

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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CLIFTON J. BARBER and STEPHEN T. HARDIN

Appeal No. 98-1181
Application 08/442,883

ON BRIEF

Before THOMAS, FLEMING and GROSS, **Administrative Patent Judges.**

FLEMING, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 46-50 and 55-57. No claims are allowed. Claims 1-45, 51-54, and 58 have been canceled.

The invention is directed to a method and apparatus for selecting a cellular carrier frequency for accessing cellular airtime services based upon a list of preferred system

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identification codes (SIDs) corresponding to cellular carriers (specification, page 3, lines 26-29). The accessing is accomplished by programming into a cellular phone a list of preferred SIDs corresponding to carriers through which service will be preferred (specification, page 3, lines 28-31). The standard A/B selection function is automatically replaced while any SID is on the preferred list, with "Home Only", "SID Only", and "Roam Saver" modes (specification, page 3, lines 32-35).

In the Roam Saver mode the cellular telephone will prefer service through a carrier broadcasting a SID matching a SID on the preferred list (Fig. 3, item numbered 118, and Fig. 4, item numbered 174).

The cellular telephone is also provided with multiple number assignment modules (NAMs) to support subscriptions to services of multiple carriers (specification, page 5, line 31 through page 6, line 2; page 11, line 13 through page 12, line 8). The user of the cellular telephone then has the option of manually selecting the NAM to be used or enabling an auto-NAM function to automatically select and use the NAM of any home carrier detected by the cellular telephone.

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Representative independent claims 46 and 55 are reproduced as follows:

46. A method for selecting a cellular carrier corresponding to a home SID for accessing cellular airtime services, said method comprising steps of:

defining a plurality of home system identification codes (SIDs);

monitoring cellular carrier signals to detect SIDs corresponding to cellular carriers; and

automatically selecting as a home carrier, the cellular carrier corresponding to the detected SID matching any home SID of the plurality of home SIDs.

55. An apparatus for selecting a cellular carrier corresponding to a home SID for accessing cellular airtime services, comprising:

means for defining a plurality of home system identification codes (SIDs);

means for monitoring cellular carrier signals to detect SIDs corresponding to cellular carriers; and

means for automatically selecting a cellular carrier corresponding to a detected SID matching any home SID of the plurality of home SIDs.

The Examiner relies on the following references:

Blair	4,916,728	Apr. 10,
1990		
Krolopp et al. (Krolopp)	5,020,091	May
28, 1991		

Claims 46-48 and 55-56 are rejected under 35 U.S.C. § 102(b) as being anticipated by Blair.

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Claims 55-56 are rejected under 35 U.S.C. § 102(b) as being anticipated by Krolopp.

Claims 49-50 and 57 are rejected under 35 U.S.C. § 103 as being unpatentable over Blair.

Claims 46-50 and 55-56 are rejected under 35 U.S.C. § 103 as being unpatentable over Blair in view of Krolopp.

Rather than repeat the arguments of Appellants and the Examiner, we make reference to the Brief¹, Reply Brief², Examiner's Answer³, and Response to Reply Brief⁴ for the details thereof⁵.

I. OPINION

After careful review of the evidence before us, we will not sustain the rejection of claims 46-48 and 55-56 under 35 U.S.C. § 102(b) as being anticipated by Blair, the rejection of claims 55-56 under 35 U.S.C. § 102(b) as anticipated by

¹ Appellants filed a brief on June 17, 1997.

² Appellants filed a reply brief on November 18, 1997.

³ The Examiner's Answer was mailed September 16, 1997.

⁴ The Response To Reply Brief was mailed June 27, 2000.

⁵ Amendment "D" received August 7, 2001 was entered. This amendment canceled claims 34-44, 51-54 and 58.

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Krolopp, the rejection of claims 49-50 and 57 under 35 U.S.C. § 103 as unpatentable over Blair, or the rejection of claims 46-50 and 55-56 under 35 U.S.C. § 103 as unpatentable over Blair in view of Krolopp.

A. Rejection of Claims 46-48 and 55-56 under 35 U.S.C. § 102(b) as anticipated by Blair.

It is axiomatic that anticipation of a claim under 35 U.S.C. § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). "Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984), *cert. dismissed*, 468 U.S. 1228 (1984), *citing Kalman v. Kimberly-*

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Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983).

Appellants argue⁶ that Blair does not disclose the claimed step of "defining a plurality of home system identification codes (SIDs)" or "automatically selecting the cellular carrier corresponding to the detected SID matching any home SID of the plurality of home SIDs".

In reply to the Examiner's assertion that the abstract of Blair discloses the use of plural home SIDs, Appellants argue that the intended meaning of the abstract is that the cellular telephone checks the carrier signal's SID against only one home SID entered into the cellular telephone unit's memory. Appellants point to column 5, lines 8-13 of the specification of Blair, which references figures 4 and 5, as directed to locking onto a frequency of "the" home system (Appellants' emphasis).

Appellants also disagree with the Examiner's statement⁷ that "a home SID and one or more good SIDs are considered as a plurality of home SIDs since these SIDs have been stored in

⁶Brief, Section I, page 12.

⁷ In the Advisory Action.

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the memory of a portable telephone by a service technician". Appellants contend that there is a distinction between home and good SIDs and Blair recognizes the distinction between home SIDs and other classes of SIDs.

Finally, in the Reply Brief⁸ Appellants note the applicability of 35 U.S.C. § 112, sixth paragraph, to at least claims 55-57, and to claims 46-49 if the last element of claim 46 invokes this section of the statute.

The Examiner contends⁹ that the abstract and figures 4-5 of Blair teach the selection process for the determination whether the selected SID is matched with one of the home SIDs. In addition the Examiner asserts that a home SID and one or more good SIDs are considered as a plurality of home SIDs since these SIDs have been stored in the memory 16 of the portable telephone by a service technician.

We find that in claims 55-57 all of the elements of the claimed apparatus are written in means-plus-function language. The claim subparagraphs all recite means for performing a specified function without the recital of structure to perform

⁸ Page 6.

⁹ Answer, page 11.

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the claimed function. See 35 U.S.C. 112, Para. 6 (1994); **Cole v. Kimberly Clark Corp.**, 102 F.3d 524, 531, 41 USPQ2d 1001, 1006 (Fed. Cir. 1996) ("To involve [Section 112, Para. 6], the alleged means-plus-function claim element must not recite a definite structure which performs the described function.") The proper construction of a means-plus-function claim limitation requires interpreting the limitation in light of the corresponding structure, material, or acts described in the written description, and equivalents thereof, to the extent that the written description provides such disclosure. **See In re Donaldson Co.**, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (in banc). Structure disclosed in the written description is "corresponding" to the claimed means under Section 112, Para. 6 if the structure is linked by the written description or the prosecution history to the function recited in the claim. **See B. Braun Medical, Inc. v. Abbott Labs.**, 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1990 (Fed. Cir. 1997); **see also Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.**, 145 F.3d 1303, 1308, 46 USPQ2d 1752, 1755-56 (Fed. Cir. 1998).

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Similarly, for claim 46 we find that the third subparagraph recital of "automatically selecting the cellular carrier corresponding to the detected SID matching any home SID of the plurality of home SIDs" invokes Section 112, paragraph 6, as it recites only an underlying "selecting" function without recital of the acts which provide this function. **See *In re Roberts***, 470 F.2d 1399, 1402, 176 USPQ 313, 315 (CCPA 1973) and ***Ex parte Zimmerley***, 153 USPQ 367, 369 (BPAI 1966) cited in ***O.I. Corp. v. Tekmar Co.***, 115 F.3d 1576, 1581, 42 USPQ2d 1777, 1781 (Fed. Cir. 1997).

In view of Appellants' argument directed to the third subparagraphs of claims 46 and 55 we shall address those claim limitations. The specific function associated with the means limitation of claim 55 and the absent act limitation of claim 46 is "automatically selecting a cellular carrier corresponding to a detected SID matching any home SID of the plurality of home SIDs".

The only structure disclosed for implementing the aforesaid function of the "means" are the control system (24) and memory (26) operated with a program having the flowcharts of figures 3-5 to carry out the specified function. The

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"acts" would be flowchart segments 110-112 of figure 3, 160-162 of figure 4, and 208-210 of figure 5.

The means-plus-function clause and step-plus-function clause are construed as limited to the corresponding respective structure or steps disclosed in the specification and equivalents thereof. ***Pennwalt Corp. v. Durand-Wayland, Inc.***, 833 F.2d 931, 938, 4 USPQ2d 1737, 1743 (Fed. Cir.1987), cert. denied, 484 U.S. 961 (1988). The claimed structure and steps are not disclosed by Blair.

The Blair abstract recitation "Priority of acquisition is given to carrier signals associated with home system identification codes (SIDs)" means that the cellular telephone checks the carrier signal's SID against a home SID entered into the cellular telephone unit's memory (emphasis added). An additional basis for this conclusion is column 5, lines 8-13 of Blair, which states " . . . lock onto the frequency of the home system . . ." (emphasis added) thereby specifying that there is but a single home SID entered into the cellular telephone unit's memory. Therefore, the memory (16), logic circuit (14), and flowchart (figures 4 and 5) of Blair are not

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corresponding structure or steps, or equivalents, to the claimed invention.

We also agree with Appellant that a home SID and one or more good SIDs are not the same as a plurality of home SIDs, even if these SIDs have been stored in the memory of a portable telephone by a service technician. Blair, by the distinct nomenclature given the different SIDs, recognizes the distinction between home SIDs and other classes of SIDs. See, for example, the discussion of good SIDs and negative SIDs at column 4, lines 38-43, of Blair, and the recitation of home SIDs at column 4, line 54, and figures 3 and 5, of Blair.

Accordingly, we reverse the rejection of claims 46-48 and 55-56 under 35 U.S.C. § 102(b) as anticipated by Blair.

B. Rejection of claims 55-56 under 35 U.S.C. § 102(b) as anticipated by Krolopp

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Appellants argue¹⁰ that Krolopp does not teach an automatically selecting method or apparatus as Krolopp provides¹¹ that the user is prompted if the received system identification code matches an identification code stored in the radiotelephone's memory. Appellants further note Krolopp's statement¹² "In the preferred embodiment, the user punches a button in the radiotelephone's keypad to make the selection." (Appellants' emphasis). Appellants also assert that Krolopp's use of the word "selecting"¹³ refers to the action of actually designating a particular system for use.

Appellants also argue¹⁴ that the Examiner erred in stating that claims 55-56 lack the limitation of "means for automatically selecting a carrier frequency as a home carrier" (Examiner's emphasis). Appellants rely on the earlier recitation of the word "selecting" in the preamble of claim 55

¹⁰ Brief, Section K, page 15.

¹¹ Figure 2, box 104; column 2, lines 64-66.

¹² Column 3, lines 10-15.

¹³ Column 3, lines 10-20.

¹⁴ Brief, page 16.

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as a basis for the additional limitation of "as a home carrier", which is not specifically recited in the claim.

The Examiner contends that Krollop's teaching¹⁵ of the portable telephone's automatically selecting and displaying a telephone number assigned to the system meets the claim recitation "means for automatically selecting a carrier frequency as a home carrier".

The Examiner then argues¹⁶ that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which accomplishes the same result.

We agree with Appellants that Krolopp does not teach an automatically selecting apparatus as required by claim 1. In section A, above, we addressed the scope of the third subparagraph of claim 55 and found that the specific function associated with the means limitation of claim 55 is "automatically selecting a cellular carrier corresponding to a detected SID matching any home SID of the plurality of home SIDs". Krolopp does not perform this claimed function.

¹⁵ Column 2, line 64 to column 3, line 1.

¹⁶ Answer, pages 12-13.

Krollop's flowchart provides¹⁷ that if the SID matches a SID stored in the radiotelephone's memory, the user is prompted. Once prompted¹⁸, the user decides whether to accept the number of the new system and roam on the home system. The preferred¹⁹ embodiment provides a button in the radiotelephone's keypad for the user to press to make the selection. Thus, Krolopp does not disclose means for automatically selecting as claimed.

Accordingly, we reverse the rejection of claims 55-56 under 35 U.S.C. 102(b) as anticipated by Krolopp.

C. Rejection of claims 49-50 and 57 under 35 U.S.C. § 103 as Unpatentable over Blair

In regard to claim 49²⁰ Appellants again argue that Blair does not teach a method of defining a plurality of home (SIDs), and assert that Blair fails to teach a method of

¹⁷ Figure 2, box 104.

¹⁸ Column 3, lines 10-25.

¹⁹ Figure 2, box 106.

²⁰ Brief, Section G, page 11.

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monitoring primary and secondary carrier signals in search of a SID matching a SID among the defined plurality of home SIDs.

As regards to claims 50 and 57 Appellants assert²¹ that Blair does not teach a plurality of home SIDs and a plurality of preferred SIDs in a method of carrier selection.

The Examiner refers²² to the abstract of Blair and again asserts that it teaches the limitation of defining multiple home SIDs. In the rejection²³ of these claims the Examiner posits that by programming with one or more "good" SIDs (preferred SIDs), the telephone unit can select a frequency corresponding to a preferred system which has the "good" SID when the service of the home system is not available. The Examiner then finds that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Blair's cellular system with a selecting step utilizing a preferred SID (or a "good" SID) in order to obtain more choices in selecting the preferred system in the event that the service of the home system is not available.

²¹ Brief, Section H, page 11.

²² Answer, page 11.

²³ Answer, pages 5-6.

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The rejection of these dependent claims provides no additional basis for the Examiner's assertion that Blair teaches the limitation of defining multiple home SIDs, and makes no assertion that such limitation is obvious. Therefore, as we have found above²⁴ that this limitation is not taught by Blair, we reverse this rejection.

Accordingly, we reverse the rejection of claims 55-56 under 35 U.S.C. 102(b) as anticipated by Krolopp.

D. Rejection of claims 46-50 and 55-56 under 35 U.S.C. § 103 as unpatentable over Blair in view of Krollop

Appellant initially argues²⁵ that this rejection is erroneous as there is no motivation to combine Blair and Krolopp, and the combination made in the rejection is hindsight reconstruction of the claimed invention.

Second, Appellants argue²⁶ that even if the references were combined the combination would not teach automatically selecting methods and apparatus (Appellants' emphasis).

²⁴ Section A.

²⁵ Reply Brief, page 5.

²⁶ Reply Brief, page 6.

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Appellants also note the Examiner's admission that "Blair fails to show the cellular system storing a plurality of home SIDs."

In regard to the Examiner's contention that Appellants fail to claim "means for automatically selecting a carrier frequency as a home carrier" (Examiner's emphasis), Appellants point out that the suggested limitation is irrelevant as the claims specifically relate to home SIDs (Appellants' emphasis).

In addition, Appellants assert that the claims include selecting a "cellular carrier" as opposed to simply displaying information, and that the word "selecting" in Krolopp refers to the action of actually designating a particular system for use.

In response to the Examiner's position that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which accomplishes the same result, Appellants note that this is not true in all cases.

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Finally, Appellants assert that by virtue of the statutory limitations of 35 U.S.C. § 112, sixth paragraph, the specific means and steps are not taught by the prior art.

In reply to Appellants' assertion that there is no reason to combine Blair and Krolopp, the Examiner provides²⁷ that both systems teach cellular phones with frequency scanning and frequency selection, registration to the roam system in the event the primary system is temporarily unavailable, and a comparison process to see if the received SID belongs to the primary SID. In addition, Blair teaches automatically selecting a frequency corresponding to a home SID and Krolopp teaches a cellular system having more than one home SID. The Examiner then find that "the Blair system as modified by Krolopp clearly read[s] on the claimed subject matter given the interpretation of means-plus-function in accordance with 35 U.S.C. § 112, sixth paragraph."

In the rejection²⁸ the Examiner states that Blair fails to show the cellular system storing a plurality of home SIDs, and notes that Krolopp teaches the cellular telephone system

²⁷ Response To Reply Brief, page 2.

²⁸ Answer, pages 7-8.

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wherein the telephone stores a plurality of home SIDs in a memory unit. The Examiner then concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Blair memory system by providing the teaching of the Krollop memory system thereto in order to offer advantages to users in terms of better selection of cellular systems and cheaper rates.

We find that the Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. **In re Sernaker**, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." **Para-Ordnance Mfg. Inc., v. SGS Importers Int'l, Inc.**, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), **cert. denied**, 117 S. Ct. 80 (1996) **citing W.L. Gore & Assocs., Inc. v. Garlock, Inc.**, 721 F.2d

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1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), **cert. denied**,
469 U.S. 851 (1984).

We find that the Examiner's contention that it would have been obvious to modify the Blair memory system by providing the teaching of the Krollop memory system to be without adequate foundation. The benefits of better cellular selection and cheaper rates are disclosed by both references and the instant application, and are not an adequate basis for the Examiner's specific combination of certain teachings of each of the references.

The Federal Circuit states that "[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). "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." **Para-Ordnance**, 73 F.3d at 1087, 37 USPQ2d at 1239, **citing W. L. Gore & Assocs.**, 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13. In addition, our

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reviewing court requires the PTO to make specific findings on a suggestion to combine prior art references. ***In re Dembiczak***, 175 F.3d 994, 1000-01, 50 USPQ2d 1614, 1617-19 (Fed. Cir. 1999).

Therefore, we will not sustain the rejection of claim 46-50 and 55-56 under 35 U.S.C. § 103 as being unpatentable over Blair in combination with Krolopp.

CONCLUSION

We have not sustained the rejection claims 46-48 and 55-56 under 35 U.S.C. § 102(b) as being anticipated by Blair, the rejection of claims 55-56 under 35 U.S.C. § 102(b) as anticipated by Krolopp, the rejection of claims 49-50 and 57 under 35 U.S.C.

§ 103 as unpatentable over Blair, and the rejection of claims 46-50 and 55-56 under 35 U.S.C. § 103 as unpatentable over Blair in view of Krolopp.

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REVERSED

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