

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was **not** written for publication is **not** binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte J. RICHARD AYLWARD

Appeal No. 1997-3182
Application 08/254,643

ON BRIEF¹

Before THOMAS, HAIRSTON and JERRY SMITH, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1, 8, 15, 16, 21, 22 and 27. The

¹This appeal was set for oral hearing on Wednesday, November 15, 2000. Appellant was informed by Administrator Craig Feinberg on Tuesday, November 14, 2000 that there was no need for appellant's representative to attend the oral hearing since the panel that was assigned to the hearing had decided to reverse all rejections on appeal.

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examiner has objected to claims 2 through 7, 9 through 14, 17 through 20, 23 through 26, 28 and 29 as being dependent upon a rejected base claim, but indicated their allowability if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Representative claim 1 is reproduced below:

1. A system for extracting a bass signal from left and right audio input signals of a stereo signal, said system comprising:

a differencing circuit generating a difference mode signal from the left and right audio input signals;

a detector circuit generating a first coefficient of proportionality that is a function of the relative phase of the left and right input signals; and

a first multiplier circuit multiplying the first coefficient of proportionality times the difference mode signal to produce a modified difference mode signal, wherein the modified difference mode signal is used to generate the bass signal.

The following references are relied on by the examiner:

Ishikawa et al. (Ishikawa)	4,933,768	June 12,
1990		
Fosgate	WO 91/19407	Dec. 12, 1991
Robinson	1,175,362	Oct. 2,
1984		
(Canadian Patent)		

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IEEE Standard Dictionary of Electrical and Electronics Terms, 405 (3d ed., New York, John Wiley & Sons, 1984).

Claims 1, 8, 21 and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Robinson. Claims 15, 16 and 27 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon the combination of teachings of Robinson in view of Ishikawa and Fosgate as to claim 15 and the more limited combination to Robinson and Fosgate as to claims 16 and 27.

Rather than repeat the positions of the appellant and the examiner, reference is made to the various briefs, the supplemental examiner's answer mailed on May 9, 2000, which appears to supersede the answer's answer mailed on November 13, 1996, and the intervening communications from the examiner.

OPINION

We reverse the rejection of independent claims 1 and 21 on appeal essentially for the reasons set forth by appellant in the brief and the reply brief. As such, we therefore reverse the rejection of claims 8 and 22 under 35 U.S.C. § 102 and the rejections under 35 U.S.C. § 103 of the remaining

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claims on appeal.

Claim 1 on appeal recites in-part "a detector circuit generating a first coefficient of proportionality that is a function of the relative phase of the left and right input signals." Independent claim 21 correspondingly recites "a

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detector circuit generating an output signal that is a function of the relative phase information contained in the first and second input signals." Appellant rightly contests the inability of Robinson to anticipate the subject matter of each of these claims on appeal in the various briefs on appeal.

Our study of Robinson lead us to agree with appellant's remarks at pages 8 and 9 of the brief:

The reference [Robinson] discloses delaying the difference signal A-B with respect to the sum signal A+B. There is no disclosure in the reference of any detector circuit generating a first coefficient of proportionality that is a function of the relative phase of the left and right input signals corresponding to the A and the B signals in the reference. There is no disclosure whatsoever that the coefficient G_1 is a function of the relative phase of the left and right input signals or the relative phase of the A+B and A-B signals if these be treated as the first and second signals called for by claim 21.

Modifier network 30 may introduce a time delay "with a phase shift which varies in the manner as shown with curve 52 in Fig. 20 that is a function of the frequency of the difference signal A-B, but that is not a disclosure of "a detector circuit generating a first coefficient of proportionality that is a function of the relative phase of the left and right input signals" called for by claims 1 and 8 or "a detector circuit generating an output signal that is a function of the relative phase information contained in the first and second input signals"

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called for by claims 21 and 22.

Similarly, we also agree with appellant's observations with respect to Robinson as noted at the bottom of page 5 of the reply brief:

The reference discloses, "The difference signal A-B is applied to a modifier network 30 having a transfer function G_2 to produce an audio signals V_4 on output line 32." Page 8, lines 5-7. There is no disclosure whatsoever that the multiplier G_2 is "a first coefficient of proportionality that is a function of the relative phase of the left [or first] and right [or second] input signals."

Although we agree with the examiner's view expressed in the answer that the difference circuit Figure 2 corresponds to the differencing circuit generating a difference mode signal from the left and right audio input signals as set forth in independent claims 1 and 21 on appeal, we part company with the examiner's remaining views expressed with respect to the difference modifier circuit 30 in the answer. The just quoted portions of the brief and reply brief correctly reflect our understanding of the teachings of the reference with respect to the difference modifier circuit 30 and its corresponding sum modifier circuit 26 and the respective transfer functions

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G_2 and G_1 . The examiner's rejection mistakenly attributes features of the sum modifier circuit 26 to the difference modifier circuit 30 in the answer. Figure 1 contains circuits which delay the difference (A-B) signals on line 24 and the sum (A+B) signals on line 20 relative to each other, but not with respect to the left and right input signals per se as required by the language of the detector circuit quoted above in each independent claim 1 and 21 on appeal. At most, any phase shift attributed to the difference signal A-B would not be equal or equivalent to, within 35 U.S.C. § 102, the "relative phase" of the input signals, per se as claimed. As such, the claimed first multiplier circuit of claim 1 and the multiplier circuit of claim 21 on appeal also cannot be met by the teachings and showings associated with Figure 1 of Robinson.

Because we have reversed the rejection under 35 U.S.C. § 102 of independent claims 1 and 21 on appeal, we also reverse the rejection of their respective dependent claims 8 and 22. Furthermore, we reverse the respective rejections of claims 15, 16 and 27 under 35 U.S.C. § 103 even in light of the

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additional teachings of Fosgate and Ishikawa.

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In view of the foregoing, the examiner's rejections of various claims under 35 U.S.C. §§ 102 and 103 are all reversed. Therefore, the decision of the examiner is reversed.

REVERSED

	JAMES D. THOMAS)	
	Administrative Patent Judge)	
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)	
)	
)	BOARD OF PATENT
	KENNETH W. HAIRSTON))
APPEALS	Administrative Patent Judge)	AND
)	
INTERFERENCES)	
)	
)	
	JERRY SMITH)	
	Administrative Patent Judge)	

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