United States Court of Appeals for the Federal Circuit

00-1046

(Interference No. 101,100)

PETER B. COOPER,

Appellant,

v.

DAVID GOLDFARB,

Appellee.

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Appealed from: Patent and Trademark Office

Board of Patent Appeals & Interferences

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DECIDED: March 2, 2001

Before CLEVENGER, RADER, and SCHALL, Circuit Judges.

SCHALL, Circuit Judge.

This appeal involves a patent interference that is before us for the second time. Peter B. Cooper and David Goldfarb originally filed their patent applications in 1974. An interference was declared between the applications in 1983, and the Board issued a final decision in 1995, awarding priority to Goldfarb. The Board determined that, although Cooper was the first to conceive the invention at issue, which relates to the fibril length of certain material used for vascular grafts, Goldfarb was the first to reduce the invention to practice. Cooper v. Goldfarb, 154 F.3d 1321, 1326-27, 47 USPQ2d 1896, 1900 (Fed. Cir. 1998) ("Cooper I"). Because Cooper had not alleged that he had been diligent in reducing the invention to practice, Goldfarb's earlier reduction to practice entitled him to priority of invention. See 35 U.S.C. § 102(g); Cooper I, 154 F.3d at 1326-27, 47 USPQ2d at 1900.

Cooper appealed the Board decision to this court. We affirmed the Board's determination that Goldfarb was the first to reduce the invention to practice. Id. at 1331, 47 USPQ2d at 1904. We remanded the interference to the Board, however, for consideration of whether Goldfarb's work in reducing the invention to practice might have inured to Cooper's benefit, therefore entitling Cooper to priority of invention. Id. at 1333, 47 USPQ2d at 1905-06. On remand, the Board determined that the relationship between Cooper and Goldfarb was such that Goldfarb's work did not inure to Cooper's benefit, and again awarded priority of invention to Goldfarb. Goldfarb v. Cooper, Pat. Int. No. 101,100 (Bd. Pat. App. & Int. June 17, 1999) (Paper No. 305) ("Cooper II"). Cooper appeals from this decision. Because we conclude that Cooper has not established that he contemporaneously appreciated that the material tested by Goldfarb met the fibril length limitation of the interference count, and has not established that Goldfarb's knowledge of the material's fibril lengths inured to his benefit, we affirm the Board's decision.

BACKGROUND

I.

The invention at issue relates to an artificial vascular prosthesis made from expanded polytetrafluoroethylene ("ePTFE").(1) The invention is useful as a vascular graft. In the early 1970s, when the invention was made, ePTFE was produced as tubes that had a structure consisting of solid nodes of PTFE connected by thin PTFE fibrils. The distance between the nodes is referred to as the fibril length. This distance is important to the suitability of the ePTFE material for use as a vascular graft.

The count defines the invention as follows:

An artificial vascular prosthesis comprising expanded, porous, polytetrafluoroethylene having a microstructure consisting of nodes interconnected by fibrils which permits tissue ingrowth, wherein said fibrils are about above 5 microns up to 100 microns in length.

Cooper I, 154 F.3d at 1326, 47 USPQ2d at 1900.

During the time period at issue, Cooper was the Plant Manager of W.L. Gore & Associate's ("Gore's") Flagstaff, Arizona facility, and primarily was involved in making ePTFE tubes. Cooper provided the tubes to various researchers, who evaluated their suitability for vascular grafts. During the course of his work, Cooper discovered that material from ePTFE tubes with fibril lengths within the scope of the interference count was suitable for use in vascular grafts. The Board found that Cooper had conceived the invention as of June 5, 1973. Id. at 1328, 47 USPQ2d at 1901.

During the same period, Goldfarb was Director of Research and Clinical Staff Surgeon at the Arizona Heart Institute, and was conducting research on artificial vascular grafts. Between February and April of 1973, Cooper sent Goldfarb a number of ePTFE tubes to use in his research. Although Cooper intended that Goldfarb use the tubes for vascular grafts, Cooper did not have any right of control over Goldfarb's research, and Goldfarb was not required to use the tubes supplied by Cooper or to perform his experiments in any particular way.

Goldfarb conducted a series of experiments involving 21 grafts made from the tubes Cooper provided. On June 13, 1973, the graft labeled "2-73 RF," which came from Lot 459-04133-9 provided by Cooper, was determined to be a successful implant in a dog. Goldfarb testified before the Board that in July of 1973 he measured the fibril lengths of that graft, which were found to be within the scope of the interference count, and observed that there was tissue ingrowth into the graft. The Board determined that Goldfarb had conceived the invention "by at least July of 1973," and had reduced the invention to practice "by July of 1973." Id. at 1329, 47 USPQ2d at 1902. As noted, we affirmed that determination. Id. at 1331, 47 USPQ2d at 1904.

II.

When Cooper sent the Lot 459-04133-9 material to Goldfarb, he had not yet recognized the importance of the fibril length required by the interference count, i.e., he had not yet conceived the invention, and he was not aware of the fibril lengths of the material he was sending to Goldfarb. After Cooper conceived the invention, he did not communicate his conception to Goldfarb, and he did not ask Goldfarb to use material having fibril lengths within the range specified by the interference count, or to measure the fibril lengths of the material he had provided.

In view of these facts, the Board, on remand from this court, determined that Cooper was not entitled to benefit from Goldfarb's work in reducing the invention to practice. Cooper II, slip op. at 16. The Board first considered the relationship between Cooper and Goldfarb. The Board noted that the relationship was not like

that in the typical inurement case, where the work of an employee, fellow employee, or agent inures to the benefit of the inventor. Id. at 9-12. The Board noted that Goldfarb was not an employee or fellow employee of Cooper, and that Cooper had no right to control Goldfarb's work. Id. The Board recognized that inurement was found in Burroughs Wellcome Co. v. Barr Laboratories, Inc., 40 F.3d 1223, 32 USPQ2d 1915 (Fed. Cir. 1994), in the absence of an employer-employee or principal-agent relationship. However, it distinguished that case on the ground that the inventors in Burroughs Wellcome had conceived their invention before they sent the material at issue to another party for testing, whereas Cooper had not conceived the invention when he sent the Lot 459-04133-9 material to Goldfarb. Cooper II, slip op. at 14.

The Board determined that Cooper had intended that Goldfarb use the material for vascular grafts, but that he "could not have been requesting that Goldfarb reduce the invention to practice because at that time Cooper did not know what the invention in issue was." Id. at 15. The Board commented on Cooper's failure to communicate his conception to Goldfarb, as well as his failure to ensure that Goldfarb used grafts with fibril lengths within the scope of the interference count. Id. The Board determined that Cooper did not know whether the material sent to Goldfarb fell within the scope of the count. Id. at 16. The Board concluded that, under these circumstances, Goldfarb's reduction to practice did not inure to Cooper's benefit. Id. Cooper appeals the Board's decision. We have jurisdiction pursuant to 35 U.S.C. § 1295(a)(4)(A).

DISCUSSION

I.

When two patent applications are directed to the same invention, the Patent Office declares an "interference" between the applications to determine which applicant is entitled to priority of invention. See 35 U.S.C.A. § 135 (West Supp. 2000). The precise scope of the interfering subject matter is defined by the interference "count." 37 C.F.R. § 1.601(f) (2000). Priority is generally awarded to the applicant who was first to reduce the invention to practice; however, an applicant who was first to conceive the invention but last to reduce it to practice will be awarded priority if he demonstrates reasonable diligence in his reduction to practice. 35 U.S.C.A. § 102(g) (West Supp. 2000). "Conception is the formation, in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is thereafter to be applied in practice." Cooper I, 154 F.3d at 1327, 47 USPQ2d at 1901. To establish reduction to practice, the inventor must prove that he made an embodiment of the invention that met all of the limitations of the interference count and that he determined that the invention would work for its intended purpose. Id. When testing is necessary to establish that the invention will work for its intended purpose, the embodiment relied upon as evidence of reduction to practice must work for the intended purpose. Id. Moreover, "the inventor must contemporaneously appreciate that the embodiment worked and that it met all the limitations of the interference count." Id.

At the time we decided Cooper I, the Board had determined that Cooper was first to conceive the invention at issue, but that Goldfarb was first to reduce the invention to practice. Cooper I, 154 F.3d at 1326, 47 USPQ2d at 1900. Because Cooper had not alleged any diligence in his reduction to practice, the Board awarded priority of invention to Goldfarb. Id. at 1326-27, 47 USPQ2d at 1900. As discussed above, we affirmed the Board's determinations as to the relative dates of conception and reduction to practice, id. at 1331, 47 USPQ2d at 1904; however, we remanded the case for the Board to consider whether Goldfarb's work in reducing the invention to practice might inure to Cooper's benefit. Id. at 1332-33, 47 USPQ2d at 1905-06. Thus, the only way that Cooper can be awarded priority at this point is to prevail on his inurement claim.

"Inurement involves a claim by an inventor that, as a matter of law, the acts of another person should accrue to the benefit of the inventor." Cooper I, 154 F.3d at 1331, 47 USPQ2d at 1904. Because inurement is a question of law, we review de novo the Board's determination that Goldfarb's work does not inure to Cooper's benefit. Genentech, Inc. v. Chiron Corp., 220 F.3d 1345, 1351, 55 USPQ2d 1636, 1641 (Fed. Cir.

2000).

II.

Cooper challenges the Board's decision on two grounds. First, he argues that the Board placed too much weight on the fact that he had not conceived the invention when he sent the Lot 459-04133-9 material to Goldfarb. Second, he contends that the Board erred when it determined that the relationship between Goldfarb and himself did not support his inurement claim. We address these arguments in turn.

A.Cooper argues that the relative timing of his conception and his sending the Lot 459-04133-9 material to Goldfarb is irrelevant to his inurement claim. He asserts that there is no authority for what he reads as the Board's requirement that he must have conceived the invention before he sent the material to Goldfarb for testing. Cooper argues that because he conceived the invention before Goldfarb reduced it to practice in the course of testing the material at his (Cooper's) request, he (Cooper) is entitled to the benefit of Goldfarb's reduction to practice.

To the extent that the Board's opinion can be read as requiring, for an inurement claim, that the inventor have conceived the invention before he asks another person to test the material relied upon to establish reduction to practice, it is incorrect. Nothing in our interference case law imposes such a requirement. Both Cooper and Goldfarb cite Burroughs Wellcome and Gianladis v. Kass, 324 F.2d 322, 139 USPQ 300 (CCPA 1963), in support of their positions, but these cases are not very instructive on the point. The issue before the court in Burroughs Wellcome was conception, not reduction to practice. Burroughs Wellcome, 40 F.3d at 1227, 32 USPQ2d at 1919. In its brief reference to inurement, the court did not discuss the relative timing of the Burroughs Wellcome inventors' conception and their request to a second party for testing. Id. at 1230, 32 USPQ2d at 1922. Moreover, it appears that while the inventors had not conceived the invention when they first contacted the second party about testing their material, id. at 1225-26, 32 USPQ2d at 1917, they had conceived the invention when they first sent the material for testing, id. at 1226, 1230, 32 USPQ2d at 1918, 1922, unlike the situation in this case. In Gianladis, the issue was whether Gianladis could establish a corroborated reduction to practice date where the person who tested the material at issue, a cosmetic composition, did not have independent knowledge of its formulation. Gianladis, 324 F.2d at 325, 139 USPQ at 303-04. Cooper relies on this case because Gianladis was found to have a corroborated date of conception that was later than the date on which he had asked the other person to test the material for cosmetic use. Gianladis, 324 F.2d at 323-24, 139 USPQ at 302. However, Gianladis' uncorroborated laboratory notebooks indicated that he had conceived the invention before he sent the pertinent material for testing. Id. at 322, 139 USPQ at 302. Thus, neither of these cases addresses a situation where the inventor had not conceived the invention before he sent for testing the material relied upon to establish reduction to practice. We decline to adopt a rule of law that would bar inurement under such circumstances.

B.Cooper's second argument is that the Board's inurement analysis placed too much emphasis on the relationship between Cooper and Goldfarb, and overlooked the core inurement inquiry: whether Goldfarb was working at Cooper's request when he reduced the invention to practice. Cooper asserts that the Board erred by finding no inurement because he did not have a right to control Goldfarb's work. Cooper also asserts that, in reaching its decision, the Board should not have relied on his failure to communicate his conception to Goldfarb.

As set forth above, in order to establish reduction to practice, the inventor must prove that he made an embodiment of his invention that met all of the limitations of the interference count and that he determined that the invention would work for its intended purpose. Cooper I, 154 F.3d at 1327, 47 USPQ2d at 1901. The inventor also must prove that he "contemporaneously appreciate[d] that the embodiment worked and that it met all the limitations of the interference count." Id. What that means in terms of this case is that Cooper must establish that he made ePTFE material having fibril lengths within the scope of the interference count, that he determined that the material would be useful as a vascular graft, and that he knew, at the time of his

alleged reduction to practice, both that the material had the properties recited in the count and that it would be useful as a graft. The record establishes that Cooper made an embodiment of the invention that satisfied the limitations of the interference count, the Lot 459-04133-9 material. However, Cooper himself did not determine that the material worked for the intended purpose of the invention (use as a vascular graft), and Cooper himself did not know that the ePTFE material he sent to Goldfarb met the fibril length limitation of the count. Accordingly, Cooper relies on the inurement doctrine to obtain the benefit of Goldfarb's recognition that the material worked for the intended purpose of the invention and to obtain the benefit of Goldfarb's knowledge of the fibril lengths of the material Goldfarb tested.

As to whether Cooper can obtain the benefit of Goldfarb's recognition that the material worked for the intended purpose of the invention, there are "at least three requirements that must be met before a non-inventor's recognition of the utility of an invention can inure to the benefit of the inventor:" (1) "the inventor must have conceived of the invention;" (2) "the inventor must have had an expectation that the embodiment tested would work for the intended purpose of the invention;" and (3) "the inventor must have submitted the embodiment for testing for the intended purpose of the invention." Genentech, 220 F.3d at 1354, 55 USPQ2d at 1643.

Cooper had conceived the invention by the time Goldfarb evaluated the 2-73 RF graft. Cooper I, 154 F.3d at 1326, 47 USPQ2d at 1900. In addition, in the letter to Goldfarb accompanying the Lot 459-04133-9 material, Cooper described the material as "represent[ing] the latest attempt to achieve satisfactory patency rates in small artery prosthetics," indicating that he expected the material to be suitable as a vascular graft. Finally, as the Board found, "Cooper certainly intended that Goldfarb use the [material] for vascular grafts, and to that extent Goldfarb's experiments could be said to have been performed at Cooper's request." Cooper II, slip op. at 14. Applying the Genentech test to these facts, we hold that Goldfarb's recognition that the 2-73 RF graft from the Lot 459-04133-9 material was suitable for use as a vascular implant inures to Cooper's benefit.

As to whether Cooper can obtain the benefit of Goldfarb's knowledge of the fibril lengths of the material Goldfarb tested, we apply a modified version of the Genentech test, and consider (1) whether Cooper had conceived the fibril length limitation of the interference count, (2) whether Cooper had an expectation that the ePTFE material that he furnished to Goldfarb had the required fibril lengths, and (3) whether Cooper submitted the material to Goldfarb for testing to determine whether it had the required fibril lengths.

As set forth above, Cooper had conceived the invention, including the fibril length limitation, before Goldfarb reduced the invention to practice. Cooper I, 154 F.3d at 1326, 47 USPQ2d at 1900. Although Cooper had not conceived the fibril length limitation before he sent the material to Goldfarb, as explained above, there is no requirement that he have done so in order to establish inurement. Accordingly, the first part of the Genentech test is satisfied.

Cooper argues that the second and third prongs of the Genentech test are satisfied because he knew when he sent the Lot 459-04133-9 material to Goldfarb that it was his best ePTFE material. In making this argument, he cites the letter dated April 2, 1973, that he received from Dr. William Sharp of the Akron City Hospital in Akron, Ohio, and the April 19, 1973 letter that he sent to Goldfarb accompanying the Lot 459-04133-9 material. Dr. Sharp's letter reported the results of his studies in dogs of four distinct groups of ePTFE material that had been provided to him by Cooper. The letter identified one of the groups as being the most promising for use as a vascular graft, and suggested that further studies include the measurement of the porosity of the ePTFE material. As discussed above, Cooper's April 19 letter to Goldfarb described the Lot 459-04133-9 material as "represent[ing] the latest attempt to achieve satisfactory patency rates in small artery prosthetics."

Neither the Sharp letter nor the Cooper letter mentions fibril length. Thus, these letters do not indicate that Cooper expected that the ePTFE material that was to be tested by Goldfarb had the fibril lengths required by the interference count, or that Cooper submitted the material to Goldfarb for a determination of its fibril lengths. As noted in Cooper I, and as confirmed by the Sharp letter, Cooper was focusing on the porosity of

the material at that time, not its fibril length. Cooper I, 154 F.3d at 1324, 47 USPQ2d at 1898. Indeed, Cooper admits that, even after he conceived the importance of fibril length, he did not convey that information to Goldfarb. He also admits that he did not ask Goldfarb to use grafts with fibril lengths required by the interference count, or to determine the fibril lengths of successful grafts. While Cooper was not required to communicate his conception to Goldfarb, Cooper I, 154 F.3d at 1332, 47 USPQ2d at 1905, his failure to convey any information or requests regarding fibril length prevents Goldfarb's determination of the fibril lengths of the material from inuring to his benefit.

Cooper also argues that he himself knew the fibril lengths of the material sent to Goldfarb. If that were true, then he could establish reduction to practice even though Goldfarb's determination of the fibril lengths does not inure to his benefit. However, no evidence of record indicates that Cooper knew the fibril lengths of the material tested by Goldfarb at the relevant time, i.e., prior to Goldfarb's reduction to practice in 1973. The only document of record demonstrating Cooper's knowledge of the ePTFE material's fibril lengths reflects microscopic evaluations performed in 1984 (the "1984 data"). Cooper argues that this evidence can be used to establish the required knowledge nunc pro tunc, but our case law does not provide for the retroactive establishment of reduction to practice.

As set forth above, in order to establish reduction to practice, an inventor must prove that he "contemporaneously appreciate[d] that the embodiment . . . met all the limitations of the interference count." Cooper I, 154 F.3d at 1327, 47 USPQ2d at 1901 (citing Knorr v. Pearson, 671 F.2d 1368, 1375, 213 USPQ 196, 292 (CCPA 1982)). "Subsequent testing or later recognition may not be used to show that a party had contemporaneous appreciation of the invention." Id. at 1331, 47 USPQ2d at 1904. As the Court of Customs and Patent Appeals stated in Knorr, "[t]his court has long refused to recognize attempted nunc pro tunc reductions to practice." Knorr, 671 F.2d at 1375, 213 USPQ at 201-02 (discussing Langer v. Kaufman, 465 F.2d 915, 175 USPQ 172 (CCPA 1972), and Heard v. Burton, 333 F.2d 239, 142 USPQ 97 (CCPA 1964)). Addressing the case before it, the court held that "[e]ven assuming that Knorr established the inherent [presence of the limitation of the count], his failure to appreciate that [property] defeats his alleged conception and reduction to practice. Knorr's subsequent recognition of the [property] . . . [is] irrelevant." Id., 213 USPQ at 202.

Cooper suggested during oral argument that, in Cooper I, we awarded Goldfarb a nunc pro tunc reduction to practice date because the Board, whose decision on the point we affirmed, had considered the 1984 data when it determined that Goldfarb had reduced the invention to practice in 1973. This argument mischaracterizes Cooper I. In Cooper I, we found that the testimony of Richard Mendenhall and Harold Green, two Gore employees, corroborated Goldfarb's testimony that he had determined the fibril lengths of the 2-73 RF graft in July of 1973. Id. at 1330, 47 USPQ2d at 1903. We also found that the testimony of Goldfarb's assistant, Jimmy Lee Moore, and the 1984 data independently corroborated Goldfarb's testimony that he had conducted a successful experiment using a graft that met the limitations of the interference count. Id., 47 USPQ2d at 1904. We noted that "the Board did not rely on the 1984 tests to infer that Goldfarb knew the fibril lengths of the 2-73 RF graft in 1973. Instead, the Board relied on the tests to confirm that the 2-73 RF graft met the count." Id. We explained that the rule against the nunc pro tunc establishment of reduction to practice does not prevent the admission of "evidence of subsequent testing . . . for the purpose of showing that an embodiment was produced and that it met the limitations of the count." Id. at 1331, 47 USPQ2d at 1904; see also Gianladis, 324 F.2d at 326 n.7, 139 USPQ at 304 n.7 (determining that there was no impermissible nunc pro tunc situation where there was no question that the inventor was aware of the relevant characteristics of the material relied upon to establish reduction to practice before the material was tested by another person, and that the later testing merely confirmed that the material met the limitations of the interference count).

Like Goldfarb, Cooper can rely on the 1984 data to confirm that the 2-73 RF graft met the limitations of the interference count. However, he cannot rely on that data to establish that he appreciated, in 1973, that the ePTFE material that Goldfarb tested had the fibril lengths set forth in the count. Such a use of the 1984 data

would violate "[t]he rule that . . . reduction to practice cannot be established nunc pro tunc." Cooper I, 154 F.3d at 1321, 47 USPQ2d at 1904.

CONCLUSION

For the foregoing reasons, the judgment awarding priority of invention to Goldfarb is

AFFIRMED.

COSTS

Each party shall bear its own costs.

1. [1] The facts set forth herein are drawn from our previous decision in Cooper I and from the Board's findings on remand in Cooper II, which are not challenged on appeal.