United States Court of Appeals for the Federal Circuit

01-1161
(Interference no. 103,635)

JOHN D. SCOTT and RACHEL A. STEVEN,

Appellants,

v.

SATOSHI KOYAMA, YUKIO HOMOTO, and NAOKI ESAKA,

Appellees.

Paul N. Kokulis, Pillsbury Winthrop LLP, of Washington, DC, argued for appellants. With him on the brief were Lynn E. Eccleston and Susan T. Brown.

Raymond C. Stewart, Birch, Stewart, Kolasch & Birch LLP, of Falls Church, Virginia, argued for appellees. With him on the brief was Andrew D. Meikle.

Appealed from: United States Patent and Trademark Office
Board of Patent Appeals and Interferences.

United States Court of Appeals for the Federal Circuit

01-1161
(Interference No. 103,635)

JOHN D. SCOTT and RACHEL A. STEVEN,

Appellants,

v.

SATOSHI KOYAMA, YUKIO HOMOTO, and NAOKI ESAKA,

Appellees.

DECIDED: February 27, 2002

Before NEWMAN, SCHALL, and BRYSON, Circuit Judges.

NEWMAN, Circuit Judge.

John D. Scott and Rachel A. Steven (together "Scott") appeal the decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office, awarding priority of invention to the senior party Satoshi Koyama, Yukio Homoto, and Naoki Esaka (together "Koyama").[1] Scott established conception of the process of

[1] Scott v. Koyama, Patent Interference No. 103,635, (Bd. Pat. App. & Interf. Aug. 30, 2000).

the count, and presented evidence of reasonable diligence to reduction to practice from a time preceding the effective filing date of the Koyama patent application (on which Koyama relied) to the effective filing date of the Scott patent application. The Board erred in holding that only chemical process laboratory activity can serve as evidence of diligence. The decision of the Board is reversed, and the case is remanded with instructions to award priority to Scott.

BACKGROUND

The invention is a process for producing 1,1,1,2-tetrafluoroethane, a replacement for chlorofluorocarbons in refrigeration systems. The sole interference count follows:

> In a method for producing 1,1,1,2-tetrafluoroethane in two reaction stages involving (1) the reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluorochloroethane and (2) the reaction of 1,1,1-trifluorochloroethane with hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane:
> carrying out the reaction (2) between 1,1,1-trifluorochloroethane and hydrogen fluoride at a temperature in the range of 300^0C to 400^0C,
> carrying out the reaction (1) between 1,1,1-trichloroethylene and hydrogen fluoride at a temperature in the range of 180^0C to 300^0C and
> recycling unconverted 1,1,1-trifluoroethane [sic: 1,1,1-trifluorochloroethane] with hydrogen fluoride for further reaction in the presence of trichloroethylene.
>
> or
>
> In a method for producing 1,1,1,2-tetrafluoroethane in two reaction stages involving (1) the reaction of trichloroethylene and hydrogen fluoride to produce 1,1,1-trifluoro-2-chloroethane and (2) the reaction of 1,1,1-trifluoro-2-chloroethane with hydrogen fluoride to produce 1,1,1,2-tetrafluoroethane, the improvement which comprises carrying out the reaction (2) between 1,1,1-trifluoro-2-chloroethane and hydrogen fluoride at a temperature in the range of 280^0-450^0 C, carrying out the reaction (1) between trichloroethylene and hydrogen fluoride at a temperature in the range of 200^0-400^0C, and below that used in reaction (2), and recycling unconverted 1,1,1-trifluoro-2-chloroethane with hydrogen fluoride for further reaction in the presence of trichloroethylene.

Koyama was the senior party based on a patent application filed in Japan on March 13, 1990 and assigned to Daikin Industries, Ltd. Scott was the junior party based on a patent

application filed in the United Kingdom on March 29, 1990 and assigned to Imperial Chemical Industries PLC.

DISCUSSION

Under the law applicable to this interference, activity outside the United States is not relevant to priority beyond establishing an effective filing date under 35 U.S.C. §119.[2] Koyama, the senior party, relied on his Japanese filing date. Scott bore the burden of showing conception in the United States before Koyama's Japanese filing date, plus either actual reduction to practice in the United States before Koyama's Japanese filing date, or diligence in the United States to Scott's United Kingdom filing date as constructive reduction to practice. See Hitzeman v. Rutter, 243 F.3d 1345, 1353, 58 USPQ2d 1161, 1166 (Fed. Cir. 2001) ("priority of invention is awarded to the first party to reduce an invention to practice unless the other party can show that it was the first to conceive of the invention and that it exercised reasonable diligence in later reducing that invention to practice"); Haskell v. Colebourne, 671 F.2d 1362, 1365, 213 USPQ 192, 194 (CCPA 1982) ("Appellants must establish that they actually reduced to practice the invention of the counts before July 17, 1972, Colebourne's actual U.S. filing date, or that they conceived the invention prior to that date and proceeded with diligence toward a reduction to practice, either actual or constructive."); Keizer v. Bradley, 270 F.2d 396, 400, 123 USPQ 215, 218 (CCPA 1959) (there is no penalty to the first inventor who diligently works to reduce it to practice). The Board stated the correct procedural obligations:

---

[2] Effective January 1, 1996, applicants within the scope of 35 U.S.C. '194(a)(1) may support priority with evidence of work done outside of the United States. However, this interference is governed by the prior rules, whereby only activity within the United States can serve to establish priority. 35 U.S.C. '104 (1994) ("an applicant for a patent, or patentee, may not establish a date of invention by reference to knowledge or use thereof, or any other activity with respect thereto, in a foreign country, except as provided in section 119 and 365 of this title.") In accordance with 35 U.S.C. '119 the parties to this

> Scott, as the junior party, must establish that it actually reduced to practice the invention of the count before March 13, 1990, Koyama's priority date, or that it first conceived the invention prior to that date and proceeded with reasonable diligence from a time just prior to the opponent entering the field toward a reduction to practice, either actual or constructive. 35 U.S.C. §102(g).

Board op. at 6.

Priority of invention is a question of law, based on findings of evidentiary fact directed to conception, reduction to practice, and diligence. See Price v. Symsek, 988 F.2d 1187, 1190, 26 USPQ2d 1031, 1033 (Fed. Cir. 1993) ("Priority is a question of law which is to be determined based upon underlying factual determinations.")

Effective Filing Dates Under 35 U.S.C. §119

An interference proceeding begins with determination of the effective filing dates of the parties. The party with the earlier effective filing date is deemed the "senior party," and will prevail unless the junior party establishes entitlement to an earlier date. See 37 C.F.R. §1.657(a) (establishing a rebuttable presumption that competing inventions were made in the order of their effective filing dates).

Koyama, the senior party, relied on his Japanese filing date of March 13, 1990, and proffered no evidence of earlier activity in the United States. See 35 U.S.C. §119(a) (foreign application "shall have the same effect as the same application would have if filed in this country on the date" of the foreign filing). Thus a date of constructive reduction to practice for interference purposes may be established by a properly invoked foreign filing date. Scott, as the junior party, undertook to establish a priority date in the United States by showing that he was in possession of the invention of the count, in the United States, before Koyama's Japanese filing date. See 37 C.F.R. §1.657(b) (for copending interfering

---

interference rely on their foreign filing dates to establish constructive reduction to practice.

applications, junior party has burden of establishing priority by a preponderance of the evidence).

Conception

A conception date by Scott in the United States before March 13, 1990, was conceded, based on Scott's evidence that a full description of the process of the count was contained in written materials disclosed to persons at ICI Americas, ICI's subsidiary in Wilmington, Delaware. In Thomas v. Reese, 1880 Off. Gaz. Pat. Office 196, the Commissioner of Patents established this rule:

> If [an inventor], having conceived [the invention] and reduced it to practice in a foreign country, he communicates it to an agent in the United States for the purpose of obtaining letters patent or of introducing it to public use in the United States, he may, in an interference, carry the date of his invention back to the day in which it was fully disclosed to such agent in the United States.

Id. at 198. See Mortsell v. Laurila, 301 F.2d 947, 951, 133 USPQ 380, 384 (CCPA 1962) (finding conception in the United States where the evidence establishes the "existence in the United States, before April 15, 1954, of a complete written disclosure of an invention conceived by a person we must presume, for the purposes of this appeal, there being no contrary evidence, to be the applicant Laurila.") Thus the inventor of an invention of foreign origin may rely on the date that the invention was disclosed in the United States, as a conception date for priority purposes.

Reduction to Practice

The record also shows communication to persons at ICI Americas of data obtained in England and described as verifying the efficacy of the process. The Board held that this activity in England and its communication to persons in the United States did not establish an actual reduction to practice in the United States. We agree. Reduction to practice in the United States requires that the invention be embodied in tangible form in the United

States, not simply reported. See Shurie v. Richmond, 699 F.2d 1156, 1158, 216 USPQ 1042, 1044 (Fed. Cir. 1983) ("Shurie concedes that he carried out the process in Canada only; because he never performed that process in the United States, Shurie is restricted to his filing date.")

Although Scott argues that all of the chemistry had already been done in the U.K. and that it would have been highly inefficient as well as unnecessary to repeat it, an actual reduction to practice of a chemical process generally requires performance of the process. See Corona Cord Tire Co. v. Dovan Chemical Corp., 276 U.S. 358, 383 (1928) ("A process is reduced to practice when it is successfully performed."); Shurie v. Richmond, 699 F.2d 1156, 1159, 216 USPQ 1042, 1045 (Fed. Cir. 1983) ("Generally, the invention of a process is completed, or reduced to practice, when it is successfully performed.") The Board correctly held that Scott had not established an actual reduction to practice in the United States prior to Koyama's priority date.

Diligence

Scott's date of constructive reduction to practice, based on 35 U.S.C. §119, is March 29, 1990. The Board held that the "critical period" during which Scott must show diligence is the period from just prior to Koyama's effective filing date of March 13, 1990, to Scott's effective filing date of March 29, 1990. Scott presented evidence of daily activity during this seventeen-day period, all activity for the purpose of building a manufacturing plant to practice the process of the count. During this period Scott's activities were focused on the selection of the construction company. The Board ruled that Scott's activities in constructing a manufacturing plant were directed to commercializing the invention, not to reducing it to practice, and thus that these activities can not serve as evidence of diligence. Thus the Board ruled that Scott had not established a date in the

United States earlier than Koyama's priority date.

Although we agree with the Board that these preparations for manufacture were not of themselves an actual reduction to practice of the claimed process, the preparations were all directly aimed at achieving actual practice of the process on a large scale in the United States. Thus the preparations in the United States, directly aimed at commercial practice in the United States, were improperly excluded as evidence of diligence to reduction to practice.

The Board did not disagree that Scott was diligently working toward large-scale commercial practice of the process; instead the Board ruled that only practice of the chemical process itself could serve as evidence of diligence. The Board explained: "Not one activity was directed to the physical practice of the process. By March 29, 1990, no equipment or materials were purchased and no experiments were conducted. Rather, each and every activity during that period, manifested by oral or written communications, was a step in a plan for realizing the process on a commercial scale." That is an incorrect view of the law.

The activities that may be considered in a showing of diligence can take a diversity of forms. Precedent illustrates the continuum between, on the one hand, ongoing laboratory experimentation, and on the other hand, pure money-raising activity that is entirely unrelated to practice of the process. The cases cited by the Board illustrate these principles. In Hurd v. Smith, 97 F.2d 147, 152, 37 USPQ 708, 712 (CCPA 1938) the court found that the only activity was "commercial," and mentioned the absence of "any testing or modifying or manufacturing of the device." Petersen v. Thomas, 10 F.2d 908 (D.C. Cir. 1926), also cited by the Board, held that efforts by the inventor to secure financial backing, by showing the invention to prospective manufacturers over a four year period, did not establish diligence toward reduction to practice. In Antoshkiw v. Pevsner, 224 USPQ 1049

(Bd. Pat. Int. 1983), also cited by the Board, the Board's decision was based on derivation, although the Board also stated that "commercial activity" is not diligence. In Preston v. White, 97 F.2d 160, 37 USPQ 802 (CCPA 1938), the inventors' efforts to raise money to market the device and pay their debts were deemed not diligence toward reduction to practice.

Scott, however, was proceeding diligently to manufacture by building a plant designed to practice the process of the count, whereas the cases where diligence was not found show inventors either discontinuing development or failing to complete the invention while pursuing financing or other commercial activity. See Petersen, 10 F.2d at 908 ("his sole reason for delaying reduction to practice until August of 1921, a period of more than four years, was his inability commercially to exploit it through its manufacture and sale."); Seeberger v. Dodge, 24 App. D.C. 476 (1905) ("his constant effort was to organize corporations, or to interest capital in other ways, for the purpose of engaging in the general manufacture of escalators.")

Scott's activities were directed to building the facility needed for the large-scale practice of the process of the count. The scale of the intended practice does not disqualify the activity that was taken in order to achieve it. As the Board recognized, efforts toward actual reduction to practice are relevant to diligence until constructive reduction to practice. See Rey-Bellet v. Englehardt, 493 F.2d 1380, 181 USPQ 453 (CCPA 1974). Scott provided evidence of daily activity during the seventeen days, all progressing to the building of a plant for commercial practice of the process of the count. These activities were incorrectly excluded from consideration. When considered, reasonable diligence necessarily was shown from just before Koyama's effective filing date of March 13, 1990, to Scott's effective filing date of March 29, 1990. In view of the conceded conception, priority was established by Scott.

The Board's decision is reversed, and the case is remanded with instructions to award priority to Scott.

REVERSED AND REMANDED