

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JUNICHI HORIGOME

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Appeal No. 1996-0774  
Application No. 08/048,117<sup>1</sup>

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ON BRIEF

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

BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection of claims 1-9. The appellant filed an amendment after final rejection on December 19, 1994, which was entered. We reverse.

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<sup>1</sup> The application was filed on April 14, 1993.

BACKGROUND

The invention at issue in this appeal is an automatic gain control (AGC) circuit for an optical disc drive. Conventional AGC circuits normalize tracking and focusing signals by employing analog dividers to divide the signals by another signal corresponding to a total amount of light reflected from a disc. Variations in temperature and supplied power, however, subject the analog dividers to problems. The invention employs a digital-to-analog (D/A) converter to normalize tracking and focusing signals. Accordingly, the invention is less affected by variations in temperature and power.

Claim 1, which is representative for our purposes, follows:

1. An AGC circuit for an optical disc drive including means for generating a tracking and focusing error signal by utilizing an output signal supplied from an optical pickup detector, and an actuator for correcting an error, which is driven by a servo drive signal generated by a normalized error signal, the AGC circuit comprising:

detecting means for determining an amount of light reflected from an optical disc and outputting a total light amount signal corresponding to the amount of reflected light;

table means for generating reciprocal data which is a reciprocal of the total light amount signal output from said detecting means; and

a D/A converter to which said tracking and focusing error signal is supplied as its reference signal, and said reciprocal data is supplied as its digital input, with the D/A converter outputting the normalized error signal.

The abstracts relied on by the patent examiner in rejecting the claims follow:

Fumiaki et al. 1992 (Patent Abstract of Japan)	3269829	Mar. 4,
Kenzo et al. (Kenzo) (Patent Abstract of Japan)	63166318	Nov. 14, 1988
Maruta (Patent Abstract of Japan)	59-113531	June 30, 1984
Yasuaki (Patent Abstract of Japan)	63124228	Oct. 12, 1988.

Claims 1, 5, and 6 stand rejected under 35 U.S.C. § 102(b) as anticipated by Fumiaki. Claim 2 stands rejected under 35 U.S.C. § 103 as obvious over Fumiaki in view of

Kenzo. Claims 3, 4, and 7 stand rejected under 35 U.S.C. § 103 as obvious over Fumiaki in view of Maruta. Claim 8 stands rejected under 35 U.S.C. § 103 as obvious over Fumiaki in view of Yasuaki. Claim 9 stands rejected under 35 U.S.C. § 103 as obvious over Fumiaki in view of Yasuaki further in view of Maruta. Rather than repeat the arguments of the appellant or examiner in toto, we refer the reader to the briefs and the answers for the respective details thereof.

#### OPINION

In reaching our decision in this appeal, we considered the subject matter on appeal and the rejections and evidence advanced by the examiner. We also considered the arguments of the appellant and examiner. After considering the record before us, we cannot say that the evidence anticipates the invention of claims 1, 5, and 6. We also cannot say that the evidence and level of skill in the art would have suggested the invention of claims 2-4 and 7-9. Accordingly, we reverse. We address the anticipation of claims 1, 5, and 6 and the obviousness of claims 2-4 and 7-9 seriatim.

Anticipation of Claims 1, 5, and 6

Regarding the anticipation of claims 1, 5, and 6, the appellant argues that Fumiaki "does not teach or suggest that ROM 16 or any of its other elements generate a reciprocal of the total light amount." (Appeal Br. at 7-8.) He further argues that the reference's disclosure "is not sufficient to teach or suggest that ... this reciprocal is used as a digital input to a D/A converter as claimed in claim 1." (Reply Br. at 5.) In response, the examiner opines, "either signal 20 is a reciprocal of signal 13 or at some point in element 18 it becomes reciprocal, dependent on the particular implementation of element 18. At some point it must be reciprocal in order to normalize signal 19." (Examiner's Answer at 5.)

We cannot find that Fumiaki teaches the reciprocal data of claim 1. A prior art reference anticipates a claim only if the reference discloses expressly or inherently every limitation of the claim. Absence from the reference of any claimed element negates anticipation. Rowe v. Dror, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997).

The claim recites in pertinent part "table means for generating reciprocal data which is a reciprocal of the total light amount signal output from said detecting means; and a  
D/A

converter to which ... said reciprocal data is supplied as its digital input ...." In short, the claim specifies generating a reciprocal of the total amount of light and using this reciprocal as a digital input to a D/A converter.

Fumiaki stabilizes a tracking servo system of an optical recording and reproducing device. Purpose, Constitution. The reference teaches a gain 20, which corresponds to a digital value 33. An AGC circuit 18 employs the gain 20 for gain control of a track shift difference signal 19. Constitution.

In short, Fumiaki teaches an AGC circuit that performs gain control based on a gain. It mentions nothing about a reciprocal of the total amount of light. Accordingly, the reference does not teach generating the reciprocal and using it as a digital input to a D/A converter. The examiner's comment that signal 20 is either a reciprocal of signal 13 or at some point it becomes the reciprocal amounts to speculation. He cannot base a rejection on speculation.

For the foregoing reasons, we cannot find that Fumiaki teaches the claimed reciprocal data. The absence of the claimed element from the reference negates anticipation. Therefore, we reverse the rejection of claims 1 and 5-6 under 35 U.S.C. § 102. Next, we consider the obviousness of claims 2-4 and 7-9.

Obviousness of Claims 2-4 and 7-9

We begin our consideration of the obviousness of claims 2-4 and 7-9 by recalling that in rejecting claims under 35 U.S.C. § 103, the patent examiner bears the initial burden of establishing a prima facie case of obviousness. A prima facie case is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. If the examiner fails to establish a prima facie case, an obviousness rejection is improper and will be overturned. In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

The addition of Kenzo in the rejection of claim 2; Maruta in the rejection of claims 3, 4, and 7; Yasuaki in the rejection of claim 8; and Yasuaki and Maruta in the rejection of claim 9 does

not cure the aforementioned defect of Fumiaki. The examiner has not identified anything in these references or the prior art as a whole that would have suggested generating a reciprocal of the total amount of light and using this reciprocal as a digital input to a D/A converter. Therefore, we find that the examiner's rejections do not amount to a prima facie case of obviousness.<sup>2</sup> Because the examiner has not established a prima facie case, the rejections of claim 2 over Fumiaki in view of Kenzo; claims 3, 4, and 7 over Fumiaki in view of Maruta; claim 8 over Fumiaki in view of Yasuaki; and claim 9 over Fumiaki in view of Yasuaki further in view of Maruta are improper. Therefore, we reverse the rejection of claims 2-4 and 7-9 under 35 U.S.C. § 103.

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<sup>2</sup> In this opinion, we have based our findings on the abstracts of Fumiaki, Kenzo, Maruta, and Yasuaki. Because the complete disclosures of these references have neither been provided to us nor applied by the Examiner in the rejections, we have not considered the entire disclosures. We make no judgment as to the teachings or suggestions that the complete references may present.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 5, and 6 under 35 U.S.C. § 102 is reversed. His decision to reject claims 2-4 and 7-9 under 35 U.S.C. § 103 is also reversed.

REVERSED

JAMES D. THOMAS	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
JERRY SMITH	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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