The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MARK E. TUTTLE

Appeal No. 2006-2548
Application No. 09/524,804

ON BRIEF

Before JERRY SMITH, BLANKENSHIP, and SAADAT, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 50-52, 54-69 and 71-106. Claims 1-49, 53, 70 and 107 have been cancelled.

The disclosed invention pertains to wireless communication devices, radio frequency identification devices, methods of forming a wireless

communication device, and methods of forming a radio frequency identification device.

Representative claim 59 is reproduced as follows:

59. A wireless communication device comprising:

- communication circuitry configured to communicate wireless signals; and
- an encapsulant configured to encapsulate and contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon.

The examiner relies on the following references:

Walton		4,782,342	Nov. 1, 1988
Sawada		5,424,250	Jun. 13, 1995
Lebby et al.	(Lebby)	5,493,437	Feb. 20, 1996
Drabeck et al.	(Drabeck)	5,598,169	Jan. 28, 1997
MacLellan et al.	(MacLellan)	5,649,296	Jul. 15, 1997
Brady et al.	(Brady)	6,100,804	Aug. 8, 2000 (effective date Jul. 16, 1998)

We note that Brady is not prior art with respect to the instant invention, as acknowledged by the examiner in the answer [page 15]. The

instant application was filed on March 14, 2000. We note that appellant amended the instant specification on March 14, 2002 to claim priority from parent application 08/920,329, filed Aug. 20, 1997, now U.S. Pat. No. 6,052,062. We note that Brady is not available as prior art because Brady was filed on Oct. 29, 1998 and claims priority to provisional application 60/093,088, filed Jul. 16, 1998.

Appellant relies upon the following extrinsic evidence submitted during the prosecution on Nov. 17, 2003:

- Zeller, "The RFID Handbook, Radio-Frequency Identification Fundamentals and Applications", John Wiley & Sons, 1999, pages 21 and 22.

The following rejections are on appeal before us:

1. Claims 59, 61, 76 and 78 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Walton [answer, page 3].
2. Claims 60 and 77 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Lebby [answer, page 4].

3. Claims 99 and 100 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of MacLellan [answer, pages 4 and 5].
4. Claims 50, 51, 54-56, 58, 66-68, 71-73, 75, 82 and 101 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck [answer, pages 5-7].
5. Claims 102-106 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of Sawada [answer, pages 7-9].
6. Claims 65, 84, 86, 88, 92, 94 and 96 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of Brady [answer, pages 9-11].
7. Claims 52, 57, 62-64, 69, 74, 79, 80 and 81 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of Lebby [answer, page 11].
8. Claims 89 and 97 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of Lebby, and further in view of MacLellan [answer, pages 12 and 13].

9. Claims 90 and 98 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of Lebby, and further in view of Brady [answer, page 13].

10. Claims 83, 85, 87, 91, 93 and 95 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Walton in view of Drabeck and further in view of MacLellan [answer, pages 13 and 14].

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer. Only those arguments actually made by

appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the briefs have not been considered and are deemed to be waived.

See 37 C.F.R. § 41.37(c)(1)(vii)(2004). See also In re Watts, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

It is our view, after consideration of the record before us, that the evidence relied upon by the examiner does not support the examiner's rejections of claims 50-52, 54-58, 62-69, 71-75 and 79-106 but does support the examiner's rejections of claims 59-61 and 76-78. Accordingly, we affirm-in-part.

ANTICIPATION REJECTION (Walton)

In rejecting claims under 35 U.S.C. §102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. Perricone v. Medicis Pharmaceutical Corp., 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d

1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (internal citations omitted). To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). Anticipation of a patent claim requires a finding that the claim at issue "reads on" a prior art reference. Atlas Powder Co. v. IRECO, Inc., 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed. Cir. 1999) ("In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.") (internal citations omitted).

I. We consider the examiner's rejection of claims 59, 61, 76 and 78 as being anticipated by Walton. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 59 as the representative claim for

this rejection because it is the broadest independent claim. See 37 C.F.R. § 41.37(c)(1)(vii)(2004). We note that we have identified this rejection as rejection #1 supra.

Appellant argues the examiner fails to identify any teachings of the prior art which support the allegation that circuit 212 or rod 216 or any other circuitry considered to teach the instant claimed communication circuitry is contacted by an encapsulant [brief, page 23]. Appellant further asserts that Walton is void of any disclosure of bar 610 contacting communication circuitry [id.].

The examiner disagrees [answer, page 18, ¶3]. The examiner maintains that Walton teaches the following limitations:

- communication circuitry (see col. 6, lines 1-53, i.e., radio frequency identifier circuit 212), with indicia thereon (see fig. 6, i.e., PRINTED LABEL surface including barcode 612), and
- an encapsulant configured to encapsulate and contact (see fig. 6, i.e., the communication circuit includes antenna 216 and identifier circuit 212 are contacting an encapsulant; see also Walton at col. 6, lines 44-53, i.e., the assembly is encapsulated in a plastic rectangular bar but one side of identifier circuit 212 is exposed as shown in fig. 6),

- at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (see fig. 6, col. 6, lines 44-53, i.e., the assembly is encapsulated in a plastic rectangular bar 610; see fig. 6 - the PRINTED LABEL surface including barcode 612).

The examiner concludes that Walton clearly teaches that communication circuitry comprising identifier circuit 212 and antenna 216 is partially encapsulated as shown in figure 6 [answer, page 18, ¶3].

In the reply brief, appellant merely asserts: “the anticipation rejection is improper for the reasons set forth in the Brief” [reply brief, page 16].

We note that the language of claim 59 requires: “an encapsulant configured to encapsulate and contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon” [claim 59].

We note that Walton explicitly discloses at col. 6, lines 46-51:

> The assembly is encapsulated in a plastic rectangular bar 610, which includes on one surface written identification, which includes a bar code 612, and on the back surface, some fastening means 620, such as velcro, buttons, pins, bolts, rivets, or a collar.

Referring to fig. 6, we note that identifier circuit 212 and magnetic antenna rod 216 are shown in contact with plastic rectangular bar 610. Furthermore, plastic rectangular bar 610 is shown in fig. 6 having a "PRINTED LABEL" and a bar code 612 (i.e., "visibly perceptible information") clearly printed on one side of the encapsulating bar 610.

We note that the Court of Appeals for the Federal Circuit has determined: "[d]uring patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification." In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1358, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999). Claim language is given its plain, ordinary, or accustomed meaning to one of ordinary skill in the relevant art, unless the applicant has imparted a novel meaning to the language. Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325, 63 USPQ2d 1374, 1380 (Fed. Cir. 2002).

In the instant case, when we properly construe the recited term "encapsulant" in accordance with its plain, ordinary, or accustomed meaning to one of ordinary skill in the art, we find that the claimed "encapsulant" broadly but reasonably reads on the plastic material that forms Walton's rectangular bar 610 [col. 6, line 47]. We further find that plastic rectangular

bar 610 encases (i.e., encapsulates) and contacts Walton's communication circuitry (i.e., identifier circuit 212 and magnetic antenna rod 216), as shown in fig. 6. We acknowledge that Walton is silent with respect to whether plastic rectangular bar 610 is a solid bar or a hollow bar. However, we find that plastic rectangular bar 610 still encases (i.e., encapsulates) the communication circuitry regardless of whether it is solid or hollow, in accordance with the plain meaning of the recited term "encapsulate." Therefore, we find that representative claim 59 reads on the reference in the manner asserted by the examiner.

Because we find that Walton teaches all that is claimed, we will sustain the rejection of representative claim 59 as being anticipated by Walton for essentially the same reasons argued by the examiner. We note that independent claim 76 is a method claim that recites essentially equivalent limitations corresponding to the limitations of representative claim 59. Therefore, we will sustain the examiner's rejection of claim 76 for the same reasons discussed supra with respect to representative claim 59.

We note that claims 61 and 78 depend upon independent claims 59 and 76, respectively. We note that appellant has not presented any substantive arguments directed separately to the patentability of these claims. See In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987). See also 37 C.F.R. § 41.37(c)(1)(vii)(2004). We further

note that claims 61 and 78 each require communication circuitry that comprises "radio frequency identification device circuitry." We agree with the examiner that the claimed "radio frequency identification device circuitry" reads on Walton's identifier circuit 212 [Walton, col. 4, lines 52-56; see also instant claims 61 and 78]. Therefore, we will sustain the examiner's rejection of dependent claims 61 and 78 as being anticipated by Walton for the same reasons set forth in the rejection.

OBVIOUSNESS REJECTIONS

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The examiner must articulate reasons for the examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. 277 F.3d at 1343, 61 USPQ2d at 1433-34. The examiner cannot simply reach conclusions based on the examiner's own understanding or experience - or on his or her assessment

of what would be basic knowledge or common sense. Rather, the examiner must point to some concrete evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the examiner's conclusion. However, a suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kahn, 441 F.3d 977, 987-88, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) citing In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). See also In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness

is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

II. We consider next the examiner's rejection of claims 60 and 77 as being unpatentable over the teachings of Walton in view of Lebby [answer, page 4]. We note that we have identified this rejection as rejection #2 supra.

We note that claims 60 and 77 depend upon independent claims 59 and 76, respectively. In particular, we note that appellant has failed to present any arguments in the briefs directed to the patentability of claims 60 and 77. As discussed supra, we note that arguments which appellant could have made but chose not to make in the briefs are deemed to be waived. See In re Nielson, 816 F.2d at 1572, 2 USPQ2d at 1528. See also 37 C.F.R. § 41.37(c)(1)(vii)(2004). Furthermore, we agree with the examiner that the combination of Walton and Lebby meets the language of the claim that requires: "at least one side surface of the encapsulant has a thickness less than about 100 mils" [claim 60]. We note that claim 77 recites equivalent language: i.e., "at least one side surface of the

encapsulant has a dimension less than about 100 mils." In particular, we note that Lebby explicitly discloses a casing (fig. 1, casing 11) with a thickness "on the order of one millimeter or less" [col. 3, lines 24-27]. We note that one millimeter equals 0.03937 inches, or 39.37 mils, where a mil is a unit of distance equal to 0.001 inch. Therefore, we will sustain the examiner's rejection of dependent claims 60 and 77 as being obvious over Walton in view of Lebby for the same reasons set forth in the rejection and the discussion above.

III. We consider next the examiner's rejection of claims 50, 51, 54-56, 58, 66-68, 71-73, 75, 82 and 101 as being unpatentable over the teachings of Walton in view of Drabeck [answer, pages 4-7]. We note that we have identified this rejection as rejection #4 supra.

Appellant argues the combination of Walton and Drabeck is improper with respect to each of the examiner's rejections that rely upon the combination of Walton and Drabeck (i.e., corresponding to rejections 4-10, identified supra) [brief, page 12]. Appellant asserts the examiner has failed to establish a proper motivational rationale for combining the teachings of Walton and Drabeck [brief, page 12]. Appellant argues the examiner is making an unsupported conclusory statement in suggesting that an artisan would be motivated to modify Walton with Drabeck's wireless microwave

signals “for the purpose of providing efficient communication” (answer, page 5) [id.].

Appellant asserts that the only motivation to combine Walton with Drabeck results from the examiner’s improper reliance upon appellant’s disclosure [brief, page 12, cont’d page 13]. Appellant further argues that Walton and Drabeck are disparate teachings, noting that Walton (e.g., figs. 2-4) is directed toward an inductively coupled system while Drabeck is directed toward a microwave system (e.g., col. 1, “Background” section; col. 5, lines 25-40) [brief, page 13]. Appellant further points to extrinsic evidence that shows inductively coupled systems and microwave systems are recognized as entirely different systems in the art in terms of communications technology and application (see Zeller, “The RFID Handbook”, John Wiley & Sons, 1999, pages 21 and 22, submitted during prosecution by appellant on Nov. 17, 2003) [id.].

Appellant further argues the examiner has failed to present any factual support or evidence regarding the ability to modify a magnetic (i.e., inductively coupled) system using circuitry designed for microwave communications [brief, page 14]. Appellant asserts there is no evidence of record that demonstrates the teachings of a microwave system are applicable to or may be utilized with a magnetic system [id.]. Appellant asserts the disparate systems (i.e., inductively coupled RFID vs. microwave

RFID) are described separately in terms of their principle of operation and application in the art within the cited portion of the RFID Handbook [id.]. Even assuming, arguendo, that the examiner's proffered modification was possible, appellant further asserts that modifying the magnetic system of Walton to incorporate the microwave teachings of Drabeck would change Walton's principle of operation [id.]. Appellant concludes that the examiner has failed to establish a prima facie case of obviousness [id.].

The examiner disagrees [page 15]. The examiner maintains that Walton teaches a radio frequency identification device comprising radio frequency identification circuitry configured to communicate wireless signals (col. 6, lines 1-53) and Drabeck teaches microwave communication in the wireless identification communication device art (e.g., "2.45 Ghz" at col. 5, lines 27-32; col. 1, lines 11-19) [answer, page 15].

At the outset, we note that to reach a proper conclusion under §103, the examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made. In light of all the evidence, we review the specific factual determinations of the examiner to ascertain whether the examiner has convincingly established that the claimed invention as a whole would have been obvious at the time of the invention to a person of ordinary skill in the art. When claim elements are found in more

than one prior art reference, the fact finder must determine "whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims." In re Kahn 441 F.3d at 988, 78 USPQ2d at 1337. With respect to the role of the examiner as finder of fact, the Court of Appeals for the Federal Circuit has stated: "the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." In re Oetiker, 977 F.2d at 1445, 24 USPQ2d at 1444. The Court of Appeals for the Federal Circuit has also noted: "[w]hat the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references are questions of fact." In re Fulton, 391 F.3d 1195, 1199-1200, 73 USPQ2d 1141, 1144 (Fed. Cir. 2004) (internal citations omitted). We further note that the Court of Appeals for the Federal Circuit has determined that the motivation to combine under § 103 must come from a teaching or suggestion within the prior art, within the nature of the problem to be solved, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor. Ruiz v. A.B. Chance Co., 234 F.3d 654, 665, 57 USPQ2d 1161, 1167 (Fed. Cir. 2000) [emphasis added].

In the instant case, we note that the examiner asserts that Walton teaches every aspect of the present invention except wireless signals comprising microwave signals [answer, page 5, ¶2]. After carefully considering all of the evidence before us, we find that Walton discloses an RFID device that is fully functional for its intended purpose of relatively close proximity identification such that no advantage would be gained by replacing Walton's inductive coupling mechanism with the microwave system of Drabeck. In particular, we see no deficiency in Walton's inductive coupling RFID system that would motivate an artisan to look to Drabeck's microwave system as a viable substitute. To the contrary, we note that at longer ranges (such as facilitated by Drabeck's battery-powered microwave system) the use of inductive coupling to power the RFID device is not possible [see Walton, col. 1, lines 23-25, see also Drabeck, col. 1, lines 18 and 19, col. 2, line 36 (i.e., battery), col. 5, line 32 (i.e., 2.45 GHz)].

Furthermore, we have considered appellant's extrinsic evidence of record (i.e., Zeller's "RFID Handbook") and we find appellant's arguments persuasive that inductive coupling systems and microwave systems are intended for different purposes and applications. We further agree with appellant that the combination suggested by the examiner would change Walton's principle of operation (e.g., by requiring a battery and a drastic increase in frequency of operation that would likely increase the potential for

radio frequency interference). We further find the examiner has failed to provide a compelling motivation in suggesting that an artisan would have been motivated to modify Walton's inductive coupling system by incorporating Drabeck's microwave system "for the purpose of providing efficient communication" [see answer, page 5, emphasis added].

For all of the aforementioned reasons, we do not see how an artisan having knowledge of Walton would have been reasonably motivated to look to Drabeck to achieve the advantage proffered by the examiner without relying upon the instant claims as a template or guide. We note that our reviewing court has clearly stated: "[d]etermination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion within the prior art, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the inventor." ATD Corp. v. Lydall, Inc., 159 F.3d 534, 546, 48 USPQ2d 1321, 1329 (Fed. Cir. 1998).

In light of the foregoing, it is our determination that the examiner's obviousness conclusion is based upon impermissible hindsight derived from appellant's own specification and claims rather than from some teaching, suggestion or motivation derived from the prior art. Therefore, we agree

with appellant that the examiner has failed to meet his/her burden of presenting a prima facie case of obviousness. Accordingly, we will reverse the examiner's rejection of claims 50, 51, 54-56, 58, 66-68, 71-73, 75, 82 and 101 as being unpatentable over the teachings of Walton in view of Drabeck (see rejection #4 identified supra).

Because the examiner has improperly combined Walton and Drabeck, we will also reverse each of the examiner's rejections that rely upon the combination of Walton and Drabeck. We note that these rejections correspond to rejections 4-10 identified supra. We further note that rejections 4-10 correspond to claims 50-52, 54-58, 62-69, 71-75, 79-98 and 101-106 [see brief, page 10]. In summary, we will reverse the examiner's obviousness rejections of these claims for essentially the same reasons argued by appellant on pages 10-15 of the brief and also for the reasons discussed above.

IV. Lastly, we consider the examiner's rejection of independent claims 99 and 100 as being unpatentable over the teachings of Walton in view of MacLellan [answer, pages 4 and 5]. Since appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 100 as the

representative claim for this rejection because it is the broadest independent claim from this group. See 37 C.F.R.§ 41.37(c)(1)(vii)(2004).

Appellant argues there is no motivation to combine the disparate reference teachings of MacLellan with the teachings of Walton [brief, page 18]. Appellant notes that Walton is directed toward an inductive (magnetic) coupled system [id.]. In contrast, appellant notes that MacLellan is directed toward a microwave system [id.]. Appellant argues the Office Action and the prior art are devoid of any teaching or suggestion of implementing backscatter communications in an inductive (magnetic) coupled system [id.]. Appellant asserts the reflective properties of objects necessary for communications generally increase with increasing frequency including implementation at frequency ranges at 915 MHz or higher indicating that backscattering would be inapplicable to the magnetic flux coupling of Walton at relatively low frequencies around 13 MHz [brief, page 18; see also Walton at col. 7, line 23, i.e., where Walton's preferred frequency of 13.56 MHz is disclosed]. Appellant asserts that the Office has failed to present any factual support or evidence regarding the combining or applicability of backscattering techniques to inductive (magnetic) systems despite appellant's response to the Office Action mailed November 17, 2003 stating

that there is no teaching in the art of such a combination [brief, page 18, cont'd page 19].

In addition, appellant asserts that the motivation suggested by the examiner (i.e., "'to better comply with the FCC regulatory requirement'") is not factually supported by evidence in the record and is merely based upon conclusions of the examiner that are insufficient to establish a prima facie case of obviousness [brief, page 19, referring to the examiner's answer, pages 15 and 16].

The examiner responds to appellant's arguments by merely asserting that he is "not saying to use backscatter in [an] inductive coupling system," without providing further explanation [answer, page 17].

We note that Walton is clearly directed to an inductive coupling system, as discussed supra [see also Walton, col. 5, lines 10 and 11]. We further note the examiner proffers in the rejection of claims 99 and 100 that an artisan would have been motivated to modify Walton and implement MacLellan's backscatter communications "because Walton suggests the communication circuitry is radio frequency identification and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement" [answer, page 5, emphasis added].

We note that Walton discloses that electronic identification devices generate less interference if they operate with very low power on certain allowed frequencies using antennas of minimum long distance radiation. See Walton at col. 2, lines 59-68, cont'd col. 3, lines 1 and 2:

> Still another problem with prior art identification systems involves radio interference. In electronic identification systems, it is necessary that the Federal Communications Commission give its approval, since there is a risk that such identification systems will cause interference to radio frequency communications. To meet FCC requirements, identification systems operate at either very low powers, or on certain allowed frequencies, or with antennas of minimum long distance radiation. The present invention avoids harmful far field radiation through self neutralizing antenna design, in a manner to be described below.

In particular, we note that Walton's inductive coupling device is disclosed as having the advantage of reducing far field radiation to a minimal or zero amount, thus enabling FCC approval to be readily attained. See Walton at col. 5, lines 59-68:

> The present invention also has the advantage of reducing far field radiation to a minimal or zero amount. The antenna pairs have a net zero field at distances of several diameters. The two coils create radio frequency fields of opposing polarities. Thus, although there is an intense field near the coils, at distances exceeding several coil diameters, the field falls rapidly to zero. Thus, FCC approval can be readily attained. Further, FIGS. 10 and 11 show means for further far field radiation reduction.

Significantly, when we look to MacLellan for the motivation suggested by the examiner, we find MacLellan is silent regarding any mention of FCC regulations. When we consider alternative sources of motivation, we find the examiner has failed to set forth a rationale or convincing line of reasoning explaining why the proffered combination would be obvious from the nature of the problem to be solved, or from the general knowledge of a person of ordinary skill in the field of the invention.

In particular, we find that Walton's system for "reducing far field radiation to a minimal or zero amount" presents no deficiency that would lead an artisan to look to MacLellan for a microwave backscatter system "to better comply the FCC regulatory requirement," as suggested by the examiner in the rejection [Walton, col. 5, lines 59 and 60; see also answer, page 5, ¶1]. Therefore, we agree with appellant that the examiner's proffered motivation for combining Walton and MacLellan is not factually supported by evidence in the record and is insufficient to establish a prima facie case of obviousness. Accordingly, we will reverse the examiner's rejection of independent claims 99 and 100 as being obvious over Walton in view of MacLellan for essentially the same reasons argued by appellant.

In summary, we have sustained the examiner's rejections of claims 59-61 and 76-78 in view of the prior art of record, but we have not sustained the examiner's rejection of claims 50-52, 54-58, 62-69, 71-75 and

79-106. Therefore, the decision of the examiner rejecting claims 50-52, 54-69 and 71-106 is affirmed-in-part.

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-IN-PART

Jerry Smith Administrative Patent Judge	)
Howard B. Blankenship Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
Mahshid D. Saadat Administrative Patent Judge	)

JS/kis

WELLS ST. JOHN, P.S.
601 W. FIRST AVENUE
SUITE 1300
SPOKANE, WA 99201