UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DANIEL PELLETIER

Appeal 2007-2351
Application 09/759,486
Technology Center 2600

Decided: January 15, 2008

Before JAMES D. THOMAS, HOWARD B. BLANKENSHIP, and ALLEN R. MACDONALD, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals a Final Rejection of claims 1, 3-7, and 9-17 under 35 U.S.C. § 134. Claims 18 and 19 stand objected-to and are not subject to appeal. (Reply Br. 2.) We have jurisdiction under 35 U.S.C. § 6(b).

According to Appellant, Appellant invented a method and apparatus for automatically controlling movements of a camera by (1) selecting a sequence of camera parametrics from a group of camera movements such as zooming and panning and (2) determining criteria for executing the selected sequence of camera parametrics to control movement of the camera. (Spec. 3:5-17.) In the words of Appellant:

> With this vast amount of experimentation in camera technique development, empirically derived standards have emerged with regard to specific aspects of capturing a scene on film, magnetic tape, or real-time transmittal, for example, in television transmission. These empirically derived standards are well known to the experienced practitioner, but are not generally known to the average or occasional user. Hence, an average or occasional camera user desiring to pan a scene may proceed too quickly or too slowly. The resultant captured image in either case is unpleasant to view as the images are shown for either too short a period of time or too long a period of time. Thus, to record high quality pleasantly viewable images, a user must devote a considerable amount of time and effort to obtain the skills needed to execute these empirically derived standards. Alternatively, occasional users must seek and employ persons who already have achieved the necessary skills needed to operate camera equipment in accordance with the derived standards. In the former case, the time and effort spent to acquire necessary skills is burdensome and wasteful as the skills must be continuously practiced and updated. In the latter case, skilled personnel are continually needed to perform tasks that are fairly routine and well known. Hence, there is a need to incorporate cinematographic techniques using empirically derived standards into camera equipment that will enable users to produce high quality pleasantly viewable images without undue burden and experimentation.

(Spec. 2:3-3:2.)

Claims 1, 3, and 5 are exemplary and are reproduced below:

1. A method for automatically controlling the movements of at least one camera or camera lens to change the prospective of a scene viewed by said at least one camera or camera lens, said method comprising the steps of:

selecting at least one sequence of camera parametrics from a plurality of sequences of camera parametrics, wherein said at least one sequence of camera parametrics is selected from the group of camera movements including scanning, zooming, tilting, orientating, panning, fading, zoom-and-pull-back, fade-in, fade-out, and wherein said parametrics provide instruction to control movement of said at least one camera or camera lens;

determining criteria for executing said selected sequence of camera parametrics, wherein said criteria are responsive to at least one high level parameter of at least one object contained in said scene; and

adjusting movement of said at least one camera or camera lens in response to said determined criteria.

3. The method as recited in claim 1 wherein said at least one high level parameter includes the number of objects within said scene.

5. The method as recited in claim 1 wherein said at least one high level parameter includes speech recognition of at least one object within said scene.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Chim	US 6,275,258 B1	Aug. 14, 2001 (filed Dec. 17, 1996)
Steinberg et al.	US 6,750,902 B1	Jun. 15, 2004 (filed Dec. 20, 1999)

Claims 1, 3-7, 9-12, and 16-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Chim.

Claims 13-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chim and Steinberg.

We affirm.

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Chim

1. Chim discloses a "sound or voice activation feature" that "enables a video camera to track each speaking participant of the conference" in the way people turn their eyes toward different persons during a conversation with more than one person. (Col. 3, ll. 40-45.) Chim discloses tracking a speaker with a camera to ensure that the speaker is constantly within the field of view of the camera and "*precisely determine the position of each speaker* when they are talking." (Emphasis added) (Col. 4, ll. 65-67 and Col. 8, ll. 26-46.)
2. Chim discloses monitoring audio signals and signal levels at multiple microphones to determine the amount and rate of camera movement to maintain a speaker within view of the camera involves. (Col. 4, ll. 40-42.) Chim discloses that the camera movements can include for panning or zooming the camera, or both. (*Id.*)
3. Chim discloses that the interface card 18 senses and tracks a particular voice among other voices. (Col. 8, ll. 14-19.)

PRINCIPLES OF LAW

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.,* 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d at 1313 (Fed. Cir. 2005) (*en banc*).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

ANALYSIS

Claims 1 and 7

The Examiner found that Chim anticipates claims 1 and 7. (Ans. 3-5 and 7-9.) Appellant alleges that Chim does not disclose a selecting step comprising (i) "selecting at least one sequence of camera parametrics from a plurality of sequences of camera parametrics" and (ii) "wherein said at least one sequence of camera parametrics is selected from the group of camera movements including scanning, zooming, tilting, orientating, panning, fading, zoom-and-pull-back, fade-in, fade-out" and Chim also does not disclose a determining step comprising "determining criteria for executing said selected sequence of camera parametrics." (App. Br. 8-10 and Reply Br. 2-3.)

Therefore the issues are whether the Appellant has shown that the Examiner erred in finding that Chim discloses the selecting and determining steps.

Selecting Step

Appellant alleges that Chim does not disclose the selecting step because (1) the selecting step precludes camera movements and instructions for camera movements that are "predetermined" or "automatically called into play" (App. Br. 8 and Reply Br. 2) and (2) the claimed "sequence of camera parametrics" is a set of rules for determining camera movement, and Chim does not disclose selecting the set of rules because Chim discloses camera movements are governed by a *single predetermined instruction*, i.e., panning and zooming the camera until the relative strengths of audio signals from a set of microphones are stabilized (App. Br. 8-9).

First, we address allegation (1). The claimed selecting step does not preclude camera movements and instructions for camera movements that are predetermined or automatically called into play. Rather, the selecting step merely requires selecting a single sequence of camera parametrics from a plurality of sequences of camera parametrics, irrespective of when or how selection takes place.

Next, we address allegation (2). First, we construe "sequence of camera parametrics." Appellant's Specification states: "camera sequence parametrics, which when supplied with information items from a designated scene, *determine* the criteria for camera movement necessary to achieve the desired operation." (Emphasis added) (Spec. 6:2-6.) The customary and ordinary meaning of "parametric" is a "set of measurable factors . . . that define a system and determine its behavior and are varied in an experiment." *The American Heritage Dictionary of the English Language* (4th ed. 2000), found at www.bartelby.com. Accordingly, we broadly but reasonably construe "sequence of camera parametrics" to include determinations that are used to control camera movements.

Next, we determine whether Chim discloses the selecting step. Chim discloses a "particular voice tracking" feature that involves determinations of (a) identifying a particular speaker's voice tone and (b) determining changes in signal levels of the voice tone at multiple microphones to control movement of the camera by panning and/or zooming. (FF 1-3.) Chim discloses selecting the particular voice tracking in the midst of a plurality of speakers' voice tones and related signal levels of the voice tones at multiple microphones. (FF 2 and 3.) Thus, Chim discloses requirement (i) of the selecting step by disclosing selecting the "particular voice tracking" from a

plurality of voice tones and related signal levels of the voice tones at multiple microphones. In addition, Chim discloses requirement (ii) of the selecting step because the particular voice tracking feature is used to control camera movements such as pan and/or zoom.

Accordingly, Appellant has not shown that the Examiner erred in finding that Chim discloses the selecting step.

Determining Step

The Examiner finds that Chim discloses the determining step. (Ans. 3-5 and 8-9.) Appellant alleges that Chim does not disclose the determining step because Chim's criteria for camera movement are not determined, but rather predetermined, and are always the same in that the criteria are the stabilization of the relative strengths of audio signals from a set of microphones (App. Br. 9-10 and Reply Br. 2).

Contrary to Appellant's allegation (App. Br. 9-10 and Reply Br. 2), the determining step does not preclude that the criteria for executing a sequence of camera parametrics are predetermined but merely requires that the criteria are determined, irrespective of when or how determination takes place.

We begin our analysis by construing "criteria" of the claimed determining step. Appellant's Specification states that an example of criteria are "total zoom-in time, camera centering, rate of camera zoom level change" and are "for controlling the camera movement or camera lens zoom level to achieve the user selected 'close-up.'" (Spec. 9:15-17.) We broadly but reasonably construe "criteria" to involve an amount and rate of camera movement to achieve the desired camera movement. Accordingly, the

determining step requires determining an amount and rate of camera movement to achieve the desired camera movement.

Chim discloses controlling camera movements based on determinations of changes in signal levels of a particular voice at multiple microphones. (FF 2.) Chim discloses that the camera movement depends on the amount and rate of movement of the speaker. (FF 1-2.) Thus, Chim discloses that when a speaker is moving quickly across a scene, the changes in signal levels across multiple microphones are rapid and the camera moves rapidly. But, when a speaker moves slowly across a scene, the changes in signal levels across multiple microphones are slow and the camera moves slowly. Accordingly, Chim discloses determining the amount and the rate of change of camera movement and thereby discloses the determining step.

Accordingly, Appellant has not shown that the Examiner erred in finding that Chim discloses the determining step.

We conclude that the Appellant has not shown that the Examiner erred in rejecting claims 1 and 7 under 35 U.S.C. § 102(e).

Claims 3 and 9

The Examiner finds that Chim discloses determining a number of objects in a scene of claims 3 and 9. (Ans. 4, 5, and 9-10.) Appellant alleges that Chim does not disclose determining a number of objects in a scene. (App. Br. 10-11 and Reply Br. 3-4.) We disagree with Appellant.

Contrary to the interpretations made by the Examiner and Appellant. claims 3 and 9 do not require determining a number of objects. Rather, claims 3 and 9 require that a high level parameter includes a number of objects in a scene and their base claims require that the high level parameter is used to adjust movement of a camera. Therefore, we broadly but

reasonably construe claims 3 and 9 to require consideration of a number of objects in a scene to adjust movement of a camera.

In addition, contrary to Appellant's allegation, the claims are not limited to object recognition by image (Reply Br. 4) but encompass object recognition by sound as well. For example, Appellant's Specification states that speech recognition is a potential high level parameter that is considered in adjusting movement of a camera. (Spec. 5:7-8.) We agree with the Examiner that "objects" is a broad term and can encompass speakers (Ans. 9). Accordingly, the claimed "objects" is met by speakers.

Chim discloses tracking a speaker based on the tone of voice of the speaker. (FF 1-3.) Chim considers a number of objects in the scene to adjust movement of a camera because Chim recognizes that the presence of a plurality of different speakers and recognizes each of the plurality of speakers in the scene but only moves the camera to track a single speaker. (FF 1-3.) Accordingly, Chim discloses consideration of a number of objects in a scene to adjust movement of a camera and thus discloses the requirements of claims 3 and 9.

We conclude that the Appellant has not shown that the Examiner erred in rejecting claims 3 and 9 under 35 U.S.C. § 102(e).

Claims 5 and 11

The Examiner finds that Chim discloses speech recognition of claims 5 and 11. (Ans. 4, 6, and 10.) Appellant alleges that Chim does not disclose speech recognition because Chim discloses neither (1) conversion of speech to digital signals (App. Br. 11) nor (2) recognition of the content of speech (Reply Br. 5). We disagree with Appellant.

We begin our analysis by construing "speech recognition." Appellant's Specification states "[s]peech recognition 120 can be used to determine a specific object speaking within a scene." (Spec. 5:8-9.) Accordingly, we broadly but reasonably construe speech recognition to involve merely identifying an object that is speaking but not to require recognition of the words of speech. Thus, claims 5 and 11 require identifying a speaker to adjust movement of a camera.

Chim discloses identifying a speaker by the tone of voice and moving a camera to track the identified speaker. (FF 1-3.) Thus, Chim discloses the requirements of claims 5 and 11.

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 5 and 11 under 35 U.S.C. § 102(e).

Other Claims

As to dependent claims 4, 6, 10, 12, 16, and 17, Appellant merely references or repeats the arguments made with respect to claim 1 or 7. (App. Br. 12 and Reply Br. 5.)

As to dependent claims 13-15, Appellant merely references or repeats the arguments made with respect to claim 7. (App. Br. 13 and Reply Br. 5.)

Therefore, as to the rejection of these claims, the Appellant has not shown Examiner error for the same reasons discussed *supra* with respect to claims 1 and 7.

OTHER ISSUES

Should there be further prosecution, we suggest that the Examiner consider the following U.S. Patent references: 4,847,543 to Fellinger, 5,384,594 to Sieber et al., and 6,191,842 to Navarro.

CONCLUSIONS OF LAW

We conclude that:

(1) Appellant has not shown that the Examiner erred in finding that claims 1, 3-7, 9-12, and 16-17 are anticipated by Chim under 35 U.S.C. § 102(e);

(2) Appellant has not shown that the Examiner erred in concluding that claims 13-15 are unpatentable over the combined teachings and suggestions of Chim and Steinberg under 35 U.S.C. § 103(a); and

(3) Claims 1, 3-7, and 9-17 are unpatentable.

DECISION

The Examiner's rejections of claims 1, 3-7, and 9-17 are 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)(iv).

AFFIRMED

clj

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