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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NEIL DEEMAN, DAVID S. KUO, CHRISTOPHER J. FORMATO, SUNDEEP CHAUHAN, and LAWRENCE M. BRYANT

Appeal 2010-008724
Application 11/132,198
Technology Center 2600

Before ELENI MANTIS MERCADER, ANDREW CALDWELL, and STANLEY M. WEINBERG, *Administrative Patent Judges*.

CALDWELL, *Administrative Patent Judge*.

DECISION ON APPEAL

SUMMARY

Appellants appeal under 35 U.S.C. § 134(a) (2002) from a final rejection of claims 1-19. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF CASE

Appellants describe the present invention as an apparatus for and method of writing patterns on a disk recording medium by multiple radial tracks during a single rotation of the disk by deflection and modulation of a recording beam. Instead of employing multiple exposure passes, with each pass being offset from the other by a certain radial distance, the apparatus performs the write of the pattern in a single pass. During this single pass, controlled by a single rotation of the turntable on which the disk recording medium is located, the electron beam is deflected in a radial direction by a required amount and modulated in synchronization with the radial deflection. This synchronization of the beam modulation with the beam deflection allows the multiple tracks to be written or exposed in a single pass. Abstract; Spec. ¶ 12.

Independent claim 1 is representative and shown below with key disputed limitations italicized:

1. A method of writing patterns on a disk recording medium, comprising the steps:

    (a) rotating the disk recording medium a single rotation only;
    (b) radially deflecting a recording beam *across a set of multiple tracks during the single rotation of the disk recording medium*; and
    (c) modulating the recording beam during the single rotation of the disk recording medium and the radial deflection of the recording

> beam, *to thereby form a set of multiple track exposure patterns on the disk recording medium during the single rotation*.

THE REJECTIONS

Claims 1-6 and 14-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Formato (US Patent 2004/0001415 A1; published Jan. 1, 2004) in view of Masuhara[1] (JP 11-283283; published Oct. 15, 1999). (Machine translation relied upon). Ans. 3-6.[2]

Claims 7-13, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as obvious over Formato, Masuhara, and Usa (US 2004/0080871 A1; published Apr. 29, 2004). Ans. 6-7.

THE OBVIOUSNESS REJECTION – FORMATO AND MASUHARA

Appellants do not argue independent claim 14 separately from independent claim 1. App. Br. 14; Reply Br. 9. Nor do Appellants separately argue any of the dependent claims rejected under 35 U.S.C. § 102. App. Br. 13-14; Reply Br. 9. We will therefore treat claims 1-6 and 14-17 as a single claim grouping and select claim 1 as representative of this group. *See* 37 C.F.R. § 41.37(c)(1)(vii).

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[1] The Answer relies upon a machine translation of Masuhara. Ans. 3. Because Appellants do not object to the Examiner's reliance upon the machine translation, this decision also relies upon the machine translation.

[2] Rather than repeat the Examiner's positions and Appellants' arguments in their entirety, we refer to the following documents for their respective details: the Appeal Brief (App. Br.) filed December 22, 2009; the Examiner's Answer (Ans.) mailed February 5, 2010; and the Reply Brief (Reply Br.) filed April 5, 2010.

The Examiner concludes that the combination of Formato and Masuhara renders claim 1 obvious. Ans. 3-4. The Examiner relies upon Formato for generally teaching the step of radially deflecting a recording beam during the single rotation of the disk recording medium. *Id.* The Examiner recognizes, however, that Formato does not specifically teach radially deflecting the recording beam across multiple tracks to thereby form a set of multiple track exposure patterns on the disk recording medium during the single rotation. *Id.* The Examiner relies upon Masuhara to teach forming multiple track exposure simultaneously by radially deflecting the recording beam. Ans. 4.

Appellants argue that the Examiner has failed to establish a prima facie case of obviousness. App. Br. 9. In support, Appellants contend:

(1) When Formato and Masuhara are considered in their entirety, the references teach away from combining them. App. Br. 13.

(2) Since the proposed modification to or combination of Formato as suggested by Masuhara would render the modified Formato unsatisfactory for its intended purpose and would change Formato's principle of operation, there is no suggestion or motivation to make the modification to Formato as proposed by the Examiner. App. Br. 13.

(3) The proposed modification of Formato in view of Masuhara would result in being an inoperable condition. Reply Br. 5-7.

(4) Modifying the deflection technique of Formato with the deflection technique of Masuhara is not trivial to one of ordinary skill in the art of servo pattern exposure. Reply Br. 8.

ANALYSIS

Appellants' Contention (1)

Appellants contend that when Formato and Masuhara are considered in their entirety, the references teach away from the Examiner's combination. App. Br. 13. In the Appeal Brief, Appellants discuss Formato paragraphs 0010 through 0012, which describe the appropriate beam deflection to convert the pattern produced on the disk into a *circle* or series of *concentric circles*. App. Br. 11-12. Appellants then discuss Masuhara paragraph 0090 and Figures 8 and 10, which describe the deflection of a beam to form multiple *spiral tracks* on a disk. *Id.* at 12. Appellants assert that Formato and Masuhara are directed to opposing subject matter. *Id.* at 12.

While we agree with Appellants that Formato and Masuhara describe different subject matter, we are not persuaded that the cited portions of Formato and Masuhara establish that the references teach away from combining them. Appellants' discussion of the references amount only to an assertion that the references have differences. Asserting differences is not sufficient to establish that the references teach away from combining them. *See In re Beattie*, 974 F.2d 1309, 1312-13 (Fed. Cir. 1992) (It is not enough for Appellants to show that there are differences between the two references). In order for a reference to teach away, the reference must criticize, discredit or otherwise discourage the solution claimed. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). The Examiner concludes that the references do not teach away from combining them because Masuhara teaches oscillating the exact sort of beam that Formato deflects, spiral and circular patterns are both servo patterns on a disk, and a skilled person

would be capable of applying a technique used in one kind of pattern to the other. Ans. 8-9. Appellants do not respond to the Examiner's findings and conclusions. We are therefore not persuaded that the references teach away from combining them because Appellants do not persuasively show that the portions of Formato and Masuhara they rely upon criticize, discredit or otherwise discourage the solution claimed, we are not persuaded that the references teach away.

Appellants' Contention (2)

Appellants contend that since the proposed modification to or combination of Formato as suggested by Masuhara would render the modified Formato unsatisfactory for its intended purpose and would change Formato's principle of operation, there is no suggestion or motivation to make the modification as proposed by the Examiner. App. Br. 13. Appellants, however, do not explain why Formato would be rendered unsatisfactory for its intended purpose nor provide any evidence in support of their contention. *See Id.* We are therefore not persuaded that the proposed modification of Formato would render Formato unsatisfactory for its intended purpose.

Appellants' Contention (3)

In the Reply Brief, Appellants argue that proposed modification of Formato in view of Masuhara would result in an inoperable condition. Reply Br. 5-7. There is no reason why this new contention could not have been raised earlier and is therefore waived as untimely. *See Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative) ("[T]he reply

brief [is not] an opportunity to make arguments that could have been made in the principal brief on appeal to rebut the Examiner's rejections, but were not."). By raising this argument for the first time in the Reply Brief when it could have been raised earlier, we are left without a response by the Examiner.

Appellants' Contention (4)

In the Reply Brief, Appellants raise for the first time the contention that modifying the deflection technique of Formato with the deflection technique of Masuhara is not trivial to one of ordinary skill in the art of servo pattern exposure. Reply Br. 8. Appellants explain that the deflection technique of Formato is significantly different with respect to deflection timing and to detection amplitude in comparison to the deflection technique of Masuhara. *Id.* Appellants also state that there is no cited reference that teaches, motivates, or suggests that the modification of the deflection technique of Formato with the deflection technique of Masuhara is trivial. *Id.* There is no reason why this new contention could not have been raised earlier and is therefore waived as untimely. *See Ex parte Borden*, 93 USPQ2d at 1474.

THE OBVIOUSNESS REJECTION – FORMATO, MASUHARA, AND USA

The Examiner rejects claims 7-13, 18, and 19 under 35 U.S.C. § 103(a) as being obvious over Formato, Masuhara, and Usa. Ans. 6-7. Appellants argue that a prima facie case of obviousness has not been established because the combination of Formato and Masuhara is improper for the reasons given with respect to claim 1. App. Br. 15-16; Reply Br. 11-

12. Appellants then merely state that Usa does not cure the deficiencies of Formato and Masuhara and do not provide any specific arguments with respect to Usa. App. Br. 15-16; Reply Br. 11-12. Since we sustain the obviousness rejection of representative claim 1, we also sustain the obviousness rejection of claims 7-13, 18, and 19 for the reasons given above.

CONCLUSION

We find Appellants' arguments unavailing regarding the combinability of the Formato and Masuhara references for the reasons given above. Accordingly, on this record, Appellants' arguments have not persuaded us that the Examiner erred by improperly combining the cited references under § 103. We therefore sustain the Examiner's rejection of claims 1-6 and 14-17 under 35 U.S.C. § 103(a) as being unpatentable over Formato and Masuhara. We also sustain the Examiner's rejection of claims 7-13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Formato, Masuhara, and Usa.

DECISION

The Examiner's decision rejecting claims 1-6 and 14-17 under 35 U.S.C. § 103(a) as being unpatentable over Formato and Masuhara is affirmed.

The Examiner's decision rejecting claims 7-13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Formato, Masuhara, and Usa is affirmed.

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). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2010).

AFFIRMED

rwk