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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERIC W. LINDEKUGEL, CHARLES L. FARNWORTH, and
JOHN L. LOEWEN

Appeal 2019-000943
Application 14/190,591
Technology Center 3700

Before JENNIFER D. BAHR, CHARLES N. GREENHUT, and
JEREMY M. PLENZLER, *Administrative Patent Judges*.

PLENZLER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 19–23.² Non-Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM and enter a NEW GROUND OF REJECTION in accordance with 37 C.F.R. § 41.50(b).

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as C.R. Bard, Inc. Appeal Br. 4.

² Claims 1–18 are withdrawn. Appeal Br. 4.

THE CLAIMED SUBJECT MATTER

Claim 19 is the sole independent claim on appeal. Claims 20–23 depend from claim 19. Claim 19 is reproduced below.

19. A cover for an ultrasound probe, comprising:
a cap that removably attaches to a head portion of the ultrasound probe; and
a compliant coupling component included with the cap and capable of ultrasonically coupling the head portion to a skin surface of a patient, the coupling component including a hot-melt material.

REJECTIONS

References	Basis	Claims
Suzuki ³ and Ho ⁴	§ 103(a)	19 and 21
Suzuki, Ho, and Larson ⁵	§ 103(a)	22
Suzuki, Ho, and Machida ⁶	§ 103(a)	20 and 23
Machida and Ho	§ 103(a)	19–21 ⁷ and 23
Machida, Ho, and Larson	§ 103(a)	22

³ US 4,787,070, issued Nov. 22, 1988.

⁴ US 2010/0179429 A1, published July 5, 2010.

⁵ US 6,039,694, issued Mar. 21, 2000.

⁶ US 4,867,169, issued Sept. 19, 1989.

⁷ Although claim 21 is not referenced in the rejection heading on page 6 of the Non-Final Action, it is addressed in the body of the rejection on that same page.

OPINION

Suzuki Grounds

Appellant presents arguments with respect to claim 19, and relies on those arguments identifying Examiner error with respect to claims 20–23. Appeal Br. 7–16.

The Examiner finds that Suzuki teaches the subject matter of claim 19, other than “the coupling component . . . includ[ing] a hot melt material.” Non-Final Act. 4. More specifically, the Examiner finds that “Suzuki teaches that the coupling component could include silicon[e] rubber, which is a compliant material (Col[.] 3, lines 62-68)” and that “Ho teaches an ultrasound probe which uses a fabric sheet as the coupling component in order to facilitate positional stability of the probe [0021],” which “could be made of polyester, which is a hot melt material [0023].” *Id.* (emphasis omitted). The Examiner reasons that “[i]t would have been obvious . . . to modify the ultrasound probe cap of Suzuki to include a polyester material as a part of the coupling component . . . as taught by Ho, in order to facilitate the positional stability of the probe.” *Id.* at 5.

Appellant presents three arguments in response to the Examiner’s rejection:

- (1) Suzuki **teaches away** from a compliant coupling component for the cover;
- (2) **the rationale** provided in the Non-Final Office Action for modifying the asserted compliant coupling component of Suzuki’s coupler with Ho’s species of material **is insufficient** for establishing a *prima facie* case of obviousness;
- and (3) the manner in which Suzuki and Ho are combined is representative of **impermissible hindsight**.

Appeal Br. 9. With respect to the alleged teaching away, Appellant contends that “Suzuki teaches conventional couplers have either flat or deformable

contact surfaces that become flat when used on flat body surfaces,” which “are problematic because they contribute to reflected images and artifacts that make image readings and diagnoses difficult.” *Id.* at 10. Appellant explains that “Suzuki’s solution to the flat or deformable contact surfaces is contact surface 3, which has a convex shape with a prescribed (i.e., defined) radius of curvature that reduces such reflected images and artifacts making image readings and diagnoses easy with Suzuki’s coupler.” *Id.* at 10–11. Appellant contends that in view of this disclosure, “Suzuki **teaches away** from compliant contact surfaces, such as the claimed compliant coupling component, due to the resulting reflected images and artifacts.” *Id.*

Regardless of whether the specific embodiment of Suzuki teaches away from modifying its coupler to have a compliant coupling component, there is no dispute that Suzuki teaches that conventional couplers have a “compliant coupling component” as required by the claims. *See* Suzuki 4:64–68 (“The conventional couplers . . . hav[e] a . . . freely deformable contact surface for contact with a surface over a target region (i.e., a human body surface).”). Indeed, as noted above, Appellant acknowledges this teaching from Suzuki.

As for the rationale to modify Suzuki’s teachings with those of Ho, we agree with the Examiner, and Appellant does not dispute, that Ho teaches improving positional stability using its polyester material. *See* Non-Final Act. 4; Appeal Br. 12–14. Accordingly, we agree that it would have been obvious to modify the conventional coupler taught by Suzuki to have Ho’s polyester fabric sheet based on the express teaching in Ho to make such a modification. *See* Ho ¶¶ 21–23. Appellant’s arguments disputing this

rationale are unpersuasive because they are based on modifying Suzuki's specific coupler design, rather than the conventional design taught in Suzuki.

Although acknowledging that Ho teaches using a polyester fabric sheet, Appellant disputes that this supports the Examiner's finding that Ho teaches a "hot-melt material," because "polyester need not be a hot-melt material." Appeal Br. 15. The preponderance of the evidence supports the Examiner's finding that by teaching use of polyester, Ho teaches a "hot-melt material." As Appellant acknowledges, "polyester is disclosed in association with a hot-melt material in paragraph [000114] of Appellant's specification." *Id.* Indeed, Appellant's Specification expressly states that "[t]he spacer component 118 in the present embodiment includes [a] . . . non-adhesive hot-melt material" and "polyesters . . . are non-limiting examples of materials the spacer component 118 may include, in one embodiment." Spec. ¶ 114. Although expressing disagreement with the Examiner's finding, Appellant provides no evidence in support of its position, instead relying solely on attorney argument.

For the reasons set forth above, we sustain the Examiner's decision to reject claims 19–23. Because we rely on findings related to the conventional couplers discussed in Suzuki, which differ slightly from the findings made by the Examiner, we designate the affirmance of the rejections as new grounds of rejection under 37 C.F.R. § 41.50(b).

Machida Grounds

The Examiner separately rejects claims 19–23 based on various combinations of Machida and Ho, as well as Machida, Ho, and Larson. Non-Final Act. 6–7. With respect to the rejections based, in part, on Machida, Appellant disputes only whether the Examiner has provided

sufficient rationale for the proposed modification to Machida's teachings in view of the teachings of Ho.⁸ Appeal Br. 17–20.

The Examiner proposes “modify[ing] the ultrasound probe cap of Machida to include a polyester material as a part of the coupling component (by layering the polyester component over the coupling component), as taught by Ho, in order to facilitate the positional stability of the probe, as recognized by Ho [0021].” Non-Final Act. 6.

Appellant contends that “positional stability is not a problem for Machida's ultrasound-probe attachment 20.” Appeal Br. 17. Appellant contends that, rather, “the tapering of the tapered rectilinear member 35 of Machida's ultrasound-probe attachment 20 *desirably* provides reduced frictional force between the contact membrane 36 and a skin surface.” *Id.* at 19. The Examiner, however, explains that “[t]he Machida reference would be improved with increased positional stability, as it would improve the probe head when [used] for pivot scanning.” Ans. 10. Although Appellant contends that “the tapered rectilinear member 35 still provides satisfactory contact between the contact membrane 36 and a skin surface for pivot scanning” (Appeal Br. 19), that does not identify Examiner error. Specifically, we are apprised of no reason why one skilled in the art would not have found it useful to have increased positional stability, as taught by Ho, when performing the pivot scanning identified by the Examiner in Machida.

⁸ Appellant provides no argument with respect to whether Ho teaches a “hot-melt material” in this ground. To the extent that the argument related to similar teachings in the Suzuki ground is implied here, as well, it is unpersuasive for the reasons set forth above.

For at least these reasons, we are not apprised of Examiner error in the rejections based on Machida.

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed	New Ground
19 and 21	§ 103(a) Suzuki and Ho		19 and 21	19 and 21
22	§ 103(a) Suzuki, Ho, and Larson		22	22
20 and 23	§ 103(a) Suzuki, Ho, and Machida		20 and 23	20 and 23
19–21 and 23	§ 103(a) Machida and Ho	19–21 and 23		
22	§ 103(a) Machida, Ho, and Larson	22		
Overall Outcome		19–23		19–23

Pursuant to our authority under 37 C.F.R. § 41.50(b), we enter a new ground of rejection of claims 19–23 under 35 U.S.C. § 103(a).

Section 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

Section 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner.

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same Record.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

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

AFFIRMED; 37 C.F.R. § 41.50(b)