

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**HP INC., DELL TECHNOLOGIES INC., DELL INC.,
ASUSTEK COMPUTER INC., and ASUS GLOBAL PTE. LTD.,**
Petitioner

v.

LITL LLC,
Patent Owner

IPR2024-0404
U.S. Pat. No. 8,624,844

**PETITION FOR INTER PARTES REVIEW OF
U.S. PATENT NO. 8,624,844**

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1009	U.S. Pat. Pub. No. 2006/0017692 A1 (“Wehrenberg”)
1010	“The \$100 Laptop Moves Closer to Reality,” c net News.Com (September 28, 2005) (“MIT”)
1011	“\$100 Laptop Idea Taking Off,” TechTalk (Vol. 50, No. 4, October 5, 2005)
1012	U.S. Pat. Pub. No. 2006/0183512 A1 (“Segawa”)
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Exhibit No.	Description
1034	Declaration of Jakob Ben-Ezra
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CLAIMS

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[1pre] A portable computer configurable between a plurality of display modes including a laptop mode and an easel mode wherein transitions between the plurality of display modes allows an operator to interact with a single display screen in each of the plurality of display modes, the portable computer comprising:
[1a] a base including a keyboard;
[1b] a main display component rotatably coupled to the base such that the main display component and the base are rotatable with respect to one another about a longitudinal axis running along an interface between the main display component and the base to transition between at least the laptop mode and the easel mode, the main display component including the single display screen, wherein the transition between the laptop mode and the easel mode allows the operator to operate the portable computer while viewing the single display screen in each of the plurality of display modes, wherein
[1c] the laptop mode is configured to display to a user on the main display component a first content mode having a first content display orientation with the main display component oriented towards the user and the keyboard oriented to receive input from the user;
[1d] the easel mode is configured to display to the user on the main display component a second content mode having a second content display orientation with the main display component oriented towards the user and the keyboard oriented away from the user, wherein the first and second content display orientations are 180 degrees relative to each other, and wherein the portable computer is operable in the easel mode to enable the user to interact with displayed content without interacting with the keyboard; and
[1e] a navigation control disposed at least partially within the base and rotatable about the longitudinal axis, the navigation control configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the single display screen wherein the plurality of modes includes a frame in which the main display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface.

Index of Claims
[2] The portable computer of claim 1, where the navigation control includes a scroll wheel configured to permit the user to adjust a volume of sound produced by the portable computer.
[3] The portable computer of claim 1, further comprising a first navigation button disposed on one of the base and the display component and configured to permit the user to manipulate selected content displayed on the screen.
[4pre] The portable computer of claim 3, wherein the screen is configured to display at least one of a plurality of modes of content; and
[4a] wherein the navigation button is configured to permit the user to select for display one of the plurality of modes of content.
[5pre] The portable computer of claim 3, further comprising a second navigation button;
[5a] wherein the first navigation button is disposed on a major surface of the base; and
[5b] wherein the second navigation button is disposed on a minor surface of the base.
[6] The portable computer of claim 1, wherein the navigation control includes a scroll wheel configured to permit the user to select a mode of content for display by the portable computer.
[7pre] The portable computer of claim 1, wherein rotating either the display component or the base about the longitudinal axis up to approximately 180 degrees from a closed mode in which the display screen is disposed substantially against the base configures the portable computer into the laptop mode; and
[7a] wherein rotating either the display component or the base about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode.
[8] The portable computer of claim 1, wherein the frame mode is configured to display to a user on the main display component the first content mode having the first content display orientation.
[9] The portable computer of claim 1, wherein the portable computer is configured to prevent the portable computer from responding to keyboard input when the portable computer is in the frame mode.

Index of Claims
[10pre] A portable computer configurable between a plurality of display modes including a laptop mode and an easel mode wherein transitions between the plurality of display modes permit an operator to interact with a single display screen in each of the plurality of display modes, the portable computer comprising:
[10a] a base including a keyboard;
[10b] a main display component rotatably coupled to the base and including the single display screen which displays content;
[10c] a hinge assembly disposed at least partially within the base and the main display component that defines an axis of rotation about which both the base and the main display component are rotatable to transition the portable computer between at least the laptop mode and the easel mode, wherein the transition between the laptop mode and the easel mode allows the operator to operate the portable computer while viewing the single display screen in each of the plurality of display modes, wherein
[10d] the laptop mode is configured to display to a user on the main display component a first content mode having a first content display orientation with the main display component oriented towards the user and the keyboard oriented to receive input from the user;
[10e] the easel mode is configured to display to the user on the main display component a second content mode having a second content display orientation with the main display component oriented towards the user and the keyboard oriented away from the user, wherein the first and second content display orientations are 180 degrees relative to each other, and wherein the portable computer is operable in the easel mode to enable the user to interact with displayed content without interacting with the keyboard; and
[10f] a navigation control accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the single display screen wherein the plurality of modes includes a frame mode in which the main display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface.

Index of Claims
[11] The portable computer of claim 10, wherein the navigation control includes a scroll wheel disposed at least partially about the axis of rotation of the display component relative to the base.
[12] The portable computer of claim 11, wherein the scroll wheel provides a default action which effects manipulation of the at least one of the operating parameters of the portable computer, wherein the default action is defined differently responsive to a display mode of the portable computer.
[13] The portable computer of claim 10, further comprising a first navigation button user-accessible in each of the laptop mode and the easel mode, and configured to permit the user to manipulate selected content displayed on the screen.
[14pre] The portable computer of claim 13, wherein the screen is configured to display at least one of a plurality of modes of content; and
[14a] wherein the first navigation button is configured to permit the user to select for display one of the plurality of modes of content.
[15.] The portable computer of claim 13, further comprising a second navigation button that is not user-accessible when the portable computer is in the easel mode.
[16.] The portable computer of claim 10, wherein an operating display mode is selected from the plurality of display modes based on a physical orientation of the portable computer.
[17.] The portable computer of claim 10, wherein an operating display mode is selected from the plurality of display modes in response to operation of the navigation control.
[18.pre] A portable computer configurable between a plurality of display modes including a laptop mode and an easel mode wherein transitions between the plurality of display modes allow an operator to interact with a single display screen in each of the plurality of display modes, the portable computer comprising:
[18.a] a base including a keyboard;
[18.b] a main display component including the single display screen configured to display content;
[18.c] a hinge assembly disposed at least partially within the base configured to rotatably couple the main display component to the base, the hinge assembly

Index of Claims

defining a longitudinal axis running along an interface between the display component and the base about which the display component and the base are rotatable to transition the portable computer between at least the laptop mode and the easel mode, wherein the transition between the laptop mode and the easel mode allows the operator to operate the portable computer while viewing the single display screen in each of the plurality of display modes, wherein

[18.d] the laptop mode is configured to display to a user on the main display component a first content mode having a first content display orientation with the main display component oriented towards the user and the keyboard oriented to receive input from the user;

[18.e] the easel mode is configured to display to the user on the main display component a second content mode having a second content display orientation with the main display component oriented towards the user and the keyboard oriented away from the user, wherein the first and second content display orientations are 180 degrees relative to each other, and wherein the portable computer is operable in the easel mode to enable the user to interact with displayed content without interacting with the keyboard; and

[18.f] a navigation control disposed at least partially about the longitudinal axis wherein the plurality of modes includes a frame mode in which the main display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface.

[19.] The portable computer of claim 18, wherein the navigation control includes a scroll wheel configured to permit a user to manipulate the content displayed on the screen.

[20] The portable computer of claim 18, wherein the navigation control includes a scroll wheel configured to permit a user to control a volume of sound played by the portable computer.

[21] The portable computer of claim 18, wherein the navigation control includes a scroll wheel disposed at least partially within the hinge assembly.

[22] The portable computer of claim 18, further comprising at least one navigation button disposed on one of the base and the display component.

I. INTRODUCTION

U.S. Pat. No. 8,624,844 (“the 844 patent”) has been the subject of an earlier IPR petition that was denied as well as a reexamination that followed that unsuccessful petition. The 844 patent survived these earlier challenges not due to any technical merit, but rather because neither the earlier petitioner nor the reexamination examiner understood the idiosyncratic meanings attributed by PO to the “frame mode” and “content mode” limitations found in all claims of the 844 patent. As a result of PO’s arguments in these earlier proceedings, it is now clear that both limitations were known in the art long before the 844 patent, and that the 844 patent claims nothing more than obvious combinations of these and other well-known limitations. In particular, the “frame mode” limitations are disclosed by Lane and the “content mode” limitations are disclosed by Pogue, both of which are relied on in the challenges in this Petition. Accordingly, all challenged claims of the 844 patent should be found unpatentable.

II. STATEMENT OF PRECISE RELIEF REQUESTED

In accordance with 35 U.S.C. § 311, Petitioner requests cancelation of claims 1, 3, 4, 7-10, 13, 14, 16-18, and 22 (the “Challenged Claims”) of the 844 patent in view of the following grounds:

Ground	Claims	Stat. Basis	Prior Art
1	1, 3, 4, 7-10, 13, 14, 16, 18, 22	35 U.S.C. § 103	Lane and Pogue
2	1, 3, 4, 7-10, 13, 14, 16, 18, 22	35 U.S.C. § 103	Lane, Pogue and Hotelling
3	17	35 U.S.C. § 103	Lane, Pogue and Segawa
4	1, 3, 4, 7-10, 13, 14, 16, 18, 22	35 U.S.C. § 103	Lane, Pogue, and MIT
5	1, 3, 4, 7-10, 13, 14, 16, 18, 22	35 U.S.C. § 103	Lane, Pogue, MIT and Hotelling
6	17	35 U.S.C. § 103	Lane, Pogue, MIT and Segawa

III. THE 844 PATENT

A. Overview of the 844 Patent

The 844 patent is titled “Portable Computer with Multiple Display Configurations.” EX1001, code (54). The portable computer system of the 844 patent has a conventional “clamshell” configuration that is movable into different configurations, also referred to as display modes, including (1) a laptop mode, (2) an easel mode; and (3) a frame mode. EX1002, ¶65.

Figure 17 of the 844 patent, reproduced below, illustrates a portable computer in laptop mode in which the portable computer has a conventional laptop appearance, with the display inclined at a viewing angle from the base. EX1001, 6:26–28 and 5:13–15; EX1002, ¶66.

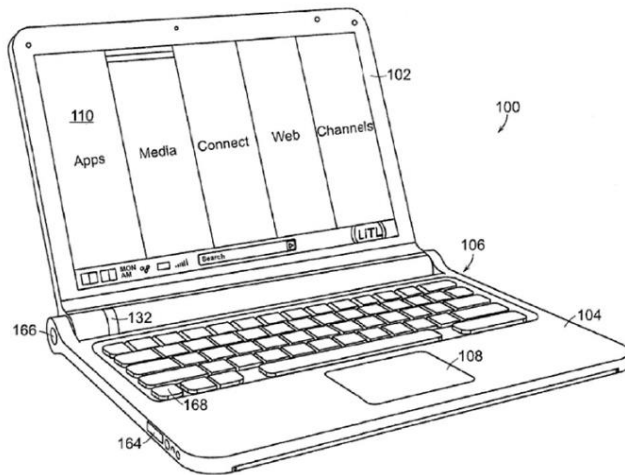


FIG. 17

Figure 4 of the 844 patent, reproduced below, illustrates a portable computer in easel mode in which the base of the computer and its display stand upright forming an inverted “V,” and the display and keyboard are on opposite sides. EX1001, 7:48–61 and 4:47–48; EX1002, ¶167.

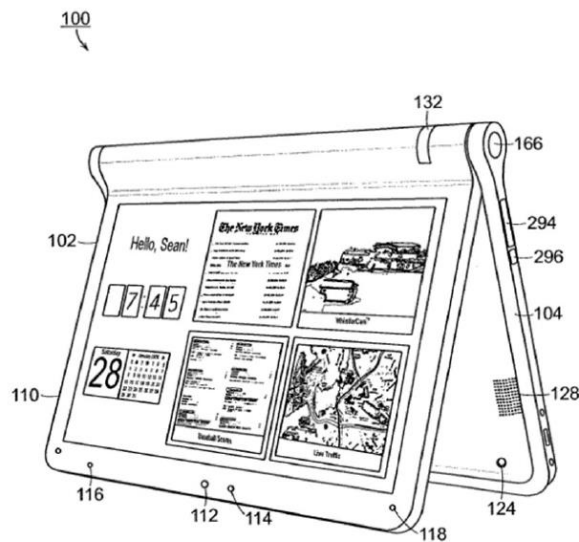


FIG. 4

Figure 26 of the 844 patent, reproduced below, illustrates a portable computer configured into frame mode, in which the display and base are at a

similar orientation and angle as in easel mode, but with the base lying flat on a surface and the keyboard facing down. EX1001, 16:3–13; 5:35–37; EX1002, ¶68.

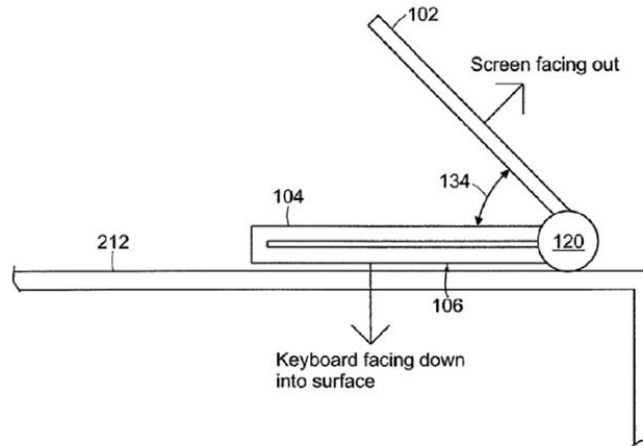


FIG. 26

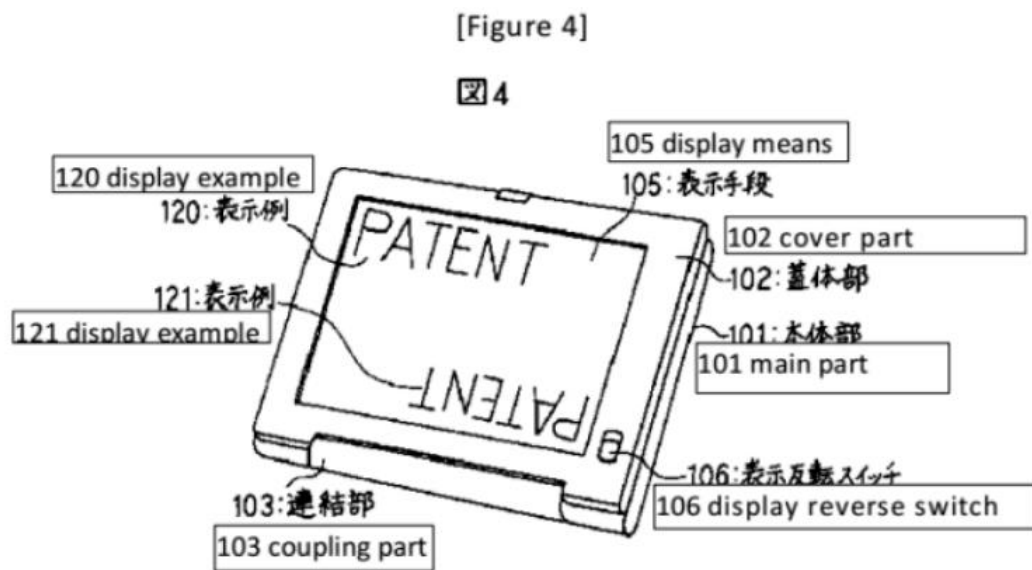
The 844 patent explains that the display's orientation can change based on the display modes into which it is configured in response to a user's input. *Id.* at 2:42–44. EX1002, ¶69.

B. Overview of the 844 patent's File History

Earlier versions of the 844 patent claims were rejected for obviousness multiple times over combinations of references including Aarras (EX1017), Nishiyama (EX1018), and Schweizer (EX1019), as well as for double patenting. EX1003, 811-818, 749-755, 673-688, and 599-618 (4/4/11, 10/28/11, 6/7/12, and 2/1/13 office actions). The claims were finally allowed only after an examiner's amendment that added a "frame mode" limitation to all claims. EX1003, 52-53 (8/22/13 Notice of Allowability at 2-3). EX1002, ¶70.

C. Overview of the Prior IPR for the 844 Patent

Lenovo filed a petition challenging claims 1-16 and 18-22 of the 844 patent in IPR2021-00822 (the “822IPR”). EX1004 (822IPR Institution decision), 2. Each of the five grounds in the 822IPR was an obviousness challenge based in part on Shimura. EX1004, 6. The 822IPR petition alleged that Shimura’s Fig. 4, reproduced below with annotations included, constituted a frame mode:



EX1004, 12. The Board disagreed, finding that Shimura’s Fig. 4 depicted a tablet mode rather than the claimed frame mode, and denied institution of the 822IPR solely for that reason. EX1004, 12-13. EX1002, ¶71.

D. Overview of the Ex-Parte Reexamination of the 844 Patent

After institution of the 844IPR was denied, Lenovo requested, and the U.S. Patent Office ordered, ex-parte reexamination of independent claim 10 and dependent claim 16 of the 844 patent (the “844Reexam”). EX1005 (844Reexam

file history), 3617-18 (4/4/22 Reexam Order at page 2). The examiner issued a non-final office action rejecting claims 10 and 16 as obvious over Lane (EX1006) in view of Ledbetter. EX1005, 3597 (10/12/22 office action at 2). In that office action, the examiner asserted that Lane disclosed the “frame mode” that was found missing from the challenges in the 822IPR. EX1005, 3600-3601 (10/12/22 office action at 5-6). PO responded to that rejection by arguing that Lane did not disclose the first and second “content mode” limitations required by claim 10 when those limitations are construed as discussed below in Section III.F.2. EX1005, 3489 (12/9/22 response at 15). EX1002, ¶72.

The examiner then issued a final rejection in which he rejected PO’s arguments and asserted that “content mode” was not limited to a visual representation such as an icon or a bar but rather would be understood as a type or kind of content, that a desktop and icon configuration or a dashboard display such as illustrated in Fig. 13 of the 844 patents satisfied this limitation, and that top level icons were not required. EX1005, 129-134 (1/4/23 final rejection at 7-12). PO responded by arguing that a content mode is a “grouping of information, programs, features and applications” and that displaying a “content mode . . . requires displaying some visual representation that represents the higher level construct.” EX1005, 89 (3/3/23 Response at 4); *see also id.* at 94-116 (3/3/23 Response at 9-31) for PO’s detailed argument, discussed below in Section III.F.2. The examiner

accepted PO's arguments and confirmed the patentability of claims 10 and 16 on that basis. EX1005, 6-7 (3/30/23 NIRC at 2-3). EX1002, ¶73.

E. Person of Ordinary Skill in the Art

A person of ordinary skill in the art at the time of the 844 patent (“POSITA”) would have had a bachelor's degree (or equivalent) in electrical engineering, computer engineering, computer science, or a comparable subject and would have had two to three years of work experience in the design and architecture of laptop computers and other portable electronic devices.

Alternatively, a person of ordinary skill in the art would have had an advanced degree (or equivalent) in electrical engineering, computer engineering, computer science, or a comparable subject and would have had one year of post-graduate research or work experience in the design and architecture of laptop computers and other portable electronic devices. A person of ordinary skill in the art would have been familiar the structural hardware aspects of laptop computers and other portable electronic devices as well as designs of user interfaces employed and displayed by computer operating systems and their organization of content and functionality. Similar skills and knowledge could be acquired by other means. EX1002, ¶74.

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

The Challenged Claims are interpreted using the same claim construction standard that is used to construe the claim in a civil action in federal district court. 37 C.F.R. § 42.100(b).

Petitioner does not contend that its proposed constructions are complete constructions of these limitations or the claims for any other purpose, including for issues that have been raised in the related litigation. Because the prior art asserted herein discloses the preferred embodiment within the indisputable scope of the claims, the Board need not construe the outer bounds of the claims as part of these proceedings. The district court may have to address other bounds of the claims in addressing infringement. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)) (providing that only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy).

Claim terms not listed below should be construed according to their plain and ordinary meaning to a POSITA. EX1002, ¶78.

1. “frame mode” (claims 1, 10, 18)

In the 822IPR, the Board preliminarily construed “‘frame mode’ as having the keyboard face down on a surface with the screen face up, and the base and

display components forming a non-zero angle” and further stated that “[f]rame mode is distinct from ‘tablet mode,’ where the display is flush against the base.”

EX1004, 10. For the purposes of this IPR, Petitioner adopts this construction.

EX1002, ¶79.

2. “configured to display to a user on the main display component a [first/second] content mode” (claims 1, 10, 18)

In the 844 Reexam, PO argued for and received a construction of these terms as meaning “displaying some information that represents a higher-level construct into which content is grouped. This recitation is distinct from merely displaying individual things (e.g., applications) that may be grouped into a content mode.”

EX1005, 6 (844 Reexam Notice of Intent at 2); *see also* EX1005, 94-116 (844 Reexam, 3/3/23 Response to Final Office Action at 9-31). For the purposes of this IPR, Petitioner adopts this construction. EX1002, ¶80.

Consistent with PO’s arguments in the reexamination, this construction should be understood to include the higher level constructs shown on the display of Figs. 11-12 and 17 of the 844 patent and to exclude anything shown on the display of Fig. 13 of the 844 patent. EX1005, 99-103 (844 Reexam 3/3/23 Response to Final Office Action at 14-18). In particular, each individual “bar” 172 in Fig. 12 (Apps, 172d; Media 172a, Connect 172b, Web 172c and Channels 172e) is itself a content mode. EX1005,107 (3/3/23 Response to Final Office Action at 22) (e.g., referring to “‘media’ content mode 172a”). Additionally, claim 10 does not

require simultaneously displaying first and second content modes. EX1005, 110.

Furthermore, “nothing in claim 10 precludes displaying both the first and second content modes in laptop mode and/or displaying both the first and second content modes in easel mode.” EX1005, 111. And finally, nothing in claim 10 requires the first content mode to be “particular to the orientation of laptop mode.”

EX1005, 111. In light of these positions taken by PO during the 844 Reexam, if the exact same display of Fig. 12 with all five bars 172 were displayed on the screen with the laptop in the laptop mode and with the laptop in the easel mode, but with different display orientations, the first and second content mode limitations of claims 1, 10 and 18 would be satisfied. EX1002, ¶81.

The 844 patent expressly discloses that the particular form of “content mode” is not limited to the bars of Fig. 12 and includes “a ‘desktop’ and icon configuration.” EX1001, 12:11-17; EX1005, 101 (844 3/3/23 Response at 16). EX1002, ¶82.

“Content mode” and “mode of content” mean the same thing. EX1005, 90, 92, 96 and 99 (3/3/23 Response at 5, 7, 11, and 14); EX1005, 3486, 3488, 3493, 3495 (12/9/22 Response at 12, 14, 19 and 21); EX1002, ¶83.

3. “display mode” (claims 1, 10, 18)

“Display mode” means “the particular physical configuration of the portable computer.” EX1005, 3480 (12/9/22 844 Reexam Response at 6). Display modes

may include laptop, easel, tablet, flat, frame, and closed modes. *Id.* “Display mode” is a “very different concept than” a “content mode” or “mode of content.” *Id.* at 3481. EX1002, ¶84.

4. “navigation control” (claims 1, 10, 18)

The 844 patent discloses that “navigation is discussed below primarily with reference to the scroll wheel 132 and navigation buttons 166, 168; however, it is to be appreciated that navigation may also be accomplished using *any of the conventional tools discussed above or known to those of skill in the art.*”

EX1001, 12:17-21 (emphasis added). In district court litigation against HP, PO alleges that a touchscreen satisfies the “navigation control” limitation as recited by claims 1, 10 and 18 of the 844 patent:

147. The Accused Products (*e.g.*, the EliteBook x360 1030 G3) include a navigation control accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the single display screen. For example, the EliteBook x360 1030 G3 includes a touchscreen that is accessible in any mode.

EX1013, ¶147. Accordingly, “navigation control” should be construed broadly to include any conventional tool for navigating, including a touchscreen. EX1002, ¶85.

5. “the main display component and the base are rotatable with respect to each other about a longitudinal axis . . . to transition between at least the laptop mode and the easel mode” (claim 1)

“a hinge assembly . . . that defines an axis of rotation about which the both the base and the main display component are rotatable to transition the portable computer between at least the laptop mode and the easel mode” (claim 10)

“the hinge assembly defining a longitudinal axis . . . about which both the display component and the base are rotatable to transition the portable computer between at least the laptop mode and the easel mode” (claim 18)

These terms may be construed either (1) narrowly as requiring a hinge assembly with only a single axis about which both the base and main display component rotate to transition between the laptop and easel display modes, or (2) more broadly as permitting a hinge assembly with more than one axis, where both the base and main display components are capable of rotating about a single axis for at least part of the transition between laptop and easel display modes, but one or both components may also rotate about one or more additional axes during the transition between laptop and easel display modes. The Board need not resolve this issue as the Petition addresses both constructions. EX1002, ¶86.

IV. LEGAL STANDARDS FOR OBVIOUSNESS

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual

determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

With respect to factor (3), the level of skill in the art at the time of the alleged invention of the 844 patent is discussed above. With respect to factor (4), PO has not provided any evidence of secondary considerations that would weigh in favor of non-obviousness, let alone any evidence that establishes a nexus between any secondary consideration and the challenged claims. In any event, the showing of invalidity in this Petition is strong and any alleged secondary considerations are insufficient to establish non-obviousness in light of this strong *prima facie* showing. *Intercontinental Great Brands (Kraft) v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1347 (Fed. Cir. 2017). Factors (1) and (2) are addressed below.

V. SCOPE AND CONTENT OF THE PRIOR ART

A. EX1006 - Lane

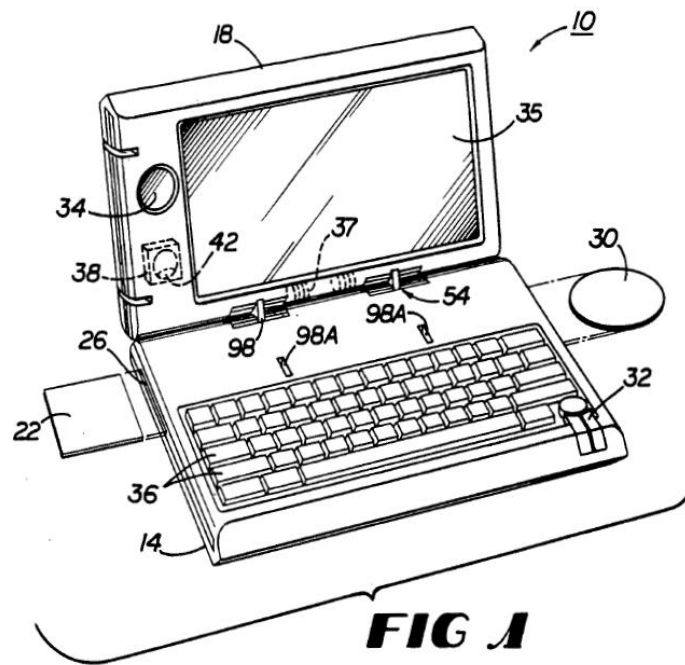
Lane was published on September 8, 1995. EX1006, 1. Lane therefore constitutes prior art under 35 U.S.C. §§ 102(a) and (b).¹

¹ All references to Title 35, United States Code are to the pre-AIA versions thereof.

Lane discloses a reconfigurable portable computer 10 having a first module 14 (e.g., a keyboard) and a second module 18 (e.g., a display). EX1006, 5:1-22 and Fig. 1. EX1002, ¶88.

14 (e.g., a keyboard) and a second module 18 (e.g., a display). EX1006, 5:1-22

and Fig. 1. EX1002, ¶88.

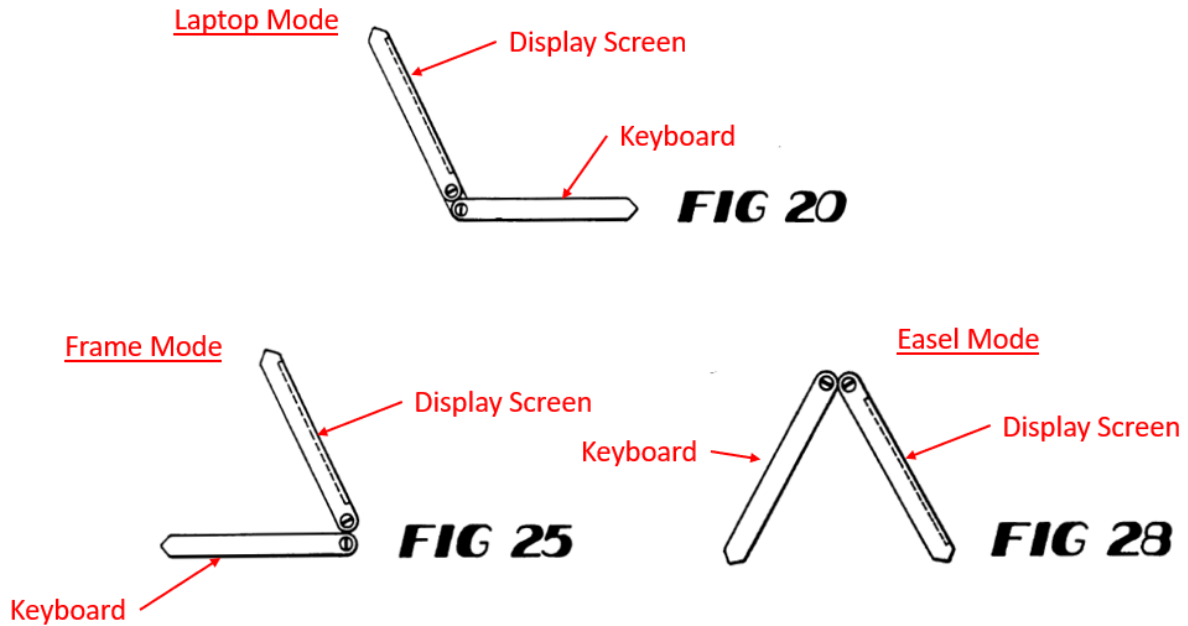


Lane’s portable computer 10 can be configured in a variety of display modes, including the “laptop mode,” “easel mode” and “frame mode” as recited in the 844 patent claims as shown in the annotated figures from Lane below.

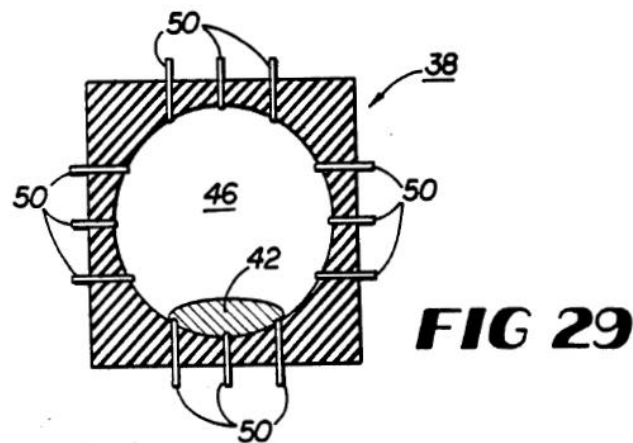
modes, including the “laptop mode,” “easel mode” and “frame mode” as recited in

the 844 patent claims as shown in the annotated figures from Lane below.

EX1002, ¶89.



Lane's portable computer 10 includes a position-indicating mechanism 38 (shown as included in the display module 18 in Fig. 1 above) as shown in Fig. 29 that includes a moveable conductor 42 in a spherical cavity 46 that responds to gravitational forces to permit the mechanism to indicate the spatial orientation of a module in which it is included. Lane, 5:23-35.



Lane teaches that the mechanism 38 can assist the laptop 10 in determining, e.g., an orientation (portrait, landscape) in which information on the display module 18 should be rendered or whether to render the keys 36 of the keyboard module 14 inoperative when they are not used. Lane, 5:35-6:6. EX1002, ¶90.

B. EX1007 - Pogue

Pogue was published in 2004. Pogue bears a marking “Copyright © 2004 Pogue Press, LLC,” has an ISBN Number, a statement that it was “Published by O’Reilly Media, Inc.” in the United States, and lists a first edition with a date of January 2003 and a second edition with a date of November 2004. EX1007, 5. The U.S. Copyright Office records include registration number TX0006158941 dated April 27, 2004 for “Windows XP Pro: the missing manual,” 2d ed., with 689 pages, listing the same three authors (David Pogue, Craig Zacker and L.J Zacker) shown on the front cover of EX1007 and a publication date of November 23, 2004. EX1022, 1. Pogue’s status as prior art is confirmed by EX1034, which demonstrates that Pogue was published prior to April 1, 2007. The Copyright Office registration for Pogue lists November 23, 2004 as the publication date. EX1034, ¶2 and page 6. Captures of the Amazon website on the Wayback Machine made prior to April 1, 2007 include reviews of Pogue dated prior to April 1, 2007. EX1034, ¶¶3-4 and pages 7-34. A capture of the O’Reilly (the publisher of Pogue) website by the Wayback Machine prior to April 1, 2008 shows that

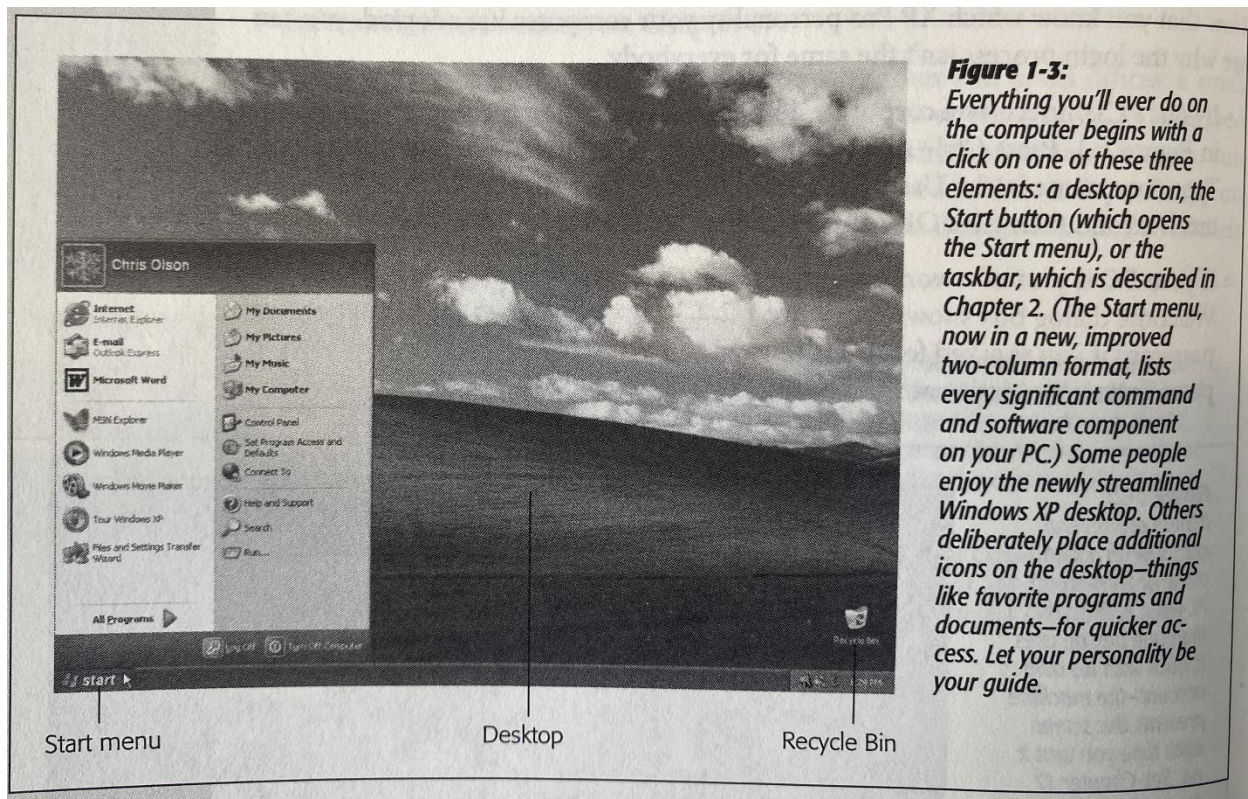
Pogue was available for purchase as of January 4, 2007. EX1034, ¶5 and page 36.

The Wayback Machine is sufficient evidence of publication and authentication.

Valve Corp. v. Ironburg Inventions Ltd., 8 F.4th 1364, 1374 (Fed. Cir. 2021).

Pogue is therefore prior art under 35 U.S.C. §§ 102(a) and 102(b).

Pogue is intended to serve as a manual for the well-known Microsoft Windows XP Pro operating system. EX1007, 2. EX1002, ¶91. This operating system was well-known at the time of the 844 patent and was in widespread use in the U.S. and around the world at this time. The Windows XP Pro operating system includes a graphical user interface that allows users to access applications, documents, and other digital files. “Every application on your machine, as well as every document you create, is represented on the screen by an icon.” EX1007, 5. Once a user logs on to Windows XP Pro, the user is presented with the desktop, an example of which is shown in the figure below.



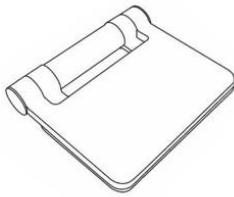
EX1007, 22; EX1002, ¶92. “Everything you’ll ever do on the computer begins with a click on one of these three elements: a desktop icon, the Start button (which opens the Start menu) or the taskbar . . .” *Id.* As explained in Pogue, the default configuration for the XP Pro desktop is free of icons except for the Recycle Bin icon shown above, but users had the option of changing the default setting to include certain icons including the My Documents and My Network Places icons that appeared on the Desktop in earlier versions of the Windows operating system. EX1007, 22-23. Users could choose to do so for quicker and easier access. *Id.*; see also EX1002, ¶93.

C. EX1010 - MIT

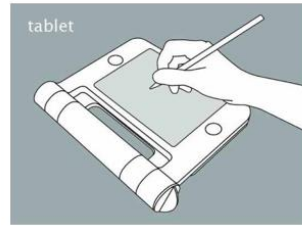
MIT was published no later than October 19, 2005. EX1010, 1 (stating publication date as September 28, 2005; EX1034, ¶6 and pages 38-47 (establishing that Internet Archive’s Wayback Machine captured the content of EX1010 including images no later than October 19, 2005); *see also* EX1011, 1 (dated October 5, 2005 and showing same MIT laptop photograph as EX1010. The Wayback Machine is sufficient evidence of publication and authentication. *Valve Corp. v. Ironburg Inventions Ltd.*, 8 F.4th 1364, 1374 (Fed. Cir. 2021). MIT is therefore prior art under 35 U.S.C. §§ 102(a) and 102(b).

MIT discloses a laptop computer with a single axis hinge that allows approximately 360 degree rotation allowing the laptop to be converted from a closed mode to a tablet mode as well as modes between these two extremes, such as the laptop mode and the frame mode (referred to by MIT as the “theater” mode) as shown in the annotated images below. EX1002, ¶94.

Closed Mode



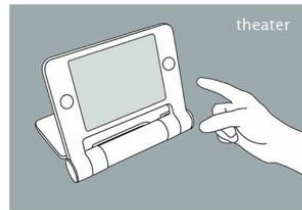
Tablet Mode



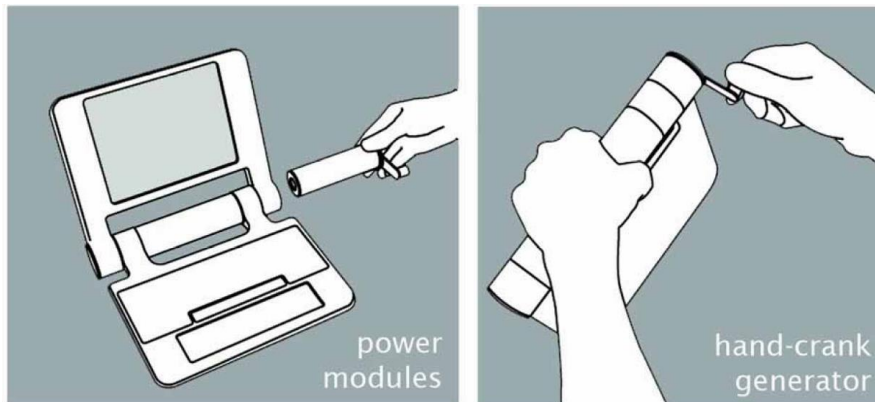
Laptop Mode



Frame Mode



EX1010, 7-8 see also EX1011, 2. A hand crank generator is located in the hinge assembly to provide power when electricity from a wall socket is not available (EX1010, 9):



See also EX1011, 3; EX1002, ¶94.

D. EX1020 – Hotelling

Hotelling was published on February 2, 2006 and therefore constitutes prior art under 35 U.S.C. ¶ 102(b). EX1020, 1.

Hotelling is directed toward gesturing associated with touch-sensitive devices including touchscreens. EX1020, ¶¶[0004], [0006]. Hotelling explains that a wide variety of input devices for performing operations on a computer system were in existence, including buttons, switches, keyboard, mice, trackballs, touch pads, joy sticks and touch screens, and that these operations generally correspond to moving a cursor and making a selection on a display screen. EX1020, ¶[0006]. These devices can be used in a variety of computer systems, including desktops, laptops, tablets, and hand-held computers. EX1020, ¶[0063]. An exemplary computing device with a display 68 and an input device 70 is shown in Fig. 1. EX1002, ¶95.

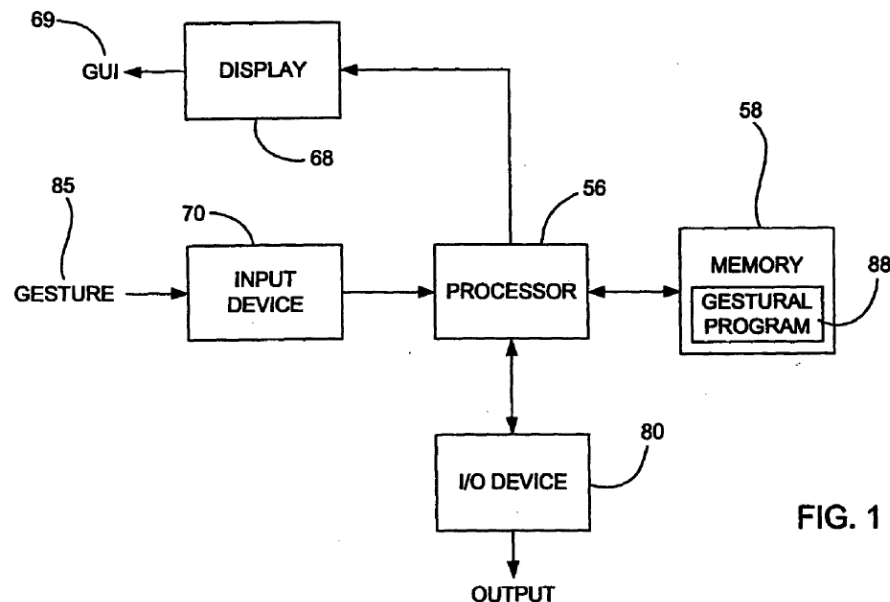


FIG. 1

In the computer system above, the input device can be a touchscreen or touch pad that recognizes touches as well as the magnitude and position of the

touches, and reports them to the processor 56 which interprets them. EX1020, ¶[0068]. The touch pad or touchscreen can be a single point device which can only recognize a single touch or a multi-point device capable of distinguishing multiple touches. *Id.* The display 68 is configured to display a graphical user interface, or GUI, 69 which can include a wide variety of graphical objects including windows, fields, dialog boxes, menus, icons, buttons, cursors and scroll bars. *Id.* The user can select an object such as an icon using the input device. *Id.*; EX1002, ¶96.

Hotelling contrasts the use of touch pads and touchscreens as the input device for a computer such as a laptop. With touch pads, the movement of the input pointer corresponds to the relative movements of the user's finger or stylus as the finger or stylus is moved along a surface of the touch pad. EX1020, ¶[0009]. Hotelling explains that a touchscreen offers advantages over a touchpad. With a touch screen, the user can make a selection on the display by simply placing a finger over the GUI objects on the screen. EX1020, ¶¶[0009], [0069]. In contrast, with touchpads there is no such one-to-one relationship: the display is typically located in a vertical plane while the touchpad is typically located in a horizontal plane, which makes the use of a touch pad more difficult when compared to touchscreens. EX1020, ¶[0069]; EX1002, ¶97.

E. EX1012 – Segawa

Segawa was published on August 17, 2006. EX1012, 1. Segawa therefore constitutes prior art under 35 U.S.C. §§ 102(a) and (b).

Segawa discloses a “folding type portable terminal” such as a PDA or mobile phone, with a first housing (also referred to as a shell) 2 having a main display 5a pivotally connected via a hinge mechanism 3 to a second housing/shell 1 with a plurality of dial keys 6 as shown in Figs. 2A and 3A below. EX1012, Title, ¶[0003], [0009]; EX1002, ¶98.

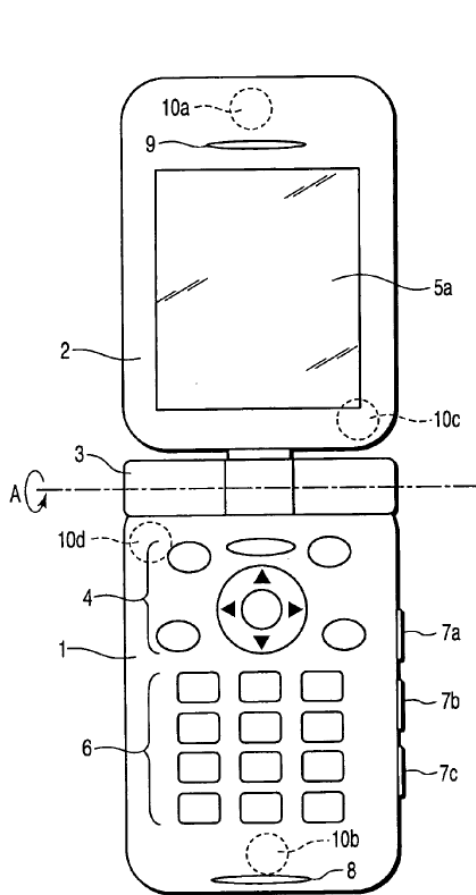


FIG. 2A

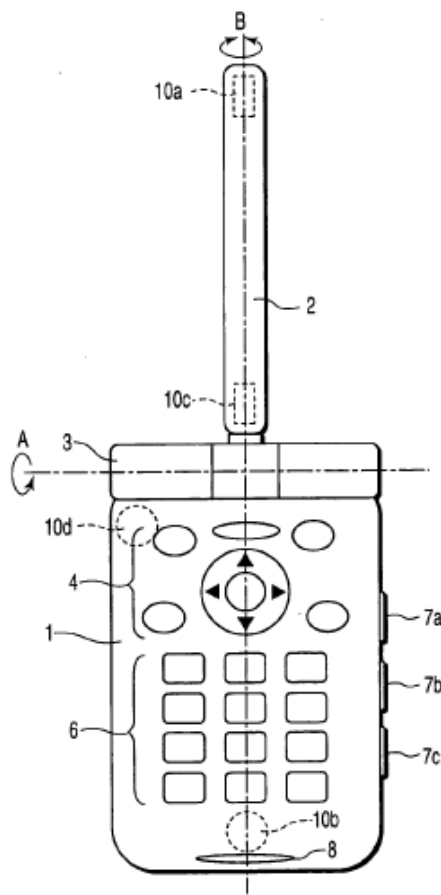


FIG. 3A

The portable terminal includes a TV tuner that receives a TV signal that can be displayed on the main display 5a. EX1012, ¶[0040]. Activation of the TV function on the main display 5a can be accomplished in an automatic mode and a manual mode. EX1012, ¶[0045]. In the automatic mode, the TV function is automatically activated and TV programs are displayed on the display 5a depending on the relative positions of shells 1, 2 with respect to each other as determined by sensors 10a-d within the shells. For example, the TV mode is automatically activated and displayed on the display 5 in the full screen mode when the shells 1,2 are opened to the 360 degree position shown in Figs. 5A and 5B below with the display screen 5 of the first shell 2 facing outward and the back of the first shell 2 covering the dial keys 6 of the second shell 1:

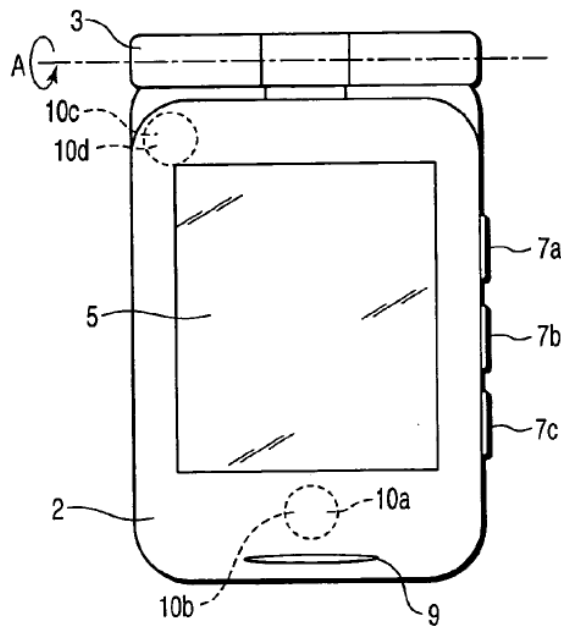


FIG. 5A

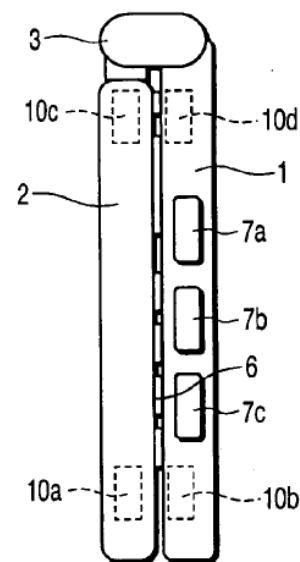


FIG. 5B

EX1012, ¶¶[0053]-[0054]; Figs. 5A, 5B and 7; EX1002, ¶99.

In addition to the automatic mode which controls the content of the display 5a in accordance with the relative positions of the shells 1,2, Segawa also discloses a manual mode that allows the user to cause activation of the TV mode and the display of TV content on the display 5a even if the shells 1,2 are the position shown in Fig. 2A (referred to in Segawa as the third state – EX1012, ¶[0060]). Segawa discloses that the user can activate the TV mode with the display 5 in a partial screen mode with the shells 1,2 in the third state via a menu selection. EX1012, ¶¶[0061]-[0062]. EX1002, ¶100.

VI. GROUND 1: CLAIMS 1, 3, 4, 7-10, 13, 14, 16, 18 AND 22 ARE OBVIOUS OVER THE COMBINATION OF LANE AND POGUE

Claims 1, 3, 4, 7-10, 13, 14, 16, 18 and 22 are unpatentable as obvious over Lane in view of Pogue as demonstrated below. A POSITA would have found it obvious to combine Lane and Pogue because Lane is directed toward a portable computer but does not specify an operating system. A POSITA would have understood that an operating system is an expected component to operate a pen-based or laptop computer such as those disclosed in Lane, and would have found it obvious to include an operating system in Lane's computer. E.g. EX1006 at 3:5-14; 7:30-8:23. Lane also discloses that his device has associated software. EX1006 at 5:36. A POSITA would have been motivated to select a Windows operating system due to market forces because, prior to and at the time of the

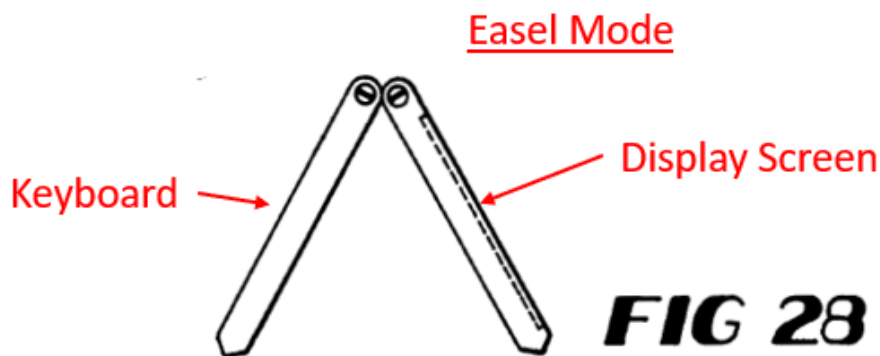
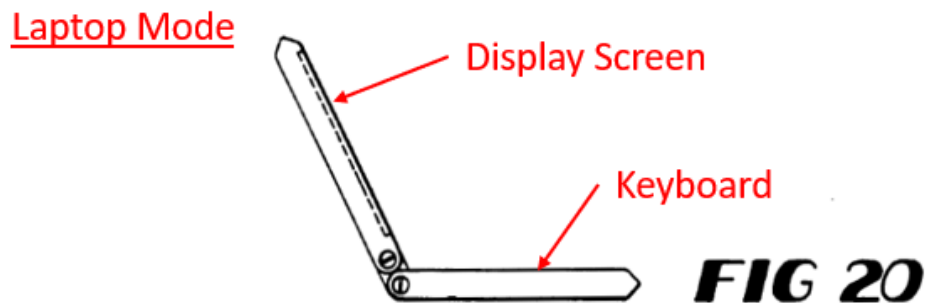
claimed 2008 priority date of the 844 patent, Windows was the most widely used operating system for personal computers including portable personal computers such as laptop computers, and the Windows XP Pro version of that operating system as described in Pogue (EX1007) was in widespread use. EX1002, ¶ 101. A POSITA would have had a reasonable expectation of success in making this combination as Windows XP Pro was widely used and explicitly specified minimum and recommended hardware requirements. EX1007, 632. A POSITA would have been motivated to configure Lane's laptop to satisfy these requirements because the ability to run Windows operating systems would have been viewed as necessary for commercial acceptance of such a portable computer. Lane's computer running the XP Pro operating system as taught in Pogue discloses and/or renders obvious each claim challenged in this Ground 1 as explained in detail below. EX1002, ¶101.

A. Claims 1, 10 and 18

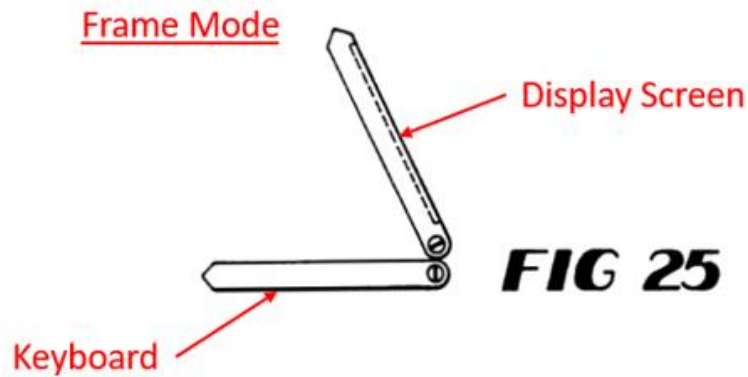
- 1. [1pre], [10pre], [18pre] A portable computer configurable between a plurality of display modes including a laptop mode and an easel mode wherein transitions between the plurality of display modes allows an operator to interact with a single display screen in each of the plurality of display modes, the portable computer comprising:**

To the extent that the preamble is limiting, Lane discloses it and/or renders it obvious. Lane discloses a portable computer 10 that is configurable between a

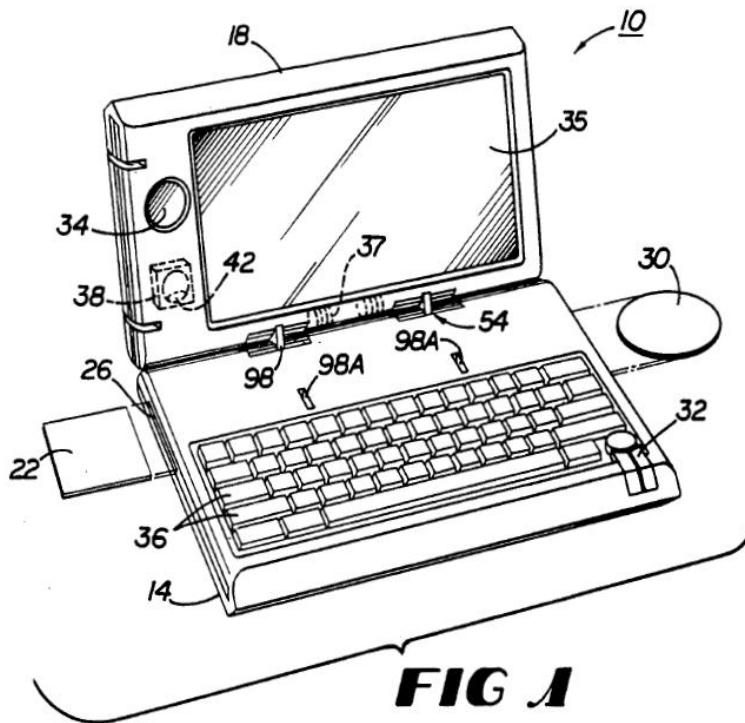
plurality of display modes, including a laptop mode and an easel mode as shown in the annotated versions of Figures 20 and 28 below:



EX1006, 10:10-31; *see also* 5:1-22, 8:2-15, and Figs. 1, 6 and 8. Lane further discloses the use of one or more torque generating devices 37, such as a spring, to maintain the position of the second module 18 relative to the first module 14 when the portable computer 10 is in use. Lane, 5:19-22. To the extent that the plurality of modes further includes a frame mode, Lane discloses a frame mode in Fig. 25 (annotations added); *see also* limitations [1h], [10h] and [18h]. EX1002, ¶102.



Lane's portable computer 10 includes a single display screen 35 in the display module 18:



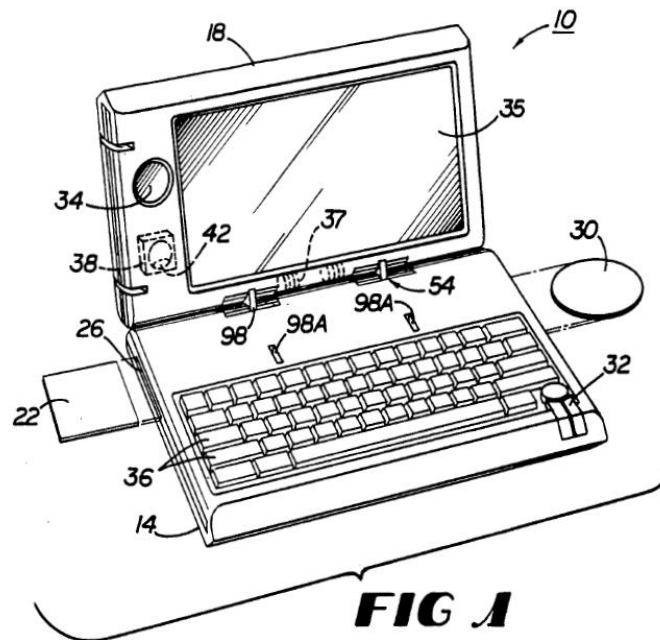
EX1006, 5:1-15; *see also* 2:33-3:1. A user is able to interact with Lane's display screen 35 in each of the laptop and easel modes (as well as the frame mode and

other modes) because Lane discloses that display 35 can be used for pen-based computing. EX1006 at 3:5-14, 8:15-19; 10:10-31. A POSITA would have understood this to mean display 35 is a touchscreen or equivalent. EX1002, ¶103. Alternatively, it would have been obvious to a POSITA to use a touchscreen for enabling pen-based computing as disclosed by Shimano. EX1008, 1:25-53 and 3:66-4:18. A POSITA would have understood, or at least have found obvious, that the touchscreen and pen-based computing would be operable in all configurations of the computer 10, including the laptop, easel and frame modes, because the use of a touchscreen rather than a keyboard for not only handwriting but also other user-computer interactions such as icon and menu selection operations was well-known at the time of the 844 priority application even for portable computers that have a keyboard. EX1002, ¶103; EX1015 (Kurtenbach), 2:41-64 (discussing display interactions on screen of personal/portable computers with keyboards and touchscreen displays), 2:65-4:5 and Figs. 1-4 (discussing menu selections via display screen on such computers). A POSITA would have had a reasonable expectation of success in so doing because enabling the touchscreen and pen-based computing in all configurations of the computer 10 was a simple design choice that involved no more than ordinary skill in the art. EX1002, ¶103.

2. [1a], [10a], [18a] a base including a keyboard;

Lane discloses this limitation. Lane discloses a portable computer 10 with a first module 14 that constitutes a base and includes a keyboard with keys 36.

EX1006, 5:4-6; EX1002, ¶104.



3. [1b] a main display component rotatably coupled to the base

[10b] a main display component rotatably coupled to the base and including the single display screen which displays content;

[18b] a main display component including the single display screen configured to display content;

Lane discloses and/or renders obvious this limitation. Lane discloses a portable computer 10 with a second module 18 that includes a single display screen

35. EX1006, 5:1-15; 2:33-3:1 and Figs. 1, 5-9. The second module 18 is therefore a main display component. The main display component/second module 18 is rotatably coupled to the first module 14 (the base) via connectors 54. EX1006, 6:7-12. The connectors 54 allow the first and second modules 14, 18 to rotate with respect to each other as shown in Figs. 5-9. EX1006, 7:30-8:23; *see also* Figs. 19-21, 25 and 27-28, and the analysis for limitations [1c], [10c] and [18c] below. The single display can display information to the user. EX1006 5:35-6:6; EX1002, ¶105.

4. **[1c] such that the main display component and the base are rotatable with respect to one another about a longitudinal axis running along an interface between the main display component and the base to transition between at least the laptop mode and the easel mode, the main display component including the single display screen,**

[10c] a hinge assembly disposed at least partially within the base and the main display component that defines an axis of rotation about which both the base and the main display component are rotatable to transition the portable computer between at least the laptop mode and the easel mode,

[18c] a hinge assembly disposed at least partially within the base configured to rotatably couple the main display component to the base, the hinge assembly defining a longitudinal axis running along an interface between the display component and the base about which the display component and the base are rotatable to transition the

**portable computer between at least the laptop mode and the
easel mode,**

Lane discloses and/or renders obvious these limitations. Lane discloses a hinge assembly including two connectors 54 that can be permanently attached to the second (display) module 18 and that clamp onto an axle 102 located in the first (base) module 14 as illustrated in Figs. 3 and 4. Lane, 6:25-36.

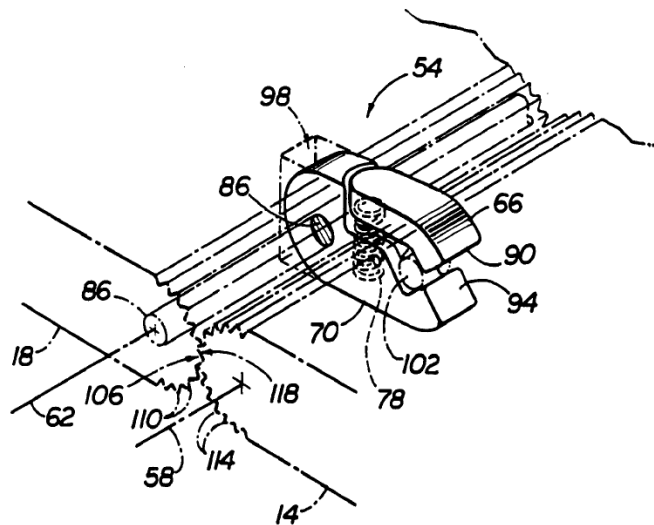


FIG 3

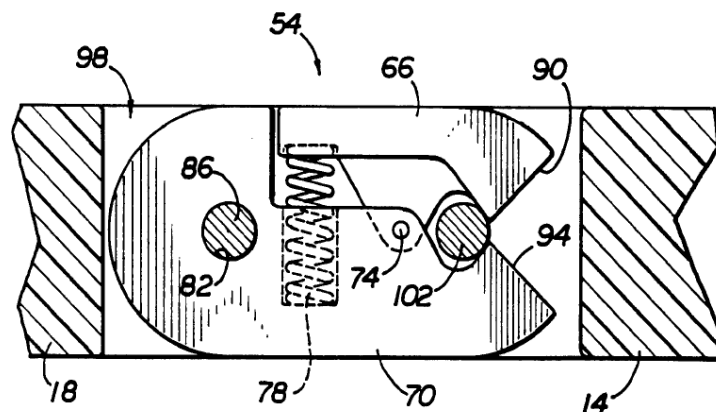
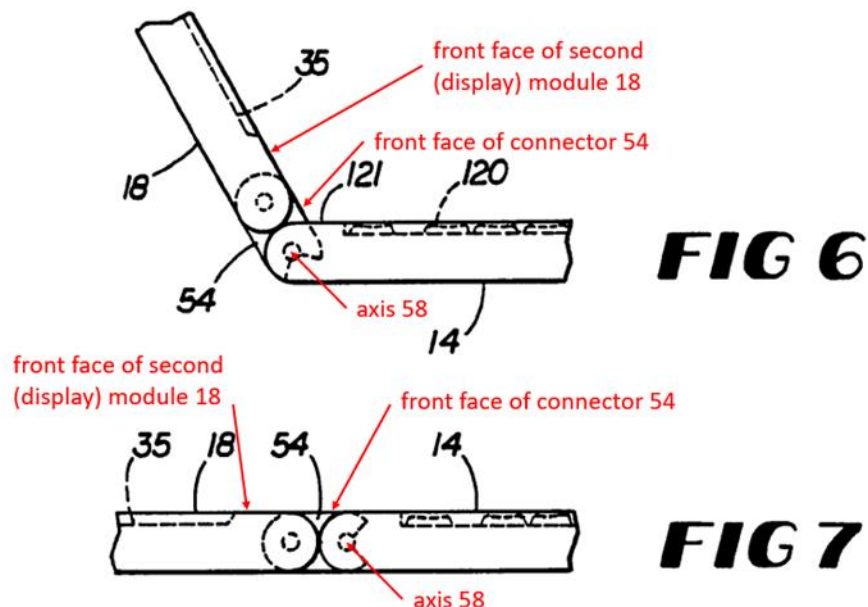


FIG 4

The hinge assembly couples the first module 14 (the base) and second module 18 (the display component) together. The connectors 54 of the hinge assembly extend partially into the first (base) module 14 as shown in Figs. 3 and 4, and the axle 102 is located in the first (base) module 14. The hinge assembly couples the first (base) module 14 and second (display) module 18 together. Lane, 6:32-7:2; EX1002, ¶106.

The axle 102 defines an axis of rotation 58 (see Fig. 3 above) that constitutes the claimed “longitudinal axis.” The axle 102/axis of rotation 58 runs along the interface of the first and second modules 14, 18 and about which second (display) module 18 may rotate. This can be seen by comparing the annotated versions of Figs. 6 and 7 below.



In both figures, the front face of the connectors 54 are parallel to the front face of the second (display) module 18. In Fig. 6 (depicting the laptop mode), the second (display) module 18 as well as the connectors 54 are at an angle between 90 degrees and 180 degrees with respect to the first (base) module. In contrast, in Fig. 7, the second (display) module 18 and the connectors 54 are at an angle of 180 degrees with respect to the first (base) module. This indicates that, as between Figs. 6 and 7, the second (display) module 18 and the connectors 54 have rotated about the axis 102 defined by the axis 102 in the first (base) module. EX1002, ¶107. That the second (display) module 18 is not rotating about the axis 58 and not the axis 62 defined by axle 86 (see Fig. 3 above) is consistent with Lane’s claim 4, which recites “means for hindering the second electronic module from rotating about the second axis of rotation.” EX1002, ¶107.

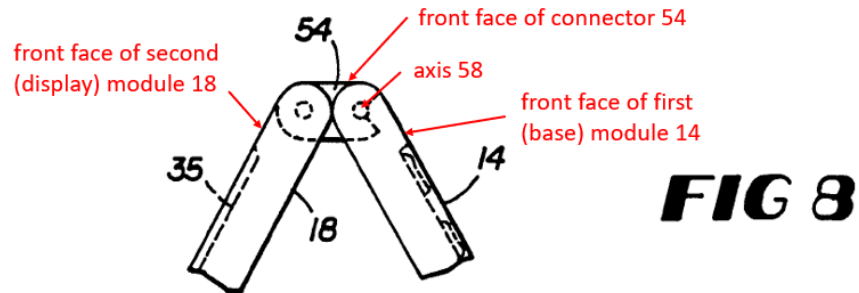
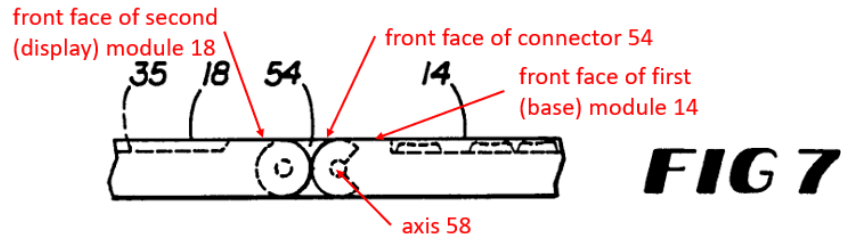
Moreover, the teeth 110, 114 shown on the first and second modules in Fig. 3 above do not preclude such rotation of the second module 18 about the axis 58 in the first module 14 for at least two reasons. First, the teeth 110, 118 are optional. EX1006, 7:3-7 (“second module 18 *may* also include teeth 110 . . . ***If present***, teeth 110 and 114 . . .”) (emphasis added).² Second, the connectors 54 allow the first

² In embodiments without teeth, Lane discloses the use of two torque generating devices 37, such as springs, that work (together with friction) to maintain the

and second modules 14, 18 to be separated, and thus would allow those modules to be pulled apart a slight distance to separate the teeth 110, 114 to allow such rotation of the second module 18 about the axis 58. Lane, 6:26-36 (explaining that connector 54 of Fig. 4 includes a moveable leg 66 that pivots about a pin 74 to allow the connector 54 to detach from axle 102) and 10:32-11:16 (discussing detachability of modules 14 and 18); EX1002, ¶108.

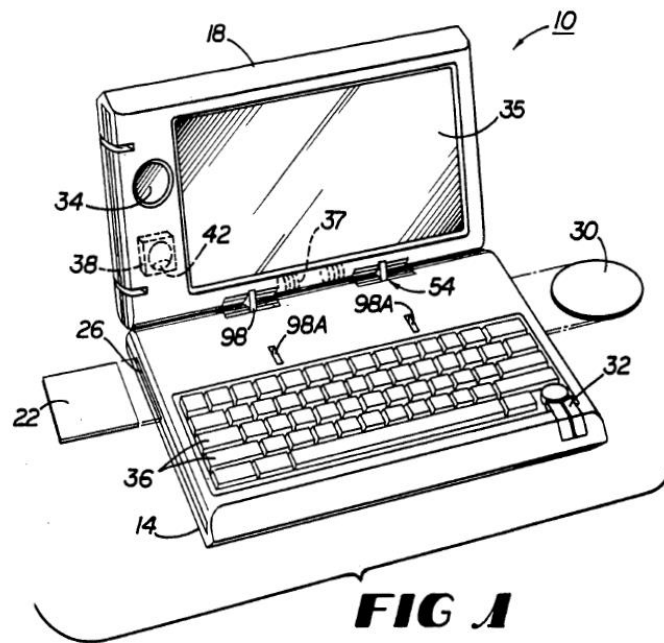
The first (base) module 14 also (in addition to the second module 18 as discussed above) rotates about the axis 58 defined by the axle 102 in the first (base) module 14. This can be seen by comparison of the annotated versions of Figs. 7 and 8 below. In Fig. 7, the front faces of both the first and second modules 14, 18 are parallel to the horizontal front face of connector 54. In Fig. 8, which depicts the easel mode, both the front faces of both the first and second modules 14, 18 are rotated downward with respect to the horizontal front face of connector 54. This indicates that, as between Figs. 7 and 8, the first (base) module 14 has rotated about the axis 58 defined by the axle 102 in first module 14. EX1002, ¶109.

portable computer in any of the configurations shown therein, including the laptop, easel and frame modes. Lane, 5:19-22 and 7:6-12; EX1002, ¶108, n. 2.



Thus, as the portable computer 10 transitions from the laptop mode of Fig. 6 through the mode of Fig. 7 to the easel mode of Fig. 8, both the second (display) module 18 and the first (base) module 14 rotate about the axis 58 defined by the axle 102 in the first (base) module 14. That the second (display) module 18 also rotates about a second axis 62 defined by axle 86 in that module does not preclude an unpatentability determination in this IPR because the challenged claims are not limited to a single axis of rotation as discussed above in Section III.F.5. EX1002, ¶109.

With respect to limitation [1c], Lane's second module 18/main display component includes a single display screen 35 as shown in Fig. 1. EX1002, ¶110.



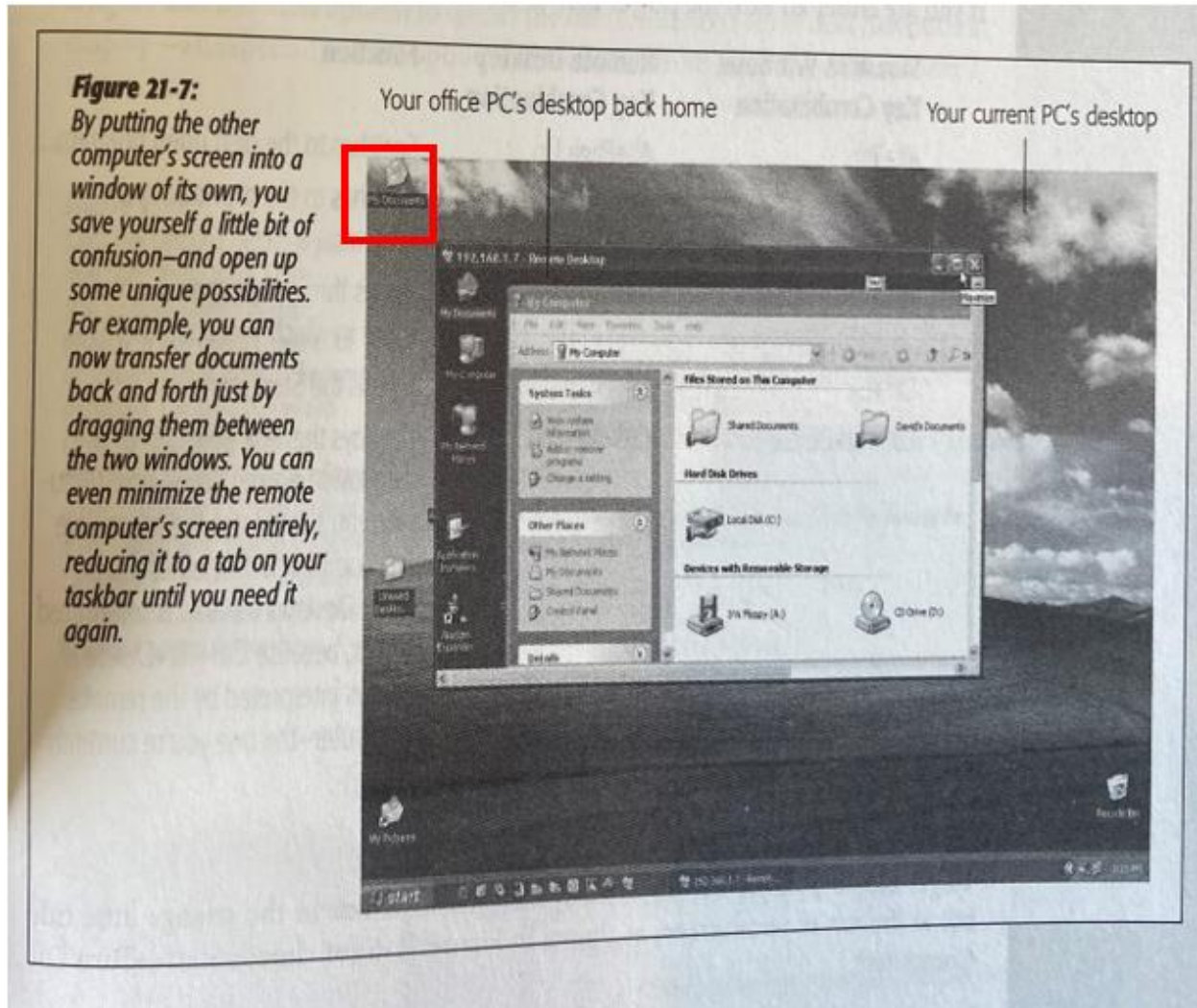
5. [1d], [10d], [18d] wherein the transition between the laptop mode and the easel mode allows the operator to operate the portable computer while viewing the single display screen in each of the plurality of display modes, wherein

Lane discloses and/or renders obvious this limitation. As discussed above for limitations [1pre], [10pre] and [18pre], Lane discloses and/or renders obvious that display screen 35 is a touchscreen. As shown in Figs. 6 and 8 above, the display/touchscreen 35 is accessible and viewable by the user in both the laptop (Fig. 6) and easel (Fig. 8) modes as well as the frame mode (Fig. 25). As discussed above for limitations [1pre], [10pre] and [18pre], a POSITA would have understood or found obvious that the touchscreen was active for user interactions in each of the plurality of display modes including the laptop, easel and frame modes. Thus, transitioning Lane's portable computer 10 from the laptop mode to

the easel mode allows the user/operator to operate the portable computer 10, i.e., by pressing the touchscreen, during that transition. The user can also operate the portable computer 10 during a transition to frame mode. EX1002, ¶111.

6. **[1e], [10e], [18e] the laptop mode is configured to display to a user on the main display component a first content mode having a first content display orientation with the main display component oriented towards the user and the keyboard oriented to receive input from the user;**

Lane discloses a laptop mode as discussed above for limitations [1pre], [10pre] and [18pre], but is silent as to what content is displayed on the display/touchscreen 35 when in this configuration and therefore does not disclose the display of first or second content modes. However, Pogue discloses the display of first and second content modes as those terms are construed above. Pogue discloses a “My Documents” folder icon that a user may choose to add to the desktop that constitutes a first content mode. EX1007 at 23, 264, and 625 (illustrating desktop with My Documents folder icon visible in upper left hand corner):



Pogue further discloses that some users prefer the classic Windows desktop and that Windows XP can be configured to default to the classic desktop with the display of the “My Documents” folder icon. EX1007, 25. Clicking the “My Documents” folder icon on the desktop results in a display of documents, each of which can be clicked on to open in an appropriate application such as Microsoft Word. EX1007, 32 (showing My Documents icon selected and window with list of documents in My Documents folder), 112 and 152 (discussing opening an item in a folder by double-clicking on it); EX1002, ¶112.

Displaying the “My Documents” icon on the classic desktop as disclosed in Pogue constitutes “displaying some information that represents a higher-level construct into which content is grouped” pursuant to the construction of this term discussed above in Section III.F.2. Thus, the display of the “My Documents” folder icon on the desktop of Windows XP constitutes the display of a first content mode. Because Pogue discloses setting the classic desktop as the default desktop, Pogue also discloses the display of the classic desktop and the “My Documents” folder icon in the laptop mode. EX1002, ¶113. In the laptop mode, the desktop and “My Documents” icon will be displayed in a first content display orientation. A POSITA would have understood that this orientation would be such that the top of the content depicted on the display 35 would be opposite the side of the display 35 closest to the connectors 54 and axis 58. EX1002, ¶113.

7. **[1f], [10f], [18f] the easel mode is configured to display to the user on the main display component a second content mode having a second content display orientation with the main display component oriented towards the user and the keyboard oriented away from the user, wherein the first and second content display orientations are 180 degrees relative to each other, and wherein the portable computer is operable in the easel mode to enable the user to interact with displayed content without interacting with the keyboard; and**

Lane discloses the easel mode. See limitations [1pre], [10pre] and [18pre] above. With respect to the second content mode, see limitations [1f], [10f], [18f] above. Pogue discloses a second content mode in the form of a “My Pictures”

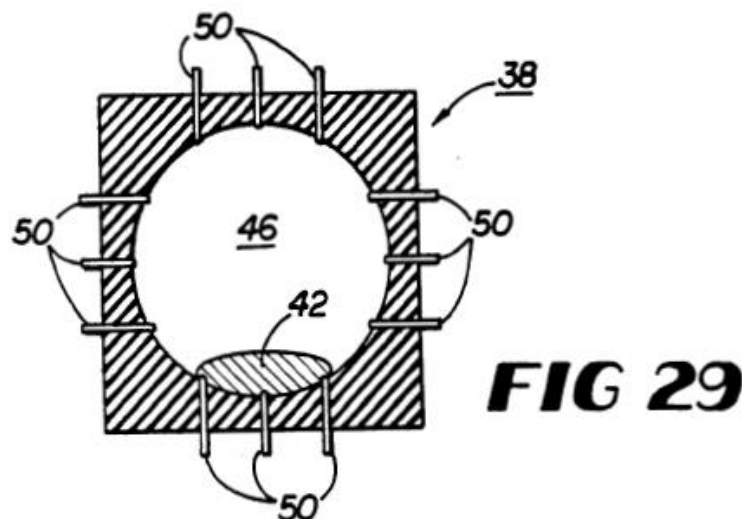
folder shortcut icon. EX1007 at 55 (discussing My Pictures folder) and 625 (showing My Pictures shortcut icon in lower left-hand corner of desktop):



See also EX1007 at 130-131 (discussing creating shortcut icon on desktop), EX1002, ¶114. Alternatively, Pogue discloses a second content mode in the form of a “My Network Places” folder icon. EX1007, 23. Like the My Documents folder of the first content mode, the display of the My Network Places folder icon on the desktop could be manually enabled (*id.* at 23) or enabled automatically as a result of selecting the classic start menu (*id.* at 23). The My Network Places icon

allowed a user to navigate to content in folders on other computers connected to the network to which the user's computer was connected. EX1007, 53 and 579-83; EX1002, ¶114.

A POSITA would have found it obvious to configure Lane's portable computer 10, when in the easel mode, to display Pogue's classic desktop with the "My Photos" icon and/or the "My Network Places" icon in the display 35 such that the top of the desktop is on the side of the display 35 nearest to the connectors 54 (i.e., in an orientation rotated 180 degrees with respect to the display of the desktop in the laptop mode). EX1002, ¶115. A POSITA would recognize that Lane's position indicating mechanism 38 includes 4 sets of conductors 50 as shown in Fig. 4:



EX1005, 5:32-6:6. A POSITA would further have recognized that these four sets of conductors 50, spaced around the periphery of the mechanism 38, would allow

the position indicating mechanism 38 to determine, at a minimum, orientations of 0, 90, 180 and 270 degrees relative to gravity. EX1002, ¶115.

Lane explicitly discloses using the position indicating mechanism 38 to change the orientation of the display from landscape to portrait, which constitutes rotating the display by either 90 or 270 degrees. EX1006, 5:37-6:3. While Lane does not explicitly disclose rotating the display by 180 degrees, a POSITA would have found it obvious to do so as a POSITA would have been motivated to make the display more convenient for the user to view in the easel mode of Figs. 8 and 28, particularly since the position indicating mechanism provides the ability for the portable computer 10 to recognize when the second module 10 is in the inverted (i.e., 180° opposite) vs. normal position with respect to gravity. EX1002, ¶116.

To the extent that rotating the display by 180 degrees when transitioning between the laptop and easel modes would not have been obvious in view of Lane and the knowledge of a POSITA, a POSITA would have found it obvious to do so in view of disclosures in prior art documents to do exactly that. Example of such disclosures in prior art documents including: (1) the disclosure in a patent granted to Wehrenberg of detecting a change in an orientation of a laptop or tablet based on information from an accelerometer and adjusting an orientation of a document displayed on the device such that the orientation of the document is relatively identical to its previous orientation before the device's orientation was changed

(EX1009, ¶[0067] and Fig. 4), and (2) the disclosure in a patent granted to Välikangas that a laptop display needs to be inverted when laptop is in the 844 patent's easel mode (EX1016, 1, 5, Figs. 1 and 4A). EX1002, ¶117.

It would have been obvious to a POSITA to configure Lane's portable computer so that the touchscreen 35 on the second module 14 is operable for user-computer interactions in all configurations/display modes, including the easel mode, for the reasons discussed above. See limitations [1pre], [10pre] and [18pre]. EX1002, ¶118.

8. **[1g] a navigation control disposed at least partially within the base and rotatable about the longitudinal axis, the navigation control configured to permit a user to control at least one of operating parameters of the portable computer and content displayed on the single display screen**

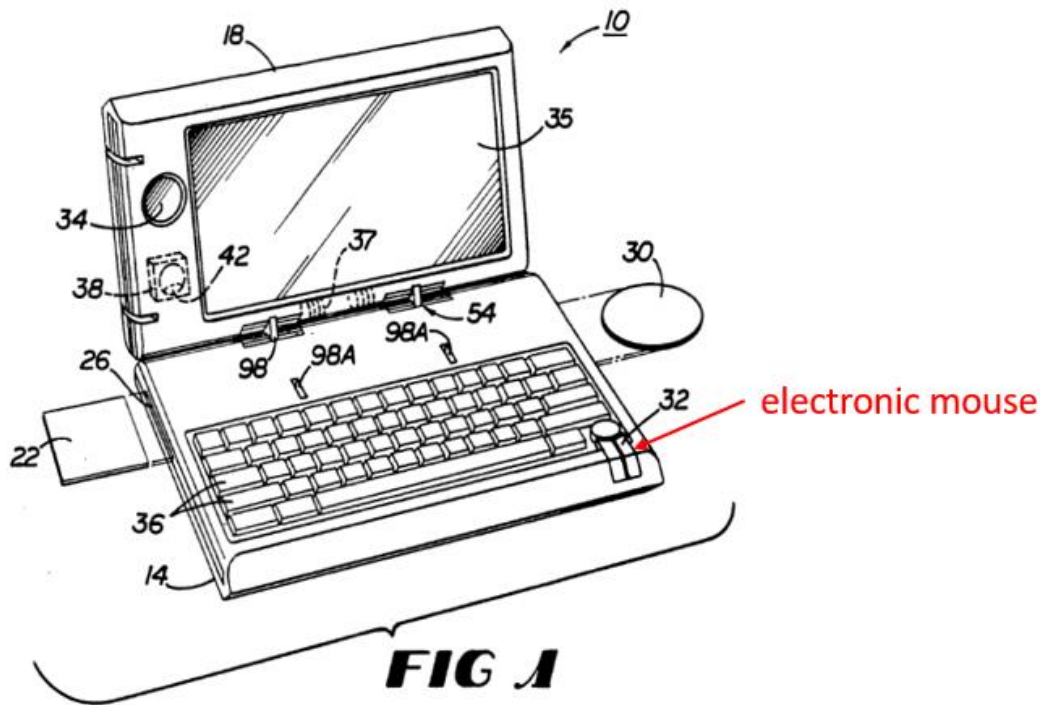
[10g] a navigation control accessible in each of the plurality of display modes and configured to permit a user to manipulate at least one of operating parameters of the portable computer and the content displayed on the single display screen

[18.g] a navigation control disposed at least partially about the longitudinal axis

The combination of Lane and Pogue render these limitations obvious. To the extent that [1g] and [18g] do not require the navigation control to be “accessible in *each* of the plurality of display modes” as recited in [10g] (emphasis added), the combination of Lane and Pogue render obvious an electronic mouse which constitutes a “navigation control” as required by limitations [1g] and [18g].

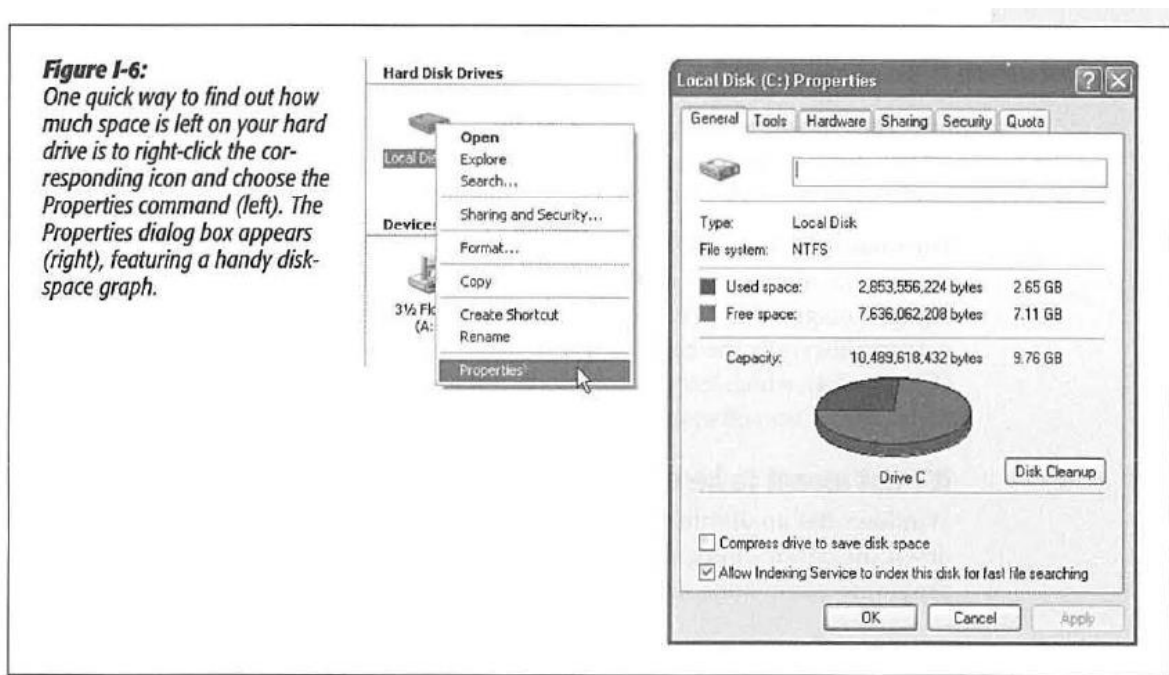
Additionally, the combination of Lane and Pogue render obvious a touchscreen, which constitutes a “navigation control” as required by limitations [10g] and [18g]. EX1002, ¶119.

Electronic Mouse ([1g], [18g]): Lane discloses “an electronic mouse 32 adapted to convert manual pressure to electronic signals capable of moving a cursor about the visual display 35 provided by the second module 18” that is disposed in the first module 14 (the base). Lane at 5:10-15 and Fig 1; *see also* limitations [1pre], [10pre] and [18pre] above.



Shown in Fig. 1 as part of electronic mouse 32, below the pressure pad used to move the cursor, are two buttons which a POSITA would have recognized as the left and right buttons for the electronic mouse 32 by which a user can right click or

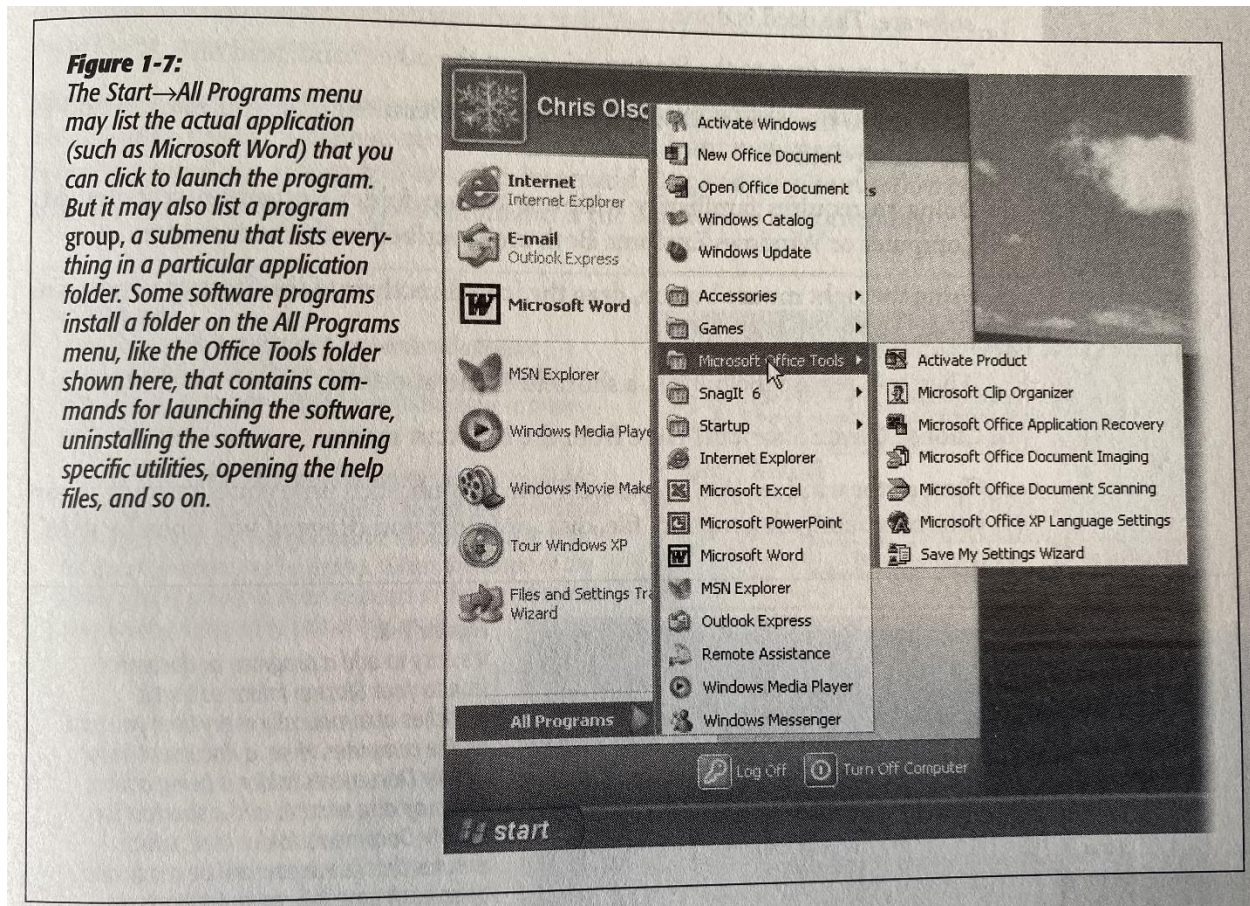
left click on a graphic item such as an icon. Lane does not explicitly disclose use of the electronic mouse 32 by a user to “control at least one of operating parameters of the portable computer and content displayed on the single display screen.” However, Pogue discloses the use of a mouse to control operating parameters of the portable computer. For example, Pogue discloses that adjusting the settings of a particular element of the computer, such as the hard drive, can be accomplished using the mouse by right-clicking on the corresponding icon, which causes a dialog box to appear as shown in Figure I-6, with a setting that can be clicked on to control parameters such as compressing the drive or allowing an indexing service to index the drive for fast search. Pogue at 9-10. EX1002, ¶120.



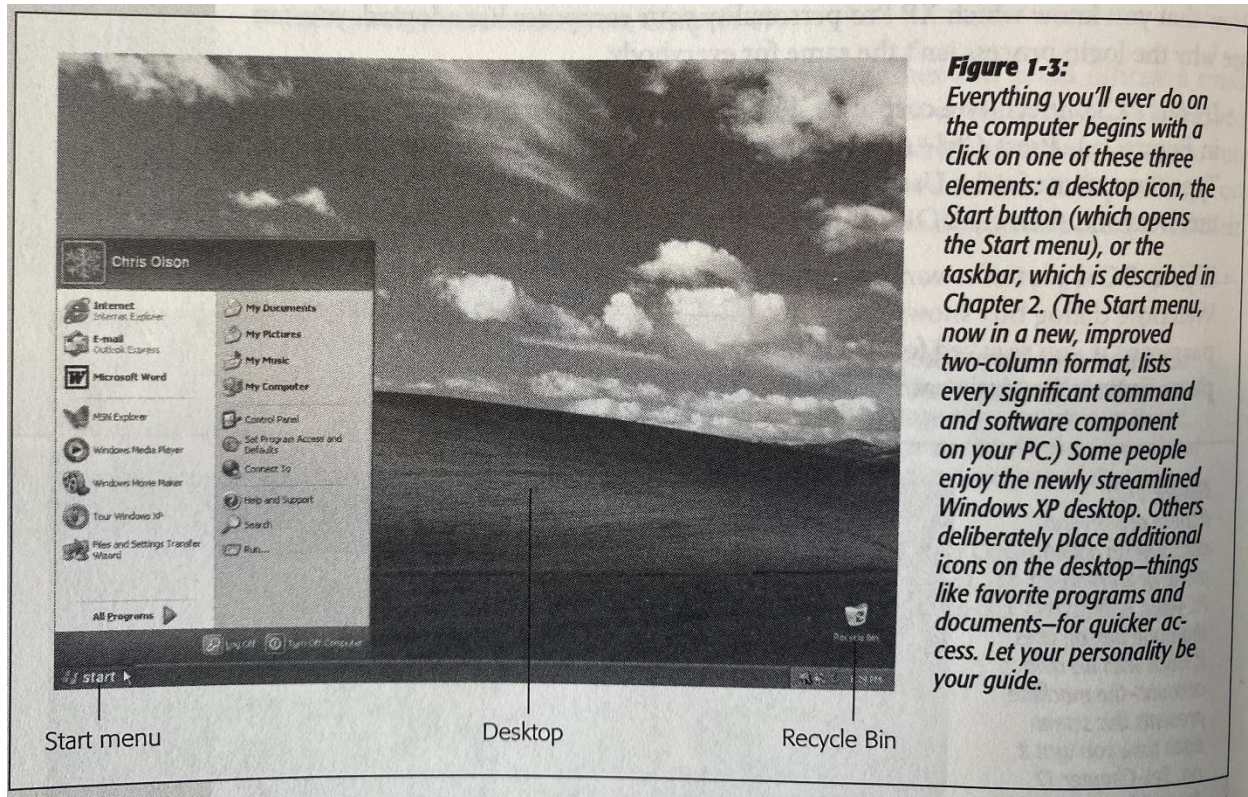
Pogue also discloses the use of a mouse to control content displayed on a display screen. For example, Pogue discloses using a mouse to launch applications from

the “Start” menu by using a mouse to click on “All Programs” option and then navigating to a desired program such as Microsoft Excel or Microsoft Word.

Pogue at 31 and Fig. I-7; EX1002, ¶121.



Pogue further discloses that the left mouse button can be used to click buttons, highlight text, and drag things around the screen, and that the right mouse button can be clicked on to, e.g., open a shortcut button. Pogue at 31 and Fig. I-7; EX1002, ¶122.



With respect to [18g], the electronic mouse 32 is part of the base and is therefore disposed about the longitudinal axis defined by axis of rotation 58 as are all portions of the base that are spaced apart from the longitudinal axis/axis of rotation 58 (see limitation [18c]). EX1002, ¶123.

Touchscreen ([10g], [18g]): Lane discloses or at least renders obvious that the display 35 in the second module 18 is a touchscreen. See limitations [1pre], [10pre] and [18pre] above. As discussed above, it would have been obvious that the touchscreen and pen-based computing would be operable in all configurations of the computer 10, including the laptop, easel and frame modes. *Id.* A

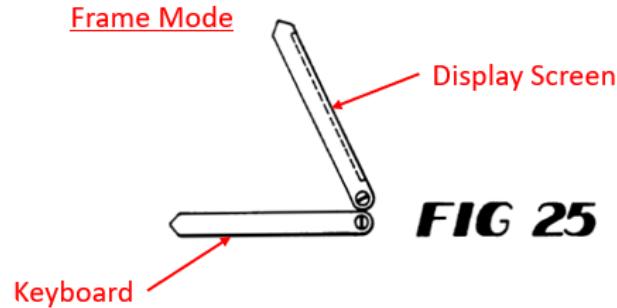
touchscreen satisfies the “navigation control” limitations [1g] and [10g]. Section III.F.4. EX1002, ¶124.

With respect to [10g]’s “accessible in each of the plurality of display modes” requirement, the touchscreen/display 35 is accessible to a user in each of the display modes including the laptop mode, the easel mode and the frame mode. *See, e.g.*, EX1006 at 10:10-31, Figs. 6, 8, 20, 25 and 28 and limitations [1pre], [10pre] and [18pre]. EX1002, ¶125.

With respect to [18g], the touchscreen/display 35 is part of the main display component which in its entirety is disposed and rotatable about the longitudinal axis defined by axis of rotation 58 (*see* limitations [18b] and [18c]). EX1002, ¶126.

9. [1h], [10h], [18h] wherein the plurality of modes includes a frame mode in which the main display component is oriented towards the operator, the base contacts a substantially horizontal surface, and the keyboard faces the substantially horizontal surface.

Lane discloses a frame mode as shown in Fig. 25 below (annotations added):



In this mode, the display screen of the second module 15 is oriented toward the operator, and the first (base) module 14 faces downward and is in contact with a substantially horizontal surface (not shown in Fig. 25) upon which the portable computer is placed, with the keyboard facing that substantially horizontal surface.

EX1006, 10:24-31; EX1002, ¶127.

B. Claims 3 and 13

1. **[3] The portable computer of claim 1, further comprising a first navigation button disposed on one of the base and the display component and configured to permit the user to manipulate selected content displayed on the screen.**

[13] The portable computer of claim 10, further comprising a first navigation button user-accessible in each of the laptop mode and the easel mode, and configured to permit the user to manipulate selected content displayed on the screen.

The combination of Lane and Pogue render these claims obvious. Lane and Pogue render claims 1 and 10 obvious for the reasons discussed above. With respect to the additional limitations of claim 3 and 13, each of the right arrow, left

arrow, up arrow, down arrow, enter, home and end keys of Lane’s keyboard constitute “navigation buttons.” EX1002, ¶128.

With respect to claim 3, Lane does not explicitly disclose that any key of the keyboard permits a user to manipulate selected content displayed on the screen. However, Pogue discloses “Keyboard Shortcuts” which allow a user to interact with content using various keyboard keys such as the right and left arrow keys, which will collapse or expand a highlighted folder, the up and down arrow keys, which allow a user to “walk” up and down the list of items in a folder, and the home and end keys, which highlight the first or last icon in a folder list. The enter key can be used to open a selected item. EX1007, 114; EX1002, ¶129.

With respect to claim 13, each of these keys is user-accessible in the laptop and easel³ modes. Lane, Figs. 1, 6, 8, 20 and 28; *see also* limitations [1pre],

³ The 844 patent characterizes the keyboard 106 as accessible on the side of the computer opposite the display in the easel mode. EX1001, 7:59-61. The discussion of the keyboard not being easily accessible in the easel mode at 16:25-27 is not contrary because the keyboard is still accessible in the easel mode even if not easily so. EX1002, ¶130, n. 3. Thus, to the extent this disclosure in the 844 patent qualifies the keyboard 106 as “user-accessible” within the meaning of claim 13, so too is Lane’s keyboard when Lane’s portable computer 10 is in easel mode.

[10pre] and [18pre] above. Moreover, while Lane does address whether the keys 36 of the keyboard of the first module are operable in either the laptop or easel mode, a POSITA would have understood that these keys are operable in the laptop mode and would further have understood that they should be active in the easel mode as doing so would allow a user to, e.g., navigate in content using a page up or page down key. EX1002, ¶130.

Each of the right arrow, left arrow, up arrow, down arrow, enter, home and end keys therefore constitutes a navigation control as recited in these claims. EX1002, ¶131.

C. Claims 4 and 14

The combination of Lane and Pogue render these claims obvious. Lane and Pogue render claims 1, 3, 10 and 13 obvious for the reasons discussed above. EX1002, ¶132.

- 1. [4pre], [14pre] The portable computer of claim [3/13], wherein the screen is configured to display at least one of a plurality of modes of content; and**

Pogue discloses this limitation. Pogue discloses the display of first and second modes of content in the form of the My Documents, My Pictures and My Network Places folder and shortcut desktop icons. See limitations [1e], [10e], [18e], [1f], [10f] and [18f] above. EX1002, ¶133.

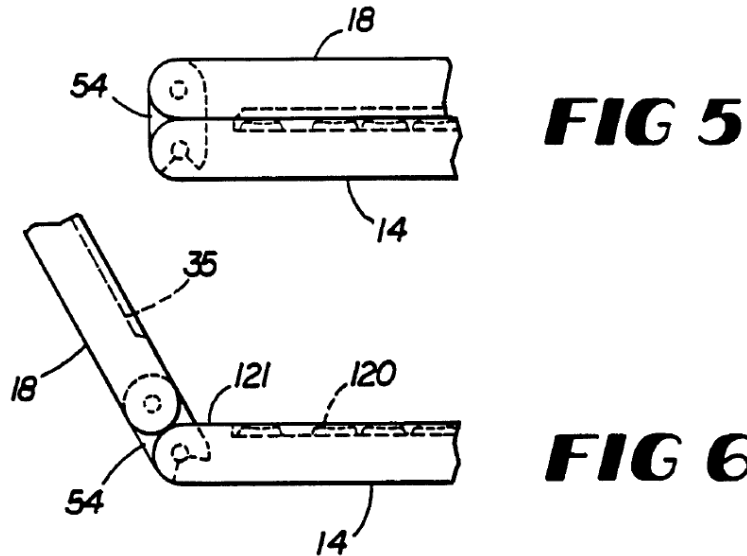
2. **[4a], [14a] wherein the first navigation button is configured to permit the user to select for display one of the plurality of modes of content.**

The combination of Lane and Pogue renders this limitation obvious. Pogue discloses that the arrow keys can be used to move from one desktop icon to another in order to select a desired desktop icon. EX1002, ¶134.

D. Claim 7

1. **[7a] The portable computer of claim 1, wherein rotating either the display component or the base component about the longitudinal axis up to approximately 180 degrees from a closed mode in which the screen is disposed substantially against the base configures the portable computer into the laptop mode; and**

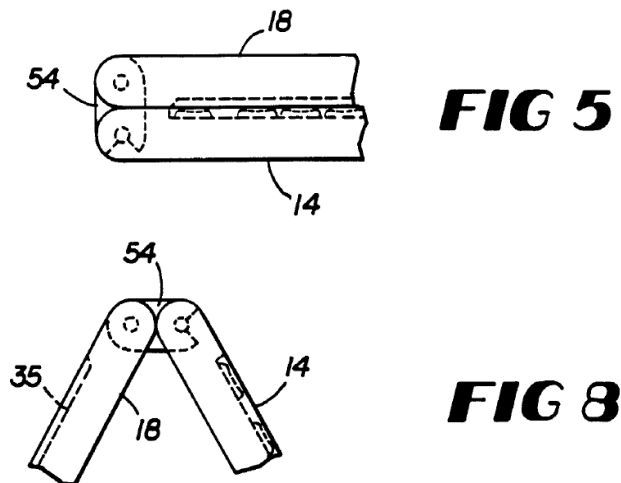
Lane and Pogue renders claim 1 obvious for the reasons discussed above. See limitations [1pre], [10pre] and [18pre], and [1c], [10c], and [18c]. Rotating Lane's second/display module 18 from a closed mode to an angle of approximately 135 degrees with respect to the first/base module 14 configures the portable computer into the laptop mode as shown in Figs. 5 and 6 below (EX1002, ¶135):



2. [7b] wherein rotating either the display component or the base about the longitudinal axis beyond approximately 180 degrees from the closed mode configures the portable computer into the easel mode.

See limitations [1pre], [10pre] and [18pre], and [1c], [10c], and [18c].

Rotating Lane's first or second display modules 14, 18 from the closed mode to an angle of approximately 320 degrees configures the portable computer into the easel mode as shown in Figs. 5 and 8 below (EX1002, ¶136):



- E. [8] The portable computer of claim 1, wherein the frame mode is configured to display to a user on the main display component the first content mode having the first content display orientation.**

See limitations [1e], [10e], and [18e]. EX1002, ¶137.

F. Claim 9

- 1. [9] The portable computer of claim 1, wherein the portable computer is configured to prevent the portable computer from responding to keyboard input when the portable computer is in the frame mode.**

Lane and Pogue render claim 1 obvious for the reasons discussed above.

Lane discloses using the position-indicating mechanism 38 to determine, inter alia, “whether to render keys 36 of the first module 14 inoperable when unused.”

EX1006, 5:23-6:6. Lane also discloses the frame mode in Fig. 25. See limitations [1h], [10h], [18h]. Because the keyboard is facing a horizontal surface on which the portable computer rests in the frame mode, a POSITA would understand that the keys 36 of the first module are unused in the frame mode and would therefore have understood that Lane teaches, or at least renders obvious, rendering the keys 36 in operable in frame mode. A POSITA would further have understood and/or found obvious that rendering keys inoperable prevents them from responding to undesired keyboard input when in frame mode. EX1002, ¶138.

G. Claim 16

- 1. [16] The portable computer of claim 10, wherein an operating display mode is selected from the plurality of**

display modes based on a physical orientation of the portable computer.

Claim 10 recites “an axis of rotation about which both the base and main display components are rotatable to transition the computer between the laptop mode and the easel mode.” EX1001, 18:38-42. Thus, rotation of the physical base and main display components is how the operating display mode is selected. Rotation of Lane’s first and second modules 14, 18 similarly achieves selection of an operating display mode (e.g., laptop or easel) from among the plurality of display modes. See limitations [1c], [10c] and [18c] above. EX1002, ¶139.

H. Claim 22

1. **[22] The portable computer of claim 18, further comprising at least one navigation button disposed on one of the base and the display component.**

See claims 3 and 13. EX1002, ¶140.

VII. GROUND 2: CLAIMS 1, 3, 4, 7-10, 13, 14, 16, 18 AND 22 ARE OBVIOUS OVER THE COMBINATION OF LANE, POGUE AND HOTELLING

As discussed above in Ground 1 for limitations [1pre], [10pre] and [18pre], Lane discloses to a POSITA that Lane’s display 35 is a touchscreen that is operable in all physical configurations of Lane’s portable computer 10, or at least would have rendered this obvious to a POSITA. In the event that the Board were to determine that configuring Lane’s display 35 as a touchscreen that is operable in all physical configurations/display modes of Lane’s portable computer is not

disclosed by Lane or rendered obvious by the combination of Lane and Pogue, a POSITA would have found it obvious to do so in view of Lane, Pogue and Hotelling. EX1002, ¶141.

As discussed above in Ground 1, Lane's portable computer 10 includes a display 35 and Pogue discloses a graphical user interface that includes the display of, among other things, icons and shortcuts for folders such as My Documents, My Photos and My Network Places. Section VI.A.6-7. As discussed in Section V.D, Hotelling discloses that GUI elements such as icons can be selected using an input device on a laptop computer such as personal computer 10 disclosed in Lane. EX1020, ¶¶[0006], [0068]-[0069]. Hotelling further discloses that touchscreens are preferable to other input devices such as touch pads (and mice) because touchscreens are easier to use because they allow a user to directly select a GUI item such as an icon by touching it rather than relying on relative movement on a surface separate from the touchscreen. EX1020, ¶¶[0009], [0069]. EX1002, ¶142.

In view of this teaching in Hotelling, a POSITA would have been motivated to configure the display 35 in Lane's portable computer 10 as a touchscreen that is active in all physical configurations/display modes to make use of the GUI for the selection of GUI items such as folder icons as taught by Pogue as well as other navigation tasks such as menu selections easier for the user. A POSITA would have found it obvious, and been motivated, to make the touchscreen operable in all

physical configurations/display modes because doing so would have made it easier for a user to interact with the device's GUI to perform navigation tasks as well as other tasks. This includes configuring Lane's portable computer 10 so that a user could select the My Documents, My Pictures and My Network Places icons and shortcuts as taught by Pogue by directly touching them with a finger as taught by Hotelling. EX1020, ¶[0068]. A POSITA would have had a reasonable expectation of success in making this combination and modifying Lane's portable computer 10 in this manner because touchscreen and gesturing technology were well-known in the art by the time of the 844 patent and involved no more than ordinary skill. EX1002, ¶143.

Lane's portable computer 10 modified as discussed above renders obvious all claims challenged in Ground 1 for the reasons discussed above in Ground 1. EX1002, ¶144.

VIII. GROUND 3: CLAIM 17 IS OBVIOUS OVER LANE, POGUE AND SEGAWA

A. Motivation to Combine Lane and Pogue with Segawa

A POSITA would have found it obvious to combine Lane and Pogue in the manner, and for the reasons, discussed above in Ground 1. A POSITA would further have found it obvious to combine Lane and Pogue with Segawa by implementing Segawa's teaching of (1) including a TV receiver and display function in the portable computer of Lane/Pogue, and (2) providing a "manual

activation mode” that allows a user to manually control the display of content that is otherwise automatically controlled in accordance with the physical positioning of a base (Segawa’s second shell 1) and a main display component (Segawa’s first shell 2). EX1002, ¶145.

A POSITA would have implemented this manual activation mode teaching from Segawa in the portable computer resulting from the combination of Lane and Pogue by providing the user with the option of having the TV function activate automatically in the portable computer when, e.g., the computer is in the easel mode and also providing the user with an ability to activate the TV function via a menu selection using Lane’s navigation control/touchscreen (see discussion of navigation control as a touchscreen in limitation [10g] of Ground 1). Lane discloses the use of his device as a television. EX1006 at 3:12-13 and 9:33. A POSITA would have had a reasonable expectation of success in making these modifications as both TV reception functions and menu selections were well-known in the art and involved only ordinary skill as reflected in Segawa’s lack of any detailed description of how to implement a TV reception and display function or the ability to select such a function via a menu. EX1002, ¶146.

B. [17] The portable computer of claim 10, wherein an operating display mode is selected from the plurality of display modes in response to operation of the navigation control.

As discussed above in VIII.A, a POSITA would have found it obvious to include Segawa's TV receiver 30 and display functionality (see Segawa at Fig. 6, reference numeral 30 and ¶40) in the Lane/Pogue portable computer. A POSITA would further have found it obvious to provide the user with the option of (i) automatically selecting this functionality depending on the physical configuration of the base and main display units of the portable computer, and (ii) manually selecting the TV function via a menu using the touchscreen. A touchscreen is a navigation control as discussed above in Ground 1, limitation [10g]. Accordingly, the combination of Lane, Pogue and Segawa renders this claim obvious as it is construed by Patent Owner.⁴ EX1002, ¶147.

⁴ As indicated in the complaint in the parallel litigation between Patent Owner and HP, Patent Owner construes this term as being satisfied by a tablet mode selection via a menu, which only modifies content shown in the display. EX1013, 60; EX1002, ¶147, n.4. Petitioner retains the right to argue in the district court that an "operating display mode" is a display mode, i.e., a physical configuration of the base and main display units, and that claim 17 therefore requires the *physical configuration* of the base and main display units (not just the content displayed on

IX. GROUND 4: CLAIMS 1, 3, 4, 7-10, 13, 14, 16, 18 AND 22 ARE OBVIOUS OVER LANE, POGUE AND MIT.

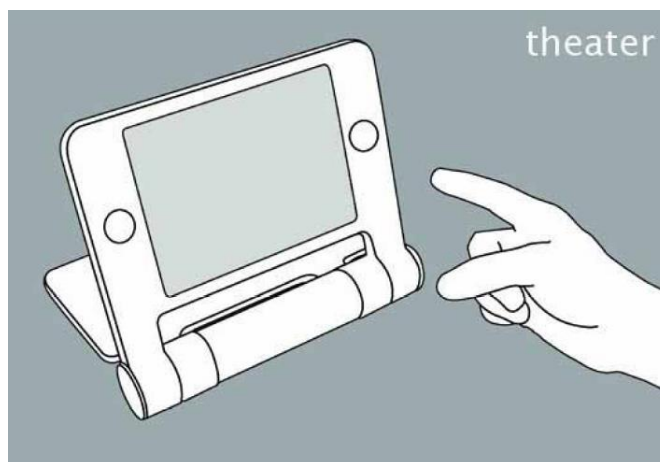
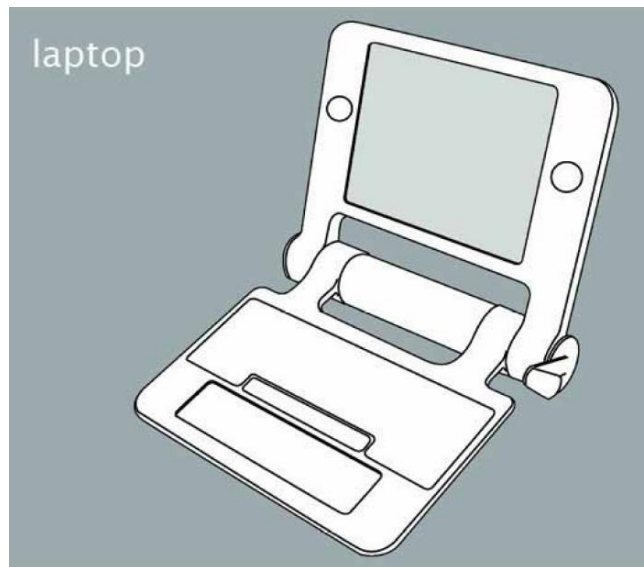
To the extent that “an axis of rotation” in claim 10 or any other limitation in claims 10 or 18 are construed as limited to having only one longitudinal axis of rotation, it would have been obvious to modify Lane by substituting the single axis hinge disclosed in MIT for Lane’s dual axis hinge assembly including connectors 54 and axles 86, 102 and modifying the portions of Lane’s first and second modules 14, 18 adjacent the hinge to correspond to MIT’s display and base modules. A POSITA would have been motivated to make these modifications to Lane in order to provide for a place to hold a hand-crank generator as taught by MIT. EX1010, 9. A POSITA would have had a reasonable expectation of success in doing so as single axis hinges of the type disclosed in MIT were known in the art and were well within the skill level of a POSITA. EX1002, ¶148.

When modified to incorporate the MIT single axis hinge as described above, Lane’s portable computer in combination with Pogue discloses and/or renders obvious each limitation of the challenged claims for this Ground 2. The analysis for those limitations is the same as for Ground 1, except for limitations [1c], [10c] and [18c], which are discussed below. EX1002, ¶149.

the screen) to be selectable via a navigation control. Petitioner further reserves the right to assert invalidity of this claim as lacking written description.

1. Limitations [1c], [10c], [18c]

Lane's portable computer as modified to include MIT's single axis hinge assembly discloses and/or renders obvious these limitations. MIT discloses that its laptop can be configured in a variety of display configurations, including a laptop configuration and a theater configuration as shown below:



EX1010, 7-8. The “theater” display configuration is the claimed frame mode.

EX1002, ¶150. A POSITA would have understood and/or found it obvious in view of MIT's disclosure of frame mode that the MIT laptop could also be placed into

easel mode. EX1002, ¶150. This is because frame mode and easel involve the same amount of rotation of the display and main body components relative to each other about MIT's single axis hinge, and transitioning from frame to easel mode can be achieved by further rotating the entire laptop device without any additional relative rotation between the display and main body components. EX1002, ¶150. With respect to limitation [1c], MIT's display component includes a single screen as shown in the drawings above.

X. GROUND 5: CLAIMS 1, 3, 4, 7-10, 13, 14, 16, 18 AND 22 ARE OBVIOUS OVER LANE, POGUE, MIT AND HOTELLING

As discussed in Ground 4 above, to the extent that independent claims 1, 10 or 18 are construed as requiring a single-axis hinge, it would have been obvious to a POSITA to modify Lane's portable computer 10 to include such a single axis hinge as taught by MIT. EX1002, ¶151. It would further have been obvious to a POSITA to configure such a portable computer with a single axis hinge with a touchscreen that was active in all physical configurations/display modes and which could be used to perform navigation tasks such as selecting folder icons and shortcuts like the My Documents, My Pictures and My Network places (the claimed content modes) for the same reasons, with the same motivation and same reasonable expectation of success, discussed above in Ground 2. EX1002, ¶151.

XI. GROUND 6: CLAIM 17 IS OBVIOUS OVER LANE, POGUE, MIT AND SEGAWA

A. Motivation to Combine Lane and Pogue with Segawa

It would have been obvious to combine Lane, Pogue and MIT in the manner, and for the same reasons, discussed above in Ground 3. A POSITA would have found it obvious to combine Lane, Pogue and MIT with Segawa in the same manner, and for the same reasons, discussed above in Ground 2 (Section VII.A). EX1002, ¶152.

B. [17] The portable computer of claim 10, wherein an operating display mode is selected from the plurality of display modes in response to operation of the navigation control.

The limitations of claim 17 are obvious over the combination of Lane, Pogue, MIT and Segawa for the same reasons discussed above in Ground 2 (Section VII.B). EX1002, ¶153.

XII. DISCRETIONARY DENIAL IS NOT WARRANTED

A. 35 U.S.C. § 314(a) Analysis

The *Fintiv* factors (enumerated below) weigh against discretionary denial.

1. Stay

Neither party has requested a stay in the corresponding District of Delaware (“DDE”) litigation between the parties. Thus, this factor is neutral because the Board “will not attempt to predict” how the district court will proceed if a stay has not been requested by either party. *Sand Revolution II, LLC v. Continental*

Intermodal Group – Trucking LLC, IPR2019-01393, Paper 24 (“*Sand Revolution II*”) at 7 (PTAB June 16, 2020) (informative).

2. Trial Date

Under, the Interim Guidance, this factor favors institution because the final written decision in this IPR will precede any relevant district court trial date regardless of how determined. As set forth in the Interim Guidance, “when considering the proximity of the district court’s trial date to the date when the PTAB final written decision will be due, the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides.” Interim Guidance, 3. Here, the anticipated trial date, as computed in accordance with the Interim Guidance, is late March 2026 (37.8 months from the filing date of the district court complaint on February 1, 2023). EX1021 (federal statistics on expected time-to-trial) at 14; EX1014, 105 (first complaint). The earliest date for any scheduled trial involving the 844 patent is January 20, 2026. EX1035, 16. The anticipated deadline for a Final Written Decision here, in June or July, 2025, is long before either of these dates. Thus, this factor weighs strongly against discretionary denial.

3. Parallel Proceeding

Comparatively little work has been done and much more work remains in the parallel litigations between the parties. The parties have only recently

exchanged preliminary invalidity and infringement contentions, fact discovery is ongoing, expert discovery has not yet begun, no Markman hearing has occurred, and the Court has not yet issued a Markman order. Moreover, this Petition was filed *before* Patent Owner served its preliminary infringement contentions. Accordingly, this factor weighs against discretionary denial.

4. Issue Overlap

With the anticipated deadline for a Final Written Decision here being months before the earliest anticipated trial date in the parallel litigation, estoppel under 35 U.S.C. § 315(e) will mitigate the risk of the adjudication of overlapping issues as least to the same extent as a stipulation of the type discussed in *Sand Revolution II*. Thus, this factor weighs at least marginally against discretionary denial. *Sand Revolution II* at 11–12, 12 n.5.

5. Same Party

Because Petitioners and the PO are the parties in the parallel litigations, and because this Board is likely to reach the merits before the district court, this factor weighs against discretionary denial. *Samsung Elecs. Co., Ltd. v. Staton Techiya, LLC*, IPR2022-00302, Paper 13 at 18-19 (PTAB July 11, 2022); *CrowdStrike, Inc. v. Open Text Inc.*, IPR2023-00289, Paper 7 at 16 (PTAB July 21, 2023). At worst, this factor should be considered to be neutral. *Snap, Inc. v. SRK Tech. LLC*, IPR2020-00820, Paper 15 at 16 (PTAB Oct. 21, 2020) (precedential in relevant

part); *see also Samsung Elecs. Co., Ltd. v. DoDots Licensing Solutions LLC*,
IPR2023-00621, Paper 9 at 15 (PTAB Oct. 11, 2023).

6. Other Considerations

Other considerations weigh strongly against a discretionary denial. The Challenged Claims are clearly invalid as demonstrated herein, and Petitioners have not previously challenged the 844 patent. As discussed in the Introduction and explained further in the §325(d) analysis below, the fact that a prior IPR for the 844 patent was not instituted and that two claims of the 844 patent survived reexamination is not due to technical merit but rather is the result of idiosyncratic claim constructions which, now made clear as a result of these earlier proceedings, put the Challenged Claims squarely within the prior art as demonstrated in this Petition.

In sum, all of the *Fintiv* factors weigh against a discretionary denial. Thus, institution should be granted. Even if the Board were to determine that *Fintiv* factors on balance weigh in favor of denial, institution should nonetheless be granted because this Petition satisfies the compelling merits standards. Interim Guidance at 4; *Vizio, Inc. v. Maxell, Ltd.*, IPR2022-01458, Paper 8, at 62.

B. General Plastic Analysis

Denial under *General Plastic* is not warranted here. The prior IPR on the 844 patent was brought by Lenovo. Lenovo is unrelated to any Petitioner in this

proceeding; indeed, Lenovo is a competitor to each of them. There is no relationship between Lenovo and any Petitioner here. This is the first petition filed by any Petitioner against the 844 patent. This Petition is being filed now because the Petitioners here were sued by PO after Lenovo was sued and after the institution decision in the Lenovo IPR. *Lenovo (United States) Inc. v. LiTL LLC*, IPR2021-00822, Paper 6 at 1 (P.T.A.B. October 21, 2021). For all of these reasons, denial under *General Plastic* is not warranted. *Alivecor, Inc. v. Apple Inc.*, IPR2023-00950, Paper 12 at 48 (P.T.A.B. January 9, 2024).

C. 35 U.S.C. § 325(d) Analysis

Under the two-part framework discussed in *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GMBH*, IPR2019-01469, Pap. 6, *8-9, the Board should not exercise its §325(d) discretion to deny institution.

Under *Advanced Bionics* step 1, (factors (a), (b) and (d)), the prior art on which the challenges in this Petition are based was before the office in the prior IPR and/or reexamination proceeding. However, under *Advanced Bionics* step 2, institution should not be denied here because the reexamination examiner made a material error. In the reexamination of the 844 patent, the examiner rejected the independent claims by mapping the “first content mode” and “second content mode” limitations of claim 10 to the display of an application, such as a media player software, handwriting recognition software, and gaming software. EX1005,

128-29 (1/4/23 Final Rejection at 6-7). As discussed more fully above in Section III.F.2, PO responded by arguing that “displaying a content mode” requires the display of a visual representation of a “higher level construct” that is distinct from a group of applications or other content, and that a content mode supports hierarchical navigation. EX1005, 94-100 (3/3/23 Response to Final Office Action) at 9-15. PO further explained that a “desktop and icon configuration” was one way to display content modes. *Id.* at 14. The examiner responded to PO’s explanation by withdrawing his rejection and confirming the patentability of claims 10 and 16 because the prior art relied on in the prior rejection failed to disclose “displaying representations of higher-level constructs into which content is grouped.” 3/30/23 Notice to Issue Reexamination Certificate) at 2-3.

Upon seeing PO’s explanation, the examiner should have recognized that when the “displaying content mode” limitations are construed as asserted by PO, these limitations read on the notoriously well-known concept of displaying folder icons. This is particularly true in view of PO’s assertion that displaying a desktop with icons is a way to display content modes, because the Windows XP Pro operating system included a desktop with folder icons that could be clicked on to navigate to the items in the directory represented by the folder icon. Folder icons such as the My Documents folder had been a default folder on the Windows desktop for many years prior to the 844 patent’s earliest priority date. Indeed,

while Pogue relates to Windows XP Pro, desktop folders had been a feature of the Windows desktop since at least as early as Windows 95. EX1022, [PC Mag 9/26/95] at 114 [https://books.google.com/books?id=QVZ3k_kTQ-oC&pg=PA114&dq=windows+95+desktop+folders&hl=en&sa=X&ved=2ahUKEwiotd-zrLyAAxV1ElkFHdbBC1cQ6AF6BAGJEAI] Failing to recognize the applicability of displaying folder icons as disclosed in Pogue to the “display a content mode” mode limitations of the 844 patent in view of PO’s explanation as to the meaning of these limitations in the 844 reexamination was a material error by the examiner. Accordingly, the *Advanced Bionics* framework weighs against the exercise of discretion to deny this Petition under § 325(d).

XIII. COMPLIANCE WITH FORMAL REQUIREMENTS

A. Mandatory Notices Under 37 C.F.R. §§ 42.8(b)(1)-(4)

1. Real Party-In-Interest

HP Inc., Dell Technologies, Inc., Dell Inc., ASUSTeK Computer, Inc. and ASUS Global Pte. Ltd. are the real parties-in-interest.

2. Related Matters

The 844 patent is at issue in following actions: *LiTL LLC v. HP Inc.*, Civil Action No. 1:23-cv-00120 (D. Del.); *LiTL LLC v. Dell Technologies Inc., et al.*, Civil Action No. 1:23-cv-00121 (D. Del.); *LiTL LLC v. ASUSTek Computer Inc., et al.*, Civil Action No. 1:23-cv-00122 (D. Del.); U.S. Pat. App. No. 90/015,035 (Reexamination). The 844 patent has previously been at issue in the following

proceedings: *LiTL LLC v. Lenovo (United States), Inc.*, Civil Action No. 1:20-cv-00689 (D. Del.); IPR2021-00822, *Lenovo (United States) Inc. v. LiTL LLC*.

3. Lead and Backup Counsel

Lead Counsel ⁵	Backup Counsel
James M. Heintz Reg. No. 41,828 DLA Piper LLP US One Fountain Square 11911 Freedom Drive, Suite 300 Reston, VA 20190-5602 Phone: + 1 703 773 4000 Fax: + 1 703 773 5000 Jim.Heintz@us.dlapiper.com	Jackob Ben-Ezra (<i>pro hac vice</i> to be applied for) DLA Piper LLP US 845 Texas Avenue, Suite 3800 Houston, TX 77002 Phone: +1 713 425 8422 Fax: + 1 713 425 84014 Jackob.Ben-Ezra@us.dlapiper.com James L. Day Reg. No. 72,681 Daniel Callaway Reg. No. 74,267 Farella, Braun + Martel One Bush Street, Suite 900 San Francisco, CA 94104 Phone: +1 415 954 4400 Fax: +1 415.954.4480 JDay@fbm.com DCallaway@fbm.com Calendar@fbm.com

⁵ For purposes of this IPR, the Petitioner parties have designated a lead counsel as a commitment to act as a single entity in the proceeding. Counsel for each party will coordinate and act through the designated lead counsel. This designation is not a representation of an attorney-client relationship.

	Raymond K. Chan Reg. No. 66,164 Procopio, Cory, Hargreaves & Savitch LLP 200 Spectrum Center Drive, Suite 1650 Irvine, CA 92618 Phone: 858.720.6339 Fax: 619.398.0131 Raymond.Chan@procopio.com
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4. Service Information

Service information for lead and backup counsel is provided in the designation of lead and backup counsel above.

B. Proof of Service on the Patent Owner

As identified in the attached Certificate of Service, a copy of this Petition in its entirety is being electronically served pursuant to a written agreement on Patent Owner's attorneys as indicated on the attached certificate of service.

C. Power of Attorney

Powers of attorney are being filed with designation of counsel in accordance with 37 C.F.R. § 41.10(b).

D. Standing

In accordance with 37 C.F.R. §42.104(a), Petitioner certifies that the 844 patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

E. Fees

The undersigned authorizes the Director to charge the fee specified by 37 C.F.R. § 42.15(a) and any additional fees that might be due in connection with this Petition to Deposit Account No. 50-3266.

XIV. CONCLUSION

All Challenged Claims of the 844 patent should be found unpatentable for the reasons discussed in this Petition.

Respectfully submitted,

/s/ James M. Heintz

James M. Heintz

Reg. No. 41,828

DLA Piper LLP

One Fountain Square

11911 Freedom Drive, Suite 300

Reston, VA 20190-5602

Phone: + 1 703 773 4000

Fax: + 1 703 773 5000

Jim.Heintz@us.dlapiper.com

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner certifies that this petition includes 12,709 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, word count, claim listing, and exhibits.

CERTIFICATE OF SERVICE

The undersigned certifies pursuant to 37 C.F.R. §§ 42.6(e) and 42.105 that on January 29, 2024, a true and correct copy of the Petition for *Inter Partes* Review of U.S. Patent No. 8,624,844 was served by emailing a copy of same (by agreement) to the following attorneys of record for the Patent Owner:

Gerald Hrycyszyn (Gerald.Hrycyszyn@WolfGreenfield.com)
Michael Albert (Michael.Albert@WolfGreenfield.com)
Eric Rutt (Eric.Rutt@WolfGreenfield.com)

Respectfully submitted,

/s/ James M. Heintz