



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
14/092.002, 11/27/2013, Glenn AARRESTAD, 0370.2919C/984159-US.01, 9085

99499 7590 02/23/2018
Edell, Shapiro, & Finnan, LLC
9801 Washingtonian Blvd.
Suite 750
Gaithersburg, MD 20878

EXAMINER

PRABHAKHER, PRITHAM DAVID

ART UNIT PAPER NUMBER

2662

NOTIFICATION DATE DELIVERY MODE

02/23/2018

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

epatent@usiplaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GLENN AARESTAD, VIGLEIK NORHEIM,
FRODE TJONTVEIT, and KRISTIAN TANGELAND

Appeal 2017-008197
Application 14/092,002
Technology Center 2600

Before DENISE M. POTHIER, JOHN P. PINKERTON, and
MATTHEW J. McNEILL, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ file this appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–6 and 9–22, which are all of the claims pending in this application. Claims 7 and 8 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify Cisco Technology, Inc. as the real party in interest.
Br. 1.

STATEMENT OF THE CASE

Introduction

Appellants generally describe the disclosed and claimed invention as follows:

An image-capturing device includes a receiver that receives distance and angular direction information that specifies an audio source position from a microphone array. The device also includes a controller that determines whether to change an initial focal plane within a field of view based on the audio source position. The device includes a focus adjuster that adjusts an optical focus setting to change from the initial focal plane to a subsequent focal plane within the field of view to focus on at least one object-of-interest located at the audio source position, based on a determination by the controller.

Abstract.²

Claim 1 is representative and reproduced below (with the disputed limitation *emphasized*):

1. An image-capturing device comprising:
 - a receiver that receives distance and angular direction information that specifies an audio source position from a microphone array;
 - a controller, including processing circuitry, that determines whether to change an initial focal plane within a field of view of an image frame based on the audio source position, wherein the field of view is based on a current pan-tilt-zoom settings of the image-capturing device; and
 - a focus adjuster, including focus adjusting circuitry, *that adjusts an optical focus setting to change from the initial focal*

² Our Decision refers to the Final Office Action mailed May 11, 2016 (“Final Act.”), Appellants’ Appeal Brief filed Oct. 7, 2016 (“Br.”), the Examiner’s Answer mailed Jan. 18, 2017 (“Ans.”), and the original Specification filed Nov. 27, 2013 (“Spec.”).

plane to a subsequent focal plane within the field of view to focus on at least one object-of-interest located at the audio source position, based on a determination made by the controller.

Br. 9 (Claims App'x).

Rejections on Appeal

Claims 1–3, 5, 6, 9–15, and 17–22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feng (US 2011/0285807 A1; published Nov. 24, 2011) and Buckler (US 2008/0218582 A1; published Sept. 11, 2008).

Claims 4 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feng, Buckler, and Michrowski et al. (US 2012/0007942 A1; published Jan. 12, 2012).

ANALYSIS

The dispositive issue raised by Appellants is whether the combination of Feng and Buckler teaches or suggests a focus adjuster “that adjusts an optical focus setting to change from the initial focal plane to a subsequent focal plane within the field of view,” as recited in claim 1, and as similarly recited in claims 10 and 20.

In the Final Office Action, the Examiner finds that, although Feng teaches using pan, tilt, zoom cameras, Feng “does not explicitly teach that the focus setting and thus the focus is an optical focus.” Final Act. 7. The Examiner also finds, however, that “Buckler discloses adjusting focus based on an optical setting.” *Id.* In particular, the Examiner finds “Buckler teaches using optical zoom (optical focus setting) to focus in on a speaker during a video conference.” *Id.* at 8 (citing Buckler ¶¶ 5, 17; claims 1–2).

Appellants note the Examiner recognizes “that Feng does not explicitly teach adjusting a focus setting as claimed,” and argue “Buckler, however, does not teach adjusting a focus setting as recited in claim 1.” Br. 5. In particular, Appellants argue the Examiner “misconstrues optical and digital zoom as synonymous with optical focus.” *Id.* According to Appellants, “zoom is not focus” and a person of ordinary skill in the art “would understand that zoom adjusts angle of view (e.g., magnification), and that focus adjusts focal plane (e.g., focus distance).” *Id.* Citing paragraphs 121 and 116, and Figures 14A–14D, Appellants argue Buckler evidences that a person of ordinary skill in the art “would understand that optical zoom adjusts the view angle of a camera.” *Id.* at 5. Appellants further argue Buckler teaches digital zooming in which an image is “cropped and enlarged to achieve a zoom effect.” *Id.* (citing Buckler ¶ 101) (emphasis omitted). Thus, Appellants argue “Buckler only teaches that images are optically or digitally *zoomed* based on an active speaker,” which “does not teach or suggest adjusting optical focus as recited in claim 1.” *Id.* at 6.

We are not persuaded by Appellants’ arguments that the Examiner erred. In responding to Appellants’ arguments, the Examiner finds Buckler’s teaching of optical zooming teaches or suggests adjusting an optical focus setting within the field of view as recited in the disputed limitation of claim 1. Ans. 9–10 (citing Buckler ¶¶ 5, 117, 121; claims 1–2). Specifically, the Examiner finds as follows:

Buckler discloses adjusting focus based on an optical setting. Buckler teaches using optical zoom (optical focus setting) to focus in on a speaker during a video conference, Paragraphs 0005 and 0117; Claims 1-2 of Buckler. In optical zoom, a set of moving lenses allows for a range in optical magnification where light enters an optical zoom lens module and is focused onto the

imaging plane as is well-known in the art. Therefore, by teaching optical zoom, Buckler teaches of adjusting an optical focus setting as required by the claim.

Id. Appellants did not file a reply brief to address these findings.

We agree with Appellants' argument that Buckler's teaching of "digital zooming" does not teach or suggest adjusting an optical focus setting. *See* Br. 5–6. We also agree with Appellants' argument the Specification discloses "the focal plane corresponds to an adjusted optical focus distance, not the view angle adjusted by pan-tilt-zoom settings." *Id.* at 6 (citing Spec. ¶¶ 32, 33, 37). We are not, however, persuaded by Appellants' argument that a person of ordinary skill in the art would understand Buckler's teaching of "optical zooming" as only adjusting the angle of view of a camera.

In that regard, Appellants' reliance on paragraphs 116 and 121 of Buckler is not persuasive. As explained in paragraph 116, Figures 14A to 14D show images taken of people in a room from the widest view angle available (Fig. 14A), to a view of one person (Fig. 4B), a view of two people (Fig. 4C), and a view of three people taken to best capture the view of the speaker (Fig. 4D). Paragraph 117 of Buckler teaches the images can be improved by using cameras with higher pixel resolution or "[a]lternatively optical zoom can be used to improve image quality." This is consistent with the Examiner's finding above that "by teaching optical zoom, Buckler teaches [] adjusting an optical focus setting as required by the claim." Ans. 10. Regarding paragraph 121 of Buckler, we find it specifically distinguishes view angle and optical zooming—"the camera viewing angle can be adjusted mechanically and optical zooming can be used." Thus,

contrary to Appellants' argument, we agree with the Examiner that Buckler's teaching of "optical zooming" teaches or suggests adjusting an optical focus setting as required by claim 1, rather than adjusting an angle of view.

We find the preponderance of the evidence supports the Examiner's findings that Feng in view of Buckler teaches or suggests a focus adjuster that "adjusts an optical focus setting to change from the initial focal plane to a subsequent focal plane within the field of view to focus on at least one object-of-interest located at the audio source position," as recited in 1, and as similarly recited in claims 10 and 20.

Accordingly, we sustain the Examiner's rejection of independent claims 1, 10, and 20, as well as the Examiner's rejections of dependent claims 2-6, 11-19, 21, and 22, which are not separately argued.

DECISION

We affirm the Examiner's decision rejecting claims 1-6 and 9-22 under 35 U.S.C. § 103(a).

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)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED