

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TODD A. MCCLELLAND

Appeal 2008-5545
Application 10/768,603
Technology Center 2600

Decided: December 18, 2008

Before JOSEPH F. RUGGIERO, MAHSHID D. SAADAT,
and SCOTT R. BOALICK, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-7 and 9-20, which constitute all of the claims pending in this application as claim 8 has been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Appellant invented an apparatus and a method for automatically enforcing a “silent zone,” which is an area where all the cellular telephones in the area do not ring in the normal audible fashion in response to incoming calls (Spec. 3-4). Claim 1, which is representative of the claims on appeal, reads as follows:

1. A portable device suitable for communication with other devices comprising:
 - a) an alarm having an audible mode and a silent mode;
 - b) a silent zone receiver for receiving a silent zone signal; and
 - c) one of an application specific integrated circuit (ASIC) and an application specific standard product (ASSP) that includes a silent zone mechanism for automatically determining that the portable device has entered a silent zone based on the silent zone signal and for automatically changing the mode of the alarm from the audible mode to the silent mode; and a communication signal processing unit that enables the portable device to communicate with other devices.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Lipovski	US 6,675,002 B1	Jan. 6, 2004
Anttila	US 6,721,542 B1	Apr. 13, 2004 (filed May 28, 1999)

The Examiner rejected claims 1-7 and 9-20 under 35 U.S.C. § 103(a) based upon the teachings of Lipovski and Attila.

We make reference to the Brief (filed Oct. 2, 2006) and the Answer (mailed Jul. 27, 2007) for the respective positions of Appellant and the Examiner. Only those arguments actually made by Appellant have been

considered in this decision. Arguments which Appellant did not make in the Brief have not been considered and are deemed waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The issue is whether Appellant has shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103. Appellant specifically asserts that Lipovski, alone or in combination with Anttila, does not teach or suggest “one of an application specific integrated circuit (ASIC) and an application specific standard product (ASSP) that includes ... and a communication signal processing unit that enables the portable device to communicate with other devices,” as recited in claim 1 (Br. 9-10). Appellant further challenges the combinability of the applied prior art (Br. 9).

Therefore, the issue specifically turns on whether one of ordinary skill in the art would have combined the disclosures of Lipovski and Anttila and, if so, whether the combination of the applied references teaches the recited subject matter of claim 1.

FINDINGS OF FACT

Lipovski

1. Lipovski generally discloses a receiver within the cellular telephone that generates a mute signal during reception of the control signal which inhibits operation of the telephone ringer circuit while the telephone is in the noise sensitive area (Abstract).

2. Lipovski discloses in Figure 1 the general organization of the disclosed apparatus. “A restricted area 103 may be protected by one of three operating modes or a combination thereof. In a first mode, the restricted area has one or more control signal transmitters 100, and one or more restricted devices 101 may be carried by persons in the area. The control signal 102 passes throughout (blankets) the restricted area 103. Whenever restricted device 101 receives the control signal 102, it will be muted.” Alternatively, “a first control signal transmitter 105 may be placed by each entrance 104 to a restricted area 103, and a second control signal transmitter 106 may be placed by each exit 107 from a restricted area 103. When a restricted device 101 receives a control signal from first control signal transmitter 105, it is muted until the restricted device 101 receives a control signal from second control signal transmitter 106.” (Col. 2, ll. 11-26).

3. Lipovski further describes using a microcontroller for controlling the transmission (col. 2, l. 59 through col. 3, l. 14).

4. Lipovski describes the microcontroller in the restricted device 101, as shown in Fig. 6. “Signal output of ultrasonic transducer 141 is amplified, filtered, and detected by analog hardware 142 which sends a digital signal to serial input port RxD0, 143.” (Col. 5, ll. 36-42).

5. Lipovski discloses that analog hardware 142 outputs a low digital signal when a 40 KHz ultrasonic wave is detected by transducer 141. Parallel port EPDR bit 0 (144) outputs a signal, which is applied to the sound generating or reproducing device 101 to mute it. (Col. 5, ll. 43-48).

Anttila

6. Anttila “relates to a system and a method for modifying the behavioral characteristics of a mobile station terminal according to a functional location” (Abstract).

7. Anttila provides for prohibiting mobile station use in situations such as in an aircraft during landing and take-off (col. 1, ll. 24-29) or in a hospital where medical instruments need to be protected from interference caused by the mobile device (col. 1, ll. 29-33). Alternatively, a limited use of mobile station that is in operating mode may be desired where receiving and sending communications do not cause a disturbance, for example, by ringing (col. 1, ll. 55-60).

8. As shown in Figure 3, Anttila provides for a mobile station 300 including a control head 302 which contains the audio/visual and input interface (col. 7, ll. 57-65), a transceiver unit 312 containing the transmitter unit 314, the receiver unit 316, both controlled by the logic assembly 318 (col. 8, ll. 4-16), and an antenna assembly 326 (col. 8, ll. 17-22).

9. Anttila discloses that the logic control assembly 318 contains an application specific integrated circuit (or ASIC) combining many functions, such as a general purpose microprocessor, digital signal processor, and other functions, into one integrated circuit. The logic control assembly 318 coordinates the overall operation of the transmitter and receiver using control messages which trigger the logic control assembly to execute code which controls network connectivity and implementation of the indicated behaviors. (Col. 8, ll. 32-49).

PRINCIPLES OF LAW

The Supreme Court has held that in evaluating 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.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1739-40). “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.

ANALYSIS

With respect to claims 1, 10, and 17, Appellant’s contentions focus on whether the combination of Lipovski with Anttila teaches or suggests “one of an application specific integrated circuit (ASIC) and an application specific standard product (ASSP) that includes ... and a communication signal processing unit that enables the portable device to communicate with other devices,” as recited in claim 1 (Br. 9-10). Appellant specifically contends that no communication processing unit is taught by Lipovski (Br. 10). Appellant further argues that the logic control assembly 318 of Anttila does not have any communication processing unit because the

communications circuits in the receiver 316 and the transmitter 314 are separate from the assembly 318 (Br. 11).

We disagree and find that, as argued by the Examiner (Ans. 7-8), the microcontroller 140 of Lipovski provides for muting of the device (FF 1 and 2) as well as communication with other devices (FF 3). We further agree with the Examiner (Ans. 7) that communicating with other devices is known to one of ordinary skill in the art as one of the primary functions of cellular phones, such as those disclosed in Lipovski. With respect to Anttila, we also find that, in a similar mobile device (FF 6 and 7), the logic control assembly 318 includes an ASIC to combine different functions including coordinating the operation of the transmitter and receiver (FF 8) as well as controlling the network connectivity and behavioral characteristic of the device (FF 9).

Regarding claim 4, Appellant argues that the interrupt request signal generated by the silent zone mechanism is not disclosed by the references (Br. 11 and 12). The Examiner responds by pointing to transducers/sensors 141 and 142 of Lipovski as the silent zone mechanism that generates an interrupt request signal in the form of a low digital signal to mute the device (Ans. 8). We agree with the Examiner's rationale and find that since the communication and muting functions of the mobile device of Lipovski are controlled by the microcontroller 140, the low digital signal does function similar to the claimed "interrupt request signal" and causes the processor to mute the sound generating device (FF 3-5).

With respect to claim 5, Appellant contends that the combination of Lipovski and Anttila lacks any teachings related to an audio interface and an application processor (Br. 12). We remain unpersuaded since, as pointed out by the Examiner (Ans. 9), Lipovski provides for a microcontroller as the

processor and for the signal applied to the sound generating or reproducing device 101 (FF 4 and 5).

Additionally, contrary to Appellant's argument (Br. 13) that the combination of Lipovski and Anttila is based on hindsight, we find that Anttila clearly suggests using an ASIC to control the communication and the functionality of the mobile device. In other words, we find Appellant's assertion challenging the combinability of the references to be unpersuasive. According to *Leapfrog*, when the combination of familiar elements according to methods known to the skilled artisan, such as using the ASIC of Anttila for combining the many functions of the microcontroller in Lipovski into one integrated circuit, achieves a predictable result it is likely to be obvious.

CONCLUSION

For all of the above discussed reasons, we simply find that Appellant has failed to point to any error in the Examiner's position. Therefore, we sustain the 35 U.S.C. § 103 rejection with respect to claims 1, 4, 5, 10, and 17 and also with respect to claims 2, 3, 6, 7, 9, 11-16, and 18-20, which Appellant has not argued separately (App. Br. 11).

ORDER

The decision of the Examiner rejecting claims 1-7 and 9-20 is affirmed.

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).

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AFFIRMED

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