UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FREE STREAM MEDIA CORP.
D/B/A SAMBA TV,
Petitioner

v.

GRACENOTE, INC.,
Patent Owner

U.S. Patent No. 9,066,114

Case No. IPR2020-00216

PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE ON SECTION 325(D) ISSUES

TABLE OF AUTHORITIES

Page(s)

Cases

Petitioner's Exhibit List

Exhibit	*Description*
1001	U.S. Patent 9,066,114 to Oostveen et al., "Method and Device for Generating and Detecting a Fingerprint Functioning as a Trigger Marker in a Multimedia Signal," filed Jan. 10, 2014 ("the '114 Patent")
1002	U.S. Patent 9,407,962 to Oostveen et al., "Method and Device for Generating and Detecting a Fingerprint Functioning as a Trigger Marker in a Multimedia Signal," filed Mar. 16, 2015 ("the '962 Patent")
1003	U.S. Patent 9,479,831 to Oostveen et al., "Method and Device for Generating and Detecting a Fingerprint Functioning as a Trigger Marker in a Multimedia Signal," filed May 25, 2016 ("the '831 Patent")
1004	Select portions of prosecution history of the '114 Patent ("the '114 File History")
1005	Intentionally Omitted
1006	Intentionally Omitted
1007	Declaration of Dr. Ahmed H. Tewfik regarding U.S. Pat. No. 9,066,114 ("Tewfik Decl.")
1008	Intentionally Omitted
1009	Intentionally Omitted
1010	*Curriculum Vitae* of Dr. Ahmed H. Tewfik
1011	U.K. Published Patent Application GB 2,375,907A to Murphy, "An Automated Recognition System," filed May 14, 2001, and published November 27, 2002 ("Murphy")
1012	U.S. Patent Application Publication 2002/0126872 to Brunk et al., "Method, Apparatus and Programs for Generating and Utilizing Content Signatures," filed December 19, 2001, and published September 12, 2002 ("Brunk")
1013	W. Kate, et al. "trigg&link: A New Dimension in Television Program Making," in Lecture Notes in Computer Science 1197, vol. 1242, Multimedia Applications, Services and Techniques-ECMAST '97, (1997) 51-65 ("Kate")

Exhibit	*Description*
1014	J. Oostveen, T. Kalker, and J. Haitsma, "Feature Extraction and a Database Strategy for Video Fingerprinting," in Recent Advances in Visual Information Systems, 5th International Conference, VISUAL (2002) 117-128 ("Oostveen")
1015	S.E. Johnson and P.C. Woodland, "A Method for Direct Audio Search with Applications to Indexing and Retrieval," IEEE International Conference on Acoustics, Speech, and Signal Processing, June 5-9 2000 (2000) 1427-1430 ("Johnson")
1016	U.S. Patent Application Publication No. 2002/0178410 to Haitsma, J., Kalker, A, Baggen, C., and Oostveen J., "Generating and Matching Hashes of Multimedia Content," filed February 11, 2002, and published November 28, 2002, claiming priority to EP applications 01200505.4 and 01202720.7 ("Haitsma")
1017	R. Venkatesan, S.-M. Koon, M. H. Jakubowski, and P. Moulin, "Robust Image Hashing," 0-7803-6297-7/00, IEEE (2000), 664-666 ("Venkatesan")
1018	U.S. Patent 6,637,032 to Feinleib, David, "System and Method for Synchronizing Enhancing Content With A Video Program Using Closed Captioning," filed Jan. 6, 1997 ("Feinleib")
1019	Intentionally Omitted
1020	U.S. Patent Application Publication No. 2002/0032864 to Rhoads, Geoffrey B., Levy, Kenneth L. "Content Identifiers Triggering Corresponding Responses," filed May 14, 2001, and published March 14, 2002 ("Rhoads")
1021	Intentionally omitted
1022	Intentionally omitted

Patent Owner contends that this proceeding should not be instituted because Petitioner's art (Murphy and Brunk) is allegedly cumulative of the Rhoads, Haitsma, and Levy references addressed during prosecution. Patent Owner's Preliminary Response ("POPR") at 41-47. Neither Murphy nor Brunk was considered during prosecution. Moreover, Patent Owner's argument ignores a critical difference between Murphy and any of Rhoads, Haitsma, and Levy. None of those references teaches the use of fingerprints that identify specific trigger time points in a multimedia signal, whereas Murphy expressly teaches a fingerprint that identifies a specific time point at which to trigger an action, as recited in each independent claim of the '114 patent. Patent Owner's argument rests on a fundamental misunderstanding of Murphy and is an improper attempt to short-circuit the Board's analysis and obtain resolution on a truncated record. The Board should institute review, develop a complete record, and find all challenged claims unpatentable. *See, e.g., Puzhen Life USA, LLC v. ESIP Series 2, LLC,* IPR2017-02197, Paper 10 at 18-19 (PTAB Mar. 9, 2018) (rejecting Section 325(d) argument because determination of whether asserted reference was cumulative required "closer examination.").

FACTUAL BACKGROUND

Prior art on which Patent Owner relies. Patent Owner contends that IPR should not be instituted because the Office already considered Rhoads, Haitsma and Levy. Rhoads, however, was not addressed during prosecution of the '114 patent.

It was discussed only in the grandparent ’000 patent prosecution, before a different examiner two years earlier. EX-2005 at 756-57. And, Rhoads merely teaches using fingerprints to identify content and take actions based on the identification of the content, not on any trigger time point. For example, once a song is identified, usage controls can be imposed, which allow or prohibit the user from playing or recording the song, or the user can be charged a fee. EX-2004, 4:45-55; POPR at 42.

Haitsma was applied to some claims in the ’114 application. EX-2009 at 205-208. Haitsma teaches generating hashes from content signals and matching them against hashes in a database to identify/recognize the content contained in the signal. EX-1016, [0001]. Haitsma does not teach identifying time points. POPR at 43.

Levy was briefly discussed, with a different examiner, in an interview in the ’000 prosecution. EX-2005 at 715. Levy teaches linking identifiers to actions, but likewise does not teach identifying time points in content. EX-2007, [0005].

Art asserted by Petitioner in this proceeding. Murphy expressly teaches that its fingerprints (i.e., audio cues) identify a specific point in time at which a time-based action should be taken. For example, upon recognizing an audio cue at the beginning of a program, a receiver automatically starts recording. EX-1011, 13:20-14:3, Pet. at 27. Further, the recording can start at a specified offset, either before or after the audio cue. EX-1011, 7:29-30, 12:18-26, Pet. at 35-36. Similarly, upon recognizing a second audio cue at the end of a program, the receiver automatically

ceases recording. EX-1011, 13:20-14:3, Pet. at 27. Actions can also be taken at time points in the middle of a program. For example, if a traffic announcement is broadcast during a program, an audio cue for the traffic announcement is detected, and a time-based action is taken, such as switching to a different channel broadcasting traffic information. EX-1011, 10:21-31, Pet. at 56-58. Linking time-based actions to fingerprints was entirely lacking in Rhoads, Haitsma, and Levy.

Brunk, Petitioner's secondary reference, was incorporated by reference into Levy, a patent that was considered in the '000 prosecution. EX-2007, [0001]. Patent Owner admits that "Levy does not explicitly include the disclosure of Brunk" (POPR at 45 n.10) and there is no evidence that any of the Examiners who examined the challenged patent family saw, much less evaluated, the teachings of Brunk.

ARGUMENT

The issue before the Board is whether the same or substantially the same art or arguments previously were presented to the Office and, if so, whether the Office materially erred in its prior analysis. Paper No. 16 at 2-3 (*citing Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH,* IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020)). In analyzing this issue, the Board considers the six *Becton Dickinson* factors. *Id.* at 3 (*citing Advanced Bionics* at 9 & n.10, and *Becton Dickinson & Co. v. B. Braun Melsungen AG,* IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017)). Because *Becton Dickinson* factors (a)-(c) and (e) largely

subsume the *Advanced Bionics* test, Petitioner addresses both inquiries together. Here, because the asserted art is materially different from the art previously before the Office, each of the factors supports institution.

Addressing factor (c) first, Murphy was neither cited nor considered during prior examination. Brunk was incorporated by reference in Levy, but never considered. *TRW Auto. U.S. LLC v. Magna Elecs. Inc.,* IPR2015-01013, Paper 9 at 17 (PTAB Oct. 13, 2015) (incorporation by reference insufficient to support 325(d) denial where Examiner did not consider incorporated art and asserted combination not previously presented to the Office). Thus, this case is unlike *Advanced Bionics* or *Becton Dickinson*, where the lead reference had previously been considered by the Office. *Advanced Bionics*, Paper 6 at 13; *Becton Dickinson*, Paper 8 at 18. Nor were Petitioner's arguments considered during examination. Indeed, the claim elements the applicant argued were missing from the art of record are the exact elements found in Murphy. *Supra*, pp. 2-3.

As for factors (a) & (b), Petitioner's lead reference, Murphy, is materially different from the art Patent Owner alleges is cumulative. Unlike Rhoads, Haitsma, or Levy, Murphy teaches that its fingerprints (i.e., audio cues) identify a *specific point in time at which a time-based action* should be taken. *Supra*, pp. 2-3.

As for factor (d), during examination Patent Owner argued Rhoads and Haitsma do not teach trigger time points. EX-2005 at 756-57; EX- 2009 at 242-244.

There is no evidence of what specific arguments Patent Owner made to distinguish Levy. Petitioner does not rely on any of these references, and therefore makes no arguments that overlap with those raised in prior examination. Instead, Petitioner relies on Murphy, which supplies the teaching of trigger time points found to be missing from Rhoads and Haitsma, as well as teaching, alone or in combination, the other limitations of the challenged claims. Even if the asserted art were considered cumulative (which it is not), Petitioner has "present[ed] a combination of references that has not been considered previously." *Alphatec Holdings, Inc. v. NuVasive, Inc.*, IPR2019-00546, Paper 17 at 8 (PTAB Jul. 9, 2019) (rejecting 325(d) argument).

For factors (e) and (f), Petitioner pointed out that the Examiner failed to appreciate that using a fingerprint as a marker to trigger actions at a specific time point was obvious to one of ordinary skill in the art, and that Murphy supplied the teachings missing from the prior art of record. Pet. at 8. Murphy's teaching of time-based fingerprints is additional evidence that warrants fresh assessment of patentability. *Oticon Medical AB v. Cochlear Ltd.,* IPR2019-00975, Paper 15 at 19-20 (PTAB Oct. 16, 2019) (Examiner's failure to consider a reference that supplied the teaching missing from the previously presented art was error, warranting institution of review).

For the reasons set forth above, the Board should not exercise its discretion under Section 325(d) and this proceeding should be instituted.

Dated: May 4, 2020 */Don Daybell/*

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on May 4, 2020 via electronic service:

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