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EXAMINER
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PARKER, JEFFREY ALAN

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ROBERT LOWLES, ZHONGMING MA,  
and EDWARD HUI

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Appeal 2015-000281  
Application 11/944,482  
Technology Center 2600

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Before JAMES R. HUGHES, CARL L. SILVERMAN, and  
JOYCE CRAIG, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants<sup>1</sup> appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–7, 9, 10, and 14–23.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

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<sup>1</sup> According to Appellants, the real party in interest is Research In Motion Limited. App. Br. 1.

<sup>2</sup> The Examiner indicates on the summary page of the Final Action that claims 1–7, 9, 10, and 14–21 are pending and rejected. In the Detailed Action section, however, the Examiner states that claims 22 and 23 are also pending (Final Act 2), and the Examiner rejects them under 35 U.S.C. § 103(a) (*id.* at 3). We conclude that the Examiner intended to include claims 22 and 23 on the summary page and consider their inadvertent omission harmless error.

### ILLUSTRATIVE CLAIM

Appellants' invention relates to touch sensors for display screens. Spec. ¶ 1. Claim 1 is illustrative and reads as follows, with the disputed limitation italicized:

1. An apparatus comprising:

a touch sensor comprising an elongate input pad of transparent conductive material to provide an input pad capacitance value that varies with location of a touch over the elongate input pad;

*a cover comprising an elongate ridge for guiding the touch to the side of the elongate ridge and over the elongate input pad, wherein the elongate input pad does not extend under the elongate ridge.*

### REJECTIONS

Claims 1, 4, 14, and 21–23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Geaghan (US 2008/0252608 A1; published Oct. 16, 2008) and Sakai et al. (US 2007/0229465 A1; published Oct. 4, 2007) (“Sakai”).

Claims 2–7, 9, 10, 14–17, and 20<sup>3</sup> stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Geaghan, Sakai, and Philipp (US 2007/0247443 A1; published Oct. 25, 2007).

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<sup>3</sup> The Examiner did not include claim 20 in the statement of the rejection, but discussed claim 20 in the body of the rejection. Final Act. 5, 11–12. Based on that discussion, we conclude that the Examiner intended to include claim 20 in the 35 U.S.C. § 103(a) rejection and consider its inadvertent omission from the statement of the rejection harmless error.

Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Geaghan, Sakai, and Philipp II et al. (US 2007/0279395 A1; Dec. 6, 2007) (“Philipp II”).

Claims 1 and 21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Philipp and Sakai.

### ANALYSIS

We have considered Appellants’ arguments, but do not find them persuasive of error.

#### *Claims 1, 4, 14, and 21–23*

In rejecting claim 1 as obvious over the combination of Geaghan and Sakai, the Examiner found that Geaghan teaches or suggests all of the recited limitations, except “a cover comprising one or more elongate ridges for guiding the touch to the side of at least one of the one or more elongate ridges and over the input pad, wherein the elongate input pad does not extend under the elongate ridge,” for which the Examiner relied on Sakai. Final Act. 3–4 (citing Sakai Figs. 1–2, ¶¶ 37, 40–42). The Examiner concluded that it would have been obvious to an artisan of ordinary skill to combine the raised ridges of Sakai with the elongated capacitive touchpad of Geaghan by placing the ridges along the lengths next to the adjacent pairs of unit pads to guide the user along a single coupled pair or multiple coupled pairs to produce a more accurate measurement of input. *Id.* at 4 (citing Sakai ¶ 42).

Appellants contend the Examiner erred because neither the cited portions of Geaghan nor the cited portions of Sakai teach the recited “cover” limitation, shown in italics above. App. Br. 4–6. In particular, Appellants

argue that Sakai does not describe the claimed relationship between an input pad and a ridge. *Id.* at 6. In Appellants view, “[w]hen all of the cited references fail to teach a claim element, the claim is not obvious.” *Id.* at 12.

Appellants’ arguments do not persuade us of Examiner error. Appellants attack the references individually, even though the Examiner relies on the combination of Geaghan and Sakai as teaching or suggesting the disputed features. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)) (“The test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art.”). Appellants have not persuasively explained why the combination of references proposed by the Examiner would not have suggested the disputed limitation to an artisan of ordinary skill.

Appellants also question the sufficiency of the Examiner's proposed reason for combining the teachings of Geaghan and Sakai. App. Br. 4. In particular, Appellants argue that paragraph 42 of Sakai, cited by the Examiner, does not pertain to producing a more accurate measurement of input. *Id.* at 8.

We are not persuaded the Examiner erred. In the Answer, the Examiner explained that all touchscreens have input pads and a cover. Ans. 24. Appellants have not disputed that finding. The Examiner also provided persuasive articulated reasoning with rational underpinning for an artisan of ordinary skill to have modified the cover of the touchscreen display of Geaghan to use the tactile guides taught by Sakai. *Id.* Moreover, we disagree with Appellants that paragraph 42 of Sakai does not address the

accuracy of user input. Sakai, in paragraph 42, teaches that, in Figures 1 and 2 of Sakai,

[T]he tactile dividers **224** or other contours are typically configured to extend along the exterior surface **226** of the screen cover **222** and along boundaries of the fixed number of function buttons **130**. As such, the tactile dividers **224** correspond with and identify boundaries of the function buttons *allowing a user to accurately identify and select desired function buttons 130*.

Sakai ¶ 42 (emphasis added).

Appellants next contend the combination of Geaghan and Sakai is improper because it “would destroy, or at least drastically alter, the operation of Geaghan, thereby frustrating its purpose.” App. Br. 8. Specifically, Appellants argue that “placing a ridge between adjacent electrodes of Geaghan further separates a finger from the adjacent electrodes, making simultaneous detection by both electrodes less likely because the ability of the adjacent electrodes to detect a touch is reduced....” *Id.*

We are unpersuaded of Examiner error. The Examiner explained that the rejection contemplates placing ridges along the gap in between two coupled pairs of elongate ridges or on the boundaries of the display, which would encourage the finger away from the gap between non-coupled adjacent input pads towards the couple pairs. Ans. 33. Moreover, it would have been within the skill of an ordinarily-skilled artisan to combine the known technique of placing ridges as guides in a cover, as suggested by Sakai, for use over a touchscreen having elongated pads, as taught by Geaghan. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the

same way, using the technique is obvious unless its actual application is beyond his or her skill” (citations omitted)). Appellants have not persuaded us that combining the respective familiar elements of the cited references in the manner proffered by the Examiner would have been “uniquely challenging or difficult for one of ordinary skill in the art” at the time of Appellant’s invention. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418).

For these reasons, we are not persuaded that the Examiner erred in finding that the combination of Geaghan and Sakai teaches or suggests the limitations of claim 1, or in concluding that claim 1 is obvious in view of the combined references.

Regarding the Examiner’s rejection of claim 1 as obvious over the combination of Philipp and Sakai, Appellants refer to and rely on the arguments directed to the combination of Geaghan and Sakai, discussed above. App. Br. 9–11. For the reasons discussed above, we are not persuaded that the Examiner erred in rejecting claim 1 as obvious over the combination of Philipp and Sakai.

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of independent claim 1, as well as the 35 U.S.C. § 103(a) rejection of independent claim 21, which Appellants argue is patentable for similar reasons. App. Br. 9, 11. We also sustain the Examiner’s rejection of dependent claims 3–7, 9, 10, 14–19, 22, and 23, for which Appellants make no additional arguments. *Id.*

#### *Claim 20*

Appellants contend neither Geaghan nor Sakai, alone or in combination, teaches or suggests:

[A] cover comprising a ridge for guiding the touch to the side of the ridge and over the input pad, wherein the ridge is disposed between an edge of the input pad and a neighboring edge of a second input pad and wherein the column of icons is aligned with the ridge,

as recited in claim 20. App. Br. 11. Appellants further argue that Philipp does not cure the deficiencies of Geaghan nor Sakai. However, Appellants' arguments are conclusory, merely reciting the claim limitation, the teachings of the references, and stating that the two are not the same. *Id.* Rule 41.37 "require[s] more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art." *In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011).

To the extent Appellants rely on the arguments made for claims 1 and 21, discussed above, we are not persuaded of Examiner error in the rejection of claim 20 for the reasons set forth above.

Accordingly, we are not persuaded by Appellants' argument that the Examiner erred in rejecting independent claim 20 and we sustain the 35 U.S.C. § 103(a) rejection of claim 20.

#### *Claim 2*

Appellants contend the Examiner erred in rejecting dependent claim 2, which requires that the recited ridge be disposed between the first elongate input pad and the second elongate input pad, because "placing a ridge at an angle between any of Geaghan's adjacent electrodes results in a ridge that is

neither horizontal nor vertical, resulting in distortion of information displayed on the display.” App. Br. 11.

Appellants’ argument is unpersuasive because it does not address the Philipp reference, on which the Examiner also relied in rejecting claim 2. Final Act. 5–6; Ans. 16–18. The Examiner explained that the elongate input pads taught in Philipp are similar to those in Geaghan, except the pads are right angle triangles. *Id.* at 16. The Examiner further found that combining Sakai’s perpendicular ridges with the right triangular elongate input pads of Geaghan/Philipp would result in horizontal ridges that do not overlap the right triangular elongate input pads of Geaghan/Philipp. *Id.* at 17. Appellants present insufficient persuasive explanation or evidence to rebut the Examiner’s findings. *See* Reply Br. 5.

Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of dependent claim 2.

#### DECISION

We affirm the decision of the Examiner rejecting claims 1–7, 9, 10, and 14–23.

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).

AFFIRMED