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BERARDESCA, PAUL M

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WESLEY ABRAM LUTTRELL,
CHRISTOPHER MILES OSBORNE, DANIEL JORDAN SCHANTZ, and
VINCENT CHARLES CONZOLA

Appeal 2017-009631
Application 14/547,734¹
Technology Center 2600

Before NATHAN A. ENGELS, JAMES W. DEJMEK, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–22. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify Lenovo (Singapore) PTE. LTD. as the real party in interest. App. Br. 3.

STATEMENT OF THE CASE

Introduction

Appellants' disclosed and claimed invention is directed to an information handling device (e.g., a smart phone) comprising a camera, a cover, and a communication mechanism. Spec. ¶ 2. A button may be provided on the cover such that the user may take a picture and otherwise control the camera software. Spec. ¶¶ 19, 34. The cover may also include a movable area (e.g., a folding flap) that obscures and exposes the camera. Spec. ¶ 31. In a disclosed embodiment, when the moveable area is operated to expose the camera, the device may be caused to activate the camera software, and optionally, start taking pictures. Spec. ¶ 32. Further, the moveable area may include a removable area attached to the rest of the cover using a connection device (e.g., magnets, VELCRO, mechanical connectors). Spec. ¶ 31. In addition, the cover may have a communication mechanism (e.g., RFID, NFC, or an electrical connector) that facilitates communication between the cover and the device. Spec. ¶ 35.

Claims 1 and 21 are representative of the subject matter on appeal and are reproduced below with the disputed limitations emphasized in *italics*:

1. A system, comprising:
an information handling device comprising a camera; and
a removable cover for the information handling device,
comprising:
 - a movable area obscuring and exposing the camera;
 - at least one button controlling activation of the camera;* and
 - a communication mechanism facilitating communication between the removable cover and the information handling device.*

21. A device, comprising:
a processor;
a communication mechanism operatively coupled to the processor;
a camera operatively coupled to the processor;
a memory device that stores instructions executable by the processor to:
receive, through the communication mechanism, a user input comprising exposing the camera;
activate software of the camera on the device after the exposing; and
receive the image captured by the camera.

The Examiner's Rejections²

1. Claim 21 stands rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Misawa (US 2005/0280732 A1; Dec. 22, 2005).

Final Act. 11–12.

2. Claims 1–4, 6–8, 12, 15–17, and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Misawa; Cheng et al. (US 2012/0262617 A1; Oct. 18, 2012) (“Cheng”); and Matsuki (US 2014/0359438 A1; Dec. 4, 2014). Final Act. 13–20.

3. Claims 5 and 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Misawa, Cheng, Matsuki, and Harris et al. (US 2015/0350551 A1; Dec. 3, 2015) (“Harris”). Final Act. 20–21.

4. Claims 9 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Misawa, Cheng, Matsuki, and Han (US 8,363,157 B1; Jan. 29, 2013). Final Act. 21–22.

² The Examiner also rejected claims 13, 14, and 21 on the ground of nonstatutory double patenting, and claims 1–20 and 22 under 35 U.S.C. § 112(a), as failing to comply with the written description requirement, but the Examiner has withdrawn these rejections. Ans. 17.

5. Claim 11 stands rejected under 35 U.S.C. § 103 as being unpatentable over Misawa, Cheng, Matsuki, and Okabe et al. (US 2015/0049204 A1; Feb. 19, 2015) (“Okabe”). Final Act. 22–23.

6. Claims 13, 14, 19, and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Misawa and Cheng. Final Act. 23–25.

ANALYSIS³

Rejection under 35 U.S.C. § 102(a)(1)

Appellants argue Misawa does not disclose “receiv[ing], through the communication mechanism, a user input comprising exposing the camera,” as recited in claim 21. App. Br. 19–20. In particular, Appellants assert even if Misawa’s bus were a communication mechanism, it is not used to determine that the camera has been exposed. App. Br. 19 (citing Misawa ¶¶ 8, 81, 90). Instead, Appellants assert Misawa’s bus is a data bus used to communicate between the image signal processor and SDRAM. App. Br. 19 (citing Misawa ¶¶ 8, 81, 90).

Misawa is generally directed to a portable digital camera. Misawa, Abstract, Title. Figure 10 of Misawa is illustrative and is reproduced below:

³ Throughout this Decision, we have considered the Appeal Brief, filed February 15, 2017 (“App. Br.”); the Reply Brief, filed June 30, 2017 (“Reply Br.”); the Examiner’s Answer, mailed May 3, 2017 (“Ans.”); and the Final Office Action, mailed September 23, 2016 (“Final Act.”), from which this Appeal is taken.

body (4). *Compare* Misawa, Fig. 10, *with* Misawa, Fig. 11; Misawa ¶¶ 65, 75. When display unit (5) is bent or curved, retention slot (60a) may be engaged with retention claw (61) of camera body (4), thereby depressing power pushbutton switch (62) and powering off the camera. Misawa ¶ 97, Fig. 11.

The Examiner finds that “the connection between the CPU and the rotating detection sw[itch] 17 or . . . pushbutton 62 read on the communication mechanism since this is what is used to determine that the camera has been exposed.” Ans. 18. The Examiner explains “the rotation detection sw[itch] 17 or the pushbutton 62 both send a signal indicating the state of the display.” Ans. 18 (citing Misawa ¶¶ 71, 97).

We agree with the Examiner that Misawa discloses the disputed claim language because Misawa’s rotational detection switch and pushbutton are used to receive and communicate user input that exposes the camera. For example, when a user spreads the display unit by disengaging the retention slot from the retention claw, the imaging unit and camera body are exposed and the pushbutton is released, causing the power supply to turn on. Misawa ¶ 97. Additionally, when a user offsets the camera body from the imaging unit, thereby moving the camera body from a closed to an open or exposed position, the rotation detection switch is released and the camera’s CPU is sent a signal that the rotation detection switch is off. Misawa ¶¶ 28, 71, 87, 90; *see also* Misawa, Fig. 7 (depicting an arrow pointing directly from rotation detecting switch (17) to CPU (30)).

Appellants further argue Misawa does not disclose “activat[ing] software of the camera on the device after the exposing,” as recited in claim 21. App. Br. 19–20. Instead, Appellants assert that, in Misawa, after the

user has disengaged the display unit from the camera body and rotated the rotatable mechanism to expose the lens, the user must take additional steps in order to activate the software of the camera. App. Br. 19–20.

We disagree with Appellants. As the Examiner finds, Misawa’s “digital still camera 2 is set in the image pickup mode upon receiving an off signal of the rotation detection switch 17.” Ans. 19 (citing Misawa ¶ 90). In other words, after the camera has been exposed by offsetting the imaging unit from the camera body, the camera software is activated. As the Examiner explains, “[although] the user may be required to provide more input to the device to further specify which type of image pickup mode is to be used and then again to actually take a picture, no further user action is required to switch the camera into the image pickup mode.” Ans. 19. Appellants do not persuasively rebut this finding or explanation in the Reply Brief.

For the reasons discussed *supra*, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner’s rejection of claim 21 under 35 U.S.C. § 102(a)(1).

Rejections under 35 U.S.C. § 103

As an initial matter, Appellants dispute the Examiner’s interpretation of “a communication mechanism,” as recited in claims 1–10 and 22, as invoking 35 U.S.C. § 112(f). App. Br. 18; Reply Br. 17. Appellants submit that “the claim recites sufficiently definite structure.” App. Br. 18.

The Federal Circuit has established that use of the term “means” is central to the analysis of whether a claim limitation should be interpreted in accordance with 35 U.S.C. § 112(f): use of the word “means” creates a

rebuttable presumption that the inventor intended to invoke § 112(f), whereas failure to use the word “means” creates a rebuttable presumption that the inventor did not intend the claims to be governed by § 112(f).

Personalized Media Commc 'ns., LLC v. Int'l Trade Comm'n, 161 F.3d 696, 703–04 (Fed. Cir. 1998).

However, the presumption that a limitation that does not recite a “means for” or a “step for” and, therefore, is not subject to § 112(f) is not a strong one. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (concluding “that such a heightened burden is unjustified and that we should abandon characterizing as ‘strong’ the presumption that a limitation lacking the word ‘means’ is not subject to § 112, para. 6 [now § 112(f)]”). Rather, the *Williamson* Court explained:

The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure. When a claim term lacks the word “means,” the presumption can be overcome and § 112[(f)] will apply if the challenger demonstrates that the claim term fails to “recite sufficiently definite structure” or else recites “function without reciting sufficient structure for performing that function.”

Williamson, 792 F.3d at 1349 (internal citations omitted). Further, the Court stated:

“Module” is a well-known nonce word that can operate as a substitute for “means” in the context of § 112[(f)]. . . . Generic terms such as “mechanism,” “element,” “device,” and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word “means” because they “typically do not connote

sufficiently definite structure” and therefore may invoke § 112[(f)].

Williamson, 792 F.3d at 1350.

Here, the Examiner determines the claimed “communication mechanism” is a generic placeholder coupled with the functional language of “facilitating communication” without reciting sufficient structure. Final Act. 10. The Examiner does, however, find corresponding structure in the Specification and, accordingly, construes the communication mechanism as a “short range communication protocol chip or device or electrical connectors that are coupled to the information handling device using a connection port.” Final Act. 10; Ans. 18 (citing Spec. ¶ 37). Appellants do not persuasively rebut the Examiner’s findings or otherwise provide a proposed construction for a “communication mechanism.” Accordingly, we are unpersuaded of Examiner error.⁴

Claim 1 recites, in relevant part, “a removable cover for the information handling device, comprising . . . at least one button controlling activation of the camera; and a communication mechanism facilitating communication between the removable cover and the information handling device.”

In rejecting claim 1, the Examiner finds Misawa’s disclosure of a flexible display unit for a digital still camera teaches “a . . . cover for the information handling device.” Final Act. 13 (citing Misawa item 5); *see*,

⁴ We note because, as discussed herein, we find Misawa discloses a communication mechanism using the Examiner’s construction, even if 35 U.S.C. § 112(f) were not applicable, Misawa would also disclose a communication mechanism under a broad but reasonable interpretation consistent with the Specification.

e.g., Misawa, Figs. 6, 11. Further, the Examiner finds it was well known in the art to provide a cover with “at least one button controlling activation of the camera,” as evidenced by Matsuki’s disclosure of a display screen having touch-sensitive icons for capturing images and adjusting camera settings. Final Act. 13 (citing Matsuki, Fig. 1(A) (items 1, 105, 106, 107, 108)); *see, e.g.*, Matsuki, Fig. 1(A). The Examiner concludes “it would have been obvious . . . to improve Misawa by applying the technique of using a touchscreen display with a GUI capable of controlling the camera to achieve the predictable result of improving the usability of the device.” Final Act. 13.

In addition, the Examiner finds it was well known in the art to provide a cover that is removable, as evidenced by Cheng’s disclosure of a removable display module. Final Act. 14 (citing Cheng, item 2); *see, e.g.*, Cheng, Fig. 1. The Examiner concludes, and we agree, “it would have been obvious . . . to improve the combination by applying the technique of allowing the display to be removed from the body to achieve the predictable result of controlling the camera from a distance.” Final Act. 14.

Appellants argue Misawa’s bus does not teach “a communication mechanism” as claimed because “this data bus is specifically used . . . to communicate the image data between the image signal processor and SDRAM, . . . [and] cannot additionally or instead be used for ‘facilitating communication between the removable cover and the information handling device.’” App. Br. 21.

We disagree with Appellants. Contrary to Appellants’ assertions, Misawa’s data bus can be used to communicate not only with SDRAM, but also with numerous other system elements, including the display unit’s

organic electroluminescence display (“ELD”) panel.

Figure 7 of Misawa, as the Examiner finds, is illustrative and is reproduced below:

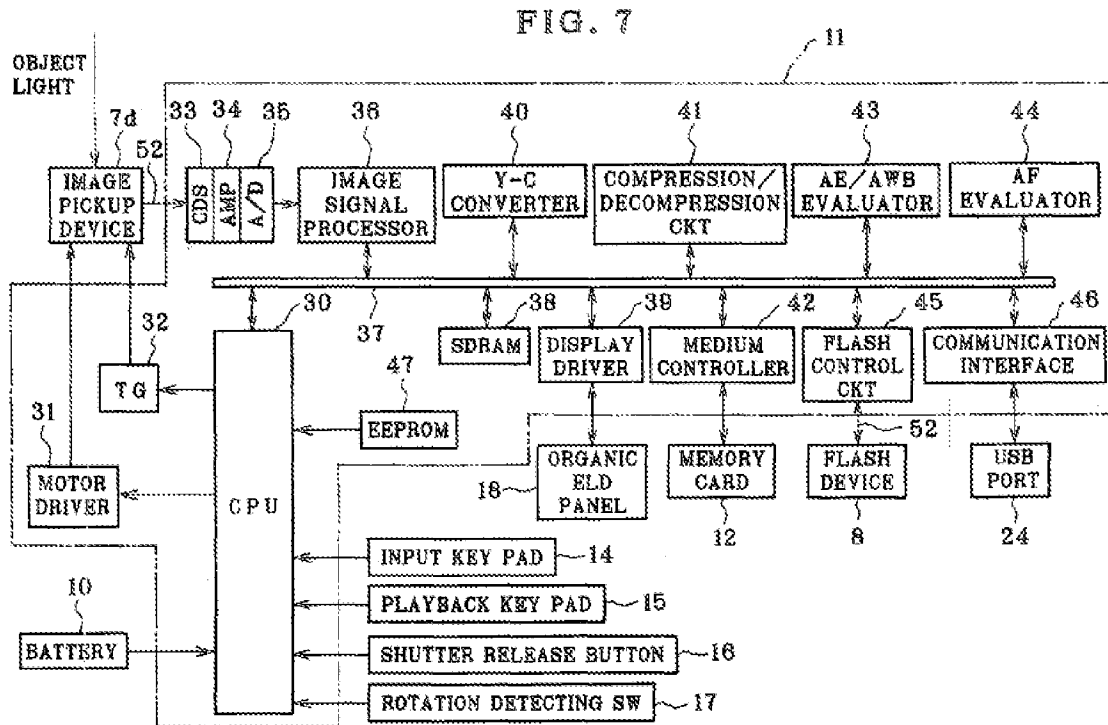


Figure 7 of Misawa illustrates circuitry in a digital still camera. In Misawa, once the imaging unit has been exposed and the shutter release button (16) has been depressed, object light is focused on image pickup device (7d), which picks up an image by converting a pickup signal of a frame to image data. Misawa ¶¶ 19, 65, 70, Fig. 7. After the image data has been sampled (33), amplified (34), digitized (35), and further processed (36), it may be communicated via data bus (37) to a display driver (39) and then to the display unit’s organic ELD panel (18) for display. Misawa ¶¶ 80, 81, Fig. 7; *see also* Misawa ¶¶ 72, 74, Fig. 5 (items 18, 19).

Thus, we agree with the Examiner that Misawa teaches “a

communication mechanism” as claimed because bus 37 comprises electrical circuitry that serves as a conduit for communicating image data between the imaging unit, the camera body, and the display unit’s organic ELD panel 18. As the Examiner explains, “Misawa explicitly states that a live image is displayed on the display 18 from the image pickup device via the bus 37 Bus 37 of Misawa clearly facilitates communication between the [camera body’s circuit board] 11 and organic ELD panel 18 as shown in [Figure] 7.” Ans. 20–21 (citing Misawa, Fig. 7, ¶ 81).

Appellants further argue the Examiner erred because neither Cheng nor Misawa individually teaches “a removable cover for the information handling device.” App. Br. 21–22. Non-obviousness cannot be established, however, by attacking references individually where, as here, the ground of unpatentability is based upon the teachings of a combination of references. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). Rather, the test for obviousness is whether the combination of references, taken as a whole, would have suggested the patentee’s invention to a person having ordinary skill in the art. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

We are unpersuaded of error because Appellants’ arguments are not responsive to the Examiner’s rejection and attack the references individually, whereas the Examiner’s rejection relies on, *inter alia*, the combined teachings of Misawa and Cheng. Final Act. 13–14. In particular, the Examiner finds, and we agree, Misawa’s flexible display unit for a digital still camera teaches “a . . . cover for the information handling device,” and it was well known in the art to make a cover “removable,” as evidenced by Cheng’s removable display module. Final Act. 13–14. Appellants do not persuasively rebut these findings of the Examiner.

Next, Appellants argue the Examiner erred because Matsuki discloses a user providing input to the screen of a device to activate the camera, whereas claim 1 requires the removable cover to comprise “at least one button controlling activation of the camera.” App. Br. 24.

We are unpersuaded of error because Appellants’ argument is not responsive to the Examiner’s rejection and attacks Matsuki individually, whereas the Examiner’s rejection relies on, *inter alia*, the combined teachings of Misawa, Cheng, and Matsuki. As discussed above, the Examiner relies on the combination of Misawa and Cheng to teach a removable cover. The Examiner relies on Matsuki as teaching “at least one button controlling activation of the camera.” Final Act. 13. In particular, the Examiner finds Matsuki discloses a display screen for an image capturing device including an icon displaying region that has Zoom, Image Capture, Four-Way Arrow, and Mode Selection icons. Final Act. 13 (citing Matsuki, Fig. 1 (items 1, 105, 106, 107, 108)); *see, e.g.*, Matsuki, Fig. 1(A). Matsuki further discloses a touch panel laid over the display screen for detecting a user’s touch. Matsuki ¶ 51. Thus, the icons on Matsuki’s display screen are soft buttons that can be actuated by the user to adjust camera settings or take pictures. Similarly, Appellants’ Specification describes a “button” not only as a mechanical button, but alternatively as a “capacitive sensor[] or some other type of actuation device.” Spec. ¶ 34. Appellants do not persuasively rebut these findings of the Examiner.

Appellants additionally argue one of ordinary skill in the art would not combine the teachings of Cheng and Misawa. App. Br. 21–23. In particular, Appellants assert it is unclear what and how the Examiner is proposing to replace certain elements of Misawa with certain elements of

Cheng to arrive at the claimed invention. App. Br. 22–23 (citing Misawa ¶ 8).

We are unpersuaded of error. Contrary to Appellants’ assertions, “[t]he test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art.” *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969); *In re Mapelsden*, 329 F.2d 321, 322 (CCPA 1964). “Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007). Here, the Examiner provided specific reasons for combining the teachings of Misawa, Cheng, and Matsuki—i.e., applying a known technique to a known device ready for improvement—which Appellants do not persuasively rebut. Final Act. 13–14; *see KSR*, 550 U.S. at 417 (concluding “the mere application of a known technique to a piece of prior art ready for the improvement” would have been obvious). In addition, combining familiar elements of Misawa, Cheng, and Matsuki according to known methods would have been obvious to an ordinarily skilled artisan, yielding no more than predictable results. *See KSR*, 550 U.S. at 416. We find these reasons more than adequate to support the Examiner’s proposed combination.

Lastly, Appellants argue that even if there were a reason to combine Misawa and Cheng, the purpose of both Misawa and Cheng would be frustrated. App. Br. 23. As an initial matter, it is well settled that mere attorney arguments and conclusory statements, which are unsupported by

factual evidence, are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997). We are unpersuaded of Examiner error because, at least, Appellants do not provide sufficient persuasive evidence or explanation as to how the purposes of Misawa and Cheng would be frustrated if combined. *See In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011). Moreover, contrary to Appellants' arguments, one of ordinary skill in the art would understand that combining Misawa's flexible display unit with Cheng's removability technique would not frustrate the references' purposes, but instead would provide complementary functionality. *See, e.g.*, Misawa ¶ 8; Cheng ¶ 4.

For the reasons discussed *supra*, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner's rejection of claim 1. For similar reasons, we sustain the Examiner's rejections of independent claims 13 and 22, which recite similar limitations and were not argued separately. *See App. Br. 20–24; Reply Br. 19–23*. For similar reasons, we also sustain dependent claims 2–12 and 14–20, which depend therefrom and were not argued separately. *See App. Br. 20–24; Reply Br. 19–23*.

DECISION

We affirm the Examiner's decision rejecting claim 21 under 35 U.S.C. § 102(a)(1).

We affirm the Examiner's decision rejecting claims 1–20 and 22 under 35 U.S.C. § 103.

Appeal 2017-009631
Application 14/547,734

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. § 41.50(f)(2016).

AFFIRMED