

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS C. JEDNACZ, YONGPING XIA
and SIRINAGESH SATYANARAYANA

Appeal No. 2000-1703
Application No. 08/963,545¹

ON BRIEF

Before THOMAS, JERRY SMITH, and SAADAT, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 20-23, which are all of the claims pending in this application.

We reverse and enter a new ground of rejection under 37 CFR § 1.196(b).

¹ Application for patent filed November 3, 1997, which is a continuation of Application No. 08/498,715, filed June 30, 1995, now U.S. Patent No. 5,726,644.

BACKGROUND

Appellants' invention relates to a building control system including individual control units (non-master nodes) and a central control unit (master node) for wirelessly communicating control signals between the nodes (specification, page 7). When a message is received in a non-master node, the destination address is checked to determine if the signal is directed to that node (specification, page 18). If that node is not the intended recipient, the message is repeated for the intended node (specification, page 19).

Representative independent claims 20 and 23 are reproduced below:

20. A building network comprising, within a building:

 a master node for wirelessly transmitting information at a power level;

 a first non-master node, disposed within a transmission range of the master node operating at the power level, for wirelessly repeating the information;

 a second non-master node, disposed outside the transmission range, for receiving the information repeated by the first non-master node.

23. A node for use in a building network including

 transceiver means suitable for receiving and transmitting wireless communication of information either

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from and to other similar nodes within the building;

and/or

from and to a master node within the building;

means responsive to the information for

causing the transceiver to repeat the information when the information indicates a node other than the node;

causing the node to take local action on the information when the information indicates the node.

The prior art reference of record relied upon by the Examiner in rejecting the appealed claims is:

F. William Gutzwiller, "Control Networks for the Home," Machine Design, Vol. 55, No. 24, pp. 109-112, October 1983.

Claims 20-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Gutzwiller.

We make reference to the answer (Paper No. 15, mailed August 9, 1999) for the Examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 14, filed June 7, 1999) and the reply brief (Paper No. 16, filed September 10, 1999) for Appellants' arguments thereagainst.

OPINION

With respect to claim 20, the Examiner refers to the figure on page 109 of Gutzwiller and indicates that "PLC [Power-line Carrier], telephone lines, radio, IR, coaxial cable or twisted

pair would be equivalents to the disclosed system" (answer, page 4). The Examiner further reasons (id.) that:

Thus, the exclusive use of a RF signal would be a known alternative to the embodiment descri[b]ed. Furthermore, the use of repeaters or relays to extend range in RF system is verily well known in the art. Therefore, having a first non-master node repeat signals to a second non-master node (the security system for example) in order to extend the range of the master node without requiring additional transmission power.

Appellants argue that Gutzwiller provides no suggestion or desirability of implementing a wireless building network having the master and the non-master nodes, as set forth in claim 20 (brief, page 4). Appellants rebut the Examiner's conclusion of obviousness by pointing out that the Examiner's assertion that a radio relay could be implemented, is without support and is based on hindsight (brief, page 5). In particular, Appellants argue that Gutzwiller's home controller (master node) is permitted to provide information directly to all nodes in the network and thus, teaches away from using a radio relay (id.). Appellants also assert that Gutzwiller fails to provide an enabling description of any hardware configuration or protocols for implementing the network as suggested by the Examiner (brief, page 6). Specifically, Appellants point out that the Examiner

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has cited no specific teachings in Gutzwiller that relates to a repeater suitable for use within a home (reply brief, page 1).

In response, the Examiner asserts that one of ordinary skill in the art would have been motivated to modify Gutzwiller and add a known element since "such addition of known elements would help extend the range of the master node without requiring additional transmission power" (answer, page 5). The Examiner further argues that the modification would have been obvious and within the purview of one of ordinary skill in the art since the particular protocols are not claimed (answer, page 6).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). The conclusion that the claimed subject matter is obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify

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the teachings of that reference. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000), citing B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996). Our reviewing court requires this evidence in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984); In re Cofer, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966).

A review of Gutzwiller reveals that the reference is related to a standardized protocol for sending control messages in a building over standard media such as ac power lines, telephone lines, cables and radio or infra-red links (page 109). Gutzwiller further describes a home computer or controller that communicates with different kinds of remotely located appliances over the power lines (id.). Gutzwiller further describes other media for conveying control signals like baseband communication on wires, such as twisted pairs or coaxial cables, as well as infrared or radio frequency when mobility is essential (page 110, right-hand column). Although Gutzwiller indicates that all stations or appliances are connected to the home controller via power-line carrier, an infrared remote control may be used to send a command

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through a television set and its attached power-line carrier medium to dim room lights (page 111, right-hand column).

As our reviewing court states, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), citing In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Additionally, "the Board 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 agency's conclusion." In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

Based on our findings above, we remain unpersuaded by the Examiner's argument that Gutzwiller's home controller, using power line carrier, suggests using repeaters or relays as non-master nodes for wirelessly transmitting and receiving control signals, as required by Appellants' claim 20. In that regard, while Gutzwiller indicates the use of infrared transmission from a remote control to a television set, which sends the received signal through the attached power-line carrier to dim room lights, the reference fails to teach or suggest wirelessly

transmitting the information by a master node and wirelessly repeating the information by a non-master node. In fact, Gutzwiller teaches transmitting a command from the remote control (a non-master node) only to the television set (another non-master node) and repeating the command through power lines from the television set to the dimmer (another non-master node). Otherwise, power-line carrier connects and carries information from the home controller to all the nodes and allows the controller to send control signals over the power-line carrier directly to each unit. Therefore, by merely using an infrared remote control for transmitting a control signal to one of the units, Gutzwiller does not teach or suggest that the home controller wirelessly transmits control signals to a first non-master node which repeats the signals to a second non-master node, as required by Appellants' claim 20.

We also agree with Appellants that Gutzwiller provides no teaching or suggestion for modifying the disclosed power-line carrier as a communication medium such that communications between the home controller and all the appliances over the power-line carrier may be performed wirelessly. Gutzwiller, in fact, uses power-line carrier as the main medium to all of the appliances and accommodates other medium such as wireless

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infrared only when mobility is required. Thus, the Examiner has failed to establish a prima facie case of obviousness as we find no teaching or suggestion in Gutzwiller that would have motivated one of ordinary skill in the art to rearrange the power-line carrier medium of Gutzwiller and transmit the control signals to a first non-master node which repeats the signal to a second non-master node outside a transmission range of the master node.

We note that independent claim 22 requires the transmission of local information from a second non-master node to a master node via a first non-master node, opposite to the order of the transmission recited in claim 20. Furthermore, independent claim 23 recites a node in a building network which repeats the received information either to another node or to a master node. As discussed above with respect to claim 20, Gutzwiller does not teach a non-master node which repeats the control signal received from the home controller instead, all Gutzwiller's appliances are connected to the controller via power-line carrier. Therefore, the Examiner has failed to establish a prima facie case of obviousness as the applied prior art neither teaches nor suggests all the claimed limitations. Accordingly, the Examiner's rejection of independent claims 20, 22 and 23 as well as claim

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21, dependent upon claim 20, under 35 U.S.C. § 103 over Gutzwiller cannot be sustained.

NEW GROUND OF REJECTION

We make the following new ground of rejection for claims 20-23 under 35 U.S.C. § 102 pursuant to 37 CFR § 1.196(b). The new ground of rejection is based on the Jackson² reference which was cited by Appellants in an information disclosure statement filed May 10, 1999. The presence of the Jackson reference in the file prior to entry of the Examiner's answer is of great concern, which compels us to provide a more detailed discussion later in this opinion.

A. New ground of rejection based on Jackson

Claims 20-23 are rejected under 35 U.S.C. § 102(b) as anticipated over Jackson.

Although we did not need to assess whether the terms recited in the preamble of claims 20 and 23 are limiting, we will determine the scope of these claims before the new ground of rejection is discussed. In particular, we will determine whether the limitations of "within a building" and "for use in a building," as recited in the preamble of claims 20 and 23 respectively, affect the structure of the claimed invention.

² Jackson et al. (Jackson) 5,142,694 Aug. 25, 1992

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Where the claim preamble is used to give "life and meaning" and provide further positive limitations of the claimed invention, effect should be given to that usage. See Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989). Conversely, "a preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." Catalina Marketing International, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002), citing IMS Tech., Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1434, 54 USPQ2d 1129, 1136-37 (Fed. Cir. 2000) (preamble phrase "control apparatus" does not limit claim scope where it merely gives a name to the structurally complete invention). See also Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995) (the preamble is not a claim limitation where the claim body completely defines the claimed subject matter and the preamble is used only to state a purpose or intended use for the claimed invention), citing Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Furthermore, whether a preamble of intended purpose constitutes a limitation

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to the claims is, as has long been established, a matter to be determined on the facts of each case in view of the claimed invention as a whole. In re Stencel, 828 F.2d 751, 754, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987).

Claim 20 relates to a building network and calls for a master node for transmitting information, a first non-master node for repeating the information and a second non-master node for receiving the information. We note that Appellants refer to "within a building" only in the preamble whereas the claimed master and non-master nodes include no structures that restrict their communications to nodes within a building. Here, we find that Appellants in the body of claim 20, completely define the relative positions of the nodes merely by reciting "a first non-master node, disposed within a transmission range of the master node" and "a second non-master node, disposed outside the transmission range."

Next, we will determine the meaning of the limitation of "within the building," as recited in the body of claim 23 (lines 4 & 6), while we give the claimed feature its broadest reasonable interpretation. As our reviewing court has stated, although "the specification itself does not delimit the right to exclude," it should be relied upon to properly determine the meaning of terms

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used in the claims. Markman v. Westview Instruments, Inc., 52 F.3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir.) (in banc), aff'd, 116 S. Ct. 1384 (1996). A review of Appellants' specification shows that the term "building" is defined (specification, page 2) as:

[I]ncluding a portion of a building, or a building complex having two or more structures or portions thereof under common control, and sharing one network; and might be applicable to an amusement park or other outdoor situation.

We further observe that Appellants describe other "building" configurations (specification, page 50) as:

If the "building" actually consists of two structures which are spaced sufficiently far apart that direct radio communication from at east one node in one to at least one node in the other is unreliable, then a single building computer can control both by providing a data line from the computer to a transceiver in the remote building. The problem of interfering packets can probably be minimized, however, by considering the two structures as one network. It may even be most economical to link them by placing a relay transceiver on the exterior of one of the buildings, or both, similar to the way that the relay T26 is used in the embodiment of Figs. 1 and 2.

Therefore, the claimed limitation of "within the building" extends to a building complex or even far apart structures which are considered as one network. Furthermore, we observe that the nodes in one structure may communicate with the nodes in other structures either directly or through a relay transceiver.

1. Rejection of Claims 20-22

Jackson teaches a reporting system for communicating information between remote units and a central base site as recited in Appellants' claim 20. As depicted in Fig. 1, Jackson specifically teaches "a master node for wirelessly transmitting information" as single base site 101 which provides RF communications and "a first non-master node, disposed within a transmission range" as remote units 107 and 109 which are level one units and maintain RF communications directly to the base site (col. 2, line 29 through col. 3, line 7). Jackson further teaches "a second non-master node, disposed outside the transmission range" as units 111 and 113 which are level two units and require one intervening remote unit to establish communication to base site 101 (id.). More specifically, Jackson discloses that level one unit 109 (first non-master node) repeats the information transmitted by base site 101 (master node) so that level two units 111 and 113 (second non-master nodes) receive the repeated information (id.).

With respect to claim 21, Jackson teaches that each remote unit such as units 111 and 113 (second non-master nodes) and units 107 and 109 (first non-master node) may be coupled to one or more vending machines and be arranged to collect customer

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information therefrom (col. 2, lines 47-50). Therefor, level two units (second non-master nodes) and level one units (first non-master nodes) include transceiver means for "receiving the information and transmitting local information" and "receiving and repeating both the information and the local information," respectively. Jackson also indicates that base site 101 (master node) is equipped with "transceiver means for transmitting the information" as the base site sends commands and receives local information from the remote units (col. 2, lines 12-14 and 59-62).

Claim 22 calls for a building network similar to the network of claim 21 including "a second non-master node" that transmits local information and "a first non-master node" that repeats the local information. The claim further requires "a master node" that receives the local information repeated by the first non-master node. As discussed above, with respect to claims 20 and 21, Jackson's level two and level one units read on the claimed second and first non-master node while base site 101 reads on the claimed master node.

Therefore, Jackson teaches all the limitations of independent claims 20 and 22 as well as claim 21, dependent upon

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claim 20. Accordingly, claims 20-22 are rejected under 35 U.S.C. § 102 as anticipated by Jackson.

2. Rejection of Claim 23

Claim 23 relates to a node for use in a building network and calls for transceiver means for wirelessly receiving and transmitting information between similar nodes within a building and/or a master node within a building. Jackson teaches the claimed node as level one unit 107 or 109 which includes transceiver means for RF communication from and to "other similar nodes," represented by level two units 111 and 113 and/or from and to "a master node," disclosed as base site 101 (Fig. 1 and col. 2, line 29 through col. 3, line 7). The claim further calls for means responsive to the information that causes the transceiver to repeat the information when the information is intended for another node and to take local action on the information when the information is intended for that node. Jackson teaches the claimed function of the node by disclosing that each remote unit is either coupled to one or more vending machine for collecting information which is retrieved by the master node (col. 2, lines 47-56) or configured to relay the information when the node determines that the message is intended for another node (col. 8, lines 18-22). Based on our

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determination of the scope of claim 23, we note that Jackson's reporting system, although may cover different structures containing the vending machines, corresponds to the claimed "within the building" since Jackson uses common control and shares one network, as defined by Appellants in their specification.

Therefore, as discussed above, Jackson teaches all the limitations of independent claim 23. Accordingly, claim 23 is rejected under 35 U.S.C. § 102 as anticipated by Jackson.

B. Significance of prior art

Our new ground of rejection is based on the prior art cited by Appellants. The fact that the Examiner considered the prior art cited by Appellants and did not fully appreciate its significance concerns us. In a similar situation, in Ex parte Schricker, 56 USPQ2d 1723, 1730-1731 (Bd. Pat. App. & Int., 2000) (unpublished), the Board has provided the following analysis:

In re Portola Packaging, 110 F.3d 786, 790, 42 USPQ2d 1295, 1299 (Fed. Cir. 1997), makes the following observation:

[G]overnment officials are presumed to have "properly discharged their official duties." *United States v. Chemical Found., Inc.*, 272 U.S. 1, 15 (1926). If the references were in front of the examiner, it must be assumed that * * * [the examiner] reviewed them.

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The assumption made in Portola surely has been overcome in this case. Having said he considered the information disclosure statements after his final rejection and before his answer, we are at a complete loss to understand why prosecution was not reopened and rejections made on the basis of the prior art.

We think that it is important for examiners to understand that the Portola assumption is difficult, if not impossible, to undermine. Evidence is essentially unavailable from the examiner. Western Electric Co. v. Piezo Technology, Inc. v. Quigg, 860 F.2d 428, 8 USPQ2d 1853 (Fed. Cir. 1988). Moreover, just recently a case was reported in the USPQ2d where a court did not permit a so-called expert to state why an examiner missed the boat. Bausch & Lomb, Inc. v. Alcon Laboratories, Inc., 53 USPQ2d 1682, 1685 (W.D.N.Y. 2000) (expert not allowed to testify generally about problems in the examining of patent applications).

We cannot determine the reasons for overlooking the prior art cited in this application when the Examiner was notified prior to mailing of the advisory action. It is also puzzling as to why the prosecution was not reopened after the Examiner became aware of the prior art present in the information disclosure statement after preparing the answer.³

Having shown the limitations imposed by the Portola presumption, it is clear that "[r]eexamination is not possible because every reference cited is 'presumed' to have been considered and there is no practical way to get around the

³ The application was remanded to the Examiner on October 31, 2001 for consideration of the information disclosure statement filed May 10, 1999.

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presumption." Schricker, at 1731. Additionally, in circumstances similar to those present in this case, a rule 196 rejection is usually based upon

"a reference already of record in the file of the case but which has been 'considered' by the examiner but not applied by the examiner. The reference not applied often appears in an information disclosure statement filed late in prosecution and ultimately must be applied in a Rule 196 rejection. A Rule 196 rejection based on prior art generally means that prosecution often starts over after an applicant has waited for some time for a decision by this board."
Id.

We note that Examiners must appreciate that reexamination cannot be effectively sought if a reference had been cited, even if it had not been applied. We further advocate a more careful review of information disclosure statements by referring to Schricker which states that:

The public cannot effectively seek reexamination if a reference has been cited, apart from whether it was applied. ... Examiners also need to remember that an invalidity defense in an infringement action takes place under a burden of proof higher than that under which an examiner labors in ex parte prosecution. Accordingly, we take this opportunity to urge the examiner, indeed all examiners, to give careful and thorough attention to information disclosure statements.
Id.

OTHER ISSUES

In the event the prior art rejections are overcome, we recommend the Examiner consider rejecting claims 20-23 of this application under obviousness-type double patenting over the

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claims in the U.S. Patent No. 5,726,644 (issued on Application No. 08/498,715, which is the parent of the present application).⁴ The present claims are broader in scope and are presumed to be obvious over the narrower patented claims.

CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 20-23 under 35 U.S.C. § 103 is reversed.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

⁴ Jednacz et al. (Jednacz) 5,726,644 Mar. 10, 1998
(filed Jun. 30, 1995)

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(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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

REVERSED;
37 CFR § 1.196(b)

JAMES D. THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JERRY SMITH)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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