

United States District Court,
C.D. California.

TOKYO KEISO COMPANY, LTD., et al,
Plaintiffs.

v.

SMC CORPORATION, et al,
Defendants.

Case No. SACV 06-0374 ODW (RNBx)

Oct. 18, 2007.

Background: Patent holders brought action against competitors, alleging that competitors were selling an infringing volume flow meter under trade name "InfiniFlow." Parties cross-moved for summary judgment.

Holdings: The District Court, Otis D. Wright II, J., held that:

- (1) flow meters represented in prior art were within holders' field of endeavor;
- (2) Patent and Trademark Office's (PTO) failure to consider most pertinent prior art supported finding that patent was invalid;
- (3) prior art "fairly suggested" same structure, function, and combination of claims that made up patent;
- (4) holders' use of "best type" of plastic was predictable next step to prior art;
- (5) fact that prior art was directed to "clamp-on-devices" did not render holders' use of plastic to make pipe unpredictable next step to prior art;
- (6) patent's use of straight tube with measuring heads attached to each side, instead of angularly clamped onto tube, was predictable next step to prior art; and
- (7) secondary considerations were insufficient to override determination of obviousness.

Competitors' motion granted; plaintiffs' motion denied.

5,458,004. Invalid.

Darryl M. Woo, David D. Schumann, Evan R. Bennett, Michael J. Sacksteder, Fenwick and West, San Francisco, CA, for Plaintiffs.

Thomas J. Fisher, Arthur I. Neustadt, Barry J. Herman, Oblon Spivak McClelland Maier and Neustadt, Alexandria, VA, Russell I. Glazer, Troy and Gould, Los Angeles, CA, for Defendants.

**ORDER GRANTING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY
(OBVIOUSNESS) AND DENYING AS MOOT PLAINTIFF'S MOTION FOR SUMMARY
JUDGMENT OF INFRINGEMENT**

I. INTRODUCTION

This motion for summary judgment arises from Defendant SMC Corporation's ("SMC") alleged infringement of Plaintiff's U.S. Patent No. 5,458,004 ("004 Patent") (issued Oct. 17, 1995). Plaintiff Tokyo Keiso Company, Ltd. ("TKC") alleges that SMC is selling an infringing "volume flow meter," which measures the flow volume of fluids (*e.g.*, gallons per hour or milliliters per second), under the trade name InfiniFlow.

SMC argues, as an affirmative defense to the underlying infringement claim, that the '004 Patent is invalid as "obvious" and thus moves for summary judgment. For the reasons set forth below, Defendant's Motion for Summary Judgment of Invalidity is GRANTED and Plaintiff's Motion for Summary Judgment of Infringement is DENIED as moot.

II. FACTS

Plaintiff's '004 Patent was issued in 1995. It is directed to a volume flow meter that "measures the flow volume of fluids in a 'measuring line' using a first and second measuring head." FN1 (Opp'n at 4), (' 004 Patent at cols. 2-3.) By measuring the velocity at which liquid flows through a section of tubing with a known volume, TKC's device is able to measure the flow volume of fluids. (Opp'n at 4-5.) The "flow meter" measures the velocity of liquid traveling through the measuring line by sending acoustic signals along the length of tubing from a "measuring head" at each end of the measuring line. (*Id.* at 5.)

FN1. *See* Plaintiff's Opposition at 5 for diagram. The measuring line is also known as a pipe or tubing used to measure the fluid velocity.

The '004 Patent set out to solve a signal interference problem common in other flow meters. "Signal interference" occurs when two signals arrive at the receiver at different times—one sent from the fluid as a measuring signal, and the other "occurs as an interfering signal due to the transmission of the acoustic signal through the measuring line." ('004 Patent col. 2:17-21.) The interference was most apparent and problematic when the measuring line was made of metal. Thus, in the "Summary of the Invention" section of the '004 Patent, Plaintiff promises to solve the interference problem by using a measuring line made from a material that transmits acoustic signals slower than the fluid, so that the measuring signal will be received by the measuring head prior to the interfering signal. ('004 Patent col. 2:57-67.) The difference in signal travel time allows for a more accurate measurement. The material utilized by TKC in its measuring line is perfluoroalkoxy polymer ("PFA"), a plastic in the Teflon family.

In 1991, four years prior to the issuance of Plaintiff's '004 Patent, the Patent and Trademark Office ("PTO") issued U.S. Patent No. 5,060,507 ("the Urmson Patent") for the invention of a flow meter that measured acoustic sound waves. (Mot. at 5.) The flow meter at issue in the Urmson Patent is described as having a measuring line made from a polymeric material. U.S. Patent No. 5,060,507 col. 30 l. 26 (filed June 21, 1989) (issued Oct. 29, 1991). The Urmson Patent further states that the measuring line is "made of a chemically inert generally mechanically rigid material having a complex molecular structure for converting sound energy in the material into heat so that sound energy in the material is strongly attenuated and so that

the guide tube itself does not function as an acoustic conductor." (Id. at l. 19.)

In 1986, also prior to the issuance of the '004 Patent, the Journal of Vibration Acoustics, Stress, and Reliability Design published an article entitled *Engineering Aspects of Ultrasonic Process Control-Flow, Temperature, and Liquid Level Applications*, by Lawrence C. Lynnworth. ("Lynnworth Article" at 69-81.) Similar to the Urmson Patent, the Lynnworth Article included methods to increase the accuracy of flow meter devices. (Lynnworth Decl. at 16.) Specifically, the article noted that "the flow in plastic pipe and Teflon hose is often easier to measure than in metal pipes of the same dimensions because of the relative absence of acoustic short circuit, and [the] relatively low sound speed in plastic." (Lynnworth Article at 11.)

It is undisputed that the prior art indicates that plastic has a relatively low sound speed as compared to metal. (Plaintiff's Stmt. of Genuine Issues at 12.)

III. DISCUSSION

A. Legal Standards

1. Summary Judgment

Rule 56(c) requires summary judgment for the moving party when the evidence, viewed in the light most favorable to the nonmoving party, shows that there is no genuine issue as to any material fact, and that the moving party is entitled to judgment as a matter of law. *See* Fed.R.Civ.P. 56(c); *Tarin v. County of L.A.*, 123 F.3d 1259, 1263 (9th Cir.1997), *superseded by statute on other grounds as stated in* *Leisek v. Brightwood Corp.*, 278 F.3d 895, 899 n. 2 (9th Cir.2002).

The moving party bears the initial burden of establishing the absence of a genuine issue of material fact. *See* *Celotex Corp. v. Catrett*, 477 U.S. 317, 323-24, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). That burden may be met by " 'showing'-that is, pointing out to the district court-that there is an absence of evidence to support the nonmoving party's case." *Id.* at 325, 106 S.Ct. 2548. Once the moving party has met its initial burden, Rule 56(e) requires the nonmoving party to go beyond the pleadings and identify specific facts that show a genuine issue for trial. *See id.* at 323-34, 106 S.Ct. 2548; *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). "A scintilla of evidence or evidence that is merely colorable or not significantly probative does not present a genuine issue of material fact." *Addisu v. Fred Meyer*, 198 F.3d 1130, 1134 (9th Cir.2000).

Only genuine disputes-where the dispute is over facts that might affect the outcome of a suit under the governing law and allow a reasonable jury to return a verdict for the nonmoving party-can preclude the entry of summary judgment. *See* *Anderson*, 477 U.S. at 248, 106 S.Ct. 2505; *see also* *Arpin v. Santa Clara Valley Transp. Agency*, 261 F.3d 912, 919 (9th Cir.2001) (noting that the nonmoving party must present specific evidence from which a reasonable jury could return a verdict in its favor).

Where the moving party bears the burden of proof at trial, the moving party must present evidence, which if uncontroverted, would entitle it to prevail. *UA Local 343 v. Nor-Cal Plumbing, Inc.*, 48 F.3d 1465, 1471 (9th Cir.1994). Once the moving party has established a *prima facie* case, the non-moving party must produce evidence to contradict it in order to survive summary judgment. *Celotex Corp.*, 477 U.S. at 323-24, 106 S.Ct. 2548; *see also* *Anderson*, 477 U.S. at 248, 106 S.Ct. 2505

2. Obviousness

[1] [2] An issued patent is presumed valid. 35 U.S.C. s. 282. To overcome this presumption, the party challenging a patent's validity must prove the facts that establish invalidity by clear and convincing evidence. *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed.Cir.2003). According to 35 U.S.C. s. 103(a), a patent is invalid if the "differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. s. 103(a); *KSR Int'l Co. v. Teleflex, Inc. et al.*, 550 U.S. 398, 127 S.Ct. 1727, 1729, 167 L.Ed.2d 705 (2007). Further, obviousness at the time of the invention can be shown if "a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so." *PharmaStem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342, 1360 (Fed.Cir.2007).

[3] The Supreme Court has provided a framework for applying s. 103, noting that "[w]hile the ultimate question of patent validity is one of law, the s. 103 condition ... lends itself to several basic factual inquiries." *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966) (internal quotes omitted). Under Section 103: (1) the scope and content of the prior art are to be determined; (2) differences between the prior art and the claims at issue are to be ascertained; and (3) the level of ordinary skill in the pertinent art resolved. *KSR*, 127 S.Ct. at 1729-30. "Against this background the obviousness or nonobviousness of the subject matter is determined." *Id.* at 1730. In addition, "[s]uch secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Id.* As indicia of obviousness or nonobviousness, these inquiries have relevancy. *Id.*

[4] In addition, the Supreme Court has employed a "teaching, suggestion, or motivation" test ("TSM test"),^{FN2} "under which a patent claim is only proved obvious if the prior art, the problem's nature, or knowledge of a person having ordinary skill in the art reveals some motivation or suggestion to combine the prior art teachings." *KSR*, 127 S.Ct. at 1730. The TSM test should be applied as a "general principle" to aid courts in determining obviousness. *Id.* at 1741. The Supreme Court further emphasized the need for courts to value "common sense" over "rigid preventative rules." *Id.* at 1742-43.

FN2. Defendant's Motion implies that the Supreme Court in *KSR* eliminated the TSM test. (*See* Defendant's Motion at 8.) However, Defendant's contention is misguided. The Court in *KSR* did not eliminate the need for the TSM test, but rather, the Court noted that "[t]here is no necessary inconsistency between the [TSM] test and the *Graham* analysis. But a court errs where ... it transforms general principle into a rigid rule limiting the obviousness inquiry." *KSR*, 127 S.Ct. at 1732.

B. Analysis

1. The Scope and Content of the Prior Art

[5] [6] To determine the relevancy of a prior art, the court must first determine if the prior art reference is within the scope of the inventor's endeavor. *See In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A.1979). If it is not, the court applies a second test to determine if the nature of the problem confronting the inventor is within the scope of the prior art. *Id.* The scope of a prior art must be analogous to the asserted patent at issue. *See In re Clay*, 966 F.2d 656, 658-59 (Fed.Cir.1992). A prior art is analogous if it is from the same "

'field or endeavor,' even if it addresses a different problem, or, [is] not within the same field-if the [prior art] reference is 'reasonably pertinent' to the particular problem with which the inventor is involved." In re Conte, 36 Fed.Appx. 446, 450 (Fed.Cir.2002) (citing In re Clay, 966 F.2d at 658-59).

Plaintiff's main dispute concerning the relevance of prior art is directed toward a 1979 Lynnworth Article, not relied on by Defendant. The Court finds that Plaintiff's discussion of this 1979 article in its briefs and oral arguments adds nothing to the case at bar, especially since Defendant's Motion for Summary Judgment does not include or rely on the 1979 article as a relevant prior art. Therefore, the Court will limit its discussion to the following two pieces of prior art: (1) the 1991 Urmson Patent and (2) the 1986 Lynnworth Article.

[7] The Court finds that the Urmson Patent and Lynnworth Article are within the same field of endeavor as Plaintiff's '004 Patent. Plaintiff's field of endeavor is flow meter devices used in industries where accurate measurement of volume of fluids is necessary. The background section of the patent-in-suit, which includes the inspirations for the '004 Patent, states that "many industrial applications require precise determination of the volume of fluid flowing through a measuring line." ('004 Patent cols. 1:11-13.) The Urmson Patent is also directed to methods for measuring the flow volume of fluids for industries where monitoring and control of fluid mixtures are important. ('507 Patent cols. 21-29.) In addition, the 1986 Lynnworth Article addresses the causes of inaccurate fluid measurements and various suggestions on ways to increase their accuracy. (Lynnworth Article at 72.) These facts support a finding that flow meters such as those represented in Urmson Patent and 1986 Lynnworth Article are within Plaintiff's field of endeavor. Accordingly, the Court finds that the Urmson Patent and the 1986 Lynnworth Article are the relevant prior art related to the '004 Patent.

i. The Urmson Patent

The Urmson Patent was invented to lessen the "acoustic short circuit" that occurred when a metal pipe was used as the flow meter's measuring line. ('507 Patent col. 5-6). This metal pipe method transmitted acoustic signals roughly three times faster than commonly measured fluids. (Opp'n at 6.) Because the acoustic signals that traveled through the metal pipe would reach the transducer FN3 before the other measuring signals, it created an interference with the true measure of the liquid flow. (Id.)

FN3. The transducer is the measuring sensor found within each measuring head.

To remedy this problem, the Urmson Patent used plastic tubing, which is superior to metal in measuring the flow of liquid. ('507 Patent col. 14:34-37.) The benefit of using plastic tubing, or polymeric material as it is described in the Urmson Patent, is that it prevents the sound traveling through the tube from interfering with the measuring signal flowing through the fluid. ('507 Patent col. 14:34-43). Since the measuring signal is not received simultaneous with the interfering signal, the flow velocity of the fluid can be measured more accurately. Id.

ii. The Lynnworth Article

Like the Urmson Patent, the Lynnworth Article also suggests using a plastic pipe to solve the "acoustic short circuit" that occurs when using a metal pipe. Specifically, the Lynnworth Article states:

Flow in plastic pipes, including glass fiber reinforced plastic pipe and Teflon hose, is often easier to measure

than in metal pipes of the same dimensions because of the relative absence of acoustic short circuit, and relatively low sound speed in the plastic pipe. According to [another reference], the longitudinal velocity in Teflon, for example, is ~ 1350 m/s, which is less than the nominal value for water, ~ 1500 m/s.

(Declaration of Lynnworth at 19) (quoting the Lynnworth Article). Lynnworth, in a declaration to the Court, stated that his article was "directed to the very problem that the '004 Patent purports to solve, namely, slowing down the acoustic signal that is transmitted through a metal pipe wall so that it will arrive after the signal transmitted through the fluid being measured." Id.

Further, Defendant points to the "Background of Invention" section of Plaintiff's '004 Patent which states that "attempts have been made to suppress the interfering signal." This statement indicates that prior art dealt with the interfering signal problem. Defendant contends that the Lynnworth Article clearly offers the use of plastic pipe and Teflon hose as a solution to the "acoustic short circuit" problem. In short, both the Lynnworth Article and the Urmson Patent suggested a plastic material be used to solve the signal interference problem.

[8] In the instant case, the '004 Patent's "Summary of the Invention" section indicates that the plastic pipe is the preferable substitute for metal pipe because it effectively addresses the acoustic signal interference. ('004 Patent at cols. 2-3). Defendant argues, and the Court agrees, that Plaintiff's statements in the '004 patent are binding on TKC for the determination of obviousness. *See In re Nomiya*, 509 F.2d 566, 571 (C.C.P.A.1975); *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1569-70 (Fed.Cir.1988); *see also Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354 (Fed.Cir.2003) (noting that "[v]alid prior art may be created by admissions of parties.").

[9] A point that further supports invalidity is the fact that the PTO did not consider the most pertinent prior art when issuing the '004 Patent. Neither the Urmson Patent nor the Lynnworth Article was considered by the PTO as is apparent from the "References Cited" section on the cover page of the '004 Patent. The Supreme Court has held that the presumption of validity is "much diminished" when the PTO does not consider the most pertinent prior art. *KSR*, 127 S.Ct. at 1745.

There is no material issue of fact in dispute pertaining to the relevancy of the prior art. The Court finds that both the Urmson Patent and the Lynnworth Article constitute relevant prior art because they are "reasonably pertinent" to the problem that the inventor is attempting to solve. In sum, the prior art addresses the problem of acoustic interaction and suggests the use of a plastic measuring line as a solution. Therefore, the Court's inquiry pertaining to the scope of the prior art tips in favor of invalidating Plaintiff's '004 Patent.

2. Differences Between the Prior Art and the Claimed Invention

[10] Under the second prong of the *Graham* analysis, differences between the prior art and the claims at issue should be determined from the vantage point of the hypothetical person with ordinary skill in the art. *See Graham*, 383 U.S. at 17-18, 86 S.Ct. 684; *Velander v. Garner*, 348 F.3d 1359, 1363-64 (Fed.Cir.2003). "Differences between prior art and the claimed invention are 'ascertained by interpretation of the *teachings* of the prior art and the claims of the patent.' " CHISUM ON PATENTS, s. 5.03[5], 5-239 (2003) (emphasis added).

[11] The Federal Circuit has expressed the importance of referring to the actual claims in defining an invention: "The claims of the patent provide the concise formal definition of the invention. They are

numbered paragraphs which 'particularly [point] out and distinctly [claim] the subject matter which the applicant regards as his [or her] invention.' It is to these wordings that [courts] must look to determine whether there has been infringement. Courts can neither broaden or narrow the claims to give the patentee something different than what he [or she] has set forth." *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed.Cir.1988) (internal citations omitted) (citing *Autogiro Co. of Am. v. U.S.*, 181 Ct.Cl. 55, 384 F.2d 391, 395-96 (1967)). Therefore, the Court should first look to the claims of the patent-in-suit, to determine if there are meaningful differences between a patent claims and the prior art.

Here, the Court will look to some of the issues surrounding the Markman hearing, which was held on March 26, 2007. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995) (noting that "[c]laim construction is a question of law for courts to resolve."). Prior to the Markman hearing, the parties reached an agreement as to the construction of claims 2 and 5 leaving only claim 1 for the Court's review. The parties agreed that the plain and ordinary language construction be applied to claims 2 and 5. FN4 At the hearing, the thrust of the parties dispute focused on whether a "leading edge" means *only* a leading edge. ('004 Patent, 2:4-16.) Relying on *Phillips v. AWH Corp.*, the Court found that no interpretation is necessary; instead, the plain ordinary language of this phrase is sufficient. *Phillips*, 415 F.3d 1303, 1312 (Fed.Cir.2005). Accordingly, the Court will base its decision on the plain, ordinary language of claims 1, 2, and 5.

FN4. Documented in the parties Joint Claim Construction and Prehearing Statement.

It is settled that the terms included in claims 1, 2, and 5 are to be given the plain, ordinary interpretation. However, Plaintiff asserts that the term "plastic" and "PFA" may not be used interchangeably because only certain plastics can meet the goal of claims 1, 2, and 5; that is, to create a measuring line from material "that transmits an acoustic signal at a slower sound velocity than the fluid transmits said signal" (Plaintiff's Statement of Genuine Issues, at 4.) Defendant contends that '004 Patent directly refers to the pipe as "plastic" in claim 2, and then "PFA plastic material" in claim 5, and finally, claim 1 refers to the pipe as being "made of a material that transmits an acoustic signal at a slower sound velocity than the fluid transmits said signal." ('004 Patent col. 5:1.14-19.) Therefore, Defendant concludes that the patent-in-suit offers plastic or PFA as a solution to the acoustic short circuit problem. (Defendant's Mot. at 4.)

[12] Resolving ambiguities against the moving party, the Court finds that the '004 Patent indicates that the measuring line be made from a material that transmits an acoustic signal at such a rate that it no longer causes an interference with the fluid signal. ('004 Patent at 5:14-16, 6:7-10.) The '004 Patent requires that PFA *or* polytetrafluoroethylene ("PTFE") be used, so that the signal from the measuring line has a slower velocity than the fluid's signal. The Court finds little difference between the teachings of the prior art and the claims of the patent-in-suit, because the Urmson Patent teaches the structure and function of '004 Patent claims at issue. In addition, the Lynnworth Article suggests that "Teflon" plastic be used to lessen the "acoustic short circuit," because it has a "relatively low sound speed." (Lynnworth Article at 72.) Taken together, the Urmson Patent and the Lynnworth Article "fairly suggest" the same structure and function as claims 1, 2, and 5. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed.Cir.1983).

i. Suggestion to Combine

[13] The Supreme Court 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." KSR, 127 S.Ct. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed.Cir.2006)). However, as the Court further articulated "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at 1741; *see also* *Yamanouchi Pharm. Co., Ltd. v. Danbury Pharm., Inc.*, 231 F.3d 1339, 1343 (Fed.Cir.2000) (noting that "the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness."). Moreover, in KSR, the Supreme Court stated that to determine whether there was an apparent reason to combine the known elements in the way the patent claims, "[o]ften, it will be necessary to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art." KSR, 127 S.Ct. at 1740-41.

Plaintiff argues that the prior art fails to *teach* or *suggest* combining the prior art elements in the same manner as the '004 Patent. (Opp'n at 13.) Plaintiff contends that the Urmson Patent and the Lynnworth Article teach away from the patent-in-suit because the prior art addresses the elimination of the acoustic short circuit; whereas, the '004 Patent discuss slowing down the interfering signal by using a plastic material. (*Id.* at 14.)

[14] Defendant asserts, and the Court agrees, that the Lynnworth Article suggests the use of a plastic or Teflon pipe to obtain a lower velocity for an interfering signal (1350 m/s) as compared to the signal in fluid (1500 m/s), which is the exact subject set forth in claims 1, 2, and 5. Additionally, the Supreme Court has found that "neither the particular motivation nor the avowed purpose of the patentee controls." Instead, courts must look to the objective reach of the claim to determine if it extends to what is obvious, if so, the claim is invalid. KSR, 127 S.Ct. at 1742; *see also* 35 U.S.C. s. 103(a). Therefore, the Court finds that the prior art at issue here suggested the combination of claims that make up the '004 Patent. This reasoning also satisfies the TSM test because it explains how the prior art teachings and suggestions provided a reason to combine the prior art.

ii. Predictable Combination

[15] [16] Caution is necessary when granting a patent that combines elements found in prior art. *Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152, 71 S.Ct. 127, 95 L.Ed. 162 (1950). "Such a combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR, 127 S.Ct. at 1731 (citing *United States v. Adams*, 383 U.S. 39, 50-52, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966)). The important inquiry is "whether the improvement is more than the predictable use of prior-art elements according to their established functions." KSR, 127 S.Ct. at 1740.

[17] First, Plaintiff argues that the '004 Patent is not an "obvious" variation of the Urmson Patent, because the '004 Patent is narrower in scope. The Urmson Patent calls for plastic or polymer whereas Plaintiff's ' 004 Patent specifically calls for only two types of plastics: PFA or PTFE. In sum, Plaintiff contends that the Urmson Patent fails to describe the *exact* type of plastic used by the '004 Patent; and therefore, it was not a predictable next step to make the pipe with PFA or PTFE.

In *Adams*, however, the Supreme Court explained that "when a patent claims a structure already known in a prior art that is altered by the mere substitution of one element for another known in the field, the combination must yield more than a predictable result." *Adams*, 383 U.S. at 40, 86 S.Ct. 708. The Supreme

Court followed this logic in KSR when it held that it was obvious to substitute an electronic sensor for a mechanical sensor. KSR, 127 S.Ct. at 1743-44. The Court found that such a substitute was a predictable result. *Id.*

In the instant case, both the Urmson Patent and the Lynnworth Article state that the pipe should be made of a material that does not create an acoustic short circuit. Both suggest plastic for this purpose. (Mot. at 6.) In fact, the Lynnworth Article suggests the use of Teflon plastic.FN5 (Lynnworth Decl. para. 9.) Therefore, the Court finds that Plaintiff's use of the *best* type of plastic is a predictable next step to the prior art.

FN5. PFA plastic is a part of the Teflon family.

[18] Second, Plaintiff asserts that the Lynnworth Article teaches away from the '004 Patent because it is directed to "clamp-on devices." Therefore, Plaintiff argues that it cannot be applied to the patent at issue. However, in KSR, the Supreme Court said that "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious *unless* its actual application is beyond his or her skill." KSR, 127 S.Ct. at 1740 (emphasis added). Here, the Lynnworth Article was directed to solving acoustic signal interference. To this end, a predictable next step would be to change a clamp-on device to a device with the measuring head integrated into the measuring line itself. Further, the introductory section of the Lynnworth Article clearly states that it "describes techniques which the reader may adapt to situations beyond those [identified]." (Lynnworth Article, at 69.)

[19] In addition, the Supreme Court makes it clear that obviousness may be found where multiple prior art references are available to a person of ordinary skill in the art; even if, the "primary purpose" of a prior art differs from that of the patent-in-suit. KSR, 127 S.Ct at 1742 (noting that "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle"). Accordingly, the Court finds that the claimed invention's use of a straight tube with measuring heads attached to each side, instead of angularly clamped on to the tube, was a predictable next step. Therefore, the Court's inquiry pertaining to the differences between the prior art and the claim at issue tips further in favor of invalidating Plaintiff's '004 Patent.

3. The Level of Ordinary Skill in the Pertinent Art

[20] To determine the level of ordinary skill in the art, courts must consider the educational level of the inventor, the educational level of those who work in the relevant industry, and the sophistication of the technology involved. *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 719 (Fed.Cir.1991). The Defendant asserts that a person of ordinary skill in the art would "at least [have] an engineering degree and three years of experience in [flow meter design]." (*See* Defendant's Motion to Dismiss, at 6.) Plaintiff's motions, briefs, and expert declarations fail to provide an education standard for the hypothetical person of ordinary skill in the art. Therefore, Defendant's statement is uncontroverted as to the level of skill necessary.

[21] Here, the Court agrees with Defendant's assertion as to what constitutes a person having ordinary level of skill in the art. In support of this finding, Yoshiaki Hashimoto, an employee of Plaintiff TKC, claims to have a bachelors degree in Mechanical Engineering and 32 years of experience working on flow meters and related technology. Therefore, the Court finds that the a person having ordinary level of skill in the art to be a hypothetical person with an undergraduate degree in engineering that has the minimum of three years of

experience in and familiarity with flow meter design.

4. Secondary Considerations

[22] Such considerations as commercial success, long felt but unsolved needs, and the failure of others to invent are relevant to the obviousness inquiry. *Graham*, 383 U.S. at 17-18, 86 S.Ct. 684. However, these considerations do not control the obviousness inquiry *See Richardson-Vicks v. Upjohn Co.*, 122 F.3d 1476, 1483 (Fed.Cir.1997) (citing *Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed.Cir.1988)). Instead, they assist the Court in ascertaining the extent of any objective indicia of non-obviousness.

[23] Plaintiff argues that the '004 Patent addressed a long-felt need in the industry. (Opp'n at 3.) Once developed, Plaintiff argues that the claimed invention enjoyed tremendous commercial success. *Id.* Additionally, Plaintiff presented declarations that stated that attempts by others to solve the signal interference problem were unsuccessful. (Opp'n at 24-25.) Plaintiff's expert, Yoshiaki Hashimoto, states in his declaration that once the market became aware of [TKC's flow meter] technology, it became virtually universal across the semiconductor industry." (*See Hashimoto Decl.* para. 10.)

Defendant, on the other hand, argues that Plaintiff failed to offer evidence to support its claimed commercial success. Defendant also presented uncontroverted evidence, which indicated that the president of TKC's United States distributor testified that there are a number of flow meters that compete with each other in the market apart from SMC's and TKC's flow meters. FN6 (Fisher Decl., Ex. 10.)

FN6. These additional flow meters are not asserted to infringe.

[24] [25] In *Sjolund v. Musland*, the Federal Court stated that commercial success "is relevant only if it flows from the merits of the *claimed* invention." *Sjolund v. Musland*, 847 F.2d 1573, 1582 (Fed.Cir.1988). Therefore, the party asserting commercial success has the burden of proving a "nexus between the commercial success and the claimed invention." *See Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, 739 F.2d 1573, 1575 (Fed.Cir.1984). Sufficient "prima facie evidence of nexus is established if there was a commercial success and if the invention disclosed in the patent was that which was commercially successful." *Ryko Mfg. Co.*, 950 F.2d at 719.

[26] Here, even if secondary consideration evidence is present, it must be sufficient to override the determination of obviousness based on the primary considerations. Moreover, given the fact that the flow meter business involves a niche market, it is not surprising that it took a few years for a company to expand on the prior art at issue here. In sum, the Court is only required to review the secondary considerations in light of the other *Graham* factors. Accordingly, the Court finds that the evidence fails to sufficiently overcome Defendant's strong showing of obviousness.

[27] [28] The Supreme Court explained in *KSR*, that when district courts consider the existence of a dispute over a material fact, they should take into account expert testimony, which may resolve or keep open certain questions of fact. *KSR*, 127 S.Ct. at 1745. However, the ultimate judgment of patent validity is a legal determination. *Graham*, 383 U.S. at 17, 86 S.Ct. 684. Summary judgment is appropriate when, as here, the content of the prior art, the scope of the patent claims, and the ordinary skill in the art are not in material dispute, and obviousness is clearly shown.

IV. CONCLUSION

Based on the above analysis, Defendant has proven invalidity by clear and convincing evidence. Accordingly, Defendant's Motion for Summary Judgment of Invalidity is GRANTED and Plaintiff's Motion for Summary Judgment of Infringement is DENIED as moot. Defendant to lodge a Proposed Judgment within 14 days of the date of this order.

C.D.Cal.,2007.

Tokyo Keiso Co., Ltd. v. SMC Corp.

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