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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SEAN PATRICK ADAM and JOSEPH FITZGERALD

Appeal 2019-001444
Application 15/036,563
Technology Center 2400

Before JUSTIN BUSCH, JASON J. CHUNG, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. §134(a) from a Final Rejection of claims 1–15. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We reverse.

¹ Throughout this Decision, we use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2016). Appellant identifies AFL Telecommunications LLC as the real party in interest. Br. 1.

STATEMENT OF THE CASE
Introduction

Appellant’s disclosed and claimed invention generally relates to “wireless fiber inspection.” Spec. ¶ 2. According to the Specification, fiber inspection probes often require specialized test equipment or handheld displays to display streaming video captured by the inspection probe. Spec. ¶ 4. Moreover, Appellant asserts in the Specification that inspection probes are wired-devices and, as such, require display units that must support the wired interface. Spec. ¶ 5. To address this restrictive requirement, Appellant’s disclosed and claimed invention obtains a video stream from an inspection probe and transmits the video stream over a Wi-Fi network to a display on a technician’s smart phone, tablet, or laptop. Spec. ¶¶ 7, 11. Further, in a disclosed embodiment, the inspection probe may store the video stream in memory before transmitting the video stream over a Wi-Fi network. *See* Spec. ¶¶ 47, 50.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below with the disputed limitations emphasized in *italics*:

1. A method, performed by an apparatus including at least one processor, of conducting wireless fiber inspection, the method comprising:
 - obtaining a video stream of the fiber from a fiber inspection probe;
 - storing the video stream in a memory of the apparatus;*
 - and*
 - after storing the video stream, transmitting the video stream from the memory over a Wi-Fi network.*

The Examiner's Rejections

1. Claims 1–3, 6, 8–10, and 12–14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Huang et al. (US 2014/0327756 A1; Nov. 6, 2014) (“Huang”) and Levin et al. (US 2011/0085159 A1; Apr. 14, 2011) (“Levin”). Final Act. 3–4.

2. Claims 4, 5, 7, 11, and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Huang, Levin, and Jannard et al. (US 2014/0196079 A1; July 10, 2014) (“Jannard”). Final Act. 4–6.

ANALYSIS²

In rejecting claim 1, the Examiner relies on the combined teachings of Huang and Levin. *See* Final Act. 3–4. We begin our analysis with a brief discussion of each reference.

Huang generally relates to a wireless fiber optic endface inspector for “inspecting fiber optic endfaces using video microscopes.” Huang ¶¶ 2, 10. Huang describes the wireless fiber optic endface inspector as comprising a video microscope (further comprising a camera module for receiving images from an adapting tip and converting the received images into a video streaming signal) and a display device. Huang ¶ 10. Huang further describes “[t]he wireless endface inspector is capable of wirelessly transmitting the video streaming signal of the endface image in real-time to

² Throughout this Decision, we have considered the Appeal Brief, filed July 11, 2018 (“Br.”); the Examiner’s Subsequent Answer, mailed October 4, 2018 (“Ans.”); and the Final Office Action, mailed January 18, 2018 (“Final Act.”), from which this Appeal is taken. Appellant did not file a Reply Brief. To the extent Appellant has not advanced separate, substantive arguments for particular claims or issues, such arguments are considered waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

the display device.” Huang ¶ 10. In order to transmit the video stream wirelessly, Huang teaches the video microscope further comprises a Wi-Fi access point to enable Wi-Fi communications, and the display device is Wi-Fi enabled to receive the video streaming signal from the video microscope for display on a display screen. Huang ¶¶ 10–12. Huang further teaches the display device may contain a central processing unit (CPU) to perform “some basic image documentation jobs, such as image capturing, image saving/retrieving, file arrangement, etc.” Huang ¶ 39. Further, Huang explains that if the CPU in the display device is not capable of performing a desired operation/calculation, an operator of the endface inspector probe and display “can immediately capture an image and send it out to a designated service center” for further evaluation. Huang ¶ 40. Huang teaches the means by which the captured image may be sent to the designated service center is via Wi-Fi. Huang ¶ 40.

Levin generally relates to a fiber optic endface inspection probe and system. Levin ¶ 9, Abstract. In discussing the background of the invention, Levin explains it is known to have an inspection probe send video captured by the inspection probe to a display. Levin ¶ 4. This may be done using a physical (i.e., wired) connection, or the video may be transmitted wirelessly. Levin ¶¶ 4, 7. According to Levin, such systems have significant disadvantages such as requiring the operator to adjust the focus the probe (which may require additional skill) or being unsafe/awkward (by requiring the operator to hold onto both the probe and a display device). Levin ¶ 5. Levin further states a disadvantage of wireless transmission is “video streaming via wireless transmission is limited” by the refresh rates of screens, which can result in a blurry image. Levin ¶ 7. Accordingly, Levin

discloses a fiber optic endface inspection probe comprising an autofocus camera system. Levin ¶¶ 9–10. The probe may capture a “sharp still image to memory and may transmit the image wirelessly” to a remote viewing device. Levin ¶¶ 11–12.

Additionally, in the Description of the Related Art section of Huang, Huang expressly references the Levin reference and explains the wireless function in the Levin probe “is just sending saved images (photos) to a remote image viewing device,” and that the autofocus system with its required microprocessor, electronics module, and motor and controller (in addition to a wireless transceiver, battery, and memory card) results in a probe that is “fairly bulky, heavy and impractical.” Huang ¶ 8.

The Examiner relies on Huang for teaching a fiber optic inspection system wherein a video stream of the fiber is obtained from a fiber inspection probe and is transmitted over a Wi-Fi network. Final Act. 3. The Examiner finds Levin teaches storing a video stream in memory and transmitting a video stream that had been stored in memory. Final Act. 3–4. The Examiner determines “it would have been obvious to one of ordinary skill in the art at the time the invention was filed to modify Huang by incorporating the teachings of Levin for the common purpose of using the autofocus technique and automatically analyzing captured image data as disclosed by Levin.” Final Act. 4.

Appellant argues the Examiner’s proposed combination is based on impermissible hindsight and is counter to the express teachings and purpose of Huang. Br. 5–6. Appellant argues Huang is directed to the real-time transmission of a video streaming signal without any storage of the video stream prior to transmission. Br. 6 (citing Huang ¶¶ 10, 28, 34). In addition,

Appellant notes Huang criticizes the probe described by Levin as impractical. Br. 7 (citing Huang ¶ 8); *see also* Br. 6 (Appellant arguing “Huang explicitly teaches that the Levin invention is undesirable.”) (emphasis omitted). Moreover, Appellant asserts that Levin does not teach the storage or transmission after storage of video streams. Br. 7. Rather, Appellant argues “Levin is explicitly limited to the storage and transmission of still images.” Br. 7 (citing Levin ¶¶ 11, 49).

In response, the Examiner finds Huang also teaches the automatic capture/analysis of images. Ans. 7 (citing Huang ¶¶ 2, 7, 13–15). More specifically, the Examiner finds Huang discloses that a user “may watch and save captured images and transmit[] stored images wirelessly, i.e.,] after storing the video stream, transmitting the video stream from the memory over a Wi-Fi network.” Ans. 7 (citing Huang ¶¶ 5, 40). Regarding Appellant’s arguments challenging the proposed combination of Huang and Levin, the Examiner notes that Huang’s probe also uses some undesirable features found in Levin (i.e., a wireless transceiver, a battery, and a memory) and the references “are combinable because they are of a similar field of endeavor.” Ans. 8 (citing Huang ¶¶ 43, 50).

As an initial matter, just because references may be from a similar field of endeavor does not mean that their combination is sufficient to support a determination of obviousness. To support the legal conclusion of obviousness, “there must be some articulated reasoning with some rational underpinning” for combining elements in the manner claimed. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Additionally, we note that a “reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Ricoh Co., Ltd. v. Quanta Computer, Inc.*, 550 F.3d 1325, 1332 (Fed. Cir. 2008) (citations omitted); *see also In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

Here, we find the Examiner’s reasoning to combine Levin’s teaching of storing (a still image) prior to transmission of the image with the system of Huang “for the common purpose of using the autofocus technique . . . as disclosed by Levin” unsupported by the references (i.e., lacks rational underpinning). Further, the disclosures in both Huang and Levin tend to counsel against their combination. In particular, Huang expressly identifies the autofocus technique of Levin as disadvantageous (i.e., it results in a bulky and impractical probe). *See* Huang ¶ 8. Further, Levin also discourages the transmission of a video stream, instead teaching the storage and transmission of still images. *See* Levin ¶ 7.

Moreover, regarding the Examiner’s findings of Huang, we disagree that Huang teaches the inspection probe comprises memory. *See* Huang ¶¶ 43, 50; *contra* Ans. 8. Rather, the memory in Huang is part of the display device. *See, e.g.*, Huang ¶¶ 13–15, 39–40, 50. Thus, the video stream from the inspection probe must be transmitted over a Wi-Fi network to the display device before it could be stored. Although Huang does teach that the display device may transmit over a Wi-Fi network to a designated service center for increased analysis (*see* Huang ¶ 40), Huang teaches the display device would transmit “an image” (i.e., not the obtained video stream) to the service

center. Huang ¶ 40. In addition, the Examiner’s statement that “both video and/or still images can be compressed and that there wouldn’t be unexpected results given the instant claims whether video or compressed images are used/stored” (*see* Adv. Act., mailed May 14, 2018) lacks sufficient evidence and technical reasoning.

Because we find it dispositive that the Examiner has not shown by a preponderance of evidence that one of ordinary skill in the art would have combined the teachings of Huang and Levin together to achieve a wireless fiber inspection system that transmits a video stream of an inspected fiber, obtained from a fiber inspection probe, over a Wi-Fi network *after* the obtained video stream has been stored in a memory device, we do not address other issues raised by Appellant’s arguments related to the pending claims. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (finding an administrative agency is at liberty to reach a decision based on “a single dispositive issue”).

For the reasons discussed *supra*, we are persuaded of Examiner error. Accordingly, we do not sustain the Examiner’s rejection under 35 U.S.C. § 103 of independent claim 1.³ For similar reasons, we do not sustain the Examiner’s rejection under 35 U.S.C. § 103 of independent claims 5, 6, 8, and 12, which recite commensurate limitations. In addition, we do not

³ In the event of further prosecution, we invite the Examiner to consider whether the claims comport with the requirements of 35 U.S.C. § 101, consistent with Patent Office Guidance on Patent Subject Matter Eligibility (84 Fed. Reg. 50). Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* Manual of Patent Examining Procedure (MPEP) § 1213.02 (9th ed. Rev. 08.2017, Jan. 2018).

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sustain the Examiner's rejection under 35 U.S.C. § 103 of claims 2–4, 7, 9–11, and 13–15, which depend directly or indirectly therefrom.

CONCLUSION

We reverse the Examiner's decision rejecting claims 1–15 under 35 U.S.C. § 103.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–3, 6, 8–10, 12–14	103	Huang, Levin		1–3, 6, 8–10, 12–14
4, 5, 7, 11, 15	103	Huang, Levin, Jannard		4, 5, 7, 11, 15
Overall Outcome				1–15

REVERSED