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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CORNELIS HERMANUS VAN BERKEL, PATRICK PETER
ELIZABETH MEUWISSEN, and RICKY JOHANNES MARIA NAS

Appeal 2010-007241¹
Application 10/565,926
Technology Center 2100

Before JEAN R. HOMERE, DEBRA K. STEPHENS, and JASON V.
MORGAN, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The real party in interest is ST-Ericckson, S.A. (App. Br. 3.)

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-11. (App. Br. 5.) We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' Invention

As depicted in Appellants' Figure 2 below, Appellants invented a vector processing device (100) for composing basic code vectors (102) into a composite code vector (104). In particular, two weighted sum units (106) perform two distinct weighted sum operations, each under the control of a distinct configuration word (114), from a plurality of incoming basic code vectors (102) to select therefrom basic code vectors (102) that are added together to separately produce each an intermediate code vector. An add unit (110) subsequently adds the intermediate vectors together to produce the composite code vector (104). (Abstract.)

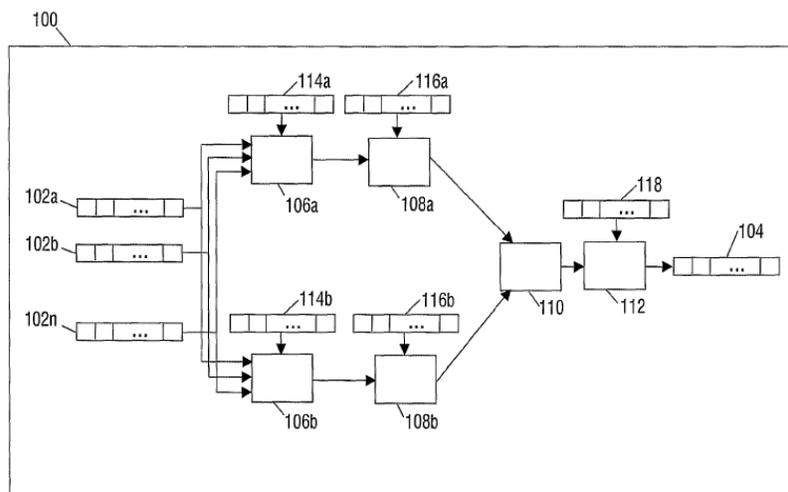


FIG.2

Illustrative Claim

Independent claim 1 further illustrates the invention as follows:

1. A device arranged to compose basic-code vectors into a composite-code vector, the device comprising:
 - at least two weighted sum units, each weighted sum unit being arranged to provide an intermediate-code vector which is a weighted sum of a plurality of the basic-code vectors;
 - an add unit, the add unit being arranged to sum the intermediate-code vectors into the composite-code vector;
 - the weighted sum units being under the control of a first and a second configuration word, and
 - wherein the first and the second configuration word are deployed to configure the operations performed by the weighted sum units.

Prior Art Relied Upon

The Examiner relies on the following prior art as evidence of unpatentability:

Erdogan	US 7,076,514 B2	Jul. 11, 2006
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Rejections on Appeal

The Examiner rejects the claims on appeal as follows:

1. Claims 1-10 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.
2. Claims 1-11 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Erdogan.

ANALYSIS

We consider Appellants' arguments *seriatim* as they are presented in the principal Brief, pages 7-21.

Non-Statutory Rejection

Dispositive Issue 1: Have Appellants shown the Examiner erred in concluding that claim 1 is directed to non-statutory subject matter?

Appellants argue that the Examiner erred in finding that claim 1 is directed to a series units of mathematical operations for generating a composite vector code. Rather, Appellants argue that the claim is directed to a particular machine arranged to compose the basic code vector. (App. Br. 14.)

In response, the Examiner finds that because the recited device does not set forth any physical structure for performing the recited functions, the claim is directed to software units for performing the functions. (Ans. 7-8.)

We find error in the Examiner's conclusion that claim 1 is directed to non-statutory subject matter. Appellants' Specification indicates that the subject matter of the invention can be implemented in the form of dedicated hardware or in the form of a programmed general purpose computer. (Spec. 7.) We find nothing in the Specification to support the Examiner's finding that the recited units are implemented in software. We are therefore satisfied that implementing the units in hardware or in a programmed general purpose computer would satisfy the machine requirements, and would thereby render

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the claim patent eligible.² It follows that Appellants have shown error in the Examiner's rejection of claims 1-10.

Anticipation Rejection

Dispositive Issue 2: Have Appellants shown that the Examiner erred in finding that Erdogan describes *a first and second weighted sum units, under the control of a first and second configuration words, arranged to provide intermediate code vectors*, as recited claim 1?

Appellants argue that Erdogan does not describe the disputed limitations emphasized above. (App. Br. 15-21.) In particular, Appellants argue that while Erdogan discloses a first and a second summer, the disclosed summers are not weighted sum units because they simply add the outputs of filter coefficients, without performing any selection of input vectors. (*Id.* at 16-17.) Further, Appellants argue that because Erdogan's summers provide a sum of filtered binary signals, and do not relate to standards/codes, their outputs cannot be said to describe an intermediate code vector. (*Id.* at 18-19.)

In response, the Examiner finds that Erdogan's disclosure of a first summer and a second summer, under the control of a plurality of filters, for

² “[A] machine is a ‘concrete thing, consisting of parts, or of certain devices and combination of devices.’ This ‘includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result.’” *Ferguson*, 558 F.3d 1359, 1364 (Fed. Cir. 2009) (quoting *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007), *reh'g denied en banc*, 515 F.3d 1361 (Fed. Cir. 2008), *cert. denied*, 129 S. Ct. 70 (2008)).

adding a plurality of selected input vector codes describes the disputed limitations, as broadly claimed. (Ans. 8-9.)

Figure 12 of Erdogan is reproduced below:

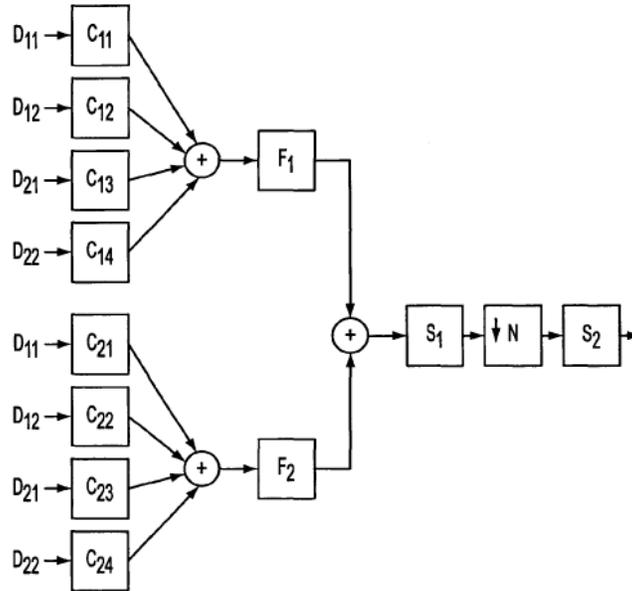


FIG. 12

Figure 12 depicts a diagram of a polyphase combiner-sinc filter.

On the record before us, we agree with the Examiner's finding of anticipation. As depicted in Figure 12 above, Erdogan discloses a plurality of input vectors ($D_{11..22}$) that are fed to a plurality of filters ($C_{11..24}$) before they are selected to be summed by a first summer or a second summer, the outputs of the summers are subsequently added to produce a composite output vector. We find that because the filters are able to select or de-select input vectors based on whether or not the characteristics of the vectors match those of filters to which they are fed, the filters in conjunction with the summers describe the weighted summers, as claimed. Further, we find

for these same reasons that the output of the summers describe the intermediate vectors. Therefore, we find Erdogan discloses each weighted sum unit (adder) being arranged to provide an intermediate-code vector which is a weighted sum of a plurality of the basic-code vectors.

Additionally, we find unpersuasive Appellants' argument seeking to distinguish the claimed units from Erdogan's disclosure on the basis on the types of data they are set out to process. We conclude that the content of the code vectors to be directed to nonfunctional descriptive material. In a precedential Opinion, an expanded Board panel held that nonfunctional descriptive material (sequence data) did not distinguish the claimed computer-based system from a prior art system that was the same except for its sequence data. *See Ex parte Nehls*, 88 USPQ2d 1883, 1887-88 (BPAI 2008) (precedential).³ It follows that Appellants have not shown error in the Examiner's rejection of claim 1 as being anticipated by Erdogan.

Because Appellants did not argue 2-11 separately, those claims fall together with claim 1 as set forth above. *See* 37 C.F.R. § 1.37(c)(1)(vii).

DECISION

1. We reverse the Examiner's decision to reject claims 1-10 as being directed to non-statutory subject matter under 35 U.S.C. § 101.

³ *See also Ex parte Mathias*, 84 USPQ2d 1276, 1279 (BPAI 2005) (informative), *aff'd* 191 Fed. Appx. 959 (Fed. Cir. 2006) (stating if a claimed phrase cannot alter how the process steps are to be performed to achieve the utility of the invention or merely states an intended use or purpose for the data, it is not entitled to patentable weight).

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2. We affirm the Examiner's decision to reject claims 1-11 as being anticipated by Erdogan under 35 U.S.C. § 102(e).

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)

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

msc