



Prior Art: The Skeleton in a Patent's Closet

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If a tree falls in the forest and nobody hears it, does it make a sound? Sure. If a document is placed on an Internet-accessible site, is that document prior art? Well, maybe.

SRI International, Inc. sued Internet Security Systems, Inc. and Symantec Corporation for infringement of four patents that relate to the monitoring and surveillance of computer networks for intrusion detection. The district court granted the defendants' motion for summary judgment that the patent claims lacked novelty in light of a document called "Live Traffic Analysis of TCP/IP Gateways." SRI appealed the decision, contending that the Live Traffic paper did not qualify as prior art.

The Live Paper controversy began when the Internet Society posted a call for papers on its website. All submissions were to be made via electronic mail with a backup submission sent by postal mail. One of SRI's inventors, Phillip Porras, attached a copy of the Live Traffic paper to an email sent to Dr. Bishop, the Program Chair. As a backup, Porras said that SRI would make a copy of the Live Traffic paper available on a SRI website for about one week, and he included the FTP address for the document. Over a year later, SRI filed its patent application on the invention described in the Live Traffic paper.

Under US law, a claimed invention must not have been described in a printed publication more than one year prior to the date of filing the patent application. Courts have decided that a publication has been "printed" if it is accessible to a person who exercises reasonable diligence to locate it. The district court judge decided that the Live Traffic paper had been publicly accessible via the FTP site, which destroyed the novelty of SRI's patent claims.

The Federal Circuit disagreed. A 1978 case, *Application of Bayer*, concerned alleged prior art in the form of a graduate thesis stored in a university library. Although three faculty members knew about the thesis, the document had not been catalogued or placed on a publically available shelf. The thesis was not a "printed" publication, because a normal search would not have rendered the work reasonably accessible even to a person who knew about its existence.

The Federal Circuit viewed the uncatalogued thesis stored in a library to be similar to the Live Traffic paper stored on the FTP server. The server lacked an index or catalogue for meaningful research, and the directory structure did not identify the location of papers or explain the mnemonic structure for files. Moreover, the record indicates that, outside of SRI, only Dr. Bishop knew about the availability of the Live Traffic paper.

"The Live Traffic paper, like posters at a vacant and unpublicized conference," wrote the Federal Circuit, "was available by being 'posted,' but available only to a person who may have wandered into the conference by happenstance or knew about the conference via unpublicized means." The Federal Circuit sent the case back to the district court to reexamine the public accessibility of the Live Traffic paper.

In its decision, the Federal Circuit cited a 2004 case, *In re Klopfenstein*, which concerned posters displayed during two professional conferences. The posters were printed publications, because their entire purpose was public communication. Now, take a step back. Suppose that somebody took notes about a poster and did not make the notes available to the general public. The notes would not be prior art. Yet they could acquire a life of their own to destroy a patent, or even four patents, as Bayer discovered.

Time Bomb in a Notepad

Over 20 years ago, Plant Genetic Systems, a predecessor of Bayer Bioscience, used the *Agrobacterium tumefaciens* technique to transform plant cells with a fragment of a *Bacillus thuringiensis* toxin gene. The genetically engineered plants synthesized a truncated version of a Bt toxin. The company submitted a patent application on Bt toxin-producing, genetically engineered plants, which matured into a family of patents including US Patent Nos. 5,545,565, 5,767,372, 6,107,546 and 5,254,799. The patents claim chimeric genes comprising a truncated Bt toxin gene; plant cells and plants that synthesize insecticidal protein; and methods of transforming plants with chimeric Bt toxin genes.

In December 2000, Monsanto filed a declaratory judgment action in the Eastern District of Missouri seeking an assertion that MON 810 YieldGard® products did not infringe the '565, '372, '546, and '799 patents, and that these patents were invalid and unenforceable. The defendant counterclaimed, alleging infringement of claims in each patent.

The district court granted summary judgment to Monsanto, and held that all four patents were unenforceable due to inequitable conduct, that certain patent claims were invalid, and that the '565 patent was not infringed. On appeal, the Federal Circuit reversed the decision and returned the case to the district court.

Back in Missouri, the defendant (now, Bayer) dismissed all claims that MON810 infringed the '799, '372, and '546 patents. The case proceeded to trial on the '565 patent. Judge E. Richard Webber held a four-day hearing on the inequitable conduct allegation. In August 2006, the judge released a 99-page opinion in which he concluded that inequitable conduct



rendered the '565 patent unenforceable. Judge Webber also found inequitable conduct in the prosecution of the '799, '372, and '546 patents, and held those patents unenforceable. Bayer appealed.

The Federal Circuit examined the basis for the inequitable conduct allegation. During the prosecution of the '565 patent, the patent applicant had disclosed as prior art an abstract by Dr. Wayne Barnes entitled "A Bifunctional Gene for Insecticide and Kanamycin Resistance," which had been prepared for a poster to be presented at the First International Congress of Plant Molecular Biology in Savanna, Georgia, in 1985. The abstract described a chimeric gene comprising the "first half" of a Bt toxin gene combined with a kanamycin resistance gene. The chimeric gene could be inserted into *Agrobacterium* T-DNA. Barnes speculated that, "This plant gene should express the insecticide and kanamycin resistance from the same promoter."

In 1994, a patent examiner rejected all patent claims as obvious over various prior art references including the Barnes abstract. According to the examiner, the abstract provided motivation to genetically engineer plant cells with a truncated Bt toxin gene. The patent applicant argued, among other things, that the abstract failed to show that the chimeric gene would work in plants. "Moreover, the Barnes et al. reference is not enabled since it is stated therein that the fused gene 'may' be inserted into T-DNA and that the plant gene 'should' express the insecticide and kanamycin resistance from the same promoter," the applicant argued. "But no concrete evidence is provided."

However, one of the patent applicant's employees had attended the 1985 conference and had taken notes about Barnes' poster. In addition to details on the construction of a Bt toxin chimeric gene and expression vector, the notes revealed that the Bt toxin fusion protein functioned as an insecticide, and indicated that Barnes had transformed a plant with a chimeric gene construct. The notes had been circulated among officials and employees of the company, including at least one member of the intellectual property department. The company had not submitted the notes to the patent examiner.

To declare a patent unenforceable for inequitable conduct, a district court must find by clear and convincing evidence (1) that a patent applicant breached the duty of candor and good faith to the US Patent and Trademark Office by failing to disclose material information, or by submitting false material information, and (2) that the patent applicant acted with an intent to deceive the patent office. Judge Webber had decided that the notes, if they had been disclosed to the patent examiner, would have contradicted that patent applicant's arguments about the Barnes abstract. Concluding that the patent applicant had made "a deliberate decision to withhold the known highly material reference with the specific intent to deceive or mislead the PTO examiner," the judge declared Bayer's four patents unenforceable due to inequitable conduct.

The Federal Circuit agreed that failure to submit the notes renders the '565 patent—the only patent asserted by Bayer—unenforceable. What about the other three patents that Bayer no longer asserted against Monsanto? Bayer argued that the district court lacked jurisdiction to make a decision about these patents. But Monsanto had filed a request for attorney fees at a time when Bayer accused the company of infringing all four patents. That request was still pending a decision, the Federal Circuit noted. The district court, therefore, had jurisdiction to determine whether inequitable conduct rendered the three unasserted patents unenforceable.

Selected Sources

Monsanto Company v. Bayer Bioscience, N.V., 2006 U.S. Dist. LEXIS 97254 (August, 28, 2006).

Monsanto Company v. Bayer Bioscience, N.V., Docket No. 2007-1109 (January 25, 2008). Available at: <http://fedcir.gov>.

SRI International, Inc. v. Internet Security Systems, Inc., Docket No. 2007-1065 (January 8, 2008).

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