

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL SLUTSKY, DANIEL B. DE LAZARI,  
JOSEPH CABANA, and DOMINICK SALVATO

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Appeal 2007-2272  
Application 10/034,072  
Technology Center 2800

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Decided: November 6, 2007

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Before MAHSHID D. SAADAT, JAY P. LUCAS, and JOHN A. JEFFERY,  
*Administrative Patent Judges.*

JEFFERY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-11. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants invented a portable data collection device, such as a bar code reader, that can support multiple functions. Specifically, the portable device includes an Application Specific Integrated Circuit (ASIC) that can communicate with multiple image capture devices coupled to the portable device, such as an imager and a laser scanner.<sup>1</sup> Claim 1 is illustrative:

1. A portable electronic device comprising:

an imager coupled to the portable electronic device;

a laser scanner coupled to the portable electronic device; and

an application specific integrated circuit (ASIC) comprising circuitry for communicating with the imager and laser scanner.

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

Callaghan	US 6,058,304	May 2, 2000
Kunert	US 6,109,528	Aug. 29, 2000
Meier	US 6,561,428 B2	May 13, 2003 (filed Sep. 17, 2001)

1. Claims 1-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Callaghan.
2. Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Callaghan and Kunert.
3. Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Callaghan and Meier.

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<sup>1</sup> See generally Specification 4:1 – 5:3.

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs<sup>2</sup> and the Answer for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

## OPINION

### *The Anticipation Rejection*

We first consider the Examiner's rejection of claims 1-7 under 35 U.S.C. § 102(b) as being anticipated by Callaghan. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984); *W.L. Gore and Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554 (Fed. Cir. 1983).

The Examiner has indicated how the claimed invention is deemed to be fully met by the disclosure of Callaghan (Answer 4-5). Regarding independent claim 1, Appellants argue that Callaghan does not disclose coupling (1) an imager, and (2) a laser scanner to a portable electronic device as claimed. According to Appellants, Callaghan does not connect *two* distinct image capture devices to a portable unit, but merely connects a

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<sup>2</sup> We refer to the most recent Appeal Brief filed June 5, 2006 and the Reply Brief filed Oct. 23, 2006 throughout this opinion.

*single* image capture device (i.e., a laser scanning assembly) to the portable unit (Br. 3-5; Reply Br. 3-5).

The Examiner notes that the ASIC processor of Callaghan interfaces with scan head 14 – a device which comprises a light source and a reflected light sensor. Although the Examiner acknowledges that these elements are integrated in the scan head, the Examiner nonetheless notes that claim 1 does not require separate and independent devices. As such, the Examiner contends, claim 1 does not preclude integrating separate devices as component parts of another device (Answer 7-8).

It is undisputed that Callaghan discloses coupling a laser scanner to the portable unit.<sup>3</sup> The issue, therefore, is whether Callaghan also discloses coupling an *imager* to the portable electronic device. For the reasons that follow, we find that Callaghan does.

Callaghan discloses a data entry system including a handheld data entry unit 10 in the form of a pen. The pen includes a reading head 14 suitable for reading bar codes (e.g., a red or infrared optical reading head such as a laser diode) (Callaghan, col. 6, ll. 28-42; Fig. 1A, 1B). *See also id.*, col. 10, ll. 1-2 (noting that the head comprises a red or infrared light source and a light sensor). Moreover, as shown in Figure 3, the pen comprises a processor 74 (e.g., an application specific integrated circuit (ASIC)) that communicates with a number of devices including, among other things, the reading head 14, a display 20, and an optical interface 86 (Callaghan, col. 8, ll. 36-42; Fig. 3).

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<sup>3</sup> *See* Br. 4-5 (“[Callaghan] describes a *single* image capture device connected to the portable unit, a laser scanning assembly comprised of an infra-red light source and a light sensor. This would be the equivalent of the laser scanner recited in the claim.”); *see also* Reply Br. 3-4 (same).

Even if we assume that the reading head 14 solely corresponds to the “laser scanner” as Appellants contend, we find that the pen’s display functionality fully meets an “imager” in view of the scope and breadth of the term. Significantly, claim 1 merely recites the term “imager” without any further limitation, and Appellants have not specifically defined the term in the specification. Accordingly, absent a specific definition, we construe the term with its plain meaning (i.e., the ordinary and customary meaning given to the term by those of ordinary skill in the art). *See Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc).

While Appellants indicate that “imagers” are comparable to image capture devices, no such limitation appears in the claim. In our view, the scope and breadth of the term “imager” is simply not limited to image capture devices, but can include other devices, such as devices that facilitate displaying images.

In this regard, we note that Callaghan’s display screen 20 comprises a two-dimensional array of pixels which can be selectively activated to display a wide range of displayable items (Callaghan, col. 6, ll. 51-62).<sup>4</sup> The display screen 20 is connected to a display interface 80 which, in turn, is connected to bus 84. Thus, the display interface responds to display instructions from the processor 74 to drive the display in a conventional manner (Callaghan,

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<sup>4</sup> In addition, a low-cost version can be configured to display only a predetermined range of characters and symbols (Callaghan, col. 6, ll. 57-62). In a preferred embodiment, an LCD screen is used (Callaghan, col. 7, ll. 1-6).

col. 8, ll. 51-54; Fig. 3).<sup>5</sup> Such functionality that facilitates displaying images, in our view, fully meets an “imager” in light of the term’s ordinary and customary meaning.<sup>6</sup> Therefore, not only does Callaghan couple a laser scanner to the portable electronic device, but also an imager as well – an imager that likewise communicates with the ASIC.

For the foregoing reasons, we find that Callaghan discloses all limitations of independent claim 1.<sup>7</sup> Accordingly, we will sustain the Examiner’s rejection of that claim as well as dependent claims 2-7 which fall with claim 1.

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<sup>5</sup> Commensurate display functionality is provided in connection with other embodiments of Callaghan. *See, e.g.*, Callaghan, at col. 15, ll. 4-5 and Fig. 10 (ASIC controlling display interface functions); *see also id.*, at col. 13, ll. 1-21 and Fig. 8 (processor communicating with touch screen 90 via interface 88).

<sup>6</sup> *See, e.g.*, US 2003/0043139 A1 (Engler), at ¶ 0020 (noting that “imagers” facilitate displaying images on LCD displays by receiving clocking and configuration signals from a display controller ASIC); *see also id.* (noting that the imagers essentially convert light intensity modulation information contained in an analog drive signal to light energy emitted to an LCD display); *id.* at Figs. 2 and 4 (showing connection between ASIC 16, imagers 26, and display 28); US 2003/0020724 (O’Donnell), at ¶¶ 0004 (noting that each set of common and variable plate electrodes of a cell or pixel in a display forms an “imager”); *id.* at ¶ 0029 (noting that the display preferably comprises at least one “imager” for red, green, and blue, where the imager is driven by the display driver).

<sup>7</sup> In reaching this conclusion, we note in passing that even if the “imager” is in the form of an image capture device, the scope and breadth of claim 1 would still read on various conventional configurations involving portable computing devices with attached peripherals. For example, claim 1 is fully met by a laptop computer (portable electronic device) with an ASIC that communicates with an imager (digital camera) and a laser scanner (flatbed or sheetfed scanner) coupled to the computer.

*The Obviousness Rejections*

Regarding the Examiner's rejections under 35 U.S.C. § 103(a) of (1) claims 8 and 9 as unpatentable over Callaghan and Kunert, and (2) claims 10 and 11 as unpatentable over Callaghan and Meier, we find that the Examiner has established at least a prima facie case of obviousness of those claims that Appellants have not persuasively rebutted. Specifically, the Examiner has (1) pointed out the teachings of Callaghan, (2) noted the perceived differences between Callaghan and the claimed invention, and (3) reasonably indicated how and why Callaghan would have been modified to arrive at the claimed invention (Answer 6-7).

Once the Examiner has satisfied the burden of presenting a prima facie case of obviousness, the burden then shifts to Appellants to present evidence or arguments that persuasively rebut the Examiner's prima facie case. Appellants did not persuasively rebut the Examiner's prima facie case of obviousness, but merely noted that the addition of Kunert and Meier respectively fails to cure the deficiencies of Callaghan in connection with independent claim 1, namely reciting two distinct image capture devices coupled to the portable electronic device (Br. 6-7; Reply Br. 6-7). For the reasons previously discussed, however, we find this argument unpersuasive. The obviousness rejections are therefore sustained.

DECISION

We have sustained the Examiner's rejections with respect to all claims on appeal. Therefore, the Examiner's decision rejecting claims 1-11 is affirmed.

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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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