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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEVIN R. DOWNING and IAN S. TRIBICK

Appeal 2019-004434
Application 14/250,553
Technology Center 2800

Before KAREN M. HASTINGS, CHRISTOPHER C. KENNEDY, and
DEBRA L. DENNETT, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3–6, 9–14, 19–20, and 22–27. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies Materion Corporation as the real party in interest (Appeal Br. 1).

CLAIMED SUBJECT MATTER

The claimed subject matter relates to “optical filters” and the “spectrographic arts” (Spec., para. 2). Claim 26, reproduced below with emphasis, is illustrative of the claimed subject matter:

26. An apparatus comprising:

an optical filter array comprising optical filter elements, each optical filter element having a parallelogram shaped cross section with parallel top and bottom surfaces and parallel slanted sidewalls, each optical filter element including:

a substrate having a parallelogram-shaped cross-section with parallel light entrance and light exit surfaces and parallel slanted sidewalls slanted at an angle, and

an interference filter disposed on one or both of the light entrance surface of the parallelogram-shaped substrate and the light exit surface of the substrate having a parallelogram shaped cross section;

an entrance aperture disposed on the parallel light entrance surfaces of the optical filter array and having openings aligned with the light entrance surfaces of the optical filter elements that allows for the passage of light; and

an exit aperture disposed on the parallel light exit surfaces of the optical filter array and having openings aligned with the light exit surfaces of the optical filter elements that allows for the passage of light;

wherein each interference filter is disposed only on a corresponding one substrate having a parallelogram shaped cross section of the optical filter array, and wherein the optical filter elements are bonded together at the parallel slanted sidewalls.

Independent claims 1, 19, and 26 all recite an apparatus with an optical filter array, an entrance aperture disposed thereon, and an exit aperture disposed thereon (Appeal Br. 4; Appeal Br. Claims Appx. 14–18).

Claim 1 additionally recites an interference filter layer stack with two or more materials, and where the exit aperture openings are shifted relative to the entrance aperture openings, among other things. *Id.* Claim 19 additionally recites an adhesive between optical filter elements. *Id.*

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Fujimura	US 2014/0133862 A1	May 15, 2014
Furusawa	US 2006/0198576 A1	Sep. 7, 2006
Hashizume	US 6,394,607 B1	May 28, 2002

REJECTIONS

Claims 1, 3–6, 9–14, 19–20, and 22–27² are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujimura and Furusawa.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujimura and Furusawa and further in view of Hashizume.

OPINION

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning

² The Final Office Action rejects claims 1, 3–14, and 19–27. Final Act. 1. In a Response After Final Rejection dated Sept. 14, 2018 (entered by the Examiner on the same date), Appellant amended claim 19 to incorporate the limitations of claim 21, and canceled claims 7, 8, and 21, leaving claims 1, 3–6, 9–14, 19, 20, and 22–27 pending.

with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *quoted with approval in KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Upon consideration of the evidence of record and each of Appellant’s contentions as set forth in the Appeal Brief, as well as the Reply Brief, we conclude that the preponderance of the evidence supports Appellant’s position that the Examiner has not met the burden in this case for substantially the same reasons as set forth by Appellant in the Briefs. Accordingly, we reverse the Examiner’s § 103 rejections of all the claims on appeal.

We add the following primarily for emphasis.

“[D]uring examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.” *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1256 (Fed. Cir. 2007) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). *See also In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (The scope of the claims in patent applications is not determined solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art.); *Cf. Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). (“[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” (citation omitted)).

We agree with Appellant that the broadest reasonable interpretation of “an entrance aperture disposed on the parallel light entrance surfaces”

having openings that allow for the passage of light and “an exit aperture disposed on the parallel light exit surfaces” having openings that allow for the passage of light as recited in claim 26 and consistent with the Specification does not encompass the unchipped surface areas of the optical filter’s base substrate of Fujimura, as proposed by the Examiner (Final Act. 3–12; Appeal Br. 7–10; Ans. 6–10; Reply Br. 7–12).

As pointed out by Appellant, the Examiner construes Fujimura’s effective area Y through which beam S2 travels as an aperture, but this effective area is not “disposed on” the parallel light entrance surface, but rather is integral with the base substrate 21 and denotes an unchipped area of the substrate surface (Appeal Br. 6–9; Reply Br. 10–11, referring to Figure 2B of Fujimura). Further, Appellant contends that because the effective area Y is an area of the solid base substrate 21 it cannot be described as “having openings” as required by the recited entrance or exit apertures in claim 26.
Id.

The Examiner uses the plain meaning of the word “aperture” as “opening or open space” and finds this usage ambiguous (Ans. 6–9). While the Examiner contends that he is giving the claim term “aperture” the broadest reasonable interpretation (Ans. 6–9), this plain usage results in a contradictory arrangement of elements — an open space (an absence of material) is then “disposed on” a surface (Ans. 8 (the Examiner contends that “‘aperture’ as disclosed is ambiguous”)), the open space itself “having openings” (Appeal Br. 18; Claims Appx.).

We are mindful that:

[t]he correct inquiry in giving a claim term its broadest reasonable interpretation in light of the specification is not

whether the specification proscribes or precludes some broad reading of the claim term adopted by the examiner. And it is not simply an interpretation that is not inconsistent with the specification. It is an interpretation that corresponds with what and how the inventor describes his invention in the specification, i.e. an interpretation that is “consistent with the specification.”

In re Smith Int’l, Inc., 871 F.3d 1375, 1382–83 (Fed. Cir. 2017) (citation omitted); *see also In re Baker Hughes, Inc.*, 215 F.3d 1297, 1303 (Fed. Cir. 2000) (the PTO cannot adopt a construction that is “beyond that which was reasonable in light of the totality of the written description” in the Specification). Consequently, the Examiner’s position that an aperture can be broadly construed as an opening so as to encompass the effective area of Fujimura’s substrate is an unreasonably broad interpretation when considered in light of the Specification and the ambiguity that interpretation introduces. This interpretation clearly does not correspond “with what and how the inventor describes his invention” (*Smith*, 871 F.3d at 1383), resulting in an interpretation inconsistent with the Specification.

Notably, the Specification discloses that the entrance and exit apertures are elements separate from the surfaces of the filter array (Appeal Br. 5–6). However, the Examiner relies upon the base substrate 21 of the Fujimura reference as both the claimed optical filter element’s substrate, the entrance aperture disposed on the light entrance surfaces, and the exit aperture disposed on the light exit surfaces (Final Act. 10–11). There is nothing in the claim language or in the Specification to indicate that these elements can be the same structure. On the contrary, “[w]here a claim lists elements separately, ‘the clear implication of the claim language’ is that

those elements are ‘distinct component[s]’ of the patented invention.” *Becton, Dickinson and Company v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (citing *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed. Cir. 1996)). The Examiner further erred by relying on the single element 21 of Fujimura to teach multiple elements recited in the claim.

Therefore, we agree with Appellant that it is unreasonable to rely upon the areas on either side of the base substrate of Fujimura to teach an entrance aperture and an exit aperture disposed on respective entrance or exit surfaces, each of these apertures having openings. We agree with Appellant that the claimed entrance and exit apertures must be interpreted to be separate elements disposed on separate surfaces as claimed and described in the Specification. The Examiner’s reliance on the base substrate 21 in Fujimura’s Figure 2B to teach or suggest these elements is unfounded.

The Examiner does not proffer sufficient reasoning or rely upon any other reference to cure these deficiencies. Accordingly, we reverse the rejection of claims 1, 3–6, 9–14, 19–20, and 22–27, which all rely upon the Examiner’s flawed interpretation of the claim language.

CONCLUSION

The rejection of claims 1, 3–6, 9–14, 19–20, and 22–27 under 35 U.S.C. § 103(a) is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3–6, 9–14, 19, 22–27	103	Fujimura, Furusawa		1, 3–6, 9–14, 19, 22–27
20	103	Fujimura, Furusawa, Hashizume		20
Overall Outcome				1, 3–6, 9–14, 19–20, 22–27

REVERSED