UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT JAMES LOWLES

Appeal 2008-4055
Application 10/956,018
Technology Center 2600

Decided: December 9, 2008

Before KENNETH W. HAIRSTON, MAHSHID D. SAADAT,
and KARL D. EASTHOM, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-12, 15-17 and 19-29. No other claims are pending. (App. Br. 5). We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellant discloses and generally claims a mobile communication device including an audio output device, a sensor system for detecting a state of an environment of the communication device from among at least two states and an adjustment system for selecting an intensity of output for the audio output device based on the state detected by the sensor. (Spec. ¶ 0005). By sensing such environmental conditions, such as when a mobile telephone device is either in a noisy environment, a holster case, or neither, Appellant's system overcomes auditory discomfort problems associated with prior art telephones producing excessive volumes. (Spec. ¶ ¶ 0002, 0003, and 0028).

Claim 1 is representative of the claims on appeal:

1. A mobile communication device comprising:

an audio output device;

a user interface adapted for inputting a first audio intensity to be associated with a first environmental state and for inputting a second audio intensity to be associated with a second environmental state;

a memory for storing said first audio intensity in association with said first environmental state and said second audio intensity in association with said second environmental state;

a sensor system for detecting a state of an environment of said communication device from between said first environmental state and said second environmental state; and

an adjustment system for selecting between said first audio intensity and said second audio intensity for said audio output device based on said state detected by said sensor.

The Examiner relies on the following prior art references to show unpatentability:

Finch	US 5,542,105	Jul. 30, 1996
Murray	US 5,646,589	Jul. 8, 1997
Kaschke	US 5,956,626	Sept. 21, 1999

1. Claims 1-3, 15, 19-29 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the collective teachings of Finch and Murray.
2. Claims 4-12, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the collective teachings of Finch, Murray, and Kaschke.

The Appeal Brief (filed May 7, 2007) ("App. Br."), Reply Brief (filed November 12, 2007) ("Reply Br." and the Answer (mailed October 17, 2007) ("Ans.") detail Appellant's and the Examiner's positions.

ISSUES

In response to Appellant's separate arguments, we group the Examiner's rejections of claims 1-3, 15, and 19-29 based on the collective teachings of Finch and Murray into three distinct groups of claims: 1) claims 1-3, 15, 19, 20, 28, and 29; 2) claims 21-24; and 3) claims 25-27. (*See* App. Br. 10-11). Appellant does not present separate patentability arguments for dependent claims 4-12, 16 and 17 (App. Br. 12-13).[1] The several issues presented each are addressed separately below.

[1] "A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim." 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT (FF)

Finch

1. Finch generally teaches automatically rendering louder audio volume for alert purposes and telephone interaction as a radio device speaker to user distance increases. Finch specifically discloses a telephone device that automatically converts to a high volume for DTMV tones and audio when a Hall switch 14 determines that the device is aligned with a magnet 38 in a hip holster case 30. (Col. 1, ll. 11-27, col. 2, ll. 18-43, Fig. 2).

2. Finch's mobile radio includes a housing 12 with various buttons, switches and displays "to allow the user to operate the radio's options and features." (Col. 1, l. 66 to col. 2, l. 1). The only buttons and/or switches depicted and described on the housing 12 include the DTMF tone buttons 13, specifically disclosed "to interface with a telephone system" and the Hall sensor 14. (Col. 2, ll. 1-3, Fig. 1). Finch also teaches a need to easily and inexpensively incorporate into a radio: "a means by which various radio functions such as audio level, DTMF tone level, light brightness, telephone hang-up or mode of operation can be easily switched and/or controlled depending on the user conditions." (Col. 1, ll. 42-47).

3. A microprocessor 52 ultimately controls the volume of the DTMF tone pad and/or speaker volume of the radio based upon its Hall sensor alignment with the magnet in the holster carrying case. The speaker and/or DTMF volume respectively increases and decreases when the telephone is inserted into and removed from the holster case. (Col. 2. ll. 12-36).

4. "Thus, the radio senses its position within carrying case 30 freeing the user from the burden of constantly adjusting the radio's control functions such as audio output." (Col. 2, ll. 39-42).

Murray

5. Murray discloses a pager which automatically alerts a user of an incoming page via two distinct types of alerts: audible (speaker) or tactical alert (vibrator). (Abstract, col. 2, ll. 21-27). The choice of alert type is based on the level of ambient background noise (e.g., traveling car with radio playing), the user's choice, and/or the pager location (i.e., on the user or not). (Abstract, col. 3, ll. 10-57).

6. An ambient sound level detector 19 includes a transducer (e.g., microphone), a sample and hold circuit, and an analog to digital converter, and compares the background noise to a threshold value stored in memory 14. (Col. 2, ll. 46-53).

7. A desired alert mode setting (tactile or audible) is also stored in memory 14 and set by a user entering commands via controls 18 to a controller 16. (Col. 2, ll. 40-45; Fig. 1).

8. The device also automatically presents contents of received messages visibly or audibly. (Col. 2, ll. 28-34, col. 2, ll. 65-67).

9. The same transducer 25 used to determine ambient noise (i.e., microphone function –*see* FF 6) can be used to playback audio messages and/or generate an audio alert (i.e., speaker function). (Col. 2, ll. 61-67).

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, the Examiner must first establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). If the Examiner meets the burden, it then shifts to the Appellant 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 (Fed. Cir. 1992).

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). As to the conclusion of obviousness:

> [W]hen 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….
>
> ….
>
> …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* and *Anderson's-Black Rock* 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 Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1740 (2007).

ANALYSIS

Claims 1-3, 15, 19, 20, 28, and 29

Appellant argues that the Examiner erred in finding (Ans. 4-7) that Finch and Murray collectively teach the user interface and memory as recited in claim 1. (App. Br. 10, Reply Br. 4). Thus, the issue before us is: Did Appellant demonstrate that the Examiner erred in finding that Finch and Murray collectively teach the claimed user interface and memory?

Appellant acknowledges that Murray teaches a memory 14, but contends that Murray's memory does not store the first and second audio

intensities as required by claim 1. (App. Br. 10). To buttress the argument, Appellant points out that Murray's memory stores a user mode and a threshold intensity. (*Id*.) Appellant then concludes that the Examiner has failed to establish a prima facie case of obviousness (*Id*.).

We generally agree with Appellant that Murray's memory stores the user mode and threshold intensity (FF 6-7), but disagree as to the conclusion. The Examiner generally found that it would have been obvious to employ Murray's memory 14 in Finch's system to provide a means for providing separate audio alert levels (Ans. 5).

We agree with the Examiner. It is clear that the rejection was based on the collective teachings of Finch and Murray. Appellant improperly addresses each reference individually. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) ("one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references").

Appellant does not dispute, and we find, that Finch teaches a microprocessor providing two distinct audio level intensities based on the two distinct environmental states of a holstered and hand-held (unholstered) radio (FF 1, 3, 4). While Finch is silent regarding where such audio intensity levels are stored for use by the microprocessor, we find that the audio intensity levels effectively must be stored somewhere, either in a memory or an equivalent software or hard-wired logic device of some type. In any case, Murray generally teaches a memory 14 to store threshold data associated with an environmental audio noise threshold intensity for use by a controller in a similar page warning system employing different types of warning alerts based on different environmental conditions (FF 5-7). Under

KSR, combining Murray's familiar memory element and Finch's familiar microprocessor system to store first and second audio intensities as recited in claim 1 would have involved no "more than the predictable use of prior art elements according to their established functions." *KSR*, 127 S. Ct. at 1740.

With respect to the user interface, Appellant disputes the Examiner's finding (Ans. 4) that Finch's DTMF interface constitutes the user interface as claimed (Reply Br. 4-5).[2] Appellant's argument appears to be directed to an asserted lack of an explicit teaching in Finch that the DTMF interface can be used to input the first and second audio intensities. (*Id.*). Appellant's argument focuses too narrowly on Finch's broad teaching.

The only buttons and/or switches Finch discloses and depicts include those in the DTMF pad and the Hall sensor, yet Finch also describes various buttons and/or switches to control various options and/or functions of the radio (FF 2). Thus, we infer that the DTMF pad, or some other set of buttons/switches on the housing, necessarily must constitute a user interface to control such options. Appellant's assertion that the DTMF pad is used only to interface with the telephone system (Reply Br. 4) does not address Finch's broad teaching regarding buttons and/or switches to control various functions of the telephone. Accordingly, we find that Finch's buttons and/or switches, whether inclusive of the DTMF pad or not, constitute a user interface that controls the audio intensity and buttress our finding as follows.

[2] Appellant's make this argument for the first time in their Reply Brief, and also regroup claims 15 and 20 under a separate heading from that of claim 1 (Reply Br. 4-5). Despite the separate headings, we find the arguments directed to the same or similar limitations involved in claims 1, 15, and 20 – the user interface – and do not constitute separate patentability arguments.

Appellant's argument, carried to its logical conclusion, results in the unlikely scenario whereby all users of Finch's radio, regardless of differences in hearing ability, would lack any initial volume control over the initial settings at each environmental position (i.e., holstered, unholstered). This argument must fail because we find that Finch's system improves upon prior art systems having volume control to accommodate different environmental conditions and hearing abilities (*see* FF 1, 2, 4). That is, we find that Finch's statement that a user is freed from "*constantly* adjusting the radio's control functions such as audio output" (FF 4, emphasis supplied) discloses, or at a minimum, suggests, at least one initial volume control adjustment. Additionally, Finch describes a need for an existing radio system volume to be easily and inexpensively "switched *and/or controlled*" (FF 2, emphasis added) – further implying volume user input control with Hall switching.

Finally, even if Finch lacks a specific disclosure of buttons/switches to control the initial volume settings for the two environmental states (holstered, unholstered), under *KSR*, combining Finch's familiar and existing prior art option control buttons additionally to control the initial volume setting at each of Finch's two environmental conditions would have involved no "more than the predictable use of prior art elements according to their established functions." *KSR*, 127 S. Ct. at 1740.

Under an alternative interpretation of claim 1 and reading of Fitch, we first note that activation and deactivation of the Hall switch upon radio/holster insertion and removal respectively creates a greater and lesser audio output from the radio speaker and/or the DTMF tone pad. (FF 1, 3).

Therefore, we find that upon such Hall activation/deactivation, a signal from the microprocessor accompanies a user inputted DTMF tone pad key depression to create a greater/lesser tone pad volume input and output to and from an audio tone emitting device (either the speaker and/or other audio device specific to the tone pad) based upon first (holstered) and second environmental (unholstered) states. (*See* FF 1-3, Fig. 4). Thus, for this additional reason, Fitch's DTMF key pad constitutes "a user interface adapted for inputting a first audio intensity associated with a first environmental state and for inputting a second audio intensity to be associated with a second environmental state" as required by claim 1.

In conclusion, the Examiner did not err in finding that Finch and Murray collectively teach the user interface and memory as recited in claim 1. Accordingly, for the reasons described above, we sustain the Examiner's rejection of claims 1-3, 15, 19, 20, 28 and 29.

Claims 21-24

Appellant's arguments directed to claims 21-24 merely involve an assertion that the combination of Finch and Murray fails to teach the following recited limitations of claim 21: "a processor adapted to, when in a voice communication mode, send signals from said microphone for transmission, and when not in a voice communication mode, use signals from said microphone as an indication of ambient noise and select an intensity of output for said audio output device based on said indication of ambient noise." (App. Br. 11). The Examiner generally found that Murray teaches claims 22-23 (Ans. 6, *citing* Murray, Abstract, col. 2, ll. 1-67). The limitations of claims 22-23 are similar to those argued with respect to claim

21, as Appellant submits (App. Br. 11). The issue: Did Appellant demonstrate error in the Examiner's findings with respect to claim 21?

Appellant's mere recitation of claim limitations does not demonstrate error in the Examiner's position nor meets Appellant's burden on appeal. Accordingly, we have no basis upon which to find error in the Examiner's position. Moreover, we separately find that employing Murray's microphone and ambient noise detection system in combination with Finch's microprocessor system meets claim 21. That is, Murray's system sends signals for transmission in a voice communication mode, by sending and transmitting audio voice recordings through a speaker/microphone to the user's ear, and when not in such a mode, the same microphone/speaker indicates ambient noise levels to the controller of Murray (FF 6, 9). Under *KSR*, combining Murray's familiar microphone ambient detector/voice transmitter alert control system with Finch's similar microprocessor environmental detection and audio control system would have involved no "more than the predictable use of prior art elements according to their established functions." *KSR*, 127 S. Ct. at 1740.

In conclusion, Appellant did not demonstrate that the Examiner erred. Accordingly, we sustain the Examiner's rejection of claims 21-24.

Claims 25-27

Appellant argues, for representative claim 25, that neither Finch nor Murray contemplates changing the level of call annunciation and incoming message annunciations based on environmental conditions, and, therefore, the Examiner failed to make out a prima facie case of obviousness. (App.

Br. 11-12). The issue: do Finch and Murray collectively teach the claimed elements in dispute?

Appellant acknowledges that Finch generally teaches automatically controlling, based on environmental states, various radio functions such as audio output level in the speaker and the DTMF tone generator, as well as light brightness in the display (App. Br. 11). We concur and also find that Finch generally teaches making the output louder as the device to user distance increases so that a user can hear a conversation or alert (FF 1, 3, 4). Finch and Murray each teach an incoming call annunciation system. (FF 1, 7). Murray also teaches an incoming audio or visible message annunciation system (FF 8). Under *KSR*, supplementing Finch's familiar microprocessor based, environmentally controlled, volume adjustment call alert and voice communication system (FF 1) with Murray's message annunciation system, thereby also producing a comfortably audible annunciation and underlying message, would have involved no "more than the predictable use of prior art elements according to their established functions." *KSR*, 127 S. Ct. at 1740.

In conclusion, Finch and Murray collectively teach the claimed elements in dispute. Accordingly, we sustain the Examiner's rejections of claims 25-27.

Claims 4-12, 16 and 17

With respect to claims 4-12, 16 and 17 which ultimately depend from claims 1 or 15, Appellant restates the argument for claims 1 and 15 (App. Br. 12) and submits that the addition of Kaschke does not teach the limitations thereof. No separate issue arises.

Having found that the combination of Murray and Finch teaches the disputed limitations, and for reasons we explained *supra* with regard to

claims 1 and 15, we also sustain the Examiner's rejection of claims 4-12, 16 and 17.

DECISION

We affirm the Examiner's decision rejecting claims 1-12, 15-17 and 19-29.

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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