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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BENJAMIN ZEIS NEWHOUSE and
TERRENCE EDWARD MCARDLE

Appeal 2019-002878
Application 14/628,113
Technology Center 2600

Before ST. JOHN COURTENAY III, LARRY J. HUME, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Non-Final Rejection of claims 1–20. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We reverse and additionally exercise our discretion under 37 C.F.R. § 41.50(b), and enter a NEW GROUND OF REJECTION under 35 U.S.C. § 103, for claims 1–20, which we conclude are obvious over the cited references.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). According to Appellant, the real party in interest is Dropbox, Inc. *See* Appeal Br. 1.

STATEMENT OF THE CASE²

Introduction

Appellant’s claimed invention relates generally to “virtual and augmented reality, and more specifically to techniques for capturing and displaying video content that changes temporally and potentially spatially in a highlighted portion of a virtual or augmented reality (VAR) scene.” Spec. ¶ 2.

Independent Method Claim 1

1. A method comprising:

generating a virtual or augmented reality (VAR) scene based on a first plurality of images captured by a camera of a device;

[L1] generating dynamic content for a portion of the VAR scene, *the dynamic content comprising a second plurality of images captured by the camera of the device*;

detecting location and orientation data of the device;

based on the location and orientation data of the device, presenting a view of the VAR scene on the device; and

presenting, within the view of the VAR scene, the dynamic content overlaid over the portion of the VAR scene by overlaying at least one image from the second plurality of images on at least one image from the first plurality of images and varying over time the at least one image from the second plurality of images.

Appeal Br. 11, “CLAIMS APPENDIX” (Bracketed lettering added, emphasis added).

² We herein refer to the Non-Final Office Action, mailed May 31, 2018 (“Non-Final Act.”); Appeal Brief, filed Nov. 8, 2018 (“Appeal Br.”); the Examiner’s Answer, mailed Jan. 11, 2019 (“Ans.”), and the Reply Brief, filed Feb. 27, 2019 (“Reply Br.”).

References

The prior art relied upon by the Examiner as evidence is:

Name	Reference	Date
Edge et al. (“Edge”)	US 2010/0208033 A1	Aug. 19, 2010
McArdle et al. (“McArdle”)	US 9,271,025 B2	Feb. 23, 2016

Rejection

Claims 1–20 are rejected under 35 U.S.C. § 103 as being unpatentable over McArdle in view of Edge. *See* Non-Final Act. 3.

ISSUES AND ANALYSIS

Rejection of Independent Claim 1 under § 103

Issue

Under 35 U.S.C. § 103, we focus our analysis on the following argued limitation that we find is dispositive regarding the rejection of independent method claim 1:

Did the Examiner err by finding McArdle and Edge collectively teach or suggest disputed limitation L1:

A method comprising . . .

[L1] generating dynamic content for a portion of the VAR scene, *the dynamic content comprising a second plurality of images captured by the camera of the device,*

within the meaning of representative independent claim 1?³ (emphasis

³ We give the contested claim limitations the broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

added). *See* Non-Final Act. 3–7.

Analysis

The Examiner finds Edge’s aging block 732 that “ages” the items, for example, by altering geometric location data or rendering date (e.g., color, size, transparency, etc.) teaches or suggests “the dynamic content.” Non-Final Act. 5, citing Edge, Fig. 7, ¶ 86. The Examiner further finds Edge’s video camera that continuously captures the scene teaches or at least suggests “a second plurality of images captured by the camera of the device.” *Id.*

Appellant disputes the Examiner’s findings regarding limitation “L1” of claim 1, by contending:

But *Edge’s* “new item”—like all of *Edge’s* “aging items”—constitutes but one item from a “stack of items [that] is virtual” and not captured by a camera. *Edge* ¶ [0085]. *Edge* emphasizes that its “aging items” differ from the “real camera images” that represent *Edge’s* physical environment within which the “virtual items” are rendered. *Id.* ¶¶ [0017], [0083]. Indeed, the *Office Action* cannot cite evidence from *Edge* explaining that the “new item” (or any item in the stack of items) is captured by a camera. Because *Edge’s* “aging items” are virtual, they cannot constitute “dynamic content comprising a second plurality of images captured by the camera of the device”—when the pending independent claims recite “overlaying at least one image from the second plurality of images on at least one image from the first plurality of images.”

To be sure, the *Office Action* cryptically explains (at 5) that *Edge’s* “video camera continuously captures the scene, which is corresponding to the second plurality of images, such as the previous captured images are used to generate the current time aging items.” But the *Office Action* has not (and cannot) cite evidence that (i) the “aging items” are **captured by a camera** or (ii) the scene itself is captured by a camera or overlaid on anything. Indeed, by referring to the “scene,” the *Office Action*

presumably points to *Edge's* “mixed reality scene,” *Edge* ¶¶ [0084]-[0085]. But rather than overlay a camera-captured image on another camera-captured image, as the independent claims recite, *Edge* “render[s]” the “[v]irtual items . . . as graphics in conjunction with” and over “real camera images” to create the “mixed reality scene” in Figure 7. *Edge* ¶ [0084]. Simply put, virtual items mixed in (and over) real camera images does not constitute overlaying at least one image captured by the camera on at least one other image captured by a camera and varying the overlaid image over time, as the current claims recite. The *Office Action* cites nothing from *McCardle* to the contrary.

Appeal. Br. 7 (emphasis added).

Appellant further argues:

The *Office Action* (at 2) suggests that overlaying one virtual item (not captured by a camera) on another virtual item (also not captured by a camera) constitutes overlaying a camera-captured image on another camera-captured image, as the independent claims currently recite. In particular, the *Office Action* (at 2) explains that “dynamic items are overlaid on the background images, such as T-4 work news is overlaid on the older work news; and T-2 personal news is overlaid on older, i.e., > T-2 personal news” in *Edge's* Figure 7. As repeatedly emphasized by *Edge*, however, the “items” labeled as T-2, T-1, and T-4 (and shown near reference number 704 in Figure 7) are not captured by a camera but are part of *Edge's* stack of virtual items. *Edge* ¶ [0085]. The pending claims simply do not recite overlaying one virtual item (not captured by a camera) on another virtual item (also not captured by a camera) as taught by *Edge*.

Appeal Br. 8.

The Examiner disagrees with Appellant, and notes that *Edge's* device 112, having a webcam, as shown in Fig. 1, teaches a (video) camera. Ans. 4.

Appellant responds by contending: “The *Answer* further demonstrates that the Examiner misunderstands the scope of *Edge's* teachings—by conflating *Edge's* video-camera capture of a real environment with *Edge's*

rendering of virtual items as graphics over such a real environment.” Reply

Br. 1. Appellant specifically points out:

[B]y relying on *Edge's* overlay of virtual news items (not captured by a camera) on other virtual news items (also not capture by the camera), the *Answer* points to prior art that contradicts the claimed “dynamic content comprising a second plurality of images captured by [a] camera of [a] device.” The *Answer* does not (and cannot) refute that each of *Edge's* “stack of [news] items is virtual,” *Edge* ¶ [0085], in contrast to the “real camera images” that capture the physical environment with which the “virtual items” are rendered, *id* ¶ [0083]. Neither does the *Answer* assert (nor *Edge* disclose) a system overlaying such “real camera images” on other camera images.

Reply Br. 2–3.

Edge's “work news’ stack” and “personal news’ stack” (including items T-1 to T-4) are simply not captured by a camera. To the contrary, *Edge* renders such “[v]irtual items” as graphics “in conjunction with real camera images to provide a mixed reality scene.” *Edge* ¶ [0083] (“Virtual items are typically treated as graphics to be positioned with respect to the map and rendered as graphics in conjunction with real camera images to provide a mixed reality scene.”); *see also id.* ¶ [0017] (similar). In spite of the Examiner’s assertions to the contrary, *Edge's* rendering of virtual graphics does not an image “captured by a camera” make.

Reply Br. 3.

We are persuaded by Appellant’s arguments and, based on our review of the record, agree with Appellant that the Examiner has not shown by a preponderance of the evidence a teaching or suggestion of *a camera capturing dynamic content*, within the meaning of Appellant’s claim 1. Therefore, for essentially the same reasons argued by Appellant, we find the

Examiner has not fully developed the record to show how the teachings of McArdle and Edge individually or collectively teach or suggest the disputed limitation, “*the dynamic content comprising a second plurality of images captured by the camera of the device,*” as recited in claim 1. (emphasis added).

Accordingly, for essentially the same reasons argued by Appellant in the Briefs, we are constrained on this record to reverse the Examiner’s § 103 rejection of independent claim 1.

For the same reasons, we also reverse the obviousness rejection of independent claims 8 and 15, which recite the disputed claim 1 limitation in commensurate form using similar language. Because we have reversed the rejection of each independent claim on appeal, we also reverse the obviousness rejection of the associated dependent claims that depend therefrom.

However, we set forth a new ground of rejection, *infra*.

NEW GROUND OF REJECTION for Claims 1–20
under 35 U.S.C. § 103

Under our authority pursuant to 37 C.F.R. § 41.50(b), we set forth a new ground of rejection of claims 1–20 under 35 U.S.C. § 103, as unpatentable over McArdle and Edge.

We adopt the Examiner’s obviousness rejection, modified as follows for each independent claim 1, 8, and 15:

Based upon our review of the evidence of record, we find Edge’s remote site (“that provides a news banner or advertisements such that the method 600 readily presents such content upon merely activating the camera”) teaches or suggests the disputed limitation, “a second plurality of images *captured by the camera of the device*,” as identically recited in independent claims 1, 8, and 15 (emphasis added). Edge ¶ 69.

We note Appellant’s Specification describes dynamic content as “content that varies over time.” Spec. ¶¶ 4, 19. The Specification further describes dynamic content as “[a]ny suitable content that varies over time and/or spatial domains.” Spec. ¶ 41.

Given this context (*id.*), we find Edge’s “virtual items” that are rendered with time as a parameter are *dynamic*, i.e., they may fade or become smaller over time. Edge ¶ 69. Therefore, we find Edge’s description (¶ 69) teaches or suggests “dynamic content comprising a second plurality of images” (claims 1, 8, 15), that is captured by Edge’s camera.

We additionally conclude that it would have been obvious to one of ordinary skill in the art to have modified McArdle’s VAR scene (e.g., col. 3, l. 16) to obtain the predictable results of adding Edge’s dynamic content (e.g., ¶ 69) captured by a camera of the device. As found by the Examiner,

this would “provide users with a consistent and convenient way of interacting with information and media of special importance.” Non-Final Act. 6 (citing Edge ¶ 18).

“[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

Further, in *KSR*, 550 U.S. at 418, the Court stated that when considering obviousness that “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” “When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.” *KSR*, 550 U.S. at 421.

This reasoning is applicable here because Appellant has not identified knowledge gleaned only from the present application that was not within the level of ordinary skill at the time the claimed invention was made. *See In re McLaughlin*, 443 F.2d 1392 (CCPA 1971). Moreover, Appellant has not provided any objective evidence of secondary considerations (e.g., unexpected results), which our reviewing court guides “operates as a beneficial check on hindsight.” *Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013).

Given the evidence of record, we find one of ordinary skill in the art would have understood that capturing dynamic content by a camera of the device would have merely realized a predictable result. *See KSR*, 550 U.S. at 417.

Accordingly, we set forth a new ground of rejection under 35 U.S.C. § 103, for claims 1–20, based upon our aforementioned modification of the Examiner’s rejection of independent claims 1, 8, and 15.

Conclusion

The Examiner erred with respect to the rejection of claims 1–20, under 35 U.S.C. § 103.

We enter a new ground of rejection for claims 1–20 under 35 U.S.C. § 103, as being obvious over McArdle and Edge.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C §	Reference(s)/ Basis	Affirmed	Reversed	New Ground
1–20	103	McArdle, Edge		1–20	1–20

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph **shall not be considered final for judicial review**” (emphasis added).

Section 41.50(b) also provides:

When the Board enters such a non-final decision, the appellant, **within two months** from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid **termination of the appeal** as to the rejected claims:

(1) *Reopen prosecution.* Submit **an appropriate amendment** of the claims so rejected **or new Evidence** relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be **remanded to the examiner**. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in the decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.⁴

(2) *Request rehearing.* **Request that the proceeding be reheard under § 41.52 by the Board upon the same Record.** The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

⁴ Regarding option (1), “*Reopen prosecution,*” and particularly regarding the requirement to submit *an amendment and/or new evidence*, please note MPEP § 1214.01(I): “If the appellant submits an argument without either an appropriate amendment or new evidence as to any of the claims rejected by the Board, *it will be treated as a request for rehearing* under 37 C.F.R. 41.50(b)(2)” (emphasis added). If for any reason Appellant desires to reopen prosecution before the Examiner *without submitting an amendment and/or new evidence*, a Request for Continued Examination (RCE) that complies with 37 C.F.R. § 114 will remove the application from the jurisdiction of the Board under 37 C.F.R. § 41.35, and will reopen prosecution before the Examiner.

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(emphasis added).

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).

REVERSED; 37 C.F.R. § 41.50(b)