THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and(2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENDRIK VAN BOKHORST,
ALBERTUS M.G. CLAESSEN, and
WILHELMUS J. M. DIEPSTRATEN et. al.

Appeal No. 1997-0899
Application 08/127,268[1]

ON BRIEF

Before HAIRSTON, JERRY SMITH and HECKER, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

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[1] Application for patent filed September 27, 1993.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-15, which constitute all the claims in the application.

The disclosed invention pertains to a method and apparatus for conserving power in a wireless data communication system.

Representative claim 1 is reproduced as follows:

1. A method of operating a wireless data communication system including a plurality of wireless stations, comprising the steps of:

broadcasting synchronizing messages from a selected station of the plurality of stations;

identifying which of a number of non-selected stations of the plurality of stations are to receive data messages by transmitting traffic indicator information from the selected station, wherein at least two non-selected stations were identified in the identifying step;

operating the non-selected stations in an awake state of relatively high power consumption during the broadcasting step and the identifying step;

changing the operating state of non-selected stations that were not identified in the identifying step to a

doze state of relatively low power consumption after the broadcasting step and the identifying step is performed; and

maintaining all non-selected stations that were identified in the identifying step in the awake state for at least a time period beginning immediately after completion of the operating step so that one or more data messages are able to be transmitted to the non-selected stations which were identified in the identifying step.

The examiner relies on the following references:

Fujiwara	4,794,649	Dec. 27, 1988
Mabey et al. (Mabey)	5,278,831	Jan. 11, 1994 (filed July 07, 1992)
Messenger	WO 92/19059	Oct. 29, 1992

Claims 1-15 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Mabey in view of Fujiwara with respect to claims 1, 2, 4, 6-9 and 13-15, and the examiner adds Messenger with respect to claims 3, 5 and 10-12.

Rather than repeat the arguments of appellants 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 obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' 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.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims
1-4, 6-11 and 13-15. We reach the opposite conclusion with respect to claims 5 and 12. Accordingly, we affirm-in-part.

Appellants have indicated that for purposes of this appeal the claims will stand or fall together in the following five groups: Group I has claims 1, 7-9, 14 and 15, Group II has claims 2, 3 and 10, Group III has claims 4 and 11, Group IV has claims 5 and 12, and Group V has claims 6 and 13

[brief, page 9]. Consistent with this indication appellants have made no separate arguments with respect to any of the claims within each group. Accordingly, all the claims within each group will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Therefore, we will consider the rejections against claims 1, 2, 4, 5 and 6 as representative of all the claims on appeal.

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward 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
In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); 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). Only those

arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the briefs have not been considered [see 37 CFR § 1.192(a)].

With respect to the claims of Group I as represented by independent claim 1, the examiner asserts that Mabey teaches the claimed invention except for the explicit disclosure of broadcasting synchronizing messages. The examiner does note, however, that Mabey teaches that synchronization between the transmitter and the receivers must be maintained. The examiner cites Fujiwara as teaching the broadcasting of synchronizing messages for the explicit purpose of saving power consumption at the receivers. The examiner concludes that it would have been obvious to the artisan to broadcast synchronizing messages in the Mabey system as taught by Fujiwara [answer, pages 3-4].

Appellants argue that the portion of Mabey relied on by the examiner to support the teaching of the maintaining step [column 1, line 67 to column 2, line 2] does not in fact suggest the operation recited in claim 1 [brief, pages 10-12]. Specifically, appellants argue that there is no identification

of stations to receive messages in this portion of Mabey. We disagree with appellants' characterization of this portion of the Mabey disclosure, and we also find that the recitations of claim

1 are clearly supported by other portions of the Mabey disclosure.

The portion of Mabey pointed to by the examiner and argued by appellants does not relate to station identification information, but rather, relates to an indication of where within a data frame a given identified station will receive its data. Note that the portion of Mabey right before the indicated portion describes alternative ways in which an identified secondary station can be informed of when it will receive its data within the data frame. This permits even more power conservation to take place because an identified secondary station does not have to be placed in an awake state until it knows that it is time for its data within the data frame. The indicated portion of Mabey simply indicates that, in order to simplify matters, the identified secondary stations could all be energized without regard to the position within the data frame that a given identified secondary

station will actually receive its data. This approach would consume additional power but would simplify the circuitry necessary to implement this approach.

Regardless of which of the approaches described in Mabey at column 1, line 57 to column 2, line 7 is selected, each of these approaches clearly requires that the secondary stations which are to receive messages be identified first in the control slot information. Appellants' argument that the stations in
Mabey which are kept awake are not first identified in an identifying step is simply incorrect.

We also note that the operation of the secondary receivers described in Mabey appears to confirm that the steps as recited in claim 1 are performed in Mabey. Mabey notes that the counter 60 serves to make all the receivers awake during the time that control information is being sent by the transmitter [column 7, lines 9-13]. During receipt of this control information, each secondary receiver uses ID 46 to determine if a message is indicated for that particular receiver. Station identification information must be sent from the primary station to the secondary station in order for

this step to be performed. Mabey then describes that the receiving stations finding their address in the control information are maintained in the high power state by sample and hold device 50 [id., lines 18-20]. Thus, if the secondary receiver detects its address in the control data, the receiver is maintained in a high power state. If the secondary receiver does not detect its address in the control data, OR-gate 56 and switch 58 will power down the receiver at the end of the control period determined by counter 60. In our view, this is the same sequence of steps recited in independent claim 1 starting with the identifying step.

Since appellants' only argument with respect to representative, independent claim 1 is that the claimed maintaining step is not taught by Mabey, and since we find this argument to be without merit, we sustain the rejection of claims 1, 7-9, 14 and 15 based on the collective teachings of Mabey and Fujiwara.

With respect to the claims of Group II as represented by claim 2, appellants simply argue that "[n]either Mabey nor Fujiwara, alone or in combination, disclose or suggest the above limitations, and the 6/27/95 Office Action is devoid of

any discussion to the contrary" [brief, page 12]. This argument alone would not be sufficient to support the separate patentability of claim 2 because it provides no meaningful analysis. In the reply brief appellants argue that the prior art does not teach the including step of claim 2 [pages 8-9]. As noted above, the transmission of data from the primary station in Mabey clearly identifies which secondary stations are to receive messages during the next data period. If the synchronizing message is considered to include the control information of Mabey, then the including step is clearly suggested by the collective teachings of Mabey and Fujiwara. Therefore, we sustain the rejection of claims 2, 3 and 10.

With respect to the claims of Group III as represented by claim 4, appellants again simply argue that "[n]either Mabey nor Fujiwara, alone or in combination, disclose or suggest the above limitations, and the 6/27/95 Office Action is devoid of any discussion to the contrary" [brief, page 13]. Again, this argument alone would not be sufficient to support the separate patentability of claim 4 because it provides no meaningful analysis. In the reply brief appellants argue that Mabey operates to power down a station when all information

has been

received or after a timeout period whereas claim 4 requires that power be maintained until the next synchronizing message is received [pages 9-10].

Although Mabey does teach additional power consumption approaches such as powering down the receiver at the end of its reception or by powering down the receiver after a predetermined time period, these are not the only approaches suggested by Mabey. Mabey also suggests that a given receiver may be maintained in its active state until the next control period [column 8, lines 2-7]. Since the control periods in Mabey are the synchronizing messages of the Mabey-Fujiwara combination, we do not agree with appellants that the collective teachings of the prior art do not suggest the maintaining step of claim 4. Therefore, we sustain the rejection of claims 4 and 11.

With respect to the claims of Group V as represented by claim 6, appellants argue that the prior art does not teach or suggest the transmitting step of claim 6 [reply brief, page 10]. Claim 6 recites that source and destination addresses are included in the traffic indicator messages. Mabey's

system clearly transmits destination addresses for each message to be sent from the primary station. Since the primary station in Mabey is fixed, there is no need to identify the source address of the selected station. The artisan would have found it obvious, however, to include the source address where different stations were capable of operating as the primary station. In any network the stations must be aware of which other stations they are talking to. Therefore, we sustain the rejection of claims 6 and 13.

With respect to the claims of Group IV as represented by claim 5, appellants argue that the collective teachings of Mabey, Fujiwara and Messenger do not teach or suggest the identification of the number of messages by a count portion as recited in claim 5 [brief, pages 15-16]. The examiner added Messenger to the previously discussed combination of Mabey and Fujiwara to meet this recitation of claim 5. We have considered the teachings of Messenger, and we can find no teaching or suggestion therein of using a count portion in the claimed manner to control the powering down of receiving stations after the indicated number of messages have been received. We agree with appellants that a prima facie case of

obviousness has not been established for the invention of claims 5 and 12. Therefore, we do not sustain the rejection of claims 5 and 12 as proposed by the examiner.

In summary, the rejection of claims 1-15 under 35 U.S.C. § 103 has been sustained with respect to claims 1-4, 6-11 and 13-15, but has not been sustained with respect to claims 5 and 12. Therefore, the decision of the examiner rejecting claims 1-15 is affirmed-in-part.

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

AFFIRMED-IN-PART

Kenneth W. Hairston)

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	)
	)
	) BOARD OF PATENT
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Administrative Patent Judge	) APPEALS AND
	)
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