

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

McCoy v. Heal Systems, LLC

McCoy · No. 2020-1484 · Decided April 1, 2021

SUMMARY

The United States Court of Appeals for the Federal Circuit affirmed the Patent Trial and Appeal Board's decision in an inter partes review finding claims of U.S. Patent No. 9,790,779 unpatentable as anticipated and/or obvious. The court held that the Board did not improperly define a person of ordinary skill in the art by recognizing access to experts and that any perceived error did not affect the outcome. The court further concluded that substantial evidence supported the Board's obviousness determination.

CASE DETAILS

COURT	United States Court of Appeals for the Federal Circuit
WRITING FOR THE COURT	Reyna, Circuit Judge; Dyk, Circuit Judge; Taranto, Circuit Judge
JURISDICTION	Federal
DECIDED	April 1, 2021
DOCKET	2020-1484
DISPOSITION	affirmed
PROCEDURAL POSTURE	Appeal from the Patent Trial and Appeal Board's final written decision in an inter partes review finding all challenged claims of U.S. Patent No. 9,790,779 unpatentable as anticipated and/or obvious.
STANDARD OF REVIEW	The court reviews the Board's legal conclusions de novo and its factual findings for substantial evidence. The level of ordinary skill in the art is a factual issue reviewed for substantial evidence, but reversal is warranted when the POSA standard is legally incorrect and results in incorrect invalidity findings.
PRECEDENTIAL VALUE	nonprecedential
PARTIES	James N. McCoy v. Heal Systems, LLC

TOPICS

[obviousness](#)[patent law](#)[standard of review](#)[appellate procedure](#)[administrative law](#)

PRACTICE AREAS

patent law

administrative law

appellate procedure

QUESTIONS PRESENTED

1. Whether the Board legally erred by defining a person of ordinary skill in the art as having access to or the ability to consult with other experts.
2. Whether substantial evidence supported the Board's patentability determinations, including its reliance on the challenged patent's specification to identify conventional matter and its obviousness findings based on Barnhart and Gilbert.

HOLDINGS

1. The Board did not commit reversible error in adopting or applying a POSA definition that contemplated access to an expert. Any perceived error did not result in incorrect unpatentability findings because McCoy identified no instance in which expert-level knowledge was applied and led to an erroneous conclusion.
2. Substantial evidence supported the Board's determination that the challenged claims were unpatentable, including the obviousness determination based on Barnhart in view of Gilbert.

KEY QUOTATIONS

“In each case, the definition of POSA must be tailored to practice in the art.” (6)

“We therefore conclude that any perceived error in the Board’s definition did not result in incorrect unpatentability findings, and we affirm the Board’s decision in that regard.” (7)

FACTUAL BACKGROUND

The challenged patent claims systems and methods for oil and gas wells using a pump hydraulically coupled to a gas separator and a specifically sized tailpipe. The Board adopted a definition of a person of ordinary skill in the art that included access to experts, and relied in part on the patent specification's characterization of certain pump components as conventional. The Board found the claims anticipated by Barnhart and obvious over Barnhart in view of Gilbert, including findings concerning tailpipe diameter and pressure gradients.

PROCEDURAL HISTORY

Heal Systems petitioned the Patent Trial and Appeal Board for inter partes review of McCoy's U.S. Patent No. 9,790,779. The Board issued a final written decision on December 30, 2019, finding all challenged claims unpatentable as anticipated and/or obvious. McCoy appealed to the Federal Circuit, which affirmed.

DISPOSITION

affirmed

CASES CITED

- OSI Pharms., LLC v. Apotex Inc., 939 F.3d 1375, 1381 (Fed. Cir. 2019)
- Innovention Toys, LLC v. MGA Ent., Inc., 637 F.3d 1314, 1323 (Fed. Cir. 2011)
- In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998)
- Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966)
- Custom Accessories, Inc. v. Jeffrey-Allan Indus., 807 F.2d 955, 962-963 (Fed. Cir. 1986)
- Env't. Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 697 (Fed. Cir. 1983)
- Ruiz v. A.B. Chance Co., 234 F.3d 654, 667 (Fed. Cir. 2000)
- Elbit Sys. of Am., LLC v. Thales Visionix, Inc., 881 F.3d 1354, 1356 (Fed. Cir. 2018)
- Riverwood Int'l Corp. v. R.A. Jones & Co., 324 F.3d 1346, 1354 (Fed. Cir. 2003)
- Constant v. Advanced Micro-Devices Inc., 848 F.2d 1560, 1570 (Fed. Cir. 1988)

OPINION

McCoy v. Heal Systems, LLC

PER CURIAM.

Case: 20-1484 Document: 39 Page: 1 Filed: 04/01/2021 NOTE: This disposition is nonprecedential. United States Court of Appeals for the Federal Circuit

JAMES N. MCCOY,

Appellant v.

HEAL SYSTEMS, LLC,

Appellee _____ 2020-1484 _____ Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2018-01409. _____ Decided: April 1, 2021 _____

CHRISTOPHER COTROPIA, Bey & Cotropia PLLC, Richmond, VA, argued for appellant. Also represented by NICOLE SIMS, Dallas, TX; DALE BRUCE NIXON, Dale Nixon Law, Dallas, TX. SCOTT J. PIVNICK, Alston & Bird LLP, Washington, DC, argued for appellee. Also represented by JOSHUA MARK WEEKS, Atlanta, GA; KIRK T. BRADLEY, Charlotte, NC.

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Before DYK, REYNA, and TARANTO, Circuit Judges. REYNA, Circuit Judge. James N. McCoy appeals a final written decision of the Patent Trial and Appeal Board in an inter partes review brought by HEAL Systems, LLC. Appellant argues that the Board erred in the way it defined a person of ordinary skill in the art and that substantial evidence does not support the Board's findings as to patentability and what is known in the art. Because we determine that the Board's definition of a person of ordinary skill was not erroneous, and because substantial evidence supports the Board's remaining findings, we affirm.

BACKGROUND

On July 16, 2018, HEAL Systems, LLC ("HEAL") filed a petition for inter partes review of U.S.

Patent No. 9,790,779 (“the ’779 patent”), issued to James N. McCoy (“McCoy”), before the Patent Trial and Appeal Board (“Board”). The ’779 patent generally claims systems and methods for oil and gas wells that employ a pump hydraulically coupled to a gas separator and specifically-sized tailpipe. See ’779 patent col. 19 ll. 40–col. 20 ll. 3, 31–67. Given the right well conditions, the system induces the flow of well fluids up the tailpipe and reduces the pressure gradient of the well fluids flowing up the tailpipe as well as the well’s minimum required producing bottom hole pressure. ’779 patent, Abstract. The ’779 patent explains that the combination of these elements increases well fluid production, particularly in low pressure well conditions in which oil does not reach the surface because the natural forces acting on the geologic formation containing oil in the earth are not great enough to lift the raw well materials to the surface. See, e.g., ’779 patent col. 13 l. 46–col. 14 l. 3. According to the patent, the “lift” can occur in three ways: (1) an artificial lift (i.e., a pump reduces the pressure at the Case: 20-1484 Document: 39 Page: 3 Filed: 04/01/2021

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outlet of the tailpipe which increases the pressure difference between the inlet (bottom) and outlet (top) of the tailpipe causing fluid to flow upwards), ’779 patent col. 9 ll. 38–56; (2) using a tailpipe of a smaller diameter that—under the right conditions—reduces the pressure gradient of the well fluids encouraging upward flow, ’779 patent col. 13 l. 46–col. 14 l. 3; and (3) using a gas separator, which separates gas from the oil in the liquid being pumped, thereby, increasing the efficiency of the pumping operation, ’779 patent col. 3 ll. 45–50. The Board issued its final written decision on December 30, 2019, concluding that all challenged claims are unpatentable as anticipated and/or obvious. J.A. 1–78. Relying on expert testimony, HEAL proposed a definition of a person having ordinary skill in the art (“POSA”). McCoy objected to the Board’s adoption of HEAL’s proposed definition because HEAL’s expert stated, along with the definition, that a POSA would have had access to an expert. In its decision, the Board adopted HEAL’s proposed definition of a POSA. Specifically, the Board concluded “that an ordinarily skilled artisan at that time of invention ‘would have had at least a Bachelor of Science degree in mechanical, petroleum, or chemical engineering, or a related degree, and at least 3-4 years of experience with downhole completion technologies related to deliquification or artificial lift and gas separation.’” J.A. 42. After considering McCoy’s objection, the Board agreed with HEAL’s expert testimony that access to an expert would not convert a POSA into an expert. The Board also determined that a POSA would indeed have access to experts in this particular field. J.A. 43. In addition, the Board used the written description of the ’779 patent to inform itself of what was “conventional” or “ordinary” in the art. Based, at least in part, on its definition of the POSA and its determination of what qualified as conventional and ordinary in the art at the time of invention, the Board determined that the challenged claims Case: 20-1484 Document: 39 Page: 4 Filed: 04/01/2021

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were anticipated by U.S. Patent No. 1,674,815 to Barnhart (“Barnhart” or the “’815 patent”) and

obvious over Barnhart in view of an article by W.E. Gilbert (“Gilbert”). J.A. 2. McCoy appeals. This court has jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

McCoy argues that the Board erred by defining the POSA as having “access to” and the ability to “consult with other experts,” and that such a definition is contrary to statutory law, the law of the Supreme Court, and this court. Appellant’s Br. 23. McCoy contends that the Board improperly keyed its analysis to the skill of experts rather than ordinary skill, which allows for hindsight bias and improperly adds the insight of experts. According to McCoy, the Board’s definition constitutes reversible error that infects the Board’s anticipation and obviousness determinations with respect to all challenged claims. This court reviews the Board’s legal conclusions de novo and its fact findings for substantial evidence. *OSI Pharms., LLC v. Apotex Inc.*, 939 F.3d 1375, 1381 (Fed. Cir. 2019). A determination of the level of skill for a POSA is a factual issue reviewed for substantial evidence and warrants reversal where the POSA standard is legally incorrect and results in incorrect invalidity findings. *Innovation Toys, LLC v. MGA Ent., Inc.*, 637 F.3d 1314, 1323 (Fed. Cir. 2011) (emphasis added). A POSA is patent law’s hypothetical, legal construct “akin to the ‘reasonable person’ used as a reference in negligence determinations.” *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). This theoretical person is the objective vantage point for making obviousness determinations. Case: 20-1484 Document: 39 Page: 5 Filed: 04/01/2021

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according to the statute, see 35 U.S.C. § 103, 1 and Supreme Court and Federal Circuit case law, see *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); see *Custom Accessories, Inc. v. Jeffrey-Allan Indus.*, 807 F.2d 955, 962 (Fed. Cir. 1986). The legal definition of “ordinary” skill for a POSA can be contrasted with one of “expert” skill. See *Env’t. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 697 (Fed. Cir. 1983) (emphasizing “the need to adhere to the statute, i.e., to hold that an invention would or would not have been obvious, as a whole, when it was made, to a person of ‘ordinary skill in the art’—not to the judge, or to a layman, or to those skilled in remote arts, or to geniuses in the art”). By contrast, the role of an expert is to give an impartial opinion on a particular matter that is in dispute and within her expertise. See, e.g., 37 C.F.R. § 42.62; FED. R. EVID. 702. As a threshold matter, we are not convinced that the Board expressly included expert skill in its definition of the POSA. As referenced above, HEAL’s expert defined a POSA, and the Board adopted that definition. HEAL’s expert further opined that a POSA would have had access to an expert, and the Board merely agreed that, in this particular field, a POSA would indeed have had access to an expert. J.A. 43. Nevertheless, for purposes of our analysis, we assume that the Board intentionally included “access to an expert” in its POSA definition. 1 Specifically, pursuant to 35 U.S.C. § 103, “[a] patent for a claimed invention may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . . to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103 (emphasis added). Case: 20-1484 Document: 39 Page: 6

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The problem with this definition is that in the abstract, it may be overly broad. A POSA could, for example, appropriately rely on a seismologist to conduct a seismological test if in the relevant art the POSA routinely would rely on such expert assistance. Reliance on another type of expert, if not routine in the art, might not be appropriate. In each case, the definition of POSA must be tailored to practice in the art. Here, it appears common for POSAs to rely on experts to some extent. Specifically, HEAL's expert opined that a POSA would have accessed other technical experts in the field because the POSA would have been trained and encouraged to do so. Appellee's Br. 25–26 (citing J.A. 1440–41). McCoy's expert admitted that even he frequently consults with field engineers and agreed that this did not make them experts. *Id.* (citing J.A. 1547–75). We conclude that the Board did not improperly determine the challenged claims' patentability from an expert's perspective rather than a POSA's perspective. Even if we deem that the Board's POSA definition was erroneous, we see no indication that it affected the outcome as required to constitute reversible error. See *Innovention Toys*, 637 F.3d at 1323; *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1356 (Fed. Cir. 2018) (“If two inconsistent conclusions may reasonably be drawn from the evidence in record, [the PTAB]’s decision to favor one conclusion over the other is the epitome of a decision that must be sustained upon review for substantial evidence.” (alteration in original) (internal quotation marks omitted)). McCoy does not identify any instance where “expert” knowledge was applied and led to an erroneous conclusion. See, e.g., *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 667 (Fed. Cir. 2000) (collecting cases where reversal is not warranted if “it was not shown that the failure to make a finding or an incorrect finding on level of skill influenced the ultimate conclusion under section 103 and, hence, constituted reversible error” (quoting *Custom Accessories*, 807 F.2d at 963)); see also Appellant's Br. 28. Although the Board Case: 20-1484 Document: 39 Page: 7 Filed: 04/01/2021

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agreed that a POSA would have access to an expert, this by itself does not necessarily mean that the Board made patentability determinations based on an expert level of skill in the art. See, e.g., J.A. 43 (the Board finding McCoy's argument that having access to an expert renders a POSA an expert “wholly unsupported by any citation to objective evidence”). We therefore conclude that any perceived error in the Board's definition did not result in incorrect unpatentability findings, and we affirm the Board's decision in that regard. B McCoy also contends that the Board's unpatentability determinations are not supported by substantial evidence. For example, McCoy contends that the Board erred in relying on the '779 patent specification to determine what was known in the art at the time of the invention because, according to McCoy, the '779 patent specification is insufficient to support the Board's findings. McCoy also argues that the Board's erroneous POSA definition infects its unpatentability determinations and renders them inadequately supported. For the following reasons, we disagree with these arguments and conclude that

substantial evidence supports the Board's determinations. First, McCoy asserts that the Board erred in relying on the '779 patent itself to invalidate its own claims. We disagree. The Board identified and accepted the '779 patent's acknowledgement that sucker-rod pumps (and their components) are "conventional." J.A. 26–29. The Board further relied on the specification to understand how a sucker-rod pump operates to reduce pressure at the outlet of the tailpipe and to induce flow from the formation and through the tailpipe, and applied what the specification deemed as conventional to understanding the Barnhart prior art reference. J.A. 27. The Board did not err by accepting the specification's own assertions of what is well known in the art. See, e.g., *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 Case: 20-1484 Document: 39 Page: 8 Filed: 04/01/2021

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F.3d 1346, 1354 (Fed. Cir. 2003) ("This court and its predecessor have held that a statement by an applicant during prosecution identifying certain matter not the work of the inventor as 'prior art' is an admission that the matter is prior art."); *Constant v. Advanced Micro-Devices Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988) ("A statement in a patent that something is in the prior art is binding on the applicant and patentee for determinations of anticipation and obviousness."). By characterizing certain parts as conventional in the specification, the patentee effectively admits that such things would be known to a POSA. We are not persuaded that the Board erred in considering what the patentee disclosed in the specification as conventional and using that to inform itself of what was understood by a POSA at the time of the invention. Second, McCoy argues that the Board's erroneous POSA definition infects its unpatentability determinations and renders them inadequately supported. We determine that the Board's decision as to obviousness is supported by substantial evidence for the reasons below, and need not reach the Board's decision as to anticipation. Nevertheless, because the Board observed that HEAL relied upon its earlier discussion of Barnhart for its arguments as to obviousness, we discuss the relevant portions of the anticipation argument here. J.A. 56. The Board rejected McCoy's contention that Barnhart neither expressly nor inherently describes a reduced pressure gradient or reduced producing bottom hole pressure as a result of the claimed tailpipe. J.A. 18. The Board found that "Barnhart's tailpipe has at least some portions . . . with an internal diameter less than that of the tubing string that supports the pump." J.A. 17. The Board found that Barnhart stated its invention "minimize[s] the pressure against which the pressure of the expansive fluid at the lower depths has to overcome." J.A. 19; '815 patent page 1 ll. 65–70. The Board further found persuasive that "[b]oth experts agree that Barnhart's tailpipe, due to its Case: 20-1484 Document: 39 Page: 9 Filed: 04/01/2021

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diameter being smaller than the tubing string above it, would reduce the pressure gradient observed in the tailpipe when the fluid mixture flowing through the tailpipe exhibits" a particular type of fluid flow condition, which all wells exhibit at some point. J.A. 19; see also J.A. 20. The

Board then turned to HEAL's secondary reference in support of its obviousness findings, which added Gilbert's teachings "to bolster its argument as to the pressure limitations set forth in each independent claim." J.A. 56. The Board pointed to Gilbert's specific "relevant teachings about the relationship between the pipe diameter and pressure gradients within the pipe and flowing bottom hole pressure." J.A. 56 (citing J.A. 374–77, 379–81, 383, 385– 86, 389). Moreover, the Board explained that McCoy "concedes that Gilbert describes the manner in which a pressure gradient in a tailpipe varies with tubing diameter when lifting a mixture of oil and gas from a well." J.A. 57. Accordingly, we find that the Board's obviousness determinations are supported by substantial evidence.

CONCLUSION

We find no error in the Board's application of its definition of a POSA. In addition, we determine that substantial evidence supports the Board's patentability determination. On these bases, we affirm the Board's determination. We have considered McCoy's other arguments and find them unpersuasive.

AFFIRMED