

890 F.2d 1158  
58 USLW 2376, 57 Ed. Law Rep. 405, 13  
U.S.P.Q.2d 1070

In re Marshall W. CRONYN.

*No. 89-1434.*

**United States Court of Appeals,  
Federal Circuit.**

*Nov. 29, 1989.*

Peter J. Dehlinger, Palo Alto, Cal., argued for appellant.

Nancy C. Slutter, Associate Sol., Office of the Sol., Arlington, Va., argued for appellee. With her on the brief was Fred E. McKelvey, Sol., Woodbridge, Va.

Before FRIEDMAN, Senior Circuit Judge,\* and ARCHER and MAYER, Circuit Judges.

FRIEDMAN, Senior Circuit Judge.

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The sole question in this case is whether the Board of Patent Appeals and Interferences (Board) correctly held that three undergraduate theses were "printed publications" under 35 U.S.C. Sec. 102(b) (1982), which anticipated the invention for which a patent was sought. We hold that the theses were not "printed publications," and we therefore reverse the Board.

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\* A. The facts in this case are undisputed. The patent application was for a chemical compound that apparently may be useful in cancer treatment. The appellant, the applicant for the patent, is a professor of chemistry (and Vice President/Provost) at Reed College, a liberal arts college in Portland, Oregon. Reed College is solely an undergraduate institution, and does not have any graduate programs for research or scholarship.

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As a requirement for graduation with a Bachelor of Arts degree, Reed College requires each of its students to prepare a senior thesis. The student presents the thesis to a Thesis Oral Board, composed of four faculty members including the student's faculty sponsor and another faculty member from the student's department. The appellant states that the "purpose of the thesis requirement is to give the student the opportunity to carry out laboratory or scholarly research and to present the work in a more thorough and formal manner than is normally possible with the usual term paper," and that the "thesis requirement is purely educational and the students are not required by general college policy to produce original or publishable research or scholarship."

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A copy of each thesis is filed in the main college library and in the library of the particular department in which the student's work was done. The theses are listed on individual cards

which show the student's name and the title of the thesis. The cards are filed alphabetically by the author's name.

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The titles of the theses may be descriptive, as were the titles of the three theses involved in this case. One of these is entitled "Synthesis of Cyclic Methanedisulfonate Esters by Silver Salt Method." Other theses on file in the chemistry department library, however, have more fanciful titles, such as "Make My Func. the P-Func"; "Close to the Edge"; "Evolution and Lucifer"; "Easy Come, Easy Go"; "Hunan's Thanatopsis: Haecceity, Tathat, and Doedecahedrane".

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In the main library, there are approximately 6,000 cards listing theses. In the chemistry department library there are approximately 450 cards contained in a shoebox. At oral argument the appellant stated that both the listing cards and the theses themselves are available for public examination.

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In neither the main library nor the chemistry department library are the theses generally indexed or cataloged. They are not assigned Library of Congress catalog numbers.

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The appellant stated that "occasionally a student's thesis is published, in whole or part, in a professional journal." He further stated, however, that although the thesis research projects were carried out in his laboratory, "none of the students involved have presented their senior theses or pertinent parts thereof in any professional journal or to any professional society, or in any other professional setting." The appellant also stated that prior to the filing of the patent application he had not "made any publication in a professional journal, or presentation to a professional society, or any other disclosure or presentation in the fields" involved in or related to the senior theses that "would associate my research interests with the field of the invention."

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B. The Board affirmed the examiner's rejection of the application under 35 U.S.C. Sec. 102(b) as anticipated by the three student theses. The Board stated that the "sole issue before us is whether" the three theses "are printed publications within the meaning of" 35 U.S.C. Sec. 102(b), since the appellant had "conceded ... that if they are, the subject matter of the claims is unpatentable to him." The Board found that there was "no significant distinction between the facts here and those in" *In re Hall*, 781 F.2d 897, 228 USPQ 453 (Fed.Cir.1986), discussed in part II below. It concluded that "reasonable diligence" by a researcher in the field "would have uncovered the documents."

II

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Under 35 U.S.C. Sec. 102(b), a patent cannot be granted if "the invention was ... described in a printed publication in this ... country ... more than one year prior to the date of the application for patent in the United States...."

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In cases like the present one, where there are no disputed factual issues, the question whether particular material is a "printed publication" is a question of law. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 & n. 9, 1 USPQ2d 1593, 1597 & n. 9 (Fed.Cir.), cert. denied, 481 U.S. 1052, 107 S.Ct. 2187, 95 L.Ed.2d 843 (1987) (citing *In re Hall*, 781 F.2d 897, 899, 228 USPQ 453, 455 (Fed.Cir.1986)). See also *National Semiconductor Corp. v. Linear Technology Corp.*, 703 F.Supp. 845, 847, 8 USPQ2d 1359, 1361 (N.D.Cal.1988). "[T]he printed publication provision was designed to prevent withdrawal by an inventor, as the subject matter of a patent, of that which was already in the possession of the public." *In re Wyer*, 655 F.2d 221, 226, 210 USPQ 790, 794 (CCPA 1981).

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"The statutory phrase 'printed publication' has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was 'published.' " *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568, 7 USPQ2d 1057, 1062 (Fed.Cir.), cert. denied, --- U.S. ----, 109 S.Ct. 228, 102 L.Ed.2d 218 (1988).

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This court and its predecessor twice recently have considered the status as printed publications of academic papers filed in a university library. In *In re Bayer*, 568 F.2d 1357, 196 USPQ 670 (CCPA 1978), the Board held that a master's thesis became a printed publication upon its receipt by a university library because the three-member faculty committee that had approved the thesis "could have located his thesis in the library where it was available to them on request," so that the thesis "was capable of providing wide public access to the information it contained." 568 F.2d at 1359, 196 USPQ at 673. On the critical date the library had received the thesis but had not yet cataloged it or placed it on the library shelves in bound form as it ultimately would do.

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The Court of Customs and Patent Appeals reversed. The court first held that "a printed document may qualify as a 'publication' under 35 U.S.C. Sec. 102(b), notwithstanding that accessibility thereto is restricted to a 'part of the public,' so long as accessibility is sufficient 'to raise a presumption that the public concerned with the art would know of [the invention].' Accessibility to appellant's thesis by the three members of the graduate committee under the circumstances of the present case does not raise such a presumption." 568 F.2d at 1361, 196 USPQ at 674 (citations and footnote omitted) (brackets in original). The court then stated:

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Moreover, since appellant's thesis could have been located in the university library only by one having been informed of its existence by the faculty committee, and not by means of the customary research aids available in the library, the "probability of public knowledge of the contents of the [thesis]," was virtually nil.

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Id. (citation omitted) (brackets in original).

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The court rejected the Commissioner's argument that the student's defense of his thesis before the faculty committee reflected an intent to make the result of his research available to the public. The court stated: "[W]e are unconvinced that appellant's thesis defense before the graduate committee in its official capacity as arbiter of appellant's entitlement to a master's degree was somehow transmuted into a patent-defeating publication merely by depositing the thesis in the university library where it remained uncatalogued and unshelved as of the critical date in question." 568 F.2d at 1362, 196 USPQ at 675.

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In *re Hall*, 781 F.2d 897, 228 USPQ 453 (Fed.Cir.1986), involved a doctoral dissertation filed in the library of a German university. A university official, Dr. Will, submitted letters, which the court described as affidavits, stating that "[o]ur dissertations ... are indexed in a special dissertations catalogue..." 781 F.2d at 898, 228 USPQ at 454. In affirming the Board's ruling that the dissertation was a printed publication, the court rejected the contention that the dissertation "was not shown to be accessible because Dr. Will's affidavits do not say when the thesis was indexed in the library catalog and do not chronicle the procedures for receiving and processing a thesis in the library." 781 F.2d at 899, 228 USPQ at 455. The court stated:

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The only reasonable interpretation of the affidavits is that Dr. Will was relying on his library's general practice for indexing, cataloging, and shelving theses in estimating the time it would have taken to make the dissertation available to the interested public. Dr. Will's affidavits are competent evidence, and in these circumstances, persuasive evidence that the Foldi dissertation was accessible prior to the critical date.

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Id.

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As the opinions in *Bayer* and *Hall* indicate, the critical difference between the cases that explains the different results is that on the critical date in *Bayer* the thesis was "uncatalogued and unshelved" and therefore not accessible to the public, whereas in *Hall* the "dissertation was accessible" because it had been indexed, cataloged and shelved.

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We conclude that in the present case, as in *Bayer* and unlike *Hall*, the three student theses were not accessible to the public because they had not been either cataloged or indexed in a meaningful way. Although the titles of the theses were listed on 3 out of 450 cards filed alphabetically by author in a shoebox in the chemistry department library, such "availability"

was not sufficient to make them reasonably accessible to the public. Here, the only research aid was the student's name, which, of course, bears no relationship to the subject of the student's thesis.

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The decision whether a particular reference is a printed publication "must be approached on a case-by-case basis." *In re Hall*, 781 F.2d at 899, 228 USPQ at 455. See also *In re Wyer*, 655 F.2d at 227, 210 USPQ at 795 ("Decision in this field of statutory construction and application must proceed on a case-by-case basis.").

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Considering all the facts of this case, we hold that the three student theses were not "printed publications" under 35 U.S.C. Sec. 102(b).

#### CONCLUSION

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The decision of the Board of Patent Appeals and Interferences is REVERSED.

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MAYER, Circuit Judge, dissenting.

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In my view, the papers at issue here were sufficiently available to the public to qualify as "printed publications" within the meaning of 35 U.S.C. Sec. 102(b). The nature and quality of the index in the Reed College chemistry department library are not determinative of whether the theses were publicly available. Neither Bayer nor Hall turned solely on the existence, absence, or character of an index. Indeed, the result in both cases is not inconsistent with the notion that merely shelving a single copy of a work in a publicly accessible area of a library is sufficient for publication under the statute. Earlier decisions of the Patent Office Board of Appeals, interpreting the predecessor to section 102(b), were to the same effect: shelving a thesis in a university library is alone sufficient to render it a "printed publication". *Gulliksen v. Halberg v. Edgerton v. Scott*, 75 USPQ 252, 257 (Pat.Off.Bd.App.1937); *Ex parte Hershberger*, 96 USPQ 54, 56 (Pat.Off.Bd.App.1952).

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Of course, the "shoebox" author index in this case is relevant to the question of publication. When considered together with the shelving of the theses in publicly accessible areas of the Reed College libraries, the presence of even this "noncustomary" index convinces me that these works were published as contemplated by the statute. But the existence or nature of an indexing system is only one factor to be considered in assessing the public availability of a work, *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981); it is neither a necessary nor a sufficient condition for publication.

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Judge Friedman took senior status on November 1, 1989