Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SUNG-HYUN KIM

Appeal No. 2000-1520
Application No. 08/768,715

ON BRIEF

Before HAIRSTON, DIXON, and LEVY, Administrative Patent Judges.
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

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

BACKGROUND

Appellant's invention relates to a method of detecting a caller identification (ID) provided with a ring signal, and

[1] An amendment (Paper No. 10, filed October 8, 1998) submitted subsequent to the final rejection has been entered by the examiner (Paper No. 12, mailed October 22, 1998).

automatically registering a detected caller ID in a memory of a telephone system according to a last in first out rule. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced as follows:

1. A dialing method for a telephone system using a caller identification, comprising steps of:

receiving, in response to an incoming call, a telephone number of a party calling said telephone system as a caller identification from said incoming call interposed between ring signals;

automatically registering said caller identification, while said ring signals indicative of said incoming call are being received, in a memory of said telephone system according to a last in first out rule;

after said ring signals are terminated, and said caller identification is registered in said memory, searching said memory for said caller identification in response to input of a search key from an operational panel of said telephone system; and then

after said caller identification is searched, automatically dialing said telephone number corresponding to said caller identification in response to input of a start key from said operational panel of said telephone system.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Figa et al. (Figa)	4,924,496	May 8, 1990
Takahata	5,303,301	Apr. 12, 1994
Hirai	5,446,785	Aug. 29, 1995

Claims 1 and 8 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Hirai in view of Figa.

Claims 2-7 and 9-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirai in view of Figa and further in view of Takahata.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 17, mailed February 1, 1999) for the examiner's complete reasoning in support of the rejections, and to appellant's brief (Paper No. 15, filed January 11, 1999) and reply brief (Paper No. 18, filed March 31, 1999) for appellant's arguments thereagainst. 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 brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, 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,

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.

We affirm-in-part.

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), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the

burden of presenting a prima facie case of obviousness. Note 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. 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).

We consider first the rejection of claims 1 and 8 based on the teachings of Hirai and Figa. We begin with claim 1.

The examiner's position (answer, pages 3 and 7) is that Hirai teaches a first in first out (FIFO) feature, but does not teach the step of automatically registering the caller ID in the memory according to a last in first out rule (LIFO). To make up for this deficiency in Hirai, the examiner turns to Figa. The examiner points out that Figa teaches both LIFO and FIFO, and asserts (answer, page 7) that:

> Since Figa presents the advantage of using both features (last in/first out and first in/first out), it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the teachings of Figa et al. in order to easily, quickly identify and obtain the caller ID of the most recent caller in the shortest time.

Appellant asserts (brief, page 8 and reply brief, page 2) that merely because Figa teaches LIFO and FIFO does not result in the conclusion that it would be obvious to substitute the LIFO arrangement of Figa for the FIFO arrangement of Hirai. Appellant further asserts that there is no teaching or suggestion in the references to support the combination, and that the specific arrangement proposed by the examiner appears to be solely for the purpose of meeting the claim limitations. Appellant further asserts that Hirai "teaches away from the substitution of the figure of Figa *et al*. '496." Appellant does not present any specific arguments as to why appellant believes that Hirai teaches away from the substitution of LIFO for FIFO by the examiner. Nor does appellant provide any specific arguments to support appellant's position that there is no teaching or suggestion to combine the teachings of Hirai and Figa as advanced by the examiner.

From our review of Hirai, we find that Hirai stores information in memory 18, including the telephone number, (figure 5) in the order that the call was received i.e., (col. 13, lines 34-38). As shown in figure 6A, when the subscriber pushes down the displaying switch 25, telephone numbers Nt are read out from memory circuit 18 in the order of incoming calls, under the

control of control circuit 35 (col. 13, lines 43-51). We find from these teachings of Hirai that incoming calls are registered in the memory according to a FIFO rule.

We additionally find that Figa discloses scan key 29 and reverse key 31 which are search keys used to search directory 16 or logging module 22. Scan key 29 initiates a search starting with the most recent entry stored in either the directory or the logging module and proceeds chronologically backward to the oldest entry stored each time that key is pressed i.e., LIFO (col. 4, lines 52-60). Figa further discloses that reverse key 31 chronologically proceeds with the search in the opposite direction, i.e., FIFO (col. col. 4, lines 60-62). As shown in figure 2, a user can choose between displaying the stored numbers according to LIFO and/or FIFO.

From these teachings of Figa that LIFO and FIFO can both be used to quickly search for the telephone number of a caller, we find that an artisan would have been taught to substitute the LIFO of Figa for the FIFO of Hirai to enable the user to look first at the most recent call received before looking at other calls, as advanced by the examiner. We additionally find that in view of the teachings of Figa, a skilled artisan would have been taught to add the LIFO of Figa to the FIFO of Hirai to provide

Hirai with the ability to store telephone numbers in a registry for display either as LIFO and/or FIFO in view of the teachings of Figa. Thus, from our review of Hirai and Figa, we find no support for appellant's general assertions that Hirai teaches away from the combination, or that there is no teaching or suggestion to combine the teachings of Hirai and Figa. Accordingly, the rejection of claim 1 under 35 U.S.C. § 103(a) is affirmed.

We turn next to claim 8. Appellant asserts (brief, page 9) that claim 8 teaches the step of receiving caller ID between ring signals during an incoming call to the telephone system, and that the portion of Hirai relied upon by the examiner (col.4, lines 45-56) does not teach this feature. In response, the examiner (answer, page 7) points to (col. 11, lines 35-64) of Hirai for a teaching that when a call is received, ring signals are intermittently provided, and that "a piece of telephone number data subsequent to a first ring signal among the ring signals is provided to the telephone terminal equipment 31 . . . a piece of telephone number data subsequent to the first ring signal is detected in the telephone number detection circuit."

We find that in addition to the passage referred to by the examiner, that Figa teaches (col. 3, lines 47-53) that the

present invention utilizes a special service called Automatic Number Identification, in which a caller's telephone number is transmitted by the telephone company to the customer in the silent period between rings. From these teachings in the prior art, we find ample teaching that the telephone number of a caller is transmitted between rings. In the reply brief, appellant now argues that the language "when said caller ID does not correspond to any existing caller IDs registered in said memory" of claim 8, is not taught or suggested by Hirai. We find that in figure 3 of Hirai (col. 11, lines 56-62), after the telephone number is decoded by control circuit 35, the telephone number is stored in memory circuit 18 in step 103. Thus, we find that in Hirai, incoming telephone numbers are stored in memory, irrespective of whether the caller has called before and their telephone number is already stored in memory, or the call is from a first-time caller. To the extent that the claim could be construed to broadly require that a determination be made that the caller ID does not correspond to any existing caller ID in the memory before the caller ID is stored, we note that in Figa (col. 3, line 67 through col. 4, line 7), the detected incoming caller ID is compared with telephone numbers stored in directory 16 by comparator 18. If the caller ID matches a number in the

directory the number and the party is displayed. If there is no match, the number still appears, but the name line 32 will display "** Call in progress **," indicating that there was no corresponding number found in the user's directory (col. 4, lines 26-30). Display updates are made by the user (col. 6, lines 4-6). An add routine permits a new directory entry to be entered (col. 9, lines 29-32). Any phone number already in the log can be automatically transferred from the log to the directory by adding the new name and pressing add key 35. The user may accomplish this function at any time (col. 9, lines 48-57).

We find from these teachings of Figa that if a call arrives and the user is notified that the caller ID is not in the user's directory, the user can enter the information into the user's directory using the add routine. In view of the teaching of Hirai of storing all of the incoming calls in a log (memory circuit 18), and Figa's teaching of providing a user's directory in addition to the call log, we find that an artisan would have considered it obvious to provide Hirai with the user directory of Figa, in order to allow the user of Hirai to have a user defined directory, and to search for a caller according to the caller's name or number, as taught by Figa (col. 1, lines 59-61, and col. 3, lines 5 and 6). This would allow the user of Hirai to search

by caller name and number, in addition to searching by LIFO and/or FIFO, all of which are taught by Figa. From all of the above, the rejection of claim 8 under 35 U.S.C. § 103(a) is affirmed.

We turn next to the rejection of claims 2-7 and 9-15 under 35 U.S.C. § 103 as unpatentable over Hirai considered with Figa and Takahata. We begin with claims 2 and 3. Appellant asserts (brief, page 10) that Takahata does not teach the LIFO rule recited in claims 2 and 3. Appellant further asserts (id., and reply brief, page 10) that deleting the earlier existing caller ID from memory is not equivalent to storing only partial data of caller IDs previously stored.

The examiner's position (answer, page 4) is that Hirai in view of Figa do not teach the limitations of claims 2 and 3. The examiner relies upon the teachings of Takahata for these features. With regard to claim 3, the examiner acknowledges that Takahata does not teach the step of deleting from memory the caller ID that is identical to an incoming caller ID. The examiner takes the position that this limitation would be obvious in view of Takahata's teaching of storing only the frequency of arrival of a telephone number when the incoming number is identical to a number stored in memory.

We note at the outset that notwithstanding the statement by the examiner that Figa does not teach any of the limitations of claims 2 and 3, we find that some of the limitations of claims 2 and 3 are taught by Figa. We find from the disclosure in Figa (col. 3, line 65 through col. 4, line 18) that the display system includes a number detector 12 that detects the number of a caller. The detected number is compared with the telephone numbers stored in directory 16 by comparator 18. We find that the telephone number will inherently be temporarily stored during the time that the comparator is comparing the telephone number with the numbers in the directory 16. In any event, we agree with the examiner and appellant that Hirai considered with Figa does not suggest claims 2 or 3 because if the user decides to store the incoming number in the directory, the number is not transferred to storage from its inherent temporary storage during the comparison step, but rather is stored from a log entry or inputted by the user.

From our review of Takahata, we agree with the examiner, for the reasons set forth in the answer (page 4) that Takahata considered with Hirai and Figa suggests the limitations of claim 2. Takahata teaches (col. 5, lines 6-31) that the microprocessor 10 reads the detected telephone number from the detection circuit

4 and starts the timer 10e. The microprocessor 10 compares the detected telephone number with all of the telephone numbers stored in memory 10a successively. If the telephone number does not agree with a stored number, the detected number is stored in memory 10a. From these teachings of Takahata, we agree with the examiner that an artisan would have considered it obvious to have stored the telephone number in the memory of Hirai so as to save memory space by not saving the same number twice.

With regard to claim 2, we are not persuaded by appellant's assertion that Takahata does not teach the LIFO rule, because the incoming number stored will be stored according to LIFO in view of the combined teaching of Hirai and Figa. In addition, appellant's arguments regarding the deletion step is not pertinent to claim 2 as this limitation is not present therein. Accordingly, the rejection of claim 2 under 35 U.S.C. § 103(a) is affirmed.

With respect to claim 3, we are in agreement with appellant that Takahata does not suggest deletion of a stored number in memory upon receipt of an incoming call by the same telephone number. We find that the combined steps of registering the incoming number according to LIFO and deletion of the number in memory does more than save memory, but rather also reorders the

incoming number from its position in memory so as to change the display sequence of the telephone number when the numbers are read out from memory using LIFO and/or FIFO. We find no teaching in Takahata for deletion of the number already stored in memory, and no convincing line of reasoning has been provided by the examiner. Accordingly, the rejection of claim 3 under 35 U.S.C. § 103(a) is reversed. We observe that claims 5, 7, and 10 depend from claim 3. Accordingly, the rejection of claims 5, 7, and 10 under 35 U.S.C. § 103(a) is reversed.

We turn next to claim 4. Appellant asserts (brief, page 10) that the claim is allowable based upon it's dependency from claims reciting the LIFO rule. From our review of Hirai, we agree with the examiner that Hirai teaches the steps of display of a caller ID on a display unit (see figure 6A), and that Hirai discloses sequentially displaying the caller ID in memory upon successive inputs of the search key (see Ld in figure 6A, display switch 25, and col. 13, line 65 through col. 14, line 4). In addition, we make reference to our findings with respect to LIFO, supra, with respect to claim 1. Accordingly, the rejection of claim 4 under 35 U.S.C. § 103(a) is affirmed.

We turn next to claim 6. Appellant asserts (brief, pages 10 and 11) that the "step of dialing the telephone number is

automatically performed in response to input of said start key, while said telephone number is displayed on said display unit" is not found in col. 14, lines 5-19, relied upon by the examiner. Appellant provides no reasons why appellant believes that this limitation is not met by the cited portion of Hirai other than to assert (reply brief, page 4) that the response transmission switch 33 of Hirai does not correspond to the start key of the recited claims.

From our review of Hirai, we agree with the examiner that Hirai teaches (col. 14, lines 5-19) that when the subscriber pushes down on the response transmission switch 33, the displayed telephone number Nt_2 designated by underline Ld is called by dial signal sending circuit 34. Accordingly, the rejection of claim 6 under 35 U.S.C. § 103(a) is affirmed.

We turn next to claim 9. Appellant asserts (brief, page 11) that col. 4, lines 45-56 of Hirai does not teach the step of receiving caller ID between ring signals during an incoming call to the telephone system, as asserted by the examiner. We find that claim 9 contains the same language as claim 8. We affirm the rejection of claim 9 under 35 U.S.C. § 103(a) based upon our findings with respect to claim 8, supra.

We turn next to claims 11 and 12. Appellant asserts that claims 11 and 12 define over the cited art for the reasons noted above by appellant with respect to claims 1-10. The examiner (answer, page 5) likewise has rejected claims 11 and 12 for the reasons set forth in the rejection of claims 1-10.

We find that independent claim 11 contains language similar to the language of claim 3 with respect to deleting from memory caller ID that is identical to the caller ID of an incoming telephone number, and transferring the incoming caller ID stored in a control buffer into the memory according to LIFO. Accordingly, we reverse the rejection under 35 U.S.C. § 103(a) of independent claim 11, and claim 12 which depends therefrom, based upon our findings, supra, with respect to claim 3.

We turn next to independent claim 13. Appellant asserts (brief, page 12) that "as noted above, it would not be obvious to combine the features of the three references in the fashion noted by the Examiner." The examiner's position (answer, page 5) is that Hirai does not store a caller ID according to LIFO, and relies upon Figa for this feature. The examiner additionally relies upon Takahata for a teaching of a control unit determining whether the caller ID stored in the buffer of the control unit is identical to one of the existing caller IDs stored in memory.

We find that claim 13 contains limitations from claims 1, 2, 4, 6, and 9. We affirm the rejection of claim 13 under 35 U.S.C. § 103(a) based upon our finding, supra, with respect to claims 1, 2, 4, 6, and 9.

We turn next to claim 14. Appellant asserts (brief, page 12) that the cited art does not teach the deletion step of deleting the caller ID in memory that is identical to the caller ID stored in the buffer. We reverse the rejection of claim 14 under 35 U.S.C. § 103(a) based upon our findings, supra, with respect to claims 3 and 11.

We turn next to claim 15. Appellant asserts (brief, pages 12 and 13) that claim 15 defines over the prior art based upon its dependency from claim 15. We agree with the examiner (answer, page 6) that Hirai teaches ring detecting circuit 12, and add that the ring signals are received from a telephone exchange (col. 1, line 42). Accordingly, we affirm the rejection of claim 15 under 35 U.S.C. § 103(a).

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 4, 6, 8, 9, 13, and 15 under 35 U.S.C. § 103(a) is affirmed.

The decision of the examiner to reject claims 3, 5, 7, 10, 11, 12, and 14 under 35 U.S.C. § 103(a) is reversed.

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 Administrative Patent Judge	)
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