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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGORY A. PICCIONIELLI¹ and MICHAEL M. GERARDI

Appeal 2019-003070
Application 13/815,769
Technology Center 2600

Before JOHN A. EVANS, JOHN P. PINKERTON, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

EVANS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject Claims 1–17, which are all of the claims pending in the present application. Appeal Br. 5; *see also* Claims App. 15–17. Because the claims on appeal have been twice rejected, we have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134. *Ex parte Lemoine*, 46 USPQ2d 1420, 1423 (BPAI 1994) (precedential).

¹ The Application Data Sheet (“ADS”) and Appeal Brief spell this inventor's name differently. *Compare* ADS 1, 4 (“Gregory A. Piccionielli”), *with* Appeal Br. 1, 3 (“Gregory A. Piccionelli”). For purposes of this Decision, we use the spelling provided in the ADS.

² We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as “the inventor Gregory A. Piccionelli and Michael M. Gerardi.” Appeal Br. 3.

We AFFIRM.³

STATEMENT OF THE CASE

Claimed Subject Matter

The claims relate to “providing a virtual image to a human viewer when the human viewer views and object, such as a billboard or a wall of a building, on which a blank surface is defined.” Spec. 2:16–18.

Claims

Claim 1, the lone independent claim, is illustrative and reproduced below with some formatting added:

1. A method of providing visual information to a human viewer, the method comprising the steps of:
 - a) defining a range of distances from a surface and a range of viewing angles with respect to the surface,
 - b) determining the location and viewing angle of a visual display device worn by a human viewer to the surface, and
 - c) providing an image to the human viewer via the visual display device when the location and viewing angle with respect to the surface is determined to be within the range of distances and viewing angles selected in step a), such that the image provided on the visual display device is perceived by the human viewer to be within an area defined on the surface but-the image is only on the visual display device.

³ Rather than reiterate the arguments of Appellant and the Examiner, we refer to the Appeal Brief (“Appeal Br.”) and Claims Appendix (Claims App.), filed March 14, 2018; the Examiner’s Answer (“Ans.”), mailed January 8, 2019; the Non-Final Office Action (“Non-Final”), mailed March 8, 2017; and the substitute Specification (“Spec.”), filed September 17, 2013 and as amended April 1, 2015, for their respective details.

References and Rejections on Appeal

Claims 1, 7, and 8 stand rejected under pre-AIA 35 U.S.C. § 102(b) as being anticipated by Triebfuerst (US 2004/0046711 A1; published March 11, 2004). Non-Final 2–3.

Claims 2–5 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Triebfuerst and Iggulden et al. (US 5,957,697; issued September 28, 1999) (“Iggulden”). *Id.* at 3–4.

Claim 6 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Triebfuerst and Benton (US 6,917,370 B2; issued July 12, 2005). *Id.* at 4.

Claims 9–17 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Triebfuerst and Dempski (US 7,050,078 B2; issued May 23, 2006). *Id.* at 4–5.

ANALYSIS

We have reviewed the rejections of Claims 1–17 in light of Appellant’s arguments that the Examiner erred. We have considered in this decision only those arguments Appellant actually raised in the Briefs. Any other arguments, which Appellant could have made but chose not to make in the Briefs, are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We adopt as our own the findings and reasons set forth in the Examiner’s Answer and in the rejection on Appeal for these claims, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis. We consider Appellant’s arguments *seriatim*, as they are presented in the Appeal Brief, pages 9–14.

CLAIMS 1, AND 6–8:

ANTICIPATION OR OBVIOUSNESS BASED AT LEAST ON TRIEBFUERST

Appellant presents arguments for the § 102(b) rejection of Claim 1 and relies on those same arguments as a basis for disputing the § 102(b) rejections of Claims 7 and 8, as well as the § 103(a) rejection of Claim 6. Appeal Br. 9–11, 14. Therefore, we analyze these claims on the basis of representative Claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1162 (Fed. Cir. 2018).

Claim 1 recites, among other limitations, “defining a range of distances from a surface and a range of viewing angles with respect to the surface.” The Examiner finds Triebfuerst discloses this limitation because it displays augmented information in a technician’s field of vision around a component of an observed object, and cancels that information if the technician moves his head away from the object. Non-Final 2 (citing Triebfuerst Figs. 1–2, ¶¶ 33–34); *see also* Ans. 7.

Appellant contends that Triebfuerst does not disclose the quoted limitation. Appeal Br. 9–11; Reply Br. 4. In support of this contention, Appellant makes the following assertions. First, there is no mention of range of distances, distance, or viewing angles in the cited disclosures of Triebfuerst. Appeal Br. 9–10. Second,

[t]he *Triebfuerst* publication is not defining a range of distances and viewing angles with respect [to] the surface. At most, a single range from when the mark is visible to the camera to the surface of the item is defined. No other distances are DEFINED. Similarly, at most a single viewing angle is defined in the Triebfuerst publication. That is the angle that the mark is viewable to the camera from one side to the other side. No other viewing angles are DEFINED.

Id. at 10. The Examiner responds, in relevant part, by citing an earlier Board decision in related Application 11/368,348 (“the ’348 application”)⁴ that addressed the same issue as evidence that Appellant’s arguments are not persuasive. Ans. 7–8 (citing *Ex parte Gregory A. Piccionelli & Michael M. Gerardi*, Appeal 2017-009794, 2018 WL 1315529, at *3–4 (PTAB Mar. 12, 2018)).

“The doctrine of law of the case generally bars retrial of issues that were previously resolved.” *Intergraph Corp. v. Intel Corp.*, 253 F.3d 695, 697 (Fed. Cir. 2001). “[A] Board decision in an application is the ‘law of the case,’ and is thus controlling in that application and any subsequent, related application.” MPEP § 706.07(h)(XI)(A); *see also* PTAB Standard Operating Procedure 2, Rev. 10, § I.B (“A routine decision is binding in the case in which it is made, even if it is not designated as precedential or informative . . .”).

[R]easons that may warrant departure from the law of the case . . . , include the discovery of new and different material evidence that was not presented in the prior action, . . . an intervening change of controlling legal authority, or when the prior decision is clearly incorrect and its preservation would work a manifest injustice.

Intergraph, 253 F.3d at 698.

The earlier Board decision cited by the Examiner adjudicated a substantially similar method claim filed by the same inventors and, moreover, resolved the same issue about the same claim limitation.

Piccionelli, 2018 WL 1315529, at *2–4. In particular, the Board affirmed

⁴ The present application is a continuation-in-part of the ’348 application. *See, e.g.*, Spec. 2:2–3).

the Examiner’s decision to reject Claim 1 of the ’348 application as being anticipated by Triebfuerst—the same prior art as here—and specifically explained why the Examiner did not err in finding that Triebfuerst disclosed “defining a range of distances from a surface and a range of viewing angles with respect to the surface”—the same claim limitation as the one at issue here. *Id.* And, Appellant does not present—nor do we find—new and different material evidence in the present appeal, an intervening change of controlling legal authority since the earlier decision, or a clear error in the earlier decision that would work a manifest injustice.

We therefore determine that the “law of the case” doctrine applies and that the Board’s earlier decision is binding and has a preclusive effect on the issue raised here by Appellant. Thus, we do not disturb the Board’s prior affirmance of the Examiner’s finding that Triebfuerst discloses “defining a range of distances from a surface and a range of viewing angles with respect to the surface.”

For the foregoing reasons, we sustain the Examiner’s § 102(b) rejection of Claims 1, 7, and 8, as well as the Examiner’s § 103 rejection of Claim 6.

CLAIMS 2–5:

OBVIOUSNESS BASED ON TRIEBFUERST AND IGGULDEN

Claims 2–5 recite that “the surface” may be “a hand-held item” (claim 2), such as “a book” (Claim 3), and that “at least a portion of the surface is blank” (Claim 4) or “a single color surface” (Claim 5). The Examiner finds Iggulden teaches these limitations with its disclosure of a book 100, as shown in Figure 3. Non-Final 3 (citing Iggulden, Fig. 3, 3:58–4:45).

Appellant contends that Iggulden does not teach or suggest these limitations. Appeal Br. 13. According to Appellant, “Figure 3 of the Iggulden et al. patent shows a traditional book with no blank or colored area for display of a virtual image. Furthermore, what is described at col. 3, line 58 to col. 4, line 45 is using symbols or type font/color, not an area as described in the specification.” *Id.*

These arguments are not persuasive. Rather, we agree with the Examiner that Figure 3 of Iggulden satisfies the disputed limitations because it shows a handheld item such as a book (book 100) with portions that are blank (on any given page, the areas between lines of text or photos and in the margins) and have a single color—white. Iggulden, Fig. 3. As the Examiner explains, “‘a portion of the surface’ is very broad in scope and under the broadest reasonable interpretation can be taken to mean any portion of the surface,” and “it is clearly seen in Figure 3 that there are portions of the page that are blank.” Ans. 10.

We therefore sustain the Examiner’s § 103 rejections of Claims 2–5.

CLAIMS 9–17:

OBVIOUSNESS BASED ON TRIEBFUERST AND DEMPSKI

Appellant presents arguments for the § 103(a) rejection of Claim 9 and relies on those same arguments as a basis for disputing the § 103(a) rejections of Claims 10–17. Therefore, we analyze these claims on the basis of representative Claim 9. *See* 37 C.F.R. § 41.37(c)(1)(iv); *Marco Guldenaar*, 911 F.3d at 1162.

Claim 9 recites “[t]he method of claim 1 wherein in step c) the virtual image is provided to the human viewer via wireless transmission means.”

The Examiner finds Dempski teaches this limitation because in Dempski “there is two way communication between the terminal [114] and the viewer display [104][,] and the virtual image [112] is provided to the user through a wireless transmission.” Ans. 10; *see also id.* at 8–10; Non-Final 4 (citing Dempski, Fig. 1, 6:43–65).

Appellant contends that Dempski does not teach or suggest the quoted limitation. Appeal Br. 11–13. In support of this contention, Appellant makes the following assertions. First,

what is being taught by Dempski is an operator at a remote location views the image on a computer screen and that remote operator using the operator input device selects the received video image and a virtual image 112 is registered to the object 108. What is sent to the human view is not the virtual image as asserted in the Non-Final Office Action. Rather, it is mirror of the display 110 that is simultaneously displayed and not the virtual image.

Id. at 12; *see also id.* at 11–12 (quoting Dempski 6:43–65). Second, even though Dempski discloses communication between terminal 114 and computer 106 through a wireless network, “[a] wireless network still has switches and wires,” and the cited disclosures of Dempski do not teach wireless bidirectional communication between the computer 106 and terminal 114. *Id.* at 12.

These arguments are not persuasive. Rather, we agree with the Examiner that the cited disclosures of Dempski at least suggest the disputed limitation. In particular, Dempski discloses that an operator of a terminal 114 may select an object 108 of a video image 110, and a virtual image 112 may be registered to the object 108 and displayed both on the terminal and the viewer display 104. Dempski 6:55–62. Dempski further discloses that

the terminal 114 may communicate with the computer 106 through a wireless network, that computer 106 may include a wireless transmitter and antenna for wireless connectivity to a computer network, and that the computer 106 is coupled to a video capturing device 102 and the viewer display 104 through a wireless network. *Id.* at 6:18–20, 6:27–29, 6:44–46. These disclosures at least suggest an augmented reality (AR) system in which the terminal 114 wirelessly communicates the virtual image 112 to the viewer display 104. Contrary to Appellant’s assertions, these disclosures also at least suggest that Dempski’s AR system is readily capable of wireless bidirectional communication between those devices. And, even if Appellant were correct that Dempski’s wireless network “still has switches and wires”—which Appellant presents no persuasive evidence to show—the broadest reasonable interpretation of the claim language does not preclude the inclusion of these additional elements.

We therefore sustain the Examiner’s § 103 rejections of claims 9–17.

CONCLUSION

We affirm the Examiner’s rejection of Claims 1, 7, and 8 under pre-AIA 35 U.S.C. § 102(b).

We affirm the Examiner’s rejections of Claims 2–6 and 9–17 under pre-AIA 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).

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 7, 8	102(b)	Triebfuerst	1, 7, 8	
2-5	103(a)	Triebfuerst, Iggulden	2-5	
6	103(a)	Triebfuerst, Benton	6	
9-17	103(a)	Triebfuerst, Dempski	9-17	
Overall Outcome			1-17	

AFFIRMED