UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MAURICE GIVENS

Appeal 2009-003414
Application 11/265,973
Technology Center 2800

Decided: August 6, 2009

Before JOHN C. MARTIN, CARLA M. KRIVAK, and
THOMAS S. HAHN, *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1-15. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF CASE

Appellant's claimed invention is a method and apparatus for reducing noise associated with acoustic sensor outputs (Spec. ¶[0001]). Appellant's invention uses a sub-band spectral subtraction mechanism to process a noise cancellation mechanism output signal, producing a reduced noise acoustic data signal (Spec. ¶[0007]).

Independent claim 1, reproduced below, is representative of the subject matter on appeal.

> 1. A method for sensor output signal noise reduction comprising the steps of:
>
> introducing at least one sensor output signal into an LMS-based adaptive noise canceller, producing a noise canceller output signal; and
>
> introducing said noise canceller output signal into a sub-band spectral subtractive routine external to said LMS-based adaptive noise canceller, producing a reduced noise signal.

REFERENCE

Lin	US 2007/0090980 A1	Apr. 26, 2007 (filed Oct. 21, 2005)

The Examiner rejected claims 1-15 under 35 U.S.C. § 102(e) based upon the teachings of Lin.

The only contention is whether Lin teaches a sub-band spectral subtractive routine external to an LMS-based adaptive filter (App. Br. 7-9; Reply Br. 16-17; Ans. 11-12).

The Examiner finds that Lin teaches an LMS adaptive noise canceller 1412 that includes a sub-band spectral subtraction routine 1410 (Ans. 13). The Examiner further finds that Appellant has not provided a specific definition of "sub-band spectral subtractive routine" and thus, giving the term its broadest reasonable interpretation, the term can include any adaptive filter (Ans. 12). We cannot agree.

Appellant's Specification explains that "sub-band spectral subtraction algorithms are . . . known to those skilled in the art" in paragraph [0023], sets forth the sub-band spectral subtractive mechanism in paragraph [0032], and also sets forth the function that implements the sub-band spectral noise-reduction algorithm (Appendix-Spec: 21-22). Although Appellant's Specification does not specifically define the term "sub-band spectral subtractive routine," this is a specific claim term for a specific type of filtering (Spec. ¶[0032]). Any interpretation that fails to give weight to "sub-band," "spectral," "subtractive," and "routine" deprives the words in this claim term of their normal meaning. Thus, the "sub-band spectral subtractive routine" does not include just *any* adaptive filter, but rather refers to a specific filtering routine. Further, the output from Lin's LMS based adaption circuit is fed to a summer 1124, 1224 (Lin Fig. 14), not a sub-band spectral subtractive routine. A summer is an additive circuit and not a subtractive circuit. Also, Lin does not describe the summer as operating on a sub-band. Thus, because Lin does not disclose each and every element of Appellant's invention, Lin does not anticipate claims 1-15. *RCA Corp. v. Appl. Dig. Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984).

CONCLUSION

The Examiner erred in rejecting claims 1-15 under 35 U.S.C. § 102(e).

DECISION

The Examiner's decision rejecting claims 1-15 is reversed.

REVERSED

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