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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALEXANDER G. MACINNIS

Appeal 2010-007385
Application 10/794,858
Technology Center 2400

Before THU A. DANG, JAMES R. HUGHES, and
GREGORY J. GONSALVES, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-4, 6, 7, 9, 12-22, 24, 25, and 27-35 (App. Br. 2). Claims 5, 8, 10, 11, 23, and 26 were indicated as containing allowable subject matter, and thus are not subject to this Appeal. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

A. INVENTION

According to Appellant, the invention is directed to providing improved processing of comb filtered signals, which includes generating a signal indicative of the quality of a field-combed signal, generating a signal indicative of inter-field signal difference substantially outside the chroma frequency band, and generating a signal indicative of inter-field and inter-line signal difference substantially inside the chroma frequency band (Spec. 4, ¶[09]).

B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary:

1. A method for generating a signal indicative of the quality of a current signal processed utilizing three-dimensional comb filtering, the current signal being from a current video line of a current video field, the method comprising:

generating a first signal indicative of inter-field and inter-line signal difference substantially inside the chroma frequency band;

determining a quality indication based at least in-part on the first signal; and

generating a quality signal indicative of the quality indication.

C. REJECTION

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Creed U.S. 5,006,927 Apr. 9, 1991

Claims 1-4, 6, 7, 9, 12-22, 24, 25, and 27-35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Creed.

II. ISSUE

The dispositive issue before us is whether the Examiner has erred in finding that Creed teaches “generating a *first signal* indicative of *inter-field and inter-line signal difference* substantially inside the chroma frequency band” (claim 1, emphasis added).

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Creed

1. Creed discloses a composite digital video signal encoder that comprises crosstalk measuring filters for measuring crosstalk between luminance and chrominance components (Abstract), wherein Creed’s Figure 12 is reproduced below:

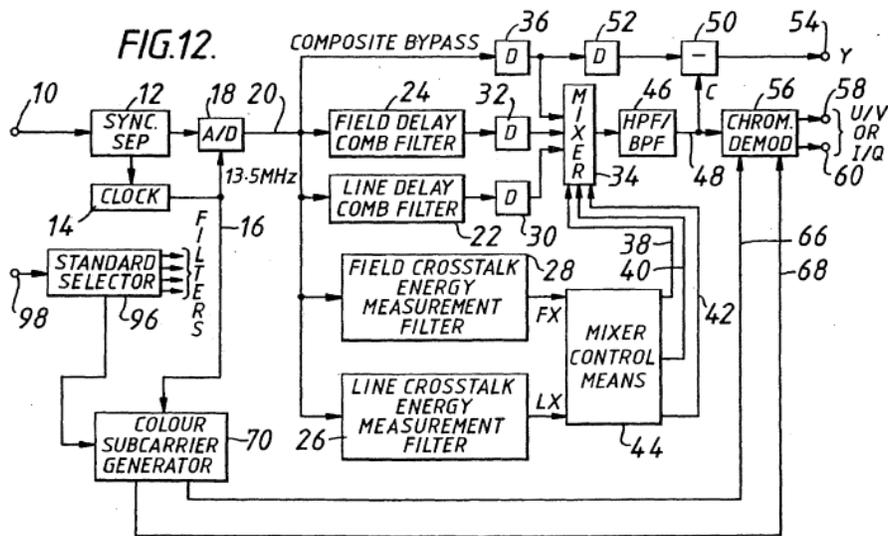


Figure 12 depicts a block schematic circuit diagram of an apparatus (See Creed, col. 6, ll.3-4)

In Figure 12, digital composite video signal on the bus 20 is applied to a vertical (line delay) chrominance separation comb filter 22 and a vertical/temporal (field delay) chrominance separation comb filter 24, and the combed output signals from the chrominance separation comb filters 22 and 24 are passed via respective delay circuits 30 and 32 to respective inputs of a mixer 34 and the digital composite signal on the bus is also passed directly to a third input of the mixer 34 via a delay circuit 36 (col. 10, ll. 39-60).

2. The mixer 34 mixes the three signals applied to its respective inputs at a mixing ratio determined by control signals from a mixer control means 44 (col. 10, ll. 64-67), and mixer control means 44 generates the control signals from a field (vertical/temporal) crosstalk energy measurement signal FX obtained from the field crosstalk energy measurement filter 28 and a line (vertical) crosstalk energy measurement signal LX obtained from the line crosstalk energy measurement filter 26,

wherein the signal FX is representative of vertical/temporal (field) crosstalk energy and the signal LX is representative of vertical (line) crosstalk energy (col. 11, ll. 4-20).

IV. ANALYSIS

As for claim 1, the Examiner finds that, in Creed, “the vertical/temporal field delay comb filter item 24 provides chrominance (**chroma**) signal which includes crosstalk or cross-color... in its output by acting between samples in different fields,” and thus, “**inter-field** signal difference is generated” (Ans. 6) (citations omitted). The Examiner then finds that “the vertical line delay comb filter item 22 provides chrominance (**chroma**) signal which includes crosstalk or cross-color... in its output by acting within a field of signal between vertically adjacent samples in different lines of the field,” and thus, “**inter-line** signal difference is generated” (*id.*) (citations omitted).

However, although the Examiner finds that an inter-field signal difference and an inter-line signal difference are generated in Creed (Ans. 6), we cannot find any teaching in the sections of Creed referenced by the Examiner that a signal indicative of inter-field and inter-line signal difference is generated. Instead, Creed discloses that combed output signals from the two chrominance separation comb filters are passed via respective delay circuits to respective inputs of a mixer, while the digital composite signal on the bus is passed directly to a third input of the mixer via a delay circuit (FF 1). That is, in Creed, three separate signals from the three separate delay circuits are passed to three separate inputs of a mixer.

Therefore, we cannot determine where in Creed's three separate signal is a signal that is indicative of inter-field and inter-line difference, as required by the claim. Furthermore, the Examiner does not explain as to which of these three signals read on the claimed signal.

Since the Examiner has not made a clear distinction as to what teachings of Creed comprise "a first signal" which is indicative of inter-field and inter-line signal difference, as required by claim 1, the Examiner has failed to meet the initial burden of proof required for the rejection pursuant to 35 U.S.C. § 102 (b). Accordingly, we are constrained to reverse the Examiner's rejection of representative claim 1 over Creed. Independent claim 20 recites similar limitations and thus stands with claim 1. Accordingly, we also reverse the rejection of independent claim 20 and claims 2-4, 6, 7, 9, 12, 21, 22, 24, 25, and 27 depending respectively from claims 1 and 20 over Creed. *See* 37 C.F.R. § 41.37(c)(1)(iv).

As for claim 13, Appellant merely argues that Creed fails to disclose "**generating a field comb quality signal based at least in-part on the generated field comb signal**" because "Creed clearly fails to teach that the crosstalk signals generated by items 26, 28 are based in any way, shape or form on items 22, 24" (App. Br. 15). However, the Examiner finds that "the mixer (item 34) establishes at its output a quality signal by doing calculations based at least in-part on the signal (which includes crosstalk) generated by the comb filter (items 22, 24) which includes a field comb filter (24)" (Ans. 8). We find no error in the Examiner's findings.

We give the claim its broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). Claim 13 does not define a "field comb quality signal" other than it

is generated based at least in-part on the generated field comb signal. Although Appellant argues that crosstalk signals generated by items 26 and 28 are not based on items 22 and 24 (App. Br. 15), Appellant appears to argue that the claimed “field comb quality signal” can only be generated by items 26 and 28 of Creed. However, claim 13 does not limit the signal to such output of items 26 and 28.

In Creed, the mixer mixes the signals from the field comb filters applied to its respective inputs and provides an output (FF 2). In particular, the output is based at least in-part on the inputted signals from the field comb filters. We find no error in the Examiner’s finding that “the mixer (item 34) establishes at its output a quality signal by doing calculations based at least in-part on the signal (which includes crosstalk) generated by the comb filter (items 22, 24) which includes a field comb filter (24)” (Ans. 8). That is, we find that Creed discloses generating a quality signal based at least in-part on a generated field comb signal.

Accordingly, we find that Appellant has not shown that the Examiner erred in rejecting claim 13 under 35 U.S.C. § 102(b) over Creed. Further, independent claim 28 reciting similar claim language and claims 14-19 and 29-35 depending respectively from claims 13 and 28 which have not been argued separately, fall with claim 13. *See* 37 C.F.R. § 41.37(c)(1)(iv).

V. CONCLUSION AND DECISION

The Examiner's rejection of claims 13-19 and 28-35 under 35 U.S.C. § 102(b) is affirmed while the Examiner's rejection of claims 1-4, 6, 7, 9, 12, 20-22, 24, 25, and 27 under 35 U.S.C. § 102(b) is reversed.

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).

ORDER

AFFIRMED-IN-PART

llw