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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/697,156	04/05/2007	Thomas M. Ingman	S033-P07023US	5813

33356 7590 02/04/2013
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EXAMINER
BROOKS, ANGELA D

ART UNIT	PAPER NUMBER
2836	

NOTIFICATION DATE	DELIVERY MODE
02/04/2013	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS M. INGMAN

Appeal 2010-008497
Application 11/697,156
Technology Center 2800

Before DENISE M. POTHIER, BARBARA A. BENOIT, and TRENTON A. WARD, *Administrative Patent Judges*.

WARD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant's claimed invention relates to a filter for reducing electromagnetic interference generated by a power converter. *See generally* Abstract. Claim 1 is illustrative with certain disputed limitations italicized:

> 1. A filter for reducing electromagnetic interference generated by a power converter, the filter comprising:
>
> a first common-mode inductor comprising first and second windings on a common core
>
> the first winding connected between a first power input line and a first input to the power converter
>
> the second winding connected between a second power input line and a second input to the power converter
>
> a first combination consisting of a first resistor and a first voltage limiting device connected in series, *the first combination connected in parallel with the first winding to limit a voltage across the common mode inductor in the event of a common mode voltage surge*.

THE REJECTIONS

The Examiner rejected claims 1-6 and 12-20 under 35 U.S.C. § 103(a) as unpatentable over Shudarek (US 7,378,754 B2; issued May 27, 2008) and Nordholm (US 3,536,998; issued Oct. 27, 1970). Ans. 4-8.[1]

The Examiner rejected claims 7-11 under 35 U.S.C. § 103(a) as unpatentable over Shudarek, Nordholm, and Nijhof (US 3,538,417; issued Nov. 3, 1970). Ans. 8-10.

CONTENTIONS

The Examiner finds that Shudarek discloses a filter for reducing electromagnetic interference generated by a power converter, the filter comprising a first common-mode inductor comprising a first winding and a second winding on a common core; the first winding connected between a

[1] Throughout this opinion, we refer to (1) the Appeal Brief ("App. Br.") filed Sept. 21, 2009, (2) the Examiner's Answer ("Ans.") mailed Mar. 4, 2010, and (3) the Reply Brief ("Reply Br.") filed Mar. 25, 2010.

first power input line and a first input to the power converter the second winding connected between a second power input line. Ans. 4. The Examiner finds that Shudarek discloses every recited structural feature of claim 1, except for "a first combination consisting of a first resistor and a first voltage limiting device connected in series, the first combination connected in parallel with the first winding." Ans. 4. The Examiner cites Nordholm as teaching this combination circuit in concluding that the claim would have been obvious. *Id.*

Appellant argues that the "claimed subject matter addresses a different problem and provides a different solution than that taught in the prior art." App. Br. 6 (emphasis omitted). Specifically, Appellant argues that Nordholm teaches the use of a voltage limiting device to solve the problems of potential damage to circuit components by absorbing the energy of a voltage spike while the problem addressed by the claimed invention is to prevent a common mode inductor from exacerbating an externally applied common mode voltage surge. *Id.*

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that the combination of the cited prior art teaches a "first combination connected in parallel with the first winding to limit a voltage across the common mode inductor in the event of a common mode voltage surge"?

ANALYSIS

On this record, we find no error in the Examiner's obviousness rejection of claim 1. The Examiner found that Shudarek discloses every

recited structural feature of claim 1 except for the combination of a resistor and a voltage limiting device connected in series, and the combination connected in parallel with a winding. Ans. 4. The Examiner cites Nordholm, in combination with Shudarek, as disclosing this combination circuit. *Id.* Appellant does not dispute that the circuit of Nordholm is the same combination circuit as the claimed invention. Reply Br. 4 ("The Applicant agrees that the circuit configuration (a series combination of a resistor and a voltage limiting device connected in parallel with a winding) taught by Nordholm is the same as the circuit recited in the claimed invention." (emphasis omitted)).

Citing to MPEP § 2141.02(III), Appellant argues that although the combination circuit in the cited prior art is the same, Appellant's claimed invention addresses a different problem than the problem addressed by the prior art. App. Br. 4; Reply Br. 4. Specifically, Appellant states that Nordholm teaches the use of a voltage limiting device to solve the problems of potential damage to circuit components by absorbing the energy of a voltage spike. App. Br. 6. Appellant argues that the problem addressed by the claimed invention is not to absorb the energy of a voltage surge emanating from an inductive component but to prevent the common mode inductor from exacerbating an externally applied common mode voltage surge. *Id.*

As conceded by Appellants, Nordholm discloses the combination circuit and limits the voltage across the common mode inductor in the event of a voltage surge. Reply Br. 4; *see also* Ans. 4 (citing Nordholm, col. 5, ll. 65-68). Apparatus claims, such as claim 1, must be structurally distinguishable from prior art to be patentable. Because Appellants' claim 1

is not structurally distinguishable over the cited prior art, we agree with Examiner's finding that claim 1 is not patentable. Additionally, we are not persuaded of error in the Examiner's rejection of method claim 20 because the recited step of limiting a voltage across the common mode inductor in the event of a common mode voltage surge is taught by Nordholm. *See* Ans. 4 (citing Nordholm, col. 5, ll. 65-68), 13; Reply Br. 4.

Appellant additionally argues that the claimed subject matter is patentable because it provides an innovative solution to a problem "not recognized in the prior art," namely a recognition that that the inductor actually adds to the voltage surge in a power spike. App. Br. 4-5 (citing MPEP § 2141.02; *In re Wiseman*, 596 F.2d 1019, 1022 (CCPA 1979)) (emphasis omitted). The Court in *Wiseman* affirmed a rejection against claims directed to grooved disc brakes because although applicants discovered a new problem, the claimed solution of placing grooves in the disc would have been obvious from the prior art which placed grooves in disc brakes for a similar problem. 596 F.2d at 1022. Thus, Appellant's arguments are unavailing because we find likewise that the claimed combination circuit would have been obvious based on Nordholm's teaching which includes such a combination circuit to address a similar problem. To the extent that Appellant is attempting to argue that Nordholm is nonanalogous prior art, we disagree, as Nordholm is in the same field of endeavor as Appellant and is reasonably pertinent to the problem with which Appellant was concerned as previously discussed.

We are therefore not persuaded that the Examiner erred in rejecting independent claim 1, and claims 2-20 not separately argued with particularity.

ORDER

The Examiner's decision rejecting claims 1-20 is affirmed.

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

babc