

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BUTTERFLY NETWORK, INC.,
Petitioner,

v.

FUJIFILM SONOSITE, INC.,
Patent Owner.

IPR2022-01576
Patent 9,538,985 B2

Before WILLIAM V. SAINDON, BARBARA A. BENOIT, and
FRANCES L. IPPOLITO, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Butterfly Network, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–3 (“the challenged claims”) of U.S. Patent 9,538,985 B2 (Ex. 1001, “the ’985 patent”). FUJIFILM Sonosite, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review under 35 U.S.C. § 314(b) and 37 C.F.R. § 42.4(a) (2020). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons provided below, we determine Petitioner has satisfied the threshold requirement set forth in 35 U.S.C. § 314(a). Because Petitioner has demonstrated a reasonable likelihood that at least one claim of the ’985 patent is unpatentable, we institute an *inter partes* review of all challenged claims based on all grounds raised in the Petition. 37 C.F.R. § 42.08(a).

Our findings of fact, conclusions of law, and reasoning discussed below are based on the evidentiary record developed thus far, and made for the sole purpose of determining whether the Petition meets the threshold for initiating review. This decision to institute trial is not a final decision as to the patentability of any challenged claim or the construction of any claim limitation. Any final decision will be based on the full record developed during trial.

B. Real Parties in Interest

Petitioner asserts that Butterfly Network, Inc. and BFLY Operations, Inc. are real parties in interest. Paper 6, 1 (Petitioner's Updated Mandatory Notices). Patent Owner asserts that it is its sole real party in interest. Paper 3, 2 (Patent Owner's Mandatory Notices).

C. Related Matters

Patent Owner states that it has asserted the '985 patent against Petitioner in the Federal District Court of Delaware in *FUJIFILM Sonosite, Inc. v. Butterfly Network, Inc.*, 1:22-cv-00309-JPM. Paper 3, 2; *accord* Pet. 2.

D. Prior Art and Asserted Grounds

Petitioner's grounds rely on the following prior art references:

Name	Reference	Exhibit(s)
Grunwald	US PG Pub. 2006/0116578 A1, pub. June 1, 2006	1004
Pelissier	US PG Pub. 2009/0198132 A1, pub. Aug. 6, 2009	1005
Hyun	US PG Pub. 2010/0145195 A1, pub. June 10, 2010	1006
Petruzzelli	US PG Pub. 2013/0324850 A1, pub. Dec. 5, 2013	1003

Petitioner asserts that claims 1–3 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1	102	Petruzzelli

¹ The '985 patent was filed on April 18, 2014. Ex. 1001, code (22). We apply the versions of 35 U.S.C. §§ 102 and 103 that were in force after they

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1	103	Petruzzelli
1	103	Petruzzelli, Pelissier
1–3	102	Grunwald
1–3	103	Grunwald
1–3	103	Grunwald, Hyun

E. Overview of the '985 Patent

The '985 patent is related to a portable ultrasound device having a compact form factor and a user interface that facilitates hand-held operation. Ex. 1001, 1:9–12. Figure 1B of the '985 patent is reproduced below:

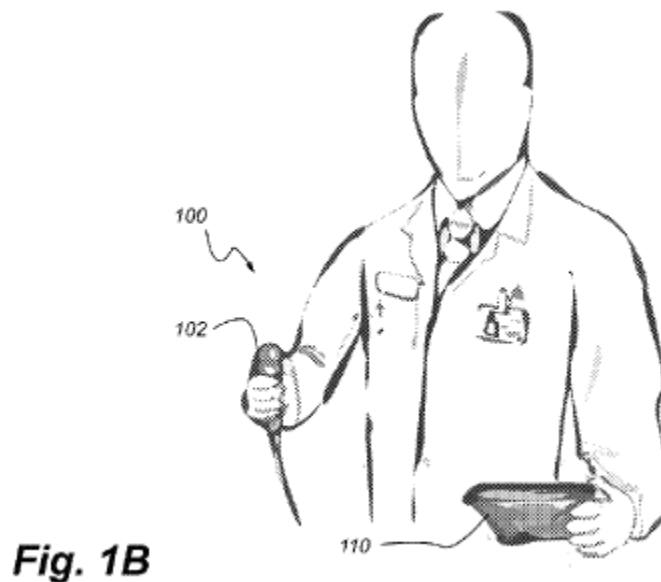


Figure 1B depicts a user carrying the portable ultrasound device, with transducer wand 102 in the user's right hand and base unit 110 held in the user's left hand. *Id.* at 2:57–3:2.

were amended by the Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011).

The '985 patent describes how a user will slide a finger on the touchscreen of base unit 110 to expand/contract control areas. *Id.* at 3:65–4:2. One control area can present various graphical tools, e.g., markers, labels, calipers, etc., that a user can position or overlay onto the active image area. *Id.* at 4:2–5. Once a graphical tool is selected, another control area shows further controls, such as a thumbwheel for selecting a labeling icon. *Id.* at 4:27–41. The icon can then be dragged with their finger onto the active image area. *Id.* at 5:16–20. Figure 3C of the '985 patent depicts this operation, and is reproduced below:

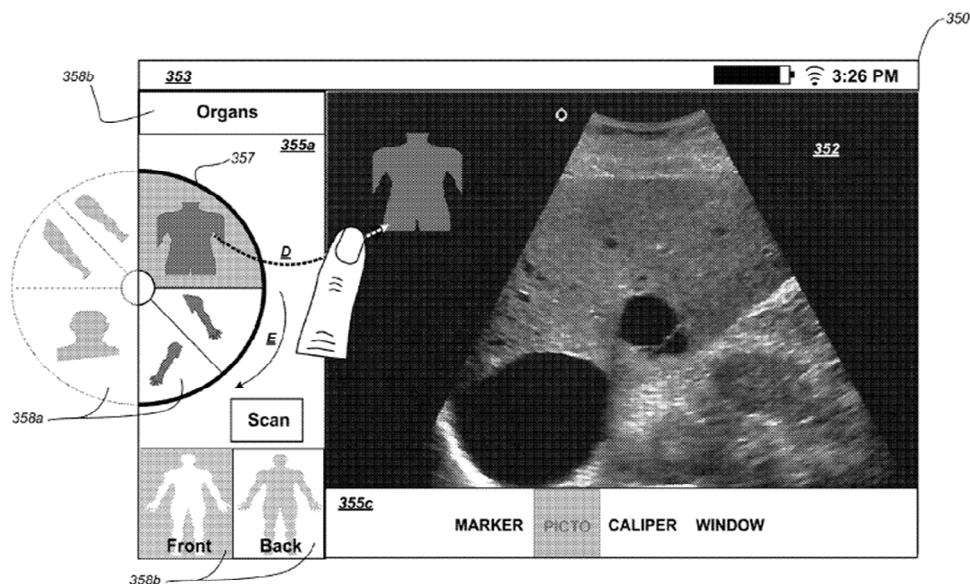


Fig. 3C

Figure 3C depicts active image area 352 depicting the ultrasound image. Control area 355c near the bottom edge shows selection of a “PCTO” tool. Control area 355a shows thumbwheel 357 having selected a torso icon, and then a finger is depicted as dragging the icon onto active image area 352.

F. Challenged Claims

Claim 1 of the '985 patent is reproduced below.

1. A portable ultrasound system, comprising a hand-held base unit that includes:

a touchscreen display; and:

a programmable processor configured to execute instructions that cause the processor to produce a display on the touchscreen display, including—

a first control area having a number of graphical tools that can each be selectively activated by a user,

a second control area that is accessible by a hand of the user that is holding the portable ultrasound system, wherein the second control area includes a plurality of controls that can be selectively activated by a thumb of the user to select an attribute of a selected graphical tool, and

an active image area in which an image of a patient obtained from an ultrasound scan is displayed and at which the selected one of the graphical tools can be overlaid onto the image with the user-selected tool attribute.

II. ANALYSIS

A. Legal Standards Used in the Merits Analysis

“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

To establish anticipation, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001).

A claim is unpatentable under 35 U.S.C. § 103 if “the differences between the subject matter sought to be patented 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.” *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) when in evidence, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art:

would have a degree in electrical engineering, computer science, or a related discipline, along with relevant experience (at least 1–2 years for a Ph.D., 2–3 years for a Master’s, and 3+ years for a Bachelor’s) researching or developing graphical user interfaces (GUIs) for ultrasound systems or other medical imaging devices. EX1007, ¶¶14–19. The person would have general knowledge of GUIs for ultrasound systems or other medical imaging devices as of April 18, 2014. *Id.*

Pet. 14–15.

Patent Owner applies Petitioner’s definition for purposes of its Preliminary Response. Prelim. Resp. 10.

We adopt the parties’ accepted definition for purposes of this Decision. We note that the ’985 patent and the prior art give little to no explanation for how to implement the user interfaces or how to go about the various modifications described therein. Accordingly, the present record establishes that modification and creation of graphical user interfaces is

relatively straightforward and predictable in this art. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) (“a patent need not teach, and preferably omits, what is well known in the art”) (citing *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick*, 730 F.2d 1452, 1463 (Fed. Cir. 1984)).

C. Claim Construction

Petitioner asserts that no claim terms require construction at this stage. Pet. 15. Patent Owner does not offer any claim constructions, but does challenge Petitioner’s choice not to offer any claim constructions, and suggests that we should deny the Petition on that basis. Prelim. Resp. 75–77. We find Patent Owner’s arguments unavailing. First, we note that the parties have not offered competing claim constructions, such that there is no specific claim construction issue between the parties at this time. Second, we note that we consider Petitioner’s interpretation of the claims sufficiently clear based on their application of the claims on the art. Thus, we are able to proceed without explicitly construing any claim terms, and we are not persuaded to deny on that basis.

In view of the above, we do not construe any claim terms. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

D. Asserted Anticipation or Obviousness over Petruzzelli

Petitioner asserts that Petruzzelli’s hand-held touchscreen MRI display system anticipates or renders obvious claim 1. Pet. 31–53. At a high level, claim 1 requires (1) a hand-held touchscreen display, (2) a first control

area having graphical tools, (3) a second control area accessible by the thumb of the hand holding the display, to select an attribute of the graphical tool, and (4) an active image area. Petitioner walks through each of these limitations in its ground.

1. Hand-Held Touchscreen Display

Petitioner points out that Petruzzelli describes itself as using “an iPad or other suitable tablet computing device” that “incorporat[es] a touch screen.” Pet 31 (quoting Ex. 1003 ¶ 27). Figure 2 of Petruzzelli, reproduced below, shows an example of what can be displayed:

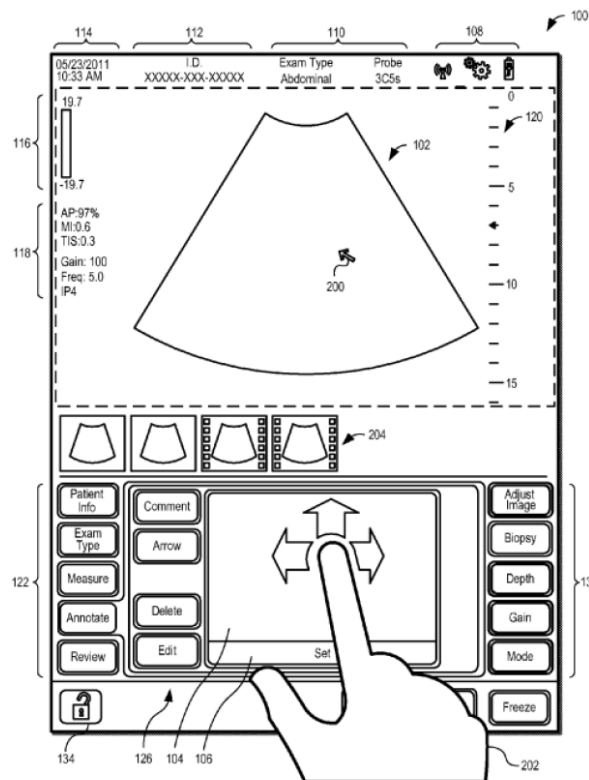


Figure 2

Figure 2 of Petruzzelli shows an exemplary interface for an ultrasound imaging system, with a variety of menus, submenus, and an active image display area. Ex. 1003 ¶¶ 50–56.

Patent Owner argues that Petruzzelli is not “hand-held,” despite acknowledging that it is an iPad or similar tablet computing device, on a

theory that Petruzzelli does not “sugges[t] . . . the manner in which the iPad or tablet is to be utilized.” Prelim. Resp. 15. Patent Owner suggests instead that the iPad or tablet “should instead be mounted or fixed stably on a structure.” *Id.* at 18.

Patent Owner’s argument is unavailing. Claim 1 is directed to a hand-held device; not a method of holding a device by a hand. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990) (“apparatus claims cover what a device *is*”). iPads and tablets are plainly hand-held devices, and Patent Owner offers no support for its speculative assertion that Petruzzelli’s iPad or tablet is mounted in a fixed structure.

2. *A First Control Area Having Graphical Tools*

Petitioner asserts that the bottom-left area of the tablet in Petruzzelli has a menu 122 (depicted in Figure 2, reproduced earlier) to select different graphical tools. Pet. 34–41. In particular, Petitioner asserts that a graphical tool is something positionable or overlaid on the ultrasound image and useful to “identify, label, measure, or otherwise help a user evaluate an ultrasound image.” *Id.* at 35 (quoting Ex. 1001, 4:2–19). Petitioner directs our attention to one such graphical tool in Figure 2 of Petruzzelli, which depicts an “Annotate” tool used to add labels. *Id.* at 36–38. Petitioner also points out the “Measure” tool to measure areas of interest. *Id.* at 38–41.

Patent Owner does not offer arguments as to this limitation at this time.

3. *A Second Control Area, Accessible by the Thumb of the Hand Holding the Display, to Select an Attribute of the Graphical Tool*

Petitioner asserts that the second control area in Petruzzelli is the sub-menu that appears when the user selects a graphical tool in menu 122 (depicted in Figure 2, reproduced earlier). Pet. 42–47. In particular, Petitioner asserts that the location of the sub-menu, along the edge of the tablet, permits it to be accessible by a thumb holding the device. *Id.* at 43–44. Petitioner also asserts that, e.g., Petruzzelli’s Figure 7 (reproduced below) depicts the user’s thumb in a position where it could press a button on the device while using the measuring graphical tool.

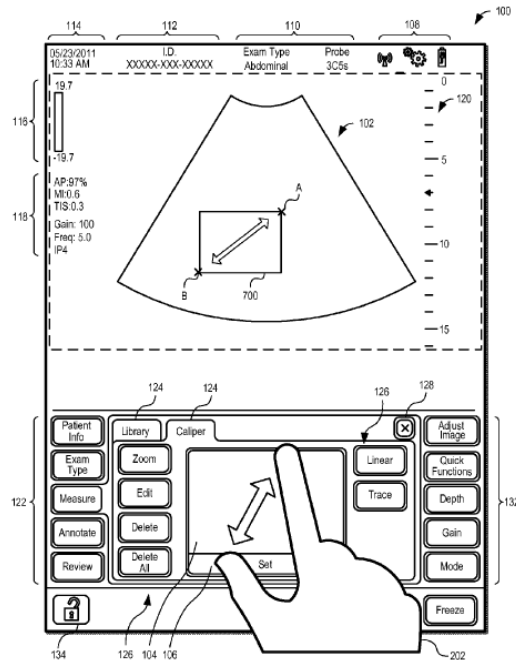


Figure 7

Figure 7 of Petruzzelli depicts an interface for defining a region of interest by touching area 104 with two points of contact (depicted as finger and thumb). Ex. 1003 ¶ 64.

Petitioner also asserts, in the alternative, that it would have been obvious to “size the tablet and arrange sub-level function menus” to be

operable by a thumb of a hand holding the tablet. Pet. 47–48. Petitioner asserts that graphical user interfaces were known to be predictable to change, easy to modify, and flexible in design. *Id.* at 48–51.

Similar to its earlier argument, Patent Owner asserts that Petruzzelli does not actually describe the control areas being accessed by a thumb in the manner claimed. Prelim. Resp. 19–31. As before, however, we note that the claim is an apparatus claim; Petruzzelli must disclose a device meeting all limitations but need not disclose the device being used in any particular way.² Further, Patent Owner’s argument appears to presume the claim requires that each button of each sub-menu must be accessible by a thumb, or only a thumb. This is not the case, as the claim only requires a plurality of buttons need to be accessible by the thumb. Similarly, nothing in the claim language prevents some controls being used by a different or more than one finger. The ’985 patent in several places describes use of another finger to operate the device. *See, e.g.*, Ex. 1001, 5:16–20 (describing simultaneous use of a thumb and finger to drag a pictograph), 5:54–58 (similar), 6:30–38 (describing use of index finger).

Given the iPad/tablet form factor, we again determine on this preliminary record that Petitioner has shown sufficiently that more than one button in the sub-menu of Petruzzelli is accessible by a thumb holding the tablet. The columns of buttons in the “Measure” menu in Figure 7, for example, are at the bottom left of a tablet. We acknowledge Patent Owner’s

² To be sure, if Petruzzelli explicitly disclosed one or more buttons on its annotation sub-menu being used by a thumb of the hand holding the tablet (for example), the question at hand would be easier to ascertain. But the absence of a description of such *use of the device* is not dispositive of *what is the device*.

arguments that take literal measurements of the hand illustrated in Petruzzelli's figures (Prelim. Resp. 25–26), but find them unavailing on this preliminary record because they do not change the form factor of Petruzzelli or otherwise constrain its disclosure.

Petitioner's alternative ground, that it would have been obvious to resize the buttons in the sub-menu to make them reachable by a thumb (to the extent they are not already), is also sufficient on this record. The record at this stage of the proceeding supports a conclusion that it was a known desire in the art to have hand-held devices where the thumb could access a menu of controls. *See, e.g.*, Ex. 1005, Fig. 5B (depicting a thumb manipulating a touch screen); Ex. 1006, Figs. 7–11 (depicting a series of figures of thumb placement and thumb-accessible menus).³ The record at this stage of the proceeding also supports a conclusion that graphical user interfaces were easily created and modified.⁴ Thus, Patent Owner's

³ *See also KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007) (“if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill”); *Western Union Co. v. MoneyGram Payment Systems*, 626 F.3d 1361, 1370 (Fed. Cir. 2010) (reviewing precedent and concluding that “applying computer and internet technology to replace older electronics has been commonplace in recent years”); *Leapfrog Enterprises, Inc. v. Fisher Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (updating “to modern electronics would have been reasonably obvious to one of ordinary skill”).

⁴ For example, we are not aware of the references of record, or the '985 patent, going into any detail of how to create or modify the interfaces, despite statements encouraging customization and modification. *See, e.g.*, Ex. 1003 ¶ 49 (“interface 100 layouts, architectures, and functionalities may be arranged and/or configured in any suitable manner”); Ex. 1007 ¶ 101

assertions to the contrary (Prelim. Resp. 31–36) are unpersuasive at this time.

4. *An Active Image Area*

Petitioner notes that the top portion of the tablet in Petruzzelli (visible as the annular arc segment in Figures 2 and 7, previously reproduced) is the active image area. Pet. 51–53. Patent Owner does not challenge this assertion at this time.

5. *Conclusion for Petruzzelli*

Having reviewed the Petition, Preliminary Response, and evidence cited therein, we determine that Petitioner has established a reasonable likelihood that claim 1 of the '985 patent is anticipated or obvious in view of Petruzzelli. This showing is sufficient to institute an *inter partes* review on all challenged claims on all asserted grounds. *SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). Notwithstanding, we provide additional commentary as to some of the remaining grounds.

E. Asserted Obviousness in View of Petruzzelli and Pelissier

In the alternative, Petitioner asserts that claim 1 would have been obvious over Petruzzelli and Pelissier. Pet. 53–62. In particular, Petitioner asserts that it would have been obvious to implement Petruzzelli's user interface on a device that is explicitly shown to be operated by one hand and one thumb, such as shown in Pelissier. *Id.* at 57. Figure 5B of Pelissier is reproduced below:

(Petitioner's expert noting the absence of implementation details in the '985 patent).

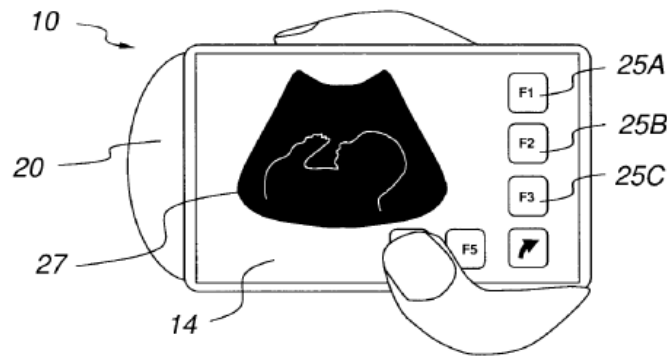


FIG. 5B

Figure 5B of Pelissier shows a “one-handed operation” mode where “controls are located where they can be reached with the thumb or fingers of the same hand that the operator is using to grasp [the device].” Ex. 1005 ¶ 33.

Accordingly, to the extent Petruzzelli’s iPad/tablet interface is not already one-handed, Petitioner asserts that it would have been obvious to use Petruzzelli’s interface on a hand-held device as shown in Pelissier, for “convenient left- or right-handed operation.” Pet. 59–60 (quoting Ex. 1005, code (57)).

Patent Owner argues that Pelissier’s hand-held device is much smaller than Petruzzelli’s tablet, such that putting all of those features into the small screen space would not work. Prelim. Resp. 40–43. But there is no need for Petitioner to import every feature of Petruzzelli’s interface into Pelissier. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference”); *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the teachings of references does not involve an ability to combine their specific structures.”). Pelissier teaches that the use of one hand or thumb to interact with a menu while grasping a device is

convenient. Ex. 1005, code (57). As above, we see no requirement in the claim that every feature must be usable by the thumb, nor do we see a requirement that Petitioner must explain in any further detail how to bodily incorporate the entirety of Petruzzelli into Pelissier on the facts of this case. Instead, we understand the ground to be proposing to incorporate the relevant features of Petruzzelli (menu/sub-menus for graphical tools and options) into a form factor that permits one-hand, one-finger operation, which is taught in Pelissier.

F. Asserted Obviousness or Anticipation by Grunwald

Petitioner asserts that claims 1–3 are anticipated by, or obvious in view of, Grunwald. Pet. 62–88. We address each of the major features of claim 1, along with any applicable arguments from Patent Owner.

1. Hand-Held Touchscreen Display

Petitioner asserts that Grunwald uses a touchscreen display on a mobile phone, personal data assistant, or portable computer. Pet. 63 (citing,

inter alia, Ex. 1004 ¶¶ 69, 216). Figure 20 of Grunwald is reproduced below.

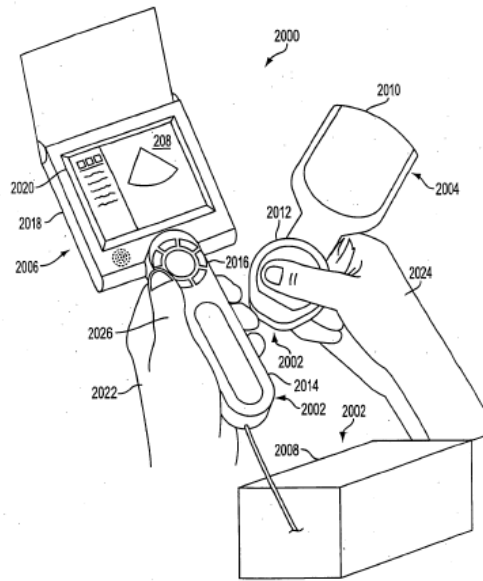


FIG. 20

Figure 20 of Grunwald depicts a two-handed ultrasound system, where the right hand holds imaging unit 2004 and the left hand holds a controller with buttons 2016 and display and control unit 2006. Ex. 1004 ¶¶ 214–215. The screen has touch-sensitive control areas. *Id.* ¶ 216.

2. A First Control Area Having Graphical Tools

Petitioner asserts that the interface in Grunwald has first control area 2306 in the upper-left corner of the display, to allow selection of tools such as imaging tab 2310 and tools tab 2316. Pet. 65–70. Figure 23 of Grunwald, reproduced below, depicts this interface.

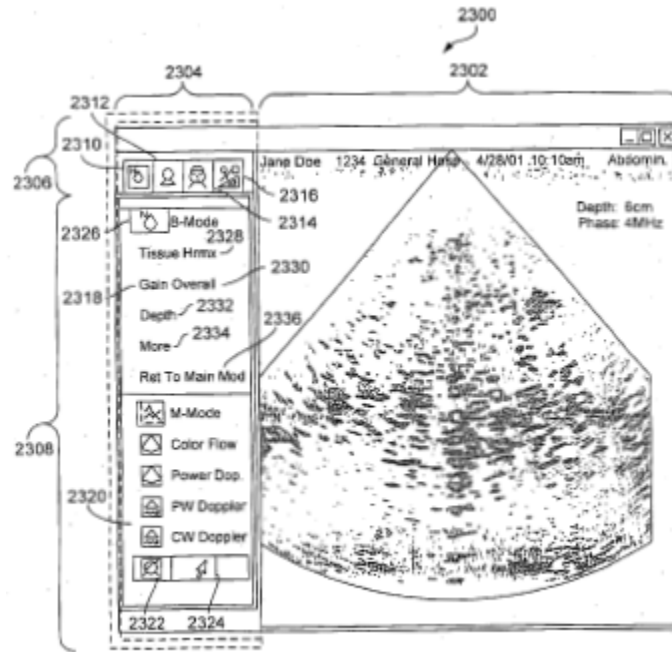
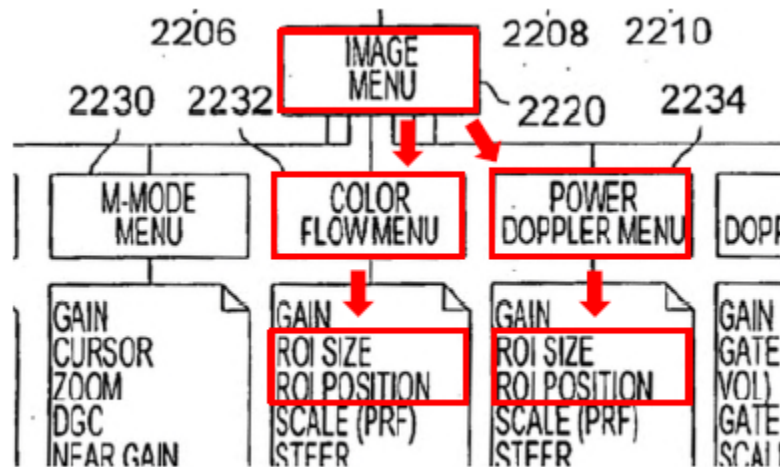


FIG. 23

Figure 23 of Grunwald depicts the interface to be displayed on the display, including the aforementioned tabs.

Patent Owner argues that the tabs in Grunwald are “top-level menu structures . . . and not any particular ‘graphical tools.’” Prelim. Resp. 50; *see also id.* at 49–55 (similar). Put another way, Patent Owner argues that the actual tools are two levels down, directing our attention to Figure 22 of Grunwald, which depicts schematically the menu structure of Grunwald’s

interface. *See, e.g., id.* at 51. Below is a truncated, annotated copy of Figure 22 of Grunwald provided by Patent Owner.



(Ex[1004] Fig. 22 (truncated and annotated).)

Prelim. Resp. 51. Figure 22 of Grunwald, as reproduced in modified version above, shows a menu structure for image menu 2220, with a first sub-menu, color flow menu 2232, having items such as gain, region of interest size, region of interest position, etc. A second sub-menu, power doppler menu 2234, has the same list of items.

Patent Owner's position would be bolstered here if it were to provide a claim construction analysis; namely, how to construe "graphical tool" and "attribute of a selected graphical tool" in a manner that precludes Petitioner's application of the claim on the art. In general, Petitioner shows how Grunwald allows selection and creation of what appear to be the same graphical tools that are described in the '985 patent—identifications, labels, and measurements. For example, Petitioner identifies that the "imaging mode" allows identification of a region of interest (Pet. 67; Ex. 1004, Fig. 25), which appears analogous to the window tool depicted in Figure 3F of the '985 patent. Patient information tab allows entry of a name (Pet. 67–68; Ex. 1004, Fig. 34), which appears analogous to the marker tool in Figure 3E

of the '985 patent. And so on. On this record, Petitioner has shown sufficiently that Grunwald has a control area with graphical tools.

3. *A Second Control Area, Accessible by the Thumb of the Hand Holding the Display, to Select an Attribute of the Graphical Tool*

Petitioner asserts that each of the graphical tools, once selected, causes a second set of icons to be displayed relating to the selected tool. *See* Pet. 70–76. For example, selection of imaging mode tab 2310 allows selection of the region of interest position (2506) or size (2508). *Id.* at 72–73; Ex. 1004, Fig. 25. Tools tab 2316 allows selection of caliper measuring device 3106. Pet. 74–75; Ex. 1004, Fig. 31B. Petitioner asserts that because Grunwald's display may be a touch screen on a personal data assistant, these buttons, which are all on the left edge of the screen, can be accessed by a thumb as claimed. Pet. 71–72. As a backup position, Petitioner also asserts that it would have been obvious to customize or modify the touchscreen interface to optimize it for one-hand, one-thumb use. *Id.* at 77–80.

Patent Owner argues that a person using Grunwald will not be able to use the touchscreen effectively with their thumb, e.g., because the display in Grunwald is too small or because Grunwald does not explain how. Prelim. Resp. 55–64.

The embodiment of Grunwald shown in Figure 22 (reproduced earlier) does show a fairly small screen, yet the menu structures depicted as being displayed on that screen (e.g., Fig. 23, reproduced earlier) are rather detailed. Patent Owner's position presumes these are irreconcilable and therefore concludes that Grunwald is not enabled. Prelim. Resp. 63. However, even assuming the scale of Figure 22 is accurate, Grunwald is not limited to the Figure 22 embodiment, and states the display may be another device form factor, such as a portable computer. Ex. 1004 ¶ 69. In addition,

the Figure 22 embodiment makes clear that the interface “may give the user the option to retile or rearrange the windows . . . in any fashion desired.” *Id.* ¶ 216. Together, on this record, these passages indicate that a person of ordinary skill in the art had expansive understanding of the flexibility in screen size and/or interface layout to arrange things in a usable manner.⁵ As we explained in the Petruzzelli ground, it was known in the art to set up touchscreen displays to enable one-hand, one-thumb operation. *See, e.g.*, Ex. 1005, Fig. 5B (depicting a thumb manipulating a touch screen); Ex. 1006, Figs. 7–11 (depicting a series of figures of thumb placement and thumb-accessible menus).

4. An Active Image Area

Petitioner asserts that image area 2302 corresponds to the active image area. Pet. 80–81. Patent Owner does not offer arguments against this assertion at this time.

5. Dependent Claims 2 and 3

Claims 2 and 3 each depend from claim 1. Claim 2 requires a pictograph and claim 3 requires display of a graphical tool in the first or second areas then detecting movement of a finger from the tool to the active image area. Petitioner asserts that the feature in Grunwald allowing a user to drag and drop icons, such as body part marker icons, satisfies these limitations. Pet. 82–88. Patent Owner does not offer arguments against these assertions at this time.

⁵ Indeed, Petitioner calls out these customization features in its obviousness analysis. Pet. 77–80 (citing, e.g., Ex. 1004 ¶¶ 282–283, Fig. 31A).

6. *Asserted Obviousness in View of Grunwald and Hyun*

In this alternative ground, Petitioner cites to Hyun to bolster its position with respect to Grunwald's implementation on a hand-held touchscreen. Pet. 88–96. Hyun discloses a hand-held touchscreen ultrasound system, where the menu buttons are placed in the locations a user would touch (i.e., where they could reach while holding the device). Ex. 1006 ¶¶ 6–7. Figure 7 of Hyun is reproduced below.

FIG. 7

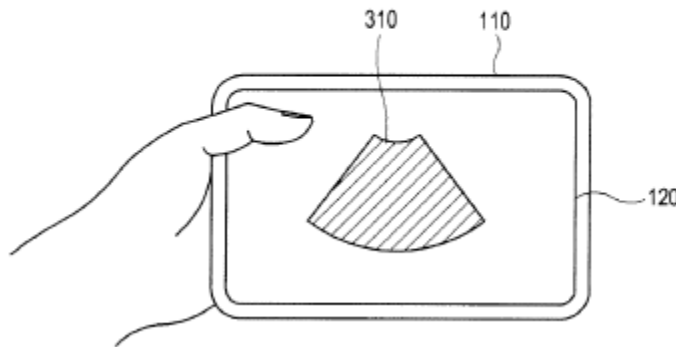


Figure 7 of Hyun depicts a user holding a touchscreen tablet in their left hand, where the left thumb can access the upper left corner of the touchscreen. *See also id.* at Figs. 6A–C (depicting thumb movement ranges), Fig. 8 (showing a portrait orientation), Figs. 9–11 (depicting various menus located near the thumb).

Petitioner asserts it would have been obvious to implement Grunwald's interface on Hyun's portable device. Pet. 93. Petitioner notes that Grunwald suggests to apply its teaching to tablet-like systems (mobile phone, personal data assistant) and also suggests a need for easy-to-use systems usable by a single hand, both of which are provided by Hyun. *Id.* at 94 (citing Ex. 1004 ¶¶ 69, 216; Ex. 1006 ¶¶ 6–7, 21; *see also* Pet. 95–96 (further explanation)).

Patent Owner argues that the combination is inoperable. Prelim. Resp. 71–74. However, this argument makes at least two assumptions that undermine its persuasive value. First, Patent Owner presumes that the interface must only be used by the thumb; something that the references, claims, and '985 patent do not contemplate. Second, Patent Owner presumes that the interface of Grunwald must be bodily incorporated into Hyun. As we discussed in the Petruzzelli grounds, no such requirement exists.

Patent Owner also argues that Petitioner's rationale for combination is insufficient. Prelim. Resp. 69–71. Again, Patent Owner is unduly focusing on bodily incorporating one reference into another. Petitioner's combination is to implement Grunwald's teachings on a touchscreen device like in Hyun (*see, e.g.*, Pet. 93) in order to gain the one-handed benefits provided by Hyun's form factor (*see, e.g., id.* at 94). Petitioner's proposed combination appears sufficient on the record at this stage of the proceeding.

III. CONCLUSION

As explained above, we find that Petitioner has established a reasonable likelihood of success in showing that claim 1 is unpatentable over Petruzzelli. We institute an *inter partes* review of all challenged claims on all asserted grounds. 37 C.F.R. § 42.108(a); *see SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018).

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that an *inter partes* review of claims 1–3 of the '985 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '985 patent is hereby instituted commencing on the entry date of this Decision, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

IPR2022-01576
Patent 9,538,985 B2

FOR PETITIONER:

Charles Rash
Brooks Kenyon
AKIN GUMP STRAUSS HAUER & FELD LLP
brandon.rash@akingump.com
bkenyon@akingump.com

FOR PATENT OWNER:

Eliot Williams
Robert Maier
Jennifer Tempesta
Derek Langdon
BAKER BOTTS L.L.P.
eliot.williams@bakerbotts.com
robert.maier@bakerbotts.com
jennifer.tempesta@bakerbotts.com
derek.langdon@bakerbotts.com