



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/827,007	08/14/2015	John Roberts	2294-113	9876
166620	7590	01/23/2020	EXAMINER	
IDEAL and Withrow + Terranova 106 Pinedale Springs Way Cary, NC 27511			CHAI, RAYMOND REI-YANG	
			ART UNIT	PAPER NUMBER
			2844	
			NOTIFICATION DATE	DELIVERY MODE
			01/23/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@wt-ip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN ROBERTS and JAMES McBRYDE

Appeal 2019-002218
Application 14/827,007
Technology Center 2800

BEFORE LINDA M. GAUDETTE, GEORGE C. BEST, and
JEFFREY W. ABRAHAM, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

The Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner’s decision finally rejecting claims 1–3 and 5–22 under 35 U.S.C. § 103 as unpatentable over Kingsmill (US 2016/0127874 A1, published May 5, 2016) in view of Henig (US 2011/0031897 A1, published Feb. 10, 2011),

¹ This Decision includes citations to the following documents: Specification filed Aug. 14, 2015 (“Spec.”); Final Office Action dated Mar. 22, 2018 (“Final”); Appeal Brief filed Oct. 19, 2018 (“Appeal Br.”); and Examiner’s Answer dated Dec. 13, 2018 (“Ans.”). We also have considered the arguments made in the Reply Brief filed Jan. 18, 2019.

² We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Cree, Inc. Appeal Br. 1.

Spaulding (US 2014/0168610 A1, published June 19, 2014) and Keränen (US 2017/0134521 A1, published May 11, 2017).³

We AFFIRM.

CLAIMED SUBJECT MATTER

The invention relates to lighting fixtures and systems. Spec. ¶ 1. “In one embodiment, a lighting system includes a number of lighting fixtures and a lighting management system.” *Id.* ¶ 41. The lighting fixtures may include communication circuitry that allows detection of the proximal presence of one or more mobile devices. *Id.* Upon detecting one or more mobile devices, the lighting fixtures send a message to the lighting management system. *Id.* The lighting management system determines if a detected mobile device is associated with a settings profile and, if so, facilitates the implementation of the desired settings, such as light output settings for one or more lighting fixtures in the lighting system, or settings for one or more networked speakers, media players, set top boxes, appliances, HVAC systems, and the like. *Id.* ¶ 46. The lighting management system includes processing circuitry, a memory, and communication circuitry. *Id.* ¶ 55. The processing circuitry may be configured to execute one or more instructions stored in the memory to provide the lighting management system with certain functionality. *Id.* The communication circuitry allows the lighting management system to communicate, either wirelessly or otherwise, with the lighting fixtures in the lighting system or with one or more additional devices. *Id.* For example, the lighting management system may send a command to lighting fixtures instructing

³ We have jurisdiction under 35 U.S.C. § 6(b).

them to adjust light output based on the desired settings in the settings profile. *Id.* ¶ 61.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A lighting management system comprising:
 - communications circuitry;
 - processing circuitry; and
 - a memory storing instructions, which, when executed by the processing circuitry cause the lighting management system to:
 - receive a message from a lighting fixture via the communications circuitry, the message indicating a proximal presence of a detected mobile device to the lighting fixture and including mobile device distance information describing a distance of the detected mobile device relative to the lighting fixture;
 - determine if the detected mobile device is associated with settings preferences indicating one or more desired actions to be taken upon detection of the proximal presence of the detected mobile device;
 - upon determining that the detected mobile device is associated with the settings preferences indicating the one or more desired actions to be taken upon detection of the proximal presence of the detected mobile device, send the associated settings preferences to one or more devices; and
 - receive an acknowledgement message from the one or more devices acknowledging execution of the one or more desired actions.

Appeal Br. 12 (Claims Appendix).

OPINION

The Examiner rejected claims 1–3 and 5–22 under 35 U.S.C. § 103 as unpatentable over Kingsmill, Henig, Spaulding, and Keränen. Final 2. For the reasons stated in the Final Office Action, the Answer, and below, we sustain the rejection.

Kingsmill discloses a lighting fixture that includes a transceiver, thus allowing the lighting fixture to receive a wireless signal transmitted from a mobile device, such as a smartphone. Kingsmill ¶ 33. The lighting fixture sends a message to a server to report the detection of the mobile device. *Id.* Upon receipt of the message, the server obtains a unique device identifier and a unique outlet identifier associated with the lighting fixture. The server thus knows that, at the current date and time, the mobile device has the location identified by the outlet identifier associated with the lighting fixture. *Id.* The server may have its own processor, application specific integrated circuit, or other component that executes a server-side algorithm stored in a memory. *Id.* ¶ 41. The server may retrieve a profile associated with the device identifier of the mobile device. *Id.* ¶ 61. The server may activate a television, music system, or other entertainment component, based on the current location of the mobile device, and automatically select the programming and/or music, based on the content preferences in the profile. *Id.*

The Examiner found that Kingsmill discloses a light management system as recited in claim 1 with the exceptions of a memory storing instructions, which, when executed by the processing circuitry, cause the lighting management system to: (1) receive a message from a lighting fixture that includes information describing a distance of the detected

mobile device relative to the lighting fixture, (2) send settings preferences associated with a detected mobile device to one or more devices, and (3) receive an acknowledgement message from the one or more devices acknowledging execution of one or more desired actions indicated by the settings preferences. Final 3–5.

The Examiner relied on Henig for a teaching of a lighting management system configured to receive a message from a lighting fixture that includes information describing a distance of the detected mobile device relative to the lighting fixture. Final 4. Henig discloses a lighting system comprising a set of fixtures (e.g., luminaires, wall switches, etc.) and at least one remote driver that collects information from a set of sensors and controls and sets the output light level for each luminaire. Henig ¶ 17. “The lighting system further comprises communications means to allow each fixture to communicate with [a] control system. Such means can include direct wired connections, or any other known communications means such as optical fibers, wireless (radio frequency), ultrasonic, infrared, etc.” *Id.* ¶ 18. Henig discloses obtaining distance measurements between fixtures, including luminaires and other devices such as standalone sensors, via signal sources and compatible detectors in the fixtures. *Id.* ¶¶ 31–32. The Examiner found that the ordinary artisan at the time of the invention would have modified Kingsmill’s lighting fixtures and mobile phone by including Henig’s sensors or detectors in order to include in the message sent by the lighting fixtures to the server a distance vector describing the relative distance between the lighting fixture and the mobile phone in order to more precisely identify the location of the mobile phone. Final 4 (citing Henig ¶¶ 33–34, Kingsmill ¶ 55).

The Examiner relied on Spaulding for a teaching of a lighting management system configured to send settings preferences associated with a detected mobile device to one or more devices. Spaulding discloses an intelligent nodal lighting system that is controllable using a wireless protocol, such as Wi-Fi. Spaulding ¶ 7. The system includes a controller wirelessly connected to at least one intelligent node. *Id.* ¶ 12. The controller includes a controller processor and a wireless transceiver that can be connected to a wireless network. *Id.* The controller may be a mobile phone. *Id.* “[E]ach light unit (or node) in the system may have its own independent Wi-Fi address and may act independently upon commands from a wirelessly connected controller.” *Id.* ¶ 7. “Each intelligent light node may contain a CPU and memory for storing and interpreting commands from the controller to achieve a desired light color, intensity, or quality.” *Id.* More specifically, upon receiving scene settings from the controller, the lighting node’s command interpretation module interprets and communicates these scene settings to an output module, also located within the lighting node. *Id.* ¶ 14. “The output module may be one or more lighting elements and may output the desired color, intensity, and quality of light requested by the controller.” *Id.* The Examiner found that an ordinary artisan at the time of the invention would have configured Kingsmill’s lighting management system to send settings preferences as taught by Spaulding, rather than a command to perform an action based on the preferences, to a lighting fixture. Final 5. The Examiner found that the ordinary artisan would have made such modification to decentralize the lighting system and allow each fixture to decide whether the action can be performed. *Id.* (citing Spaulding ¶ 10 (“[T]he lighting node may assess the controller commands and determine

whether the desired system settings are within the capabilities of the individual lighting unit. . . . [T]he lighting node may intelligently calculate and output the closest alternative settings if those requested by the controller cannot be supported by the particular lighting unit.”)).

The Examiner relied on Keränen for a teaching of a communication network configured to receive an acknowledgement message from the one or more devices acknowledging execution of one or more desired actions indicated by the settings preferences. Final 5. Keränen discloses a communication network comprising at least first and second nodes. Keränen ¶ 36. The nodes may be configured to communicate wirelessly. *Id.* Keränen describes an embodiment wherein the first node receives a single message containing instructions to perform a plurality of actions. *Id.* ¶ 39. After performing the plurality of actions, the first node may send an acknowledgment message to the second node confirming that it has performed all of the actions. *Id.* The Examiner found that the ordinary artisan at the time of the invention would have configured Kingsmill’s lighting management system to receive an acknowledgement message from a device confirming that a desired action was completed as taught by Keränen, thereby allowing the controller to display the current status of the device and confirm implementation of the desired setting. Final 5.

The Appellant argues that the Examiner erred reversibly in (1) relying on Keränen because Keränen is nonanalogous art, and (2) finding that one of ordinary skill in the art would have combined the teachings of Kingsmill, Henig, Spaulding, and Keränen because the references address different problems. *See generally* Appeal Br. 5–10.

We turn first to the Appellant’s argument that Keränen is nonanalogous art. A reference qualifies as prior art for an obviousness analysis only when it is analogous to the claimed invention. *Innovation Toys, LLC v. MGA Entm’t, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011) (citing *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992)). As acknowledged by the Appellant, *see* Appeal Br. 6, “[t]wo separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved,” *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (quoting *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004)).

The Appellant argues that the claimed invention “relates to a lighting management system that sends . . . setting preferences to a device in order to have the device execute an action without manual intervention.” Appeal Br. 6–7. The Appellant contends that Keränen is not in the same field of endeavor as the claimed invention because it relates to “cellular networks, where radio devices communicate via a RAN, and relates to sending messages between the radio devices in a cellular network.” *Id.* at 6. The Appellant argues that “the present invention address[es] problems associated with adjusting light output settings with a portable device,” whereas “Keränen addresses problems associated with message transmissions from radio devices when the radio devices transition from a sleep mode, along with latency and network utilization.” *Id.* (emphasis omitted). The Appellant thus contends that Keränen also is not reasonably pertinent to the problem faced by the present inventors. *Id.*

The Examiner contends that the Appellant has provided an overly narrow definition of the field of the inventor’s endeavor as “a lighting management system that sends the setting preference to a device in order to have the device execute an action without manual intervention.” Ans. 4. The Examiner contends the field of endeavor is a “communication network used in a field of lighting applications.” *Id.* at 5. The Examiner thus maintains that Keränen “is in the same field of endeavor as the present invention, as both are related to a communication network used to transmit instructions and acknowledgment messages.” *Id.*

Having considered the Examiner’s and the Appellant’s respective positions in light of the evidence of record, we are not convinced of reversible error in the Examiner’s finding that Keränen is analogous art. As indicated by the Examiner, *see* Ans. 4, Keränen discloses that a cellular radio communication network is merely an embodiment of the invention, Keränen ¶ 34, which Keränen describes more broadly as “relat[ing] to a method performed by a node in a communication network for sending or receiving instructions to/from a second node in said network for performing a plurality of actions,” *id.* ¶ 1. Keränen states expressly that “[t]he communication network may be any communication network.” *Id.* ¶ 36 (“If at least one of the first and second nodes 1 and 2 is a *radio device*, it may be configured to communicate over its radio interface” (emphasis added)). The present invention involves the use of a communications network to send and receive settings and instructions for performing desired actions, *see, e.g., id.* ¶¶ 10, 12–13. Accordingly, at a minimum, Keränen is pertinent to a problem with which the inventors were involved.

We turn next to the Appellant’s argument that the ordinary artisan would not have combined Kingsmill, Henig, Spaulding, and Keränen because the references address different problems. The Appellant argues that “Kingsmill, Henig, Spaulding, and Keränen respectively address problems associated with locating a smartphone, installing lighting systems, centralized lighting systems, and cellular network signaling. . . . [O]ne skilled in the art would not consult all four [references] . . . at the same time.” Appeal Br. 10 (emphasis omitted). The Appellant’s arguments are not persuasive because they fail to address and, therefore, do not identify error in the Examiner’s fact finding and reasoning in determining that the ordinary artisan would have combined the teachings of the references to achieve the claimed invention. For example, the Appellant argues that “[t]here . . . is no reason why one skilled in the art would combine a reference in the field using GPS to determine the location of a device (Kingsmill) with a reference relating to problems associated with installing lighting systems having a large number of discrete components (Henig).” Appeal Br. 10 (emphasis omitted). However, the Appellant does not address the Examiner’s reason as to why the ordinary artisan would have modified Kingsmill’s lighting fixtures and mobile phone by including Henig’s sensors or detectors, i.e., to include in the message sent by a lighting fixture to the server a distance vector describing the relative distance between the lighting fixture and the mobile phone in order to more precisely identify the location of the mobile phone, *see* Final 4.

In sum, for the reasons discussed above, in the Final Office Action, and in the Answer, we are not persuaded of reversible error in the Examiner’s conclusion of obviousness as to claim 1. Because the Appellant

Appeal 2019-002218
Application 14/827,007

does not make separate arguments in support of patentability of any particular claim or claim grouping, we sustain the rejection as to all claims subject to the rejection.

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-3, 5-22	103	Kingsmill, Henig, Spaulding, Keränen	1-3, 5-22	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED