Trials@uspto.gov
571-272-7822

Paper No. 33
Entered: October 1, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.; AND
SAMSUNG ELECTRONICS AMERICA, INC.
Petitioners

v.

IMAGE PROCESSING TECHNOLOGIES, LLC
Patent Owner

IPR2017-01190
Patent 6,717,518 B1

Before JONI Y. CHANG, MIRIAM L. QUINN, and
SHEILA F. McSHANE, *Administrative Patent Judges.*

McSHANE, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
Inter Partes Review
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, we determine that Petitioner has shown, by a preponderance of the evidence, that claim 39 ("the challenged claim") of U.S. Patent No. 6,717,518 B1 (Ex. 1001, "the '518 patent") is unpatentable.

A. Procedural Background

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Petitioner") filed a Petition requesting *inter partes* review of claim 39 of the '518 patent pursuant to 35 U.S.C. §§ 311–319. Paper 2 ("Pet."). Petitioner also filed the supporting Declaration of Dr. John C. Hart ("Hart Declaration"). (Ex. 1002). Image Processing Technologies, LLC ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6 ("Prelim. Resp."). Pursuant to 35 U.S.C. § 314(a), on October 3, 2017, we instituted *inter partes* review on the following grounds:

> whether claim 39 would have been obvious under 35 U.S.C. § 103(a) in view of Eriksson[1] and Stringa[2];
>
> whether claim 39 would have been obvious under 35 U.S.C. § 103(a) in view of Ando[3] and Suenaga[4].

---

[1] Martin Eriksson, *Eye-Tracking for Detection of Driver Fatigue*, Proceedings of November 1997 IEEE Conference on Intelligent Transportation Systems, 314–319. (Ex. 1005).
[2] Luigi Stringa, *Eyes Recognition for Face Recognition*, Applied Artificial Intelligence—An International Journal, Vol. 7, No. 1, 1993, 365–382. (Ex. 1006).
[3] U.S. Patent No. 5,008,946 (issued April 16, 1991) (Ex. 1009).
[4] U.S. Patent No. 5,805,720 (issued September 8, 1998) (Ex. 1007).

See Paper 11 ("Inst. Dec." or "Dec."). Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 15, "PO Resp."). Petitioner filed a Reply (Paper 19, "Pet. Reply") to the Patent Owner Response.

On April 24, 2018, the Supreme Court held that a final written decision in an *inter partes* review must decide the patentability of all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) ("*SAS*"). Pursuant to *SAS*, on May 3, 2018, we instituted *inter partes* review on the following additional ground:

> whether claim 39 would have been obvious under 35 U.S.C. § 103(a) in view of Ando and Stringa.

See Paper 24; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360–61 (Fed. Cir. 2018) (reading "the *SAS* opinion as interpreting the statute to require a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition"); *Guidance on the Impact of SAS on AIA Trial Proceedings* (April 26, 2018) (available at https://www.uspto.gov/patents-application-process/patent-trial-and-appealboard/trials/guidance-impact-sas-aia-trial) ("[I]f the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition."). The parties were requested to advise the Board if they wished to change the case schedule or submit further briefing in light of the institution of the Ando and Stringa ground. Paper 24, 1. The parties did not request additional briefing, nor was there a request for a change to the schedule. Paper 25, 3.

An oral hearing was held on June 29, 2018. A transcript of the hearing is included in the record. Paper 31 ("Tr.").

B. Related Proceedings

The parties indicate that a related matter is: *Image Processing Technologies LLC v. Samsung Elecs. Co.*, No. 2:16-cv-00505-JRG (E.D. Tex.) ("the district court action"). Pet. 1, Paper 4, 1. The parties also indicate that *inter partes* review petitions have been filed for other patents asserted in the district court action. Pet. 1–2; Paper 4, 1.

C. The '518 Patent

The '518 patent is entitled "Method And Apparatus For Detection Of Drowsiness," and was filed as PCT application No. PCT/EP99/00300 on January 15, 1999, and issued on April 6, 2004. Ex. 1001, [22], [45], [54], [86]. The '518 patent claims priority to application FR 98 00378, dated January 15, 1998 and application PCT/EP98/05383, dated August 25, 1998. *Id*. at [30]. The application entered the U.S. national stage as application No. 09/600,390, meeting the requirements under 35 U.S.C. § 371 on February 9, 2001. *Id*. at [21], [86].

The '518 patent is directed to applying a generic image processing system in order to detect a person's drowsiness. Ex. 1001, 2:1–5, 2:32–40. In order to accomplish that, the driver's blink rate is detected using a video camera in a car. *Id*. at 6:28–57. The system first detects a driver entering the vehicle, by use of pixels "moving in a lateral direction away from the driver's door." *Id*. at 25:24–39. A driver's head is detected by identifying pixels with selected characteristics, with the pixels loaded in histograms as depicted in Figure 24, reproduced below. *Id*. at 5:64–65, 26:46–49.

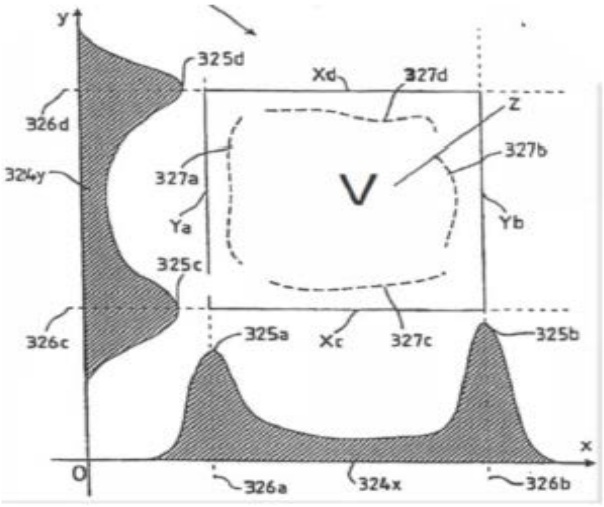

Figure 24, above, illustrates the detection of the edges of a head using histograms. Ex. 1001, 5:64–65. The head edges are detected by looking for peaks in the histogram. *Id*. at 26:49–65. The system then masks portions of an image, and continues to analyze only the unmasked portions. *Id*. at 26:66–27:10; *see also id*. at Fig. 25. The system then uses an anthropomorphic model to set sub-areas for further analysis. *Id*. at 27:31–38. Figure 26, reproduced below, shows the derivation of a sub-area. *See id*. at 27:31–38.

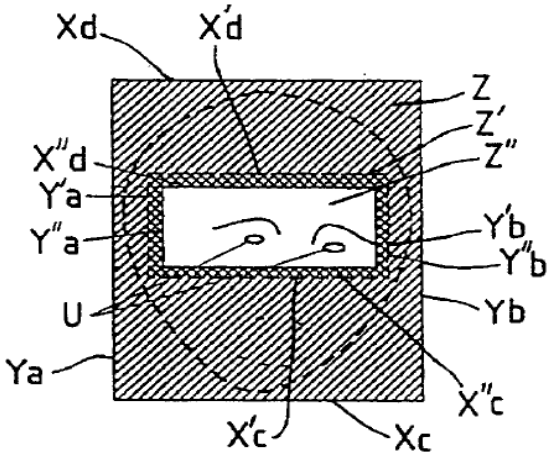

Fig. 26

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.