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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE, SOUTH
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EXAMINER

BEHRINGER, LUTHER G

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL MASCHKE

Appeal 2011-000379
Application 11/311,772
Technology Center 3700

Before: WILLIAM V. SAINDON, SCOTT A. DANIELS, and
NEIL T. POWELL, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 13-25. We have jurisdiction under 35 U.S.C. § 6(b).

The Claimed Subject Matter

Claim 13, reproduced below, is illustrative of the claimed subject matter.

13. A pacemaker, comprising:
an implantable pacemaker housing; pacemaker circuitry positioned within the housing;
a pacemaker electrode lead extending from the housing for transmitting stimulation impulses; and
a detector for detecting current that is induced by an external magnetic field flowing through the pacemaker electrode lead; and
a circuit element positioned along the electrode lead and configured to isolate a portion of the electrode lead from a portion of the pacemaker circuitry and thereby interrupt induced current flowing through the electrode lead based on detection of current by the detector.

References

The Examiner relies upon the following prior art references:

Winstrom	US 4,745,923	May 24, 1988
Stewart	US 5,476,501	Dec. 19, 1995
Ekwall	US 5,541,507	Jul. 30, 1996
Hastings	US 2002/0019644 A1	Feb. 14, 2002
Weiner	US 2002/0133211 A1	Sep. 19, 2002
Scott	US 2005/0003268 A1	Jan. 6, 2005

Rejections

- I. Claims 13, 15, and 16 are rejected under 35 U.S.C. § 102(b) as anticipated by Winstrom.
- II. Claims 17-22 are rejected under 35 U.S.C. § 103(a) as unpatentable over Winstrom and Weiner.
- III. Claim 14 is rejected under 35 U.S.C. § 103(a) as unpatentable over Winstrom, Weiner, and Scott.
- IV. Claims 23 and 25 are rejected under 35 U.S.C. § 103(a) as unpatentable over Winstrom, Weiner, and Hastings.
- V. Claim 24 is rejected under 35 U.S.C. § 103(a) as unpatentable over Winstrom, Weiner, Hastings, and Stewart.

SUMMARY OF DECISION

We REVERSE.

OPINION

Sole independent claim 13 requires a pacemaker having a circuit element “configured to *isolate* a portion of the electrode lead from a portion of the pacemaker circuitry and thereby *interrupt induced current* flowing through the electrode lead” (emphasis added). In the anticipation rejection of claim 13, the Examiner found that Winstrom discloses this feature when the FETs 22 and 23 of Winstrom collapse, causing a “brief time period” in which their resistance would serve to isolate a portion of the lead. Ans. 9.

In Winstrom, when operating in the normal pacing/sensing mode, current flows through a low impedance path of the protection circuit 16 by passing through return lead 13, 5 ohm sensing resistor 24, and the FETs 22, 23. Winstrom, col. 5, ll. 33-36; fig. 2. In a defibrillation mode, increased current passes into the return lead 13 and through 5 ohm sensing resistor 24, which increases the voltage drop across the sensing resistor 24, thereby

Appeal 2011-000379
Application 11/311,772

triggering transistor 25 (or 26, if the voltage drop is of the opposite sign) to connect the gate and source of the FETs 22, 23. *Id.*, col. 6, ll. 3-16. This essentially “opens” the FETs-as-switches. However, because of the FET configuration, even if the source-to-drain connection is closed, the source-to-substrate connection acts as a diode, and current is allowed to pass through the protection current 16 in a high impedance mode, through 82K ohm resistor 32, 1K ohm resistor 27, 5 ohm sensing resistor 24, and FET 22. *Id.*, col. 6, ll. 18-32.

Given that Winstrom explicitly discusses the current flowing in either mode, Appellant’s argument asserting that there is no isolation, only a low impedance mode and a high impedance mode, is the better one. App. Br. 7; Reply Br. 2-4. The Examiner’s finding that the source-to-drain connection is momentarily interrupted does not speak to whether there is an interruption in the source-to-substrate connection used in the high impedance mode. Accordingly, the Examiner’s finding that Winstrom describes a circuit element configured to isolate the lead from the pacemaker in the manner required by claim 13 is not supported by a preponderance of the evidence. This unsupported finding is a basis for each of the Examiner’s prior art rejections. Consequently, we do not sustain any of the Examiners prior art rejections.

DECISION

We REVERSE the Examiner’s decision regarding claims 13-25.

REVERSED

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