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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ROBERT JOHN CASTLE and JOHN DERYK WATERS

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Appeal 2010-007944  
Application 11/361,984  
Technology Center 2600

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Before JOHN A. JEFFERY, BRUCE R. WINSOR,  
and JAMES B. ARPIN, *Administrative Patent Judges*.

WINSOR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-21, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse and institute a new ground of rejection within the provisions of 37 C.F.R. § 41.50(b).

STATEMENT OF THE CASE

Appellants' invention relates to determination by a read-write device of a clock frequency used by transponder device. The transponder device

transmits a training bit sequence to the read-write device. The read-write device then calculates the transponder clock frequency from the training bit sequence. Abstract. Claim 1, which is illustrative of the invention, reads as follows:

1. A read-write device for reading data from and transmitting data to a transponder device, the read-write device configured to:

receive a training bit sequence from a transponder device,  
calculate a transponder device clock frequency from the training bit sequence, and

transmit data to the transponder device substantially at the transponder device clock frequency.

Claims 1-4, 7-18, and 21 stand rejected under 35 U.S.C. § 102(e) as anticipated by Rodgers (US 6,982,646 B2; Jan. 3, 2006; filed Aug. 3, 2001).<sup>1</sup> Ans. 3-5.

Claims 5 and 19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rodgers and Landt (US 5,504,485; Apr. 2, 1996). Ans. 5-6.

Claims 6 and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rodgers, Landt, and Hansen (US 6,269,136 B1; July 31, 2001). Ans. 6-7.

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<sup>1</sup> We note that the Examiner refers in the Answer to Carney (US 5,446,447; Aug. 29, 1995). Ans. 3-4. We further note that Hansen has been omitted from the listing of evidence relied upon. Ans. 3. Nevertheless, our review of the record indicates that, although Carney is mentioned in the grounds of rejection for claims 1, 11, and 15, the Examiner intended to refer to Rodgers. We conclude that this, and the omission of Hansen from the list of evidence, are harmless typographical errors, because Appellants do not allege, nor does it appear from the record, that any confusion was introduced thereby.

Rather than repeat the arguments here, we refer to the Briefs (App. Br. filed Jan. 6, 2010; Rev. App. Br.<sup>2</sup> filed Apr. 7, 2010; Reply Br. filed Apr. 22, 2010) and the Answer (mailed Feb. 22, 2010) for the respective positions of Appellants and the Examiner.

#### ISSUE

Based on Appellants' contentions, we will address Appellants' arguments by reference to claim 1. *See* Rev. App. Br. 2-5; Reply Br. 4-9. The issue presented by Appellants' contentions is as follows: Has the Examiner established that Rodgers discloses a "read-write device" that "receive[s] a training bit sequence from a transponder device[ and] calculate[s] a transponder device clock frequency from the training bit sequence," as recited in claim 1?

Appellants' Revised Appeal Brief addresses the rejections of claims 2-21 by relying on the arguments made for claim 1 and asserting that Landt and Hansen fail to cure the deficiencies of the cited passages of Rodgers. *See* Rev. App. Br. 5-6. For the first time in the Reply Brief, Appellants present arguments for the separate patentability of claims 2, 3, 5, 8, 12, 16, 17, 19, and 21. *See* Reply Br. 9-12. Such arguments, presented for the first time in the Reply Brief, are untimely and waived. *See Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative) ("[T]he reply brief [is not] an opportunity to make arguments that could have been made in the

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<sup>2</sup> We will address Appellants' arguments as presented in the "Response to Notice of Non-Compliant Brief on Appeal and Resubmission of a Revised Section of the Brief on Appeal" (herein the "Revised Appeal Brief") filed April 7, 2010, rather than the Appeal Brief filed January 6, 2010.

principal brief on appeal to rebut the Examiner's rejections, but were not."). In any event, the arguments are rendered moot by our decision.

### ANALYSIS

The Examiner finds that Rodgers discloses each of the elements of claim 1. Ans. 3-4 (citing Rodgers col. 9, ll. 26-59; col. 11, l. 48—col. 12, l. 19; col. 13, ll. 28-40; col. 16, ll. 32-50; col. 17, l. 53—col. 18, l. 7; col. 18, l. 66—col. 19, l. 21; Figs. 1, 3, 5.); *see also* Ans. 7-11. In particular, the Examiner maps the recited “read-write device” to Rodgers’s monitor 124 (*see* Rodgers Fig. 1) and the recited “transponder device” to Rodgers’s objects 103-112 (*id.*). Ans. 3. The Examiner maps the recited “training bit sequence” to sets of predefined values received by Rodgers’s monitor (i.e., “read-write device”) from Rodgers’s object (i.e., “transponder device”). *Id.* (citing Rodgers col. 13, ll. 28-40; Fig. 5). The Examiner maps the recited “transponder device clock frequency” to the operating frequency calculated by the CPU 2402 (*see* Rodgers Fig. 24) of Rodgers’s monitor 124 in response to the received predetermined value. Ans. 4 (citing Rodgers col. 11, l. 48—col. 12, l. 19; col. 16, ll. 32-50; Figs. 3, 5).

The Examiner explains:

[A]s defined by claim 1, a training bit sequence is any signal or data signal that the transponder device generates or transmits to the read-write device. Therefore, it is the examiner [sic] position to call out that the response signal is a signal or a data signal for the monitor to use to determine the second frequency for performing transceiver communication with the objects (i.e. transponder) using the second frequency. Clearly, the response signal is the training bit sequence and the monitor device (i.e. the read-write device) configured to receive the response signal

(i.e. the training bit sequence) from the objects (i.e. the transponder device).

Ans. 8.

In response, Appellants argue that:

The Examiner's construction of the claimed term "training bit sequence" as "any signal or data signal that the transponder device generates or transmits to the read-write device" is overly broad, and therefore improper. (Answer, p. 8). In particular, the Answer improperly applies this overly broad construction in asserting that a "response signal transmitted from the objects (103) to the monitor (124)" in Rodgers reads on the "training bit sequence" recited in claims 1, 11, and 15. (*Id.*) (citing to Rodgers, col. 2 line 65 to col. 3 line 13, col. 15 lines 14-15, Table 1).

A careful reading of Rodgers reveals that the "response signal" cited to by the Examiner is not a sequence of predetermined bits at all; rather the "response signal" is simply a reflection of an *unmodulated* carrier frequency signal initially transmitted by the monitor, the frequency of the response signal being modified according to the resonant characteristics of the device sending the response signal. (Rodgers, col. 13 lines 62 to 66, col. 14 lines 22-45, Fig. 4; *see also* col. 14 line 46 to col. 17 line 9, Table 1). As such, the "response signal" of Rodgers does not carry any encoded digital data at all. Because the "response signal" taught by Rodgers does not include any bits at all, this signal plainly cannot teach, expressly or inherently, a "training *bit sequence*" as recited in claim[] 1 . . . .

Reply Br. 6-7.

We agree with Appellants that the passages of Rodgers cited by the Examiner do not disclose a "read-write device" that "receive[s] a training bit sequence from a transponder device[ and] calculate[s] a transponder device clock frequency from the training bit sequence," as recited in claim 1.

Appellants' Specification distinguishes between the transponder device *clock* frequency, which is the effective frequency of data transmission, and

the *RF carrier wave* frequency. *See* Spec. 6:8-16. Each of the passages cited by the Examiner relates to a carrier wave frequency, not to a bit sequence from Rodgers's object (i.e., "transponder device") from which a clock frequency is calculated by Rodgers's monitor (i.e., "read-write device"). To be sure, the cited passages of Rodgers do mention "selection of clocking signals" (Rodgers col. 13, ll. 32-33), but as a value included in an array of monitor transmit frequencies for scanning (MTFS), and not in the context of their calculation from a training bit sequence received from the object.

Appellants have persuaded us of error in the rejection of claim 1 as anticipated by Rodgers. Accordingly, we do not sustain the rejection of (1) independent claim 1; (2) independent claims 11 and 15, which were argued together with claim 1 and which include substantially the same limitations that we find missing from the cited passages of Rodgers; and (3) claims 2-4, 7-10, 12-14, 16-18, and 21, which variously depend, directly or indirectly, from claims 1, 11, and 15.

For the same reasons, Appellants have persuaded us of error in the rejection of claims 5 and 19, which depend from claims 4 and 18, respectively, as unpatentable over Rodgers and Landt; and the rejection of claims 6 and 20, which depend from claims 5 and 19, respectively, as unpatentable over Rodgers, Landt, and Hansen. Accordingly, we do not sustain the rejection of claims 5, 6, 19, and 20.

**NEW GROUND OF REJECTION WITHIN 37 C.F.R. § 41.50(b)**

Claim 1 is rejected on a new ground of rejection under 35 U.S.C. § 103(a) as unpatentable over Rodgers.

Rodgers teaches a read-write device (monitor) (Rodgers, Fig. 1 (Ref. 124)) for reading data from (*id.* at Fig. 1 (Ref. 172, 176)) and transmitting data to (*id.* at Fig. 1 (Ref. 170, 174)) a transponder device (objects) (*id.* at Fig. 1 (Ref. 102-112); Fig. 2 (Ref. 104)) (*id.* at col. 9, ll. 26-59).

Rodgers teaches that the transponder device (i.e., object) is configured to receive a training bit sequence (the “preamble” of the “interrogation format,” “TANK (N1-N2),” and “DEMODO”) (Rodgers, Fig. 15 (Ref. 1594); *see also* Rodgers, Fig. 2 (Ref. 104), Fig. 16) from the read-write device (i.e. monitor) (*id.* at col. 30, l. 11—col. 33, l. 15). Rodgers further teaches that the transponder device (i.e., object) calculates the read-write device (i.e., monitor) clock frequency (“CELL CLK,” “RX CLK”) (*id.* at Fig. 15) from the training bit sequence (i.e., preamble) and transmits data to the read-write device (the “reply slots” of the “interrogation format”; “MOD”) (*id.* at Fig. 15 (Ref. 1597)) substantially at the read-write device clock frequency (“[t]he length of preamble portion 1594 should be sufficient for generating all timing signals for use in transceiver circuitry 201” (*id.* at col. 30, ll. 50-52)) (*id.* at col. 30, l. 11—col. 33, l. 15).

Rodgers teaches or suggests all of the limitations of claim 1, except that, in Rodgers, the transponder device clock frequency is established in reference to the read-write device clock frequency, whereas in claim 1 the read-write device clock frequency is established in reference to the transponder device clock frequency. As the U.S. Supreme Court explains, however,

[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this

leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

One of ordinary skill in the art, faced with the problem of reducing jitter in the communication between a transponder device and a read-write device, in light of Rodgers's teaching of using a training bit sequence to coordinate the clock frequencies of the transponder device and read-write device, would have recognized that there are a finite number of predictable implementations of the teaching. It would have been obvious to one of ordinary skill in the art at the time of the invention that the transponder device can transmit the training bit sequence to the read-write device or the read-write device can transmit the training bit sequence to the transponder device. Additionally, such a modification of Rodgers would have been obvious because it is merely a combination of familiar elements according to known methods that does no more than yield predictable results, *id.* at 416, — a predictable variation that could have been implemented by person of ordinary skill, *id.* at 417.

#### ORDER

The decision of the Examiner to reject claims 1-21 is reversed.

We enter a new ground of rejection for claim 1 under 35 U.S.C. § 103(a).<sup>3</sup>

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<sup>3</sup> The Patent Trial and Appeal Board is a review body, rather than a place of initial examination. We have entered new grounds of rejection of claim 1. However, we have not reviewed claims 2-21 to the extent necessary to determine whether these claims also are unpatentable over Rodgers, Landt,

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that “[a] new ground of rejection . . . shall not be considered final for judicial review.”

Section 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record.

37 C.F.R. § 41.50(b).

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). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2010).

REVERSED  
37 C.F.R. § 41.50(b)

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and Hansen, or any other prior art. In the event of further prosecution, we leave it to the instant Examiner to determine the patentability of claims 2-21 in light of our findings and conclusions herein. Our decision not to enter a new ground of rejection for all claims should not be considered as an indication of the allowability of the non-rejected claims.