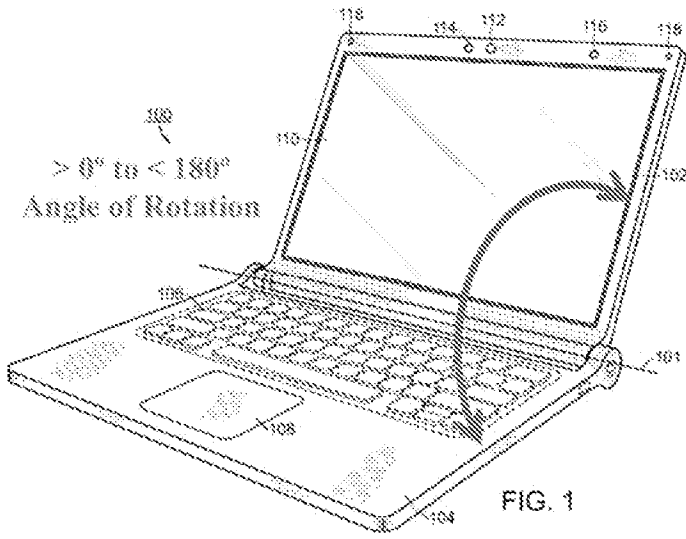
Mr. Bear also explained how the relative orientation between the base and display components (*e.g.*, an angle between them) can be detected using detents. Bear Decl-1, ¶ 77. The ’688 Patent explains that “the orientation sensor may include electronic or mechanical components, or a combination thereof” and that “[f]or example, the hinge assembly may be provide[d] with detents that provide an indication of the mode of the portable computer.” ’688 Patent, 9:41-45. Detents are physical depressions or protrusions, or magnetic markers, which resist motion and can indicate when a certain degree of rotation has been reached. Bear Decl-1, ¶ 77. Thus, detents distributed along the circumference of a hinge axis could be used to detect the relative orientation

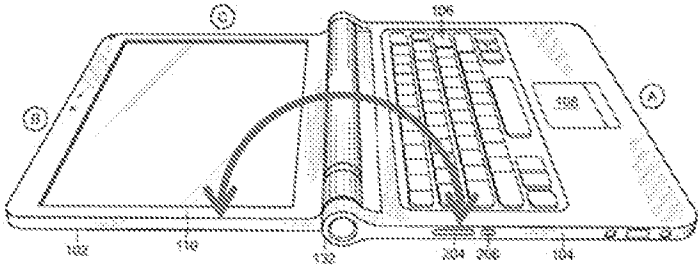
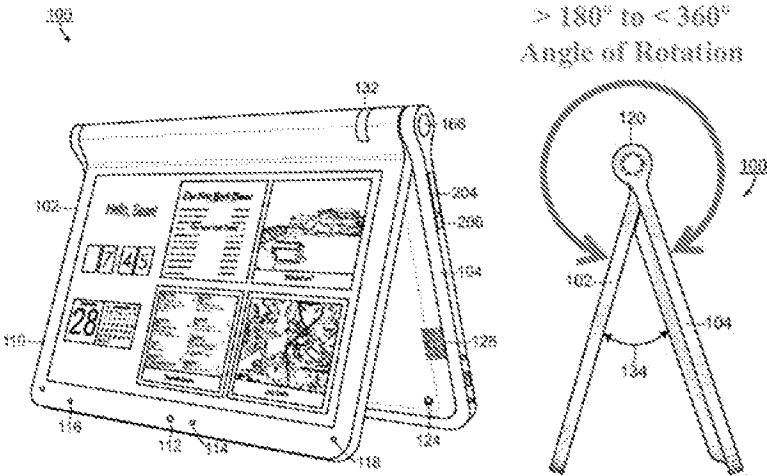
between the base and display components (*e.g.*, an angle between them). '688 Patent, 9:41-45; Bear Decl-1, ¶ 77.

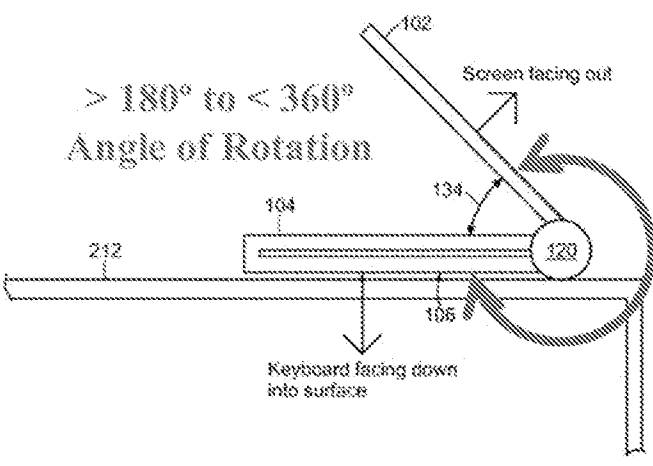
2. Detecting the Display Mode and Transitions Between Display Modes Requires Differentiating Among All the Computer's Display Modes

The annotated figures from the '688 Patent below illustrate the angle of rotation (shown by the green arrow(s)) between the inner surfaces of the display (102) and base (104) components in the various display modes. The angle 134 shown in Figures 5 and 26 labels the angle between the outer surfaces of the base and display components. To “detect [the] orientation of the display component 102 relative to the base component 104” ('688 Patent, 8:43-44) the computer can calculate the angle between the inner surfaces of the base and display components, or the angle between the outer surfaces of the base and display components, because those two angles sum to approximately 360°. Bear Decl-1, ¶¶ 76, 81.

In “closed mode” the display component is “disposed substantially against the base” ('688 Patent, 2:28-29), in “flat mode” the display component is “rotated (or opened) to approximately 180 degrees with respect to the base component” (*id.*, 16:18-25), in laptop mode the display component is rotated beyond the “closed” angle of approximately 0° and less than the “flat” angle of approximately 180° (*id.*, 2:28-32), and in both the “easel” and “frame” modes the display component is rotated beyond the “flat” angle of approximately 180° (*id.*, 10:46-53 and 16:1-17).

Mode	Citation
Closed Mode (0° Angle of Rotation)  FIG. 2 Annotated Fig. 2 of the '688 Patent, Bear Decl-1, ¶ 79	'688 Patent, Fig. 2, 4:43-44 ("FIG. 2 is a view of the portable computer of FIG. 1 in the closed position."), 2:28-29 ("In the closed mode, the display screen may be disposed substantially against the base....").
Laptop Mode (> 0° to < 180° Angle of Rotation)  FIG. 1 Annotated Fig. 1 of the '688 Patent, Bear Decl-1, ¶ 79	'688 Patent, Fig. 1, 4:40-42 ("FIG. 1 is an illustration of one example of a portable computer, according to aspects of the invention, in a 'laptop' configuration."), 2:29-32 ("[R]otating the display component about the longitudinal axis up to approximately 180 degrees from the closed mode may configure the portable computer into the laptop mode.").

Mode	Citation
Flat Mode (180° Angle of Rotation)  180° Angle of Rotation FIG. 27 Annotated Fig. 27 of the '688 Patent, Bear Decl-1, ¶ 79	'688 Patent, Fig. 27, 5:38-39 ("FIG. 27 is an illustration of the portable computer configured into a 'flat' mode, according to aspects of the invention."), 16:20-25 ("In the flat mode, the display component 102 may be rotated (or opened) to approximately 180 degrees with respect to the base component 104, such that the base component and display component lay flat on a surface, with the keyboard 106 and display screen 110 exposed, as shown in FIG. 27.").
Easel Mode (> 180° to < 360° Angle of Rotation)  FIG. 4 FIG. 5 Fig. 4 & Annotated Fig. 5 of the '688 Patent, Bear Decl-1, ¶ 79	'688 Patent, Figs. 4 and 5, 4:47-50 ("FIG. 4 is a perspective view of the portable computer of FIG. 1 in the easel mode; FIG. 5 is a side view of the portable computer of FIG. 4."), 1:62-64 ("an easel mode in which the base of the computer and its display component stand upright forming an inverted 'V.'"), 5:47-48 (same), 7:49-57 ("To convert the portable computer 100 [] into the easel mode, the display component 102 may be folded away from the base 104, [] such that the base 104 and the display component 102 form an inverted 'V' shape [], as illustrated in FIG. 4.").

Mode	Citation
Frame Mode ($> 180^\circ$ to $< 360^\circ$ Angle of Rotation)  FIG. 26 Annotated Fig. 26 of the '688 Patent, Bear Decl-1, ¶ 79	'688 Patent, Fig. 26, 5:35-37 ("FIG. 26 is an illustration of the portable computer configured into a 'frame' mode, according to aspects of the invention."), 16:5-13 ("In the frame mode, the display component 102 may be at a similar orientation, and angle 134, with respect to the base component 104 as in the easel mode. However[,] in the frame mode, the base component 104 may lie flat on the surface 212, as shown in FIG. 26.").

a. Detecting the Angle Between the Display and Base Suffices to Detect the Closed, Flat and Laptop Modes

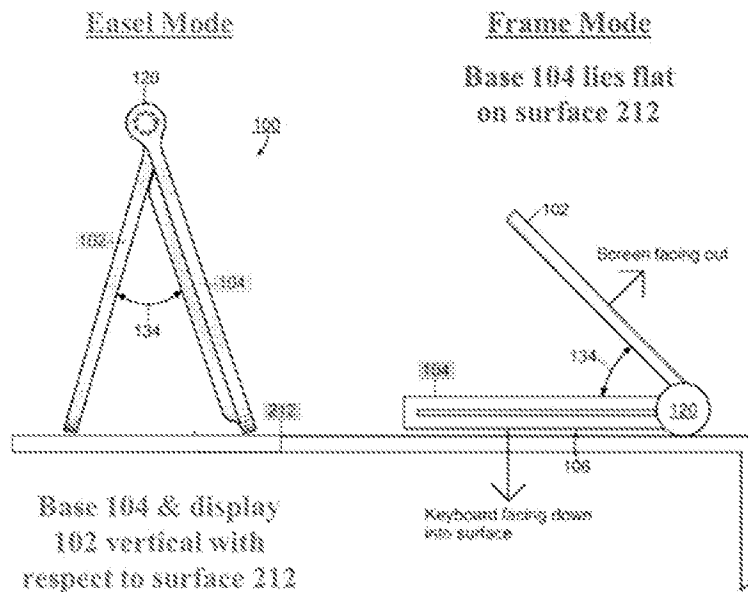
As illustrated above, each of the closed, flat and laptop modes has a unique angle of rotation between the display and base components that is not shared by any other display mode.

Accordingly, using sensors (*e.g.*, accelerometers, detents) to "detect, either approximately or precisely, the angle" between the display and base components ('688 Patent, 8:59-61) suffices to allow the computer to detect when the computer is in the closed mode, the flat mode, and the laptop modes. Bear Decl-1, ¶ 79.

b. Accelerometers In the Base and Display Components Also Allow the System to Detect the Easel and Frame Display Modes

Detecting that the angle of rotation between the inner surfaces of the display and base components is greater than 180° indicates that the portable computer is not in closed, laptop, or flat mode and is instead in easel or frame mode. That is, in both the easel and frame modes the angle of rotation between the inner surfaces of the display and base is greater than 180° and the angle 134 between the exterior surfaces is less than 180° . Bear Decl-1, ¶¶ 79-90; '688 Patent, 7:49-57, 16:5-13.

When two accelerometers are used (one in the base component and the other in the display component) they provide sufficient information to differentiate between the frame and easel modes. As between the frame and easel modes, there is a difference in the orientation of the base (104) relative to a surface (212) upon which the computer rests. '688 Patent, 16:8-13 (in the easel mode shown in Figs. 4 and 5 “the base component 104 and display component 102 [are] oriented vertically with respect to the surface 212[, whereas] in the frame mode, the base component 104 may lie flat on the surface 212, as shown in Fig. 26.”); Bear Decl-1, ¶¶ 84-90. The different orientation of the base relative to surface 212 in easel and frame modes is illustrated in the annotated figure below, in which surface 212 of Figure 26 has been extended leftward and the easel mode of Figure 4 has been superimposed onto it.



Annotated and Modified Figs. 5 and 26 of the '688 Patent

Thus, an accelerometer in the base component that detects the orientation of the base component relative to gravity can be used to differentiate between the easel and frame modes. '688 Patent, 8:17-48, 8:59-61, 9:30-45, 2:44-49, 3:19-25, 16:1-17, Figs. 5 and 26; Bear Decl-1, ¶¶ 72-90. That information, in addition to the information (from detents or an accelerometer in the display component) about the angle between the base and display components (see § IV.D.2.a above), is sufficient to allow the computer to differentiate among all the computer's possible display modes and thereby detect the current display mode the user has manipulated the computer into. '688 Patent, Fig. 1 (laptop mode), 6:24-31, Fig. 27 (flat mode), 16:18-32, Figs. 4-5 (easel mode), 7:48-61, Fig 26 (frame mode) 16:1-17; Bear, ¶¶ 79-90.

V. ARGUMENT

Every appealed claim requires “determining a display mode” of a portable computer (see independent claims 17 and 29), or a portable computer capable of identifying or detecting that the computer has transitioned from one display mode to another (see independent claims 11 and 19). The cited prior art does not teach or suggest a computer capable of *determining* or *detecting* the display mode the user has configured the computer into. All the rejections should be reversed for that reason alone. The rejections of several claims should also be reversed for additional reasons.

In the sections below, LiTL addresses each of the independent claims and explains why the rejections relating thereto should be reversed. Where the rejections of certain dependent claims should be reversed for additional reasons, that is explained under the section relating to the independent claim from which those dependent claims depend.

The table below summarizes the rejections, the originally rejected claims, the prior art used in the rejections, the currently pending claims subject to the rejections, and the section of the appeal brief addressing the rejection. The rejected claims that are still pending (*i.e.*, claims 11, 17-19, 21-22, 27-28, 30-32) are a subset of the originally rejected claims because independent claim 12 and its dependent claims 13-16, 20, and 24-26 were canceled. Independent claims in the table below are identified in **bold**. The Argument sections of this brief are organized around the independent claims:

- Section V.A addresses independent claim 17 and its dependent claims 18, 21-22, 27-28;
- Section V.B addresses dependent claims 30-32 that depend from independent claim 29;
- Section V.C addresses independent claim 19; and
- Section V.D addresses independent claim 11.

Rej. No.	Originally Rejected Claims	Prior Art	Rejected Claims Still Pending	Appeal Brief Sections
1	12-14, 16, 19-20, 24-26, 30-32	Lane (Ex. 1009)	19 30-32	§ V.C.1 § V.B.2
2	26, 32	Lane, Kamikakai (Ex. 1010)	32	§ V.B.3
3	12-14, 16, 17, 18, 19, 20, 24-28, 30-32	Lane, Hisano (Ex. 1015)	17, 18, 27-28 19 30-32	§ V.A.2 § V.C.2 § V.B.4
4	21-22	Lane, Hisano, Ayazi (U.S. 7,337,671 B2)	21-22	§ V.A.3
5	11	Lane, Hisano, Choi (Ex. 1018)	11	§ V.D.2
6	15	Lane, Hisano, Clapper (Ex. 1020)	None	None
7	12-14, 16, 17, 18, 19, 20-22, 24-28, 30-32	Kamikakai, Shimura (Ex. 1014), Hisano	17, 18, 21-22, 27-28 19 30-32	§ V.A.4 § V.C.3 § V.B.5
8	11	Kamikakai, Shimura, Hisano, Choi	11	§ V.D.4
9	15	Kamikakai, Shimura, Hisano, Clapper	None	None
10	21-22	Kamikakai, Shimura, Hisano, Ayazi	21-22	§ V.A.5
11	11	CN '170 (Ex. 1017), Misawa (Ex. 1019), Shigeo	11	§ V.D.4
12	11	CN '170, Hisano, Choi	11	§ V.D.5

A. Independent Claim 17 and Dependent Claims 18, 21-22 and 27-28 (Rejections 3, 4, 7 and 10)

The rejections (in Rejections 3, 4, 7 and 10) of independent claim 17 and its dependent claims 18, 21-22, and 27-28 should be reversed. There are two basic sets of rejections of these claims. One set (Rejections 3 and 4) alleges obviousness over a combination including at least Lane and Hisano. The other set (Rejections 7 and 10) alleges obviousness over a combination including at least Kamikakai, Shimura, and Hisano.

Claim 17 is directed to a “method of automatically orienting content in a plurality of display modes displayed on a portable computer comprising a body [] having a single display component including a display screen and a base including an integrated keyboard.” ’688 Patent, 19:27-31. The method requires, *inter alia*, “detecting a degree of rotation of the single display component relative to the base [and] **determining a display mode** based, at least in part, on the act of comparing the **degree of rotation** with respect to the threshold degree of rotation.” *Id.*, 19:36-44.

As detailed below, none of the combinations of references relied on in the rejections teach or suggest either “determining a display mode” or even detecting the “degree of rotation” of the display relative to the base.

1. Determining the Display Mode Requires Determining the Computer’s Overall Physical Configuration

As discussed above in §§ IV.A.1.a and IV.B, different display modes correspond to different overall physical configurations of the computer such as “a closed mode, a laptop mode, an easel mode, a flat mode and a frame mode.” ’688 Patent, 2:20-22; Bear Decl-1, ¶¶ 62-63. This was undisputed below. The Examiners repeatedly acknowledged that a display mode corresponds to the computer’s physical configuration. *See e.g.*, FOA, 40, 42, 77, 114; Advisory Action, 3.

Determining what display mode the computer is in requires differentiating among all the computer’s display modes. Bear Decl-1, ¶¶ 126, 79-90. For the computer described in the ’688 Patent, that involves differentiating among, *inter alia*, the laptop, frame and easel modes, which requires **both** (1) detecting the relative positioning between the base and display components and (2) detecting the positioning of the base and/or display component relative to gravity as discussed above in §§ IV.A.1.c and IV.D.

2. Rejection 3 of Claim 17 and Its Dependent Claims Based on the Lane-Hisano Combination Should be Reversed

a. The Rejection Is Facially Deficient and Never Alleges Determining the Computer's Display Mode as Claimed

The Examiners rely on Lane to disclose a computer configurable into “a plurality of display modes (laptop mode, frame mode, easel mode) (Fig. 20, 25, 28).” FOA, 55. However, the Examiners concede that “Lane does *not specifically disclose* comparing the degree of rotation with respect to a threshold degree of rotation and *determining the display mode* based on the act of comparing the degree of rotation with respect to the threshold degree of rotation” as required by claim 17. FOA, 57.

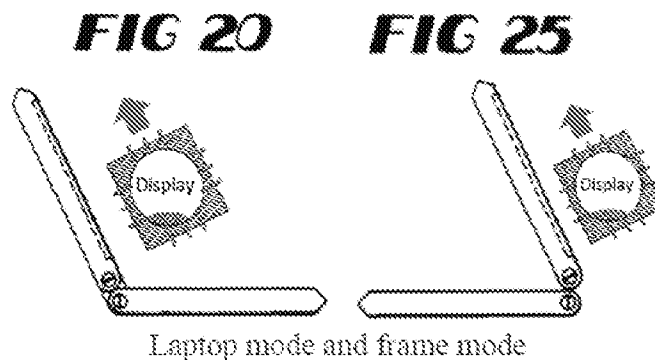
The Examiners allege that “Hisano discloses measuring the angle of rotation of its hinges by a mode sensor (‘gravity sensor’), which corresponds to the angle of rotation [] to determine the orientation of a displayed screen. Hisano teaches automatically adjusting the orientation of displayed content responsive to the information (signal) from the mode sensor.” *Id.* The Examiners further allege that Hisano has a display processor “to perform its required decision-making and provide an appropriate display orientation.” *Id.*, 58. The Examiners then conclude that “it would have been obvious to one of ordinary skill in the art to implement the above teaching of Hisano into the portable computer of Lane in order to provide displayed content right-side-up to a user regardless of the orientation of the computer’s display relative to its base.” *Id.*

The above is the totality of the Examiners’ analysis for why the Lane-Hisano combination allegedly discloses determining the computer’s display mode based at least in part on the detected degree of rotation as required by claim 17. Even if everything the Examiners

allege about Lane and Hisano's teachings and how a POSA would have combined them were true (it is not for reasons discussed below), the rejection is *facially deficient* and fails to establish obviousness of claim 17 because it never even alleges, let alone establishes, that the Lane-Hisano combination *determines the computer's display mode* at all, let alone based at least in part on a degree of rotation.

The Examiners mapped the claimed plurality of display modes to Lane's "laptop mode, frame mode, easel mode." *Id.*, 55. But the rejection of claim 17 never even alleges that the Lane-Hisano combination determines whether the computer is in laptop, frame or easel mode.

With respect to the more specific limitation of determining the display mode based, at least in part, on the detected degree of rotation, the Examiners allege that the degree of rotation is detected in the Lane-Hisano combination for a completely different purpose – "to provide displayed content right-side up to a user regardless of the orientation of the computer's display relative to the base." *Id.*, 58. Providing the content right-side up is not a determination of the computer's alleged display mode of "laptop mode, frame mode, easel mode." *Id.*, 55. Indeed, content is displayed in the same orientation in laptop and frame modes as illustrated below. Bear Decl-1, ¶¶ 134 (annotating Figs. 20 and 25 of Lane), 79, 87; '688 Patent, Figs 1, 26.



Annotated Figs. 20 and 25 of Lane, Bear Decl-1, 134

Because the rejection of claim 17 never even alleges that the Lane-Hisano combination determines the computer's display mode as required by claim 17, the rejection of claim 17 must be reversed.

It is not LiTL's burden to prove that neither Lane nor Hisano determines the computer's display mode – it was the Examiners' burden to prove that the Lane-Hisano combination meets the subject matter of claim 17 as a whole. MPEP § 2142 (“In view of all factual information, the examiner must then make a determination whether the claimed invention ‘as a whole’ would have been obvious at that time to a hypothetical person of ordinary skill in the art.”). The Examiners' failure to do so should end the matter. Despite that, LiTL demonstrates below the neither Lane, Hisano nor the Examiners' Lane-Hisano combination determines the computer's display mode.

b. Lane Does Not Disclose Determining the Computer's Display Mode

The alleged display modes in the Lane-Hisano combination are Lane's laptop, frame and easel modes. FOA, 55. Differentiating among these to determine the computer's display mode requires *both* (1) detecting the relative positioning between the base and display components and (2) detecting the positioning of the base and/or display component relative to gravity as discussed above in §§ IV.A.1.c and IV.D.2.

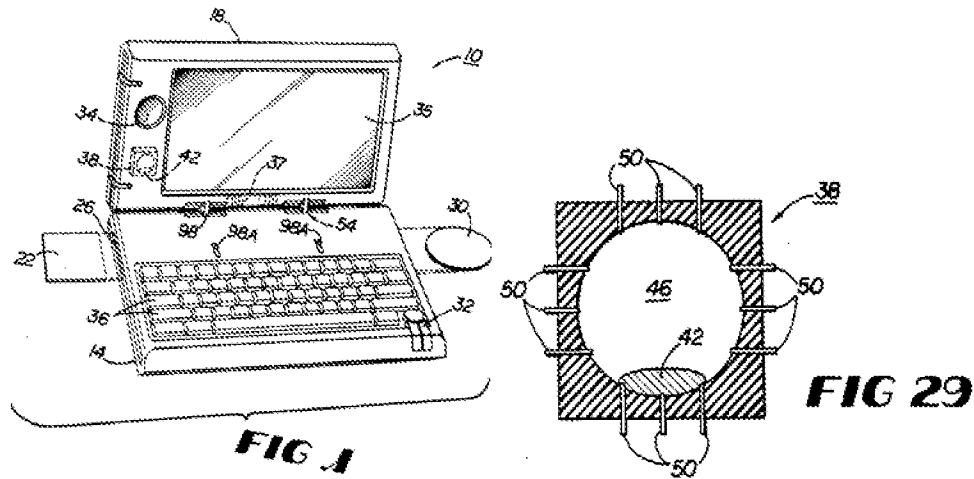
As explained in §§ V.A.2.b.i-iii below, Lane does not disclose that its computer can determine its display mode because Lane does not disclose that the computer can differentiate among Lane's laptop, easel, and frame modes. Lane does not even disclose determining the positioning between the base and display components. Therefore, Lane cannot disclose determining

the display mode which requires not only determining the positioning of the display relative to the base, but also determining the positioning of the base and/or display component relative to gravity.

Moreover, even if Lane disclosed providing a sensor in both its base and display modules (it does not), as explained in § V.A.2.b.iv below, there is no disclosure in Lane of using the output of sensors to determine the orientation between the base and display or determine the computer's display mode. Lane only describes making the three determinations discussed below in § V.A.2.b.iv (landscape/portrait display orientation, cursor direction, and deactivating keyboard) and Lane's computer could make all three of those determinations without determining the orientation between the base and display or what display mode the computer is currently in.

i. Lane's Sensor Mechanism 38 Does Not Detect the Relative Orientation Between the Base and Display

The Examiners rely on Lane's sensor mechanism 38 (Lane, Fig. 29 reproduced below) to "detect[] a physical orientation of the single display unit relative to the base unit." FOA, 57 (citing Lane, 5:23-6:6). Lane says sensor mechanism 38 can be included in "**either**" its first module 14 (with the keyboard) "**or**" its second module 18 (with the display) to assist the computer in determining three things: (1) whether content should be displayed in landscape or portrait orientation; (2) the direction the cursor should move; or (3) whether the keyboard should be inactivated. Lane, 5:23-6:6; Fig. 1 (reproduced below); Bear Decl-1, ¶¶ 99-100. None of those three things that Lane says sensor mechanism 38 can determine require detecting the relative positioning between the base and display, and Lane never says its sensor mechanism 38 can make such a detection. Bear Decl-1, ¶¶ 140-166.



Figs. 1 and 29 of Lane

Indeed, because Lane's sensor mechanism 38 is only in one of the display or base, it cannot detect the relative positioning between the base and display. Lane, 5:1-6:6; Bear Decl-1, ¶¶ 124, 99-100, 137. The Examiners expressly conceded this:

Patent Owner argued that *none of the cited references disclose detecting an orientation of the display relative to the base (or the base relative to the display) or detecting a degree of rotation of the display relative to the base* (Patent Owner's Remarks page 11).

In particular, regarding the rejection of Claim[] 19, [] and 30-32 rejected [] as being obvious over *Lane* (WO 95/24007), Patent Owner has [] argued with respect to independent claim 19, that Lane discloses its sensor 38 as being incorporated into **either**⁵ the computer's display **or**⁶ the computer's base (Lane, 5:32-35). *Therefore, Lane's sensor 38 in one component (computer's display or the computer's base) cannot determine the orientation of that component relative to the orientation of the other component because the other component's orientation is undetermined given that it has no sensor.* (Patent Owner's Remarks page 12, lines 1-3; and Bear Declaration-1 ¶¶ 94-109, 210- 213).

Patent Owner's argument is convincing accordingly the rejection of independent claim 19 under 35 U.S.C 103 as being obvious over Lane (WO 95/24007) is withdrawn by the examiner.

⁵ Emphasis in original.

⁶ Emphasis in original.

Advisory Action, 3-4.

Given that, as the Examiners conceded, Lane's sensor mechanism 38 cannot detect an orientation of the display relative to the base, Lane's sensor mechanism 38 does not provide sufficient information to determine the display mode of Lane's computer. *See supra* § IV.D.2.

**ii. The Examiners Make Contrary Inconsistent Findings
Unsupported by the Evidence**

Despite the above-cited express concession that Lane does not detect the relative orientation between the base and display (Advisory Action, 3-4), and despite the Examiners expressly acknowledging that "Lane does not specifically disclose comparing the degree of rotation with respect to a threshold" (FOA, 57), other portions of the Final Office Action and Advisory Action contain contrary assertions that Lane allegedly does detect a degree of rotation between the base and display. *See e.g.*, FOA, 12 ("Lane discloses detecting a degree of rotation of the single display component 35 relative to the base.").

It is unnecessary for the Board to remand for the Examiners to reconcile the inconsistent findings because the evidence supports only one conclusion – the Examiners' concession that Lane does not disclose determining the orientation of the display relative to the base, let alone detecting a degree of rotation between them, was correct. Advisory Action, 3-4. In the subsections below LiTL walks through the evidence that supports only this conclusion.

**iii. Lane's Sensor Mechanism 38 Is Disposed Only in One of
the Computer's Modules**

The entirety of what Lane says about the sensor mechanism 38 states:

Also shown in FIG. 1 (and FIG. 29) as part of second module 18 is position-indicating mechanism 38. Mechanism 38 includes a moveable conductor 42 (such as liquid mercury) in a spherical cavity 46 having contacts 50 spaced about its

periphery. Conductor 42 responds via gravitational forces to spatial reorientation of mechanism 38 by moving relative to contacts 50 (to contact at least one contact 50 to close its respective circuit). **Including mechanism 38** as a component of **either** first or second modules 14 **or** 18 **would thus permit it to indicate the spatial orientation of that module**. Doing so would also allow mechanism 38 to assist device 10 (and its associated software) in determining, for example, whether the information to appear on visual display 35 should be in **“landscape” or “portrait”** position as the visual display 35 is spatially configured, the **direction in which to move a curser** of second module 18 when a visual display, **or whether to render keys 36 of first module 14 inoperable** when unused.

Lane, 5:23-6:6; Bear Decl-1, ¶¶ 99-100.

Lane thus discloses that its sensor mechanism 38 can be included in **“either”** its first module 14 (with the keyboard) **“or”** its second module 18 (with the display), to assist the computer in determining three things:

- (1) whether displayed information should be in landscape or portrait orientation,
- (2) the direction the cursor should move, or
- (3) whether the keyboard should be inactivated.

Lane, 5:35-6:6; Bear Decl-1, ¶¶ 99-100, 137.

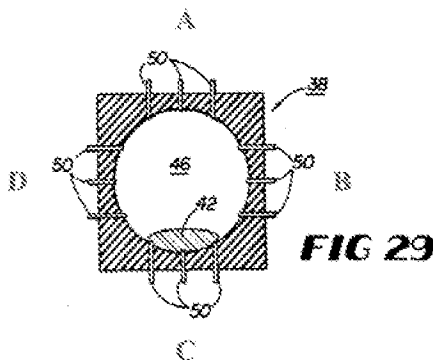
Lane only teaches that the sensor is in one of the computer’s display or base. Lane, 5:32-35 (“[i]ncluding mechanism 38 as a component of ***either*** first ***or*** second modules 14 or 18 would thus permit it to indicate the spatial orientation of ***that module***.”). LiTL’s expert Mr. Bear was explicit that this is how a POSA would have understood Lane’s teachings. Bear Decl-1, ¶¶ 99-100, 137 (“Lane only discloses including mechanism 38 in ‘either first [base] or second [display] modules 14 or 18,’ not both.”).

Indeed, the Examiners acknowledged during a post-Final Office Action interview that the Final Office Action only alleges that Lane’s sensor mechanism 38 would be incorporated into the

computer's display *or* its base, but not both. July 17, 2023 Response to Final Office Action, 13 ("Response to FOA").

(1) Lane's Sensor Mechanism 38 Only Determines the Orientation of One of the Computer's Modules Relative to Gravity

It should be readily apparent that Lane's sensor mechanism 38 only provides information about the orientation of the module in which it is disposed. While expert testimony should not be necessary to establish this straightforward fact, LiTL's expert provides sworn testimony explaining why in detail. Bear Decl-1, ¶¶ 99-109, 124, 137. Mr. Bear explained that a POSA would understand Lane's sensor mechanism 38 provides an indication of the "*orientation of the component in which the mechanism 38 is placed*, [as] conductor 42 responds to *gravitational forces* by moving within the cavity so that the conductor 42 closes the circuit for different ones of the contacts 50 A-D when the computer's component is in different orientations." *Id.*, ¶ 102.



Annotated Fig. 29 of Lane, Bear Decl-1, ¶ 102

Indeed, the Examiners acknowledged during the post-Final Office Action interview that Lane's sensor mechanism 38 can only determine the orientation relative to gravity of the component in which it is incorporated. Response to FOA, 13.

(2) Lane's Sensor Mechanism 38 in One Module Cannot Determine the Relative Position Between the Display and Base Modules

It should be readily apparent that Lane's sensor mechanism 38 in only one module cannot provide information on the relative orientation between the display and base modules because the orientation of the module without a sensor is unknown. Bear Decl-1, ¶ 212 ("a POSITA would know that including mechanism 38 in one or the other [module] would not permit detection of the physical orientation of the display relative to the base."), ¶ 124 ("a single position-indicating mechanism like the one disclosed in Lane cannot determine the angle between the display and the base. Since Lane's mechanism 38 is only in one of the display or base, it cannot detect a degree of rotation between the two.").

Given that Lane's sensor mechanism 38 cannot detect an orientation of the display relative to the base, it cannot "detect[] a degree of rotation of the single display component relative to the base" nor "provid[e] a signal representative of the degree of rotation of the single display component" as required by claim 17. '688 Patent, 19:36-39.

(3) Conclusion – Any Finding That Lane Detects the Orientation Between the Base and Display Is Unsupported by the Evidence

Despite the undisputed facts that Lane only discloses its sensor in one module (*supra* § V.A.2.b.iii), and that a sensor in one module does not provide sufficient information to determine the orientation between the base and display (*supra* §§ V.A.2.b.iii.(1)-(2)), the Examiners inexplicably allege that Lane's sensor mechanism 38 "detects a physical orientation of the single display unit relative to the base unit." FOA, 57 (citing Lane, 5:23-6:6). That assertion is unsupported by Lane.

The Examiners' erroneous and unsupported finding appears to result from the Examiners conflating whether Lane's computer is configurable by the user into different display modes where the display and base have different orientations (which LiTL does not dispute), with whether Lane discloses that its computer is capable of determining the orientation and display mode the user has configured the computer into (which Lane nowhere discloses). Specifically, when asked during the post-Final Office Action interview where Lane allegedly discloses detecting the configuration of the base relative to the display, the Examiners pointed to Lane's figures illustrating the various configurations Lane's computer can be manipulated into by the user. Response to FOA, 15.

As Mr. Bear explained, that the user can manipulate Lane's computer into different configurations is not remotely a teaching that Lane's computer has some undisclosed capability to detect the relative orientation between the base and display. Bear Decl-1, ¶¶ 127, 91-93. Mr. Bear also explained that no such capability is inherent in Lane because Lane's computer can perform every disclosed function without such a capability. *Id.*, ¶¶ 140-167; *see also infra* § V.A.2.b.iv.

iv. Lane Does Not Inherently Disclose Detecting the Relative Orientation Between the Display and the Base

As demonstrated above, Lane does not expressly disclose detecting the relative orientation between the display and the base, let alone detecting the degree of rotation of the display relative to the base as required by claim 17. Bear Decl-1, ¶¶ 99-109, 124, 137. Thus, the Examiners' finding that Lane discloses this could only be supported if Lane inherently disclosed these claim limitations. See caselaw cited below. Yet, neither the Final Office Action nor the Advisory Action even alleges that Lane inherently discloses these capabilities, let alone attempts to meet the high bar required to establish inherency.

For the sake of completeness, LiTL demonstrates below that Lane does not inherently disclose detecting a relative orientation, let alone a degree of rotation, between the computer's display and base. *Id.*, ¶¶ 140-167.

The Examiners would need to meet a high bar to establish inherency. *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1195-96 (Fed. Cir. 2014) (“A party must, therefore, meet a **high standard in order to rely on inherency** to establish the existence of a claim limitation in the prior art in an obviousness analysis—the **limitation at issue necessarily must be present**, or the natural result of the combination of elements explicitly disclosed by the prior art.”); *see also* MPEP § 2112 (“The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.”); *Cont’l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991) (“Inherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.”) (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981)) (emphasis in original). Inherency requires that that the missing disclosure is “necessarily” present or the natural result of the combination. *Cont’l Can Co. USA*, 948 F.2d at 1268.

Demonstrating that Lane discloses detecting the relative orientation between the base and display would require not only that Lane have sensors that provide sufficient information to make that determination, but also that Lane uses the output of those sensors to make the type of determination required by claim 17. Bear Decl-1, ¶¶ 109, 122-123, 125-127. Above, LiTL demonstrated that Lane discloses a sensor mechanism 38 in one of the base and display modules but not both, which provides insufficient information to detect the orientation between the base and display. *See supra* §§ V.A.2.b.i-iii.

But even if the Board were to believe that Lane discloses use of the sensor mechanism 38 in both modules (it does not), that would not inherently disclose what is required to meet claim 17. Bear Decl-1, ¶¶ 109, 122-123, 125, 137-139. That is because, as demonstrated below, all the functionality that Lane describes as being performed in response to the sensor information can be accomplished without detecting the orientation between the base and display or determining the display mode, so Lane does not “necessarily” disclose this capability. *Id.*, ¶¶ 140-167.

As discussed above in § V.A.2.b.iii, Lane teaches using the sensor mechanism 38 to determine (1) whether the display is in landscape or portrait orientation, (2) which direction to move the cursor, or (3) whether the keyboard is operable or not. Lane, 5:23-6:6. As detailed below, these determinations do not require detecting the relative orientation (or degree of rotation) between the base and display or determine the display mode. Bear Decl-1, ¶¶ 140-167.

(1) Content in Portrait or Landscape Position

Lane discloses using sensor mechanism 38 to “determin[e] whether the information to appear on visual display 35 should be in ‘landscape’ or ‘portrait’ position as the visual display 35 is spatially configured.” Lane, 5:35-6:3. This is purely a function of the orientation of the display unit (*i.e.*, vertical or horizontal). Bear Decl-1, ¶¶ 104-106. Thus, detecting the relative orientation (or degree of rotation) between the base and display or determining the display mode are not “necessary” to make that determination. *Id.*

(2) Cursor Direction

Lane discloses using sensor mechanism 38 to “determin[e] the direction in which to move a cursor of second [display] module 18.” Lane, 5:35-6:6.

Determining the direction to move the cursor across the display is purely a function of the orientation of the display unit. Bear Decl-1, ¶ 107. Similar to the portrait/landscape determination, sensor mechanism 38 can assist in making the cursor-direction determination by detecting which of the four edges of the display module is “up.” *Id.* Thus, detecting a degree of rotation of the display relative to the base or determining the display mode are not “necessary” to make that determination. *Id.*

(3) Disabling the Keys

Lane discloses using sensor mechanism 38 to “determin[e] whether to render keys 36 of first [base] module 14 inoperable when unused.” Lane, 5:35-6:6. Lane never explains when the keys would be unused. Determining whether the keys are unused is purely a function of the orientation of the base unit. Bear Decl-1, ¶ 108. For example, if the computer was in a frame mode with the base unit oriented such that the keys were facing down on a surface, the key would be unused. *Id.*, ¶ 161. Detecting a degree of rotation of the display relative to the base or determining the display mode are not “necessary” to make that determination. *Id.*, ¶¶ 108, 161.

v. Conclusion: Rejection 3 of Claim 17 and Its Dependent Claims Should be Reversed to the Extent They Reply on Lane to Detect a Degree of Rotation

The Final Office Action’s rejection of claim 17 is based, at least in part, on the Examiners’ erroneous finding that “Lane discloses detecting a degree of rotation of the single display component 35 relative to the base.” FOA, 12. That finding is unsupported by the record. The rejection of claim 17 and its dependent claims should be reversed for this additional reason.

c. Hisano Is Not Alleged to Cure the Failing of Lane to Disclose Detecting the Computer's Display Mode

Hisano does not cure the failing of Lane to disclose detecting the computer's display mode and the Examiners never allege that it does.

For the Lane-Hisano rejections (Rejection 3), the Examiners allege that Hisano discloses measuring the angle of rotation between the base and display and using that information to “automatically adjust[] the orientation of displayed content.” *Id.*, 57. The Examiners allege that a POSA would have implemented this “teaching of Hisano into the portable computer of Lane in order to provide displayed content right-side-up to a user regardless of the orientation of the computer's display relative to its base.” *Id.*, 58.

Even if everything the Examiners allege about Hisano were true (it is not), and even if a POSA would have modified Lane in the manner the Examiners allege, doing so would only result in Lane's computer using the output of Hisano's sensor to perform Hisano's “required decision-making” to ensure that the displayed content is right-side-up. *Id.* That does not meet what claim 17 requires, which is “**determining a display mode** based, at least in part, on [] comparing the degree of rotation with [a threshold].” '688 Patent, 19:42-44.

Again, the alleged display modes in the Lane-Hisano combination are Lane's “laptop mode, frame mode, easel mode.” FOA, 55. Hisano does not teach using the output of its sensor to determine whether the computer is in the laptop, frame or easel mode, and the Examiners do not allege that the Lane-Hisano combination would use Hisano's alleged detection of the degree of rotation for that purpose.

The Examiners admit that “Lane does not specifically disclose [] determining the display mode based on [] comparing the degree of rotation [] to [a] threshold.” FOA, 57. The modification

that the Examiners allege a POSA would have made to Lane based on Hisano – “to provide displayed content right-side-up” (*id.*, 58) – does not determine the display mode (laptop, easel or frame mode) and thus does not cure this deficiency of Lane. Therefore, the Examiners do not even allege that the Lane-Hisano combination meets what claim 17 requires – “**determining a display mode** based [] on [] comparing the degree of rotation [] to [a] threshold.” ’688 Patent, 19:42-44. The rejections of claim 17 and its dependent claims based on Lane and Hisano should be reversed for this reason alone.

d. Hisano Does Not Disclose Detecting a Degree of Rotation or Providing a Signal Representative Thereof

Even if the rejection of claim 17 is understood to be based on the assertion that a POSA would have used the output of Hisano’s sensor to determine the display mode of the Lane-Hisano computer (it is not), the rejection should still be reversed because Hisano does not disclose detecting “the degree of rotation” between the base and display, let alone determining the display mode based, at least in part, on that detection as claim 17 requires.

The Examiners allege that Hisano discloses “detecting a degree of rotation of the single display component relative to the base by measuring the rotating angle of the hinges” and “providing a signal representative of [that detected] degree of rotation” as required by claim 17. FOA, 12-13, 57, 80-81. Hisano has no such disclosure.

i. A “Degree” of Rotation Is One Three-Hundred-and-Sixtieth of the Circumference of a Circle

A “degree” of rotation is a known term. It is “a unit of measurement of angles, one three-hundred-and-sixtieth of the circumference of a circle.” Bear Decl-1, ¶ 202, Appendix D, The New Oxford American Dictionary, 2nd ed. (2005), page 446. Thus, detecting the “degree” of rotation of

the display relative to the base requires that the computer know what the angle is to the one three-hundred-and-sixtieth of the circumference of a circle. *See* Bear Decl-1, ¶¶ 202-205.

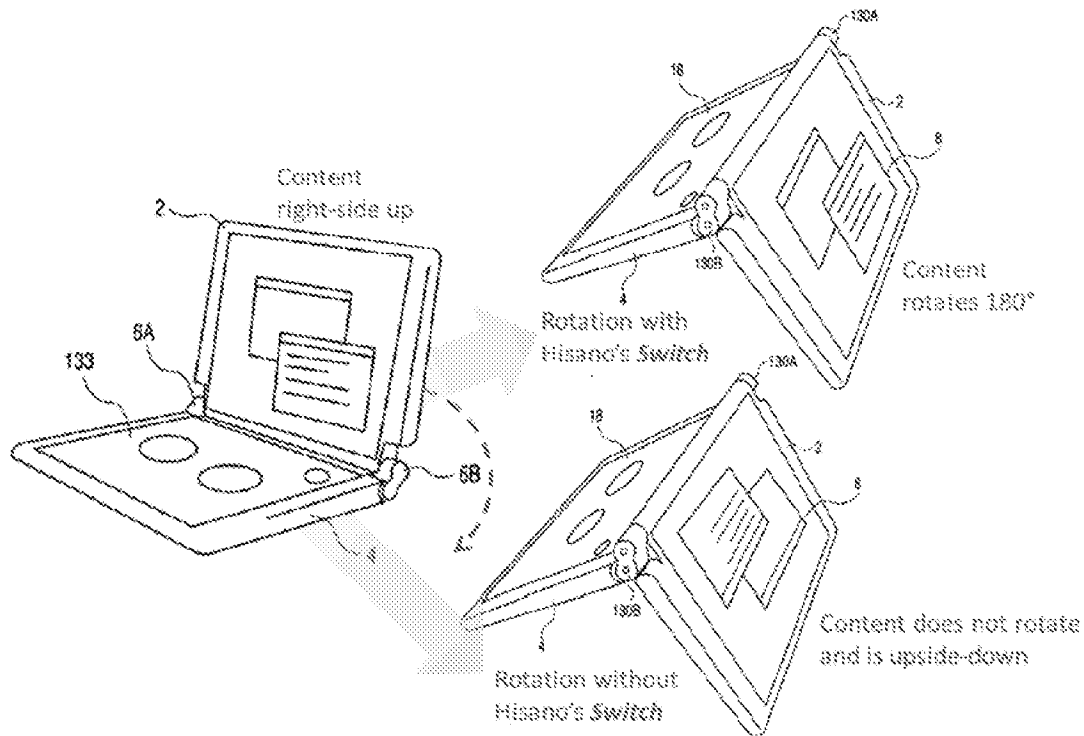
The Examiners did not dispute that this is the proper interpretation of “a degree of rotation” in the context of the ’688 Patent. *See* Advisory Action, 8.

ii. Hisano Does Not Expressly or Inherently Disclose that Its Switch Detects a Degree of Rotation

Hisano does not disclose detecting a degree of rotation as the Examiners allege. FOA, 12-13, 57-58, 80-81; Bear Decl-1, ¶¶ 180-183, 201-205.

Hisano does not expressly say that its rotational switch, or its gravity sensor, detects a *degree* of rotation as claimed. Thus, Hisano could only disclose this inherently. However, the high burden to establish inherency (see *supra* § V.A.2.b.iv citing authority) is not remotely met, and the Examiners never even allege that it is.

Hisano discloses a *switch* that provides a binary indication of whether the amount of rotation is above or below a particular threshold, but does not detect *the degree of rotation*. Bear Decl-1, ¶¶ 180-183, 201-205. Hisano discloses that “the rotating angle of the hinges 130A and 130B may be used to *switch* between the display of a side of the screen closer to the hinges as the top and the display of a side of the screen farther from the hinges 130A and 130B as the top.” Hisano, [0099]. Thus, as shown below, Hisano’s switch flips the displayed content 180 degrees such that it appears right-side-up to the user when the user rotates the display part 2 past a certain point. Bear Decl-1, ¶¶ 112, 181-182, 203.



Annotated and Modified Figs. 9 and 10 of Hisano

The Examiner's assertion that the word "switch" can be used as a noun or a verb (Advisory Action, 6) in no way suggests that Hisano's switch detects a degree of rotation. Hisano does not disclose that its switch (noun) or act of switching (verb) involves measuring the angle or detecting the degree of rotation—it merely provides a binary signal indicating that the rotation is in one of two broad ranges each encompasses a large number of degrees of rotation (*e.g.*, from 0-180° or 180-360°). Bear Decl-1, ¶¶ 180-183, 201-205.

Hisano displays the content in one orientation when the angle between the base and display is anywhere in the wide range of 0-180° and in the other orientation when the angle is anywhere in the wide range from 180-360°. *Id.*, ¶ 112, 203-204; Hisano, [0098]-[0099]. Hisano does not (indeed cannot) measure or detect which of the 180 different degrees of rotation falling within either of those two broad ranges is the particular degree of rotation between the display and the base. Bear

Decl-1, ¶¶ 203-205. Thus, Hisano's switch does not detect a degree of rotation, or measure the angle of the hinges, as alleged by the Final Office Action. *Id.*, ¶ 201.

Mr. Bear explained that a POSA would understand that Hisano's switch is not able to measure the angle or detect a degree of rotation. *Id.*, ¶¶ 201-205. Instead, a POSA would understand that Hisano's switch only determines "whether the rotation angle is greater than or less than a particular value." *Id.*, ¶ 203. Hisano's system need not measure or determine the degree of rotation to make this basic binary choice which is used to determine whether the content should be displayed in one of two orientations (rotated by 180 degrees relative to each other) to ensure that the content is right-side-up, and Hisano does not disclose that its switch has this capability. *Id.*, ¶¶ 203-205. As the Examiners agreed during the January 31, 2023 interview, Hisano does not expressly say that its rotational switch detects a degree of rotation as claimed. *See* February 27, 2023 Response to Non-final Office Action ("Response to Non-final Office Action"), 29; Bear Decl-1, ¶¶ 203-204.

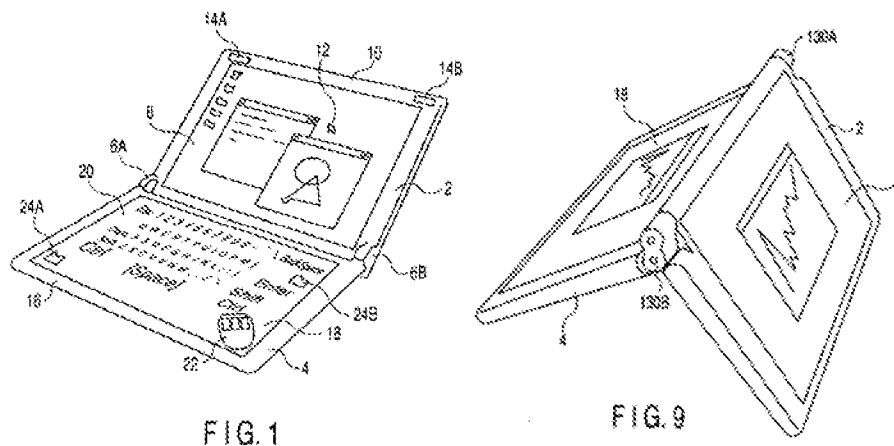
The Final Office Action cites *no* evidence to contradict Mr. Bear's sworn testimony that a POSA would understand Hisano to not disclose "detecting a degree of rotation" as the Final Office Action alleges. Bear Decl-1, ¶ 201 ("Hisano has no such disclosure."). Given the absence of any express disclosure in Hisano, the rejections could only be maintained if Hisano inherently disclosed detecting a degree of rotation, but the Final Office Action does not even allege that to be true, let alone meet the high burden to establish inherency. *See supra* § V.A.2.b.iv citing authority.

iii. Hisano's Computer Being Capable of Being Opened to Different Angles is Not a Disclosure that Hisano's Switch Can Detect a Degree of Rotation

The Examiners cite Hisano's paragraphs [0098]-[0099] and the Abstract as allegedly disclosing detecting a degree of rotation of the display relative to the base, as required by

independent claim 17. FOA, 12-13; Advisory Action, 5-6. These Hisano disclosures only support that the user can open the computer to various angles of rotation, ***not that the computer can detect*** the degree of rotation the user has opened it to.

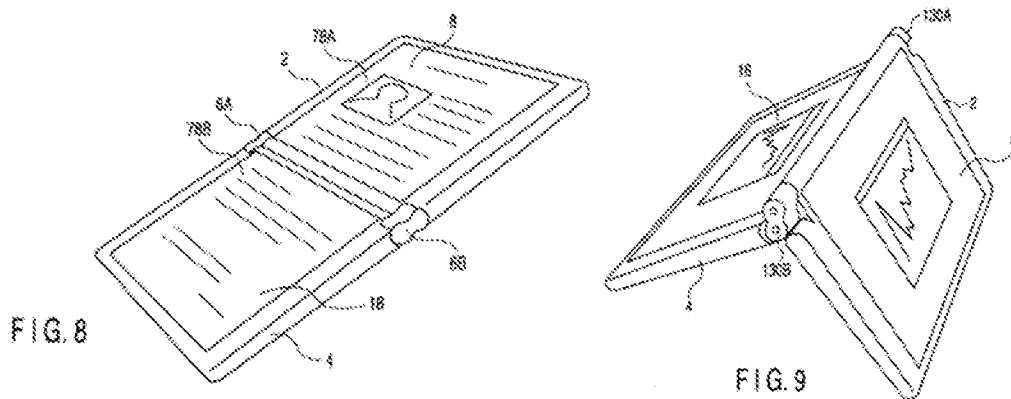
The Examiners point to Hisano's Abstract in finding that the "opening angle" of Hisano's computer "can be adjusted" which can lead to the orientation of the displayed content being rotated by 180°. Advisory Action, 5. Hisano's computer does have a "connecting mechanism" 130A-B (Fig. 9) that permits a user to rotate housing 2 relative to housing 4 such that the "opening angle" is adjusted by the user so the computer can be configured in various configurations like laptop (Fig. 1) and easel configuration (Fig. 9) illustrated in the figures reproduced below. But that is not a disclosure that the computer can detect the degree of rotation between the two housings or making any kind of determination based thereon. Bear Decl-1, ¶¶ 203-204.



Figs. 1 and 9 of Hisano

Hisano, [0098] discloses that the user can physically configure the computer into easel mode (Fig. 9) by rotating "the housings 2 and 4 so that the maximum opening angle (at least 180°; for example, 270°) is set between the second housing 4 and the first housing [2] and that the LCD

panels 8 and 18 both face outward and form the character Λ (capital lambda).” This again merely teaches that the user can physically open the computer beyond 180° (Fig. 8, below) to 270° to form a Λ configuration (Fig. 9). *See* July 14, 2023 Declaration of Eric J. Gould Bear In Support of Patent Owner Response to Final Office Action Under 37 CFR 1.111 (“Bear Decl-2,” included in Appendix C), ¶ 6. Mr. Bear explains that the Final Office Action incorrectly asserts that Hisano’s disclosure of angles “between the second housing 4 and the first housing” of “at least 180.degree.; for example, 270.degree [sic]” demonstrates Hisano’s ability to detect a degree of rotation (FOA at 12-13, 18). Bear Decl-2, ¶ 7.



Figs. 8 and 9 of Hisano

Hisano does not say that its switch (disclosed in paragraph [0099]) can *measure* or *detect* the degree of rotation between the computer’s housings. Bear Decl-2, ¶ 7. A POSA would not understand Hisano to disclose that its switch could *measure* or *detect* the degree of rotation simply because Hisano’s computer could be physically configured to have an opening angle of at least 180° and, “for example, 270° ” (FOA, 13). Bear Decl-2, ¶ 7.

For Hisano, when a user rotates the display unit with respect to the keyboard unit, there is some point in the rotation – the switching threshold – where the switch is engaged, as shown below.

Id., ¶¶ 8-9, citing Hisano at [0099].

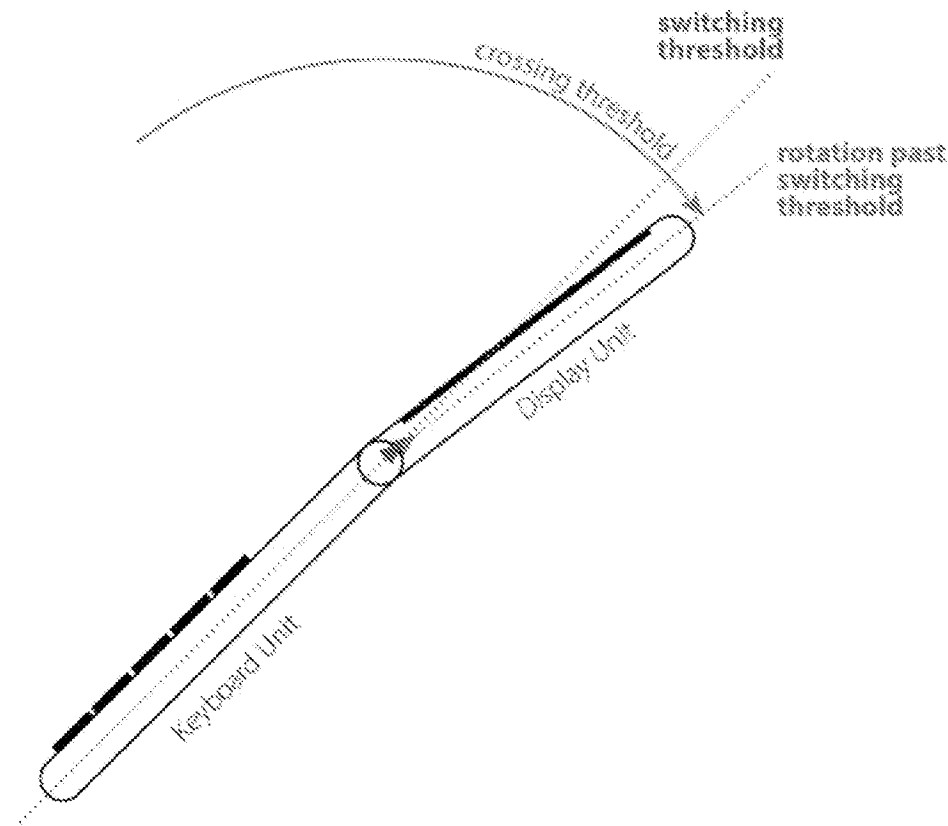


Figure from Bear Decl-2, ¶ 8

But there is no disclosure – in Hisano’s paragraphs [0098]-[0099], Abstract or anywhere else in Hisano – that the switch does anything more than get engaged and indicate the rotation is on one side or the other side of the switching threshold. Hisano nowhere discloses a sensor that measures the angle or determines a degree of rotation between the computer’s housings. Bear Decl-1, ¶¶ 203-205.

Hisano also does not disclose inherently detecting the degree of rotation between the computer's housing units because Hisano's switch can cause the displayed content to be displayed in the proper orientation (right-side-up) without ever measuring or detecting the degree of rotation between the computer's housing units. Bear Decl-2, ¶¶ 12-14; *see supra* § V.A.2.b.iv (citing authority that inherency requires that the disclosure be "necessarily" present).

Thus, the rejection of claim 17 over Lane and Hisano concedes that Lane does not disclose detecting a degree of rotation and instead the rejection relies on Hisano to meet that limitation of claim 17 as well as comparing a detected degree of rotation to a threshold. However, Hisano does not disclose either limitation. FOA, 57-58. The rejections of claim 17 and its dependent claims in Rejection 3 should be reversed for this additional reason.

e. Hisano Does Not Disclose Determining a Display Mode Based at Least in Part on a Detected Degree of Rotation

Because neither Lane nor Hisano discloses detecting a degree of rotation of the display relative to the base (*supra* §§ V.A.2.a-V.A.2.d.), the Lane-Hisano combination in Rejection 3 does not determine a display mode based, at least in part, on a detected degree of rotation as claim 17 requires and the Examiners never allege that it does.

Indeed, Hisano has no disclosure regarding determining a display mode based on anything. Bear Decl-1, ¶¶ 186-187, 208-209. Hisano makes no mention of using its rotational switch or gravity sensor that the Examiners rely on (FOA, 12-13, 57-58, 80-81) to determine the computer's display mode. Bear Decl-1, ¶¶ 186-187, 208-209. Indeed, the Examiners allege only that Hisano discloses using these sensors to orient the display content right-way-up. FOA, 57-58; *see also* Bear Decl-2, ¶ 12; Bear Decl-1, ¶¶ 112, 181-182, 203.

While Hisano discloses keeping content displayed right-way-up ([0099]-[0100], Figs. 9-10), that functionality is different than determining a display mode as claimed, which requires being able to differentiate between the alleged display modes of the Lane-Hisano computer (“laptop mode, frame mode, easel mode” – FOA, 55). *See supra* §§ IV.B, IV.D, V.A.2.b; *see also* Bear Decl-1, ¶ 209.

f. Conclusion: Rejection 3 of Claim 17 and Its Dependent Claims Based on the Lane-Hisano Combination Fail and Should be Reversed

As detailed above, the rejection of claim 17 and its dependent claims in Rejection 3 should be reversed for three independent reasons: (1) the rejections are facially deficient because the Examiners never even allege the combination of references determine the display mode as claimed (see *supra* §§ V.A.2.a, V.A.2.c); (2) none of the references relied on in the combination disclose detecting a degree of rotation between the display and base as claimed (see *supra* §§ V.A.2.b, V.A.2.d); and (3) none of the references relied on in the combination disclose determining the display mode based on a detected degree of rotation as claimed or anything else (see *supra* §§ V.A.2.b, V.A.2.c, V.A.2.e).

3. Rejection 4 of Claims 21 and 22 Based on the Lane-Hisano Combination Should be Reversed

Dependent claims 21 and 22 depend from independent claim 17 and dependent claim 18. Rejection 4 relies on Lane and Hisano, *inter alia*, to reject dependent claims 21 and 22 as obvious. FOA, 79-81. Because Rejection 4 relies on the same Lane-Hisano rationale as Rejection 3, it suffers from the same fatal flaws as Rejection 3 and should be reversed for the reasons detailed in Section V.A.2 above.

4. Rejection 7 of Claim 17 and Its Dependent Claims Based on Kamikakai-Shimura-Hisano Fails and Should Be Reversed

Rejection 7 rejects claim 17 and its dependent claims based on Kamikakai, Shimura and Hisano. FOA, 17-18, 98-105, 116-118. The Examiners rely on Kamikakai as the base reference and allege that “[t]o the extent that Kamikakai may not specifically disclose detecting a degree of rotation of the [display] relative to the base, it is disclosed by Hisano.” *Id.*, 99. The Examiners also allege that Hisano teaches determining the computer’s display mode based on the degree of rotation and that it would have been obvious to implement this in Kamikakai to “distinguish between a laptop or easel mode by comparing the degree of rotation with respect to a threshold. *Id.*, 100.

Rejection 7 should be reversed for at least two independent reasons detailed separately in the subsections below.

a. Neither Kamikakai, Shimura nor Hisano Teaches Detecting a Degree of Rotation

The Final Office Action never points to anything in Kamikakai or Shimura as disclosing the detecting a degree of rotation limitation. *Id.*, 99. Instead, the Final Office Action relies on Hisano to disclose this limitation. *Id.*, 18, 99-100, 134-135. The Examiners failed to establish that Hisano discloses detecting the degree of rotation between the computer’s base and display for the reasons discussed above in § V.A.2.d.

Rejection 7 of claim 17 and its dependent claims over Kamikakai, Shimura and Hisano must be reversed for this reason alone.

b. The Kamikakai-Shimura-Hisano Combination Does Not Determine the Computer’s Display Mode

The Examiners allege that Kamikakai’s computer has a plurality of display modes including a laptop mode as shown in Fig. 3 (FOA, 102-103) and a frame mode as shown in Fig. 9 (*id.*), and

further allege that based on Shimura it would have been obvious “to *add easel mode* [] to the portable computer disclosed by Kamikakai” (*id.*, 103-104). Thus, the Examiner’s allege that the Kamikakai-Shimura-Hisano computer has three display modes – laptop mode in Kamikakai Fig. 3 (*id.*, 102-103), frame mode in Kamikakai Fig. 9 (*id.*), and an easel mode that the Examiner’s illustrate by taking Kamikakai’s Fig. 9 and rotating it into an easel mode (*id.*, 103). Kamikakai’s computer also has a closed mode shown in Fig. 5.

To determine the computer’s display mode as recited in claim 17, the Kamikakai-Shimura-Hisano combination would need to differentiate among all the computer’s display modes. *See supra* § V.A.1. The Examiners never even allege that this is true, let alone establish that it is true. FOA, 17-18, 100-101.

In alleging that a POSA would have modified Kamikakai based on Hisano, the Examiners allege that a POSA would have added Hisano’s sensor “to automatically adjust the orientation of display content [to be] right-side-up.” *Id.*, 100. Even if a POSA would have done so, that would not have used Hisano’s sensor to determine the computer’s display mode for the same reasons discussed. *See supra* §§ V.A.2.c and V.A.2.e.

For the limitation that requires “determining a display mode” based at least in part on the degree of rotation, the Examiners allege that it would have been obvious to use Hisano’s teachings “to distinguish between a laptop or easel mode by comparing the degree of rotation with respect to a threshold.” FOA, 100. Nothing in Hisano supports that. Again, Hisano only teaches using its switch to determine which way to orient displayed content, not to detect the computer’s display mode. *See supra* §§ V.A.2.c, V.A.2.e.

Additionally, even if the Kamikakai-Shimura-Hisano computer used a degree of rotation to distinguish between just two – laptop and easel – of its display modes (it does not), that does not meet what claim 17 requires which is determining a display mode of the computer. Bear Decl-1, ¶¶ 79-85, 208-209. That is, the Examiner's point only to Hisano's switch that provides a binary output, and that is incapable of differentiating among the display modes of the Kamikakai-Shimura-Hisano computer. FOA, 17-18, 100-101. For example, the computer can have the same angle of rotation in the easel and frame modes as the Examiners implicitly concede by using Kamikakai's Fig. 9 for both modes, and an angle below Kamikakai's threshold can correspond not only to laptop mode but also the closed mode in Fig. 5. Bear Decl-1, ¶¶ 83-84, 136 (comparing laptop and closed mode).

Thus, the Examiners never even allege that the Kamikakai-Shimura-Hisano computer ever determines the computer's display mode, let alone does so based at least in part on a detected degree of rotation, which is what claim 17 requires. FOA, 17-18, 100-101. The rejection of claim 17 and its dependent claims in Rejection 7 should be reversed for this additional reason.

5. Rejection 10 of Claims 21 and 22 Based on the Kamikakai-Shimura-Hisano Combination Should be Reversed

Dependent claims 21 and 22 depend from independent claim 17 and dependent claim 18. Rejection 10 relies on Kamikakai, Shimura, and Hisano, *inter alia*, to reject dependent claims 21 and 22 as obvious. FOA, 134-135. Because Rejection 10 relies on the same Kamikakai-Shimura-Hisano rationale as Rejection 7, it suffers from the same fatal flaws as Rejection 7 and should be reversed for the reasons detailed in Section V.A.4 above.

B. Dependent Claims 30-32 (Rejections, 1-3 and 7)

All of the Examiners' rejections (*i.e.*, Rejections 1-3 and 7) of dependent claims 30-32 fail and should be reversed. The Examiners rejected these claims as obvious in light of:

- Lane alone (Rejection 1 rejecting claims 30-32);
- Lane and Kamikakai (Rejection 2 rejecting claim 32);
- Lane and Hisano (Rejection 3 rejecting claims 30-32); and
- Kamikakai and Hisano (Rejection 7 rejecting claims 30-32).⁷

As detailed below, neither Lane nor any of the combinations of prior art references relied on by the Examiners meet “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by these claims. As a result, Rejections 1-3 and 7 of claims 30-32 should be reversed.

1. Claim 29 Requires “Determining a Display Mode Responsive to the Physical Configuration of the Single Display Component Relative to the Base”

Although independent claim 29 was disclaimed and is not subject to this proceeding, claims 30-32 depend therefrom and are subject to this proceeding. The limitations of independent claim 29 are limitations of claims 30-32 that depend therefrom. MPEP § 608.01(i). For example, in *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, the Federal Circuit reviewed two *inter partes* review (IPR) decisions regarding the patentability of, *inter alia*, claims (claims 4-5) that depend from a claim (claim 3) the patent owner disclaimed during IPR. 958 F.3d 1348, 1355-57 (Fed. Cir. 2020). The patent owner appealed the Board’s finding that the prior art disclosed a limitation from disclaimed claim 3 based on a claim construction argument, and the Federal Circuit affirmed the

⁷ The Examiners relied on other prior art references for some of these grounds to address additional claim limitations. The Examiners did not rely on those references in any manner that would cure the fatal deficiencies identified herein.

Board's construction of the disputed term based on the merits. *Id.* If limitations appearing only in disclaimed claims need not be considered in post-grant proceedings, the Federal Circuit would not have needed to address the merits of the dispute. The Federal Circuit's consideration of a limitation in the disclaimed independent claim confirms that the limitations in disclaimed independent claim 29 remain part of its dependent claims that are the subject of this appeal.

Claim 29 requires “determining a display mode *responsive to the physical configuration of the single display component relative to the base.*” ’688 Patent, 22:13-15. The “physical configuration of the single display component relative to the base” is determined so that the display mode can be determined “responsive” to that physical configuration. *Id.*, 8:35-44 (“Accelerometers [are used] to detect a configuration of the portable computer 100 (*e.g.*, laptop mode or easel mode), particularly, to detect an orientation of the display component 102 relative to the base component 104.”); *see also* § IV.D (describing sensors).

2. Rejection 1 of Claims 30-32 Based on Lane Should Be Reversed

The Advisory Action “maintain[s]” the rejection of claims 30-32 as obvious over Lane alone. Advisory Action, 4 (“The rejection of claims 30-32 [] as being obvious over Lane (WO 95/24007) is maintained”); FOA, 10, 39-43. This rejection should be reversed because Lane does not disclose, as required by each of claims 30-32: (1) determining the “physical configuration of the single display component relative to the base” (*supra* § V.A.2.b), or (2) “determining the display mode” at all (*supra* § V.A.2.b).

3. Rejection 2 of Claim 32 Fails Because Neither Lane nor Kamikakai Disclose Determining a Display Mode

The rejection of claim 32 under Rejection 2 over Lane in view of Kamikakai (FOA, 45-46) fails because neither Lane nor Kamikakai disclose “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by claim 32.

To the extent that the Examiner relied on Lane to disclose this limitation of claim 32 under Rejection 2, that fails as detailed above. *See supra* § V.A.2.b.

As discussed in detail above, determining the display mode requires distinguishing amongst all the computer’s display modes, including the laptop, easel, and frame modes. *See supra* §§ IV.A.1.c, IV.D.2, V.A.1. Indeed, claims 30-32 expressly require manipulating the computer into a laptop mode (’688 Patent, 22:16-22), easel mode (*id.*, 22:23-24), and frame mode (*id.*, 22:27-35). Lane discloses that a user can manipulate its computer into a laptop mode, easel mode, and a frame mode and Kamikakai discloses a user can manipulate its computer into a laptop mode and a frame mode. Lane, Figs. 1, 6, 8, 20, 25, 28; Kamikakai, Figs. 3, 8. Accordingly, to determine the display mode a user has manipulated the computer into, a Lane-Kamikakai computer would have to determine, *inter alia*, the relative positioning between the computer’s display and base components, and the positioning of the display and/or base components relative to gravity to distinguish whether the computer was in laptop mode, easel mode, or frame mode as explained above. *See supra* §§ IV.A.1.c, IV.D.2, V.A.1.

The Final Office Action identifies no such disclosure in Kamikakai. Indeed, in Rejection 2, the Examiners never mention laptop or easel mode, let alone establish that the Lane-Kamikakai computer is capable of determining that the computer is one of those display modes. FOA, 45-46 Rejection 2 fails with respect to claim 32 for this reason alone.

Moreover, the Examiners point to nothing in Kamikakai that discloses determining that the computer is in frame mode and do not even allege that Kamikakai has this capability. *Id.* Instead, the Examiners merely allege that Kamikakai deactivates the keyboard when the angle between the back of the display and back of the base (angle γ in Fig. 8 of Kamikakai reproduced below) is in the range of 0-90°. *Id.*; Kamikakai, 6:51-67. However, a computer where that angle γ is in that range could also be in easel mode as shown in a modified version of Fig. 8 of Kamikakai below. Bear Decl-1, ¶¶ 79-85. The Examiners point to nothing in Kamikakai that discloses distinguishing whether the computer is in easel or frame mode. FOA, 45-46.

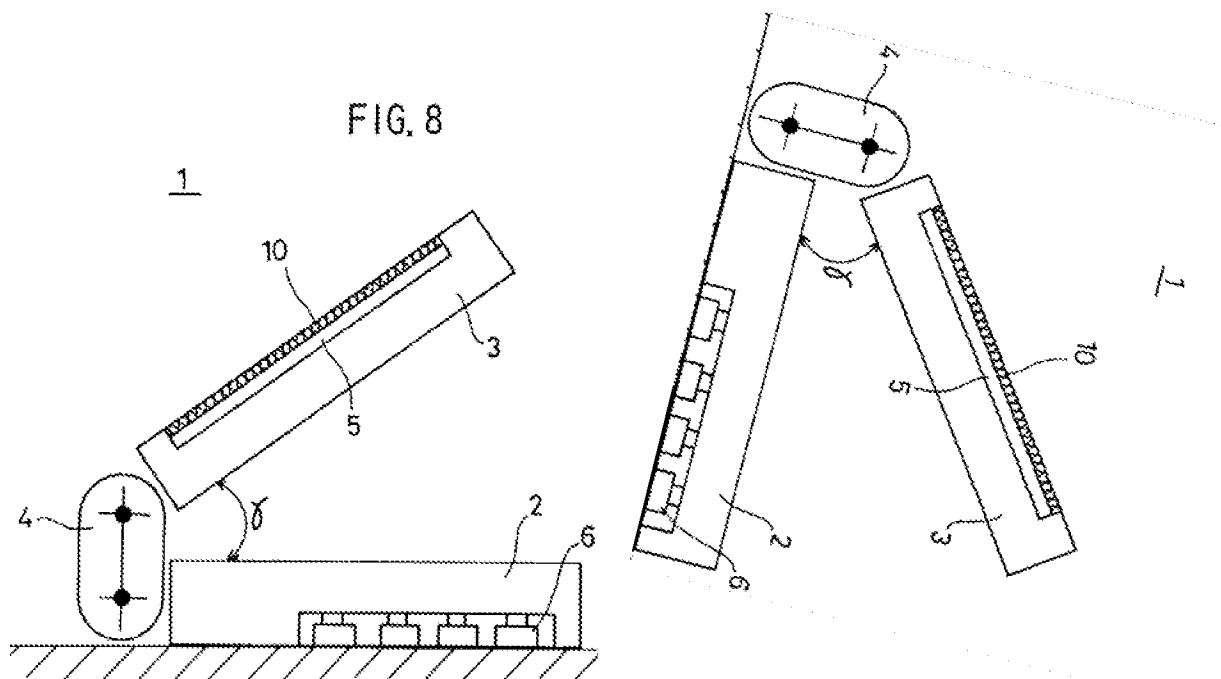


Fig. 8 and Rotated Fig. 8 of Kamikakai

Thus, the rejection of claim 32 under Rejection 2 in light of Lane and Kamikakai (*id.*) should be reversed because neither Lane nor Kamikakai disclose “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by claim 32.

4. Rejection 3 of Claims 30-32 Fails Because the Lane-Hisano Computer Does Not “Determin[e] a Display Mode”

Rejection 3 of claims 30-32 should be reversed because neither Lane nor Hisano disclose “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by these claims.

Rejection 3 relies on Lane and Hisano to disclose this limitation. *Id.*, 15, 76-77. This rejection fails because neither Lane nor Hisano disclose this limitation. *See supra* § V.A.2.b (explaining that Lane does not disclose determining the physical configuration of the display component relative to the base, or determining a display mode); §§ V.A.2.c, V.A.2.e (explaining why Hisano does not disclose determining a display mode).

Because none of the prior art references or combinations thereof created by the Examiners meet “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by claims 30-32, Rejection 3 of claims 30-32 should be reversed.

5. Rejection 7 of Claims 30-32 Fails Because the Kamikakai-Shimura-Hisano Computer Does Not “Determin[e] a Display Mode”

Rejection 7 of claims 30-32 should be reversed because neither Kamikakai nor Hisano disclose “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by these claims.

Rejection 7 relies on Kamikakai and Hisano to disclose this limitation. FOA, 19, 121-122. This rejection fails because (1) it points to nothing in Kamikakai as disclosing this limitation (*id.*, 122 (merely stating “[t]o the extent that Kamikakai does not disclose determining a display mode responsive to the physical configuration of the single display component relative to the base it is obvious over Hisano.”)), and (2) Hisano does not disclose this limitation (see *supra* §§ V.A.2.c, V.A.2.e (explaining that Hisano does not disclose determining a display mode)).

Because none of the prior art references or combinations thereof created by the Examiners meet “determining a display mode responsive to the physical configuration of the single display component relative to the base” as required by claims 30-32, Rejection 7 of claims 30-32 should be reversed.

C. Independent Claim 19 (Rejections 1, 3 and 7)

All the rejections (*i.e.*, Rejections 1, 3 and 7) of independent claim 19 should be reversed. The Examiners rejected this claim as obvious over Lane (Rejection 1), over Lane and Hisano (Rejection 3) and in light of a combination of Kamikakai, Shimura and Hisano (Rejection 7). As detailed below, none of the references or combinations of references relied on by the Examiners disclose a “display orientation module [] further configured to detect a change between a laptop mode, an easel mode, and a frame mode based on the detected physical orientation of the single display unit relative to the base unit” as required by claim 19. ’688 Patent 20:32-36.

1. Rejection 1 of Claim 19 Should Be Reversed

Rejections 1 fails for claim 19 because the Examiners rely solely on Lane to allegedly disclose a module to detect a change between laptop, easel and frame modes (FOA, 34-35) and Lane has no such disclosure for the reasons detailed above. *See supra* § V.A.2.b.

2. Rejection 3 of Claim 19 Should Be Reversed

Rejections 3 fails for claim 19 because the Examiners rely solely on Lane to allegedly disclose a module to detect a change between laptop, easel and frame modes (FOA, 65) and Lane has no such disclosure for the reasons detailed above. *See supra* § V.A.2.b. To the extent the rejection is read as also relying on Hisano to disclose this limitation via cross reference (see FOA, 14 (cross referencing arguments for claim 17)), Hisano has no such disclosure for the reasons explained, *supra* §§ V.A.2.c-e.

3. Rejection 7 of Claim 19 Should Be Reversed

Rejection 7 fails with respect to claim 19 because the Examiner does not even attempt to map any disclosure in Kamikakai, Shimura or Hisano to the claim limitation requiring a module to detect a change between laptop, easel and frame modes. FOA, 109-110, 18.

D. Independent Claim 11 (Rejections 5, 8, 11, 12)

All the rejections (*i.e.*, Rejections 5, 8, and 11-12) of independent claim 11 should be reversed. The Examiners rejected these claims as obvious in light of various combinations:

- Lane, Hisano and Choi (Rejection 5);
- Kamikakai, Shimura, Hisano and Choi (Rejection 8);
- CN '170, Misawa and Shigeo (Rejection 11); and
- CN '170, Hisano and Choi (Rejection 12).

As detailed below, none of the references or combinations relied on by the Examiners disclose the claimed “means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between

the laptop mode and the easel mode based on a stored threshold orientation” (the “means for detecting limitation”).

1. Interpretation of the Means Plus Function Limitation

The means for detecting limitation is a means plus function limitation that requires the means to perform two functions: (1) “detect[] an orientation of the base relative to the display component;” and (2) “identify the transition between the laptop mode and the easel mode based on a stored threshold orientation” from amongst the different display modes the computer can be manipulated into. ’688 Patent, 18:33-37; *supra* §§ IV.A.1.a, IV.B, V.A.1. In order to “identify the transition between the laptop mode and the easel mode” as required by claim 11, the computer must be able to detect when it is in each of those display modes and distinguish them from the other display modes the computer can be configured into. Bear Decl-1, ¶¶ 79-90, 129.

As explained above (*supra* §§ IV.A.2.b, IV.D), the ’688 Patent describes structures, accelerometers and detents, that detect the orientation of the base relative to the display and identify the laptop mode and the easel mode from amongst the different display modes the computer can be configured into, as well as determine a transition between laptop and easel mode based on threshold orientations like 180 degrees of rotation and an accelerometer in the base component that detects the orientation of the base component relative to gravity. *See supra* §§ IV.A.2.b, IV.D; ’688 Patent, 8:17-48, 8:59-61, 9:30-45, 2:44-49, 3:19-25, 14:1-6, 16:1-17, Figs. 5 and 26; Bear Decl-1, ¶¶ 69-90.

2. Rejection 5 of Claim 11 Based on Lane-Hisano-Choi Fails and Should be Reversed

The Examiner relies on each of Lane and Hisano to allegedly disclose Claim 11’s “means for detecting” limitation. FOA, 20-22, 87; Advisory Action, 4-6. As explained below, neither Lane nor Hisano meets the functions or the structure required by this means-plus-function limitation.

a. Lane Does Not Disclose the Means for Detecting Limitation

The Examiner relies on Lane's sensor mechanism 38 as the structure which allegedly performs the claimed "means for detecting" functions. FOA, 20-22, 87. Lane's sensor mechanism 38 does not perform the claimed functions, nor is it the corresponding structure (or equivalent) described in the specification of the '688 Patent for performing those claimed functions. Bear Decl-1, ¶¶ 120-167, 72-90.

First, Lane's sensor mechanism 38 does not perform either of the two functions required by the means for detecting limitation. '688 Patent, 18:33-37. Lane's sensor does not "detect[] an orientation of the base relative to the display component" for the reasons detailed above. *See supra* § V.A.2.b. Lane's sensor mechanism 38 also cannot identify the display mode the computer is in for the reasons discussed above. *See supra* § V.A.2.b and thus does not "identify the transition between the laptop mode and the easel mode based on a stored threshold orientation." Bear Decl-1, ¶¶ 120-167.

Second, Lane's sensor mechanism 38 is not the corresponding structure (accelerometers and detents) disclosed in the '688 Patent specification for performing the claimed function and the Examiners never even allege, let alone establish, that Lane's sensor is an equivalent structure. *See supra* §§ IV.A.2.b, IV.D. Bear Decl-1, ¶¶ 72-90; FOA, 80 (admitting that Lane's sensor is not an accelerometer – "Lane discloses orientation sensor 38 (Fig. 29) (Lane, 5:23-6:6). Lane did not disclose wherein the orientation sensor includes an accelerometer.").

b. Hisano Does Not Disclose the Means for Detecting Limitation

The Examiners allege that Hisano's angle sensor and gravity sensor perform the claimed "means for detecting" functions. FOA, 21-22; Advisory Action, 4-6. Hisano's angle and gravity

sensors do not perform the claimed functions, nor are they the corresponding structure (or equivalent) disclosed in the '688 Patent specification for performing that function.

First, Hisano's angle sensor and gravity sensor do not perform the functions required by the means for detecting limitation. Hisano's sensors do not "identify the transition between the laptop mode and the easel mode based on a stored threshold orientation" from amongst the display modes Hisano's computer can be manipulated into for the reasons detailed above. *See supra* §§ V.A.2.c, V.A.2.e. Bear Decl-1, ¶¶ 186-187.

Second, Hisano's angle sensor and single gravity sensor are not the corresponding structure (accelerometers and detents) disclosed in the '688 Patent specification for performing the claimed function and the Examiners never even allege, let alone establish, that Hisano's sensors are an equivalent structure. FOA, 21-22; Advisory Action, 4-6; *see supra* §§ IV.A.2.b, IV.D; Bear Decl-1, ¶¶ 72-90.

* * *

The rejection of claim 11 under Rejection 5 should be reversed.

3. Rejection 8 of Claim 11 Based on Kamikakai, Shimura and Hisano Fails and Should be Reversed

The Examiners vaguely suggest that Kamikakai might disclose the means for detecting limitation, but "to the extent" it does not the Examiners rely on Hisano's angle sensor and gravity sensor to meet the means for detecting limitation. FOA, 21-23, 131-132; Advisory Action, 4-6. As explained below, neither Kamikakai nor Hisano discloses the functions or the structure required by the means for detecting limitation.

a. The Examiners Point to Nothing in Kamikakai as Disclosing the Means for Detecting Limitation

For Rejection 8, the Examiners state “[t]o the extent that Kamikakai may not specifically disclose the means for detecting an orientation is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation, it is disclosed by Hisano.” FOA, 131.

This is not a finding or assertion that Kamikakai actually discloses the means for detecting limitation. If the Examiners were alleging that Kamikakai meets this limitation, any such assertion fails because the Examiners did not identify any functionality or structure in Kamikakai that is even alleged to meet the means for detecting limitation. *Id.*

b. Hisano Does Not Disclose the Means for Detecting Limitation

The Examiners allege that Hisano’s angle sensor and gravity sensor meet the means for detecting limitation. *Id.*, 21-23, 131-132; Advisory Action, 4-6. This assertion fails for the two reasons discussed above (*supra* § V.D.2.b): (1) Hisano’s angle sensor and gravity sensor do not perform the functions required by the means for detecting limitation because they do not “identify the transition between the laptop mode and the easel mode;” and (2) Hisano’s sensors are not the corresponding structure (accelerometers and detents) disclosed in the ’688 Patent specification for performing the claimed function and the Examiners never even allege, let alone establish, that Hisano’s sensors are an equivalent structure. FOA, 21-23, 131-132; Advisory Action, 4-6.

c. The Alleged Obvious Use of Hisano's Sensors Does Not Meet the Means for Detecting Limitation

The Examiners also allege that “it would have been obvious to use the measured angle from [Hisano's] orientation sensor to determine the transition between laptop and easel mode.” FOA, 23. This assertion fails.

The Examiners rely only on Hisano's teachings about displaying content right-side-up to allege that a POSA would have used this feature in Kamikakai to invert the content to have it displayed right-side-up. *Id.* As discussed above (*supra* §§ V.A.2.c and V.A.2.e), that inversion of content does not involve a detection of whether the computer is in laptop or easel mode and is based solely on the amount of rotation between the display and base modules, which is insufficient to determine the display mode of the Kamikakai-Shimura-Hisano computer. Again, the Examiners allege that the Kamikakai-Shimura-Hisano computer's display modes include *easel and frame modes* (FOA, 127-128) and the “angle” (*id.*, 23) between the display and base components is insufficient to differentiate between easel and frame modes (see *supra* §§ IV.D.2, V.A.4.b), so Hisano's detecting the angle does not “identify the transition between the laptop mode and the easel mode” as required by claim 11 because the detected change in the angle could instead indicate a transition from laptop to frame mode. Bear Decl-1, ¶¶ 72-90.

* * *

The rejection of claim 11 under Rejection 8 should be reversed.

4. Rejection 11 of Claim 11 Based on CN '170, Misawa and Shigeo Should be Reversed

The Examiners vaguely suggest that CN '170 might disclose the means for detecting limitation, but “to the extent” it does not the Examiners rely on Shigeo's angle sensor to allegedly

meet the means for detecting limitation. FOA, 23-24, 141; Advisory Action, 6-8. As explained below, neither CN '170 nor Shigeo discloses the functions or the structure required by the means for detecting limitation.

a. The Examiner Points to Nothing in CN '170 as Disclosing the Claimed "Means for Detecting"

For Rejection 11, the Examiners state "[t]o the extent that CN '170 may not specifically disclose the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation it is obvious over Shigeo." FOA, 141.

This is not a finding or assertion that CN '170 actually discloses the means for detecting limitation. If the Examiners were alleging that CN '170 meets this limitation, any such assertion fails because the Examiners did not identify any functionality or structure in CN '170 that is even alleged to meet the means for detecting limitation. *Id.*

b. Shigeo Does Not Disclose the Means for Detecting Limitation

The Examiners allege that Shigeo's angle sensor meets the means for detecting limitation. *Id.*, 23-24, 141; Advisory Action, 6-8. This assertion fails for two independent reasons: (1) Shigeo's angle sensor does not perform the claimed functions, and (2) Shigeo's sensor is not the corresponding structure (accelerometers and detents) disclosed in the '688 Patent specification for performing the claimed function and the Examiners never even allege, let alone establish, that Shigeo's sensor is an equivalent structure.

i. Shigeo Does Not Disclose the Claimed Functions

Shigeo's angle sensor does not perform both of the functions required by the means for detecting limitation because Shigeo's angle sensor does not "identify the transition between the laptop mode and the easel mode." Bear Decl-1, ¶¶ 188-191; Bear Decl-2, ¶¶ 10-13.

Rejection 11's combination of CN '170, Misawa and Shigeo includes CN '170's laptop mode, easel mode, and frame mode. *See* CN '170, Fig. 4 (laptop mode), Fig. 13 (frame mode), Fig. 19 (easel mode). Figures illustrating CN '170's easel and frame modes are reproduced below. To perform the claimed function of "identify[ing] the transition between the laptop mode and the *easel mode*," for the CN '170-Misawa-Shigeo computer, Shigeo's angle sensor would have to be capable of distinguishing whether the computer is transitioning into easel mode as opposed to frame mode. *See supra* § IV.D.2.b; Bear Decl-1, ¶¶ 190, 79-90. As discussed below, Shigeo's angle sensor cannot make that distinction between easel and frame mode and therefore does not perform the claimed function.

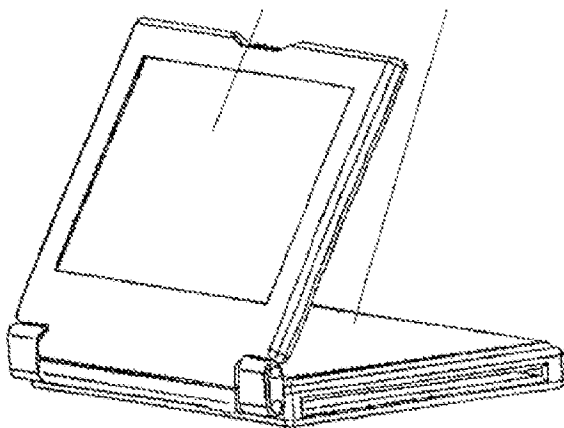


FIG. 15

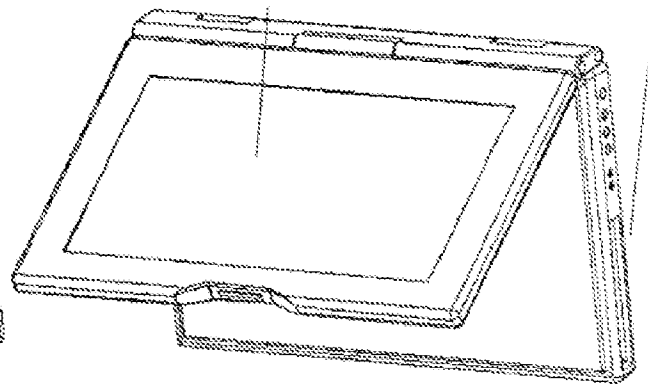
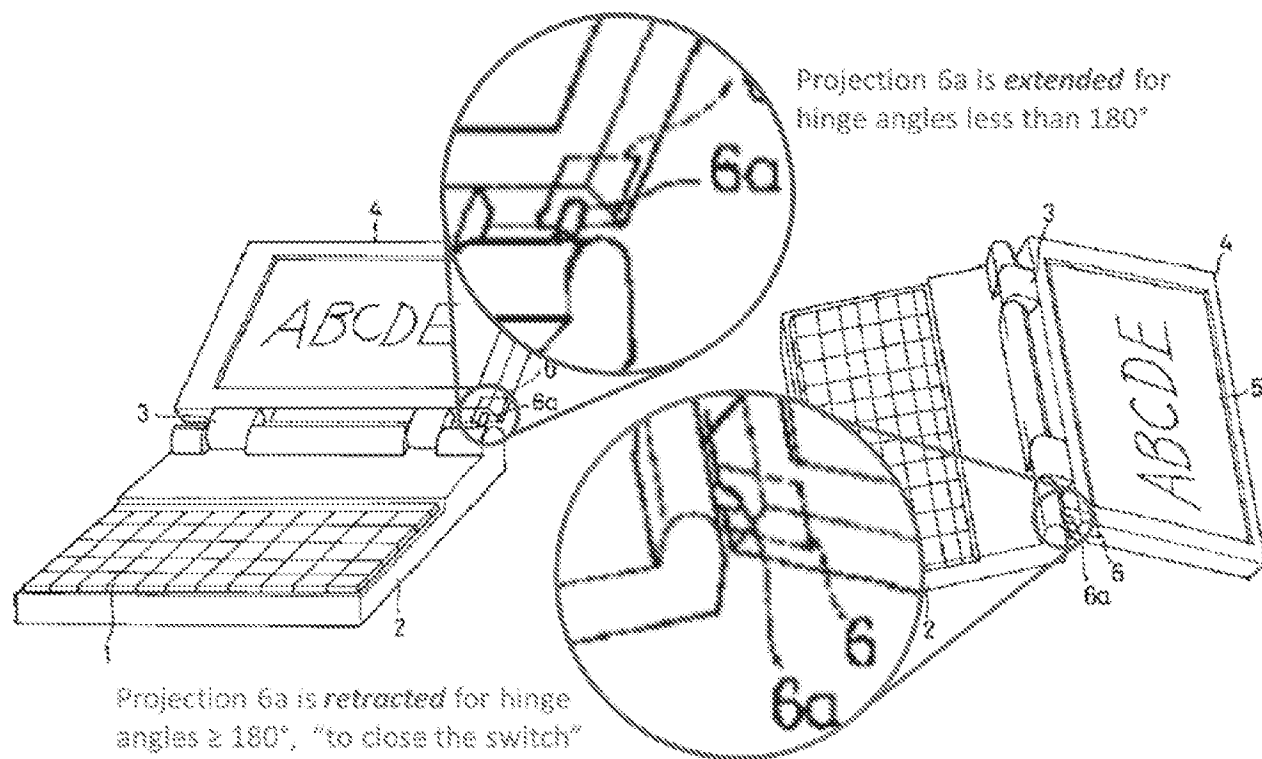


FIG. 19

Figs. 15 and 19 of CN '170

Shigeo only discloses a **switch** that flips the orientation of the displayed content 180 degrees when the angle between the display and base exceeds 180 degrees. Shigeo, [0010] (“switch 6b”); Bear Decl-1, ¶¶ 113, 188; Bear Decl-2, ¶¶ 10-11. Shigeo’s switch (6) is positioned “on the hinge-side end surface of the lid 4 in such a way that the protrusion 6a comes into contact with the back side of the main body 2 and thereby actuates a switch operation when the lid 4 is opened to an angle equal to or greater than 180 degrees.” Shigeo, [0008], referring to Figures 1 and 2 (annotated below); *see also* Bear Decl-2, ¶¶ 10-13; Bear Decl-1, ¶¶ 188-189. Shigeo’s figures (below) show this protrusion 6a as either actuated (pushed in) or not actuated (not pushed in). Bear Decl-2, ¶ 10. Shigeo further explains that the switch is configured such that “when the lid 4 is opened to an angle *equal to or greater than 180 degrees*, the projection 6a is *retracted* so as to *close the switch* 6b.” Shigeo, [0010]; Bear Decl-2, ¶ 11. Shigeo’s switch thus provides a binary indication of whether the angle between the computer’s display and base is in one of two wide ranges (0°-180° or 180°-360°) that each encompasses a number of different orientations of the base relative to the display. Bear Decl-1, ¶¶ 188-189; Bear Decl-2, ¶¶ 11-13.



Annotated Figs. 1 and 2 of Shigeo, Bear Decl-2, ¶ 10

Shigeo's *switch* cannot distinguish between the CN '170-Misawa-Shigeo computer's easel and frame modes. *See supra* § IV.D.2.b; Bear Decl-1, ¶¶ 190, 79-90. Shigeo's angle sensor cannot perform that function because it can only determine that the orientation of the computer's display relative to its base is in one of two broad ranges (0° - 180° or 180° - 360°). Shigeo, [0010]; Bear Decl-2, ¶¶ 11-13. That information is insufficient to distinguish between the easel and frame modes because, as shown in the figures above from CN '170 above, the angle of rotation between the display and base can be the same in the easel and frame modes. *See supra* § IV.D.2.b; Bear Decl-1, ¶¶ 190, 79-90. Thus, Shigeo's sensor does not "identify the transition between the laptop mode and the *easel mode*" as required by claim 11 because detecting that the angle between the display and base has changed from the 0° - 180° range to the 180° - 360° range does not indicate a transition from

laptop to *easel mode* because it could instead indicate a transition to *frame mode*. *See supra* § IV.D.2.b; Bear Decl-1, ¶¶ 190, 79-90.

The Advisory Action points to Shigeo page 1 but nothing there supports the rejection. Advisory Action, 7. There, Shigeo merely says that its “opening-angle sensor” (projection 6a is the sensor that Shigeo discloses) “detects when the opening angle of the display reaches a predetermined value or goes beyond the predetermined value” (*i.e.*, the projection has been actuated or depressed) and a “display processing part [] rotates the contents presented on the display” responsive to the sensor. Shigeo, 1. Actuating the projection 6a is the above-discussed binary action—either the projection 6a has been depressed or it has not been depressed as the display component is rotated into the projection 6a. Bear Decl-2, ¶¶ 11-13. This information is insufficient to distinguish between easel and frame mode and thus cannot determine a transition into easel mode as claim 11 requires.

ii. Shigeo Does Not Disclose the Claimed Structure

Shigeo only discloses that its sensor is a *switch* that flips the orientation of the displayed content 180° when the angle between the display and base exceeds 180°. Shigeo, [0010] (“switch 6b”); Bear Decl-1, ¶¶ 113, 188. Such a *switch* is not the accelerometers and detents identified in the specification as performing the claimed function. *See supra* §§ IV.A.2.b, IV.D.1; Bear Decl-1, ¶¶ 72-85. The Examiners never even allege, let alone establish, that Shigeo’s switch is an equivalent structure. FOA, 23-24, 141; Advisory Action, 6-8. Indeed, given that Shigeo’s switch does not even provide sufficient information to perform the recited function (*supra* § V.D.4.b.i) it is demonstrably not an equivalent structure.

* * *

The rejection of claim 11 under Rejection 11 should be reversed.

5. Rejection 12 of Claim 11 Based on CN '170, Hisano and Choi Fails and Should be Reversed

The Examiners vaguely suggest that CN '170 might disclose the means for detecting limitation, but “to the extent” it does not the Examiners rely on Hisano’s angle sensor and gravity sensor to allegedly meet the means for detecting limitation. FOA, 24-25, 146. As explained below, neither CN '170 nor Hisano discloses the functions or the structure required by the means for detecting limitation.

a. The Examiner Points to Nothing in CN '170 as Disclosing the Claimed “Means for Detecting”

For Rejection 12, the Examiners state “[t]o the extent that CN '170 may not specifically disclose the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation it is obvious over Hisano.” *Id.*, 146.

This is not a finding or assertion that CN '170 actually discloses the means for detecting limitation. If the Examiners were alleging that CN '170 meets this limitation, any such assertion fails because the Examiners did not identify any functionality or structure in CN '170 that is even alleged to meet the means for detecting limitation. *Id.*

b. Hisano Does Not Disclose the Claimed “Means for Detecting”

The Examiners allege that Hisano’s angle sensor and gravity sensor meet the means for detecting limitation. *Id.*, 24-25, 146-147; Advisory Action, 4-6. This assertion fails for the two reasons discussed above (*supra* § V.D.2.b, V.A.2.c, V.A.2.e, IV.A.2.b, IV.D): (1) Hisano’s angle sensor and gravity sensor do not perform the functions required by the means for detecting

limitation because they do not “identify the transition between the laptop mode and the easel mode;” and (2) Hisano’s sensors are not the corresponding structure (accelerometers and detents) disclosed in the ’688 Patent specification for performing the claimed function and the Examiners never even allege, let alone establish, that Hisano’s sensors are an equivalent structure. FOA, 24-25, 146-147; Advisory Action, 4-6; Bear Decl-1, ¶¶ 186-187, 72-90.

c. The Alleged Obvious Use of Hisano’s Sensors Does Not Meet the Means for Detecting Limitation

The Examiners also allege that “it would have been obvious to use the angle” allegedly determined by Hisano’s sensor “to determine whether the device is in laptop or easel mode, *i.e.*, whether the angle is less than or greater than 180°” to “display right-side-up [content] to the viewer in each mode.” FOA, 147, 25. This assertion fails.

As discussed above (*supra* § V.D.3.c), Hisano’s inversion of content does not involve a detection of whether the computer is in laptop or easel mode and is based solely on the amount of rotation between the display and base modules, which is insufficient to determine the display mode of the CN ‘170-Hisano-Choi computer. Again, the CN ‘170-Hisano-Choi computer’s display modes include *easel and frame modes* (Fig. 4 (laptop mode), Fig. 13 (frame mode), Fig. 19 (easel mode)) and the “angle” (FOA, 147, 25) between the display and base components is insufficient to differentiate between easel and frame modes (*supra* §§ IV.D.2, V.A.4.b), so Hisano’s detecting the angle does not “identify the transition between the laptop mode and the easel mode” as required by claim 11 because the detected change in the angle could instead indicate a transition from laptop to frame mode. Bear Decl-1, ¶¶ 72-90.

* * *

The rejection of claim 11 under Rejection 12 should be reversed.

6. Conclusion With Respect to Claim 11

The rejections (*i.e.*, Rejections 5, 8, 11, and 12) of independent claim 11 should be reversed because none of the references or combinations thereof relied on by the Examiners disclose the claimed “means for detecting an orientation of the base relative to the display component, wherein the means for detecting is further configured to identify the transition between the laptop mode and the easel mode based on a stored threshold orientation.” FOA, 20-25, 87, 141, 146-147.

VI. CONCLUSION

For the foregoing reasons, the rejections should all be reversed. If there is a fee occasioned by this appeal that is not covered by an enclosed payment, please charge any deficiency to Deposit Account No. 23/2825 under Docket No. L2039.70001US12, from which the undersigned is authorized to draw.

Dated: November 14, 2023

Respectfully submitted,

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