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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL SALLAS, EDWARD R. GRAUCH,
ROSS GILSON, and MARIEL SABRAW

Appeal 2019-002454
Application 14/557,991
Technology Center 2600

Before CATHERINE SHIANG, LINZY T. MCCARTNEY, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

MCCARTNEY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ seeks review under 35 U.S.C. § 134(a) of the Examiner's final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellant identifies the real party in interest as Comcast Cable Communications, LLC. Appeal Brief 1, filed October 15, 2018 (Appeal Br.). The Appeal Brief lacks page numbers. We treat the Appeal Brief as if Appellant had consecutively numbered it starting with the page containing the Real Party in Interest section.

BACKGROUND

This patent application concerns managing illumination of controllers. *See, e.g.*, Specification ¶ 2, filed December 2, 2014 (Spec.). Claim 1 illustrates the claimed subject matter:

1. A method comprising:

determining, by a controller, first information relating to a current environment of the controller, wherein the controller comprises a plurality of user engageable interfaces, and wherein at least a portion of the plurality of user engageable interfaces are configured to be independently and selectively illuminated,

wherein the controller is configured to transmit a wireless signal for controlling operations of a controlled device disposed remotely from the controller, and

wherein the controller is moveable relative to the controlled device;

determining, by the controller, second information relating to a current operating state of one or more of the controller and the controlled device, wherein the current operating state comprises one or more of a location, an orientation, a relative position of the controller and the controlled device, and a use of the one or more of the controller and the controlled device;

determining, by the controller, an illumination pattern for the controller based at least in part on the first information and the second information, wherein the illumination pattern comprises a subset of the plurality of user engageable interfaces; and

causing illumination of the subset of the plurality of user engageable interfaces.

Appeal Br. 9.

REJECTIONS

| Claims | 35 U.S.C. § | Reference(s) |
|---------------|--------------------|---|
| 1, 2, 4–20 | 103 | Reams, ² Park, ³ White ⁴ |
| 3 | 103 | Reams, Park, White, Ryu ⁵ |

DISCUSSION

We have reviewed the Examiner’s rejections and Appellant’s arguments, and Appellant has not persuaded us that the Examiner erred. As consistent with the discussion below, we adopt the Examiner’s reasoning, findings, and conclusions on pages 3–28 of the Final Office Action mailed May 14, 2018 (Final Act.), the continuation sheet of the Advisory Action mailed July 26, 2018 (Advisory Act.), and pages 3–8 of the Examiner’s Answer mailed November 30, 2018 (Ans.).

Claim 1 recites “determining, by the controller, an illumination pattern for the controller based at least in part on the first information and the second information, wherein the illumination pattern comprises a subset of the plurality of user engageable interfaces.” Appeal Br. 9. Claim 1 recites that the “first information relat[es] to a current environment of the controller.” Appeal Br. 9. Claim 1 recites that the “second information relat[es] to a current operating state of one or more of the controller and the controlled device,” the current operating state including “one or more of a location, an orientation, a relative position of the controller and the controlled device, and a use of the one or more of the controller and the controlled device.” Appeal Br. 9.

² Reams (US 2010/0231384 A1; September 16, 2010).

³ Park et al. (US 2009/0051481 A1; February 26, 2009).

⁴ White et al. (US 2007/0185968 A1; August 9, 2007).

⁵ Ryu et al. (US 2014/0118122 A1; May 1, 2014).

Appellant argues that the Examiner has not shown that the combination of Reams, Park, and White teaches or suggests the step of determining an illumination pattern. *See* Appeal Br. 4–6; Reply Brief 2–3, filed January 30, 2019 (Reply Br.). Appellant contends that Reams, Park, and White each fail to teach or suggest determining an illumination pattern based on first and second information and that Reams fails to teach or suggest an illumination pattern that comprises a subset of the plurality of user engageable interfaces. *See* Appeal Br. 4–5; *see also* Reply Br. 2–3.

We find Appellant’s arguments unpersuasive. The Examiner found that Reams teaches determining an illumination pattern for a controller based at least in part on the first information and the second information. *See, e.g.*, Final Act. 6–7. Reams provides adequate support for this finding. Reams teaches determining whether to backlight the buttons of a remote control based on whether (1) the amount of ambient light around the remote control is below a threshold and (2) a user is touching or moving a remote control. *See, e.g.*, Reams ¶¶ 54 (explaining that control logic can “process the inputs from the sensing circuitry 208 *and* the light sensor 712 to determine when to activate the light source 206 to backlight the user input circuitry 202” (emphasis added)), 58 (“Alternatively the flowchart in FIG. 8 could contain an ambient light decision point between operations 802 [(determining whether a user is touching the remote control)] and 804 [(activating a light source)] to process the ambient light input.”), Fig. 8 (illustrating an example process for backlighting a remote control); *see also* Reams ¶¶ 52, 53, 55–57, claim 10. Reams explains that “detect[ing] touching of the remote control or movement of the remote control . . . is indicative of the user using the remote control.” Reams ¶ 56. Thus, Reams

teaches determining an illumination pattern (backlighting the buttons of the remote control) based on first information that relates to the current environment of the controller (the ambient light around the controller) and second information that relates to the use of the one or more of the controller and the control device (touching or moving the remote control, which indicates use of the remote control).

Even if Reams alone did not teach determining an illumination pattern for a controller based at least in part on the first information and the second information, the Examiner's combination of Reams, Parks, and White teaches this limitation. Parks discloses selecting which menu to display on a remote control based on its "gripping direction." *See, e.g.*, Park ¶¶ 38, 58–79, Figs. 4A–4C, 5. And White discloses selectively illuminating buttons on a remote control based on a device mode. *See, e.g.*, White ¶¶ 21–23, 39–45, Figs. 2A, 2B, 3A, 3B. Given these disclosures, the Examiner concluded that it would have been obvious to modify Reams to use a "sensed . . . gripping direction so as to facilitate control of multiple devices" and "have selectively illuminated control buttons corresponding to a selected device mode . . . so as to reduce user confusion of which control commands of the selected device are available." Ans. 5; *see also* Advisory Act., continuation sheet. In this combination, Reams's remote control determines which buttons to backlight based on, for instance,

- (1) the gripping direction of the remote control (second information relating to a relative position of the controller and the controlled device or an orientation);
- (2) the device mode of the remote control (second information relating to a use of the one or more of the controller and the controlled device); and

(3) whether the amount of ambient light around the remote control is below a threshold (first information relating to the current environment of the controller).

See, e.g., Final Act. 27–28; Advisory Act., continuation sheet.

Finally, the Examiner did not find that Reams alone teaches or suggests an illumination pattern that “comprises a subset of the plurality of user engageable interfaces” as argued by Appellant. Rather, the Examiner found that the combination of Reams, Parks, and White teaches or suggests this limitation. *See* Final Act. 6–8, 25, 27–28; Ans. 3–5. Appellant’s arguments against Reams alone have not persuaded us that the Examiner erred. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”).

Appellant also argues that the Examiner has not provided sufficient reason to combine the teachings of Reams, White, and Park in the claimed manner. *See* Appeal Br. 6–7; Reply Br. 3–5. According to Appellant, the Examiner’s “motivation for modifying Reams in view of Park . . . does not make sense as Reams teaches a remote control communicating with a single entertainment device.” Reply Br. 4. And Appellant contends that the Examiner did “not provide a reason why one would modify the remote control of Reams to include selectively illuminating control buttons or selectable device modes.” Appeal Br. 7.

We find these arguments unpersuasive. First, Reams teaches that the disclosed remote control can be “configured as a ‘universal’ remote control, operable to remotely control other devices, such as the presentation device 104. In at least one embodiment, the remote control 106 stores command sets in memory for various devices, such as televisions, DVD players[,]”

VCRs and the like.” Reams ¶ 22; *see also* Reams ¶ 49 (explaining that a remote control can “generate commands for the entertainment device 102 and/or the presentation device 104”), Fig. 6 (showing an exemplary remote control). We thus see no error in the Examiner’s determination that one of ordinary skill in the art would have been motivated to combine the teachings of Reams and Park “to facilitate control of multiple devices.”

Second, contrary to Appellant’s argument, the Examiner did provide a reason to modify the remote control of Reams to include selectively illuminating control buttons and selectable device modes. The Examiner found that one of ordinary skill in the art would have been motivated to do so because it would “facilitate control of multiple devices” and “reduce user confusion of which control commands of the selected device are available.” Ans. 5. Appellant has not persuasively explained why this reasoning is inadequate.

For at least the above reasons, Appellant has not persuaded us that the Examiner erroneously rejected claim 1 under § 103. We thus sustain this rejection. Because Appellant has not presented separate, persuasive arguments for the Examiner’s rejections of claims 2–20 under § 103, we also sustain these rejections.

CONCLUSION

| Claims Rejected | 35 U.S.C. § | References/Basis | Affirmed | Reversed |
|------------------------|--------------------|----------------------------|-----------------|-----------------|
| 1, 2, 4–20 | 103 | Reams, White, Park | 1, 2, 4–20 | |
| 3 | 103 | Reams, White, Park, Ryu | 3 | |
| Overall Outcome | | | 1–20 | |

No 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