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GENERAL ELECTRIC COMPANY GLOBAL RESEARCH ONE RESEARCH CIRCLE BLDG. K1-3A59 NISKAYUNA, NY 12309			CHAN, TSZFUNG JACKIE	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte QI TAN, PATRICIA CHAPMAN IRWIN,
YANG CAO, and ABDELKRIM YOUNSI

Appeal 2010-010426
Application 11/639,725¹
Technology Center 2800

Before CAROLYN D. THOMAS, ELENI MANTIS MERCADER, and
JEFFREY S. SMITH, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The real party in interest is General Electric Company.

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1-11 and 20-24, which are all the claims pending in the application. Claims 12-19 are withdrawn. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

The present invention relates generally to an insulation system having non-linear dielectric properties. *See Spec.*, ¶ [0001].

Claim 1 is illustrative:

1. A transformer comprising:

a magnetic core comprising a plurality of laminated stacks having at least one opening; and

a plurality of windings comprising a conductive material around the magnetic core through the at least one opening and surrounded by an insulating layer having a dielectric constant that varies as a function of voltage.

Appellants appeal the following rejections:

R1. Claims 1-5, 11, and 20-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hall (US 4,489,298, Dec. 18, 1984) and Arumugasaamy (US 5,817,982, Oct. 6, 1998);

R2. Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hall, Arumugasaamy, and Ho (US 5,222,304, June 15, 1993); and

R3. Claims 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hall, Arumugasaamy, and Zhong (US Patent Pub. 2006/0011103 A1, Jan. 19, 2006).

ANALYSIS

Appellants argue claims 1-11 and 20-24 as a group (App. Br. 4-8). For claims 2-11 and 20-24, Appellants repeat the same argument made for claim 1. We will, therefore, treat claims 2-11 and 20-24 as standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii). *See also In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991).

Issue: Did the Examiner err in combining Hall and Arumugasaamy?

Appellants contend that “[t]he objective of the cited reference Hall is to provide a system to maintain the dielectric strength of the transformer while reducing the height of the transformer” (App. Br. 5). Appellants further contend that “the cited references [Hall and Arumugasaamy] are improperly combined as Hall discloses that heavy insulation of material with fixed dielectric constant has to be provided . . . In contrast, Arumugasaamy et al. discloses . . . change in the dielectric constant of the non linear insulating material provides a varying dielectric strength” (*id.* at 6-7).

The Examiner found that “it would have been obvious . . . to use an insulating layer having a dielectric constant that varies as a function of voltage in the device of Hall to improve field control within insulated cable and temperature profile along the cable which improve performance and life expectancy as taught by Arumugasaamy” (Ans. 9). We agree with the Examiner.

We refer to, rely on, and adopt the Examiner's findings and conclusions set forth in the Answer. Our discussions here will be limited to the following points of emphasis.

Hall discloses “that additional insulation is applied to the outer strands of conductors to maintain the dielectric strength” (col. 1, ll. 64-65). However, we do not find, and Appellants do not establish, that such a disclosure criticizes, discredits, or otherwise discourages the use of “a dielectric constant that varies as a function of voltage,” as required by claim 1. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (To teach away, prior art must “criticize, discredit, or otherwise discourage the solution claimed.”). Hall simply discloses “maintaining” the dielectric strength, i.e., avoiding deterioration (e.g., preventing an electrical breakdown (*see* Hall, col. 1, l. 41)), which we find is not limited to a “fixed dielectric constant” or a fixed strength, as argued by Appellants (*see* App. Br. 6-7), as here “maintaining” a strength is simply construed as avoiding deterioration and can also be achieved by varying the dielectric constant.

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference,...would be led in a direction divergent from the path that was taken by the applicant.” *In re Haruna*, 249 F.3d 1327 , 1335 (Fed. Cir. 2001). For at least the reasons noted *supra*, we do not find this to be the situation before this Board.

In view of the above discussion, since Appellants have not demonstrated that the Examiner erred in finding the argued limitations in the combined disclosure of Hall and Arumugasaamy and that there is no “teaching away,” the Examiner’s 35 U.S.C. § 103(a) rejection of

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representative independent claim 1, as well as claims 2-11 and 20-24 not separately argued by Appellants, is sustained.

DECISION

We affirm the Examiner's § 103(a) rejections.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) .

AFFIRMED

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