

# United States Court of Appeals for the Federal Circuit

03-1583  
(Serial No. 09/699,950)

IN RE CARL F. KLOPFENSTEIN and JOHN L. BRENT, JR.

John M. Collins, Hovey Williams LLP, of Kansas City, Missouri, argued for appellants. With him on the brief was Jill D. Singer. Of counsel was Gregory J. Skoch.

Henry G. Sawtelle, Associate Solicitor, United States Patent and Trademark Office, of Arlington, Virginia, argued for appellee. With him on the brief were John M. Whealan, Solicitor and Heather F. Auyang, Associate Solicitor.

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

# United States Court of Appeals for the Federal Circuit

03-1583  
(Serial No. 09/699,950)

IN RE CAROL F. KLOPFENSTEIN and JOHN L. BRENT, JR.

---

DECIDED: August 18, 2004

---

Before MICHEL, SCHALL, and PROST, Circuit Judges.

PROST, Circuit Judge.

Carol Klopfenstein and John Brent appeal a decision from the Patent and Trademark Office's Board of Patent Appeals and Interferences ("Board") upholding the denial of their patent application. The Board upheld the Patent and Trademark Office's ("PTO's") initial denial of their application on the ground that the invention described in the patent application was not novel under 35 U.S.C. § 102(b) because it had already been described in a printed publication more than one year before the date of the patent application. We affirm.

## BACKGROUND

### A.

The appellants applied for a patent on October 30, 2000. Their patent application, Patent Application Serial No. 09/699,950 (“the ’950 application”), discloses methods of preparing foods comprising extruded soy cotyledon fiber (“SCF”). The ’950 application asserts that feeding mammals foods containing extruded SCF may help lower their serum cholesterol levels while raising HDL cholesterol levels. The fact that extrusion reduces cholesterol levels was already known by those of ordinary skill in the art that worked with SCF. What was not known at the time was that double extrusion increases this effect and yielded even stronger results.

In October 1998, the appellants, along with colleague M. Liu, presented a printed slide presentation (“Liu” or “the Liu reference”) entitled “Enhancement of Cholesterol-Lowering Activity of Dietary Fibers By Extrusion Processing” at a meeting of the American Association of Cereal Chemists (“AACC”). The fourteen-slide presentation was printed and pasted onto poster boards. The printed slide presentation was displayed continuously for two and a half days at the AACC meeting.

In November of that same year, the same slide presentation was put on display for less than a day at an Agriculture Experiment Station (“AES”) at Kansas State University.

Both parties agree that the Liu reference presented to the AACC and at the AES in 1998 disclosed every limitation of the invention disclosed in the ’950 patent application. Furthermore, at neither presentation was there a disclaimer or notice to the intended audience prohibiting note-taking or copying of the presentation. Finally, no copies of the presentation were disseminated either at the AACC meeting or at the AES, and the presentation was never catalogued or indexed in any library or database.

## B.

On October 24, 2001, nearly one year after its filing, the ’950 patent application was rejected by the PTO examiner. The examiner found all of the application’s claims anticipated by the Liu reference or obvious in view of Liu and other references. Shortly thereafter, the appellants amended the claims of the ’950 patent and described the circumstances under which the Liu reference had been displayed to the

AACC and at the AES. The appellants argued that the Liu reference was not a “printed publication” because no copies were distributed and because there was no evidence that the reference was photographed. The examiner rejected these arguments and issued a final office action on April 10, 2002 rejecting the claims of the ’950 application. The appellants then appealed to the Board.

Before the Board, the appellants again advanced their argument that the lack of distribution and lack of evidence of copying precluded the Liu reference from being considered a “printed publication.” The appellants further contended that the Liu reference was also not a “printed publication” because it was not catalogued or indexed in any library or database. The Board rejected the appellants’ arguments and affirmed the decision of the PTO examiner, finding the Liu reference to be a “printed publication.” The Board affirmed on the grounds that the full invention of the ’950 application was made publicly accessible to those of ordinary skill in the art by the Liu reference and that this introduction into the public domain of disclosed material via printed display represented a “printed publication” under 35 U.S.C. § 102(b).

The appellants have appealed the Board’s decision to this court. We have jurisdiction to hear this appeal under 28 U.S.C. § 1295(a)(4)(A).

## DISCUSSION

### A.

Where no facts are in dispute, the question of whether a reference represents a “printed publication” is a question of law. In re Cronyn, 890 F.2d 1158, 1159 (Fed. Cir. 1989). Questions of law appealed from a Board decision are reviewed de novo. In re Bass, 314 F.3d 575, 576 (Fed. Cir. 2002).

The only question in this appeal is whether the Liu reference constitutes a “printed publication” for the purposes of 35 U.S.C. § 102(b). As there are no factual disputes between the parties in this appeal, the legal issue of whether the Liu reference is a “printed publication” will be reviewed de novo.

### B.

The appellants argue on appeal that the key to establishing whether or not a reference constitutes a “printed publication” lies in determining whether or not it had been disseminated by the distribution of reproductions or copies and/or indexed in a library or database. They assert that because the Liu reference was not distributed and indexed, it cannot count as a “printed publication” for the purposes of 35 U.S.C. § 102(b). To support their argument, they rely on several precedents from this court and our predecessor court on “printed publications.”<sup>[1]</sup> They argue that In re Cronyn, In re Hall, 781 F.2d 897 (Fed. Cir. 1986), Massachusetts Institute of Technology v. AB Fortia, 774 F.2d 1104 (Fed. Cir. 1985) (“MIT”), and In re Wyer, 655 F.2d 221 (CCPA 1981), among other cases, all support the view that distribution and/or indexing is required for something to be considered a “printed publication.”<sup>[2]</sup>

We find the appellants’ argument unconvincing and disagree with their characterization of our controlling precedent. Even if the cases cited by the appellants relied on inquiries into distribution and indexing to reach their holdings, they do not limit this court to finding something to be a “printed publication” only when there is distribution and/or indexing. Indeed, the key inquiry is whether or not a reference has been made “publicly accessible.” As we have previously stated,

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.”

In re Cronyn, 890 F.2d at 1160 (quoting Constant v. Advanced Micro-Devices, Inc., 848

F.2d 1560, 1568 (Fed. Cir. 1988)).<sup>[3]</sup> For example, a public billboard targeted to those of ordinary skill in the art that describes all of the limitations of an invention and that is on display for the public for months may be neither “distributed” nor “indexed”—but it most surely is “sufficiently accessible to the public interested in the art” and therefore, under controlling precedent, a “printed publication.” Thus, the appellants’ argument that “distribution and/or indexing” are the key components to a “printed publication” inquiry fails to properly reflect what our precedent stands for.

Furthermore, the cases that the appellants rely on can be clearly distinguished from this case. Cronyn involved college students’ presentations of their undergraduate theses to a defense committee

made up of four faculty members. Their theses were later catalogued in an index in the college's main library. The index was made up of thousands of individual cards that contained only a student's name and the title of his or her thesis. The index was searchable by student name and the actual theses themselves were neither included in the index nor made publicly accessible. We held that because the theses were only presented to a handful of faculty members and "had not been cataloged [sic] or indexed in a meaningful way," they were not sufficiently publicly accessible for the purposes of 35 U.S.C. § 102 (b). In re Cronyn, 890 F.2d at 1161.

In Hall, this court determined that a thesis filed and indexed in a university library did count as a "printed publication." The Hall court arrived at its holding after taking into account that copies of the indexed thesis itself were made freely available to the general public by the university more than one year before the filing of the relevant patent application in that case. But the court in Hall did not rest its holding merely on the indexing of the thesis in question. Instead, it used indexing as a factor in determining "public accessibility." As the court asserted:

The ["printed publication"] bar is grounded on the principle that once an invention is in the public domain, it is no longer patentable by anyone. . . . Because there are many ways in which a reference may be disseminated to the interested public, "public accessibility" has been called the touchstone in determining whether a reference constitutes a "printed publication" bar under 35 U.S.C. § 102(b).

In re Hall, 781 F.2d at 898-99.

In MIT, a paper delivered orally to the First International Cell Culture Congress was considered a "printed publication." In that case, as many as 500 persons having ordinary skill in the art heard the presentation, and at least six copies of the paper were distributed. The key to the court's finding was that actual copies of the presentation were distributed. The court did not consider the issue of indexing. The MIT court determined the paper in question to be a "printed publication" but did not limit future determinations of the applicability of the "printed publication" bar to instances in which copies of a reference were actually offered for distribution. MIT, 774 F.2d at 1108-10.[4]

Finally, the Wyer court determined that an Australian patent application kept on microfilm at the Australian Patent Office was "sufficiently accessible to the public and to persons skilled in the pertinent

art to qualify as a ‘printed publication.’” In re Wyer, 655 F.2d at 226. The court so found even though it did not determine whether or not there was “actual viewing or dissemination” of the patent application. Id. It was sufficient for the court’s purposes that the records of the application were kept so that they could be accessible to the public. Id.[5] According to the Wyer court, the entire purpose of the “printed publication” bar was to “prevent withdrawal” of disclosures “already in the possession of the public” by the issuance of a patent. Id.

Thus, throughout our case law, public accessibility has been the criterion by which a prior art reference will be judged for the purposes of § 102(b). Oftentimes courts have found it helpful to rely on distribution and indexing as proxies for public accessibility. But when they have done so, it has not been to the exclusion of all other measures of public accessibility. In other words, distribution and indexing are not the only factors to be considered in a § 102(b) “printed publication” inquiry.

### C.

The determination of whether a reference is a “printed publication” under 35 U.S.C. § 102(b) involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public. In re Cronyn, 890 F.2d at 1161; In re Hall, 781 F.2d at 899. Accordingly, our analysis must begin with the facts of this case, none of which are in dispute.

In this case, the Liu reference was displayed to the public approximately two years before the ’950 application filing date. The reference was shown to a wide variety of viewers, a large subsection of whom possessed ordinary skill in the art of cereal chemistry and agriculture. Furthermore, the reference was prominently displayed for approximately three cumulative days at AACC and the AES at Kansas State University. The reference was shown with no stated expectation that the information would not be copied or reproduced by those viewing it. Finally, no copies of the Liu display were distributed to the public and the display was not later indexed in any database, catalog or library.

Given that the Liu reference was never distributed to the public and was never indexed, we must consider several factors relevant to the facts of this case before determining whether or not it was

sufficiently publicly accessible in order to be considered a “printed publication” under § 102(b). These factors aid in resolving whether or not a temporarily displayed reference that was neither distributed nor indexed was nonetheless made sufficiently publicly accessible to count as a “printed publication” under § 102(b). The factors relevant to the facts of this case are: the length of time the display was exhibited, the expertise of the target audience, the existence (or lack thereof) of reasonable expectations that the material displayed would not be copied, and the simplicity or ease with which the material displayed could have been copied. Only after considering and balancing these factors can we determine whether or not the Liu reference was sufficiently publicly accessible to be a “printed publication” under § 102(b).

The duration of the display is important in determining the opportunity of the public in capturing, processing and retaining the information conveyed by the reference. The more transient the display, the less likely it is to be considered a “printed publication.” See, e.g., Howmedica, 530 F. Supp. at 860 (holding that a presentation of lecture slides that was of limited duration was insufficient to make the slides “printed publications” under § 102(b)). Conversely, the longer a reference is displayed, the more likely it is to be considered a “printed publication.” In this case, the Liu reference was displayed for a total of approximately three days. It was shown at the AACC meeting for approximately two and a half days and at the AES at Kansas State University for less than one day.

The expertise of the intended audience can help determine how easily those who viewed it could retain the displayed material. As Judge Learned Hand explained in Jockmus v. Leviton, 28 F.2d 812, 813-14 (2d Cir. 1928), a reference, “however ephemeral its existence,” may be a “printed publication” if it “goes direct to those whose interests make them likely to observe and remember whatever it may contain that is new and useful.” In this case, the intended target audience at the AACC meeting was comprised of cereal chemists and others having ordinary skill in the art of the '950 patent application. The intended viewers at the AES most likely also possessed ordinary skill in the art.

Whether a party has a reasonable expectation that the information it displays to the public will not be copied aids our § 102(b) inquiry. Where professional and behavioral norms entitle a party to a reasonable expectation that the information displayed will not be copied, we are more reluctant to find

something a “printed publication.” This reluctance helps preserve the incentive for inventors to participate in academic presentations or discussions. Where parties have taken steps to prevent the public from copying temporarily posted information, the opportunity for others to appropriate that information and assure its widespread public accessibility is reduced. These protective measures could include license agreements, non-disclosure agreements, anti-copying software or even a simple disclaimer informing members of the viewing public that no copying of the information will be allowed or countenanced. Protective measures are to be considered insofar as they create a reasonable expectation on the part of the inventor that the displayed information will not be copied. In this case, the appellants took no measures to protect the information they displayed—nor did the professional norms under which they were displaying their information entitle them to a reasonable expectation that their display would not be copied. There was no disclaimer discouraging copying, and any viewer was free to take notes from the Liu reference or even to photograph it outright.

Finally, the ease or simplicity with which a display could be copied gives further guidance to our § 102(b) inquiry. The more complex a display, the more difficult it will be for members of the public to effectively capture its information. The simpler a display is, the more likely members of the public could learn it by rote or take notes adequate enough for later reproduction. The Liu reference was made up of 14 separate slides. One slide was a title slide; one was an acknowledgement slide; and four others represented graphs and charts of experiment results. The other eight slides contained information presented in bullet point format, with no more than three bullet points to a slide. Further, no bullet point was longer than two concise sentences. Finally, as noted earlier, the fact that extrusion lowers cholesterol levels was already known by those who worked with SCF. The discovery disclosed in the Liu reference was that double extrusion increases this effect. As a result, most of the eight substantive slides only recited what had already been known in the field, and only a few slides presented would have needed to have been copied by an observer to capture the novel information presented by the slides.

Upon reviewing the above factors, it becomes clear that the Liu reference was sufficiently publicly accessible to count as a “printed publication” for the purposes of 35 U.S.C. § 102(b). The reference itself was shown for an extended period of time to members of the public having ordinary skill

in the art of the invention behind the '950 patent application. Those members of the public were not precluded from taking notes or even photographs of the reference. And the reference itself was presented in such a way that copying of the information it contained would have been a relatively simple undertaking for those to whom it was exposed—particularly given the amount of time they had to copy the information and the lack of any restrictions on their copying of the information. For these reasons, we conclude that the Liu reference was made sufficiently publicly accessible to count as a “printed publication” under § 102(b).

### CONCLUSION

For the aforementioned reasons, the decision of the Board is affirmed.

### AFFIRMED

-

---

[1] In their brief, the appellants note that there is scant legislative history to guide us in determining the meaning of the term “printed publication.” Accordingly, and rightfully, they have based the bulk of their argument on the controlling precedent of this court and its predecessor court.

[2] Appellants acknowledge that our precedent considers the term “printed publication” to be a unitary concept that may not correspond exactly to what the term “printed publication” meant when it was introduced into the patent statutes in 1836. *In re Wyer*, 655 F.2d at 226. Indeed, the question to be resolved in a “printed publication” inquiry is the extent of the reference’s “accessibility to at least the pertinent part of the public, of a perceptible description of the invention, in whatever form it may have been recorded.” *Id.*

[3] While the Cronyn court held “dissemination” to be necessary to finding something to be a “printed publication”, the court there used the word “disseminate” in its literal sense, i.e. “make widespread” or “to foster general knowledge of.” Webster’s Third New International Dictionary 656 (1993). The court did not use the word in the narrower sense the appellants have employed it, which requires distribution of reproductions or photocopies.

[4] With regard to scientific presentations, it is important to note that an entirely oral presentation at a scientific conference that includes neither slides nor copies of the presentation is without question not a “printed publication” for the purposes of 35 U.S.C. § 102(b). Furthermore, a presentation that includes a transient display of slides is likewise not necessarily a “printed publication.” See, e.g., Regents of the Univ. of Cal. v. Howmedica, Inc., 530 F. Supp. 846, 860 (D.N.J. 1981) (holding that “the projection of slides at the lecture [that] was limited in duration and could not disclose the invention to the extent necessary to enable a person of ordinary skill in the art to make or use the invention” was not a “printed publication”), aff’d, 676 F.2d 687 (3d Cir. 1982) (unpublished table decision). While Howmedica is not binding on this court, it stands for the important proposition that the mere presentation of slides accompanying an oral presentation at a professional conference is not per se a “printed publication” for the purposes of § 102(b).

[5] Unlike in Cronyn, it was the actual patent application—and not just an index card searchable by author name only—that was made publicly accessible.