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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/453,966	08/07/2014	Jerry Wasinger	MAN2241-063J	8353
8698	7590	02/04/2019	EXAMINER	
STANDLEY LAW GROUP LLP 6300 Riverside Drive Dublin, OH 43017			NGUYEN, KEVIN M	
			ART UNIT	PAPER NUMBER
			2628	
			NOTIFICATION DATE	DELIVERY MODE
			02/04/2019	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JERRY WASINGER and WILLIAM DUNN

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Appeal 2018-005436  
Application 14/453,966<sup>1</sup>  
Technology Center 2600

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Before CAROLYN D. THOMAS, JAMES B. ARPIN, and  
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BENNETT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1 and 4–15, which constitute all the claims pending in this application. Claims 2–3 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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<sup>1</sup> Appellants’ Brief (“App. Br.”) identifies Manufacturing Resources International, Inc. as the real party in interest. App. Br. 2.

### CLAIMED SUBJECT MATTER

The claims are directed to a dynamic dimming led backlight. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An LED backlight assembly for a liquid crystal display (LCD), the LED backlight assembly comprising:
  - an LED backlight having individually controllable subsections;
  - an unpenetrated dividing wall extending away from the LED backlight and separating adjacent subsections;
  - a diffusing element placed in front of the LED backlight;
  - a gap placed between the dividing wall and the diffusing element; and
  - a histogram accumulator in electrical communication with the LED backlight;wherein said LED backlight comprises a number of color producing LEDs that are configured to be illuminated simultaneously to produce white light.

App. Br. 16 (Claims Appendix).

### REFERENCES

The Examiner relies on the following prior art in rejecting the claims on appeal:

Park et al. ("Park")	US 2008/0043463 A1	Feb. 21, 2008
Kubota et al. ("Kubota")	US 2008/0170178 A1	July 17, 2008
Park et al. ("Park '165")	US 2009/0109165 A1	Apr. 30, 2009
Botzas et al. ("Botzas")	US 2009/0284457 A1	Nov. 19, 2009

### REJECTIONS

Claims 1, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Kubota, and Botzas. Final Act. 3–5.

Claims 6, 8, 10, 11, and 13–15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park and Kubota. Final Act. 5–10.

Claim 7 stands rejected 35 U.S.C. § 103(a) as being unpatentable over Park, Kubota, and Park '165. Final Act. 10–11.

Claims 9 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Kubota, and Botzas. Final Act. 11–12.

Claims 1, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Park '165, and Botzas. Final Act. 12–15.

Claims 6, 8, 10, 11, and 13–15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park and Park '165. Final Act. 15–20.

Claims 9 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Park '165, and Botzas. Final Act. 20–21.

#### ISSUE

Does the modification of Park, as proposed by the Examiner in rejecting the claims under 35 U.S.C. § 103(a), change its principle of operation, such that a person of ordinary skill in the art would not have sought to make the modification?

#### ANALYSIS

Appellants' invention is directed to an LED backlight assembly for a liquid crystal display which has an LED backlight that is divided into individually controlled subsections. The LED backlight is made up of color producing LEDs that “are configured to be illuminated *simultaneously* to produce white light.” App. Br. 16 (Claims Appendix) (emphasis added). Appellants characterize this type of display, in which simultaneous illumination of red, blue, and green LEDs is used to produce white light, as a “‘color filter’ backlight.” *Id.* at 7.

The Examiner rejects each of the claims as being obvious over Park as modified by either Park '165 or Kubota. In particular, and with respect to claim 1, the Examiner relies primarily on Park, but finds that it does not teach the limitation “wherein said LED backlight comprises a number of color producing LEDs that are configured to be illuminated simultaneously to produce white light.” Final Act. 3–4; Final Act. 13–14. For independent claims 1 and 6, the Examiner finds that Kubota (and for independent claim 11 Park '165) teach this limitation because they describe mixing red, green, and blue LED backlights to produce white light. Final Act. 4 (citing Kubota ¶ 216), 13 (citing Park '165 ¶ 61). The Examiner determines that it would have been obvious to incorporate into Park the color mixing of LEDs, as taught by either Kubota or Park '165. Final Act. 4, 13.

Appellants do not argue the proposed combination fails to teach or suggest any of the recited limitations. Instead, Appellants argue the Examiner improperly combines Park with the other references because the modification proposed by the Examiner would change Park's principle of operation and render it unsatisfactory for its intended purpose. App. Br. 7–15. More specifically, Appellants argue that Park discloses a field sequential driving (“FSD”) display system. App. Br. 7. Appellants assert that an FSD system “require[s] that a red, green, and blue light be emitted **in rapid sequence** such that the user's eye and brain meld the three separate images into one so as to perceive a full color image.” App. Br. 8 (citing Park ¶¶ 5–7, 148). Appellants argue that in an FSD system, white light only is produced by separately illuminating the red, green, and blue lights in rapid sequence. *Id.* According to Appellants, the proposed modification of Park's FSD system with the color filtering of Kubota or Park '165 would change

Park's principle of operation because it would no longer operate as an FSD system, and, instead, would operate as a color filtering system. App. Br. 10–11. Appellants further argue that the proposed modification would render Park's system unsuitable for its intended purpose because *if* the LED's in Park's FSD system were modified to illuminate simultaneously, instead of to illuminate in rapid sequence, it would result in a modified display unable to reproduce colors. App. Br. 11; Reply Br. 4.

We are persuaded by Appellants' arguments. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01(VI) (citing *In re Ratti*, 270 F.2d 810, 813, (CCPA 1959)). We agree with Appellants that Park discloses an FSD system in which the colored LEDs are illuminated in sequence to create color. *See* Park ¶¶ 5–7, 45, 148 ("LCD device 500 employs a field sequential driving method, in which a red light, a green light, and a blue light are sequentially emitted"). We also agree that the purpose of Park's invention is to improve color reproducibility and color uniformity *in FSD systems*. *See, e.g.*, Park ¶ 19 ("increasing color reproducibility of the light and improving uniformity of the light").

The Examiner proposes replacing Park's sequential illumination of colored LEDs with color filtering to produce white LED light using simultaneous illumination, as taught by Kubota or Park '165. This modification would mean that Park would no longer operate as an FSD system. Because the purpose of Park's invention is to provide a specific improvement to the operation of FSD systems, we agree with Appellants

that modifying it, so that it no longer operates as an FSD system, would “require a substantial reconstruction and redesign of the elements shown in [Park] as well as a change in the basic principle under which the [Park] construction was designed to operate.” MPEP 2143.01(VI) (quoting *Ratti*, 270 F.2d at 813). We agree, therefore, that the Examiner’s proposed modification of Park with the teachings of either Kubota or Park ’165 would change the principle of operation of Park. Accordingly, we do not sustain the rejections made under 35 U.S.C. § 103. For the same reason, we do not sustain the rejections of the remaining claims, all of which are rejected based at least in part on the same improper combinations.

DECISION

We reverse the Examiner’s rejection of claims 1 and 4–15.

REVERSED