

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AVX CORPORATION and
AVX FILTERS CORPORATION,
Petitioner,

v.

GREATBATCH, LTD,
Patent Owner.

Case IPR2014-00697
Patent 5,905,627

Before JEREMY M. PLENZLER, JON B. TORNQUIST, and
BETH Z. SHAW, *Administrative Patent Judges*.

TORNQUIST, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING
37 C.F.R. § 42.108

I. INTRODUCTION

On October 21, 2015, we entered a Final Written Decision in which we found claims 1, 2, 4, 6, 7, 9, 11, 13–20, 23, 25, and 26 of U.S. Patent No. 5,905,627 (“the ’627 patent,” Ex. 1001) to be unpatentable. Paper 57 (“Final Dec.”). Patent Owner, Greatbatch, Ltd., has filed a request for rehearing of that decision. Paper 59 (“Req. Reh’g”). For the reasons that follow, Patent Owner’s request is denied.

II. REQUEST FOR REHEARING

Patent Owner seeks rehearing on the following grounds: (1) the Board misapprehended the definition of a person of ordinary skill in the art and, because of this misapprehension, the Board improperly credited Mr. Galvagni’s testimony related to issues of electrical design; (2) the Board erred as a matter of law in interpreting the Supreme Court’s decision in *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007), and (3) the Board overlooked Patent Owner’s argument that the prior art, as well as commercial requirements for implantable medical devices, taught away from the proposed combination of references.

III. ANALYSIS

In a request for rehearing, the dissatisfied party “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or reply.” 37 C.F.R. § 42.71(d). “The burden of showing a decision should be modified lies with the party challenging the decision.” *Id.*

A. *Definition of a Person of Ordinary Skill in the Art*

In its response, Patent Owner contended that a person of ordinary skill in the art is an “EMI passive components filter designer” that would have

extensive knowledge of electrical design concepts. Paper 19 (“PO Resp.”), 2–3. In the Final Decision, we rejected this identification of one of ordinary skill in the art as too narrow. Final Dec. 8. We noted that evidence of record supported Petitioner’s argument that a multidisciplinary team of professionals, including manufacturing, materials, and electrical design experts, would be involved in the development of EMI filters. *Id.* Thus, we concluded that a person of ordinary skill in the art “would have a degree in electrical engineering, chemistry, or physics, and would have work experience in the electrical or structural design of EMI filter capacitors or assemblies.” *Id.*

As part of our analysis, we stated that “electrical design is but one area of expertise necessary to design a feedthrough capacitor” *Id.* Patent Owner contends this statement that electrical design expertise is “necessary” runs counter to the broader identification of one of ordinary skill in the art adopted by the Board. Req. Reh’g 3. Patent Owner further asserts that “there is no fact you relied upon that supports your conclusion that ‘experience in the . . . structural design of EMI filter capacitors or assemblies’ could substitute for ‘experience in the electrical . . . design of EMI filter capacitors or assemblies.’” *Id.* at 4.

Patent Owner misconstrues the Board’s findings related to the person of ordinary skill in the art. Relying upon testimony from Mr. Galvagni and disclosures of the ’627 patent, we noted that expertise in the fields of structural and electrical design are both implicated in the design and construction of EMI filters. We did not conclude, however, that knowledge of structural design could substitute for electrical design expertise. Final Dec. 8. Indeed, as noted in the Final Decision, to the extent that Mr. Galvagni’s testimony is directed to electrical design concepts and not the

structural or mechanical design of EMI filters, we took his relative lack of experience in electrical design into account when weighing his testimony. Final Dec. 25.

Patent Owner further contends that given the Board’s alleged misapprehension of the level of skill in the art, the Board improperly relied upon testimony from Mr. Galvagni related to the meaning of the term “edge ground” in the Hazzard reference. *Id.* at 4–6 (citing Final Dec. 15). We are not persuaded, however, that we erred in crediting the testimony of Mr. Galvagni that an “edge ground,” as used in the Hazzard reference, refers to “the normal method of using perimeter metallization around the edge or periphery of the capacitor, as set forth in the preceding sentence of Hazzard.” Final Dec. 15 (citations omitted). First, Patent Owner does not explain persuasively why Hazzard’s disclosure of where a ground point may be placed in a capacitor implicates only electrical design concepts and not those related to structural and mechanical design. Second, the conclusion on which Patent Owner takes issue was further supported by the testimony of Mr. Prymak, one of the authors of the Hazzard reference, as well as by citations to Mr. Stevenson’s own patents that refer to an “edge ground” in a manner consistent with the interpretation proffered by Petitioner. Thus, even if we were to agree with Patent Owner that Mr. Galvagni’s testimony was beyond his area of expertise, we would not be persuaded that our conclusion was unsupported by the other evidence of record.

Patent Owner also contends that Mr. Prymak’s testimony that Hazzard discloses internally grounding a capacitor array should not be credited because he could not identify a real-world example of a capacitor array for a *human implantable device* that solely used an internal ground in lieu of perimeter metallization. *Id.* at 6 (citing Ex. 1023 ¶ 40). Patent Owner does

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not explain why Mr. Prymak's inability to identify an internally grounded capacitor array for human implantable devices undermines his testimony that one of ordinary skill in the art would understand from the Hazzard reference that the disclosed capacitor array could be internally grounded. Req. Reh'g 6 (citing Ex. 1023 ¶ 40). Moreover, as explained in the Final Decision, "the claims of the '627 patent are not limited to implantable medical devices." Final Dec. 16. And the entirety of Mr. Prymak's testimony confirms that it was known in the art that internally grounded feedthrough capacitors had been used in various applications. Ex. 1023 ¶ 40. Mr. Prymak's testimony is also consistent with the discussion in Hazzard explaining that both internal and external grounds were known, but a perimeter metallization/edge ground provides optimal EMI attenuation. *Compare* Ex. 1023 ¶ 40 *with* Ex. 1011, 2.

Upon review of Patent Owner's arguments made in the request for rehearing, we are not persuaded that we erred in crediting Mr. Galvagni's testimony relating to the Hazzard reference or in concluding that the term "an edge ground" in Hazzard refers to "the normal method of using perimeter metallization around the edge or periphery of the capacitor."

B. KSR

In the Final Decision we stated:

Modifying a known device, using a known method, to achieve a predictable result, is obvious, even if one is willing to accept a known loss in performance others sought to avoid. *KSR*, 550 U.S. at 416 ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.")

Final Dec. 16.

Patent Owner takes issue with this statement, contending that “a change that results in a known loss in performance that others sought to avoid cannot provide legal motivation for that change.” Patent Owner further contends that, as confirmed in *KSR*, when claimed elements work together in an unexpected and fruitful manner they are nonobvious. Req. Reh’g 8–9 (citing *United States v. Adams*, 383 U.S. 39, 40 (1966)).

Contrary to Patent Owner’s contention, we did not rely on a “known loss in performance that others sought to avoid” as legal motivation for internally grounding a feedthrough capacitor. In particular, prior to citing to *KSR*, we noted that Petitioner provided evidence that one of ordinary skill in the art would have been motivated to combine Stevenson and Hazzard to allow for “redundant feedthrough ground leads for internal circuits” and to eliminate “the need for creating exterior metallization on the filter capacitors.” Final Dec. 12, 18. Moreover, although *KSR* confirms that combinations of known elements that work together in an unexpected and fruitful manner may be patentable, Patent Owner did not demonstrate that any surprising result was obtained in the feedthrough capacitors of the ’627 patent, much less a surprising result commensurate in scope with the claimed invention. Final Dec. 16–17. Thus, we are not persuaded that we erroneously interpreted or applied the legal holding in *KSR*.

C. Teaching Away

Patent Owner contends that the Board misapprehended or overlooked several teaching away arguments made in the response. Req. Reh’g 8, 9–12. In particular, Patent Owner contends the Board overlooked its argument that the reduced effectiveness and increased size of the resulting internally grounded feedthrough capacitor would teach away from modifying Stevenson as disclosed in Hazzard. *Id.*

Contrary to Patent Owner's argument, we did not overlook the "teaching away" arguments related to the decreased performance caused by internally grounding a feedthrough capacitor. Rather, we considered these arguments and found them unpersuasive based on the record as a whole. For example, we acknowledged that it was understood in the art that internally grounding a feedthrough capacitor would result in a device with lower EMI shielding. Final Dec. 16. We also noted, however, that one of ordinary skill in the art would have understood that internally grounding the feedthrough capacitor of Stevenson would still result in an operable feedthrough capacitor. *Id.* at 17 (crediting Dr. Stevenson's testimony that the "feedthrough capacitor of Stevenson and Hazzard would be a functional EMI filter"). Thus, although obtaining the benefit of redundant feedthroughs and the removal of external metallization would result in some decrease in EMI filtering, we were not persuaded that this decrease in performance would teach away from the combination of Stevenson and Hazzard. *See In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) ("A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.").

With respect to the increased size of the device, Patent Owner asserts that Mr. Prymak made an "admission" that internally grounding the feedthrough capacitor would require either a larger device or a device with decreased capacitance, both issues Patent Owner alleges are important in the design of an implantable medical device. Req. Reh'g 11-12. We are not persuaded that Mr. Prymak conceded that internally grounding the feedthrough capacitor of Stevenson would in fact result in a device with either an increased size or a decreased capacitance. Instead, Mr. Prymak testified that the proposed modification of Stevenson might reduce

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capacitance to some extent, “but that could be compensated by adding additional layer or layers” to the capacitor. Ex. 2413, 16:19–24. Mr. Prymak further testified that adding layers would not necessarily increase the size of the device because “[a] lot of these devices are built not to maximum stacking capability” and have dummy layers added at the top and bottom. *Id.* at 16:25–17:7. Thus, in contrast to Patent Owner’s argument, Mr. Prymak did not concede that internally grounding the feedthrough capacitor of Stevenson would require an increase in the size of the capacitor or a decrease in capacitance.

D. Conclusion

Based on the foregoing, we are not persuaded that we erred in concluding that the challenged claims would have been obvious over Stevenson and Hazzard. *See KSR*, 550 U.S. at 416.

IV. ORDER

In consideration of the above, and upon careful consideration of Patent Owner’s arguments and supporting evidence, it is

ORDERED that Patent Owner’s request for rehearing is *denied*.

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