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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JUHA-PEKKA NIKKARILA

Appeal 2019-004330
Application 14/409,674
Technology Center 3700

Before CHARLES N. GREENHUT, MICHAEL L. HOELTER, and
ANNETTE R. REIMERS, *Administrative Patent Judges*.

GREENHUT, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3, 5–8, 13, and 16–21. *See* Final Act. 1. Claims 2, 4, and 9 have been canceled and claims 10–12, 14, and 15 have been withdrawn from consideration. *See* Appeal Br. 1; Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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 Marioff Corporation Oy. Appeal Br. 1.

STATEMENT OF THE CASE

The claims are directed to a sprinkler system with a detection unit that determines the presence of liquid in the pipe. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A system comprising:
 - a gas exhaust line;
 - a valve coupling the gas exhaust line and a pipe;
 - a control unit configured to generate a command to open and close the valve, the control unit opening the valve to vent gas from the pipe and closing the valve; and
 - a detection unit coupled to the gas exhaust line and configured to determine that liquid is in the pipe;wherein the detection unit is configured to transmit a message to the control unit responsive to determining that liquid is in the pipe, and wherein the valve is configured to receive from the control unit a command to close based on the message.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Bodemann	US 2010/0263882 A1	Oct. 21, 2010
Burkhart	US 2011/0094758 A1	Apr. 28, 2011
Kochelek	US 2015/0034170 A1	Feb. 5, 2015

REJECTIONS²

Claims 1, 3, 5–8, 13, and 16–21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Final Act. 4.

² The Examiner withdrew the rejection of claims 17–21 under 35 U.S.C. § 103(a) as being unpatentable over Bodemann and Burkhart. Ans. 3.

Appeal 2019-004330
Application 14/409,674

Claims 1, 3, 5–8, 13, and 16–21 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Final Act. 5.

Claims 1, 3, 5, 8, and 13 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Bodemann and Burkhart. Final Act. 6

Claims 6, 7, and 16 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Bodemann, Burkhart, and Kochelek. Final Act. 8.

OPINION

Indefiniteness

We begin with the indefiniteness rejection because one is not in a position to determine whether a claim complies with the written description requirement under the first paragraph of 35 U.S.C. § 112 until the metes and bounds of that claim are determined under the second paragraph of this section of the statute. *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971) (“analysis [] should begin with the determination of whether the claims satisfy the requirements of the second paragraph. It may appear awkward at first to consider the two paragraphs [of § 112] in inverse order but . . . the claims must be analyzed first in order to determine exactly what subject matter they encompass”).

With respect to the first prong of this analysis, a claim element that does not include the term “means” or “step” triggers a rebuttable presumption that 35 U.S.C. 112, sixth paragraph, does not apply. *See* MPEP 2181(I). Further, MPEP section 2181(I)(A) states that “[t]he following is a list of non-structural generic placeholders that may invoke 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, paragraph 6: ‘mechanism for,’ ‘module for,’ ‘device for,’ ‘unit for,’ . . .” (emphasis added). Claim 1 recites

Appeal 2019-004330
Application 14/409,674

“detection unit,” which is substantially similar to “unit for detection” as in the “unit for” placeholder above. Appellant does not dispute the Examiner’s determination that claim 1 recites mean-plus-function language. Ans. 3. Instead, Appellant contends that “[t]he specification clearly supports a detection unit” Appeal Br. 5–6 (citing Spec. ¶¶ 27, 38; claim 3). Paragraph 38 discloses that “detection unit 15 may determine that fluid has entered pipe 2 based on a pressure measurement” or “a conductivity measurement.” The Examiner has not established that a person of ordinary skill in the art would not understand what is encompassed by a pressure measurement device, a conductivity measurement device, or the known equivalents thereof. Thus, we do not agree with the Examiner that the Specification fails to disclose sufficient corresponding structure for the means-plus-function language of claim 1 to pass muster under 35 U.S.C. § 112, second paragraph. *See* Final Act. 2–5. “[B]readth is not indefiniteness.” *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970); MPEP § 2173.04 The Examiner did not explain why claim 1 does not define the metes and bounds of the claimed invention, other than determining that claim 1 recites means plus function language and thereafter incorrectly finding that the Specification does not disclose corresponding structure (Final Act. 2–5).

Accordingly, we reverse the Examiner’s rejection of claims 1, 3, 5–8, 13, and 16–21 under 35 U.S.C. § 112, second paragraph, as being indefinite.

Written Description

As discussed above, after determining that claim 1 invokes 35 U.S.C. § 112, sixth paragraph, the Examiner incorrectly determined that the Specification does not disclose corresponding structure. Final Act. 2–5. With

Appeal 2019-004330
Application 14/409,674

respect to the written description requirement, “the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). *Ariad* points out that the right to exclude must be commensurate with the applicant-inventor’s contribution to the art. This is true even when 35 U.S.C. § 112, sixth paragraph, is invoked. *See* MPEP § 2181(IV) & 2163.03(VI). Thus, the specification must demonstrate that the applicant has a right to employ generic terminology such as “detection unit.”

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species and a “representative number of species” means that the species which are adequately described are representative of the entire genus. *See* MPEP § 2163(I)(A)(3)(a)(ii). On the other hand, there may be situations where one species adequately supports a genus. *Id.* Further, satisfactory disclosure of a “representative number” depends on whether one of skill in the art would recognize that the applicant was in possession of the necessary common attributes or features possessed by the members of the genus in view of the species disclosed and the predictability of the art. *Id.* As noted above, Appellant discloses a detection unit based on a pressure measurement and a detection unit based on a conductivity measurement. *See* Spec. ¶ 38. The Examiner does not explain why these two species are not a representative number of species for the recited detection unit. The Examiner does not present analysis as to why the art is sufficiently unpredictable that one could not envisage the members of the genus of detection units or explain why one skilled in the art would fail to understand the common attributes or features

associated with such detection units. Upon reading the specification, one skilled in the art would understand that it is unimportant in this particular context precisely *how* liquid is determined in the pipe. Because the Examiner has failed to present sufficient evidence or reasoning to establish why persons skilled in the art would not recognize in the original disclosure a description of the invention defined by the claims, the Examiner's rejection under 35 U.S.C. § 112, first paragraph cannot be sustained. *See In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976).

For these reasons, we reverse the Examiner's rejection of claims 1, 3, 5–8, 13, and 16–21 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Obviousness

Independent claim 1 requires, among other things, “a detection unit coupled to the gas exhaust line and configured to determine that liquid is in the pipe” “wherein the detection unit is configured to transmit a message to the control unit responsive to determining that liquid is in the pipe, and wherein the valve is configured to receive from the control unit a command to close based on the message.” We first note the Examiner's finding that Bodemann's analyzer 15, corresponding to the recited “detection unit,” is “coupled to the gas exhaust to determine liquid is in the pipe” and “is configured to transmit a message to the control unit responsive to determining that liquid is in the pipe,” appears to conflict with the Examiner's acknowledgement that “Bodemann fails to specifically teach that the detection unit is configured to determine that liquid is in the pipe.” Final Act. 6. Nonetheless, the Examiner found that Bodemann's analyzer “would be capable of sensing exhaust components” and Burkhardt teaches a

detection unit (valves 125, 230) “which is capable of determining liquid is in the pipe,” and concluded that it would have been obvious to modify Bodemann’s system to use the detection unit of Burkhart “since it would allow for the added feature of sensing liquid in a situation which would determine whether the system is in use or the system has failed.” Final Act. 6–7.

Appellant argues that “Bodemann does not use the presence of liquid in the pipe to determine when to close the valve 14” and “[w]hile Burkhart does disclose a valve that closes in presence of a liquid, use of such a valve in the fluid detection unit 15 of Bodemann would not have been obvious to one of ordinary skill in the art.” Appeal Br. 8.

The Examiner’s finding that Bodemann’s “purity sensor would be capable of sensing exhaust components” does not explain how Bodemann’s sensor is relevant to determining liquid is in the pipe. The Examiner’s finding that Bodemann discloses a detection unit that is capable of determining liquid is in the pipe (Final Act. 6; *see also* Ans. 6 stating that “Bodemann could even [be] read as a 102 . . . since the gas purity analyzer would be able to determine that liquid and not gas is present”) appears to be purely speculative. The Examiner did not provide sufficient evidence to demonstrate, nor technical reasoning to explain why, Bodemann’s analyzer is capable of detecting liquid in the pipe. “[L]egal determinations of obviousness, as with such determinations generally, should be based on evidence rather than on mere speculation or conjecture.” *Alza Corp. v. Mylan Laboratories, Inc.*, 464 F. 3d 1286, 1290 (Fed. Cir. 2006).

In the Answer, the Examiner reasons that adding a sensor allows “testing for different parameters.” Ans. 5–6. Even so, this statement does not explain how adding a sensor or, use and failure of the system (as relied upon

in the Final Action), are related to one another or brought about by the Examiner's proposed modification involving liquid detecting and valve operation. *See* Final Act. 7. Our reviewing court has stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). As such, a preponderance of the evidence does not support the Examiner's determination that the proposed modification would have been obvious.

For the foregoing reasons, we do not sustain the Examiner's obviousness rejections.

CONCLUSION

The Examiner's rejections are reversed.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3, 5-8, 13, 16-21	112, second paragraph	Indefiniteness		1, 3, 5-8, 13, 16-21
1, 3, 5-8, 13, 16-21	112, first paragraph	Written Description		1, 3, 5-8, 13, 16-21
1, 3, 5, 8, 13	103(a)	Bodemann, Burkhart		1, 3, 5, 8, 13
6, 7, 16	103(a)	Bodemann, Burkhart, Kochelek		6, 7, 16
Overall Outcome				1, 3, 5-8, 13, 16-21

Appeal 2019-004330
Application 14/409,674

REVERSED