



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/507,981	08/10/2012	Eric L. Hanson	Aculon-1607	3625
36787	7590	10/01/2019	EXAMINER	
BLYNN L. SHIDELER THE BLK LAW GROUP 3500 BROKKTREE ROAD SUITE 200 WEXFORD, PA 15090			PATTERSON, MARC A	
			ART UNIT	PAPER NUMBER
			1782	
			NOTIFICATION DATE	DELIVERY MODE
			10/01/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

blynn@BLKLawGroup.com
cbelleci@BLKLawGroup.com
patents@BLKLawGroup.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERIC L. HANSON and ERIC L. BRUNER

Appeal 2019-000951
Application 13/507,981
Technology Center 1700

Before MONTÉ T. SQUIRE, MICHAEL G. McMANUS, and
JANE E. INGLESE, *Administrative Patent Judges*.

SQUIRE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ In this Decision, we refer to the Specification filed Aug. 10, 2012 (“Spec.”); Final Office Action dated Nov. 30, 2017 (“Final Act.”); Appeal Brief filed May 30, 2018 (“Appeal Br.”); Examiner’s Answer dated Sept. 13, 2018 (“Ans.”); and Reply Brief filed Nov. 13, 2018 (“Reply Brief”).

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 19, 21, 22, 24–28, 31 and 35–37.³ We have jurisdiction under 35 U.S.C. § 6(b).

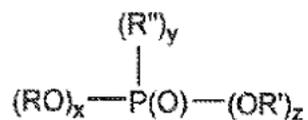
We AFFIRM.

The Claimed Subject Matter

Appellant's disclosure relates to treating the interior walls of a fluidic channel with a substance that repels the fluid from the interior walls thereby preventing interaction between the fluid and the interior walls. Spec. ¶¶ 2, 6; Abstract. Claim 19 is illustrative of the claimed subject matter on appeal and is reproduced below from the Claims Appendix to the Appeal Brief:

19. ***A fluidic channel having interior walls with a self-assembled monolayer of an organophosphorus acid*** adhered directly or through an intermediate organometallic coating to the interior walls,

wherein the organophosphorus acid is an organophosphonic acid or derivative thereof comprising a compound or a mixture of compounds of the structure:



wherein x is 0 to 1, y is 1, z is 1 to 2 and x+y+z=3; R and R'' are each independently a hydrocarbon or substituted hydrocarbon radical having a total of 1 to 30

² We use the word "Appellant" to refer to "Applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies Aculon, Inc. as the real party in interest. Appeal Br. 3.

³ Claims 1–18, 20, 23, 29, 30 and 32 are withdrawn and claims 33 and 34 are cancelled. Appeal Br. 5.

carbon atoms or an oligomeric group, and R' is lower alkyl, and

wherein the channel is configured for the in-situ adherence of the self-assembled monolayer of an organophosphorus acid through the dissolution or dispersion of the organophosphorus acid in a diluent to form a solution which is applied to the fluidic channel surface by pumping the solution through the channel.

Appeal Br. 17 (key disputed claim language italicized and bolded).

The References

The Examiner relies on the following prior art references as evidence in rejecting the claims on appeal:

Moriuchi et al. (“Moriuchi”)	US 2003/0105513 A1	June 05, 2003
Hanson	US 2008/0152930 A1	June 26, 2008
Hofer et al. (“Hofer”)	US 7,517,546 B2	Apr. 14, 2009
Kim	KR 2006088699 A	Aug. 07, 2006

The Rejections

On appeal, the Examiner maintains (Ans. 3) the following rejections:

1. Claims 19, 21, 24–28, 31 and 35–37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson in view of Hofer and Moriuchi (“Rejection 1”). Ans. 3; Final Act. 2.
2. Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hanson in view of Hofer and Moriuchi and further in view of Kim (“Rejection 2”). Ans. 5; Final Act. 4.

OPINION

Having considered the respective positions advanced by the Examiner and Appellant in light of this appeal record, we affirm the Examiner's rejections based on the fact-finding and reasoning set forth in the Answer and Final Office Action, which we adopt as our own. We add the following primarily for emphasis.

Rejection 1

Appellant argues claims 19, 21, 24–28, 31 and 35–37 as a group. Appeal Br. 10. We select independent claim 19 as representative and the remaining claims subject to the Examiner's rejection stand or fall with claim 19. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner determines that the combination of Hanson, Hofer, and Moriuchi suggests a fluidic channel satisfying all of the limitations of claim 19 and concludes the combination would have rendered the claim obvious. Ans. 3–4 (citing Hanson ¶¶ 3, 18, 22, 28; Hofer 3:35–45, 6:18–24, 10:12, 12:30–35, 15:22–30, 15:46–52, 16:10; Moriuchi ¶ 2).

Appellant argues that the Examiner's rejection of claim 19 should be reversed because the prior art

teaches away from the present claimed channel having in-situ adherence of the self-assembled monolayer of an organophosphorus acid through the dissolution or dispersion of the organophosphorus acid in a diluent to form a solution which is applied to the fluidic channel surface by pumping the solution through the channel.

Appeal Br. 10–11.

In particular, Appellant contends that, in contrast to the claimed invention, the primary reference (Hanson) expressly teaches the immersion

of the substrate to apply the subject coating. *Id.* at 11; *see also* Reply Br. 3 (asserting “the applied prior art teaches immersion which yields a distinctly different structure” and the “medical stents of the prior art are NOT configured for In-Situ application”).

Appellant further contends the application of the coating by immersion that Hanson teaches “results in a distinctly different structure with differing characteristics than the present claimed structure.” Appeal Br. 11. Appellant also contends the “channel of the present claimed invention has distinct practical advantages in formation and the resulting structural channel **is structurally distinct from the applied prior art teachings.**” *Id.* at 11; *see also id.* at 12 (asserting the secondary reference (Hofer) “teaches a titanium implant or medical stent that is also coated by immersion” and “a resulting . . . structure distinctly different from the present claimed invention”).

We do not find Appellant’s arguments persuasive of reversible error in the Examiner’s rejection. On the record before us, we find a preponderance of the evidence and sound technical reasoning support the Examiner’s analysis and determination that the combination of Hanson, Hofer, and Moriuchi suggests a fluidic channel satisfying all of the limitations of claim 19, and conclusion that the combination would have rendered the claim obvious. Hanson ¶¶ 3, 18, 22, 28; Hofer 3:35–45, 6:18–24, 10:12, 12:30–35, 15:22–30, 15:46–52, 16:10; Moriuchi ¶ 2.

Appellant’s teaching away argument (Appeal Br. 10–11) is not persuasive of reversible error in the Examiner’s rejection because it is conclusory and Appellant does not direct us to sufficient evidence in the record or provide a persuasive technical explanation to support it. *In re De*

Blauwe, 736 F.2d 699, 705 (Fed. Cir. 1984); *see also In re Fulton*, 391 F.3d 1195, 1201 (finding that there is no teaching away where the prior art’s disclosure “does not criticize, discredit, or otherwise discourage the solution claimed”). We will not read into the references a teaching away where no such language exists. *Cf. DyStar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1364 (Fed. Cir. 2006).

The fact that Hanson teaches the “organometallic composition can be applied to the substrate by conventional means such as immersion coating” (Hanson ¶ 22) or “may be dissolved or dispersed in a diluent and applied by coating (*id.* ¶ 18), without more, does not negate or teach away from the reference’s broad disclosure regarding use of the material for self-assembled films or layers on various substrates and in various applications, including for medical use (*id.* ¶ 3). *In re Susi*, 440 F.2d 442, 445-46 (CCPA 1971) (explaining that disclosure of particular preferred embodiments does not teach away from a prior art reference’s broader disclosure); *see also In re Mills*, 470 F.2d 649, 651 (CCPA 1972) (“[A] reference is not limited to the disclosure of specific working examples.”).

Appellant’s contentions that Hanson’s immersion coating “results in a distinctly different structure with differing characteristics than the present claimed structure” (Appeal Br. 11) and that Hofer “teaches a titanium implant or medical stent that is also coated by immersion” (*id.* at 12) are not persuasive of reversible error because Appellant attacks the references individually rather than the combined teachings of the prior art as a whole. One cannot show non-obviousness by attacking references individually where the rejection is based on a combination of references. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Appellant’s argument is premised on what

Appellant contends the Hanson and Hofer references each teaches individually, and not the combined teachings of the prior art references as a whole and what the combined teachings would have suggested to one of ordinary skill in the art.

As the Examiner finds (Ans. 3), Hanson is relied upon in the rejection for disclosing a self-assembled monolayer of an organophosphorus acid having the claimed formula and its use as a self-assembled layer for coating various substrates, including titanium implants (Hanson ¶¶ 3, 22, 28); while Hofer is relied upon in the rejection for disclosing a substrate comprising a titanium implant, which is a stent having a coating of organophosphorus acid as a self-assembled monolayer (Hofer 6:18–24, 10:12, 12:30–35, 15:46–52, 16:10). As the Examiner further finds (Ans. 4), Moriuchi discloses that stents are tubular appliances implanted in blood vessels (Moriuchi, Abstract, ¶ 2), which corresponds to the fluidic channel recitation of the claim.

Appellant’s arguments do not reveal reversible error in the Examiner’s factual findings or analysis in this regard. Appellant’s repeated assertions regarding the prior art channel being structurally distinct from and resulting in a distinctly different structure than the claimed invention (Appeal Br. 11–12; Reply Br. 1–3) are not persuasive of reversible error because they are conclusory and Appellant does not provide an adequate technical explanation or direct us to persuasive evidence in the record to support them. *De Blauwe*, 736 F.2d at 705.

Appellant’s contention that the “channel of the present claimed invention has distinct practical advantages in formation and the resulting structural channel” (Appeal Br. 11) is equally unpersuasive because it, too, is conclusory and the fact that Appellant may have “recognized another

advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the difference would otherwise [have been] obvious.” *Ex parte Obiaya*, 227 USPQ 58, 60 (BPAI 1985).

Moreover, as the Examiner finds and explains at pages 4 and 6–7 of the Answer, Appellant’s arguments are misplaced because the claims require that the “channel is configured for the in-situ adherence of the self-assembled monolayer,” which defines the capability of the channel. Appellant, however, does not identify or direct us to persuasive evidence that the fluid channel, as suggested by the prior art, would not have that same capability or be capable of performing the claimed functional limitation, i.e., in-situ adherence of the self-assembled monolayer. Indeed, it is well-settled that the patentability of an apparatus claim depends on the claimed structure, not on the use or purpose of that structure, *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002), or the function or result of that structure, *In re Danly*, 263 F.2d 844, 848 (CCPA 1959).

On the record before us, we find a preponderance of the evidence supports the Examiner’s finding (Ans. 4, 6–7) that the channel, as suggested by the prior art, would have been capable of having a solution pumped through it and thus, depending on the fluid, the in-situ adherence of a self-assembled monolayer on the interior walls. *See* Hofer 16:10; Moriuchi ¶ 2.

Accordingly, we affirm the Examiner’s rejection of claims 19, 21, 24–28, 31 and 35–37 under 35 U.S.C. § 103(a) as obvious over the combination of Hanson, Hofer, and Moriuchi.

Rejection 2

Claim 22 depends from claim 21 and recites “wherein fluidic channel is a dispensing device of a printing head of an inkjet printer.” Appeal Br. 18 (Claims Appendix). The Examiner determines that the combination of Hanson, Hofer, Moriuchi, and Kim suggests a fluidic channel satisfying all of the limitations of claim 22 and concludes the combination would have rendered the claim obvious. Ans. 5–6.

Appellant contends the Examiner’s rejection should be reversed because the “Kim publication essentially only merely discloses that inkjet heads are known” and “[t]here is nothing in this reference to teach or remotely suggest the coating of the interior fluid engaging surfaces of this channel as claimed.” Appeal Br. 12.

Appellant’s contentions are not persuasive of reversible error in the Examiner’s rejection because they are conclusory and unsupported by persuasive evidence in the record. *De Blauwe*, 736 F.2d at 705.

Accordingly, we affirm the Examiner’s rejection of claim 22 under 35 U.S.C. § 103(a) as obvious over the combination of Hanson, Hofer, Moriuchi, and Kim.

CONCLUSION

In summary:

Claim(s) Rejected	Basis	Affirmed	Reversed
19, 21, 24–28, 31, 35–37	§ 103(a) Hanson, Hofer, Moriuchi	19, 21, 24–28, 31, 35–37	
22	§ 103(a) Hanson, Hofer, Moriuchi, Kim	22	
Overall Outcome		19, 21, 22, 24–28, 31, 35–37	

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

AFFIRMED