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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT W. SPARKS, JARY ENGELS,
and JOHN WOLTKAMP

Appeal 2019-002437
Application 14/752,319
Technology Center 2100

Before NORMAN H. BEAMER, ADAM J. PYONIN, and
GARTH D. BAER, *Administrative Patent Judges*.

PYONIN, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the
Examiner's rejection. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word "Appellant" to refer to "applicant" as defined in 37
C.F.R. § 1.42. Appellant identifies Honeywell International, Inc. as the real
party in interest. Appeal Br. 2.

STATEMENT OF THE CASE

Introduction

The application is directed to an airplane “cockpit control device configured, upon receipt of a predetermined touchscreen gesture, to temporarily ignore the at least one user interface control.” Spec. ¶ 8. Claims 11–20 are pending; claims 11 and 17 are independent. Appeal Br. 22–25. Claim 11 is reproduced below for reference:

11. A cockpit control device comprising:
 - a touchscreen display configured to display navigational data to a pilot and to receive touch events from the pilot;
 - a processor coupled to the touchscreen display, the processor configured to:
 - instruct the touchscreen display to display a plurality of user interface elements;
 - enter a first mode, and while in the first mode providing a signal associated with one or more of the user interface elements responsive to the touch events when the touch events include contact with the one or more of the user interface elements;
 - determine whether the touch event corresponds to a predetermined touchscreen gesture; and
 - switch from the first mode to a second mode when the touch event corresponds to the predetermined touchscreen gesture, the second mode including providing, for a duration of the touch event, a signal indicative of a value of a tuning function not associated with the plurality of user interface elements, and while in the second mode not providing the signal associated with the one or more of the user interface elements responsive to the touch events that include contact with the one or more user interface elements.

Rejections

Claims 11–18 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Valentino (US 2013/0110895 A1; May 2, 2013),

Chambers (US 2005/0134578 A1; June 23, 2005), and Hotelling (US 2006/0026535 A1; Feb. 2, 2006). Final Act. 2.²

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Valentino, Chambers, Hotelling, and Fleizach (US 2010/0313125 A1; Dec. 9, 2010). Final Act. 8.

ANALYSIS

Appellant argues that “[t]he rejections fail to establish a proper *prima facie* case of obviousness because the cited references fail to teach **ALL** of the claimed limitations.” Reply Br. 3. Appellant contends that

the cited paragraphs of Valentino on only contains **one sentence** relating to aircraft, and fails to provide any specific teaching of a **touchscreen in a cockpit control device**, or how such a touchscreen in a cockpit control device would display **navigational data to the pilot, including user interface elements such as navigation icons relating to an aircraft**, all of which recited in various claims.

Reply Br. 5, citing Valentino ¶¶ 7, 104, 220. Appellant further contends that

FIG. 18 of Chambers shows the “default state” with various soft buttons and other interface elements and FIG. 19 then shows the “virtual gesture pad 302” that includes targets for effecting various other software controls. Notably, as illustrated in FIG 19, the virtual gesture pad 302 fills the display screen and **none of the alleged “default state” soft buttons or other interface elements are shown in FIG. 19 with the virtual gesture pad 302**. Thus, there are no “default state interface elements” still being displayed that would facilitate a “second mode” where interface elements are **being displayed and can be touched or**

² Claims 1–10 were canceled in an after-final amendment filed Jan. 22, 2018. See Interview Summary dated Jan. 28, 2019, indicating acceptance of the after-final amendment.

otherwise contacted and yet not generate a signal associated with the user interface elements.

Reply Br. 7. Appellant additionally contends that “that there is nothing in Hotelling to suggest a touch screen with two modes where in one mode contact with displayed interface element does not generate the response of the first mode, and instead provides access to the tuning the function.”

Reply Br. 8, citing Hotelling Figs. 6A, 8, ¶¶ 77, 94, 140, 142-154, 174.

Appellant’s arguments fail to show the Examiner errs in finding the combined teachings of the cited references would have suggested the limitations of independent claims 11 and 17. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not . . . that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”).

We agree with the Examiner that cockpit control devices—as claimed—are known in the art, as evidenced by Valentino. *See* Final Act. 7, citing Valentino ¶ 7.³ Valentino, as cited, also teaches use of touch screens. *See* Valentino ¶¶ 110, 220 (“embodiments [can] be integrated as part of the LCD display by incorporating touch-screen capabilities (e.g., similar to a touch screen on an iPHONE or the like).”). Appellant does not persuasively show the Examiner errs in finding the claimed cockpit control device, including a touchscreen displaying navigation data, to be obvious to one of ordinary skill in the art in view of the cited references. *See* Advisory Act. 2; Final Act. 4–6; Valentino ¶ 7, 220; Chambers ¶ 44; Hotelling ¶ 143.

³ Further, we note Appellant’s background supports the Examiner’s findings regarding touchscreen cockpit control devices. *See* Spec. ¶¶ 3, 4.

Appellant’s argument regarding the deficiencies of Chambers is also not persuasive. The Examiner finds, and we agree, that “Chambers teaches navigating within a workspace comprising a first mode of fig. 18 for interacting with control interface elements/buttons on the display,” and “a second mode of fig. 19 for interacting with a virtual gesture pad 302 (to effect a play or pause command) overlaid on the screen display such that the button based commands of fig. 18 are no longer available to the user.” Advisory Act. 2; *see* Final Act. 2; Chambers ¶ 44. Chambers teaches a second mode using a “semi-transparent interface overlay” (Chambers ¶ 44), and we agree with the Examiner this overlay teaches or suggests a second mode including not providing a signal associated with the overlaid user interface elements responsive to their touch events, as claimed. *See* Final Act. 2. This is confirmed in Figs. 20–22 of Chambers, in which gesture actions take place over the display of Figure 18, but do not activate the underlying controls. *See* Chambers ¶ 44 (“Looking now to **FIGS. 18-22**, virtual gesture pad interface **300** as [first] depicted is in a ‘default’ or non-gesture based input state,” and the “virtual gesture pad” may be initiated by an “initial gesture on the touch screen.”).

Appellant’s argument regarding the deficiencies of Hotelling is also not persuasive. The Examiner finds that “Hotelling teaches providing immediate access to a tuning function such that a value of the tuning function is modified based on a predetermined touchscreen gesture.” Final Act. 3–4; Hotelling Figs. 6A, 8; ¶¶ 92, 94. Appellant argues Hotelling does not teach limitations for which it is not relied on (*see* Appeal Br. 19; Final Act. 6), and therefore do not show the Examiner’s findings are in error.

We are not persuaded the Examiner errs in finding the combination of cited references teaches or suggests the limitations of claim 11. Particularly, Appellant does not challenge the Examiner's reasons for combining the teachings of Valentino, Chambers, and Hotelling. *See* Appeal Br. 19. Accordingly, we agree with the Examiner that one of ordinary skill would modify Valentino's controls with the teachings of Chambers and Hotelling, in the manner claimed. *See* Advisory Action. 2.

We are not persuaded the Examiner errs in rejecting independent claim 11 as obvious in view of the prior art. Appellant does not separately argue independent claim 17; thus we are not persuaded the Examiner's rejection of claim 17 is in error, for the same reasons discussed above. *See* Appeal Br. 15–19.

We similarly agree with the Examiner that the combination of Valentino, Chambers and Hotelling further teaches or suggests the “navigation icons” of dependent claim 12, the volume level of claim 13, and the “circular motion” used as a “predetermined touchscreen gesture” and as controller of the “value of the tuning function” as recited in dependent claim 15. *See* Final Act. 4, 6, 7; Valentino ¶¶ 7, 174; Chambers ¶ 44; Hotelling ¶¶ 94, 140, 143.

Accordingly, we sustain the Examiner's rejection of independent claims 11 and 17 commensurate, dependent claims 12, 13, and 15, and claims 14, 16, and 18–20 not argued separately. *See* Appeal Br. 19–20.

DECISION SUMMARY

In summary:

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|------------------------|--------------------|--|-----------------|-----------------|
| 11–18, 20 | 103(a) | Valentino, Chambers, Hotelling | 11–18, 20 | |
| 19 | 103(a) | Valentino, Chambers, Hotelling, Fleizach | 19 | |
| Overall Outcome | | | 11–20 | |

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED