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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
95/001,555	02/23/2011	6418752	6017-04	7309
15933	7590	09/04/2018	EXAMINER	
The Law Office of Roger S. Thompson 116 Pinchurst Ave Suite D-14 New York, NY 10033			GRAHAM, MATTHEW C	
			ART UNIT	PAPER NUMBER
			3993	
			MAIL DATE	DELIVERY MODE
			09/04/2018	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AIRBUS S.A.S.
Requester and Respondent

v.

FIREPASS CORPORATION
Patent Owner and Appellant

Appeal 2018-004837
Reexamination Control No. 95/001,555
Patent US 6,418,752 B2
Technology Center 3900

Before JOHN C. KERINS, JEFFREY B. ROBERTSON, and
DANIEL S. SONG, *Administrative Patent Judges*.

SONG, *Administrative Patent Judge*.

DECISION ON APPEAL

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STATEMENT OF THE CASE

This proceeding arose from a request filed February 23, 2011, by the Requester, Airbus S.A.S., for an *inter partes* reexamination of Patent No. 6,418,752 (“the ’752 Patent”). Prior to the present appeal, the ’752 patent was involved in Appeal 2013-008166 that resulted in the Board’s Decision on Appeal dated October 30, 2013 (hereinafter “Original Decision” or “Orig. Dec.”). In that earlier appeal, claims 1, 2, 4, 7, 8, 29–94, and 96–99 were rejected by the Examiner, and the rejections were appealed to the Board by the Patent Owner. Orig. Dec. 2, 5–6. The Requester cross-appealed the Examiner’s non-adoption of certain proposed rejections of claims 91–94 and 96–99. *Id.* at 2, 8–9.

In the Original Decision, the Board affirmed the Examiner’s rejections as to claims 1, 2, 4, 7, 8, 29–90, and 96–99, but reversed the rejections as to claims 91–94. *Id.* at 25. The Board also dismissed the Requester’s cross-appeal for lack of jurisdiction. *Id.* at 24–25. The Requester filed a Request for Rehearing on December 2, 2013 as to the Board’s dismissal of its cross-appeal, which was denied by the Board in its Decision on Request for Rehearing dated May 20, 2014.

The Requester appealed the Board’s dismissal of its cross-appeal to the Federal Circuit, and on July 17, 2015, the United States Court of Appeals for the Federal Circuit vacated and remanded the Original Decision of the Patent Trial and Appeal Board as to the Requester’s cross-appeal, determining that the Board erred in dismissing the Requester’s cross-appeal for lack of jurisdiction. *Airbus S.A.S. v. Firepass Corp.*, 793 F.3d 1376, 1381 (Fed. Cir. 2015). Thus, this case was remanded in the Order

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Remanding to the Examiner dated August 25, 2015 for further proceedings consistent with the holding of the Federal Circuit in *Airbus v. Firepass*.

The present Appeal No. 2018-004837 stems from the reexamination proceeding subsequent to the Board's remand in Appeal No. 2013-008166. Presently, claims 91–94 are subject to the reexamination and stand finally rejected. Right of Appeal Notice (hereinafter “RAN”¹) PTOL-2066. The Patent Owner appeals under 35 U.S.C. §§ 134(b), 306, and 315(a) (2002) from the rejection of claims 91–94. *See* Appeal Brief (hereinafter “App. Br.”) 1. The Examiner also declined to adopt numerous rejections of claims 91–94 as proposed by the Requester. RAN 4–5.

We have jurisdiction of the appeal under 35 U.S.C. §§ 134, 306, and 315. An oral hearing with the counsel for the Patent Owner and the counsel for the Requester was held before the Patent Trial and Appeal Board on July 18, 2018, a transcript of which will be entered into the electronic record in due course.

We REVERSE.

THE INVENTION

The '752 Patent relates to hypoxic (low-oxygen) fire prevention and fire suppression systems. Col. 1, ll. 18–30. Claim 91 is the sole independent claim, and reads as follows:

¹ Because the Examiner's Answer incorporates the RAN by reference, we cite to the RAN herein.

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91. A system for providing breathable fire-preventive and fire suppressive atmosphere in enclosed human-occupied spaces, said system comprising:

an enclosing structure having an internal environment therein containing a gas mixture which is lower in oxygen content than air outside said structure, and

an entry communicating with said internal environment;

an oxygen-extraction device having a filter, an inlet taking in an intake gas mixture and first and second outlets, said oxygen-extraction device being a nitrogen generator, said first outlet transmitting a first gas mixture having a higher oxygen content than the intake gas mixture and said second outlet transmitting a second gas mixture having a lower oxygen content than the intake gas mixture;

said second outlet communicating with said internal environment and transmitting said second mixture into said internal environment so that said second mixture mixes with the atmosphere in said internal environment;

said first outlet transmitting said first mixture to a location where it does not mix with said atmosphere in said internal environment;

said internal environment selectively communicating with the outside atmosphere and emitting excessive internal gas mixture into the outside atmosphere; said intake gas mixture being ambient air taken in from the external atmosphere outside said internal environment with a reduced humidity; and

a computer control for regulating the oxygen content in said internal environment.

App. Br. Claims App'x, p. 1.

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REJECTIONS

The Patent Owner appeals the Grounds of Rejection as follows²:

34. Claims 91–93 under 35 U.S.C. § 103(a) as unpatentable over US Patent 5,799,652 to Kotliar (Sept. 1, 1998) in view of Boeing Military Airplane Co., *Vulnerability Methodology and Protective Measures for Aircraft Fire and Explosion Hazards*, Final Report AFWALTR-85-2060 (1986)(hereinafter “AFWAL 2060”). RAN 2.

35. Claim 94 under 35 U.S.C. § 103(a) as unpatentable over Kotliar and AFWAL 2060 in view of Knight, T.C. et al., *The AH-64A Nitrogen Inerting System*, AIAA-84-2480 (1984)(hereinafter “Knight”). RAN 3.

ANALYSIS

Claims 91–93 stand rejected as obvious over Kotliar in view of AFWAL 2060, while claim 94 stands rejected as obvious in further view of Knight. RAN 2–3. The Patent Owner argues all of the claims together. App. Br. 6. Thus, we deem independent claim 91 as representative.

Only those arguments actually made by the parties have been considered and arguments that the parties did not make are deemed to be waived. *See* 37 C.F.R. § 41.67(c)(1)(vii) (“Any arguments or authorities not included in the brief permitted under this section or §§ 41.68 and 41.71 will be refused consideration by the Board, unless good cause is shown.”).

² For clarity, we utilize the Ground of Rejection numbering used by the Examiner in the RAN. Correspondingly, because the appealed claims 91–94 are only subject to Grounds of Rejection 34 and 35, the remaining Grounds of Rejections are omitted. *See* App. Br. 6.

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In rejecting claim 91, the rejection proposed by the Requester and adopted by the Examiner begins with Kotliar entitled “Hypoxic Room System and Equipment for Hypoxic Training and Therapy at Standard Atmospheric Pressure.” RAN 3. In particular, the applied rejection is premised on the initial finding that Kotliar discloses most of the limitations of the claim, but that the claim “differs only in the inclusion of a ‘filter’ and an intake gas mixture with ‘reduced humidity’.” RAN 3. To remedy this acknowledged deficiency in Kotliar, the rejection relies on AFWAL 2060, the Examiner finding that “AFWAL 2060 discloses a nitrogen generator with a ‘filter’ and a ‘water extractor,’ which de-humidifies incoming air prior to separation.” RAN 3 (citing AFWAL 2060, Vol. III, Part I, pg. 5; *see also* Vol. III, Part III, pgs. 24–27 (Figs. 4, 5)). The Examiner concludes that “[i]t would have been obvious to one of ordinary skill in the art to have included a filter and dehumidifier in the method and system of Kotliar ’652 in view of the teaching of AFWAL 2060 so as to dry and clean the air within the enclosed space.” RAN 3.

The Patent Owner argues, *inter alia*, that Kotliar is not analogous art because “the problem addressed by the inventor is how to prevent and suppress fires. The Kotliar patent is from the art of athletic training equipment and teaches nothing about fire prevention and/or suppression.” App. Br. 12. The Patent Owner also argues that “[t]he Examiner has failed to explain why one of ordinary skill in the art of fire prevention and suppression, looking to find a solution to the problem of how to prevent and/or suppress fires, would turn to athletic equipment for solutions,” and that the rejection improperly uses the Patent Owner’s own disclosure as a

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source of the problem and solution. App. Br. 12. We generally agree with the Patent Owner.

We first observe that the claimed invention is directed to “[a] system for providing *breathable fire-preventive and fire suppressive atmosphere* in enclosed human-occupied spaces.” Title; *see also* ’752 Patent, claim 1. Indeed, the Specification of the ’752 Patent is indisputably directed to the problem of fire prevention and fire suppression. Accordingly, the relevant art that a person of ordinary skill in the art would initially consider is devices and methods for fire prevention/suppression art.

In contrast, as noted above, Kotliar is directed to a “Hypoxic Room System and Equipment for Hypoxic Training and Therapy at Standard Atmospheric Pressure.” Kotliar, Title. In particular, Kotliar discloses a hypoxic room which “simulates oxygen-depleted mountain air” (Kotliar, Abst.) for, *inter alia*, “treatment and prevention of cardiopulmonary, gastrointestinal, gynecological, skin and ocular diseases, as well as various types of allergy, neurological disturbances,” and for fitness training to increase “strength, endurance, vitality and resistance to various diseases of healthy people and athletes.” Kotliar, col. 1, ll. 14–29. Kotliar is not directed to fire prevention and suppression, and indeed, the term “fire” does not appear at all in Kotliar. Thus, Kotliar cannot reasonably be said to be within the field of endeavor of fire prevention/suppression.

It is not apparent, nor does the Examiner apprise us, as to why an inventor, when confronted with the problem of fire prevention/suppression, would have initially looked to the art pertaining to human therapy, wellness, and physical training to which Kotliar is directed. Instead, as noted above,

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such an inventor would have sought out solutions set forth in the fire prevention/suppression art. Of course, in seeking a solution to the fire prevention/suppression problem, a person of ordinary skill may be led to a reference in another art, where such reference is reasonably pertinent to the same or similar problem, and “logically would have commended itself to an inventor’s attention in considering his problem.” *See In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1379–81 (Fed. Cir. 2007). However, the rejection at hand does not provide or explain the requisite correlation between the fire prevention/suppression problem and Kotliar, which pertains to human therapy, wellness, and physical training.

The Examiner does not address the above-noted arguments of the Patent Owner in the RAN or in the Answer. In support of the rejection, however, the Requester argues that the problem confronting the inventor is irrelevant in view of the Supreme Court’s precedent *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). Resp. Br. 8–10. Specifically, the Requester points to the Court’s statement that “[i]n determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim.” *KSR*, 550 U.S. at 419. The Requester also points to the Court’s statement that:

the problem motivating the patentee may be only one of many addressed by the patent’s subject matter. . . . Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.

KSR, 550 U.S. at 420.

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Based on the above quotes from *KSR*, the Requester argues that “it simply does not matter whether the inventor was seeking to solve the problem of ‘suppressing fires in a human occupied space’.” Resp. Br. 9.

We do not agree with the Requester’s understanding of *KSR*, and also find that the issue in this case is distinguishable therefrom. At issue in *KSR* was whether it would have been obvious to one of ordinary skill in the art to modify a position-adjustable vehicle pedal so as to incorporate an electronic pedal position sensor attached to the support member of the pedal assembly so that the sensor remains at a fixed position. *KSR*, 550 U.S. at 410–11. The Federal Circuit had reversed the District Court’s conclusion of obviousness, finding that the prior art references applied failed to provide teaching, suggestion, motivation (a.k.a. “TSM”) for the combination. *Id.* at 413–15. The Supreme Court rejected the Federal Circuit’s rigid TSM requirement in order to conclude obviousness of a claim. *Id.* at 415.

The prior art in *KSR* pertained to *adjustable pedals*, and the rejections at issue therein further modified the disclosed adjustable pedals by combining such art with other prior art directed to electronic pedal sensors for computer-controlled throttles. *KSR*, 550 U.S. at 408–09. The Court rejected the Federal Circuit’s finding that the District Court erred in failing to appropriately apply the TSM test, and its finding that the prior art would not have led a person of ordinary skill to put a sensor on the pedal described the adjustable pedal references because the various references sought to address various different problems. *Id.* at 419–420.

Thus, the Court’s statements in *KSR* relied upon by the Requester regarding “particular motivation [and] the avowed purpose of the patentee,”

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as well as “any need or problem,” should be understood in the context of a reason to *combine* prior art references. That is, the problem or reason for combining the prior art references need *not be the same* problem or reason as that of the patentee, but rather, may be “*any need or problem known in the field of endeavor* at the time of invention and addressed by the patent *can provide a reason for combining* the elements in the manner claimed.” *KSR*, 550 U.S. at 420 (emphasis added).

In the above regard, subsequent to *KSR*, the Federal Circuit has continued to apply the analogousness test while fully considering the problem confronting the inventor. *See In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (“Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.”)(quoting *In re Bigio*, 381 F.3d 1320, 1325); *see also Scientific Plastics Products v. Biotage*, 766 F3d 1355, 1359 (Fed. Cir. 2014)(quoting *In re Clay*, 966 F.2d 656, 658–59 (Fed.Cir.1992)). In *Klein*, the court found that references disclosing a drawer or a tray with dividers, and references disclosing mixing bottles that do not have a movable divider or allow for multiple ratios, are not analogous and would not be considered by an inventor considering the problem of making a nectar feeder with dividers that allow for different ingredient ratios. *Klein*, 647 F.3d at 1350–51. In *Scientific Plastics*, the court specifically explained that “[t]he pertinence of the reference as a source of solution to the inventor’s problem must be recognizable with the foresight of

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a person of ordinary skill, not with the hindsight of the inventor's successful achievement." *Scientific Plastics Prod. v. Biotage*, 766 F3d at 1359.

Accordingly, in view of the above, not only does the Requester misinterpret *KSR*, but the subsequent case law from the Federal Circuit clearly establishes that the problem confronting the inventor is relevant to the analogousness inquiry. In addition, the facts of this case are distinguishable from *KSR*, in that Kotliar does not pertain at all to fire suppression/prevention. To the contrary, the Supreme Court also noted that in setting forth an appropriate obviousness analysis, "[t]o facilitate review, this analysis should be made explicit." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections 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")). The Supreme Court warned that the "factfinder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *Id.* at 421.

We agree with the Patent Owner that the Examiner and the Requester appear to engage in impermissible hindsight because as to the actual rejection applied and articulated,

There is no basis for starting the obviousness inquiry from the perspective of one skilled in the art of nitrogen generators looking to back into creating a fire suppressive system, absent the inventor's own teachings. This is the very essence of impermissible hindsight and taints the entire obviousness analysis initially offered by the Third-Party Requester and adopted by the Examiner in the RAN.

PO Rebuttal Brief (hereinafter "PO Reb. Br.") 5.

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There is no articulated rational underpinning that sufficiently links the problem of fire suppression/prevention confronting the inventor to the “Hypoxic Room System and Equipment for Hypoxic Training and Therapy at Standard Atmospheric Pressure” disclosed in Kotliar, which is directed to human therapy, wellness, and physical training.

The Requester argues that breathable fire suppressive environments are well-known in the art, citing to various references in the record. Respondent Brief (hereinafter “Resp. Br.”) 3. This argument is unpersuasive. Firstly, as the Patent Owner correctly observes, “none of those four references was used to support the rejection here under appeal.” PO Reb. Br. 2. Importantly, this is an *inter partes* proceeding, and the rejection at issue was proposed by the Requester, and adopted by the Examiner. RAN 2. Under such circumstances, we agree with Patent Owner that “[t]he issue before the Board [] is the sufficiency of the rejections found in the RAN” (PO Reb. Br. 2), and we decline to determine obviousness of claim 91 based in part on references not cited or applied in the proposed rejection, and consequently, not fully addressed by the Examiner or the Patent Owner as to their relevancy, or lack thereof, as to claim 91.

The Requester also argues that the hypoxic enclosure of Kotliar would inherently protect against, and extinguish fires. Resp. Br. 6. While this argument may or may not have been pertinent if this rejection was based on

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35 U.S.C. § 102, that is not the rejection before us, and this argument does not address the deficiency of the rejection as discussed *supra*.³

Finally, the Requester further argues that:

One problem the '752 patent addresses is the nature of the device to use for producing a reduced oxygen gas for transmission into the enclosure. . . . Kotliar '652 likewise addresses the use of a hollow fiber membrane nitrogen generator as a solution to the problem of producing a reduced oxygen gas, and further describes the transmission of the reduced oxygen gas into a human-occupied enclosure.

Resp. Br. 9.

However, this argument also does not adequately address the deficiency of the rejection as discussed *supra*. In that regard, we agree with the Patent Owner that “[t]he claimed invention, however, is not a nitrogen generator. It is a system for preventing and suppressing fires in a human occupied space, which system *includes* a nitrogen generator.” App. Br. 13;

³ The present rejection, arguments, and analysis, pertain to an obviousness rejection under 35 U.S.C. § 103. We are well aware that, in the context of anticipation rejections under 35 U.S.C. § 102, whether the art is analogous or not is immaterial. *See In re Self*, 671 F.2d 1344, 1350–51 (CCPA 1982). In this regard, we are further aware that, in the context of anticipation, it is not necessary that the applied reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983). However, it is obviousness, not anticipation, that is the basis for the rejections in the present appeal. Moreover, as in other appeals of the related reexaminations, only those arguments actually made by the parties have been considered. Any arguments that the parties did not make are deemed to be waived. *See* 37 C.F.R. § 41.67(c)(1)(vii).

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see also PO Reb. Br. 4. In asserting that the problem addressed by the '752 Patent is “the nature of the device to use for producing a reduced oxygen gas for transmission into the enclosure,” the Requester couches the problem in the context of the implemented solution for the actual problem confronting the inventor (namely fire suppression/prevention), which is improper, and, at its core, is derived from impermissible hindsight.

The additional disagreements between the Examiner and the involved parties as to whether the combination of Kotliar and AFWAL 2060 was proper, and whether an appropriate reason to combine these references has been articulated (*see, e.g.*, App. Br. 14–15; Resp. Br. 6–7, 11, 13; RAN 6), are moot in view of the above. Moreover, the Examiner’s further application of Knight in rejecting dependent claim 94 in Rejection 35 does not address the deficiencies noted above relative to the rejection of independent claim 91.

Accordingly, we reverse Rejections 34 and 35.

DECISION

The Examiner’s rejections of claims 91–94 are Reversed.

Requests for extension of time in this *inter partes* reexamination proceeding are governed by 37 C.F.R. §§ 1.956.

In the event neither party files a request for rehearing within the time provided in 37 C.F.R. § 41.79, and this decision becomes final and appealable under 37 C.F.R. § 41.81, a party seeking judicial review must timely serve notice on the Director of the United States Patent and Trademark Office. *See* 37 C.F.R. §§ 90.1 and 1.983.

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REVERSED

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