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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHUNICHI KASAHARA

Appeal 2016-002164
Application 13/435,967
Technology Center 2600

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

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner’s Final Rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We Affirm.

The Invention

The claimed invention relates to “a display control device comprising a determining unit configured to determine an orientation of a real object in a real space image.” Abstract.

Representative Claim

1. A display control device comprising:

a determining unit configured to determine an orientation angle of a real object in a real space image in relation to an optical axis of the real space image;

a control unit configured to:

select between a first virtual object orientation and a second virtual object orientation of a virtual object based on the real object orientation angle, wherein the first virtual object orientation is on substantially the same plane as a surface of the real object in the real space image and the second virtual object orientation is in a different plane than the surface of the real object in the real space image; and

output an image on a display device of the virtual object with the selected orientation at least partially superimposed on the real object.

(Contested “select” clause limitation emphasized)

Rejections

A. Claims 1–10 and 12–20 are rejected under 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Zimmerman et al. (“Zimmerman”) (US 2012/0113141 A1, published May 10, 2012) and Jetha et al. (“Jetha”) (US 6,661,426 B1, issued Dec. 9, 2003).

B. Claim 11 is rejected under 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Zimmerman, Jetha, and Whytock et al. (“Whytock”) (US 2010/0177931 A1, published July 15, 2010).

Claim Grouping

Based on Appellant’s arguments (Supp. App. Br. 11–19), we decide the appeal of rejection A of claims 1–10 and 12–20 based on representative independent claim 1. We address rejection B of remaining dependent claim 11, argued separately, *infra*. See 37 C.F.R. § 41.37(c)(1)(iv).

ANALYSIS

We have considered all of Appellant’s arguments and any evidence presented. We disagree with Appellant’s contentions regarding the Examiner’s obviousness rejections of the claims. We adopt as our own: (1) the findings and legal conclusions set forth by the Examiner in the action from which this appeal is taken, and (2) the findings, legal conclusions, and explanations set forth in the Answer in response to Appellant’s arguments. We highlight and address specific findings and arguments for emphasis in our analysis below.

Rejection A of Independent Claim 1 under 35 U.S.C. § 103(a)

Issue: Under § 103, did the Examiner err by finding the cited combination of references would have taught or suggested the contested “select” clause limitation, within the meaning of representative claim 1, under a broad but reasonable interpretation? ¹

¹ We give the contested claim limitations the broadest reasonable interpretation consistent with the Specification. See *In re Morris*, 127 F.3d 1048, 1054 (Fed. Circ. 1997). See e.g., Spec. ¶ 110 (“Although preferred embodiments of the present disclosure are described above with reference to the appended drawings, *the present disclosure is not limited thereto*. It should be understood by those skilled in the art that various modifications, combinations, subcombinations and alterations may occur depending on

Regarding the contested “select” clause limitation of independent claim 1, Appellant contends:

Jetha does not have any disclosure, teaching, or suggestion relating to selecting orientations of a virtual object based on the orientation of a real object. In fact, *Jetha does not relate to the combination of real objects and virtual objects in a display scenario.*

(Supp. App. Br. 12).

Appellant further contends:

The Appellant respectfully and strenuously traverses the unsubstantiated and erroneous assertion that “the combination of Zimmerman and Jetha teaches selecting ‘between a first virtual object orientation and a second virtual object orientation of a virtual object based on the real object orientation angle’.” This erroneous assertion is inconsistent with the admissions on page 7 of the Final Office Action and not supported by the actual prior art disclosure.

(Supp. App. Br. 17).

We agree with the Examiner’s conclusion that the Appellant is arguing the references separately.² (Ans. 14–15).

The Examiner finds Jetha teaches selecting between first and second orientations of ancillary data, based on the orientation of the prismatic body (Ans. 13, citing Jetha, col. 5 lines 30–60). The Examiner finds Zimmerman

design requirements and other factors insofar as *they are within the scope of the appended claims or the equivalents thereof.*) (Emphasis added).

² One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

teaches a camera capturing real objects and generating an image comprising one or more virtual objects combined with a real object, and further teaches changing the angle of a virtual object based on the virtual or real object orientation on which the virtual object is superimposed. (Ans. 13–14, citing Zimmerman Fig. 1, ¶¶ 14, 22, 24, 68).

We find a preponderance of the evidence supports the Examiner’s findings. Zimmerman’s augmented image (118-2), as shown in Fig. 5C, of a hand (real object 106-2, Fig. 1), is depicted holding a cell phone in multiple different positions (virtual images), where the angle of orientation of the cell phone images depends on both the image of the hand and the virtual image of various positions of the cell phone. We find these multiple different angled positions of the cell phone in the image of a hand teach or suggest the contested limitation: “*select between a first virtual object orientation and a second virtual object orientation of a virtual object based on the real object orientation angle,*” as recited in claim 1. (Zimmerman ¶ 68, Fig. 5C). As found by the Examiner, Zimmerman’s Augmented Reality System 100 (Fig. 1), and Figure 5C, which depicts the orientation angles of the various positions of the cell phone based on the user’s hand orientation, teach or at least suggest the disputed limitation. (Ans. 13–14, Zimmerman ¶ 68, Figs. 1, 5C).

Moreover, given that Zimmerman (*id.*) evidences that determining orientation angles of images of objects relative to each other was well known in the art, we find *selecting* between a first and second virtual object orientation of a virtual object based on the orientation angle of a real object would have merely produced a predictable result. On this record, Appellant has not shown that such virtual object orientation *selection* would have been

more than a combination of prior art elements according to known methods to yield predictable results. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

Nor has Appellant provided evidence that combining such known elements or steps would have been “uniquely challenging or difficult for one of ordinary skill in the art,” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), or would have yielded unexpected results.

Appellant argues a limitation in the Reply Brief that was not raised in the Appeal Brief, i.e., “determine an orientation angle of a real object.” (Reply Br. 4). We note arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the Examiner’s Answer will not be considered except for good cause, which Appellant has not shown. *See* 37 C.F.R. § 41.41(b)(2).

Appellant further contends, “[I]t is apparent from the teachings of Zimmerman that the first virtual object and the second virtual object are not real objects.” (Reply Br. 4). We are not persuaded by Appellant’s argument, because Zimmerman’s Figure 1 and paragraph 68 both describe real and virtual objects. Further, we agree with the Examiner’s reading of a “real object” as recited in claim 1, on Zimmerman’s hand as a real object (Figures 1 and 5C) (Ans. 13–15; Final Act. 5–7, citing Zimmerman Fig. 1 and ¶ 68).

Appellant raises an untimely hindsight argument in the Reply Brief. (Reply Br. 6), where Appellant merely alleges the Examiner has relied on “impermissible hindsight” without presenting any substantive argument or reasoning. Mere conclusory statements that are unsupported by factual

evidence are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984).

Because Appellant has not persuaded us that the Examiner erred, we sustain § 103 rejection A of representative independent claim 1, and the associated grouped claims, which fall therewith. (*See Grouping of Claims, supra.*)

Rejection B of dependent Claim 11 under 35 U.S.C. § 103(a)

Appellant advances no separate, substantive arguments regarding dependent claim 11, but urges this rejected claim is not obvious for the same reasons previously advanced regarding claim 1, and that “Whytock fails to remedy the deficiencies of Zimmerman and Jetha” (Supp. App. Br. 19). Because we find no deficiencies regarding rejection A of independent claim 1, on this record, we are not persuaded the Examiner erred regarding rejection B of dependent claim 11. Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). Therefore, we sustain rejection B of claim 11.

Conclusion

For at least the aforementioned reasons, on this record, we are not persuaded the Examiner erred. We find a preponderance of the evidence supports the Examiner’s underlying factual findings and ultimate legal conclusion of obviousness for all contested claims on appeal.

Appeal 2016-002164
Application 13/435,967

DECISION

We affirm the Examiner's decision rejecting claims 1–20 under § 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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED