

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER A. PESKIN, GREGORY F. CARLSON, and
CARL W. PRICE

Appeal 2007-3693
Application 09/948,164¹
Technology Center 2100

Decided: April 17, 2008

Before JEAN R. HOMERE, ST. JOHN COURTENAY III, and
STEPHEN C. SIU, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 7, 16, 25, 32, 41, and 42. Claims 1 through 6, 8 through

¹ Filed on Sep. 05, 2001. The real party in interest is Avago Technologies, Ltd.

15, 17 through 24, 26 through 31, 33 through 40, and 43 through 45 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

Appellants invented a method and system for programming a scheduler to remind its user to take a certain action when it is in proximity with another predetermined mobile entity. (Spec. 5.) As depicted in Figure 1, the electronic scheduler (100) includes a real-time data acquisition module (102) that gathers data pertaining to the other mobile entity (e.g. geographic location, proximity location, GPS coordinates). (Spec. 8-9.) The scheduler (100) also includes a scheduler module (104) that utilizes the collected information to schedule appointments for its user. Further, the scheduler module (104) reminds its user to take a pre-specified action when it determines that the scheduler (100) is within a predetermined geographical distance of the mobile device of another user. (*Id.* 8-10.)

Independent claim 7 further illustrates the invention. It reads as follows:

7. A method for augmenting an event-based appointment in an electronic scheduler in real-time, the method comprising:

retrieving appointment data associated with an appointment, the appointment data comprising an event trigger that is non-temporal and one or more event actions depending on the event trigger;

acquiring event-related information for determining if the event trigger is satisfied, wherein the event-related information comprises proximity of a user of the electronic scheduler to a mobile entity;

current location of the mobile device. Upon detecting that it is within the vicinity of one of the stored locations, (i.e., one of the locations matches the current position of the mobile device), it reminds its user to take a pre-specified action associated therewith. (P. 2, para. 0021, 0026.)

APA

4. APA discloses that those skilled in the art know that Bluetooth technology specification provides a short range, wireless networking protocol to facilitate communication between conforming mobile devices (e.g., electronic scheduler). (Spec. 8, ll. 18-24.)

5. APA discloses that when Bluetooth conforming devices are within range of each other, an automatic network is formed between them to enable them to communicate. (*Id.* ll. 25-27.)

PRINCIPLES OF LAW

OBVIOUSNESS

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.' *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) wherein evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). See also *KSR*, 127 S. Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int’l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739-40 (2007)). “One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.” *KSR*, 127 S. Ct. at 1742.

Discussing the obviousness of claimed combinations of elements of prior art, *KSR* explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida [v. Ag Pro, Inc.]*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock[, Inc. v. Pavement Salvage Co.]*, 396 U.S. 57 (1969)] are

illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR, 127 S. Ct. at 1740. Where the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that there was “an apparent reason to combine the known elements in the fashion claimed.” *KSR*, 127 S. Ct. at 1741. Such a showing requires “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* (quoting *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006)).

The reasoning given as support for the conclusion of obviousness can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. *KSR*, 127 S. Ct. at 1740-41. *See also Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2007). We note our reviewing court has recently reaffirmed that:

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal—and even common-sensical—we have held that there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan

possesses knowledge and skills rendering him *capable* of combining the prior art references.

Dystar 464 F.3d at 1368. *See also Leapfrog*, 485 F.3d at 1162 (holding it “obvious to combine the Bevan device with the SSR to update it using modern electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost.”).

Also, a reference may suggest a solution to a problem it was not designed to solve and thus does not discuss. *KSR*, 127 S. Ct. at 1742 (“Common sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. . . . A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

The prior art relied on to prove obviousness must be analogous art. As explained in *Kahn*,

the ‘analogous-art’ test . . . has long been part of the primary *Graham* analysis articulated by the Supreme Court. *See Dann [v. Johnston]*, 425 U.S. [219,] 227-29 (1976), *Graham*, 383 U.S. at 35. The analogous-art test requires that the Board show that a reference is either in the field of the applicant's endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992). References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art. *Id.* (“[I]t is necessary to consider ‘the reality of the circumstances,’—in other words, common sense—in deciding in which fields a person of ordinary skill would reasonably be expected to look for a

solution to the problem facing the inventor.” (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979))).

Kahn, 441 F.3d at 986-87. *See also In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (“[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.”).

In view of KSR’s holding that “*any* need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed,” 127 S. Ct. at 1742 (emphasis added), it is clear that the second part of the analogous-art test as stated in *Clay, supra*, must be expanded to require a determination of whether the reference, even though it may be in a different field from that of the inventor's endeavor, is one which, because of the matter with which it deals, logically would have commended itself to an artisan’s (not necessarily the inventor’s) attention in considering *any* need or problem known in the field of endeavor. Furthermore, although under *KSR* it is not always necessary to identify a known need or problem as a motivation for modifying or combining the prior art, it is nevertheless always necessary that the prior art relied on to prove obviousness be analogous. *See KSR*, 127 S. Ct. at 1740. (“The Court [in *United States v. Adams*, 383 U.S. 39, 40 (1966)] recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another *known in the field*, the combination must do more than yield a predictable result.”) (emphasis added). *See also Sakraida*, 425 U.S. at 280 (“Our independent examination of that evidence

persuades us of its sufficiency to support the District Court's finding ‘as a fact that each and all of the component parts of this patent . . . were old and well-known throughout the dairy industry long prior to the date of the filing of the application for the Gribble patent.’”).

ANALYSIS

Independent claim 7 recites in relevant part upon determining that the user of an electronic scheduler is within proximity of a mobile entity, performing a predetermined action. (Claims Appendix.) Appellants argue that the combination of Hunzinger and APA does not teach these limitations. (App. Br. 5, Reply Br. 2-3.) Appellants further argue that there is insufficient rationale to combine the teachings of the cited references to yield the claimed invention. (*Id.*) In response, the Examiner avers that Hunzinger’s disclosure of generating a reminder to a user to take a pre-specified action upon determining that the user’s mobile device is within proximity of a predetermined location, taken in combination with APA’s disclosure of automatically creating a communication network between Bluetooth conforming mobile devices, teaches the cited limitations. (Ans. 4-7.)

Therefore, the issue before us is whether one of ordinary skill in the art would have found sufficient rationale to properly combine Hunzinger’s disclosure of a mobile device that reminds a user to take a pre-specified action when the mobile device is near a pre-determined location, with APA’s disclosure of automatically forming a network between Bluetooth compliant mobile devices to enable them to communicate, to yield the

invention as recited in representative claim 7. We answer this inquiry in the affirmative.

As set forth in the findings of fact section, Hunzinger teaches upon determining that a predetermined location matches the current position of a user's mobile device, reminding the user to take a pre-specified action. (FF 1-3.) Further, APA teaches that a communication network is automatically formed between Bluetooth conforming mobile devices that are near each other. (FF 4-5.) One of ordinary skill in the art, at the time of the present invention, would have appreciated APA's suggestion of automatically establishing a communication network between Bluetooth conforming mobile devices that are in proximity of each other to enable Hunzinger's mobile device to automatically communicate with another mobile device within range. This proffered combination would *predictably result* in a mobile device that reminds a user to take a pre-specified action upon finding a match between its current location and the location of the other mobile device.

Appellants' allegation that there is insufficient rationale to combine the cited references is not persuasive. The Supreme Court has held that in analyzing the obviousness of combining elements, a court need not find specific teachings, but rather may consider "the background knowledge possessed by a person having ordinary skill in the art" and "the inferences and creative steps that a person of ordinary skill in the art would employ." *See KSR* at 1740-41. To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740. As set forth in the preceding paragraph, both Hunzinger and APA teach network protocols for establishing

communication between mobile devices. Further, Hunzinger teaches reminding a user to take a pre-specified action upon finding a match between the current location of the user's mobile device with the coordinates of a predetermined location. Therefore, determining a match between the user's mobile device and another user's mobile device are prior art elements that are being used in a conventional scheduling system to perform their established functions to predictably result in reminding the user to take a pre-specified action as claimed.

Additionally, we note that Appellants' arguments regarding the informational content of the mobile entity are not persuasive. Nowhere in the cited claim is there an indication that the nature of the identified location (i.e. mobile entity vs. fixed location) and the content thereof are being used to functionally achieve something other than merely comparing location data. We are satisfied that both the claimed invention and Hunzinger are directed to comparing the coordinates of the user's mobile device with the coordinates of a predetermined location to issue a reminder to the user to take a pre-specified action upon finding a match between the two locations. Whether the location data is that of a fixed structure or a mobile device is of little importance. In either case, the mobile device is merely comparing location data in order to detect a match. One of ordinary skill would have readily recognized that Hunzinger's system would also be able to detect the presence another mobile device if location data corresponding to the mobile device was previously stored in Hunzinger's wireless device.

The informational content of access request is therefore nonfunctional descriptive material, which is entitled to no patentable weight. *See Manual*

of Patent Examining Procedure (MPEP) § 2106.01 (8th ed., Rev. 5, Aug. 2006).

When “non-functional descriptive material” is recorded or stored in a memory or other medium (i.e., substrate), it is treated as analogous to printed matter cases where what is printed on a substrate bears no functional relationship to the substrate and is given no patentable weight. *See In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) (“Where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability. Although the printed matter must be considered, in that situation it may not be entitled to patentable weight.”). *See also Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Federal Circuit Appeal No. 2006-1003; affirmed without written opinion Jun. 12, 2006). The Examiner need not give patentable weight to descriptive material absent a new and unobvious functional relationship between the descriptive material and the substrate. *See In re Lowry*, 32 F.3d 1579, 1582-83 (Fed. Cir. 1994); *In re Ngai*, 367 F.3d 1336, 1338 (Fed. Cir. 2004). *See also Ex parte Mathias*, 84 USPQ2d 1276 (BPAI 2005) (nonprecedential) (Federal Circuit Appeal No. 2006-1103; affirmed without written opinion Aug. 17, 2006).

It follows that Appellants have not shown that the Examiner erred in concluding that the combination of Hunzinger and APA renders independent claim 7 unpatentable.

Appellants do not provide separate arguments with respect to the rejection of claims 16, 25, 32, 41, and 42. Therefore, we select independent claim 7 as being representative of the cited claims. Consequently, these claims fall together with representative claim 7.

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37 C.F.R. § 41.37(c)(1)(vii).

DECISION

We affirm the Examiner's decision rejecting claims 7, 16, 25, 32, 41 and 42.

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

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