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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HIRONAO KAWANO, HIRONOBU TAKIZAWA,
AKIO UCHIYAMA, HIDETAKE SEGAWA,
MANABU FUJITA, AKIRA KIKUCHI, and TAKESHI YOKOI

Appeal 2011-002048
Application 11/201,829
Technology Center 3700

Before JEFFREY N. FREDMAN, ERICA A. FRANKLIN, and JACQULINE WRIGHT BONILLA, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a capsule medical apparatus. The Examiner rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

Statement of the Case

Background

The Specification teaches "a capsule medical apparatus includes a capsule exterior member and a sensor that can detect the change of an atmospheric physical quantity" (Spec. 2, ll. 10-13).

The Claims

Claims 1, 5-9, and 12-14 are on appeal. Claim 1 is representative and reads as follows:

> 1. A capsule medical apparatus comprising:
> a capsule exterior member;
> an electric circuit arranged in the exterior member;
> a battery arranged in the exterior member; and
> a switch circuit for controlling to switch a state of energy supply from the battery to the electric circuit to one of an ON-state and OFF-state;
> wherein the switch circuit includes:
> a first physical quantity detecting unit which can detect a temporary change of a first physical quantity outside the exterior member and which, upon detecting the temporary change of the first physical quantity, starts the energy supply from the battery;
> a second physical quantity change detecting unit which can detect a temporary change of a second physical quantity outside the exterior member and which, upon detecting the temporary change of the second physical quantity, stops the energy supply from the battery; and
> a power supply state holding unit which holds the state of energy supply from the battery to the electric circuit to the OFF-state until the first physical quantity change detecting unit detects the temporary change of the first physical quantity, and holds the state of energy supply from the battery to the electric circuit to the ON-state until the second physical quantity change detecting unit detects the temporary change of the second physical quantity; and
> wherein the first physical quantity and the second physical quantity are physical quantities of different types from each other.

The issue

The Examiner rejected claims 1, 5-9, and 12-14 under 35 U.S.C. § 103(a) as obvious over Gazdzinski[1] (Ans. 5-9).

The Examiner finds that Gazdzinski discloses a "capsule medical apparatus comprising: [03a] a capsule exterior member ('probe 300 comprises an outer housing 302' [0145]); [03b] an electric circuit arranged in the exterior member ('digital processor core 1604 of the ASIC' [0232]); [03c] a battery arranged in the exterior member ('battery may be used'[0155])" (Ans. 5). The Examiner finds that Gazdzinski teaches "a switch circuit ('processing logic 1709' of 'tag 1702' [0231]) for controlling to switch a state of energy supply from the battery to the electric circuit to one of an ON-state and OFF-state" (Ans. 6).

The Examiner finds that "Gazdzinski does not disclose a second physical quantity change detecting unit which can detect a temporary change of a second physical quantity" (Ans. 7). The Examiner finds it obvious to "provide separate physical quantity detecting units, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art" (Ans. 7). The Examiner finds it obvious "to provide a first circuit for turning the probe ON and a second circuit for turning the probe OFF as opposed to a single circuit for turning the probe ON and OFF" (Ans. 7).

The issue with respect to this rejection is: Does the evidence of record support the Examiner's conclusion that Gazdzinski renders claim 1 obvious?

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[1] Gazdzinski, R., US 2001/0051766 A1, published Dec. 13, 2001.

Findings of Fact

The following findings of fact ("FF") are supported by a preponderance of the evidence of record.

1. Gazdzinski teaches "the use of smart technology within miniature remote devices for the inspection, diagnosis, and treatment of internal organs of living organisms" (Gazdzinski 1 ¶ 0003).

2. Gazdzinski teaches that the "probe outer housing **302** generally contains a number of different components in its internal cavity **303** . . . A number of discrete or integrated semiconductor components are also present within the probe **300**, including a 'flash' analog-to-digital converter ADC **512** . . . microcontroller (or microprocessor) **520**" (Gazdzinski 11 ¶ 0155).

3. Gazdzinski teaches that "a battery may be used" (Gazdzinski 11 ¶ 0155).

4. Gazdzinski teaches that

> the probe may be completely powered down until it is awaken by the tag **1702**, thereby providing significant power savings prior to in vivo operation. Such power savings are even greater than those provided by the processor "sleep mode" previously described . . . when using the RFID tag **1702** wake up feature, the digital processor core **1604** of the ASIC may be completely shut down, including clock generator, pipeline, and (static) memory.

(Gazdzinski 21 ¶ 0232).

5. Gazdzinski teaches that "the tag 'reader' **1750** . . . interrogates the probe **1700** and RFID device **1702** at its designated frequency, causing the tag to 'wake' and initiate communications protocols disposed within the tag memory **1702**" (Gazdzinski 21 ¶ 0231).

6. Gazdzinski teaches that once "protocols are established, the reader transmits preformatted data representative . . . prior to a given subject swallowing or having the probe introduced endoscopically, the tag memory **1708** is encoded . . . via signals received from the reader **1750** via the . . . processing logic **1709**" (Gazdzinski 21 ¶ 0231).

7. Gazdzinski teaches that "the smart probe . . . is designed to be initially introduced into the patient after which time the probe operates autonomously; i.e., only utilizing electrical, inductive, magnetic, or radio frequency signals to enable or perform certain desired functions, with no direct external physical contact or connections" (Gazdzinski 9 ¶ 0132).

Principles of Law

An invention "composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art…. [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Analysis

The Examiner finds it obvious "to provide separate physical quantity detecting units, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art" (Ans. 7). Specifically, the Examiner finds it obvious "to provide a first circuit for turning the probe ON and a second circuit for turning the probe OFF as opposed to a single circuit for turning the probe ON and OFF ('transceiver section 1707' as disclosed by Gazdzinski)" (Ans. 7).

Appellants contend that "there is no suggestion in Gazdzinski to use separate physical quantity detecting units to change from an ON-state to an OFF-state. As the Examiner admits, Gazdzinski only discloses turning power ON and OFF by detection of the signal with the same transceiver section (1707)." (App. Br. 7). Appellants "do not find the cited Nerwin case as holding that constructing a formerly integral structure in various elements is obvious" (App. Br. 7).

We agree with Appellants. The Examiner has provided no reason to separate the single ON-OFF circuit in Gazdzinski into two separate circuits, i.e., two separate physical quantity detecting units. Instead, the Examiner relies upon caselaw, specifically *Nerwin* and *KSR* (*see* Ans. 11-12), to support the obviousness position. In the context of satisfying the description requirements for an interference count in *Nerwin*, the BPAI found that the "mere fact that a given structure is integral does not preclude its consisting of various elements." *Nerwin v. Erlichman*, 168 USPQ 177, 179 (BPAI 1969). This differs from the current situation, where the Examiner attempts to convert this written description fact pattern into a *per se* rule that separating a single component into two components is obvious.

We conclude that this reading of *Nerwin* is incorrect and does not establish that it is *per se* obvious to separate a single component into two components. We decline to apply such a *per se* rule. Along the same lines, we also disagree with the Examiner's reading of *KSR*. *KSR* does not indicate that simply because a person of ordinary skill *could* have made the change disclosed in the claimed invention, that change is necessarily obvious (*see* Ans. 12). As we quoted above, an invention "composed of several

elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art" *KSR*, 550 U.S. at 418. Instead, some reason must be found. *DyStar* teaches that the reason need not be found in the prior art, but may be implicit 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." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006).

In this case, the Examiner has not provided a reason from the references, a technology-independent reason, or any other reason whatsoever to separate the single circuit into two circuits, or otherwise provide two separate physical quantity detecting units. We therefore reverse this rejection.

Conclusion of Law

The evidence of record does not support the Examiner's conclusion that Gazdzinski renders claim 1 obvious.

SUMMARY

In summary, we reverse the rejection of claims 1, 5-9, and 12-14 under 35 U.S.C. § 103(a) as obvious over Gazdzinski.

REVERSED

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