

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BANK OF AMERICA, N.A.,
Petitioner,

v.

NANT HOLDINGS IP, LLC,
Patent Owner.

IPR2021-01388
Patent 8,520,897 B2

Before JAMESON LEE, ROBERT J. WEINSCHENK, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge* ROESEL.

Opinion Dissenting filed by *Administrative Patent Judge* WEINSCHENK.

ROESEL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Bank of America, N.A. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) seeking an *inter partes* review of claims 25, 30, 33, 34, 38, 39, 41, and 42 of U.S. Patent No. 8,520,897 B2 (Ex. 1001, “the ’897 Patent”). Nant Holdings IP, LLC (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). With Board authorization, Petitioner filed a reply, and Patent Owner filed a sur-reply. Papers 8, 9.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2021). An *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). After considering the information presented in the Petition and the Preliminary Response, we determine that the reasonable likelihood standard is not met. Accordingly, we deny institution of an *inter partes* review.

B. *Related Matters*

The parties identify the following as a related matter: *Nantworks, LLC v. Bank of America Corp.*, 2:20-cv-07872 (C.D. Cal.). Pet. 64; Paper 4, 2 (Patent Owner’s mandatory notices).

C. *The ’897 Patent (Ex. 1001)*

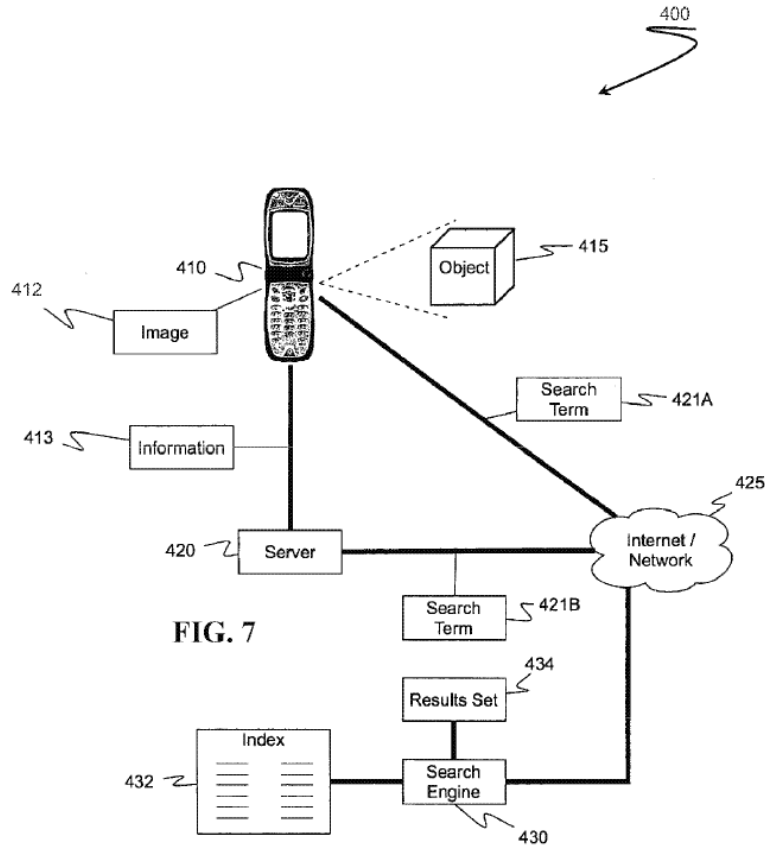
The ’897 Patent discloses a method in which (a) a digital image is captured using an image-capturing device such as a camera-equipped cell phone; (b) key words or other search criteria are automatically extracted or derived from the image; (c) the search criteria are submitted to a search

engine to obtain information of interest; and (d) at least a portion of the resulting information is transmitted back locally to, or nearby, the device that captured the image. Ex. 1001, 2:56–64.

The '897 Patent explains that some images will include symbolic content that is itself sufficient to be non-ambiguous, such as a telephone number or a web-site address, and the symbolic content can itself serve literally as the search criteria. Ex. 1001, 2:65–3:3. The '897 Patent states that sometimes, however, “significant additional processing” of the image is needed to develop the search criteria. *Id.* at 3:3–4. “For example, an image of an automobile will likely need to be processed to determine the make and model, and that information (e.g., MercedesTM S500TM) can then be transmitted to the Search Engine to be used as key words for a search.” *Id.* at 3:4–8.

The '897 Patent explains that in general the invention accommodates linking objects and images to information via a network such as the Internet, “which require[s] no modification to the linked object.” Ex. 1001, 3:13–16. “Traditional methods for linking objects to digital information, including applying a barcode, . . . are not required because the image or object can be identified solely by its visual appearance.” *Id.* at 3:16–22. The '897 Patent states that “it is an object of the present invention to provide a system and process for identifying digitally captured images without requiring modification to the object.” *Id.* at 3:61–63.

Figure 7 of the '897 Patent is a schematic of a system in which a local device captures an image, a search term is automatically derived from the image, the search term is submitted to a search engine to produce a results set, and information from the results set is sent back to the device (Ex. 1001, 4:24–28), and is reproduced below:



In Figure 7, system 400 includes portable imaging device 410, distal server 420, electronic communications network 425, and search engine 430. *Id.* at 4:36–38. The '897 Patent describes the following:

In general, the portable device 410 captures an image 412 of an object 415; and transmits information 413 regarding the image to the server 420. At least one of the device 410 and the server 420 derives a search term 421A, 421B from at least one of the image 412 and the transmitted information 413, respectively. At least one of the device 410 and the server 420 cause the search term 421A, 421B to be submitted via a network 425 to a search engine 430 that uses an index 432 of web pages or other information. The search engine then uses the search term 421A, 421B to produce a results set 434, and causes at least a portion of the results set 434 to be transmitted back to the portable device 410.

Id. at 4:39–50.

Another embodiment is shown in Figure 5, which is reproduced below:

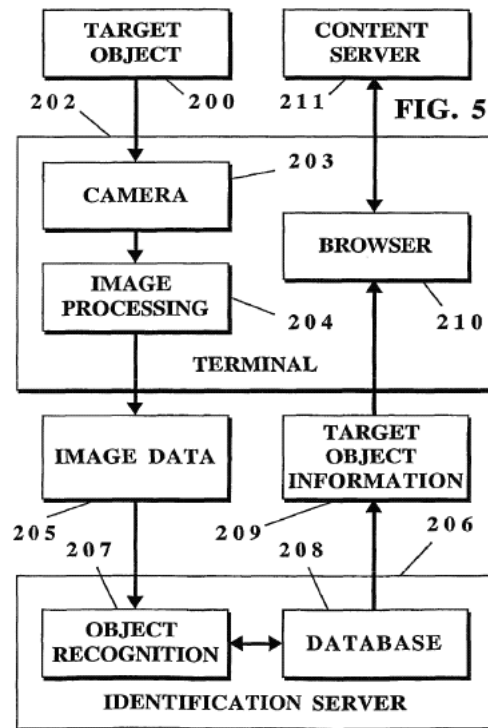


Figure 5 is a block diagram illustrating an embodiment that uses a cellular telephone, personal data assistant (“PDA”). Ex. 1001, 4:19–21. In Figure 5, terminal 202 is such a portable device equipped with computational capability, a digital camera, and a wireless network connection. *Id.* at 16:9–13. Terminal 202 communicates with identification server 206 and content server 211 via networks such as a cellular telephone network and the Internet. *Id.* at 16:13–16.

In reference to Figure 5, the ’897 Patent describes one of its applications as follows:

The user “points and clicks” the terminal 202 at a television screen to interact with television programming in real-time. For example, the programming could consist of a product promotion involving a reduced price during a limited time, users

that “point and click” on this television programming during the promotion are linked to a web site at which they can purchase the product at the promotional price. Another example is a interactive television programming in which users “point and click” on the television screen at specific times, based on the on-screen content, to register votes, indicate actions, or connect to a web site through which they perform real time interactions with the on-screen program.

Ex. 1001, 16:39–50.

D. Illustrative Claim

Petitioner challenges claims 25, 30, 33, 34, 38, 39, 41, and 42 of the ’897 Patent. Pet. 1. Claim 25 is the only independent challenged claim and is reproduced below.

25. A method of conducting a transaction with an interactive system, the method comprising

- providing access to a device having a display;
- displaying a displayed image on the display of the device;
- presenting the displayed image proximate to an optical sensor; and
- enabling, via the interactive system, identification of features from the displayed image, recognition of a target based on the features, association of the target with target information pertinent to the target, and performance of a transaction based on the target information.

Ex. 1001, 19:12–22.

E. Asserted Grounds and Evidence

Petitioner asserts the following grounds of unpatentability:

Ground	Claims	35 U.S.C. § ¹	Reference(s)
1	25, 30, 33, 34, 38, 39, 41, 42	103(a)	Ogasawara, ² Bolle ³
2	25, 30, 33, 34, 38, 39, 41, 42	102(e)	Ogasawara
3	30, 41, 42	103(a)	Ogasawara, Bolle, Melick ⁴

Petitioner submits the Declaration of Jeffrey J. Rodriguez, Ph.D., in support of the Petition. Ex. 1003 (“Rodriguez Declaration”). Patent Owner submits the Declaration of Chandrajit Bajaj, Ph.D., in support of the Preliminary Response. Ex. 2001.

II. ANALYSIS

A. Legal Standards

“In an [*inter partes* review], 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”)); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102, 103, effective March 16, 2013. Because the ’897 Patent has an effective filing date before this date, the pre-AIA version of §§ 102, 103 applies. Ex. 1001, code (60).

² Ex. 1005, US 6,512,919 B2, filed March 30, 1999, issued January 28, 2003.

³ Ex. 1006, US 5,546,475, issued August 13, 1996.

⁴ Ex. 1033, US 7,070,103 B2, issued July 4, 2006. Petitioner relies on the September 15, 2000 provisional filing date. Pet. 51; Ex. 1033, code (60).

claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc., v. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

A patent 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 at the time the invention was made 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 based on 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 ordinary skill in the art; and (4) when presented, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)). Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art (“POSITA”) would have had “a range of knowledge roughly equivalent to the knowledge and/or training of a person holding the degree of Bachelor of Science in Electrical Engineering, Computer Science, Computer Engineering, or equivalent, and one to two years of experience working with image processing, image recognition, or a related field.” Pet. 18 (citing Ex. 1003 ¶¶ 53–59). Petitioner asserts that “[i]ndividuals with additional education or additional practical experience could still be of ordinary skill in the art if that additional aspect compensates for a deficit” in another aspect of these requirements. *Id.* at 19.

For purposes of the Preliminary Response, Patent Owner does not dispute Petitioner’s definition of a POSITA. *See, generally* Prelim. Resp.

We find that Petitioner’s definition of a POSITA is consistent with the scope and content of the ’897 Patent and the asserted prior art, and we apply this definition for purposes of this Decision.

C. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

Although claim construction plays a role in our analysis of Petitioner’s challenges as discussed below, we do not need to resolve any claim construction disputes for purposes of this Decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”); *see also Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of *inter partes* review).

D. Petitioner’s Anticipation Ground

Petitioner’s anticipation ground is based on claim constructions proposed by Patent Owner in the related district court litigation. More particularly, Petitioner’s anticipation ground is based on the following claim constructions:

“*Presenting the displayed image proximate to an optical sensor*” (hereinafter, “the ‘presenting’ limitation”) merely requires that “the screen is on one side of the device and the camera is proximate to the screen on the opposite side of the device.” Pet. 27 (citing Ex. 1010, 17 (Patent Owner’s district court infringement contentions); Ex. 1025, 24 (Patent Owner’s district court infringement claim construction brief)).⁵

The limitation “*identification of features from the displayed image*” (hereinafter, “the ‘identification’ limitation”) “is satisfied by identifying alphanumeric characters from a captured image (captured by a mobile phone) of a physical check, instead of from a displayed image on the display of a device.” Pet. 31 (citing Ex. 1010, 19–20; Ex. 1025, 23–24). This

⁵ We cite to the exhibits from the district court action using the page numbers in the footer added by Petitioner or Patent Owner.

limitation “does not require identification of features from the displayed image.” Pet. 32.

The limitation “*recognition of a target based on the features*” (hereinafter, “the ‘recognition’ limitation”) “only requires that ‘a target be recognized’ by ‘comparing parameters’ and that no matching to items in a database is required.” Pet. 36 (citing Ex. 1025, 11–12). This limitation is met by “data indexing” and “is satisfied *when symbol information alone—* such as alphanumeric data—is used to recognize the object.” Pet. 38 (citing Ex. 1010, 20–21; Ex. 1025, 14–16).

Petitioner’s anticipation ground is based on the foregoing claim constructions proposed by Patent Owner in the district court. Pet. 51 (“Under Patent Owner’s interpretation, the Challenged Claims are invalid as anticipated by Ogasawara under 35 U.S.C. § 102.”); *see also* Pet. 28–29, 34, 40–41 (applying Patent Owner’s district court claim constructions to Ogasawara).

After the filing of the Petition and before the Preliminary Response, the district court rejected Patent Owner’s proposed constructions for the above claim terms. Ex. 2006, 5–9, 20–21. The district court held that claim 25 of the ’897 Patent requires “capturing an image from the display screen” and further requires that “the optical sensor must capture an image of the displayed image on the display screen before identifying features in the displayed image.” *Id.* at 7, 8 (construing the “presenting” and “identification” limitations). The district court construed the “recognition” limitation to mean “recognition of . . . a target based on the features by comparing the features to features of objects stored in a database to find a match.” *Id.* at 20–21 (bracket omitted); Ex. 2011 (district court’s order

clarifying claim construction); *see also* Prelim. Resp. 29–30 (quoting district court’s claim construction).

In the Preliminary Response, Patent Owner does not argue in favor of the claim constructions it proposed in the district court. Instead, Patent Owner argues that we should adopt the district court’s construction for the “recognition” limitation. Prelim. Resp. 38. Patent Owner acknowledges that the district court construed an additional term from the ’897 Patent, and asserts that the additional term “is not at issue in this response.” *Id.* at 30 n.2 (referring to the “identification” limitation); *see* Ex. 2006, 5–9.

Even though Petitioner relies on Patent Owner’s district court claim constructions for its anticipation ground, Petitioner argues that those constructions are incorrect and argues in favor of its own narrower constructions. Pet. 28, 31–32, 35–38. Petitioner does not assert that the challenged claims are anticipated based on its own claim constructions.

Because Petitioner’s anticipation ground is based on claim constructions that neither party supports and the district court rejected, we determine that Petitioner has not established a reasonable likelihood of prevailing on that ground.

E. Petitioner’s Obviousness Grounds

Petitioner challenges claims 25, 30, 33, 34, 38, 39, 41, and 42 based on Ogasawara and Bolle, and Petitioner challenges claims 30, 41, and 42 based on Ogasawara, Bolle, and Melick. Pet. 19–58. Patent Owner opposes. Prelim. Resp. 30–43. Below we provide an overview of Ogasawara and Bolle before turning to our analysis of the parties’ contentions. For purposes of this Decision, we do not need to provide an overview of Melick.

1. *Ogasawara (Ex. 1005)*

Ogasawara discloses an electronic shopping system that facilitates purchase transactions via a wireless videophone. Ex. 1005, code (57). A shopper's wireless videophone has an integral digital camera for capturing images of bar codes and product icons and character or pattern recognition software for translating the bar or icon code image into a product identifier. *Id.* at code (57), 1:17–22, 2:43–47, 3:13–17.

Ogasawara discloses a first embodiment in which a wireless telephone has an external or built-in bar code scanner. Ex. 1005, 5:31–40, Fig. 1 (showing wireless telephone 18 connected to external bar code scanner 20 or having built-in bar code scanner 25). Ogasawara discloses that the wireless telephone may be used to select items to be purchased by scanning bar codes either within a store or away from the store. *Id.* at 7:27–34. Ogasawara discloses that “[t]he bar codes may be scanned from a catalog, a shelf within a store, the product itself, or any other desired location.” *Id.* at 8:57–59; *see also id.* at 14:3–19 (discussing product selection by scanning Universal Product Code (“UPC”) bar codes or “other codes, indicia, text, etc.” using various scanning devices and technologies).

Ogasawara discloses a second embodiment that uses “a wireless videophone in place of the wireless telephone and bar code scanner combination of the first embodiment.” Ex. 1005, 15:43–46. The wireless videophone includes a miniature digital image capture device, such as a CCD camera. *Id.* at 15:63–16:1. According to Ogasawara, the wireless videophone is “capable of capturing digital videographic information, such as a bar code pattern or a graphics image pattern.” *Id.* at 18:27–30.

Ogasawara discloses that a purchaser may use the wireless videophone's digital camera to select various items he desires to purchase.

Ex. 1005, 20:41–45. According to Ogasawara, such product selection “is made by capturing an image of an item’s UPC bar code data, or the like, within the image field of the digital camera” and “pressing a pre-defined key on the system’s keyboard.” *Id.* at 20:45–55. Ogasawara discloses that “various other codes, indicia, text, icons, and the like may be scanned and recognized by modern character and pattern recognition application routines.” *Id.* at 20:55–58. Instead of a UPC bar code, a product specific icon may be used “to represent a particular product or service offered for purchase.” *Id.* at 20:58–62. “For example, when grocery shopping, product specific icons might represent the stylistic outlines of a loaf of bread, carton of milk, a bunch of broccoli, and the like, allowing a consumer to quickly and efficiently select items for purchase without recourse to the complications of reading bar codes.” *Id.* at 20:62–67.

Ogasawara also discloses that the system is “useful for electronic selection applications in which bar code information is displayed on a screen, such as an LCD display or a computer CRT display.” Ex. 1005, 22:1–4. Ogasawara explains that, as compared with a conventional bar code scanner, a digital camera can more easily capture bar code information from a display screen because a digital camera does not irradiate the screen with a laser beam. *Id.* at 22:4–18. By way of example, Ogasawara discloses that, in a grocery store, a consumer could capture bar code data from “a small LCD display screen” of a scale, where the bar code data includes the weight of the merchandise and optionally also its product code. *Id.* at 22:19–40.

Ogasawara discloses that merchandise item information may be displayed in bar code form, alpha-numeric form, or as a numeric code. Ex. 1005, 22:41–46. According to Ogasawara, “[c]haracter recognition software supports identifying a product based on a numeric or alpha-numeric

code, while pattern recognition software supports recognition of product characteristics based on bar code data.” *Id.* at 22:48–51. In addition, Ogasawara discloses the following:

Advanced pattern recognition software is able to enhance the performance of the wireless videophone, in accord with the invention, by offering the capability to capture merchandise information from items that are not identified by either a bar code or an alpha-numeric label. Advanced pattern recognition software allows a consumer to capture a videographic image of an apple, for example, and to have the apple be recognized as such by the pattern recognition software. This capability is useful for any merchandise item having a distinct or identifiable shape or other visually identifiable characteristic.

Ex. 1005, 23:11–21.

2. *Bolle (Ex. 1006)*

Bolle discloses a system and apparatus that uses image processing to recognize an object within a scene, such as produce (fruits and vegetables) at the point of sale or in the produce department of a grocery store. Ex. 1006, code (57), 1:45–50, 5:47–54. For example, Figures 1 and 4 show objects 131 (apples) on weighing device 170 or transparent surface 405 within the field of view of camera 120 linked to computer 140. *Id.* at 7:3–8:11, 9:21–10:16, Figs. 1, 4. First and second digitized images are taken at different illumination levels, and using an algorithm, an object image is segmented from a background image of the scene by a comparison of the two images. *Id.* at code (57), 5:61–6:3. The object is recognized by processing the image to characterize features of the object and comparing the processed image to stored reference images to find a match. *Id.* at code (57), 6:3–6.

Bolle discloses algorithms for recognizing objects, segmenting a scene into an object image and a background image, segmenting target object images, and characterizing reference or target object features. Ex. 1006, 8:12–50, 10:17–13:8, 13:61–14:46, Figs. 2, 5, 6. Bolle Figure 2 is a flow chart of a recognizing algorithm, including step 260 in which features of a target object are compared with features of reference objects stored in memory storage 270. *Id.* at 8:33–36.

3. *Independent Claim*

Claim 25 of the '897 Patent recites as follows:

25. A method of conducting a transaction with an interactive system, the method comprising

providing access to a device having a display;

displaying a displayed image on the display of the device;

[1] *presenting the displayed image proximate to an optical sensor*; and

enabling, via the interactive system, [2] *identification of features from the displayed image*, [3] *recognition of a target based on the features*, association of the target with target information pertinent to the target, and performance of a transaction based on the target information.

Ex. 1001, 19:12–22 (emphasis and bracketed identifiers added). Our analysis focuses on (1) the “presenting” limitation, (2) the “identification” limitation, and (3) the “recognition” limitation, which are italicized and identified with bracketed numerals above.

Petitioner argues that the “presenting” limitation should be construed to require the use of an optical sensor to capture the displayed image.

Pet. 28. As discussed above, the district court agreed with that construction,

and it is not disputed by Patent Owner. Ex. 2006, 8; Prelim. Resp. 30 n.2.

Applying its proposed construction to the prior art, Petitioner contends that

Ogasawara discloses providing access to a device having a display (e.g., an LCD display), ***displaying an image (e.g., of an apple available for purchase . . .)*** on the display of the device, and presenting the displayed image proximate to an optical sensor (e.g., digital camera 236 of a shopper's wireless videophone 218) so that the optical sensor can capture an image.

Pet. 30 (citing Ex. 1003 ¶ 121; Ex. 1005, 22:19–22) (emphasis added).

Addressing the “identification” limitation, Petitioner argues that, “[u]nder the established principle of antecedent basis, ‘the displayed image’ . . . is the image on the display of the device, and therefore the ‘features’ are ‘identifi[ed]’ from an image displayed on a device screen.” Pet. 31–32. As discussed above, the district court agreed with Petitioner's construction, and it is not disputed by Patent Owner. Ex. 2006, 8–9; Prelim. Resp. 30 n.2.

Applying its proposed construction to the prior art, Petitioner contends that

Ogasawara explains that “the merchandise item information need not be displayed in bar code form for the invention to perform as intended.” . . . Instead, ***the system can capture a displayed image of the apple itself*** (without a barcode), identify a “distinct or identifiable shape or other visually identifiable characteristic” of the apple, and . . . recognize the apple in the captured image based on the “distinct or identifiable shape or other visually identifiable characteristic” of the apple.

Pet. 32–33 (citing and quoting Ex. 1005, 20:55–67, 21:1–8, 22:41–51)

(emphasis added). Alternatively, Petitioner contends that “Ogasawara in combination with Bolle expressly discloses identifying features (e.g., color or shape) from ***the displayed image (e.g., of an apple displayed on the LCD display)***.” Pet. 33 (citing Ex. 1003 ¶ 126; Ex. 1006, 7:18–26, 8:12–20, 10:47) (emphasis added).

Petitioner argues that the “recognition” limitation should be construed as “identification of a target by matching the features to features of targets stored in a database.” Pet. 34. Patent Owner argues that we should adopt the district court’s construction, which is “recognition of . . . a target based on the features by comparing the features to features of objects stored in a database to find a match.” Prelim. Resp. 38. The differences between Petitioner’s construction and the district court’s construction relied upon by Patent Owner are not important for purposes of this Decision.

Applying its proposed construction to the prior art, Petitioner contends that

Ogasawara discloses an interactive system . . . enabled to identify a target (e.g., an apple) by matching the features (e.g., distinct or identifiable shape or other visually identifiable characteristic) identified from *the displayed image (e.g., of the apple on an LCD display)* to features of targets stored in a database. . . . Ogasawara describes “[a]dvanced pattern recognition software” which can identify and recognize a target, such as an apple, using “a distinct or identifiable shape or other visually identifiable characteristic” of targets, *such as “an apple” in the image captured of an image displayed on an LCD display.*

Pet. 39 (citing Ex. 1003 ¶¶ 128, 129; citing and quoting Ex. 1005, 21:1–8, 22:1–13, 23:12–27) (emphasis added). Alternatively, Petitioner contends that

Ogasawara in combination with Bolle discloses an interactive system . . . enabled to identify a target (e.g., an apple) by matching the features (e.g., color or shape) identified from *the displayed image (e.g., of the apple on an LCD display)* to features of targets stored in a database (e.g., database 270).

Pet. 39–40 (citing Ex. 1003 ¶ 130) (emphasis added).

Patent Owner advances several arguments focused on the “recognition” limitation. Prelim. Resp. 30–43. For example, Patent Owner argues that “Petitioner fails to identify any disclosure in Ogasawara of comparing or matching features” (*id.* at 36) and fails to establish a motivation and reasonable expectation of success for combining “Bolle’s feature matching teachings with Ogasawara’s wireless videophone” (*id.* at 33).

We do not reach Patent Owner’s arguments because we determine that Petitioner’s obviousness challenge suffers from a more fundamental deficiency. A common thread running through Petitioner’s contentions for the “presenting” limitation, the “identification” limitation, and the “recognition” limitation is Petitioner’s assertion that the prior art discloses or suggests displaying an image (e.g., of an apple) on a display screen, capturing the displayed image, and using pattern recognition software to recognize the displayed image. Pet. 30, 32–33, 39–40. When applying its own claim constructions to the prior art, Petitioner relies on Ogasawara’s disclosure of “[a]dvanced pattern recognition software” for recognizing merchandise items “that are not identified by either a bar code or an alphanumeric label,” where the items have “a distinct or identifiable shape or other visually identifiable characteristic.” Ex. 1005, 23:11–21; Pet. 33, 39 (relying on Ogasawara’s advanced pattern recognition disclosure for the “identification” and “recognition” limitations). Although Ogasawara discloses using a digital camera to capture an image of *a barcode* displayed on an LCD screen (Ex. 1005, 22:1–4, 22:19–40), Petitioner does not rely on that disclosure for the “recognition” limitation under its own claim construction, presumably because Ogasawara’s barcode disclosure does not

involve feature matching using a database. *See* Pet. 39–40 (addressing the “recognition” limitation under Petitioner’s construction).

Accordingly, to prevail on its obviousness challenge, Petitioner needs to show support for its contention that the prior art discloses or suggests displaying an image (e.g., of an apple) on a display screen, capturing the displayed image, and using pattern recognition software to recognize the displayed image. Pet. 30, 32–33, 39–40. We do not find adequate support for Petitioner’s contention in Ogasawara alone or in combination with Bolle.

Although Ogasawara discloses displaying a bar code on an LCD screen and using a digital camera to capture the bar code (Ex. 1005, 22:1–4, 22:19–40), Ogasawara does not disclose capturing an image of an apple or other merchandise item from a display screen. For example, Petitioner relies on Ogasawara’s disclosure of a grocery store scale having “a small LCD display screen which displays the weight of the merchandise in bar code form.” *Id.* at 22:20–22; Pet. 11, 30, 32. Petitioner also relies on Ogasawara’s disclosure that a consumer may “capture a videographic image of an apple” or other merchandise item not identified by a bar code or an alpha-numeric label. Ex. 1005, 23:15–19; Pet. 33, 39. Petitioner does not, however, direct us to any disclosure or suggestion in Ogasawara that an image of an apple or other unlabeled merchandise item is captured from a display screen, rather than from the item itself. Petitioner presents no rationale for modifying Ogasawara’s disclosure in this manner. For example, Petitioner does not assert there would be any benefit to capturing an image of an apple or other unlabeled merchandise item from a display screen, rather than from the item itself. Petitioner’s failure to present a rationale for modifying Ogasawara’s disclosure is reason enough to deny the

Petition. Nevertheless, we provide the following additional comments concerning Petitioner's reliance on Ogasawara.

Petitioner relies on Ogasawara's disclosure of "advanced pattern recognition software," which "allows a consumer to capture a videographic image of an apple, for example, and to have the apple be recognized as such by the pattern recognition software." Ex. 1005, 23:15–19; Pet. 33, 39. Ogasawara discloses recognizing features in an image of an item, e.g., of an apple, that was captured by a videophone, but does not disclose recognizing features in a *displayed* image, i.e., an image that is displayed on a display screen and captured by an optical sensor, as required by the district court's and Petitioner's claim constructions. Petitioner does not direct us to evidence that Ogasawara's "advanced pattern recognition software" is suitable for recognizing features in an image captured from a display screen. Ogasawara discloses that such software is "useful for any merchandise item having a distinct or identifiable shape or other visually identifiable characteristic," but does not suggest that such characteristics can be identified or recognized in an image captured from a display screen. If the goal is to use "advanced pattern recognition software" to identify an unlabeled item by its visual features, then why would a POSITA modify Ogasawara's system to capture an image of the item from a display screen, rather than directly from the item? One could easily imagine that distinguishing features, such as color or texture, would be altered or lost when an item is imaged, displayed on a display screen, and then imaged again. Petitioner does not present argument or evidence sufficient for us to equate, for purposes of Ogasawara's disclosure, an image of an item with an image of an image of an item.

Petitioner also relies on Ogasawara in combination with Bolle for the “identification” limitation and the “recognition” limitation. Pet. 33–34, 39–40. Like Ogasawara, Bolle teaches software for recognizing features in an image of an item, e.g., of an apple, but does *not* disclose recognizing features in a *displayed* image, i.e., an image that was displayed on a display screen and captured by an optical sensor. Ex. 1006, code (57), 5:61–6:3, Figs. 1, 4. Petitioner presents no rationale for modifying the combination of Ogasawara and Bolle, so that an image of an apple or other unlabeled merchandise item is captured from a display screen, rather than from the item itself. Petitioner also does not direct us to evidence showing that Bolle’s image processing system is suitable for recognizing features in an image that is captured from a display screen. For example, Petitioner does not explain how Bolle’s teaching of first and second digitized images taken at different illumination levels would work when capturing an image from a display screen.

We have reviewed the relevant portions of the Rodriguez Declaration (Ex. 1003 ¶¶ 121, 124–126, 129, 130), and they fail to cure the deficiencies discussed above.

According to the Dissent, Petitioner shows sufficiently that Ogasawara teaches using a videophone to capture an item displayed on a screen and recognizing features in an image displayed on a screen. Dissent 2. We disagree. The Dissent overlooks that Petitioner’s obviousness case is based on Petitioner’s proposed construction for the “recognition” limitation, which (like the district court’s construction) requires the use of a database. Pet. 34; Ex. 2006, 20–21. To show such a database, Petitioner relies on Ogasawara’s disclosure of “advanced pattern recognition software” and Bolle’s disclosure of feature-matching using

database 270. Pet. 39–40. Although the Dissent relies on Ogasawara’s disclosure about recognizing characters and patterns displayed on a screen (Dissent 2 (citing Pet. 11, 32–33; Ex. 1005, 21:1–8)), Petitioner does not contend that Ogasawara suggests the use of a database except in connection with “advanced pattern recognition software” for recognizing items not identified by a bar code or alpha-numeric label. Pet. 39–40; Ex. 1005, 23:11–15. As discussed above, we find no disclosure or suggestion in Ogasawara or Bolle that advanced pattern recognition software is used to recognize an image of an item captured from a display screen, as opposed to an image of an item captured from the item itself, and Petitioner presents no rationale for modifying the prior art in this manner.

Accordingly, we find that Petitioner does not show sufficiently that claim 25 is unpatentable as obvious in view of Ogasawara and Bolle.

4. Dependent Claims

Claims 30, 33, 34, 38, 39, 41, and 42 each depend directly or indirectly from claim 25. We find that Petitioner’s arguments and evidence for the dependent claims do not remedy the shortcomings in Petitioner’s arguments and evidence for independent claim 25 and that Petitioner does not show obviousness of the dependent claims for the same reasons as discussed above for independent claim 25.

F. Petitioner’s Motion to Correct Clerical or Typographical Errors

Before the Preliminary Response was filed, Petitioner filed an unopposed motion to correct clerical or typographical errors in the Petition and accompanying declaration. Paper 6. Petitioner’s motion seeks to correct errors in citations to Exhibit 1035, one of Melick’s provisional applications. We find that it is unnecessary to consider Exhibit 1035 for

purposes of deciding whether to institute an *inter partes* review, and we therefore deny Petitioner's motion as moot.

G. Discretion under 35 U.S.C. § 314(a)

In view of our determination that Petitioner does not meet the threshold for instituting review on the merits, we need not address the parties' dispute about whether the Board should exercise its discretion to deny the Petition under 35 U.S.C. § 314(a) and *Fintiv*.⁶ Pet. 58–63; Prelim. Resp. 24–36.

III. CONCLUSION

For the above reasons, we determine that Petitioner does not establish a reasonable likelihood that it would prevail in showing that claims 25, 30, 33, 34, 38, 39, 41, and 42 of the '897 Patent are unpatentable on the grounds asserted in the Petition.

IV. ORDER

It is

ORDERED that the Petition is *denied*, and no trial is instituted; and

FURTHER ORDERED that Petitioner's motion to correct clerical or typographical errors in the Petition and declaration (Paper 6) is *denied* as moot.

⁶ *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential).

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BANK OF AMERICA, N.A.,
Petitioner,

v.

NANT HOLDINGS IP, LLC,
Patent Owner.

IPR2021-01388
Patent 8,520,897 B2

Before JAMESON LEE, ROBERT J. WEINSCHENK, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*, dissenting.

I respectfully dissent from the majority's decision denying institution of an *inter partes* review. According to the majority, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claim 25 is unpatentable for two reasons.

First, the majority determines that although Ogasawara teaches using a videophone to capture a bar code displayed on a screen, Petitioner does not show sufficiently that Ogasawara teaches using a videophone to capture an item (such as an apple) displayed on a screen. On this record, I disagree. Petitioner presents evidence that Ogasawara teaches using its videophone to

capture “bar code information” displayed on a screen. Pet. 11, 32; Ex. 1005, 22:1–4. Petitioner also presents evidence that Ogasawara uses “the generic term ‘bar code’” to refer to various “codes, indicia, text, icons, and the like,” including “product specific icons,” such as “a loaf of bread.” Pet. 11, 32–33; Ex. 1005, 20:55–67, 21:1–8. I believe Petitioner shows sufficiently that Ogasawara teaches using a videophone to capture an item displayed on a screen.

Second, the majority determines that Petitioner does not show sufficiently that Ogasawara teaches recognizing features in an image displayed on a screen. On this record, I disagree. Petitioner presents evidence that Ogasawara’s videophone includes a program for recognizing “a distinct or identifiable shape or other visually identifiable characteristic” in an image. Pet. 14, 32–33; Ex. 1005, 23:12–32. Petitioner also presents evidence that “no matter the form of the indicia captured by [Ogasawara’s] digital video camera, the system operates in identical manner for each indicia and is governed solely by operation of the downloaded program which is coded to recognize either characters or patterns as appropriate to the application.” Pet. 11, 32–33; Ex. 1005, 21:1–8. I believe Petitioner shows sufficiently that Ogasawara teaches recognizing features in an image displayed on a screen.

For the foregoing reasons, in my opinion, Petitioner demonstrates a reasonable likelihood of prevailing in showing that claim 25 is unpatentable, and I would institute an *inter partes* review.

IPR2021-01388
Patent 8,520,897 B2

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