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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL ROSENBAUER

Appeal 2015-002693
Application 12/863,997
Technology Center 1700

Before N. WHITNEY WILSON, WESLEY B. DERRICK, and JEFFREY R. SNAY, *Administrative Patent Judges*.

WILSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's June 26, 2014 decision finally rejecting claims 33–39 and 41–54 ("Final Act"). We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We affirm.

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[1] In the Appeal Brief, Appellant identifies the Real Party in Interest as BSH Bosch und Siemens Hausgeräte GmbH. (Appeal Br. 3). The assignment records at the U.S. Patent and Trademark suggest that the current owner of the application is BSH Hausgeräte GmbH (Reel/Frame 036000/0848).

CLAIMED SUBJECT MATTER

According to Appellant, modern dishwashers suffer from problems in that low temperature dishwasher detergents cannot be effectively used because the dishwashers heat the washing liquor to temperatures higher than necessary for use with low-temperature dishwashing detergents (Spec. 5). Appellant aims to address this problem by providing a dishwasher which provides at least two washing programs and which controls the washing and rinsing temperatures in specific ways. Details of the claimed invention are set forth in independent claims 33, 47, and 49 which are reproduced below from the Claims Appendix of the Appeal Brief:

> 33. A dishwasher, comprising:
>
> a controller adapted to execute at least two washing programs for washing items to be washed, each of the at least two washing programs having at least one washing step and at least one rinse aid step; and
>
> a heater to heat rinse aid fluid, the heater being controlled by the controller to heat the rinse aid fluid to an essentially identical maximum temperature in each of the rinse aid steps of the at least two washing programs, wherein:
>
> the dishwasher limits, in at least one washing program during the at least one washing step, a washing liquor temperature essentially to maximum 45°C, and wherein the dishwasher sets, in the rinse aid step, a rinse aid fluid temperature at least temporarily to at least 55°C.
>
> 47. A dishwasher, comprising:
>
> a controller adapted to execute at least two washing programs for washing items to be washed, each of the at least two washing programs having at least one washing step and at least one rinse aid step; and
>
> a heater to heat rinse aid fluid, the heater being controlled by the controller to heat the rinse aid fluid to an essentially

identical maximum temperature in each of the rinse aid steps of the at least two washing programs, wherein

one of the washing programs is configured as a low-temperature program,

a further washing program is configured as a normal program,

the dishwasher heats, in the at least one washing step of the low-temperature program, washing liquor to a maximum washing liquor temperature that is lower than a maximum washing liquor temperature to which the dishwasher heats the washing liquor in the at least one washing step of the normal program, and

a circulation period of the at least one washing step of the low-temperature program is at least as long as a circulation period of the at least one washing step of the normal program.

49. A dishwasher, comprising:

a controller adapted to execute at least two washing programs for washing items to be washed, each of the at least two washing programs having at least one washing step and at least one rinse aid step; and

a heater to heat rinse aid fluid, the heater being controlled by the controller to heat the rinse aid fluid to an essentially identical maximum temperature in each of the rinse aid steps of the at least two washing programs, wherein:

one of the washing programs is configured as an intensive program, the dishwasher heats, in the at least one washing step of the intensive program, a washing liquor to a maximum washing liquor temperature that is higher than the maximum washing liquor temperature to which the dishwasher heats the washing liquor in the at least one washing step of the normal program, and

a circulation period of the at least one washing step of the low-temperature program is at least as long as a circulation period of the at least one washing step of the intensive program.

REJECTIONS[2]

I. Claims 33–35, 37, 46, 47, and 49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Stickel[3] in view of Cho.[4]

II. Claims 33–39, 41–46, 48, and 50–54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rieger[5] in view of Stickel. Because Rieger is in German, the Examiner makes reference to Fauth,[6] which is an English-language counterpart to Rieger. We will refer to Fauth in this opinion.

DISCUSSION

Appellant focuses his arguments on independent claims 33, 47, and 49. Accordingly, our discussion will also focus on these claims.

Claim 33. Appellant makes three arguments seeking reversal of the rejections of claim 33: (1) claim 33 would not have been obvious in view of Stickel because 53°C exceeds "essentially to maximum 45°C" (Appeal Br. 7–8); (2) Fauth teaches away from "a washing liquor temperature essentially to maximum 45°C" (Appeal Br. 8–9); and (3) Appellant has established the

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[2] Claims 35 and 36 were subject to a rejection under 35 U.S.C. § 112, ¶ 2 (Final Act. 2–3), but this rejection was withdrawn by the Examiner (Ans. 17) and, therefore, is not before us. We note that in claim 49, both "normal program" and "low temperature program" appear to lack antecedent basis.
[3] Stickel et al., DE 196 51 347 A1, published June 25, 1998. Stickel is in German. Appellant and the Examiner appear to rely on an English translation from LexisNexis TotalPatent, which is of record.
[4] Hardy et al., U.S. Patent No. 4,285,846, issued August 25, 1981.
[5] Rieger et al., WO 2007/074022 A1, published July 5, 2007.
[6] Fauth et al., U.S. Patent Pub. 2009/0038644 A1, published February 12, 2009.

criticality of the "a washing liquor temperature essentially to maximum 45°C" limitation (Appeal Br. 9).

The Examiner finds that Stickel teaches that in its "weaker" program the controller is configured to have the washing fluid heated to a maximum of 53°C in the washing step, which the Examiner states is "considered to be in the range of applicant's essentially to maximum 45°C" (Final Act. 4, emphasis in original). However, upon review of the claims and the Specification, we determine that 53°C does not fall within the claimed limitation of "essentially to a maximum 45°C."

It is well established that "the PTO must give claims their broadest reasonable construction consistent with the specification . . . Therefore, we look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation." *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007). In this instance, the Specification states that the washing liquor temperature can exceed the maximum washing liquor "for example by 10%" (Spec. ¶ 13). Thus, we construe the term "essentially to maximum to 45°C" to mean up to 45°C + 4.5°, or about 49.5°. We determine that 53°C does not fall within the limitation.

The Examiner does not specifically dispute that a "maximum 45°C" is different from Stickel's 53°C maximum, but finds that, using the reasoning of *Titanium Metals Corp. v. Banner,* 778 F.2d 775, 783 (Fed. Cir. 1985), the two values are close enough that one skilled in the art would have expected them to have the same properties. (Ans. 20–21). The Examiner finds that in the dishwashing art, a difference of a few degrees in the washing temperature only accounts for a minor efficiency difference and, therefore, the difference between 49.5°C and 53°C would have been an obvious

difference. Appellant does not directly dispute this finding, suggesting only that it is not supported by adequate evidence (Reply Br. 3). However, the Examiner has explained that a difference of only a few degrees is an obvious difference in the field at issue (dishwashers) because it would only account for a minor efficiency difference in the functioning of the dishwasher. Based on the evidence of record and using the preponderance of the evidence standard, we determine that Appellant has not demonstrated reversible error in the Examiner's determination that the claimed temperature would have been obvious in view of the disclosures of Stickel.

Appellant also argues that Fauth teaches away from a maximum washing liquor temperature of essentially 45°C because it teaches that higher washing temperatures can achieve similar cleaning results in shorter cleaning cycles, and the only temperature disclosed is 50°C, which is above the claimed maximum (Appeal Br. 8–9). However, as explained by the Examiner (Ans. 22), Fauth teaches that the temperature of the washing liquor is a result-effective variable because it affects both cleaning performance and the energy needed to perform the cleaning. Thus, by raising and/or lowering the cleaning temperature, there is a tradeoff in time/money as the temperature changes. Accordingly, as determined by the Examiner, it would have been obvious to modify the apparatus of Fauth by optimizing the washing liquid temperature of the non-rapid washing program.

Finally, in an effort to overcome the prima facie case of obviousness of claim 33, Appellant argues that the Specification demonstrates the criticality of "a washing liquor temperature essentially to maximum 45°C" (Appeal Br. 9). The burden of showing unexpected results, or criticality of a

particular item, rests on the person who asserts them by establishing that the difference between the claimed invention and the closest prior art was an unexpected difference. *See In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972). Further, the showing of unexpected results must be commensurate in scope with the claims. *See In re Peterson*, 315 F.3d 1325, 1330–31 (Fed. Cir. 2003). In this instance, Appellant relies on statements in the Specification which suggest that if a washing liquor temperature is too high, modern dishwasher detergents will not function as intended (Appeal Br. 9). This suggestion, according to Appellant is sufficient to show the criticality of the claimed 45°C maximum. We do not agree. A persuasive showing of the criticality of that temperature would require, *inter alia*, evidence pertinent to temperatures just outside the claimed range. Without such evidence, Appellant has not overcome the prima facie case of obviousness established by the Examiner.

Claims 47 and 49. Appellant relies on the limitation in claim 47 that "a circulation period of the at least one washing step of the low-temperature program is at least as long as a circulation period of the at least one washing step of the normal program." Claim 49 has a comparable limitation.

The Examiner finds that Stickel teaches a low temperature program of 12 minutes, and normal temperature program of 15 minutes (Final Act. 5–6). The Examiner further finds that it is well known in the art that the circulation time of a washing step is a result-effective variable because it affects both the cleaning performance of the washing step and the amount of time that a user has to wait for a washing step to finish (*id.*; Ans. 17–19). The Examiner concludes that it would have been obvious to modify the circulation periods of Stickel's washing programs so that they met the

claimed limitation (*id*). In response, Appellant's principal argument is that it is improper to use an optimization argument because the claims do not specifically cite ranges (Appeal Br. 6–7).

However, as explained in detail by the Examiner (Ans. 17–19) and not disputed by Appellant, the circulation time of a washing step is a result-effective variable. Although, as noted by Appellant, claims 47 and 49 provide a relational value between the circulation periods of a low-temperature program and a circulation period of a normal program, the Examiner has explained why a person of skill in the art would have optimized those times to arrive at the claimed relationship. Appellant has not persuasively refuted this explanation, for example, by showing the claimed relationship provides unexpected benefits/results.

CONCLUSION

We AFFIRM the rejection of claims 33–35, 37, 46, 47, and 49 under 35 U.S.C. § 103(a) as being unpatentable over Stickel in view of Cho.

We AFFIRM the rejection of claims 33–39, 41–46, 48, and 50–54 under 35 U.S.C. § 103(a) as being unpatentable over Rieger in view of Stickel.

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. § 1.136(a)(1) (iv).

AFFIRMED