

Judge Giles S. Rich

His Life and Legacy Revisited

By James F. Davis

I believe in incentive systems. Over 20 years ago a prize competition lured me into some intense study and writing

I did not win the prize. Neither did the other contestants, save one. But they all contributed something. That is [the] way incentive systems work. They bring out all kinds of efforts, excellent, good, mediocre, indifferent and bad. But the system brings forth the effort. Society benefits from the good and mediocre, as well as the excellent efforts. The bad efforts don't hurt it any. They may even prevent others from making mistakes if they are known.

The patent and copyright laws create such incentive systems. The copyright laws provide an incentive which brings out the greatest works of literature and art as well as a lot of trash. The patent system works in a similar way. But you can't get cream without producing milk and, anyway, it is the milk that society lives on.

—Judge Giles S. Rich,
Kettering Award Address, 1963

Judge Giles Sutherland Rich died Wednesday, June 9, 1999. His colleague on the Federal Circuit Court of Appeals, Judge Ray Clevenger III, e-mailed his own law clerks: “Judge Rich slipped away peacefully and quickly . . . last night. We have lost one of the truly great jurists, and a genuinely wonderful man, but his time had come, which he knew and accepted with a grace that typified his every move.”

Thus ended a 95-year life, 43 as federal appellate judge and 27 as law practitioner, teacher, and legislator. President Bill Clinton sent congratulations in 1994 on his 90th birthday, noting his “being the oldest active federal judge” in U.S. history. He never took senior status. He remained an active judge to the end. Indeed, he was still attending court hearings near the time of his death. And President George H.W. Bush in 1992, the 40th anniversary of the 1952 Patent Act, sent congratulations noting, “Our national security and unparalleled standard of living are the direct result of [the American] inventive spirit, which has continued to flourish under the act that you fathered 40 years ago.”

Fortunately Judge Rich lived to know and appreciate the high esteem in which he was held—the bar and other American institutions bestowed many honors on him. And his loss was memorialized in many press and law

articles. He was one of a kind, likely not to be repeated in his contributions to patent, trademark, and copyright law, nowadays called intellectual property law. Sadly, he left without seeing the 21st century and the extension of his work. In an interview in 1998 requesting a future interview on his 100th birthday, he remarked: “I used to take it for granted I would never see the 21st century. Send me an e-mail and see if I answer.”

Who was this man? Just what did he do? Judges rarely have much impact on the day-to-day life of ordinary people. They toil deciding disputes, mostly private matters, without fanfare. But Giles Rich was destined to be different. His work over time in a real way provided much of the underpinning of the technology revolution that flowered in the 20th century and continues unabated.

This article is a snapshot of how that happened, drawn from his judicial opinions, speeches, writings, and interviews and the personal recollections of those who knew him, as well as the plethora of materials written about him by an army of former law clerks, friends, and colleagues. The hope is that those who never knew him in life, as well as those who did, will be stirred and invigorated anew by the work of this “wonderful man.”

Prelude

Giles Rich was born in 1904 to a patent lawyer father in Rochester, New York. As he put it: “I did not come from an impoverished background and was not raised by nuns.” His father represented, among others, George Eastman of Kodak camera fame. But young Giles had other ideas. He wanted to be a Army pilot and then enter the new post–World War I field of commercial aviation. But he flunked the flight physical (eyesight). He was a tinkerer with cars and other new mechanical wonders. He toyed with going to MIT but demurred when his father pressed him to go to Harvard and get a “real education.” He did and studied history, economics, and business to prepare for a New York financial career.

But that was not to be. Columbia Law School beckoned. He was considering a patent law career but found that Columbia taught no patent law. Undeterred, he accepted an invitation from his administrative law professor to prepare from scratch a paper on patent law for credit and for the benefit of the professor, who wanted to learn some patent law. Law student Giles Rich complied, plowing new territory for himself and posterity by laying the groundwork for one of the first law school courses in patent law. (Later he taught patent law part time at Columbia and then at Georgetown in Washington.)

In 1929, he joined his father's firm, by then in New York City, and was off and running.

The Challenge

Giles Rich started law practice at a critical time in American history. The Great Depression was beginning. Economic deprivation, unemployment, and the like would ultimately overwhelm the country. Politicians and courts looked for solutions (and scapegoats). Big business was a prime target rightly or wrongly, in particular alleged monopolistic practices involving patents including cartels, noncompetitive patent licensing arrangements, and the like.

All this led to not-so-subtle responses from Congress and the courts: wholesale invalidation of patents; proposed legislation for compulsory licensing, for example; and court decisions holding illegal some practices that theretofore had not been successfully challenged (the Supreme Court killed contributory infringement and the patent misuse doctrine flowered).

Whether justified or not, all this led to a chilling effect on patent law and practices, with diminution of the value of patents as well as the willingness of business, especially small business, to invest in research and development and take the financial risks necessary to start up or extend a business. One Supreme Court justice, Mr. Justice Jackson, summed it up bluntly in 1949: “. . . the only patent that is valid is one which this Court has not been able to get its hands on.”

Enter Giles Rich.

In the early 1940s, sandwiched into a busy law practice, he wrote a series of five law review articles entitled “The Relation between Patent Practices and the Anti-Monopoly Laws,” published in 1942. Still considered by many a classic in the field, it set him off on a course of thinking and writing that ultimately led to his spear-heading a rewrite of the patent laws in the late 1940s (leading to the 1952 Patent Act) and appointment to the Court of Customs and Patent Appeals in 1956.

The thrust of his articles was plain and straightforward: properly understood and administered, the patent laws and the antimonopoly (antitrust) laws are not in conflict but in fact work together to ensure a competitive, consumer-welfare-driven economy. Patents are personal property, granting the right to exclude competitors for a limited time from competition in defined new and useful technologies. Patents enhance consumer welfare by encouraging invention of, and investment in, new technologies. The antimonopoly (antitrust) laws, on the other hand, are designed to prevent the formation of monopolies, i.e., the control of defined markets for unlimited times. Patents, like all private property, can be used in ways that violate the antitrust laws but are not in and of themselves in conflict with antitrust goals.

In his articles, he acknowledged that patent owners and their lawyers “went on a spree” in the early 1900s resulting in practices and court decisions that promoted anticompetitive activity against the public interest. The courts were beginning to get things straightened out by 1940 but had a ways to go in his view.

If all this sounds familiar in 2009, it is because the views espoused by Giles Rich in the 1940s are precisely those of

the courts and responsible government agencies today. Both the Department of Justice and the Federal Trade Commission in 1995 adopted guidelines regarding patents and the antitrust laws that remarkably track Giles Rich's thinking in 1940. But the guidelines were long in coming and only after much political, economic, and legal water passed over the dam for more than half a century. Sixty to seventy years ago, there was hopeless confusion and misunderstanding about the “patent right” and “monopoly power,” leading to much mischief. Giles Rich played an important role in fixing it.

Furthermore, in the late 1940s, the Supreme Court diminished the value of patents in the *Mercoid* cases, which mortally wounded contributory infringement, a valuable tool to patent enforcement. Other courts, as well as the Supreme Court, spewed a steady stream of decisions making patent validity unpredictable and intolerably uncertain—viz., how does one decide what subject matter should or should not be deemed “patentable.” A high-water mark was the Supreme Court's famous “flash of creative genius” opinion in the *Cuno Engineering Corp.* case, which threw the patent bar into consternation, or, as Giles Rich put it in a 1972 speech, “drove the patent lawyers up the wall.” The Supreme Court held patentability required evidence of a “flash of creative genius.” What does “flash of creative genius” mean? To whom must it be “creative genius”? Who decides if it is or not and based on what evidence? Is “creative genius” entitled to just a patent or maybe also a Nobel Prize? And so on and so on!

Faced with the situation, the patent bar and business interests began working to create a new patent code. Giles Rich, representing the New York Patent Law Association, led the way. The Patent Office got involved to protect and strengthen the patent system, in part fearful that the antipatent Justice Department and FTC would enter the fray by default. P.J. Federico, a senior Patent Office official, prepared a first draft of a new patent act. It was massaged and honed by many patent groups and business interests under the watchful eye of Rich. Over the ensuing years, Giles Rich was always generous in giving credit to the others who were involved with the new act, but at the end of the day it was his persistence and persuasive powers with Congress and its committees that carried it through. No one has ever denied him to be called the “father” of the act, as the senior President Bush did in 1992.

Thus was born the Patent Act of 1952. It did many things, but foremost were two:

1. It reestablished contributory infringement as a viable tool for patentees, under appropriate circumstances, to enforce their patents; and
2. It created an objective standard (§ 103 of the new code) under which the Patent Office and the courts were to determine “patentability” of inventions, thus adding more predictability and stability to deciding patent validity.

James F. Davis was Judge Rich's fifth law clerk (1963–64). He later was a trial judge at the former U.S. Court of Claims and a partner at Washington, D.C.'s Howrey LLP. He founded and chaired the firm's intellectual property group from 1972 until retirement from the firm in 2005. He now has a solo practice in consulting, mediation, and arbitration. He can be reached at davisjflaw@aol.com.

The Monument: § 103 (1952 Patent Act)

Remarkable in its simplicity, § 103 was the cornerstone for a new era in patent law:

A patent may not be obtained [even though the invention is novel under § 102 of the Act] if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

But its apparent simplicity proved deceptive. Though the inquiry under § 103 is an objective one, driven by fact determinations, subparts of the section have proven tricky to apply (among others: What is “prior art”? What does “as a whole” mean? Who is a “person of ordinary skill”?) The Supreme Court in the *Graham Deere* cases in 1966 provided needed guidance, but most patents sought still require a case-by-case analysis under § 103, often resulting in disputes in the Patent Office and ultimately the courts.

But even before *Graham*, § 103 faced some hurdles. Did it change the level of “invention” required for patentability? Did it modify prior law?

Once again, enter Giles Rich.

1956: Mr. Giles S. Rich, Esq. Becomes Hon. Giles S. Rich

Giles Rich was the first patent lawyer appointed to the former Court of Customs and Patent Appeals (CCPA). For that matter, he was the first patent lawyer appointed to any federal bench. And it was not long before he made his presence felt.

In re Fine, 240 F.2d 354 (C.C.P.A. 1957), was his first opinion, a patent appeal involving § 112. He reversed the Patent Office’s rejection of claims. *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968 (Fed. Cir. 1999) was his last opinion. It was a patent infringement case in which a grant of summary judgment of noninfringement by the District Court for the Central District of California was reversed and remanded.

In the 43 years between *Fine* and *Karlin Tech.* with the CCPA and its successor, the Court of Appeals for the Federal Circuit (CAFC), Judge Rich wrote an astonishing 892 opinions; 736 of them dealt with intellectual property matters. Most were patent cases (565) but also trademark (171). His 437 CCPA patent opinions from 1956 to 1982 dealt with appeals from the Patent Office, mainly on patentability issues but also patent interferences (65). His 128 CAFC patent opinions from 1982 to 1999 expanded horizons to include infringement and related issues from the district courts, the Court of Federal Claims, and the International Trade Commission.

Common themes to all of his opinions are agreed: (1) clarity of thought and expression and (2) unwavering commitment in the complex worlds of patents and trade regulation to use words and ideas precisely and correctly so to keep the patent law on track, strong and reliable, and not confusingly scrambled up with antimonopoly principles and laws. As the authors of one patent law casebook put it: “Nothing surpasses . . . the opinions of Judge Rich laying out, in one carefully crafted paragraph after another, the precepts of patent law . . .”

His colleagues on the bench agree.

Judge Arthur J. Gajarsa: “elegantly framed opinions against a backdrop of common sense with clear interpretation of the law;” “purely stated;” “not pedantic”

Judge Alan D. Lourie: “clear, concise and without excess verbiage;” “seemed . . . to come from Mount Olympus;” “Beethoven symphonies;” “gold standards”

Chief Judge Paul R. Michel: “precision of expression and linear logic;” “modest . . . where modesty required . . . where monumental, bold declarations were needed, he did it with élan”

Judge S. Jay Plager: “. . . explained the law with a clarity and assuredness that gave you a sense of comfort and confidence that if you followed his lead you would not make a mistake”

Judge Pauline Newman: “. . . saw the patent law as a logical stream, whose purpose was to serve a nation dependent on technology, knowledge and innovation . . . concerned that the law would be correct . . .”

Once asked by a law clerk how he developed his writing style, he replied, “by writing a lot and thinking about it all the time.”

1956–1960: Getting His Judicial Feet Wet

Between 1956 and 1960, Judge Rich wrote 58 opinions for the CCPA, 42 patent and 16 trademark. Half (21) of the patent cases dealt with claim rejections under § 103. He reversed in nine. For the most part, the 58 opinions were unremarkable, except in three respects.

First, in every case involving patentability under § 103, he stressed that the analysis centered on “obviousness” not “lack of invention,” an illusive term that § 103 was intended to fix. No doubt he did this responding to the Patent Office, continuing at times to reject claims for “lack of invention.” Old habits die hard. District courts and courts of appeal often did the same.

It would be his life-long commitment to change ways of thinking about patentability. He recognized that in enacting § 103, Congress “was not making a definition but rather a statement of policy” and that “compliance with 103 is the policy judgment of Congress on how to bring invention within the Constitution.” Nor was he under illusions on the difficulties of administering § 103. Many years later in *In re Durden* (1985) he said:

. . . there are those who would like to have us state some clear general rule by which [§ 103 cases] could be decided. Some judges might be tempted to try it. But the question of obviousness under § 103 arises in such an unpredictable variety of ways and in such different forms that it would be an indiscrete thing to do. Today’s rule would likely be regretted in tomorrow’s case . . . The task may sometimes be easy and sometimes difficult. Not all those required to decide may agree. But such is the way of the “law.”

Second, in the *Hummer* case (1957), a close case on obviousness (narrow claims in a crowded art), he reversed a Patent Office rejection stating: “We think any doubt on the question of patentability should be resolved in favor of the applicant.” While there was old, seldom-cited precedent in the CCPA for that proposition, it drew a dissent from Judge Worley (later chief judge), who was to become embroiled with Judge Rich over patent law and other things over the

ensuing years. (But more on that later.)

Furthermore his view on resolving doubt for applicants fits hand-in-glove with his view about the importance of encouraging average inventors to invent (and disclose) their inventions:

It is difficult to understand the attitude of those who feel that ideally a patent should be granted only for the meritorious invention which is capable of becoming a commercial success. Patents are not Nobel or Pulitzer Prizes! They are not for exceptional inventors but for average inventors and should not be made hard to get. True, they are temporary monopolies, but therein alone lies their power as inducements to invent, to disclose, to invest, and to design around. Why must an invention be a commercially hot number to be patentable? If it is a total dud, how is the public injured by a patent on it? A monopoly on something nobody wants is pretty much a nullity. That is one of the beauties of the patent system. The reward is measured automatically by the popularity of the contribution. . . . The only possibility of doing damage is so to construe a patent on a dud as to cover a commercially meritorious invention made by a more competent inventor, but it is not noticeable that courts have a tendency to do that.

—*Principles of Patentability*, February 1960

Third, in 1960 came Judge Rich's first judicial bombshell—*In re Nelson*.

Chemist inventors John A. Nelson and Anthony C. Shabica claimed "new steroid compounds" described as "valuable intermediates in the preparation of [other] steroids." The "other" steroids were said to be in a "class" having "therapeutic properties." However, no specific "other" such steroids were disclosed.

The Patent Office rejected the claims for lack of "utility" under § 101 ("useful") and § 112 ("how to use"). Two judges (Chief Judge Worley and Judge Kirkpatrick) agreed, believing that the U.S. Constitution, the patent statute, and the patent system never envisioned granting patents on compositions of matter for which there was no known and disclosed "practical" use and that the "intermediates" here were such compositions.

Judge Rich in a 3-2 decision reversed. In a remarkably innovative and far-reaching opinion, he held, first, that § 101, its predecessors, and the case law did not require any particular degree of utility or usefulness so long as the invention was not "frivolous" or "incredible." Chemical intermediates passed that test. Second, the chemical intermediates here passed muster under § 112. The inventors taught how to make them and how to use them to make derivative steroids of a class "containing highly useful members." His opinion stressed that the novel steroids are "building blocks" of value to researchers and are often "actually placed on the market before much, if anything, is known about what they are good for other than experimentation and the making of other compounds in the important field of research." Refusal to protect them at this stage would "inhibit their wide dissemination, together with the knowledge of them which a patent disclosure conveys, which disclosure the potential protection encourages. *This would tend to retard rather than promote progress.*" (Emphasis supplied.)

The Patent Office view, defended by the dissenters, reflects a different view of the patent system's incentives.

The Rich decision "writes 'useful' out of the law," said the dissenters. Patent rights "should be earned," apparently as if they were some sort of prize. The majority view, according to the dissenters, will "prevent others from experimenting in a field which should remain open to all."

Nelson came at an important time (1950s–early 1960s) in the growth of the chemical, polymer, pharmaceutical, and biotechnology industries. No one knows for sure which of the above views of the patent system was correct in the long run for the chemical industry and the public welfare, but the approach of Judge Rich and the majority in *Nelson* was never blunted by Congress and received wide support from the chemical community.

Six years after *Nelson*, the Patent Office struck back in the Supreme Court in *Brenner v. Manson*. The Court (Justice Fortas) held that a novel chemical process to make a product for which there was no disclosed practical use is not "useful" and patentable under § 101. A "patent is not a hunting license," said Justice Fortas, and products that are only known to be useful for "serious research investigation" relate to the "realm of philosophy" not "commerce."

Justice Harlan, in a blistering dissent, took issue with virtually everything in the majority opinion. "Most troubling" was the "impact [the decision] may have on chemical research." Echoing Judge Rich in *Nelson*, Justice Harlan noted, "Chemistry is a highly interrelated field and a tangible benefit for society may be the outcome of a number of different discoveries, one building on the next. To encourage one chemist or research facility to invent and disseminate new processes and products may be vital to progress . . . leading to a commercially useful item."

In 1968, Judge Rich commented on *Manson* in a speech to the Patent Law Society in Crystal City, Virginia. He called the date of the decision, March 21, 1966, "Black Monday" and wondered how the case would have been decided by Mr. Justice Clark, who wrote the pro-patent-system *Graham Deere* opinions in 1966. He also suggested that the Patent Office position in *Manson* reflected a "policy change" in the Patent Office from the pre-1950s when chemical utility was treated differently. He observed: "The question which no one can answer is whether the United States is better off or not—whether progress will be faster or slower [under *Manson*] A loud voice from industry and the bar [rejects *Manson*]."

1961–1970: Decade of the Molecule

From 1961 through 1970, Judge Rich wrote 247 patent, 74 trademark, and 21 customs opinions. The majority of the patent opinions involved chemistry, usually polymers, pharmaceuticals, agricultural chemicals, and related processing; 141 of the patent cases involved § 103, 91 affirming the Patent Office and 50 reversing. Most of the reversals were in chemistry. Most of the chemical cases involved § 103, double patenting, or § 112.

In General

Chemistry causes patent law problems for one important reason—unpredictability. Unlike mechanical and electrical things like screws, bolts, motors, and circuits, chemistry deals with complex molecules, and compositions and

mixtures of matter in infinite varieties, which do not always behave predictably.

When are new molecules, compositions, and mixtures patentable? How should the § 103 “obviousness” inquiry apply? How much about the new chemical invention needs to be disclosed to meet the requirements of “enablement,” “how to use,” and “description” under § 112? How does one get appropriate claim breadth to protect the invention? Is it “double patenting” to have one patent on a single new molecule and another patent on a genus that includes the single molecule?

The politically tumultuous 1960s brought these issues to the front of patent law. Judge Rich was ready for the challenge. Not formally educated in chemistry, he nevertheless through hard work and study became as conversant with chemical technology as anyone on any bench. In one opinion he confessed: “To that task [making practical, legal and logical sense to the Patent Office, the bar and other courts] we now specifically apply ourselves. Hopefully, it will also make sense to chemists, biologists and pharmacologists.” (*In re Ruschig*, 1965.)

Chemistry and § 103 Obviousness

In *In re Papesch* (1963), the Patent Office rejected claims to a lower homolog of an old complex molecule because, to an organic chemist, the new structure would be “obvious.” The fact that the new molecule had a new and unexpected pharmacological property did not matter. Claims in such circumstances should be directed to the *use* of the new molecule, not the molecule itself, according to the Patent Office.

The CCPA reversed. Judge Rich’s unanimous opinion held that the obviousness inquiry required considering new and unexpected *properties* as well as structure, which was already established law that the Patent Office was ignoring.

Several years later (1968) in the speech to the Patent Law Society, noted above, Judge Rich shed some interesting light on *Papesch*:

The enactment of § 103 in 1952 created an unforeseen problem in the chemical field. When you just had to deal with the presence or absence of “invention” it was intellectually easier to put up a good story of unexpected, surprising, advantageous results and get a ruling that “invention” was present. However, when the requirement was put in terms of obviousness to one of ordinary skill in the art, the literal-minded decided that if the structure of a compound was obvious, it was obvious, and that was that. Appeals from the Board in cases of this type began to hit the CCPA shortly after I got there. . . . It reached its zenith in *Papesch*.

Two years later in 1965, *In re Ruschig* met the issue head-on again. The Patent Office was persistent. On facts similar to *Papesch*, the Patent Office rejected structurally obvious compounds, stating that not to do so was “irrational.” Stung by that assertion, Judge Rich said, “We do not think our holdings are irrational . . . we make them with our eyes open,” then hit the nub of the matter: “Valuable inventions should be given protection of value in the real world of business and the courts . . . balancing the alternatives of providing adequate protection to appellant’s limited group of anti-diabetic agents [with product rather than method of use claims] against the mere possibility that someone might wish to use them for

some such purpose as making a textile size [in the prior art], we favor the former.”

By 1970, the Patent Office, as Judge Rich put it, declared “peace” and no longer challenged the structure/properties law.

Chemistry and Double Patenting

“One invention—one patent” is fundamental patent law to protect against “extension of monopoly.” Chemical inventions raise potentially difficult double-patenting issues. Ongoing chemical research, often “interrelated,” as put by Justice Harlan in his dissent in *Manson*, sometimes involves overlapping subject matter (e.g., genus-species, broad v. narrow disclosures, etc.) developed at different times, resulting in applications filed at different times. When do claims in different commonly owned applications overlap sufficiently to conclude they define the “same invention”?

In 1968, the CCPA had pending at one time more than 12 chemical double-patenting cases. In his Patent Law Society speech, above noted, Judge Rich characterized double-patenting cases as the “greatest fun thing of our time.” Ultimately, the problem got resolved by an end-run around it—the terminal disclaimer. Judge Rich said: “Terminal disclaimer was a potentiality inserted into the ’52 Act which a majority of the bar seems to have neglected for a decade until in the 1963 *Zickendraht* case. I wrote a concurring opinion in which I suggested in a footnote:

. . . it seems to me that a “double patenting” rejection might be avoided by filing a terminal disclaimer under 35 U.S.C. 253, which was not done in this case.

Continuing he added: “I said that because I was one of the group which wrote the Act and I knew why that provision was included My footnote suggestion has apparently borne much fruit and not a little unexplainable controversy between the Patent Office and the CCPA. I don’t know why but nearly every step of the way in making terminal disclaimers meaningful has been resisted. But ‘we shall overcome’”

And overcome they did. Today, terminal disclaimers are routinely used to avoid double-patenting problems in commonly owned applications and rarely is a double-patenting appeal necessary.

Chemistry and § 112

Section 112 requires a disclosure that “describes” the invention and “enables” the art-skilled to “use it.” Between 1961 and 1970, Judge Rich wrote 22 opinions, mostly chemical cases, involving § 112. He affirmed and reversed about equally.

While each case is, of course, fact-specific, three overall observations are instructive.

1. Cases that affirmed Patent Office rejections usually involved issues of sufficiency of disclosure to support any or all claims. Judge Rich generally supported the Patent Office when it concluded that the disclosure did not sufficiently “describe” or teach “how to use” an invention. He was super-tough on alleged medical (especially cancer) treatments or nuclear reactor technology for obvious reasons of credibility.

2. Cases that reversed the Patent Office usually involved claim scope issues—were the claims unduly broad for the disclosure? He often was more generous to applicants in claim scope than was the Patent Office.
3. Time after time, he scolded the Patent Office for not making clear which specific parts of § 112 were the basis for rejection (“description,” “how to use,” “indefiniteness”). Over time, the Patent Office got the word and made their rejections more precise.

1971–1981: Computers and Biotechnology Come of Age

From 1971 through 1981, Judge Rich wrote 148 patent, 54 trademark, and 61 customs opinions. He and the CCPA continued to have a large chemical patent load, but computer and biotechnology issues began to take center stage. And it was in this decade that the Supreme Court was called upon again and again to resolve fundamental issues of patentability in these fields.

Computers

Patentability of computers and computer programs has a stormy history. Historically, the Patent Office refused to grant patents on computer programs and related computer technology. At one time they even lobbied Congress (unsuccessfully) to amend the patent laws to exclude computer programs. Judge Rich was at the CCPA through the storm, at the helm at critical times. *In re Jones* (1967), an early case, framed the issues in bold relief. It was a harbinger of bigger things to come.

Jones claimed a “code disc” and a “method of encoding information into digital values utilizing the disc.” The disc surface was organized with “dark” and “light” areas through which light beamed from lamps either passed or did not pass. The pass/no pass areas represented 0’s and 1’s of the binary number system used in computers and computer programs. The Patent Office rejected all claims as “non-statutory” under § 101, being “printed matter and depicting merely a concept of a number system to the base 2.”

Judge Rich (Judge Kirkpatrick dissenting) reversed. The disc was “structure” and the light/dark areas were not “printed matter.” They conveyed “[no] intelligence to a [human] reader,” the “primary purpose of ‘printed matter’ [as heretofore understood].” The disc was a “manufacture” under § 101; the method was a “process” under § 101 involving no “mental steps” but rather a “machine utilizing optics and electronics” to perform functions.

Judge Kirkpatrick’s dissent considered the light/dark areas on the disc no different than “the dials of an ordinary bathroom scale. Certainly the method of reading it should not be controlling.”

So it seemed the die was cast in the CCPA. Non-human-readable information (computer programs, e.g.) used in conjunction with “structures” (discs or other physical elements) can be statutory subject matter. Essentially, this is the substance of the law today. But it was a long tortuous path to get there, through two more Judge Rich CCPA cases and two Supreme Court appeals.

Four years later came *In re Benson* (1971). Like a broken record, the Patent Office rejected claims to a method of operating a computer to convert “binary code decimal” information to “pure binary.” Since the method, in the Patent Office’s view, was directed “solely to the art of digital processing itself,” the Patent Office considered it “non-statutory,” being a “mental process” with “mathematical steps.” Judge Rich, for a unanimous CCPA, reversed. Using the logic of *Jones*, he considered the process steps of manipulating numbers with “structure” (here a digital computer) to be statutory subject matter. No information was used or steps done that envisioned human intervention, i.e., “mental processes.”

Undeterred, the Patent Office sought and got Supreme Court review. In *Gottschalk v. Benson* (1972), Justice Douglas, no friend of patents, reversed. He considered the claims to define “the algorithm itself,” i.e., mathematical steps performable by humans, and, as such, nonstatutory. He finessed and never addressed the larger question: Does it matter that the “algorithm” as a practical matter will not be performed by humans but only machines, i.e., digital computers for which it was intended? His concerns deferred to Patent Office pleas—they cannot “examine applications for programs” for lack of “classification techniques” and “ requisite search files.” And the “tremendous volume of prior art” might impact patents’ “presumption of validity.” He handed off the problem to Congress, where “action . . . is needed.”

Congress never took action. It took another Supreme Court case, *Diamond v. Diehr* in 1981, to get things straightened out. As it turned out, in *Diehr* Judge Rich and the CCPA, with Supreme Court help, got the last word.

Diehr disclosed a method for curing rubber in molds. *Diehr*’s method used a thermometer in the mold hooked up to a digital computer to monitor the temperature in accord with a known equation relating temperature to time (the Arrhenius equation). With the computer, variations in the cure temperature could be monitored instantaneously so as to know more precisely when to stop the cure, thus making better and more uniform products. The Patent Office rejected the method claims as nonstatutory under § 101: the “only non-conventional claim steps define a computer program for taking repeated temperature measurements” and the “Supreme Court [in *Benson*] has declined to extend patent protection” to computer programs.

Judge Rich, for a unanimous CCPA, reversed. “A claim drawn to a process or method does not depend for its validity [under § 101] on whether a computer is involved. If the claim is drawn to subject matter which is otherwise statutory, it does not become nonstatutory merely because a computer is involved in its execution.”

The Supreme Court affirmed 4-3, adopting wholesale Judge Rich’s logic and reasoning. The dissenters, like Justice Douglas in *Benson*, believed inventor *Diehr* was trying to patent an “algorithm” and, like Douglas, wanted to send the question of patentability of computer programs to Congress. So with *Diehr*, the back-and-forth between the CCPA and the Supreme Court ended. *Diehr* is the law today. Despite invitations over time by some Supreme Court justices for Congress to step in, Congress never has.

After *Diamond v. Diehr* in 1981, *State Street Bank and Trust* in 1998 was no surprise. Judge Rich, writing for the CAFC, reversed a district court grant of summary judgment invalidating claims to a data processing system relating to administering a complex mutual fund investment portfolio. The district court held the system nonstatutory under § 101: a “mathematical algorithm” and a “method of doing business.” Relying on *Diamond v. Diehr*, Judge Rich ruled that “the machine . . . transformation of data . . . through a series of mathematical calculations . . . constitutes a practical application of a mathematical algorithm . . . because it produces a useful, concrete and tangible result . . . relied on by regulatory authorities and in subsequent trades [of mutual funds],” thus passing muster under § 101 and *Diamond v. Diehr*. Regarding “method of doing business,” it got short shrift: “We take this opportunity to lay this ill-conceived exception [to patentability under § 101] to rest Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method.”

The Supreme Court denied review of *State Street Bank and Trust*.

Biotechnology

In 1953, Francis Crick and James Watson published the helical structure of DNA (deoxyribonucleic acid). Ten years later, they were awarded a Nobel Prize. There followed explosive growth in microbiology research leading to genetic engineering and its many wonders, along with much patent activity.

New products from microbiology research often require, among other things, human-modified bacteria as host materials. And therein lies the rub. The Patent Office took the position that human-modified bacteria were not patentable—not because of lack of novelty or utility but because they are “alive.” “Living matter” is not patentable unless it is plant life under the plant patent statute. Section 101 must be “strictly construed” and “precludes the patenting of living organisms.” Since bacteria are not included in the plant patent statute, Congress “intended” to exclude bacteria from patentability.

Judge Rich and a CCPA majority (3-2) would have no part of it. In *In re Bergy* (1977) and *In re Chakrabarty* (1978), cases of “first impression,” human-modified bacteria, admittedly novel, useful, and not “products of nature,” are “things produced by man i.e. a manufacture” and thus are statutory subject matter. The CCPA dissenters agreed with the Patent Office: Congress never intended to make such “living matter” patentable.

In *Diamond v. Chakrabarty*, Supreme Court Chief Justice Burger, writing for the majority (4-3), upheld the CCPA. Citing Thomas Jefferson’s “philosophy that ‘ingenuity should receive a liberal encouragement’” and the Senate Report on the 1952 Patent Act that “Congress intended statutory subject matter to ‘include anything under the sun that is made by man,’” the Court held that the “micro-organism [here claimed] plainly qualifies as patentable subject matter . . . [it] is not a hitherto unknown natural phenomenon, but a nonnaturally occurring manufacture or composition of

matter—a product of human ingenuity having a distinctive name and character.” The dissenters here, as in the computer cases, agreed with the Patent Office and invited Congress to deal with the matter. Congress never has.

Congressional silence in the wake of *Diamond v. Diehr* and *Diamond v. Chakrabarty* speaks loudly about congressional intent. Whether Judge Rich’s views for the CCPA majority (adopted by the Supreme Court in both cases) are in the public interest and advance the public welfare in the useful arts is not seriously disputed today by responsible critics. Judge Rich’s view of the patent system incentives—invent, disclose, invest, design around—has proved to be alive and well.

1982–1999: The Federal Circuit Years—“Diluted . . . Not Delighted”

September 1, 1982, the Federal Circuit Court of Appeals was created by merger of the U.S. Court of Claims and the CCPA, which had shared a spectacular courthouse on Lafayette Park in Washington, D.C., since 1967. Judge Rich thus went from sitting en banc with the CCPA (five judges) to panels of three with the seven claims court judges. When asked how he felt about the new court:

I’ll give you a very personal reaction I coined a phrase for myself which explained it in a nutshell “I don’t feel delighted, I feel diluted.” . . . I had had a rather concise jurisdiction over cases essentially all from the Patent Office and had gotten quite used to hearing appeals from the . . . [Patent Office Boards] . . . in patent and trademark cases and I found myself necessarily learning a lot of new law. . . . In the end I came to the conclusion that it was really a good thing for me. It got me out of a rather narrow rut into something more resembling a freight yard with tracks all over the place and going in different directions.

However Judge Rich felt, the patent bar was universally delighted to have his considerable talents available to tackle the ever-increasing complexities of patent litigation. And tackle them he did.

One of the new court’s first orders of business was to adopt the jurisprudence of the CCPA and court of claims as their precedent, thus making CCPA law, and particularly Judge Rich-made law, alive to be perpetuated (*South Corp.*, 1982). From 1982 through 1999, he wrote 206 opinions, including 128 patent, 27 trademark, and 18 trade law (ITC and Customs Court). He wrote few patentability opinions from Patent Office appeals and ploughed little new legal ground doing so. In infringement opinions, his views on patentability now had a larger audience (on and off the bench) and he was keen to keep an eye on all outgoing CAFC opinions; though, as reported by his colleague Judge Plager, there were some who “chaffed under his tutelage.” (Judge Plager was not one of them.) Fact is, very few of his opinions had dissents—only three of which over 17 years dealt with patentability appeals from the Patent Office.

One of the three was *In re Alappat* (1994), a significant computer patentability case. Judge Rich, writing for the majority of a 10-judge en banc court, reversed the Patent Office rejection of a claim to a programmed digital computer. “The claim is directed to a ‘machine’ which is one of the categories of § 101.” The Patent Office held that the claim was

directed to a “mathematical algorithm for computing pixel information,” ignoring that the claim recited computer structure. Judge Rich relied on *Diehr* and *Chakrabarty*; and as Judge Plager noted in a concurring opinion: “I join the majority [over two dissenters] and in particular Judge Rich’s skillful chasing out of some of the less useful judicial accretions [namely *Benson*] regarding patentability under § 101.”

The Worley/Rich “Wars”

No retrospective on Judge Rich would be complete without recounting the Worley/Rich “wars,” as they came to be known, in the late 1960s and early 1970s. The “wars” peaked on January 13, 1972, in a *Washington Post* front-page story (pre-Watergate, when such stories were rare) revealing a sad but fascinating tale of federal judicial intrigue of high order.

The tale begins, in public at least, on February 3, 1970. The four associate judges of the CCPA (Rich, Almond, Baldwin, and Lane) met in the CCPA judge’s conference room to address a festering problem—Chief Judge Worley’s sustained absence from the court for health reasons—93 of the past 110 days—and he had sat for hearings only 17 days of the last 34 months. This had led to administrative gridlock. Substitute judges, when available, sat at hearings; the junior associate judge (Baldwin), a fellow Worley-Texan, filled in administrative duties, without consultation with the other judges. At the February 3 meeting, Judges Rich, Almond, and Lane signed a Memorandum Order designating Judge Rich “Acting Chief Judge” during Judge Worley’s absence. Baldwin refused to sign.

The February 3 Order was the final tip of an iceberg of frigid Rich/Worley relations. Worley came to the court in 1950. He was a five-term congressman from the Sam Rayburn/Lyndon Johnson tradition of crony Texas Democrats. Legend had it that Worley sought the CCPA seat as a stop-gap to the Senate (à la Lyndon Johnson) or the Supreme Court (à la Justice Tom Clark, another Texan). He had no experience or interest in patent or customs law, nor any significant administrative skills.

Giles Rich came to the court six years later, the court’s first patent lawyer. An urbane, apolitical New Yorker with consummate credentials and interest in patent law, the two were destined to lock horns, sooner or later, on personality alone. It came sooner. They early-on wrote dissents to each other’s opinions that at times took pot-shots at one another’s skills or motivations. Judge Worley told the *Washington Post* in 1972 that he “opposed patent lawyers being appointed to the bench . . . they come with too many preconceived notions that the Patent Office was wrong . . . they make law not interpret it.” He also admitted to the *Washington Post* that in 1959, he actively “worked to keep Judge Rich from being named chief judge,” a job he got for himself through his Texas congressional connections. In one Rich opinion, Judge Rich accused Worley of “arbitrary use of power” in ordering an opinion to be published before Rich had finished a dissenting opinion.

And so it went for many years. In 1968, matters deteriorated quickly. Worley’s health got worse. He went to Lourdes, France, seeking divine intervention. In his absence over time,

The Federal Circuit Historical Society

The Federal Circuit Historical Society is a charitable, educational, and nonprofit corporation established in 1999 for the purpose of expanding public awareness of the history and heritage of the United States Court of Appeals for the Federal Circuit. The Society maintains a written history and an oral history of the court. In addition to a number of other projects, the Society publishes annually the *Journal of The Federal Circuit Historical Society*, a publication that preserves the history of the United States Court of Appeals for the Federal Circuit.

In 2004 the Society received from the family of the late Circuit Judge Giles S. Rich a collection of some 700 photographs taken by Judge Rich, an avid and talented photographer. These photographs were taken over the period beginning in 1956, when he was appointed to the United States Court of Customs and Patent Appeals, until his death in 1999 when he was serving on its successor court, the United States Court of Appeals for the Federal Circuit. At the time of his death, Judge Rich was the oldest federal judge to serve in an active status in the history of the nation.

Through a grant from the Fairleigh S. Dickinson Jr. Foundation, Inc., in 2005, the Society began to catalogue and publish electronically these photographs, as well as other pictures collected over the years from the aforementioned courts and the United States Court of Claims. These photographs include pictures of judges, court personnel, other government officials, buildings that have housed these courts, and events of historical significance that involved the courts.

More information about the Federal Circuit Historical Society is available on its website, www.federalcircuithistoricalsociety.org, which provided portions of this text about the Historical Society.

Judge Rich was being designated “Acting Chief Judge” on all opinions, pursuant to statute. In 1968, Judge Worley unilaterally designated Judge Baldwin “surrogate Chief Judge” and ordered him to have the Rich designation “Acting Chief Judge” removed from all CCPA opinions.

After the February 3, 1970, Memorandum Order, which effectively removed Judge Worley as chief judge, he fought back. He requested the Criminal Division of the Justice Department investigate Judge Rich for “criminal conduct” for using “government property” (duplicating equipment) for “private purposes” (duplicating speeches given to bar groups and the like). Outraged, Judges Rich and Lane met with Chief Justice Warren Burger, who, along with President Nixon, ordered Judge Worley “involuntarily retired” pursuant to federal disabled judge law. The *Washington Post* article (January 13, 1972), written by William Nye Curry, a young investigative reporter, set out the lurid details in an article headlined “Judge on Bench 17 Days in Last 34 Months.” Judge Worley was notified of the “retirement” by letter from President Nixon the same day, January 13, 1972.

Judge Worley died in 1974.

Postlude

Judge Rich was never chief judge of any court. So far as is known among his many friends, he never aspired to it. But in any event, time and events conspired against him. Judge Worley blocked it in 1959 for his own personal reasons. By 1972 when Howard Markey was appointed CCPA Chief Judge by President Nixon, Judge Rich was 68 years old (Markey was 52); and besides, in the wake of the Worley/Rich “wars,” new blood and a fresh start were needed for the conflict-stained CCPA. Markey was a brilliant administrator as well as judge—just what the doctor ordered. He and Judge Rich became close friends in a true “mutual admiration society.” Markey called Judge Rich “Mr. Patent Law.” Judge Rich had this to say about Markey:

I spent some years under a great deal of strain until the great day when Howard Markey came to the court as Chief Judge. That was the turning point of my life. Talk about friends of Judge Rich, you ought to talk about friends of Judge Markey. He may not know it, but he’s my greatest friend. He said to me, he hoped I’d stay on the court until I was 90 and that’s why I’m here.

—Remarks at Judge Rich’s 90th birthday party, Willard Hotel, Washington, D.C., May 26, 1994

In the end, never being a chief judge makes no difference to his place in history. Judge Rich’s opinions, writings, and speeches, and his passing it all along to law clerks, other judges, and the bar, speak to his contributions, let alone to his impact on technology and the public welfare.

He did not need more titles.

What we should strive for here, it seems to me, is to become accustomed to these intriguing new surroundings as quickly as possible so that we can forget them and get on with our business . . . The danger that exists in working in a place of this kind with luxury beyond the needs of our work is that we may become too much impressed with our individual importance, forgetting that our status is not established by the mere act of placing us like statues on this pedestal. That kind of status is only for the dead. We, the living, must try to remember that the world will judge us—indeed that it does judge us from day to day—not by the house we work in but by the work-product that flows out of that house as it appears in the printed word . . . The CCPA is not this building or any part of it. It is simply what it says, individually and collectively.

—Remarks of Judge Rich on opening day of the CCPA in its new courthouse on Lafayette Park, October 2, 1967 ■

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