

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOHN F. FELTZ,  
JIM A. MCCURDY and LANCE D. NEUHARD

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Appeal 2008-2416  
Application 10/873,979  
Technology Center 2800

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Decided: July 25, 2008

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Before KENNETH W. HAIRSTON, ROBERT E. NAPPI  
and KARL EASTHOM, *Administrative Patent Judges*.  
HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 51, 59, 65 to 69, 72, 73, 75 to 81, 83, and 84. After a series of Amendments After Final, claims 59, 81, 83, 84, and 88 remain before us on appeal. We have jurisdiction under 35 U.S.C. § 6(b).

We will reverse the rejections.

STATEMENT OF THE CASE

Appellants have invented a shield for a read/write antenna in a radio-frequency identification (RFID) printer (Figures 1 to 3 and 15; Specification 9, 10, 14 to 17). The shield functions to isolate a downstream RFID transponder from a RFID transponder that is currently receiving radiated energy from the antenna.

Claim 59 is representative of the claims on appeal, and it reads as follows:

59. A system for writing to and/or reading an RFID transponder in a record member formed in a web of record members without affecting the RFID transponder in an adjacent, downstream record member, comprising:

an antenna radiating energy to write to and/or read from an RFID transponder in a record member;

a shield having a first portion supporting the antenna so that the antenna is generally parallel to a record member to be written to and/or read and the shield having a second portion extending at an angle from the first portion towards the web so that at least a part of the second portion is adjacent the web to shield an RFID transponder in a record member from energy radiating from the antenna, and wherein part of the shield adjacent the web forms a guide for the web.

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

Carrender	US 5,850,187	Dec. 15, 1998
Tsirline	US 6,848,616 B2	Feb. 1, 2005 (filed Mar. 11, 2003)

The Examiner rejected claim 59 under 35 U.S.C. § 103(a) based upon the teachings of Tsirlin.

The Examiner rejected claims 81, 83, 84, and 88 under 35 U.S.C. § 103(a) based upon the teachings of Tsirlin and Carrender.

### ISSUE

Appellants contend that Tsirlin does not describe a radiation shield that supports an antenna so that the antenna is generally parallel to a record member to be written to and/or read, and that Tsirlin does not describe a part of a shield adjacent a web that forms a guide for the web (App. Br. 12 and 13). Thus, the first issue before us is whether the applied prior art teaches or would have suggested to the skilled artisan a radiation shield that supports an antenna so that the antenna is generally parallel to a record member, and a shield that forms a guide for the web as set forth in claim 59 on appeal.

Appellants contend that Tsirlin provides only a magnetic field pattern from a coil trace to a transponder, and that a microstrip patch antenna described by Carrender would be inappropriate for use in the Tsirlin device since Tsirlin seeks to suppress electric fields emitted by the coil trace (App. Br. 13 to 15). Appellants also contend that the applied references do not describe walls in a printer for providing an opening aligned with one transponder, and blocking RF energy from an adjacent transponder. Accordingly, the second issue before us is whether the skilled artisan would have combined the teachings of Tsirlin and Carrender to arrive at the claimed invention set forth in claims 81, 83, 84, and 88 on appeal.

## FINDINGS OF FACT

1. According to Tsirline, an RFID transceiver communicates “selectively and exclusively with a single RFID transponder when one or more other transponders are in close proximity, *without the need for physical isolation or cumbersome shielded housings or chambers*” (col. 3, ll. 7 to 13) (emphasis added).

2. Tsirline uses a field pattern former 110 to collect flux produced by a coil trace 50, and to form the collected flux into a magnetic field pattern 70 at gap 112 which is a target location 44 for a RFID transponder 10 (Figures 6A and 6B; Abstract; col. 3, l. 55 to col. 4, l. 1; col. 5, ll. 27 to 46).

3. A shielded housing or chamber is not used in Tsirline because “[t]he system is configured to establish at predetermined transceiver power levels a mutual magnetic coupling which is selective exclusively for a single transponder located in the transponder target area 44” (col. 3, ll. 61 to 65).

4. The noted magnetic fields emitted by the coil trace in Tsirline are allowed to pass through the gap 112 to the transponder, but “electric fields emitted by coil trace 50 are suppressed by a grounded E-field suppressor shield 90” (col. 4, ll. 45 to 47).

5. The pattern former 110 is formed from a high resistivity ferrite material (col. 5, l. 66 to col. 6, l. 5).

6. Carrender uses a microstrip antenna 206 in reader 50 to communicate with an electronic transponder tag 18 and host computer 232 (Figure 2; col. 3, l. 58 to col. 4, l. 55).

## PRINCIPLES OF LAW

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellant to overcome the prima facie case with argument and/or evidence. *See Id.*

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).

## ANALYSIS

Turning to the first issue, we agree with the Appellants that Tsirlin neither teaches nor would have suggested to one of ordinary skill in the art the use of a shield since Tsirlin expressly states that a shield is not used in the system for communicating with the RFID transponder (Findings of Fact 1 and 3).

Turning to the second issue, the Examiner indicates that it would have been obvious to the skilled artisan to use a microstrip antenna in Tsirlin based upon the teachings of Carrender merely because it is a "well known and common antenna," and because they "have been used for some time as a reading device" (Ans. 4). As indicated *supra*, Tsirlin does not use a shielded housing because a specific pattern former 110, coil trace 50, and E-field suppressor 90 are used to concentrate a magnetic field onto the RFID transponder 10 (Findings of Fact 1 to 5). The Examiner's reasoning is silent as to why the skilled artisan would have used a microstrip antenna in lieu of the coil trace 50 or in addition to the coil trace 50. Thus, we agree with the

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Appellants that a microstrip antenna is inappropriate for use in the Tsirline system since Tsirline seeks to suppress all fields except the magnetic field (Finding of Fact 4).

CONCLUSION OF LAW

The Examiner has not established the obviousness of claims 59, 81, 83, 84, and 88.

REVERSED

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