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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER LJUNG and JOHAN WADMAN

Appeal 2019-003627
Application 15/085,329
Technology Center 2600

Before CAROLYN D. THOMAS, MICHAEL J. STRAUSS, and
IRVIN E. BRANCH, *Administrative Patent Judges*.

STRAUSS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1, 2, 5, 7–9, 11–14, 18–22, 24–29, and 31–38. *See* Final Act. 1. Claims 3, 4, 6, 10, 15–17, 23, and 30 are canceled.

¹ We refer to the Specification, filed March 30, 2016 (“Spec.”); Final Office Action, mailed June 27, 2018 (“Final Act.”); Appeal Brief, filed November 26, 2018 (“Appeal Br.”); Examiner’s Answer, mailed February 5, 2019 (“Ans.”); and the Reply Brief, filed April 4, 2019 (“Reply Br.”).

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

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Application 15/085,329

Appeal Br. 11–15 (Claims Appendix). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM IN PART.

PRIOR APPEAL

This Application is a continuation of U.S. Patent Application 13/818,479 that was subject to prior appeal 2018-005425, decided on June 5, 2019 (our “prior Decision”), in which the Board affirmed in part the Examiner’s rejections of the claims then pending in that parent application.

CLAIMED SUBJECT MATTER

The claims are directed to detecting a tag having a sensor associated therewith and receiving sensor information therefrom. Spec., Title. Claim 1, reproduced below with a disputed limitation emphasized in *italics*, is illustrative of the claimed subject matter:

1. A method of operating an electronic device, comprising:
 - detecting, using a tag reader circuit, a tag having a sensor associated with the tag, the tag being configured to communicate with the sensor to receive sensor information from the sensor and being further configured to transmit information over a defined distance using a short range wireless protocol via a communication link;
 - receiving, via the tag reader circuit, the sensor information transmitted by the tag over the communication link; and
 - sending the sensor information to an application server;*wherein the sensor information comprises authentication information that identifies a person.*

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Gray	US 2005/0145187 A1	July 7, 2005
Brown	US 2009/0121890 A1	May 14, 2009

REJECTION

Claims 1, 2, 5, 7–9, 11–14, 18–22, 24–29, and 31–38 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Gray and Brown. Final Act. 2–6.

STANDARD OF REVIEW

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

OPINION

Claim 1

Examiner's Findings

The Examiner finds Gray's livestock asset management system teaches or suggests all limitations of claim 1 except for the disputed limitation of the sensor information comprising authentication information that identifies a person. Final Act. 2–3. The Examiner finds Brown's personal digital key (PDK) that provides information to authenticate a user to a sensor (i.e., information for comparison with biometric information collected by the sensor or individual biometric information obtained by a sensor on the PDK (*see* Spec. 27, ll. 3–21)) teaches or suggests the disputed limitation. *Id.* at 3, *see also* Appeal Br. 6 (summarizing Brown). The Examiner reasons it would have been obvious to incorporate Brown's authentication information into the information collection methodology taught by Gray's livestock asset management system “in order to facilitate rapid communications to control access to resources and to authenticate individuals thereby increasing the reliability of the system.” *Id.*

Appellant's Contentions and Examiner's Response

Appellant contends the combination of Gray and Brown is improper, arguing “there is no objective reason why one would modify Gray’s livestock management system to incorporate Brown’s biometric authentication capability for humans.” Appeal Br. 8. According to Appellant, the combination would result in “modifying Gray’s electronic ear tag 14, which is shown in FIG 3 of Gray as attached to the ear of an animal, to include the functionality of Brown’s sensor 108 that can receive biometric information from a person to authenticate that person.” *Id.* Appellant contends such a modification is not appropriate, arguing:

Modifying Gray’s electronic ear tag 14 to incorporate the input of human biometric information, such as a fingerprint or palm reader, retinal scan unit, photograph reader, voice analyzer, or the like would appear to only increase the complexity and cost of the electronic ear tag 14 with the benefit being the ability to authenticate an individual who happens to be standing next to an animal. Moreover, Gray’s livestock management system is designed to address the management of livestock in the open range where there is a lack of workers to monitor the livestock. (Gray, paragraphs 4 and 5). Thus, Gray’s monitoring system is not typically used where there is a person attending to the animal directly, such as a veterinarian, rancher, or the like. The Final Action does not provide any reasoning with respect to why a livestock owner would be concerned with the identities of people who are standing next to particular animals.

Id. (emphasis omitted).

The Examiner responds, explaining, although Gray is directed to collecting information about individual animals using RFID tags attached to livestock, Brown determines the location of an RFID tag attached to an object carried by a person. Ans. 4. According the Examiner, the

combination of Gray and Brown is proper for the reasons provided in the Final Act. *Id.*

Appellant replies, again arguing the Examiner's reasoning for combining the teachings of Gray and Brown is inadequate to support the rejection. According to Appellant because Gray's system collects biometric data on livestock "[t]he Examiner's Answer's alleged benefit of facilitating rapid communication to control access to resources seems entirely unrelated to modifying Gray's livestock ear tags to authenticate a person next to an animal." Reply Br. 3. Appellant further questions "[h]ow . . . the reliability of the system [is] improved by increasing the complexity of Gray's ear tag 14 to incorporate Brown's sensor 108 functionality to authenticate persons." *Id.*

Analysis

Appellant's contentions are unpersuasive of reversible Examiner error. Initially, as a matter of claim interpretation, the disputed limitation requiring the sensor information comprise authentication information that identifies a person merely specifies the content of the sensor information that, for the reasons discussed below, constitutes non-functional descriptive material that is not afforded patentable weight. Furthermore, Appellant's argument is unpersuasive as premised on the bodily incorporation of a specific embodiment of one reference into another reference rather than what the combination of references would have taught or suggested to one skilled in the relevant art.

Our reviewing court has held that nonfunctional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir.

2004); *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) (noting that when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability); *King Pharm., Inc. v. Eon Labs, Inc.*, 616 F.3d 1267, 1279 (Fed. Cir. 2010) (“[T]he relevant question is whether ‘there exists any new and unobvious functional relationship between the printed matter and the substrate.’”) (citations omitted); *see also Ex parte Nehls*, 88 USPQ2d 1883, 1889 (BPAI 2008) (precedential) (“[T]he nature of the information being manipulated does not lend patentability to an otherwise unpatentable computer-implemented product or process.”); *Ex parte Mathias*, 84 USPQ2d 1276, 1279 (BPAI 2005) (informative), *aff’d*, 191 F. App’x 959 (Fed. Cir. 2006) (“[N]onfunctional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art.”); *Ex parte Curry*, 84 USPQ2d 1272, 1274 (BPAI 2005) (informative), *aff’d*, No. 2006-1003 (Fed. Cir. June 12, 2006) (Rule 36) (“Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious.”). Although we do not disregard any claim limitations and assess the claimed invention as a whole, we follow the Federal Circuit’s guidance from the *Gulack* decision and will “not give patentable weight to printed matter absent a new and unobvious functional relationship between the printed matter and the substrate.” *In re Lowry*, 32 F.3d 1579, 1582 (Fed. Cir. 1994) (discussing *Gulack*). Here, we consider that the claimed “sensor information [that] comprises authentication information that identifies a person” is directed to nonfunctional descriptive material that should not be given patentable weight.

“The first step of the printed matter analysis is the determination that the limitation in question is in fact directed toward printed matter.” *In re Distefano*, 808 F.3d 845, 848 (Fed. Cir. 2015). Material is printed matter if it is “claimed for what it communicates.” *Id.* at 850. The disputed limitation of claim 1 (that the sensor information comprises authentication information that identifies a person) pertains to the ability of the electronic device to receive and transmit a signal with specific content.³ Therefore, the disputed claim limitation is directed to printed matter. *See id.* at 848 (A claim limitation is directed to printed matter “if it claims the content of information.”).

If a claim in a patent application claims printed material, “one must then determine if the matter is functionally or structurally related to the associated physical substrate, and only if the answer is ‘no’ is the printed matter owed no patentable weight.” *Distefano*, 808 F.3d at 851. Here, the claimed sensor information is not interrelated or explicitly used in the claim such as by the electronic device using the received sensor information to authenticate or identify a person.⁴ Rather, the sensor information is not functionally distinct from any other information that is received or sent. Therefore, we find the disputed claim limitation constitutes nonfunctional descriptive material and is not entitled to patentable weight. This is analogous to *Curry*, where the type of data was found to be nonfunctional descriptive material when it “does not functionally change either the data

³ We note claim 1 does not require the tag from which the sensor information is received to include a particular sensor that is particularly configured to sense authentication information and, in any case, claim 1 is directed to a method of operating the electronic device and not the tag.

⁴ *See n. 3*

storage system or communication system used in the method of claim 81.”
Ex parte Curry, 84 USPQ2d at 1274.

As recognized in *Curry*, “if the prior art suggests storing a song on a disk, merely choosing a particular song to store on the disk would be presumed to be well within the level of ordinary skill in the art at the time the invention was made.” *Id.* at 1275. Choosing the content of the sensor information that the claimed electronic device is able to receive and transmit is no different, in that the content of the communication does not alter the structure or functionality of the claimed electronic device.

Because the content of the sensor information specified by the disputed limitation constitutes nonfunctional descriptive material, the particular type of information (i.e., sensor information comprising authentication information that identifies a person) recited in claim 1 is not entitled to patentable weight. Accordingly, Appellant’s argument is not commensurate in scope with claim 1.

Furthermore, because *Brown* is relied upon only for teaching a claim element that is not entitled to patentable weight, application of the *Brown* reference is unnecessary to support the rejection. Instead, *Gray* standing alone anticipates claim 1 by disclosing all limitations entitled to patentable weight. Although “novelty under 35 U.S.C. § 102 and nonobviousness under 35 U.S.C. § 103 are separate conditions for patentability,” “anticipation is the ‘epitome of obviousness.’” *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1363 (Fed. Cir. 2008) (quoting *In re Kalm*, 378 F.2d 959, 962 (CCPA 1967)); see also *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002); *In re Baxter Travenol Laboratories*, 952 F.2d 388, 391 (Fed. Cir. 1991); *In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982). The

elimination of the need for Brown to support the rejection also eliminates the requirement to provide a reason for making the combination. Accordingly, Appellant's contention that the combination of Gray and Brown is improper (Appeal Br. 8) is immaterial and, accordingly, unpersuasive.

In any case, Appellant's argument is substantively flawed because it presumes modification of Gray's livestock monitoring system by extending the system using ear tags attached to livestock to additionally collect sensor authentication information that identifies a person, such as an individual positioned near the livestock. *See, e.g.*, Appeal Br. 8 ("The Final Action does not provide any reasoning with respect to why a livestock owner would be concerned with the identities of people who are standing next to particular animals."). What Appellant argues, in effect, is that Gray's teachings are limited to Gray's proposed use and would not be applicable to a system used to provide information (i.e., authentication information) for a person *rather than* livestock. For example, Appellant argues the combination of Gray and Brown would result in an RFID ear tag attached livestock rather than, as Brown teaches, an RFID tag attached to an object carried by a person, e.g. Brown's personal digital key. Thus, such argument is unpersuasive because it relies on the wholesale incorporation/combination of structures rather than what the combination of Gray and Brown fairly teaches or suggests, including the substitution of Brown's personal digital key for use with people in place of Gray's ear tag for monitoring livestock.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference,^[5] nor is it that the claimed

⁵ We interpret the court's holding to apply without regard to which reference is characterized as a primary reference and which a secondary reference.

invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

In re Keller, 642 F.2d 413, 425 (CCPA 1981). The artisan is not compelled to blindly follow the teaching of one prior art reference over the other without the exercise of independent judgment. *See Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984). Furthermore, the skilled artisan would “be able to fit the teachings of multiple patents together like pieces of a puzzle” because the skilled artisan is “a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 420–21.

We are unpersuaded Gray’s system is limited to monitoring livestock using ear tags. The Examiner applies *Brown* for teaching monitoring the location of a personal digital key carried by a person such that the combination of Gray and *Brown* teaches a tag (e.g., an RFID tag) carried by a person. We find insufficient evidence to persuade us that one skilled in the art would limit Gray’s teachings to use in monitoring livestock or would only consider using RFID tags in the form of ear tags attached to livestock and would not apply those teachings to other environments including people

The Federal Circuit has held that characterization of a reference as being a “primary” or “secondary” reference in an obviousness rejection is not controlling. *See In re Mouttet*, 686 F.3d 1322, 1333 (Fed. Cir. 2012) (“But where the relevant factual inquiries underlying an obviousness determination are otherwise clear, characterization by the examiner of prior art as ‘primary’ and ‘secondary’ is merely a matter of presentation with no legal significance.”); *see also In re Bush*, 296 F.2d 491, 496 (CCPA 1961) (“we deem it to be of no significance, but merely a matter of exposition, that the rejection is stated to be on A in view of B instead of on B in view of A, or to term one reference primary and the other secondary”).

as taught by Brown. Instead, “[a] reference may be read for all that it teaches, including uses beyond its primary purpose.” *See In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012). As our reviewing court has repeatedly held, “[a] reference must be considered for everything that it teaches, not simply the described invention or a preferred embodiment.” *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012) (citing *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985)). Thus, one of ordinary skill in the art, viewing Gray and Brown, as well as the knowledge of one of ordinary skill in the art of electronic tracking and monitoring, would have found obvious the method of providing authentication information identifying a person set forth in claim 1.

We are also unpersuaded by Appellant’s argument the Examiner has failed to provide sufficient reasoning to combine Gray and Brown in support of a conclusion of obviousness. As discussed above, the disputed limitation requiring authentication information identifying a person constitutes nonfunctional descriptive material that is not entitled to patentable weight. In such case, there is no need to apply Brown’s teachings in rejecting the claims. Even if otherwise, Appellant’s contention the combination is improper is based on argument that the combination of Gray and Brown results in RFID tags attached to livestock using ear tags. Instead, as discussed above, applying Brown’s teaching, an RFID tag is attached to an object carried by a person, such as Brown’s personal digital key. Thus, as explained by the Examiner (Final Act. 3, Ans. 4), Brown’s authentication would be enhanced by using Gray’s method of communications. *See, e.g.*, Gray ¶ 8 (“An object of the present invention is to provide an effective automated data collection and database management methodology . . .

including effective communication and sharing of data.”). Conversely, Brown discloses attaching tags to people to provide tracking “used to better understand their behavior.” Brown ¶ 6. Accordingly, there is also reasoning for modifying Gray to incorporate Brown’s tracking of a person using a tag attached to an object carried by the person. In contrast, Appellant fails to persuade us that combining Gray’s communication system with Brown’s authentication information would not leverage Gray’s rapid communication with Brown’s authentication to provide enhanced communication of sensor information. Thus, we find the Examiner has articulated reasoning with rational underpinnings sufficient to justify the legal conclusion of obviousness. Final Act. 3, Ans. 4. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds . . . must [include] . . . some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”), *cited with approval in KSR*, 550 U.S. at 418.

For the reasons discussed above, Appellant’s contentions are unpersuasive of Examiner error in connection with the rejection of independent claim 1. Independent claims 19 and 26 are argued together with claim 1. Appeal Br. 8. Accordingly, we sustain the rejection of independent claims 1, 19, and 26 under 35 U.S.C. 103(a) together with the rejection of dependent claims 2, 5, 7–9, 13, 14, 18, 20–24, 27–29, 31, and 33–37 that are not argued separately with particularity.

Claim 11

Claim 11 depends from claim 5 that, in turn, depends from independent claim 1. Thus, claim 11 further limits claim 1 by requiring, per claim 5, a step of sending a message to the tag to and, in response to the tag being placed in a bi-directional communication mode, per claim 11, change

an operation of the sensor associated with the tag and/or a transmission behavior of the tag. The Examiner finds the disputed limitation of changing an operation of the sensor associated with the tag or a transmission behavior of the tag is taught by the disclosure at paragraph 77 of Gray. Final Act. 4, Ans. 5. Appellant disputes the Examiner's finding, arguing "[p]aragraph 77 of Gray describes the architecture of the animal tag reader 14 without any description of changing the operational behavior of a sensor and/or the operational behavior of RFID tag 24 based on a message from the animal tag reader 14 to the RFID tag 24." Appeal Br. 9.

We agree with Appellant that the cited portion of Brown fails to address either changing operation of the sensor or a transmission behavior in response to being placed in a bi-directional communication mode. Accordingly, Appellant's argument is persuasive of reversible Examiner and we do not sustain the rejection of claim 11.

Claim 12

Claim 12 depends from claim 5 that, in turn, depends from independent claim 1. Thus, claim 12 further limits claim 1 by requiring, per claim 5, a step of sending a message to the tag to, per claim 12, update firmware associated with the tag. As in the rejection of claim 11, the Examiner again cites paragraph 77 of Gray for teaching the limitations of claim 12. Final Act. 4, Ans. 5. Similarly, Appellant contends paragraph 77 of Gray fails to teach the recited limitation. Appeal Br. 9. We again agree with Appellant and, accordingly do not sustain the rejection of claim 12.

Claims 25 and 32

Claim 25 recites

25. The electronic device according to claim 19, wherein the sensor information is information related to at least one of

tracking of entrance through doors, on/off detection of kitchen appliances, light detection and power meter monitoring.

The Examiner finds Gray's disclosure that electronic module 44 is supplied with operating power by an electrical power supply that can be recharged during daylight by a solar power source teaches the light detection and power meter monitoring recited by claim 25. Final Act. 5, Ans. 6. Appellant argues "Gray does not provide any description of collecting sensor information related to entrance through doors/on/off detection of kitchen appliances, light detection, and power meter monitoring." Appeal Br. 10.

As discussed above in connection with claim 1, the content of the sensor information provided by the tag, in context of the claimed electronic device, constitutes nonfunctional descriptive material. Accordingly, Appellant's argument is not commensurate in scope with claim 25 and we sustain the rejection of claim 25 together with the rejection of claim 32 that is argued together with claim 25.

CONCLUSION

We reverse the Examiner's rejection of claims 11 and 12 under 35 U.S.C. § 103(a).

We affirm the Examiner's rejection of claims 1, 2, 5, 7-9, 13, 14, 18-22, 24-29, and 31-38 under 35 U.S.C. § 103(a).

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 5, 7-9, 11-14, 18-22, 24-29, 31-38	103(a)	Gray, Brown	1, 2, 5, 7-9, 13, 14, 18-22, 24-29, 31-38	11, 12

TIME PERIOD FOR RESPONSE

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

AFFIRMED IN PART