

C Supreme Court Review
2002

*273 THE FESTO DECISION AND THE RETURN OF THE SUPREME COURT TO THE BAR OF PATENTS

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On January 8, 2002, a crowded courtroom in the Supreme Court witnessed a famous legal and political figure rise from his chair to begin arguments on a case about monopolies. The individual was well qualified for the task. He had written one of the most important books on monopolies in the last half-century, [\[FN1\]](#)[FN1] taught antitrust law at the Yale Law School, represented the United States as Solicitor General, and served for six years as a judge on one of the most important federal courts in the nation. [\[FN2\]](#)[FN2] In many ways, there was nothing unusual about this scene. Since the dawn of the republic, federal policy toward business monopolies has excited passions both inside and outside of courtrooms. In every period of its history, the Supreme Court has been intimately involved in crafting the federal law of monopolies, and the cases at the Court have frequently attracted some of the most preeminent members of the bar. But this case was different. It did not involve antitrust law-the branch of federal monopoly doctrine that the twentieth-century Court had treated “almost on a par in importance with *274 the major constitutional controversies that come before it.” [\[FN3\]](#)[FN3] Judge Bork was arguing a patent case.

The sight of such a prominent figure arguing the intricacies of patent law to the Justices would not have been so unusual in the nineteenth century. The Court then had jurisdiction over all patent appeals from the nation's regional trial courts, much like the modern Federal Circuit has today. The Court's jurisdiction was mandatory, and it would regularly hear several patent cases each term. These cases defined the forefront of federal industrial policy and they attracted some of the best legal minds of the day, including Daniel Webster, [\[FN4\]](#)[FN4] Justice Benjamin Curtis, [\[FN5\]](#)[FN5] and Chief Justice Salmon Chase [\[FN6\]](#)[FN6]-all of whom represented private litigants in Supreme Court patent litigation. The practicing patent bar could even claim as its own Abraham Lincoln, who served briefly as counsel in a patent litigation against Cyrus McCormick (the inventor of the mechanical reaper), [\[FN7\]](#)[FN7] authored a famous speech on patent policy, [\[FN8\]](#)[FN8] and received a patent on a method he invented for lifting river boats over shoals. [\[FN9\]](#)[FN9]

The importance of federal patent law during the nineteenth century can be measured not only in terms of the lawyers attracted to the field, but also in the treatment that the subject received at *275 the Court. Perhaps the most visible indication of the field's significance can be found in *The Telephone Cases*, [\[FN10\]](#)[FN10] which sustained the validity of Alexander Graham Bell's telephone patents. There the Supreme Court consolidated five separate pieces of litigation, heard oral argument over the course of twelve days, and filed a report that filled an entire volume of the *U.S. Reports*. The Court's attention to patent law was hardly confined to a single famous case. Early in the century, Justice Story took a special interest in the field. He wrote an influential article on the patent laws [\[FN11\]](#)[FN11] and, both at the Court and on circuit, wrote a number of seminal opinions still found in modern case books. And, even when the Court was drowning in appeals toward the end of the century, retiring Justice William Strong supported a congressional proposal that would have limited the Court's mandatory appellate jurisdiction *except* in patent and copyright cases. [\[FN12\]](#)[FN12]

But in January of 2002, the heyday of the Supreme Court patent litigation was long gone. In the last decade of the nineteenth century, Congress removed the Court's mandatory appellate jurisdiction in patent cases. While the

Court continued to hear several patent cases per term throughout the first half of the twentieth century, it seemed to lose interest in the field at mid-century, and the Court's patent docket precipitously declined. For the next three decades, the Court averaged barely one patent decision per year, or less than one-third its average from the first half of the century. No Justice during that period could claim more than a passing familiarity with the field- a stark contrast to the nineteenth century, which had, in addition to Story, Chase, and Curtis, Justices such as Joseph Bradley, who authored nearly three dozen patent decisions for the Court; Nathan Clifford, who averaged more than one patent opinion for the Court per year during his twenty-three year career; and William Strong, who wrote more *276 than a dozen patent opinions for the Court in just ten years and became renown for his expertise in the field. [\[FN13\]](#)[FN13] By 1975, Professor Philip Kurland could conclude that “[p]atents do not bulk large in the present business of the Supreme Court,” and that the Court had “relegated the resolution of patent controversies to the lower levels of the federal judiciary.” [\[FN14\]](#)[FN14]

The Court's withdrawal from the field seemed, at first, to become even more complete after the creation in 1982 of a new specialized court of appeals, the Court of Appeals for the Federal Circuit. The Federal Circuit was created in part because of the Supreme Court's then decades-long neglect of the field, and it was designed to become an expert court with the jurisdiction and capability to unify national patent law. The creation of the Federal Circuit seemed to eliminate any need for further Supreme Court supervision. While containing a fair dose of judge-made law, the patent field is ultimately an area of federal statutory law, and in statutory cases the Supreme Court has long seen its primary function as resolving circuit conflicts. [\[FN15\]](#)[FN15] With the creation of the Federal Circuit, circuit splits became impossible (or, at best, extremely unlikely), and there consequently seemed to be no pressing need for Supreme Court review. If a patent decision of the Federal Circuit were important enough to correct, Congress could always do so legislatively. Moreover, continuing neglect by the Court might actually be desirable if a generalist court is more likely than a specialized institution to bungle the law in a highly technical field such as patent law. In fact, neglecting the field-or, rather, neglecting the field even more than it already had been-seemed to be the *277 course that the Court was choosing during the first decade of the Federal Circuit's existence, when the Court's already low rate of granting certiorari in patent cases declined even further. [\[FN16\]](#)[FN16] As Professor Mark Janis declared, the Supreme Court seemed to have become “well nigh invisible in modern substantive patent law.” [\[FN17\]](#)[FN17]

The Court's continued retreat from patent law comported with accepted notions about the likely effects that creation of a specialized intermediate appellate court would have. In the debate over the efficacy and desirability of specialized courts, a general assumption has been that the Supreme Court would have little continuing influence over any area subject to the jurisdiction of the specialized court. A specialized court was expected to impede the ability of the Supreme Court to identify the cases worth a grant of certiorari, [\[FN18\]](#)[FN18] to preclude “the thinking of generalists [from] contribute[ing] to the field's development,” [\[FN19\]](#)[FN19] and, generally, to produce a “seclusiveness” that would “immunize[] [the specialized field] against the refreshment of new ideas, suggestions, adjustments and compromises which constitute the very tissue of any living system of law.” [\[FN20\]](#)[FN20] Even those who favor specialized patent courts have generally*278 assumed-to the extent they considered the role of the Supreme Court at all-that the Court's role in the field would remain minimal. [\[FN21\]](#)[FN21] There seemed to be a consensus that the creation of a specialized court would insulate patent law from generalist influence and would diminish the power and perhaps the ability of a generalist Supreme Court to continue effective review over the field. This has been a positive point to supporters of specialized courts, who view a generalist influence to be either unnecessary or even detrimental, and a negative to others who bemoan the loss of generalist influence over the path of the law. But it was assumed to be true by all.

This, then, was the context for the case of *Festo Corp. v Shoketsu Kinzoku Kogyo Kabashuki Co.* [\[FN22\]](#)[FN22]-a long and seemingly irreversible decline in the Supreme Court's patent jurisprudence punctuated by the creation of the Federal Circuit. Yet that history, and the assumptions it spawned, could be momentarily forgotten as Judge Bork began his argument for the petitioners. By the time of the *Festo* oral argument, the Court that term had already rendered one important decision on the patentability of plants, *J.E.M. Ag Supply v Pioneer Hi-Bred International*, [\[FN23\]](#)[FN23] and granted certiorari in another case concerning the scope of the Federal

Circuit's exclusive jurisdiction in patent cases, *Holmes Group v Vornado Air Circulation Systems*. [FN24][FN24] Though three patent decisions in a single term may not seem like an extraordinary number, it is equal to the total number of Federal Circuit patent decisions reviewed by the Court in the first ten years of the specialty court's existence-and these recent grants of certiorari came in an era when the Court has reduced its docket by nearly 50% compared to the 1980s. [FN25][FN25]

*279 Moreover, if the number of patent cases reviewed by the Court could be written off as merely a statistical fluctuation, the Court's attitude toward the cases could not be so easily explained. Consider, for example, the posture of *J.E.M. Ag Supply*. In the case below, a unanimous Federal Circuit panel had held that new plants and seeds can be patented under the general Patent Act, even though they can also receive protection under two specialized statutes (the Plant Patent Act and the Plant Varieties Protection Act). The Federal Circuit panel saw the case as a straightforward application of *Diamond v Chakrabarty*, [FN26][FN26] a two-decade-old Supreme Court decision interpreting the general Patent Act to permit the patenting of “anything under the sun that is made by man,” including living organisms. [FN27][FN27] The full Federal Circuit rejected a petition for en banc review without dissent. [FN28][FN28] After a petition for certiorari was filed, the Court called for the views of the United States, and that request produced a response which, one would have thought, would foreclose any possibility of certiorari. The Solicitor General endorsed the Federal Circuit's decision as a correct interpretation of *Chakrabarty*, confirmed that the Patent and Trademark Office had held the same position for fifteen years and had been issuing patents based on that position, noted that the decision did not conflict with any other court of appeals decision or any Supreme Court precedent, and concluded that Supreme Court review was “not warranted.” [FN29][FN29] Nevertheless, the Court granted certiorari. Although the Court ultimately affirmed the Federal Circuit on a 6-2 vote, the very grant of certiorari shows that the Court is willing to second-guess a patent decision of the Federal Circuit even if the court's decision is unanimous, is in agreement with a long-held legal position of the Executive Branch, and is not in tension with Supreme Court precedents or pre-Federal Circuit appellate precedents.

The Court's attitude was also evident in the interest that the *280 Court took in *Festo*, which involved a seemingly narrow, arcane issue in patent law. A patentee's right to exclude others is normally defined by the literal language of the patent “claims”—a collection of single-sentence statements set forth at the end of the patent document that, by law, must “particularly point []out and distinctly claim[] the subject matter which the [patentee] regards as his invention.” [FN30][FN30] However, a long-established doctrine known as the doctrine of equivalents also protects the patentee a bit beyond the literal language of claim. This doctrine “casts around a claim a penumbra which also must be avoided if there is to be no infringement;” [FN31][FN31] it might accurately be described as the exception to the general rule that a patentee's rights are defined by the literal language of the claim. But the doctrine of equivalents itself has an exception known as prosecution history estoppel, which limits the application of the doctrine of equivalents where the patentees have amended the patent claims during the prosecution of the patent application. *Festo* concerned the precise scope of prosecution history estoppel and could therefore accurately be described as a case about the exception to the exception to the general rule of patent claim interpretation.

While the grant of certiorari on such an issue is itself a significant indication of the Court's renewed interest in patent law, other aspects of the case reveal even more about the Court's attitude. Five years prior to *Festo*, the Court in *Warner-Jenkinson Co. v Hilton Davis Chemical Co.* reversed another Federal Circuit decision on the doctrine of equivalents, but the *Warner-Jenkinson* Court seemed attentive to the Federal Circuit's expertise and authority in the area. The Court there stated that it was leaving further refinements in formulating the test of equivalence to the Federal Circuit's “sound judgment in this area of its special expertise,” and that it was also “leav[ing] it to the Federal Circuit how best to implement procedural improvements to promote certainty, consistency, and reviewability to this area of law.” [FN32][FN32] That solicitude was absent in *Festo*. Hints of the change could be heard in the oral argument. If the *Warner-Jenkinson* opinion sounded like an invitation for the Federal Circuit to experiment with new refinements *281 and improvements to patent doctrine, Chief Justice Rehnquist seemed to have second thoughts about that approach:

[I]f we're looking for some sort of certainty in the area, to say that the Federal Circuit has now come up

with a relatively new doctrine but they're free to change it if it doesn't work is not the most auspicious recommendation for that doctrine. [\[FN33\]](#)[\[FN33\]](#)

And the Chief Justice also seemed eager to reassert the Court's authority in the patent field, as he reminded the respondents' counsel that the ruling below was

simply an interpretation of our cases. Or it should have been at any rate. And I dare say we're in a better position to interpret our cases than the Federal Circuit. [\[FN34\]](#)[\[FN34\]](#)

A unanimous opinion by Justice Kennedy made clear that the Chief Justice's comments were not aberrations. Not only did the opinion rebuke the Federal Circuit for “ignor[ing] the guidance” of Supreme Court case law, it also instructed the Federal Circuit on the approach to prosecution history estoppel that “is consistent with our precedents and respectful of the real practice before the PTO [the Patent and Trademark Office].” [\[FN35\]](#)[\[FN35\]](#) These statements are really quite extraordinary given that the Supreme Court had issued precisely two precedents on prosecution history estoppel in the sixty years prior to *Festo* and that a specialized patent court might be expected to have a better sense of “the real practice before the PTO” than a generalist court that has heard only one appeal from a PTO patent action in twenty years.

Festo was not the final indication of a changed attitude in patent cases. One week after the decision in *Festo*, the Court held in *Holmes Group* that the Federal Circuit's exclusive jurisdiction over cases “arising under” the patent laws does not extend to cases having*282 patent-law counterclaims if the complaint in the case contains no patent-law claim. [\[FN36\]](#)[\[FN36\]](#) The decision overturned a twelve-year-old, unanimous, en banc Federal Circuit precedent. The most interesting aspect of the case, however, is the concurrence by Justice Stevens, who acknowledged that the Court's holding represents a “significant” restriction on the Federal Circuit's exclusive patent jurisdiction and that it might reintroduce circuit conflicts into the patent law. [\[FN37\]](#)[\[FN37\]](#) Nevertheless, Stevens welcomed the possibility of circuit conflicts because they “may be useful in identifying [patent] questions that merit this Court's attention” and because “occasional decisions by courts with broader jurisdiction will provide an antidote to the risk that the specialized court may develop an institutional bias.” [\[FN38\]](#)[\[FN38\]](#)

Despite Justice Stevens's implicit suggestion of “institutional bias” in the Federal Circuit, it would be wrong to think that the Supreme Court's recent attention to patent cases was motivated by a hostility toward, or lack of confidence in, the Federal Circuit. During the 2001 Term, the Federal Circuit had one patent decision affirmed and two reversed (technically, vacated); the court has compiled a similar record over the last seven terms (three patent cases affirmed, five reversed or vacated). But those reversal rates are similar to the general reversal rate for federal appellate courts and are significantly lower than the reversal rate for the Ninth Circuit (which maintains a 4-1 ratio between reversals and affirmances). [\[FN39\]](#)[\[FN39\]](#) Moreover, of the two issues presented in *Festo* (both of which concerned the scope of prosecution history estoppel), the Court agreed with the Federal Circuit on one and, while the Court did disagree on the other, the opinion contains nothing like the stinging criticism that the Court has deployed in past cases—most famously in *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council* [\[FN40\]](#)[\[FN40\]](#)—where the *283 Court has believed its precedents were being willfully flouted by a court of appeals.

It would be equally wrong to believe that the 2001 Term presages a return by the Supreme Court to the nineteenth century in matters patent. With a docket of less than one hundred cases, the Court is not in a position to hear five or ten patent cases per term as it did more than a century ago—nor should it. When the Court was hearing over a hundred patent appeals per decade, it was not doing so by choice, and only a small percentage of those cases presented questions of lasting moment to the patent system.

But it would not be wrong to believe that the 2001 Term signals a return of the Supreme Court to the field of patent law. The term was, in fact, the continuation of a process that had begun in the mid-1990s, when the Court began exercising its certiorari power more frequently in Federal Circuit patent cases. The tenor of recent patent opinions shows that the Court is becoming increasingly comfortable in reviewing patent decisions and increasingly interested in directing the development of law in the field. [\[FN41\]](#)[\[FN41\]](#) This trend does, however, challenge the

standard assumption that the Supreme Court would maintain only a minimal presence in a field subject to the jurisdiction of a specialized appellate court.

The Federal Circuit was created in the hope that the court would develop a unified and coherent body of patent precedents and, to a great extent, the court has fulfilled that aspiration. [\[FN42\]](#)^[FN42] Yet rather than diminishing the Supreme Court's role in the field, the very success of the Federal Circuit in establishing a definite set of patent precedents may both attract and facilitate Supreme Court review of patent cases. Because the Federal Circuit jurisprudence ^{*284} has generally increased the value of patents, the field has become a more important component of national economic policy, [\[FN43\]](#)^[FN43] and this importance is surely one explanation for the Court's renewed interest. But the Federal Circuit may also have increased the Supreme Court's ability to control the development of law in the field. As a unified national patent court, the Federal Circuit has eliminated the need for the Supreme Court to expend resources on resolving relatively minor circuit splits and thereby freed the Court to devote attention to issues of moment in the field. More importantly, the expertise of the Federal Circuit judges tends to illuminate the difficult issues of patent law, making the issues more visible, more comprehensible, and easier to review. *Festo* itself provides a good example. The report of the Federal Circuit en banc decision spans eighty-four pages in the *Federal Reporter* and includes six different opinions. [\[FN44\]](#)^[FN44] It is difficult to imagine a nonspecialized circuit court devoting such effort to a seemingly minor point in patent law. The extended treatment by the Federal Circuit signaled to the Supreme Court the importance of the issue and provided a rich discussion of the competing interests at stake that increased the Justices' ability to comprehend and review the case. The return of the Supreme Court is thus a sign not of the Federal Circuit's failure as a specialized court, but of its great success.

The Federal Circuit's paradoxical ability to facilitate Supreme Court review raises two important questions: whether the Supreme Court can establish a sufficient presence to influence the field, and whether such influence is desirable. These questions are now relevant to every patent case that comes before the Supreme Court because each case serves not only to resolve a particular point of substantive patent law but also to define further what might be termed the "common law" of the relationship between the Supreme Court and the Federal Circuit. The outer bounds of that relationship are established by a single statute, which grants the Court certiorari jurisdiction over all the courts of appeals, including ^{*285} the Federal Circuit. [\[FN45\]](#)^[FN45] Within that broad boundary, the Supreme Court is free to decide how that jurisdiction should be exercised. For the Court, therefore, matters of substantive patent law have become intimately bound up with the institutional allocation of power. In deciding any particular substantive patent issue, the Court needs to develop a vision of its appropriate role in the patent system.

This interdependence between institutional allocations of power and substantive patent law provides the organizational framework of this article. Section I analyzes the historical record of the Court's exercise of its patent law jurisdiction. This historical background is necessary for explaining the Court's early presence in, later neglect of, and eventual return to the field of patents. The jurisdictional history also provides some insight into the Court's future roles in the area; in particular, it suggests that, even if the Court decides only a modest number of cases, it can maintain sufficient presence to influence the path of patent law. Section II examines the substantive legal issue involved in *Festo* as a case study in the virtues and vices of the Supreme Court's return to the field. This study shows that the Supreme Court's approach to the substantive patent law in *Festo* is largely similar to the approach it has historically taken in the field. Because patent law is a fairly technical system of property rights, the Court has always behaved conservatively in the area, accepted doctrinal changes only incrementally, and looked to specialized actors in the patent system to take the lead in developing the law. The advent of the Federal Circuit requires nothing different, and the *Festo* decision shows the great virtues of maintaining that approach. The final portion of this article examines the possibilities for the future development of the symbiotic relationship between the Court and the Federal Circuit.

I. THE SUPREME COURT AT THE BAR OF PATENTS

The history of the Supreme Court's patent jurisprudence can be divided into three discrete time periods based on the character of the Court's jurisdiction: (1) prior to 1891, (2) 1891-1982, and (3) after 1982. During the first time

period, the Supreme *286 Court was, in almost all cases, the only court in the nation with appellate jurisdiction over patent cases. The Court then provided appellate review for all or nearly all litigants, guaranteed the uniformity of national patent law, and exercised leadership in the field. In each of next two time periods, the Court lost one of those three functions. In 1891, the then new regional courts of appeals were given jurisdiction to hear appeals of right by patent litigants. In 1982, the Federal Circuit was charged with unifying national patent law. The Supreme Court has formally remained the court of last resort, but the question has remained whether the Court could continue to lead in the field even though the Court does not have any of the other responsibilities that it had in previous eras. The history is instructive on this question; it suggests that the Supreme Court's former responsibilities in this field have been unnecessary for maintaining the Court's leadership in the area.

A. PRE-1891: THE SUPREME COURT AS THE NATIONAL APPELLATE COURT IN PATENT CASES

While a centralized first tier of appellate review is now viewed as the exception in the federal system, it has been the rule in federal patent law more often than not. Prior to 1891, the Supreme Court performed the role now given to the Federal Circuit; it was *the* national appellate court for all patent cases. For all except the very beginning of this period, circuit courts held exclusive original jurisdiction over patent cases, [FN46][FN46] and the Supreme Court provided *287 appellate review of the circuit court decisions. [FN47][FN47] Though the Supreme Court was never as specialized as the Federal Circuit is today (the Court's patent cases were always only a few percent of its total docket), there are still great similarities between then and now. As is the case today, nearly all appellate decisions in the patent field had national effect, [FN48][FN48] and almost all litigants in patent cases had access to the national appellate tribunal. Indeed, Congress allowed one early jurisdictional limit—the \$2,000 jurisdictional amount requirement that generally applied to the Court's appellate jurisdiction—to be waived in patent cases precisely so that “the decisions on patents [could be made] uniform, by being finally settled, when doubtful, by one tribunal, such as the Supreme Court.” [FN49][FN49] The policy in favor of national uniformity in patent law has, therefore, ancient roots in the country's law.

For a time, this two-tiered judicial structure succeeded. As shown in figure 1, [FN50][FN50] the Supreme Court maintained a manageable *288 patent docket of fewer than four patent cases per term (averaged over five terms) from 1810—the year of the Supreme Court's first patent decision [FN51][FN51]—through the end of the Civil War. Because of *289 the relative youth of the U.S. patent system, the Court decided a relatively high number of significant legal questions. Indeed, this time period contains what is almost certainly the golden age of the Supreme Court's patent jurisprudence—the decade from 1850 to 1859, during which the Court decided at least a half dozen cases articulating fundamental principles of patent law. [FN52][FN52]

S. Ct. Patent Cases: Five Term Running Average

FIG. 1.—Number of Supreme Court patent cases per term averaged over five terms (1810-2000).

This jurisdictional structure did, however, contain an evident flaw: It gave the Supreme Court no control over its patent docket, and the Court could potentially be swamped with trivial appeals. Hints that this possibility might become reality arose even before the Civil War: While a substantial fraction of the Court's patent docket involved significant legal issues, the majority of cases did not, and the fraction of truly significant cases (with significance measured by later court citations) was dropping as time passed. [FN53][FN53]

The real problem began after the end of the war, as the Justices came to be inundated with an enormous flood of mandatory appeals. This problem was, of course, not limited to the Court's patent docket; the Court's appellate docket generally swelled to unmanageable levels. [FN54][FN54] Patent cases were, however, typical of the *290 problem. By the early 1870s, the Court was deciding about six patent cases per term, or roughly double its average from the 1850s (which had been the Court's most active decade in patent law prior to the war). [FN55][FN55] By the Court's 1880 Term, the number of patent cases decided had doubled again, and it continued to rise: During its

1880-89 Terms, the Court decided over 150 patent cases—an average of more than fifteen cases per term. [\[FN56\]](#)[\[FN56\]](#) In other words, the Court was, on average, hearing more patent cases in one sitting than the modern Court has heard in the two decades since the creation of the Federal Circuit.

Yet the number of truly significant decisions issued by the Court during this period was small compared to the number of mundane cases. Even among the 151 cases decided during the 1880s, it is hard to find more than a dozen decisions that had any lasting moment in the patent system. [\[FN57\]](#)[\[FN57\]](#) This is hardly surprising. As the century progressed, the Supreme Court's existing body of patent precedents increased, and fewer fundamental issues had yet to be addressed by the Court. Though the number of patent appeals was swelling, many of the cases could be resolved by fairly straightforward applications of existing precedent. If the Court had control of its docket, such cases would never have come before it.

***291** The experience during this period suggests that the Court need not decide a large number of patent cases to have a major effect in the field. One case per term—or perhaps even every other term—may be enough if the case is important enough. Even in its most active decade, the antebellum Court was deciding at most one or two significant patent cases (using court citations as a proxy for significance) every two years. [\[FN58\]](#)[\[FN58\]](#) In the postwar era (1866-91), the number of significant opinions was no more than one to 1.5 per term, even though the Court was then deciding an average of about nine patent cases per term. [\[FN59\]](#)[\[FN59\]](#) The large bulk of the appeals may have been of consequence to the parties, but they were not greatly important for the functioning of the patent system.

B. 1891-1982: THE FAILURE OF CERTIORARI JURISDICTION OVER REGIONAL CIRCUITS

By enacting the Evarts Act in 1891, Congress established the now familiar three-tiered federal judicial system and allocated the bulk of mandatory appellate jurisdiction in the system to the newly created regional courts of appeals. Although proposals were made to treat patent cases differently—by, for example, creating a specialized court of patent appeals or by leaving the Supreme Court with mandatory appellate jurisdiction in patent cases—ultimately Congress made patent cases subject to the same three-tiered system that generally applied to other federal cases. The Court thus lost its responsibility for providing patent litigants with appellate review by right and, predictably, its patent docket dropped dramatically. [\[FN60\]](#)[\[FN60\]](#) But the Court retained its obligation to ensure the national uniformity of patent law and its power to lead the field.

From the start there were concerns that the Court would not ***292** be able to maintain uniformity of patent law among the regional appellate courts. Less than a decade after the enactment of the Evarts Act, a committee of the ABA's Section of Patent, Trademark and Copyright Law issued a report that, while affirming “the great utility of [the new courts of appeals] in the general administration of the law,” nonetheless concluded “that it is impossible in the nature of things to have under such a system that certainty of uniformity and harmony of administration which is peculiarly necessary to the attainment of justice in dealing with patents and rights under them.” [\[FN61\]](#)[\[FN61\]](#) That report recommended the creation of a national “Court of Patent Appeals” that would sit in Washington. The report included a mechanism designed to prevent the possibility of overspecialization in the court, which was considered the “the principal objection” to the proposed patent court. [\[FN62\]](#)[\[FN62\]](#) The mechanism was not review by the generalist Supreme Court; indeed, the report devoted scant attention to the relationship between the Supreme Court and the proposed patent court. [\[FN63\]](#)[\[FN63\]](#) Rather, the report proposed that, with the exception of one permanent chief judge, the specialized court would be staffed by judges from the circuit courts who would be assigned to the court for a period of years by the Chief Justice of the Supreme Court. [\[FN64\]](#)[\[FN64\]](#) By relying on judges “trained for their work by experience on the bench in the field of general jurisprudence,” the proposal hoped to “give us a court of judges, and not of mere patent lawyers.” [\[FN65\]](#)[\[FN65\]](#)

By 1920, however, the organized bar retracted its support for a special patent court. [\[FN66\]](#)[\[FN66\]](#) The change came partly because the patent bar came to believe that “having the Supreme Court ... sufficiently in touch with this branch of litigation to understand and appreciate its significance” was an “especially desirable” feature of ***293** the existing structure, [\[FN67\]](#)[\[FN67\]](#) and also partly because, as then-professor Felix Frankfurter and James Landis

noted in 1928, “the Supreme Court has shown increasing liberality to review by *certiorari* conflicting patent decisions.” [FN68][FN68] The increase in the Supreme Court's patent docket just prior to 1920 can be seen in figure 1. Between 1900 and 1915, the Court was hearing only about two patent cases per term. The rate was double that for most of the next fifteen years and moved higher still in the following two decades.

Nevertheless, although the Court was granting certiorari in a significant number of patent cases during this period, the number of significant opinions remained relatively low. The switch from mandatory to discretionary jurisdiction allowed the Court to double the percentage of significant patent cases on its docket. [FN69][FN69] The experience suggests that the certiorari process by itself is a relatively poor tool for limiting the Court's docket to the significant cases in the field. [FN70][FN70] Certiorari is often exercised to resolve circuit splits, [FN71][FN71] which can arise over the trivial as well as the important. Thus, much of Court's efforts may have harmonized national patent law but not influenced the field in any fundamental way.

The three-tiered system established by the Evarts Act functioned*294 reasonably well provided that the Court was fairly liberal in granting certiorari to hear patent cases. At mid-century, however, that liberality abruptly ended. In its 1950 Term, the Court decided a single patent case, *Great Atlantic & Pac. Tea Co. v Supermarket Equipment Corp.* [FN72][FN72] During the rest of the 1950s, the Court would decide only four patent cases, thus producing a ninefold reduction in the Court's patent caseload during the 1940s (4.5 cases per term) and a sevenfold reduction from the Court's average in the first half of the twentieth century (3.5 cases per term). In 1960s, the Court's level of interest rebounded very slightly; it averaged just under two patent cases per term, but the average returned to around one case per term in the 1970s. Through the entire period from 1950 through the end of the 1982 Term (the last year in which the Court exercised certiorari over a patent decision of a regional circuit), the Court averaged about one patent case per term (thirty-six cases in thirty-three terms).

The significance of the Court's declining patent docket was magnified by another feature of the docket: The Court was devoting most of its attention not to matters of substantive patent law—that is, the law governing patent validity and the patentee's rights against infringement—but to issues such as venue and procedure, [FN73][FN73] the preemptive effects of the federal patent system on state law, [FN74][FN74] the federal common law of patent licensing (a form of federal preemption of state contract law), [FN75][FN75] and the relationship between the patent and antitrust laws. [FN76][FN76] Out of the thirty-six total patent cases *295 decided during the 1950 to 1982 Terms (a thirty-three-year period), nineteen cases fell into one of these peripheral categories. Substantive patent law was at issue in only seventeen cases—an average of about one case every two terms.

While the precise reasons for this dramatic drop are not clear, two contemporaneous events help to explain the Court's retreat from the field. The first event occurred in 1949, when the Court by a 6-3 vote invalidated the patent in *Jungersen v Ostby & Barton Co.* on the grounds that the patentee's improvement (a better method for casting jewelry) showed no “inventive genius.” [FN77][FN77] The case was merely another in a line of then-recent precedents invalidating patents for want of “genius,” but it was significant because of the concerns voiced in the dissents. Justices Frankfurter and Justice Burton argued that the case, though having no “serious consequences for an important industry,” nonetheless “raise[d] basic issues regarding the judiciary's role in our existing patent system” because the Court majority was acting “as though [the patent system] did not exist as it is.” [FN78][FN78] In a separate dissent, Justice Jackson was more blunt. He charged the Court majority with having such a “strong passion” for striking down patents “that the only patent that is valid is one which this Court has not been able to get its hands on.” [FN79][FN79] Thus, at least three Justices believed the Court to be overly hostile to patents and might, therefore, have wanted to keep the Court from “get[ting] its hands on” more patent cases.

But *Jungersen* is only half of the story. In 1952, Congress enacted a comprehensive revision of the patent laws that, among other things, overruled the Court's precedents requiring inventive “genius” as a prerequisite for a valid patent and substituted a statutory test requiring patentable inventions to be not “obvious” modifications of the prior art. [FN80][FN80] That line of precedents had accounted for a fifth of the Court's total patent docket in the years preceding the change, [FN81][FN81] and the new statute was widely viewed as a congressional*296 vote of no

confidence on a major line of the Court's mid-century patent precedents. [FN82][FN82] The Justices most hostile to patents- Justices Douglas and Black [FN83][FN83]-might have balked at bringing new patent cases to the Court for fear that the new statute might prod moderate members of the Court to take a more favorable view of patents generally. The *Jungersen* dissenters, on the other hand, might equally have feared that the Court's hostility toward patents would not be tempered by the new statute. The risks to each side might explain the dramatic drop in patent cases.

Yet whatever the cause of the drop, the Court would, for the rest of the twentieth century, not hear patent cases with the frequency that it did in the first half of the century. Thus, while the creation of the Federal Circuit would precipitate a decline in Supreme Court patent cases, the reverse is more true: The sharp decline in Supreme Court patent cases at mid-century left circuit patent law largely unsupervised by the Supreme Court. Circuit splits multiplied, and the resulting uncertainty in patent law provided the impetus for the Federal Circuit. [FN84][FN84]

C. POST-1982: THE FEDERAL CIRCUIT AND THE FACILITATION OF GENERALIST REVIEW

With the creation of the Federal Circuit in 1982, Congress relieved the Court of its responsibility (which it had been neglecting) *297 of maintaining nationally uniform patent law and returned the jurisdictional structure for patent cases to a system similar to that of the nineteenth century, with a single national appellate court hearing all appeals from the regional trial courts. Initially, the change led to another decline in the Supreme Court's patent docket and, although this drop was not nearly so large (both in numbers and percentages) as the mid-century decline, it seemed at first to signal that the Court would limit itself largely to policing the boundaries and procedures of the patent system while otherwise deferring to the expert judges of the Federal Circuit. In the twelve terms between 1983 and 1994 (inclusive), the Court heard five patent cases, four of which involved issues such as federal preemption of state law, appellate procedure in infringement cases, and the scope of the Federal Circuit's exclusive jurisdiction in patent cases. [FN85][FN85] Even the one case involving a substantive patent issue seemed to be an exception proving the rule: The case, though formally involving the scope of a patentee's rights against infringement, actually turned on the interplay between the Patent Act and the Food, Drug, and Cosmetics Act, a statute outside of the special competence of the Federal Circuit. [FN86][FN86]

At the end of its 1994 Term, the Court seemed destined to maintain a highly marginal role in the patent system. The surprise has been that the Court does not seem to be following that course. In its last seven terms (1995-2001), the Court has decided eight patent cases, or just slightly more than one case per term (see fig. 2). Four of these cases could be explained as being consistent with the Court's pattern of regulating the boundaries of patent law and patent institutions. [FN87][FN87] But the remaining four are harder to *298 explain. *Warner-Jenkinson Co. v Hilton Davis Chemical Co.*, [FN88][FN88] *Pfaff v Wells Electronics, Inc.*, [FN89][FN89] *J.E.M. Ag Supply v Pioneer Hi-Bred International*, [FN90][FN90] and *Festo* all involved nonconstitutional issues falling within the Federal Circuit's patent jurisdiction. In each case, the Supreme Court's grant of certiorari cannot be explained as necessary to maintain the uniform application of federal law or even to resolve a conflict between the Federal Circuit and the legal position of the Executive Branch. [FN91][FN91] Instead, the Court seems to have been motivated by a desire to review the *correctness* of the Federal *299 Circuit's patent decision and to assert some degree of supervision over the Federal Circuit-even on statutory issues of patent policy.

S. Ct. Patent Cases: Five Term Running Average (1950-2001)

FIG. 2.-Number of Supreme Court patent cases per term averaged over five terms (1950-2001).

This recent experience suggests that the Court will continue to hear patent cases. Perhaps it will average one case per term (roughly the average in the last fifty years), or perhaps half that. If the hopes in creating a court of appeals with nationwide jurisdiction were that such a court would have "the all-but-final say in determining ... what an act of Congress means" [FN92][FN92] or that the court would be "the probable court of last resort in most of its

cases,” [\[FN93\]](#)^[FN93] those hopes are fulfilled only with emphasis on the exceptions: The Federal Circuit has all *but* the final say and it is the court of last resort in *most*-not all-of its cases.

History suggests that the Court can continue to be important in the field even if it is hearing only five or ten patent cases per decade. Indeed, it could perhaps be as important to the field as it was in the nineteenth century. Influence is driven not so much by the quantity of decisions, but by the quality and authority of those decisions. Even under fairly liberal tests of what constitutes a “significant” patent decision by the Court, the number of such decisions hovered about the level of one per term even during the heyday of the Court’s patent docket. Thus, despite the small size of its current patent docket, the Court can continue exercising a leading role in the field if it is able to select the right cases—that is, the important cases—to fill its docket. [\[FN94\]](#)^[FN94]

It is on this point that a specialized court of appeals with national jurisdiction may actually facilitate the jurisdiction of the generalist Supreme Court by attracting the Court’s attention to the important questions in the field. Evidence of this effect can be seen even before the Federal Circuit existed. In the decade before the creation of the Federal Circuit, the Court was already receiving more than half of its patent cases (five of nine) from a specialized ***300** tribunal—the Court of Customs and Patent Appeals (CCPA), which then handled appeals from Patent Office actions denying patent applications. [\[FN95\]](#)^[FN95] If the peripheral patent cases are eliminated, the CCPA’s presence in the Court’s patent docket is even more dramatic: Only one of the cases taken from a nonspecialized court during this ten-year period involved a core issue of substantive patent law. [\[FN96\]](#)^[FN96] Thus, in the decade prior to the creation of the Federal Circuit, the Supreme Court was already obtaining nearly all of its substantive patent cases from a specialty court with a national jurisdiction.

At least two effects explain the ability of a specialized court with nationwide jurisdiction to help the Court identify cases meriting review. First, a decision by a national court of appeals such as the CCPA or the Federal Circuit has greater importance than a decision by any one circuit. The decision thus has a stronger claim to review by the Court, and it is also likely to attract a larger number of amicus briefs at the certiorari stage because interested entities—for example, trade associations or firms not party to the particular lawsuit—will have a greater incentive to support a petition for certiorari. Even if the legal analysis in the amicus briefs is not helpful, the sheer number of amicus briefs should give the Court some indication of a case’s importance. Thus, for example, the ten amicus briefs filed at the petition stage of the *Festo* litigation (eight briefs supporting certiorari and two opposing) probably gave the Court a reasonable indication of the case’s import. [\[FN97\]](#)^[FN97]

Second, the importance of a case may be signaled by the lower court judges who, because of their expertise, may be better than generalist judges at identifying important issues in the field. Thus, in *Festo*, a set of issues that a generalist might view as minor drew an en banc decision spanning eighty pages in the *Federal Reporter*. If patent appeals were still being heard by regional courts of appeals, it is difficult to imagine any regional circuit devoting ***301** such a large amount of resources to a patent case. [\[FN98\]](#)^[FN98] Lengthy opinions like those in *Festo* not only indicate the importance of a case to the Supreme Court; they also thoroughly set forth the various arguments for and against the rule adopted by the lower court. The Supreme Court can be fairly certain that the issue has been thoroughly vetted and is therefore ready for a grant of certiorari.

D. THE POSSIBILITIES FOR THE FUTURE: THE INFREQUENT PATENT COURT

The prior discussion suggests that, even if the Court continues to hear fairly small numbers of patent cases, the Court could still play a major role in patent law and policy—indeed, its role could be enhanced by the existence of the Federal Circuit. But this says nothing about whether, or to what extent, the Court should continue to maintain a presence in a field now dominated by an expert lower court.

These questions cannot be answered merely by assuming that one institution is better than the other. Both are staffed by fallible judges; both will reach poor decisions from time to time; there is no *a priori* reason to believe one

institution will necessarily be wiser than the other. But even if we remain agnostic about which court is better in some abstract sense, the institutional differences between the Court and the Federal Circuit do provide some rational basis for deciding the respective roles of the courts.

The most celebrated institutional characteristic of the Federal Circuit is, of course, its specialized jurisdiction in patent cases, and *302 that feature provides the Federal Circuit with an expertise in patent law lacking in the modern Supreme Court. The limits of the Federal Circuit's expertise mark one role for the Supreme Court-policing matters at the boundaries of patent policy and policing the boundaries of the Federal Circuit's jurisdiction. The Court itself seems to recognize this point for, as previously noted, a fairly large fraction of the Court's certiorari grants in Federal Circuit patent cases have concerned the proper relationship between patents and other fields of federal law. The justification for more aggressive Supreme Court supervision need not be that the Federal Circuit's decisions on matters such as administrative or constitutional law are in some way suspect because the Federal Circuit has a specialized jurisdiction in patent law. [FN99][FN99] Rather, the justification is that, in these cases, the Federal Circuit's expertise in patent law does not provide any special reason for resisting certiorari review. The court's decisions are then on an equal footing with decisions of the other circuits, and the Supreme Court should apply its normal policies for certiorari review.

The most important consideration for defining a role for the Supreme Court in patent law is not, however, that the Court exercises jurisdiction generally in a variety of other fields but that it exercises its jurisdiction so infrequently in patent cases. This infrequency can be assumed both because of the reality of the Court's modern docket, which does not leave room for large numbers of cases from any particular area of federal law, and because of the historical record that the Court has not, during any period in which it had control of its docket, been willing to fill more than a small percentage of its docket with patent cases. The infrequency does not mean that the Court is incapable of having an effect on the course of the law, but it does have other implications.

1. *Arbitrating institutional claims to power.* The Court's relative isolation from the day-to-day workings of the patent system may make the Court a particularly good institution for deciding the allocation of decisional power within the patent system. The point *303 here is premised not on the necessary limitations of the Court's docket, [FN100][FN100] but on the desirability of having a more detached institution review Federal Circuit decisions concerning the scope of its own power.

The day-to-day administration of the patent system is lodged primarily with a triad of institutions: the PTO, which is responsible for issuing patents; the district courts, which are responsible for trying infringement actions; and the Federal Circuit, which reviews the work of the other two institutions. Where the Federal Circuit is deciding on the allocation of power among the three institutions, it may suffer from an institutional problem: If the court concludes that a particular power is properly decided by an appellate court, the power redounds to the court itself. In fact, it is hard not to notice that, in cases presenting contested issues concerning the allocation of power in the patent system, the Federal Circuit has consistently pushed decisional power toward itself. [FN101][FN101] Decisions concerning the patent system will, however, have little effect on the Supreme Court's overall power, and that detachment could assist the Court in evaluating the institutions of the patent system and allocating power among them.

2. *Providing stability.* In the early part of the twentieth century, reformers championed specialized institutions-then administrative*304 agencies and tribunals-as necessary and desirable because they believed that specialized institutions would be able to adapt law more quickly to the changing needs of modern society. [FN102][FN102] Supervision by a generalized judicial body was anathema to those reformers precisely because it could curb the pace of change. The insight of that era is relevant to the relationship between the Supreme Court and the Federal Circuit, though the point is reversed. A great virtue of infrequent Supreme Court review is its moderating influence on the pace of change.

Patents are alternatively described as a species of property rights or a type of contract between the inventor and

the government. [FN103][FN103] Both conceptions of patents suggest the need for stability. As the Court has recognized, “[c]onsiderations in favor of stare decisis are at their acme in cases involving property and contract rights, where reliance interests are involved.” [FN104][FN104] In fact, the patent system needs to be reliable and predictable over long periods of time. Patents extend for about two decades under current law. They are intended to allow the investors in intellectual property to recover the investments made many years earlier. Without long-term stability in the patent system, investors could not be certain that they will have a fair opportunity to recover the investments made in creating the intellectual property.

To the extent that it adheres to the normal common-law process of modifying precedents only incrementally, [FN105][FN105] the Supreme Court *305 will be able to maintain no more than a glacial pace of change in an area, like patent law, where it decides perhaps only a half dozen cases per century on any particular issue. *Festo* provides a good example. With citations to only eight cases, the Court effectively canvassed the universe of its significant precedents on the doctrine of equivalents and prosecution history estoppel from the past 150 years. If the Court's instincts are to change its case law gradually, then an infrequent but steady exercise of its certiorari jurisdiction will likely check any fast shifts that could develop in the case law of a more frequent patent court like the Federal Circuit.

3. *Leading change.* The infrequency of the Court's intervention in any particular issue of patent law makes the Court a poor institution for designing substantive change or for experimenting with possible reforms in the field. In part, this conclusion is simply the converse of the last point: If the Court reviews a particular issue only once every one or two decades, it is more likely to hinder than to help change.

The infrequency of the Court's review also means that the Court will lack expertise of the sort possessed by the Federal Circuit, the PTO, and even certain district courts that routinely adjudicate patent cases. An inexperienced institution might fairly be able to evaluate doctrinal experiments in the field, or at least determine whether the doctrinal experiment is such a large departure from existing precedent that it should not be permitted. But developing innovations in the law requires a type of comprehensive knowledge of the field—an appreciation for the interaction between all the various doctrines—that is simply lacking in the Court. Moreover, the Court need not undertake the role of leader. The other institutions in the patent system—particularly the PTO and the Federal Circuit—are better equipped to formulate new doctrine, and their experiments, if unsuccessful, can be more easily abandoned or reversed than can a Supreme Court precedent.

The role adumbrated here for the Court—with a focus on institutional arrangements, a cautious adherence to precedent, and a humble abjuration of any leading role—is in fact the approach that the Court has taken historically in the field. There is no better demonstration of this role than the Court's historical approach in the area of patent law at issue in *Festo*, which concerns the definition of the property rights encompassed within a patent. To that area we now turn.

*306 II. FESTO AND THE COURT'S APPROACH TO DEFINING PATENT RIGHTS

Festo is a great case to study for many reasons. The prominence of the petitioner's counsel, coupled with the great interest in the case shown by business and the bar (seventeen amicus briefs were filed on the merits), hark back to the era when the Supreme Court frequently entertained important and complex patent appeals. The technicality of the issues in the case demonstrates that the modern Court is unwilling to cede to the Federal Circuit plenary authority over the arcana of patent law. But the most important reason to study *Festo* is that the case is part of a larger history of the Court's attempts to address an extremely difficult legal issue in a specialized area of law. This larger history provides a perfect forum for studying the Court's presence in the field.

A. A TALE OF THE CLAIM AND THE COURT

The ultimate issue in *Festo* is as simple to state as it is hard to resolve: What is the best manner to define property rights in innovations? The difficulty is immediately apparent. Unlike physical property, innovations occupy the realm of the conceptual and, as innovations, they are also new and nonobvious. The task for the law is thus to define accurately rights to incorporeal matters residing on the forefront of human knowledge. [\[FN106\]](#)[\[FN106\]](#)

Despite the difficulty of this task, the basic law existing at the time of *Festo* could be defined by three rules: First, patent claims—the formal, single-sentence statements of the invention set forth at end of the patent—provide the primary definition of the patentee's rights against infringement. Second, the doctrine of equivalents is the exception to that rule; it allows patent rights to extend somewhat beyond the literal bounds of the claims. Third, prosecution history estoppel is the exception to the exception; it precludes resort to the doctrine of equivalents where the equivalents measure ***307** of infringement would contradict the patentee's representations and actions during the administrative process of obtaining the patent.

These three rules form the basic framework for *Festo*. The literal language of the patent claims did not cover (or at least were believed not to cover) the accused infringer's products, and so the patentee invoked the doctrine of equivalents. The accused infringer relied on the doctrine of prosecution history estoppel to limit the patentee's rights to the literal terms of the claims. Thus, from the perspective of the patentee in *Festo*, the doctrine of equivalents was a friend-helping to broaden the claims—and the literal language of the claims, an enemy.

Yet less than two centuries ago, in the early nineteenth century, an attorney skilled in patent law would have viewed the posture of *Festo*, to the extent that it would have been comprehensible, as utterly backward. The attorney would have found the concept of prosecution history estoppel unintelligible because there was no prosecution process for obtaining a patent; the Patent Office simply registered and issued patents with no administrative examination to determine their validity. Although the attorney would have understood the concepts of equivalents and claims, he would have viewed equivalents analysis as the primary means of determining infringement and the patent claim as a relatively new legal device designed to help patentees *expand* their rights. The story of how the early nineteenth-century understanding came to be inverted in a modern case such as *Festo* can be told with a surprisingly small number of Supreme Court precedents and, in this tale, we can observe the traditional functioning of the Supreme Court. Rather than leading change in the field, the Court has allowed more specialized institutions—particularly the Patent Office and the patent bar—to develop the law. The Court's role was frequently to provide stability by restraining the pace of change. And where it accepted change, the Court stressed the institutional reasons for reform.

1. *The patent-claiming revolution in the nineteenth century.* Defining the precise scope of property rights is a problem that must be addressed by any patent system, but the early American patent system took an approach that is nearly the complete opposite of the one taken today. In fact, the patent system in the early nineteenth century looked much more like copyright than it does today. Like ***308** copyrights, patents were merely registered; the Patent Office did not attempt to determine the validity of the patent at the time of registration. Patent claims were unknown, and the infringement of a patent was decided by applying a test much like the “substantial similarity” standard still used today to determine infringement of copyrights. [\[FN107\]](#)[\[FN107\]](#) The jury would determine infringement by determining whether the defendant's machines (or products or processes) were “substantially, in their principles and mode of operation, like” [\[FN108\]](#)[\[FN108\]](#) the invention described in the patent specification (which is the technical description that, by law, must disclose all information to enable the making and using of the invention). This “substantial identity” test was *the* test for infringement and, by the middle of the century, it was equated in name with “the doctrine of mechanical equivalents.” [\[FN109\]](#)[\[FN109\]](#)

The legal construct now known as the patent claim arose within this legal environment. It arose not from any administrative, judicial, or legislative requirement. Instead, it was an innovation of patent attorneys, and it was formulated to protect and to expand the rights of patentees.

One benefit of early claims is that they could protect an inventor against invalidation of a patent on the ground

that the patent did ***309** not “distinguish the [invention] from all other things before known.” [\[FN110\]](#)[\[FN110\]](#) Because the judicial decisions enforcing this statutory requirement denounced “mixing up the new and the old,” [\[FN111\]](#)[\[FN111\]](#) some early claims were drafted in the negative, pointing out the portions of the disclosed technology that the patentee thought old and that were thus not claimed as the invention. [\[FN112\]](#)[\[FN112\]](#)

Yet claims also delivered another benefit that seems to have been at least as important, and quite possibly more important, in fostering the rise of the claim. From the standpoint of the patentee, judging infringement under an equivalents-type analysis (i.e., the substantial identity test, as it was then known) presented a rather large disadvantage: In determining whether the defendant's machines were “substantially, in their principles and mode of operation, like” the patented invention, the jury had to divine the abstract principles underlying the invention from the drawings and technical description in the patent specification. This inquiry was, as Justice Story recognized in an early circuit case, “often a point of intrinsic difficulty.” [\[FN113\]](#)[\[FN113\]](#) Or, as Justice Washington put it, “[w]hat constitutes a difference in principle between two machines, is frequently a question of difficulty more especially if the difference in form is considerable, and the machinery complicated.” [\[FN114\]](#)[\[FN114\]](#) The danger for the patentee was that lay jurors would find no infringement because they would see many superficial differences between the defendant's machine and the description of the patented invention and thus believe the two not substantially identical.

Inventors responded to this problem by developing “claims” in ***310** which they defined their inventions in broad conceptual terms and asserted rights to the invention in those terms. [\[FN115\]](#)[\[FN115\]](#) This is why, even before they were required as a matter of law, claims in the modern style first appeared as sweeping assertions of right deployed by aggressive patentees such as Robert Fulton and Samuel Colt. [\[FN116\]](#)[\[FN116\]](#) As Justice Story would declare in 1843—seven years after the Patent Act of 1836 required claims as a mandatory part of all patents—claims helped the patentee to “guard[] himself against the suggestion, that his invention consists solely in a particular form ... and [to] claim the invention to be his, whether the exact form is preserved, or not” [\[FN117\]](#)[\[FN117\]](#) The claim was the friend of the patentee; it helped to expand patent rights.

The Supreme Court's contribution to the patent-claiming revolution was, at first, nothing at all. Only nine Supreme Court patent cases were decided prior to 1836, when statutory law first required patent claims, and none of those cases even hinted that inventors should include in their patent applications anything resembling a patent claim as an aid in defining the patentee's property rights. Thus, even though it held a nationwide mandatory appellate jurisdiction in the field, the Court was in no way responsible for initiating this fundamental shift in the techniques for defining patent rights.

***311** The Court's first significant contributions to the law governing patent claims came in 1854, when the Court decided two major cases on patent claims. Both decisions exercised a moderating influence on the pace of change.

In *O'Reilly v Morse*, the Court invalidated the eighth claim in Samuel Morse's telegraph patent as “too broad, and not warranted by law.” [\[FN118\]](#)[\[FN118\]](#) In this claim, the last and broadest in Morse's patent, Morse asserted that he was not “limit[ing] [him]self to the specific machinery or parts of machinery described in the foregoing specification” but instead was seeking legal rights to “the essence of [his] invention,” which he described as the use of electric current to print signs or letters at a distance. [\[FN119\]](#)[\[FN119\]](#) The claim shows the aspiration of early nineteenth-century patentees to extend their rights through progressively more abstract and general claims. But the Justices disappointed those hopes, at least temporarily. For the Court, the patent specification—not the claims—still provided the basic measure of the exclusive rights conferred under the patent: “The specification of this patentee describes his invention or discovery, and the manner and process of constructing and using it; and his patent ... covers nothing more.” [\[FN120\]](#)[\[FN120\]](#) And the substantial identity test measured the scope of the patentee's rights: “[A]ny one may lawfully accomplish the same end [as the invention] without infringing the patent, if he uses means *substantially different* from those described.” [\[FN121\]](#)[\[FN121\]](#)

The other major 1854 case on patent claims was *Winans v Denmead*, [FN122][FN122] which is now cited by the modern Supreme Court as the origin of the doctrine of equivalents. [FN123][FN123] Yet the *Winans* Court was responsible for nothing original; it merely maintained the status quo. In contrast to *Morse*, where the patentee was trying to use the claim form to expand rights, the accused infringers in *Winans* were attempting to use the literal terms of the claim to narrow *312 the patentee's rights. The claim was directed to a railroad coal car shaped like a "cone"-that is, having a circular cross-section. [FN124][FN124] The defendants' rail car had an octagonal, rather than a circular, cross-section. The Court (in a 5-4 decision by Justice Curtis) held that the patentee was not bound by the restrictive language of the claim and that the defendants' cars infringed because they had been found by the jury "substantially to embody the patentee's mode of operation." [FN125][FN125] This was nothing more nor less than the "substantial identity" test, which was then still the dominant test for infringement. [FN126][FN126]

It was not until twenty-three years after *Winans* that the Court finally declared the "distinct and formal claim [to be] of primary importance, in the effort to ascertain precisely what it is that is patented." [FN127][FN127] But by then, as the Court itself understood, the decision was merely recognizing a reality that had built up below the Court. Explaining its shift from *Winans*, the Court pointed to "[t]he growth of the patent system in the last quarter of a century in this country"-that is, approximately the time since the *Winans* decision-which "has reached a stage in its progress where the variety and magnitude of the interests involved require accuracy, precision, and care in the preparation of all the papers on which the patent is founded." [FN128][FN128] The growth of the patent system not only had led to a more than twenty-fold increase in the yearly output of the Patent Office, [FN129][FN129] but more importantly, had also produced*313 "well-settled rules" that left "no excuse for ambiguous language or vague descriptions." [FN130][FN130] Here the Court could not have been referring to its own jurisprudence on patent claiming, which up to this time had been dominated by *Winans* and which did provide, if not an excuse for, at least an accommodation of imprecise patent claims. The "well-settled rules" of patent claiming had instead been constructed by the Patent Office. [FN131][FN131]

In accepting the dominant role of the claim, the Court was careful to consider the effect of claim primacy on the overall legal process of the patent system. For example, one difficulty with aggressively enforcing the limitations of claim language is that unartful drafting could deprive patentees of the fruits of their inventions. But the Court identified a solution to this problem: If the patentee has claimed less than he has a right to, "the law affords him a remedy, by a surrender and reissue." [FN132][FN132] Thus, the strict judicial process was counterbalanced by the administrative reissue *314 remedy (a remedy that, as it so happens, was also an innovation of the patent bar and Patent Office [FN133][FN133]). That solution shifts some responsibility from the courts to the Patent Office, which would consider and approve any adjustment to the language of the original claims. But, as the Court noted, that shift was consistent with Congress's decision to impose on the Patent Office the primary "duty of ascertaining the exact invention of the patentee by ... a laborious examination of previous inventions, and a comparison thereof with that claimed by him." [FN134][FN134] Process considerations, particularly the comparative roles of the Patent Office and the courts, would remain a theme in the Court's jurisprudence on patent claims.

Despite its more rigorous enforcement of the claim limitations, the Court did not wholly abandon the analysis of equivalents. For example, fifteen years after it recognized the primacy of claims, the Court relied on *Winans* to hold that the defendant could be liable for infringement where he had substituted "an old and well known mechanical equivalent ... to evade the wording of the claims" of the patent. [FN135][FN135] But equivalents analysis had become the exception, not the rule, and it was subservient to claim interpretation. [FN136][FN136] Moreover, process considerations led the Court to create a new limitation on the extent of the patentee's rights, and this further contracted the scope of equivalents. The Court held that, in deciding the scope of patent rights, courts should look to the prosecution history-that is, the record of the Patent Office proceedings by which the inventor obtained the patent-and "strictly construe[], against the inventor, and in favor of the public" any limitations and restrictions introduced by the inventor to overcome rejections imposed by the Patent Office. [FN137][FN137] As applied to the doctrine of equivalents, this practice of restricting the patentee's *315 rights because of the proceedings before the Patent Office would become known as "prosecution history estoppel."

The rise of the claim was not, however, without benefits for inventors. During the 1880s, the Court limited *O'Reilly v Morse* and expanded the ability of patentees to use broadly worded patent claims to extend their rights into the more conceptual realm. [FN138][FN138] Rather than limiting a patentee to “the means he specifies” for accomplishing a particular result (as the *Morse* Court did), [FN139][FN139] the Court in *Tilghman v Proctor* viewed a patent as granting rights on a “conception of the mind” that could be accomplished through “many modes and by the use of many forms of apparatus,” all of which need not be disclosed in the patent document. [FN140][FN140]

By 1890, patentees knew that they would usually be bound by the terms of their claims but also that they could reap the benefits of broadly worded claims ... usually. In *Westinghouse v Boyden Power Brake Co.*, [FN141][FN141] the Court placed one final caveat on the patent-claiming revolution. It held that, just as infringement can be proven even “though the letter of the claims be avoided,” “[t]he converse is equally true.” [FN142][FN142] This holding would become known as the “reverse doctrine of equivalents,” but it was really nothing more than the old “substantial identity” test being applied once again. [FN143][FN143] However, as in the doctrine of equivalents cases, the Court in *Westinghouse* deployed the reverse doctrine as an exception to the now general rule that the claims defined the patentee's rights. Indeed, the primacy of claims is evident from the whole structure of the *Westinghouse* opinion, which extensively analyzed the claims before deciding whether an exception should be made to the normal rule of deciding infringement on the basis of the claims. The case also suggested that the exception would likely remain narrow: the Court found the defendant's product (an improved airbrake for trains) represented a “manifest departure from *316 the principle of the [plaintiff's] patent”; [FN144][FN144] the defendant had actually obtained his own patent on the product accused of infringing; and four Justices dissented. *Westinghouse* shows the conservatism of the Court, for even after it had endorsed a switch to measuring patent rights primarily by the claims, it kept alive the old law for use in exceptional cases.

At the close of the nineteenth century, the patent-claiming revolution was largely complete, and it had been accomplished with surprisingly little intervention by the Court. The Court's entire role—from its temporary resistance to its embrace of the change—can be recounted with only a few cases. There were, of course, more cases from that era (particularly from the 1880s) that applied the relevant doctrines. But the discussions in those cases yield very little additional insight into the state or development of the law. [FN145][FN145] Despite the enormous bulk of patent cases decided in the last quarter of the nineteenth century, few cases were anything more than routine appeals.

2. *Stasis: maintaining equivalents in the age of the claim.* If the Court's nineteenth-century jurisprudence in this area can be recounted through perhaps a dozen cases, even fewer are needed to describe the Court's work in the area during the first ninety-five years of the twentieth century. A summary of the Court's work during this period is simple: It kept the law from changing much. In fact, the Court's case law during this period tends to focus mainly on the application of the law to the facts; the articulation of the law occurs very briefly, and with a tone of restatement rather than reform.

A good example of this approach is *Exhibit Supply Co. v Ace Patents Corp.*, [FN146][FN146] which involved a patent on an electric pinball target. The Court applied the doctrine of prosecution history estoppel to hold that the defendants could not be held liable under the doctrine of equivalents because the inventor had, during the prosecution, narrowed the claim language so that the claims did not literally cover targets like those manufactured by the defendants. *317 While the discussion of the facts in the case occupies eight pages, the legal discussion is confined to a single paragraph containing nothing more than simple statements of the law with citations of past Supreme Court case law. [FN147][FN147] The Court eschewed any attempt to identify the underlying justifications for the current law or to investigate possible reforms to the existing law.

Similar is *Graver Tank & Manufacturing Co. v Linde Air Products Co.*, [FN148][FN148] which applied the doctrine of equivalents to sustain a finding of infringement on a patent for welding fluxes. As in *Exhibit Supply*, the *Graver Tank* Court provides a legal discussion that seems consciously designed to read like a restatement of existing principles. The restatement effort occupies slightly more space than in *Exhibit Supply*; it covers about three pages.

But the discussion in *Graver Tank* did nothing to change the law. At most, the Court slightly modified the justification for the doctrine of equivalents. In the late nineteenth century, the doctrine was justified on the underlying reality that “the substantial equivalent of a thing ... is the same as the thing itself.” [FN149][FN149] *Graver Tank* stresses the limitations of language in capturing the essence of the invention. [FN150][FN150] The subtle shift underscored the increasing dominance of the claim-for it meant that even the justification for the doctrine of equivalents had come to be seen as flowing from the linguistic attributes of the claim.

Graver Tank and, to a less extent, *Exhibit Supply* would both gain a modicum of fame in the later half of the twentieth century, but their prominence was by virtue of default. [FN151][FN151] After 1950, the Court would go nearly a half century without deciding any cases on the doctrine of equivalents or prosecution history estoppel.

3. *The experimental impulse: Warner-Jenkinson.* The Court's return to the law governing patent claims began with the 1996 case *Markman v Westview Instruments, Inc.*, [FN152][FN152] which held that patent litigants have no right under the Seventh Amendment to have juries*318 interpret patent claims, even in cases where there is conflicting expert testimony concerning the meaning of the claims. The Supreme Court's decision had less importance as a matter of theory-claim interpretation had long been considered a matter for courts-and more as a matter of practice: The unanimous Court decision underscored the judicial obligation to resolve claim ambiguities and made lower courts less reluctant to hold elaborate (and frequently dispositive) pretrial hearings devoted to deciding the meaning of claims. *Markman* seemed to have a practical effect at the Court too. The case seemed to whet the Court's appetite for cases on patent claims-or, perhaps more accurately, it gave the Court confidence that it could understand cases about the intricacies of the patent system. After the oral argument in *Markman* and while the case was still pending, the Court granted certiorari in *Warner-Jenkinson Co. v Hilton Davis Chemical Co.*, [FN153][FN153] which presented much more difficult questions concerning the scope of the still vibrant doctrine of equivalents.

Warner-Jenkinson involved a patent on an improved process for filtering out impurities from dyes. The claims defined the steps of the improved process and included limitations concerning the pressures at which the process operated, the size of the membrane pores used in the filters, and so on. Most importantly, the claims specified that the process was to occur “at a pH from approximately 6.0 to 9.0.” The defendant's process operated at a pH of approximately 5.0 which, since the pH scale is an inverse logarithmic scale, means that the defendant's process operated at ten times the hydrogen ion concentration. Because the patentee had added the lower pH limit of 6.0 during the prosecution of the patent application, the case presented both the issues of equivalents and of prosecution estoppel.

The Court's decision in *Warner-Jenkinson* highlights the ability of the Federal Circuit to enable more effective exercise of the Supreme Court's jurisdiction in the patent field. Sitting en banc, the Federal Circuit had divided 7-5 and had issued more than sixty pages of opinions in the case. [FN154][FN154] The lengthy opinions not only signaled the importance of the case to the Court but also provided *319 a menu of alternative positions advanced by judges with expertise and day-to-day responsibility for applying the law in the area. The result is that the case attracted the Court's attention and that the Court was able to examine the issues more thoroughly than it had in at least a century.

The results of the Court's consideration were also predictably conservative and incremental. The Court reaffirmed the continuing vitality of the doctrine of equivalents-an unsurprising holding given the Court's conservative impulses in the field. The Court had long retained equivalents analysis even after it had recognized the primacy of claims; the majority of Federal Circuit judges had voted to retain equivalents in some form; and the United States filed an amicus brief supporting the retention of equivalents analysis.

The Court did add two new components to its law in the field; both contributions continued the historical trend of making equivalents subservient to claim interpretation. First, the Court clarified that equivalents analysis “must be applied to individual elements of the claim, not to the invention as a whole.” [FN155][FN155] Thus, the doctrine

of equivalents had to follow the structure of claims. This holding was nothing new; it had been the law of the Federal Circuit for a decade. [FN156][FN156] *Warner-Jenkinson* merely entrenched the test in Supreme Court precedent and solidified its authoritative weight.

The Court's second addition to its jurisprudence concerned prosecution history estoppel. A little background is necessary to appreciate this addition. In their initial applications to the Patent Office, inventors typically include relatively broad claims of invention. This approach makes sense from the inventor's perspective because the Patent Office can grant broad rights only if they are sought. Thus, inventors follow an "ask-and-you-shall-receive" approach, filing broad claims and then narrowing them with amendments as the Patent Office rejects the broader assertions of patent rights. The approach, however, carries a certain amount of risk because such narrowing amendments could give rise to estoppel. For example, suppose that an inventor files an initial application claiming all widgets and the Patent Office rejects the claim on the grounds that widgets are already known in the art. The inventor *320 then amends the application to claim only "plastic" widgets, and the Patent Office grants the more narrow claim. That amendment might estop the inventor from arguing in subsequent infringement litigation that a defendant's ceramic or metallic widgets should be viewed as equivalent to the plastic widget claimed in the patent. The theory of estoppel is that, "[b]y the amendment, [the inventor] recognized and emphasized the difference between the two phrases and proclaimed his abandonment of all that is embraced in that difference," and this theory applies without regard to "whether the [patent] examiner was right or wrong in rejecting the [broader] claim as [originally] filed." [FN157][FN157] Thus, even if the Patent Office were wrong in rejecting the broad claim to all widgets, the inventor could still be precluded from relying on equivalents analysis to extend the narrowed claim.

Prior to *Warner-Jenkinson*, the case law required an inquiry into the reasons for the narrowing amendment, with the resulting amount of estoppel adjusted to correspond to "the nature and purpose of an amendment." [FN158][FN158] The case law did not address, however, the question of what to do in cases where the reason for the amendment was unknown (as in *Warner-Jenkinson*). The Court held that the burden was on the patentee to establish the reason for the amendment and, if the patentee could not explain the reason for the amendment, no equivalents analysis would be permitted for the amended portion of the claim. If the patentee did establish a reason, then the court "would decide whether that reason is sufficient to overcome prosecution history estoppel as a bar to application of the doctrine of equivalents to the element added by that amendment." [FN159][FN159] The change at most shifted the burden for establishing the reasons behind claim amendments, and it was less dramatic than the reform urged by the accused infringer, which argued in favor of precluding any equivalents analysis for portions of the claim added during prosecution. Though the change was significant, it was still quite incremental-or at least that is how the Court intended the change.

*321 Even that incremental change, however, came with a warning. In a concurrence, Justice Ginsburg cautioned that, if the new presumption were applied "woodenly," it could have unsettling retroactive effects because, prior to the Court's announcement of the presumption, patentees would not have had any incentive to memorialize the reasons for their amendments. To show that the Court was "sensitive" to this retroactivity problem, Justice Ginsburg pointed to a footnote in which the Court rejected the broader estoppel rule proposed by the accused infringer because the Court did not want "[t]o change so substantially the rules of the game" in a way that could "subvert the various balances the PTO sought to strike when issuing" existing patents. Justice Ginsburg suggested that, on remand, the Federal Circuit should "bear[] in mind the prior absence of clear rules of the game." The Ginsburg concurrence was joined by Justice Kennedy, the eventual author of the *Festo* opinion, and the concern over disrupting past expectations presaged a major theme in *Festo*.

After it was remanded by the Supreme Court, the *Warner-Jenkinson* litigation settled before any lower court applied the Court's new law of prosecution history estoppel. The Supreme Court's new presumption had, however, plainly increased the importance of estoppel and created many new questions. *Festo* became the litigation where those questions would be addressed.

B. FESTO: THE EXCEPTION THAT ALMOST SWALLOWED THE EXCEPTION

Despite the extensive duration of the *Festo* litigation (which began in 1988), [FN160][FN160] the history leading up to the Supreme Court's decision in the case can be summarized quite succinctly. The Festo Corporation sued the defendants, which were collectively known as the "SMC Corporation," for infringing two of Festo's patents on improved versions of a machine known as a magnetically-coupled, rodless piston assembly. In the district court, Festo conceded (perhaps unwisely) that the literal language of its patent claims did not cover SMC's products, but Festo nevertheless succeeded in establishing infringement under the doctrine of equivalents.*322 In 1995, a unanimous panel of the Federal Circuit sustained the district court judgment in Festo's favor and held that prosecution history estoppel did not bar Festo from proving infringement under the doctrine of equivalents. [FN161][FN161] SMC sought certiorari and, after the Supreme Court decided *Warner-Jenkinson* in 1997, it remanded the case back to the Federal Circuit for application of the Court's new law on prosecution history estoppel. It was at this point in the litigation that the *Festo* litigation was chosen by the en banc Federal Circuit to clarify the law of prosecution history estoppel in the wake of *Warner-Jenkinson*. [FN162][FN162] The en banc majority could be fairly described as enthusiastic in applying *Warner-Jenkinson's* new presumption of estoppel. And, in its enthusiasm, the majority went a bit further too.

Two of the en banc majority's holdings would attract the attention of the Supreme Court. First, the court expansively defined the class of amendments subject to prosecution history estoppel. Estoppel applied not only to amendments made to avoid the prior art, but also to any other "amendment that narrows the scope of a claim for any reason related to the statutory requirements for a patent." [FN163][FN163] Second, the court held that, if an amendment was subject to prosecution history estoppel, then "no range of equivalents [would be] available for the amended claim element." [FN164][FN164] The en banc holdings thus truncated the inquiry that the courts had previously made into the reasons for the amendment. Under the new approach, courts would ask only whether the amendment was made for a "reason related to the statutory requirements for a patent." If so, then equivalents analysis was precluded for the amended portion of the claim.

To see the effect of the en banc decision, consider the perspective of a patentee (like the Festo Corporation) trying to use the doctrine of equivalents for a claim element added by amendment. *323 Under *Warner-Jenkinson*, a patentee cannot rely on equivalents analysis for the amended portion of the claims unless the patentee establishes a reason for the amendment. But under the en banc decision, once the patentee establishes a reason for the amendment, then all equivalents would be barred if the reason was related to the statutory requirements for a patent. Since patent claims generally "define[] the scope of a patent grant," [FN165][FN165] attorneys should never narrow the claims except for reasons related to the statutory requirements for obtaining a patent. Thus, when combined with *Warner-Jenkinson*, the en banc *Festo* decision produced a nice catch-22. Not proving a reason barred equivalents; proving a reason barred equivalents. It was impossible to imagine a realistic scenario where a claim element added by amendment would have been entitled to equivalents. [FN166][FN166] Moreover, since the standard practice of patent attorneys had been first to seek broad patent rights and then to narrow the claims as necessary during the course of prosecution, the effect of the en banc decision would be to eliminate the doctrine of equivalents for many portions of existing patents. Equivalents analysis—the modern exception in the rule that patent rights are defined by the literal language of patent claims—was in danger of being swallowed by the exception to the exception.

The en banc majority did not disguise the effect of its holding; it candidly described its decision as establishing a "complete bar" approach to prosecution history estoppel. [FN167][FN167] The alternative "flexible"*324 approach to estoppel—which required the courts to inquire into "the nature and purpose of an amendment" and to exclude only those equivalents "that would vitiate limitations expressed before the Patent Office" [FN168][FN168]—had been shown by experience to be "unworkable," and so the court abandoned it. [FN169][FN169] Evidence as to the magnitude of this change could be found within the record of the *Festo* litigation itself (which, like many other patent cases, has extended over a long period of time). During the trial in 1994 (the case began in 1988), SMC's counsel at one point declared "[t]his is not really a prosecution history estoppel case." [FN170][FN170] That statement is ironic given that *Festo* was destined to become the first Supreme Court case on prosecution history

estoppel in sixty years, but was also a good barometer of the preexisting law. In 1994, sophisticated legal counsel could fail to see that the entire *Festo* litigation turned on prosecution history estoppel precisely because the doctrine was then a relatively modest exception to the doctrine of equivalents, not the “complete bar” that the Federal Circuit would make it after six more years of litigation.

The biggest surprise in the *Festo* litigation came when the Supreme Court granted certiorari to review the Federal Circuit's en banc decision. In concluding its analysis in *Warner-Jenkinson*, the Court had seemed ready to cede further development of the doctrine of equivalents to the Federal Circuit, for it stated:

We expect that the Federal Circuit will refine the formulation of the test for equivalence in the orderly course of case-by-case determinations, and we leave such refinement to that court's sound judgment in this area of its special expertise. [FN171][FN171]

This language was not missed by the Federal Circuit. The en banc majority in *Festo* reminded the reader that “Congress specifically *325 created the Federal Circuit to resolve issues unique to patent law, [citing *Markman*], such as those regarding prosecution history estoppel” and then relied on *Warner-Jenkinson* to declare that “[i]ssues such as the one before us in this case are properly reserved for *this court* to answer with ‘its special expertise.’” [FN172][FN172] The court seemed ready, even eager, to assume the power that it thought had been ceded to it. And, in truth, the Federal Circuit had the numbers on its side. At the time of the en banc decision, the Supreme Court had tackled exactly one doctrine of equivalents case (*Warner-Jenkinson*) in the last half century. That case could have easily been viewed as an aberration, for it was granted while the Court had before it an interesting constitutional case on the role of the jury in claim interpretation (*Markman*). Further intrusion by the Court into the Federal Circuit's domain was unexpected.

The Court, of course, did intrude, and it did so in a way that seemed consciously designed to underscore the differences between the Court and the Federal Circuit: The specialized Federal Circuit produced seven opinions spanning eighty pages in the *Federal Reporter*; the opinions were brimming with citations and footnotes and presented a menu of possible approaches to the law in this area—precisely the sort of product to be expected from a more specialized institution at its best. The Court's opinion was simple, unanimous, and only seventeen pages long; it had no footnotes and cited only eleven precedents; and yet it showed a deep appreciation of, and respect for, the broad contours of the historical development of law in this field—precisely the sort of product to be expected from a generalist institution at its best. The Court's opinion seemed to reassert the competence of a generalist institution to contribute to the field. The first of the two questions on which the Court granted certiorari concerned the class of amendments that could generate estoppel. *Festo* argued that estoppel should be limited to those amendments that are needed to distinguish prior art. Other amendments, *Festo* argued, “govern merely the form in which a patent application must be cast.” [FN173][FN173] As the Court recognized, *Festo*'s argument on this point was weak. For example, an amendment*326 would not be related to overcoming prior art if it had been made in response to an objection that the applicant had not “enabled”—that is, taught others how to make and use—the full scope of the subject matter claimed. Yet such an amendment could hardly be considered a mere formality since, as the Court had noted in a decision announced just weeks before the *Festo* oral argument, an enabling disclosure is generally considered “the *quid pro quo* of the [patentee's] right to exclude.” [FN174][FN174] In rejecting *Festo*'s argument, the Court reiterated this basic point. [FN175][FN175] Furthermore, the Court noted that if *Festo* was concerned about “truly cosmetic” amendments, then it need not worry because such amendments “would not narrow the patent's scope” and thus not raise any estoppel. [FN176][FN176] Thus, the Court rejected *Festo*'s argument and affirmed the Federal Circuit's broad view that any amendment narrowing the scope of a claim could give rise to estoppel.

The second question presented to the Court was whether the “complete bar” rule was the correct approach to prosecution history estoppel. In its favor, the Federal Circuit's “complete bar” rule would have created fairly clear legal rules concerning the definition of patent rights. For claim elements that had not been added by amendment during patent prosecution, a patentee could rely either on the literal language of the claim or on the doctrine of equivalents in proving infringement. For claim elements that had been added by amendment, the patentee could rely

only on the literal claim language because the exception (equivalents analysis) would have been swallowed by its exception (estoppel). The fundamental issue presented to the Supreme Court was whether those legal rules made sense. In reversing the Federal Circuit, the Court succinctly identified the real difficulty with the Federal Circuit's approach:

The complete bar ... approach is inconsistent with the purpose of applying the estoppel in the first place—to hold the inventor*327 to the representations made during the application process and to the inferences that may reasonably be drawn from the amendment. By amending the application, the inventor is deemed to concede that the patent does not extend as far as the original claim. It does not follow, however, that the amended claim becomes so perfect in its description that no one could devise an equivalent. After amendment, as before, language remains an imperfect fit for invention The amendment does not show that the inventor suddenly had more foresight in the drafting of claims than an inventor whose application was granted without amendments having been submitted. It shows only that he was familiar with the broader text and with the difference between the two. As a result, there is no more reason for holding the patentee to the literal terms of an amended claim than there is for abolishing the doctrine of equivalents altogether and holding every patentee to the literal terms of the patent. [\[FN177\]](#)[\[FN177\]](#)

The great strength of this reasoning is its generality. The basis of prosecution history estoppel, the Court recognized, is *estoppel*—which is a general legal concept precluding a party from taking a position that contradicts a previous position. If the patent rule of prosecution history estoppel is to remain comprehensible as an estoppel doctrine, it has to have some connection to the inventor's conduct during prosecution and the inferences that can be fairly drawn from that conduct. And—this is the only observation about patent practice that the Court needed to make—it is not a fair inference from every claim amendment that the applicant has perfected the ability to apply language to invention.

Of course, the Court's reasoning on estoppel is not a complete answer. Even if the Federal Circuit's complete bar rule could not be justified as a true estoppel doctrine, perhaps it might be justified on some other grounds. For example, it might be considered a punitive rule designed to discourage applicants from submitting broad claims in their initial applications to the PTO. [\[FN178\]](#)[\[FN178\]](#) But the Court had other reasons for rejecting the complete bar, and it is in these reasons that we can see the characteristics that define the Court as an institution—its conservatism and institutional focus. The Court instructed the Federal Circuit to “be cautious before *328 adopting changes that disrupt the settled expectations of the inventing community,” restated its view that “the doctrine of equivalents and the rule of prosecution history estoppel are settled law,” and located “responsibility for changing [the equivalents and estoppel rules] with Congress.” [\[FN179\]](#)[\[FN179\]](#) And the Court also approached the issue with a good sense of the broad sweep of history. The infrequency of the Court's forays in the area helped; in citing a half dozen of its precedents, the Court was able to canvass a century and a half of its law on the doctrine of equivalents and prosecution history estoppel.

The Court's generalist instincts were also evident in its attention to the PTO's role in the patent system. Representing the PTO in *Festo*, the Solicitor General filed an amicus brief warning that the Federal Circuit's complete bar rule would disrupt the prosecution process by “discourag[ing] the give-and-take between the PTO patent examiners and applicants that leads to more refined claims.” [\[FN180\]](#)[\[FN180\]](#) That warning seemed important to the Court, for it cited, as one reason for overturning the Federal Circuit's rule, the desire to maintain an estoppel rule that is “respectful of the real practice before the PTO.” [\[FN181\]](#)[\[FN181\]](#)

Ultimately, in crafting a specific test for determining the scope of estoppel, the Court embraced “the approach advocated by the United States,” which the Court deemed “sound.” The approach imposes the burden on the patentee to show that “the amendment cannot reasonably be viewed as surrendering a particular equivalent.” [\[FN182\]](#)[\[FN182\]](#) The Court listed three circumstances in which the patent could meet that burden:

The equivalent may have been unforeseeable at the time of the application; the rationale underlying the amendment may bear no more than a tangential relation to the equivalent in question; or there may be some

other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question. [FN183][FN183]

*329 Two of these three scenarios were cribbed from the Solicitor General's brief. [FN184][FN184] The Court's adoption of the United States's view—which is, of course, the PTO's view—shows that the Court was not taking a leading role in field. Instead, the Court was choosing between the competing positions offered by the two specialized actors in the patent system, the Federal Circuit and the PTO. That approach recognizes the limits of the Court's own institutional competence and provides a model for the Court's intervention in future cases.

C. THE LESSONS FROM FESTO

Festo may seem an unlikely piece of litigation to become a celebrated patent case. The amount of money at stake in the case was not exceptional (the judgment on appeal was for less than \$5 million). [FN185][FN185] The case did not involve a famous invention as in *Morse* or *The Telephone Cases*. The legal issue in the case—the proper scope of the exception to the exception to the rule for defining patent rights—seems soporific and utterly trivial compared to such worthy Supreme Court cases as *Diamond v Chakrabarty*, which held that life itself can be patented. [FN186][FN186] But in fact *Festo* was a perfect case for defining the future of patent claiming and, more generally, the future of the Supreme Court at the bar of patents. It was perfect precisely because it was so ordinary.

1. *The devil with the details.* For a generalist Court such as the Supreme Court, one immediate problem presented by patent cases is that they are likely to involve a great amount of technological detail that the Court is ill-suited to evaluate. The difficulty here is compounded by the empirical fact that the vast majority of valuable inventions are not the pioneering new advances that introduce whole new fields of technology, but are rather incremental advances*330 to existing technologies. [FN187][FN187] In other words, most inventions are what might be termed “normal,” not “revolutionary,” innovations. [FN188][FN188] Thus, not only are the details of patent cases likely to be difficult for generalist judges to understand, but in addition the details are likely to seem so minor as to not be worth the effort to understand. In short, the cases are likely to be technologically complex and boring too.

The two patents at issue in *Festo* followed this pattern. They covered very normal, incremental inventions, and they give a good sense of the problem faced by a generalist Court in adjudicating a patent case. For example, consider the improvements covered by the earlier of the two patents owned by Festo. The general technology of magnetically-coupled, rodless-piston assemblies (a technology predating Festo's patents) consists of three basic parts: (a) a hollow hydraulic tube, (b) a solid cylindrical piston that slides inside the tube, and (c) a donut-shaped “follower” that slides along the outside of the tube. The piston is made to slide back and forth inside the tube by hydraulic pressure (e.g., by pumping fluid into one end of the tube and out of the other end). Both the piston and the follower contain magnets designed to attract each other through the wall of the tube so that the follower will move along the outside of the tube whenever the piston slides along the inside. [FN189][FN189] The earlier of the two Festo patents covered an improved device having three distinct features, including (a) a “plurality” of coupling magnets on the piston and follower (rather than just a single magnet on each), (b) cushions on each side of the piston to prevent the piston from damage when it reaches the ends of the hydraulic tube, and (c) “a pair of resilient sealing rings situated *331 near opposite axial ends” of the hydraulic piston. [FN190][FN190] This last part—the “pair” of sealing rings—was one portion of the claim language for which Festo tried to invoke the doctrine of equivalents. [FN191][FN191] The device made by the defendant, SMC Corporation, employed a single “two-way” sealing ring (a ring with lips on both sides) located on one side of the piston, and so Festo was trying to rely on the doctrine of equivalents to establish the infringement of the SMC device.

If it seems utterly trivial to distinguish between two *one-way* sealing rings located on *both sides* of the piston versus one *two-way* sealing ring located on *one side* of the piston, it must be remembered that the contribution covered by the patent was also very small. The distinction between the different types of sealing rings is only a small sample of the complexity in the case; for the other patent at issue, Festo invoked the equivalents analysis for two separate portions of the claims, each of which presented similar factual difficulties. Thus, to understand the effect of

the various legal doctrines on the subject matter of the case, a court must immerse itself in some rather dense facts. This truth presents a seemingly insurmountable barrier to the Supreme Court's ability to maintain an effective presence in the field, for how can the Supreme Court achieve such a presence if it has neither the time nor inclination to become familiar with the necessary details of a patent case?

The Supreme Court overcame this problem with an elegant solution. It simply asserted that “the precise details of the [invention's] operation are not essential here.” [\[FN192\]](#)[\[FN192\]](#) Here we see a wise precedent for the Court's involvement in patent cases, and perhaps too in other cases requiring specialized knowledge. The insight is that, while the application of the law to the facts of any particular patent case is difficult, the law being applied need not be. The issue in *Festo* is a good example: The complexities of the case are utterly irrelevant to understanding the legal issue, which is the estoppel effects of actions taken, and representations made, before one particular administrative agency (the Patent Office). The arguments made before the Court—which concerned the unfairness of ***332** a retroactive decision, the need for stability in property rights, the aspiration for precise definitions of property rights, and the practical limits of language—do not require any particular knowledge of technology. A generalist Court can comprehend these matters; indeed, it may have a broader perspective on them than does a court immersed in the details of a specialized field of law.

2. *The practical ability of the court to contribute to the field.* Overcoming the problem of daunting technological details will, however, mean little if the Court's rulings are not faithfully applied by the lower court with jurisdiction over the specialized field. Moreover, the solution to the detail problem might increase the possibility of noncompliance since, if the Supreme Court is blissfully ignorant of the devil in the details, then a willful lower court could easily disguise noncompliance with the Court's directions. Of course, noncompliance may be hard to hide if one or more of the specialized judges dissent and call attention to the point. But even then the Supreme Court might view the cost of correcting such noncompliance as too high, principally because the Court would then have to examine the details of the case. The result could be that, even with periodic intervention, the Court's effect in the patent field would be negligible. The history of the *Warner-Jenkinson* and *Festo* cases, however, provides some reason to expect that a specialized court will not be recalcitrant, and indeed might welcome the Court's intervention.

On the surface, the history of *Warner-Jenkinson* and *Festo* seems to provide support for a theory advanced by Judge Posner that specialized courts might exhibit dramatic vacillations in jurisprudence. [\[FN193\]](#)[\[FN193\]](#) The theory is that experts in a field tend to align themselves with warring factions. A court staffed by experts is then likely to be sharply divided so that a few appointments will tip the balance between one faction and the other. *Warner-Jenkinson* and *Festo* seem to bear out this conjecture. In the first case, a 7-5 majority took an expansive view of the doctrine of equivalents and a narrow view of prosecution history estoppel. Four years later, after four of the judges were replaced with new appointees, the court in *Festo* divided 8-4 in favor of a very expansive view of estoppel, with three of the four new appointees in the majority.

***333** Yet, in reality, the court's switch had nothing to do with the new appointments. Between the Federal Circuit's en banc decisions in *Warner-Jenkinson* and *Festo*, three of the judges who favored a narrow view of equivalents in *Warner-Jenkinson* left the court; they were replaced by precisely three judges who also took a narrow view of equivalents in *Festo*. Only one judge who voted for a broad view of equivalents in *Warner-Jenkinson* had left the court, and he was replaced by a new judge who voted for a broad view of equivalents in *Festo*. Thus, neither side gained or lost from new appointments. The difference was that three judges who favored a broad view of equivalents in *Warner-Jenkinson* switched and voted to limit equivalents (by expanding estoppel) in *Festo*. [\[FN194\]](#)[\[FN194\]](#)

The Federal Circuit's change—which was not caused by new appointments—might possibly be explained by the Supreme Court's reversal in *Warner-Jenkinson*. Judges who initially favored a broad application of equivalents might have switched positions in an attempt to carry out the Court's new precedent. Oddly enough, this experience may bear out another of Judge Posner's theories—that judges enjoy (gain utility from) “compl[ying] with certain self-limiting rules that define the ‘game’ of judging.” [\[FN195\]](#)[\[FN195\]](#) In short, judges like to play by the rules, and one

of the rules of appellate judging is that Supreme Court precedent must be followed. If this is so, a generalist Supreme Court might have more ability to control the jurisprudence of a specialized lower court than has previously been thought, and the problem of recalcitrance may be more imagined than real. [\[FN196\]](#)[\[FN196\]](#)

3. *Institutions and (legal) innovations.* Even though one major theme in the Supreme Court's *Festo* opinion is that the patent law needs stability, this theme should not be interpreted as requiring the patent law to remain frozen. Nor should the Court be viewed as admonishing the Federal Circuit against trying to innovate. After all, the Court in *Warner-Jenkinson* invited the Federal Circuit to undertake reforms. The Court's rejection of one possible *334 change (the complete bar rule) should not chill the Federal Circuit's future attempts to adopt different reforms, even though some of those reforms might also be reversed by the Supreme Court.

In fact, the development of legal techniques for defining patent rights is already continuing. Even as *Festo* was being decided, a new en banc decision from the Federal Circuit extended an estoppel-like theory to *unamended* claims. The case, *Johnson & Johnston Associates v R.E. Service Co.*, held that a patentee cannot use the doctrine of equivalents to reach equivalents expressly disclosed but not claimed in a patent. [\[FN197\]](#)[\[FN197\]](#) In a concurring opinion in that case, Judge Rader suggested a much more ambitious reform—that, in all circumstances, patentees should be precluded from relying on the doctrine of equivalents to “capture subject matter that the patent drafter reasonably could have foreseen during the application process and included in the claims.” [\[FN198\]](#)[\[FN198\]](#) That proposed rule, like the Court's test in *Festo*, demands only that patent claim drafters perform reasonably, judged at the time of the claim drafting, and retrospective inquiry would permit the change to proceed gradually, following the developing norms of actual patent practice. Unlike the *Festo* rule, Judge Rader's proposal would apply globally, that is, even to unamended claims. That, however, may be a virtue, for the *Festo* Court itself noted that the fact of amendment should not be viewed as signaling a radical shift in the ability of the drafter to capture the invention. Even prior to *Festo*, the judges of the Federal Circuit had already begun an internal debate on the merits of Judge Rader's proposal.

While the Federal Circuit will almost certainly continue generating refinements in patent doctrine, there is, however, another specialized institution that might also usefully contribute to the development of the law in this area: the PTO. In its recent cases, the Supreme Court has dropped broad hints that it would welcome the PTO's assistance in refining the law governing patent claims. In *Warner-Jenkinson*, the Court recognized the agency's “primacy” in ensuring that the claims cover the patent applicant's invention. [\[FN199\]](#)[\[FN199\]](#) And the Court rejected the petitioner's suggestion to eliminate*335 equivalents on all amended claim elements because the Court was “extremely reluctant to upset the basic assumptions of the PTO” or to “subvert the various balances the PTO sought to strike” in processing existing patent applications. [\[FN200\]](#)[\[FN200\]](#) Arguing for the petitioner in *Festo*, Judge Bork suggested that, if the law of prosecution history estoppel were to be changed dramatically, then the PTO should undertake the change via an administrative rule-making which, under settled administrative law, would have only prospective effect. [\[FN201\]](#)[\[FN201\]](#) That suggestion drew attention from the bench, and it was raised again in Bork's rebuttal. [\[FN202\]](#)[\[FN202\]](#) In its final opinion, the Court took an even more pro-PTO position: It adopted wholesale the position that the agency articulated in the amicus brief that it and the Solicitor General filed on behalf of the United States. [\[FN203\]](#)[\[FN203\]](#)

The cases strongly suggest that, in controlling the path of the law in this area, the Supreme Court is looking to the PTO for guidance as much as it is looking to the Federal Circuit. Moreover, the PTO has a large wellspring of power in this area precisely because the agency approves the language of patent claims. For example, consider how the agency could have responded if the Supreme Court had left the Federal Circuit's “complete bar” rule intact and the agency thought that rule too harsh. The most obvious response would be for the agency to allow patent applicants to include language expressly claiming “equivalents” whenever they amend their claims. [\[FN204\]](#)[\[FN204\]](#) But the agency need not clutter up every claim with repeated invocations of “equivalents.” It could just as easily permit the patentee to reference equivalents once in the preamble to the claims. Indeed, some savvy firms are already doing this. Amazon.com was recently issued a patent that contains this preamble to its claims: “It is intended that the scope of the invention be defined by the following claims *and their equivalents*:”

[\[FN205\]](#)[FN205]

***336** Yet the PTO need not even clutter any part of the claims with express mention of equivalents. The agency could just as easily write a rule stating that all claim elements (amended or unamended) encompass equivalents to the element unless equivalents are expressly *disavowed* in the claim. Of course, the PTO is unlikely to take that position in the wake of *Festo* because the agency endorsed precisely the position adopted by the Court. The agency could, however, write a more nuanced rule that provides clearer parameters governing the loss of equivalents through amendment.

Rulemakings of the sort suggested above would, in fact, be broadly consistent with the role that the agency has long filled in this area of patent law. In fact, one historical explanation for the survival of the doctrine of equivalents is that the Patent Office would usually reject claims including the word “equivalents” because the word was unnecessary—all claims would be construed to include equivalents. [\[FN206\]](#)[FN206] Rulemakings would also present the Supreme Court with the perspectives of another expert body which, in turn, could help the Court exercise its jurisdiction in this area more effectively.

D. POSTSCRIPT: AND WHAT OF FESTO?

In the years to come, *Festo* will surely be cited as one of the major cases on prosecution history and, more generally, on the law ***337** governing the definition of patent rights and on the relationship between the Federal Circuit and the Supreme Court. But to the parties in the case, the Court's decision in *Festo* will be just another step in a very extended course of litigation. As the *Festo* litigation grinds into its fifteenth year, the Federal Circuit has already begun the proceedings required by the Supreme Court's remand. In a September 20, 2002, order, the court required briefing on four questions covering the allocation of decisional power among the jury, the trial court, and the appellate court in applying the Court's new presumption (question 1), the factors relevant to applying the Court's test (question 2), and the application of the test to the case at hand (questions 3 and 4). [\[FN207\]](#)[FN207]

The Federal Circuit could answer those questions in a way that, in effect if not in name, restores a complete bar. The court would merely have to hold that the application of the Court's test is a matter of law for the courts and that, in rebutting the presumption, the patentee is limited to the evidence available in the public prosecution record. Those rules would clearly dictate a loss for Festo Corporation. They would also foreclose escape from prosecution history estoppel for the vast majority, indeed perhaps all, of existing patentees, who would not have known to memorialize such evidence in their prosecution files. Such a result would require the creation of an exceptional evidentiary rule for use only in this particular corner of patent law, and it would also be inconsistent with the Supreme Court's emphasis that its test should not be interpreted as “just the complete bar by another name.” [\[FN208\]](#)[FN208]

There is, however, no particular reason to think that the Federal Circuit will try to undermine the Court's decision in *Festo*. As noted above, the *Warner-Jenkinson* and *Festo* litigations suggest that the Federal Circuit does try to follow the Court's directions faithfully. Three principles are particularly important for guiding the Federal Circuit's decision on remand. First, the allocation of decisional power should be broadly consistent with the law on estoppel issues generally. As the Court's *Festo* decision stresses, one flaw in the Federal Circuit's “complete bar” approach to estoppel was that it had lost all connection to general concepts of estoppel. ***338** That mistake should not be repeated. In other areas, concepts of equitable estoppel are treated as mixed questions of fact and law. District courts, not juries, find the relevant facts; appellate courts review the facts deferentially and review the application of the legal standard de novo. [\[FN209\]](#)[FN209] There is no good reason for deviating from this approach in this area of patent law. Indeed, the general approach to estoppel seems to comport with the Court's opinions both in *Warner-Jenkinson*, which described prosecution history estoppel as a check on the jury's application of equivalents, [\[FN210\]](#)[FN210] and in *Festo*, which demands a factual inquiry into expectations of those “skilled in the art.” [\[FN211\]](#)[FN211]

Second, a key theme in the Court's *Festo* opinion is that changes in the patent doctrine must not “destroy[] the legitimate expectations of inventors in their property.” [FN212][FN212] There is a fundamental connection between that theme and the standard ultimately adopted by the Court, which turns on whether “at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.” [FN213][FN213] A great virtue of this retrospective inquiry is that it allows change to proceed gradually. Expectations reasonable in 1982 (when one of Festo's two patents was issued) or in 1988 (when the other Festo patent was amended during reexamination) might be unreasonable for patents issued after the *Warner-Jenkinson* and *Festo* decisions. The Federal Circuit is familiar with making such retrospective inquiries in other areas of patent law-particularly in applying patent law's nonobviousness doctrine, which requires an invention to have been not obvious to persons skilled in the art *at the time of the invention*. In applying that doctrine, the Federal Circuit has repeatedly warned against the dangers of “hindsight” reasoning: Inventions often appear easy after they have been invented. [FN214][FN214] A similar approach should be followed in applying the estoppel test. After fourteen years of litigation in *339 the *Festo* case, the problems with Festo's claim language-and the solutions to those problems-are apparent. But that is irrelevant. The relevant inquiry is not even what was *possible* when Festo wrote its claims, but rather what was *reasonable* to expect of the inventor and the attorney at that time. [FN215][FN215] The challenge for the Federal Circuit and for district courts is to apply that test without imposing unrealistic demands. [FN216][FN216]

Third, at some point the Federal Circuit has to place some premium on stabilizing the law in this area so that a case like *Festo* does not become a technological version of *Jarndyce v Jarndyce*. The parties in *Festo* have endured two trips to the Supreme Court and three full opinions from the Federal Circuit, with a fourth on the way. While further possible reforms are always possible in the law-and the Supreme Court's new test for prosecution history estoppel leaves many ambiguities-such future refinements should probably await another case.

III. THE RETURN OF THE COURT

The return of the Supreme Court to the field of patents has the odd property of seeming at once to be both real and unreal, terrible and propitious. As Judge Bork concluded his argument in the *Festo* case-as the Court finished an hour of debating the finer points of patent law with one of the leading attorneys of our time-the return seemed real. By end of the 2001 Term, however, it seemed an illusion. The Court was busy with its normal complement of constitutional cases, and *Festo* and the other patent cases *340 decided during the term seemed an insignificant portion of the Court's docket.

Yet, for the patent bar, the return is real. Despite its complexities, patent law can be organized into perhaps eight to ten fundamental issues. In the last decade, the Court has produced important opinions touching on about half of those issues. More importantly, the Court's willingness to review even legally complex patent cases (such as *Warner-Jenkinson* and *Festo*) reminds the actors in the patent system-including the attorneys litigating patent cases, the judges deciding those cases, and the PTO officials administering the system-that Supreme Court review *is* a real possibility, and that possibility affects the strategies that the various actors take in developing the law.

The return of the Court is, however, not necessarily a good thing. If after its long neglect the Court returned with an aggressive agenda of its own making, there would be every cause for alarm. When it has had an agenda, the Court has not been entirely helpful to the field, and those times are not far from current memory: Less than fifty-five years ago, Justice Jackson accused the Court of having a “strong passion” for striking down every patent that the Court could “get its hands on.” [FN217][FN217] While a modern Court with an agenda would likely face resistance from the new specialized appellate court, such a power struggle between the Court and the Federal Circuit would be as unseemly as it would be unhelpful.

But the modern Court does not seem to have returned to the field with its own agenda. It is instead relying on the specialized actors themselves to identify the critical points of current doctrine that merit the Court's attention. Divisive en banc opinions from the Federal Circuit are likely to continue to attract certiorari, as are petitions filed on

behalf of the PTO. Perhaps also the Court is entertaining claims that the Federal Circuit's current doctrine has strayed beyond the parameters of the Court's patent jurisprudence.

Applying those parameters to govern its grants of certiorari in patent cases, the Court is likely to limit its intervention to a few specific areas. One very good candidate for review is the law governing whether an invention is not "obvious" at the time of invention.*[341](#) [\[FN218\]](#)[\[FN218\]](#) The centerpiece of the Federal Circuit's case law in this area is the so-called "suggestion test"-an invention will be considered nonobvious (and thus patentable) unless the existing art at the time of the invention contained a "suggestion" to make the invention. This test, which tends to make even seemingly trivial developments patentable, is entirely the Federal Circuit's product. It has no basis in the Supreme Court's case law and may, in fact, be inconsistent with the Court's most recent pronouncement on the subject (though that precedent is now more than a quarter century old). [\[FN219\]](#)[\[FN219\]](#) There are also indications that the PTO is not entirely satisfied with this test, and that a conflict may be brewing between the agency and the Federal Circuit. [\[FN220\]](#)[\[FN220\]](#) None of this is to say that the Court will necessarily reject the doctrine developed by the Federal Circuit; it is only to suggest the Court is likely to end its long absence from this doctrinal area soon.

Beyond the obviousness doctrine, a few additional issues seem likely to attract the Court's attention in the near future, but the number is not large. [\[FN221\]](#)[\[FN221\]](#) The more important point is that, for any particular issue, the Court and the Federal Circuit seem likely to complement each other. For the Court, the Federal Circuit has identified the important issues in the field and provided the Court with a panoply of possible approaches to them. For the Federal Circuit, the Court has provided stability by adding the weight of its authority to doctrines previously announced by the Federal Circuit (as in *Markman*, *Warner-Jenkinson*, *J.E.M Ag Supply*, and even, in part, *Festo*) and by checking the Federal Circuit's experimental impulses where its innovations are insufficiently incremental (as in *Festo*). And the Court also serves to reconcile the Federal Circuit's *[342](#) power with the roles of the other institutional actors in the patent system and to provide more historical perspective for the ongoing development of the law.

Because of the existence of the Federal Circuit, patent cases at the Supreme Court now come with a subtext. Each case serves not only to resolve a patent issue but also to define further the roles of the generalist and specialist courts. We can only hope that, as that process continues, each institution will be mindful not only of its strengths, but of its weaknesses too. For the Supreme Court, this means recognizing the limitations of its expertise and refraining from trying to lead the development of the law. The Court should not be embarrassed to do as it did in *Festo*-where it copied the solution proposed by the United States. It should hesitate to do what it did in *Warner-Jenkinson*-where it modified the doctrine of prosecution history estoppel in a way not suggested by the petitioner, the Federal Circuit, or the United States. For the Federal Circuit, the task is not to avoid leading, for it has the expertise to reform and perhaps even to experiment with the law. Despite the ultimate reversal, the Federal Circuit need not be apologetic about what it did in *Festo*. Reform efforts do not always strike the right balance immediately; failed experiments are no cause for alarm. The difficult task for the Federal Circuit comes in implementing the Supreme Court's approach after the Court has reversed a decision. As a specialist court, the Federal Circuit has the practical ability to thwart the Supreme Court. But the combination of a generalist Supreme Court and a specialized appellate court can function-or, at least, can function effectively-only if the generalist court's acceptance of its limited competence is matched by the specialized court's acceptance of its limited authority. In other words, the combination can work if each institution practices the virtue of humility.

[\[FN a1\]](#). John F. Duffy is Professor of Law, William & Mary School of Law.

AUTHOR'S NOTE: I thank Rochelle Dreyfuss, Rich Hynes, Doug Lichtman, John McGinnis, Alan Meese, and Anne Sprightley Ryan for their valuable comments on the drafts of this article.

[\[FN1\]](#). Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (Basic Books, 1978).

[\[FN2\]](#). *Biographical Directory of the Federal Judiciary 1789-2000* 387 (Bernan, 2001) (entry for Robert Heron Bork).

[FN3]. Philip B. Kurland, *The Supreme Court and Patents and Monopolies* ix (Chicago, 1975).

[FN4]. See Andrew J. King, ed, *The Papers of Daniel Webster: Legal Papers, Volume 3, The Federal Practice* 824-90 (Dartmouth, 1989).

[FN5]. A search of the Lexis database shows that in twelve Supreme Court cases Justice Curtis recused himself from sitting on the grounds that he had served as counsel to one of the parties; eight of the twelve were patent cases. See, e.g., *O'Reilly v Morse*, [56 US 62, 62 \(1854\)](#); *Le Roy v Tatham*, [55 US 156, 156 \(1853\)](#).

[FN6]. See John Niven, ed, 1 *The Salmon P. Chase Papers, Journals, 1829-1872* 214-15 & n 41 (Kent State, 1993) (noting Chase's representation of Henry O'Reilly in the patent infringement suit brought by Samuel Morse).

[FN7]. See Harry Goldsmith, *Abraham Lincoln, Invention and Patents*, 20 J Patent Off Socy 5, 20-30 (1938). Lincoln was a counsel for the defendants in the case, as was Edwin Stanton, who would later serve as Lincoln's Secretary of War. The plaintiff, McCormick, retained (among others) Reverdy Johnson, the Maryland statesman. See id at 22.

[FN8]. A phrase from Lincoln's speech—"The patent system added the fuel of interest to the fire of genius"—was inscribed over the entrance to the U.S. Patent Office Building in Washington. See id at 5.

[FN9]. See [US Pat No 6469 \(1849\)](#), at 1 (reciting that "I, Abraham Lincoln, of Springfield, in the County of Sangamon, in the State of Illinois, have invented a new and improved manner of combining adjustable buoyant air chambers with a steamboat or other vessel for the purpose of enabling their draught of water to be readily lessened to enable them to pass over bars, or through shallow water") (available at <<http://patft.uspto.gov/netahtml/srchnum.htm>>).

[FN10]. [126 US 1 \(1888\)](#).

[FN11]. See *On the Patent Laws*, set forth as Note II in the appendix to vol 16 of the US Reports, 16 US (3 Wheat) app 13-29 (1818). The Note is attributed to Justice Story in a variety of sources, including a 1904 edition of this volume of the US Reports edited by Frederick Brightly. See Frederick C. Brightly, ed, *Reports of the Cases Argued and Adjudged in the Supreme Court of the United States, February Term 1818* 302 (1904 ed).

[FN12]. William Strong, *The Needs of the Supreme Court*, 132 N Am Rev 437, 446 (1881) (endorsing a bill that would have curbed appeals to the Supreme Court but that would have left a right of Supreme Court review in patent and copyright cases without regard to the sum in controversy).

[FN13]. By contrast, the leading author of Supreme Court patent opinions in the second half of the twentieth century was Justice Clark, who wrote five patent opinions for the Court in seventeen years of service. Justices Douglas and Black each wrote twelve patent opinions for the Court in careers spanning more than three decades; however, each wrote only four of his patent opinions during the second half of the twentieth century. No other Justice produced more than three patent opinions for the Court in the second half of the twentieth century.

[FN14]. Kurland, *The Supreme Court and Patents and Monopolies* at xii (cited in note 3).

[FN15]. See US S Ct Rule 10.1 (explicitly recognizing conflicting circuit positions as a grounds for seeking certiorari). Arthur D. Hellman, *The Shrunken Docket of the Rehnquist Court*, [1996 Supreme Court Review](#) 403, 414 (identifying the resolution of circuit conflicts as "[o]ne of the principal functions of the Supreme Court"). See also

William H. Rehnquist, *The Changing Role of the Supreme Court*, 14 Fla St U L Rev 1, 12 (1986) (arguing for the creation of a national court of appeals to resolve circuit conflicts and predicting that, if such a court were created, it would have “the all-but-final say in determining ... what an act of Congress means”).

[FN16]. In that ten-year period, the Court reviewed only three patent decisions of the new court, and one of those cases was decided summarily, without oral argument. The three cases are [Eli Lilly & Co. v Medtronic, Inc.](#), 496 US 661 (1990) (interpreting § 271(e) of the Patent Act), [Dennison Mfg. Co. v Panduit Corp.](#), 475 US 809 (1986) (per curiam) (summarily vacating and remanding with instructions for the Federal Circuit to reconsider its decision in light of [Federal Rule of Civil Procedure 52\(a\)](#)), and [Christianson v Colt Industries](#), 486 US 800 (1988) (applying the “well-pleaded complaint” rule to determine the scope of the Federal Circuit’s jurisdiction over cases “arising under” the patent law). Another patent case reviewed by the Court during this period (1982-92) had been decided by a regional circuit prior to the creation of the Federal Circuit. See [General Motors Corp. v Devex Corp.](#), 461 US 648 (1983) (holding that prejudgment interest on infringement damages is ordinarily available).

[FN17]. Mark D. Janis, [Patent Law in the Age of the Invisible Supreme Court](#), 2001 U Ill L Rev 387, 387.

[FN18]. See Richard L. Revesz, [Specialized Courts and the Administrative Lawmaking System](#), 138 U Pa L Rev 1111, 1159 (1990) (“It is extremely difficult for the Supreme Court to identify, from among all the issues decided by a specialized court of exclusive jurisdiction, those that would have generated a conflict if they had been decided instead by the regional courts of appeals, or those in which the process of dialogue would ultimately have produced a uniform contrary decision in the regional courts of appeals.”); see also Rochelle Cooper Dreyfuss, *Specialized Adjudication*, 1990 BYU L Rev 377, 380 (“[i]f circuit conflicts fail to develop [because of the specialized court], Supreme Court activity in the specialized field will diminish”).

[FN19]. Dreyfuss, 1990 BYU L Rev at 379 (cited in note 18) (recounting this among the “well rehearsed” arguments against specialized courts).

[FN20]. Simon Rifkind, *A Special Court for Patent Litigation? The Danger of a Specialized Judiciary*, 37 ABA J 425, 426 (1951).

[FN21]. See, e.g., Henry J. Friendly, *Federal Jurisdiction: A General View* 160 n 29 (Columbia, 1973) (supporting the creation of a specialized patent court that is still subject to Supreme Court review but assuming that the Court’s certiorari power would not “be exercised any more frequently than it has in the recent past”); Dreyfuss, 1990 BYU L Rev at 435 n 229 (cited in note 18) (finding it “questionable whether the Supreme Court ... would provide enough of a generalist perspective” to temper the biases of a specialist court). Other discussions have not focused on the relationship between the specialized court and the Supreme Court. See, e.g., Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 NYU L Rev 1 (1989).

[FN22]. [122 S Ct 1831 \(2002\)](#).

[FN23]. [122 S Ct 593 \(2001\)](#).

[FN24]. [122 S Ct 1889 \(2002\)](#); see also [122 S Ct 510 \(Nov 8, 2001\)](#) (order granting certiorari).

[FN25]. See [Hellman](#), 1996 Supreme Court Review at 403 (cited in note 15).

[FN26]. [447 US 303 \(1980\)](#).

[FN27]. [Pioneer Hi-Bred International, Inc. v J.E.M. Ag Supply Co.](#), 200 F3d 1374, 1375 (Fed Cir 2000) (quoting

[Chakrabarty, 447 US at 309](#) (quoting S Rep No 1979, 82d Cong, 2d Sess 5 (1952) and HR Rep No 1923, 82d Cong, 2d Sess 6 (1952))).

[FN28]. [2000 US App LEXIS 6911](#) (Mar 13, 2000).

[FN29]. Brief for the United States as Amicus Curiae, *J.E.M. Ag Supply v Pioneer Hi-Bred International*, No 99-1996, 4 (available at <<http://www.usdoj.gov/osg/briefs/2000/2pet/6invit/1999-1996.pet.ami.inv.pdf>>).

[FN30]. [35 USC § 112 ¶ 2](#).

[FN31]. [Autogiro Co. of America v United States, 384 F2d 391 \(Ct Cl 1967\)](#).

[FN32]. [Warner-Jenkinson Co. v Hilton Davis Chemical Co., 520 US 17, 40, 39 n 8 \(1995\)](#).

[FN33]. Transcript of Oral Argument, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, 2002 US Trans Lexis 1, *28 (Jan 8, 2002). The comment came after the respondents' counsel, in trying to defend the result below, pointed to the Federal Circuit's ability to change its "judge-made law" on prosecution history estoppel. Rehnquist thought that "scarcely an encouraging view." *Id.* The comments are attributed to Chief Justice Rehnquist by contemporaneous news reports. See, e.g., Tony Mauro, *Court May Curb Festo Rule*, Legal Times 6 (Jan 14, 2002).

[FN34]. Transcript of Oral Argument, 2002 US Trans Lexis at *40 (cited in note 33). Again, the question is attributed to Chief Justice Rehnquist by contemporaneous news reports. See, e.g., Mauro, Legal Times 6 (Jan 14, 2002) (cited in note 33).

[FN35]. [Festo, 122 S Ct at 1841](#).

[FN36]. [Holmes Group, 122 S Ct at 1893-94](#).

[FN37]. [Id at 1897](#) (Stevens concurring in part and concurring in the judgment).

[FN38]. [Id at 1898](#) (Stevens concurring in part and concurring in the judgment).

[FN39]. The figures are derived from the data from the last three Supreme Court terms. See *The Supreme Court, 2001 Term, The Statistics*, 116 Harv L Rev 453, 461 (2002); *The Supreme Court, 2000 Term, The Statistics*, 115 Harv L Rev 539, 547 (2001); [The Supreme Court, 1999 Term, The Statistics, 114 Harv L Rev 390, 398 \(2000\)](#).

[FN40]. [435 US 519 \(1978\)](#). As then-Professor Scalia wrote, the Supreme Court decision in *Vermont Yankee* was so replete with "finger wagging," "pique" and "direct criticisms of the [lower court decision] that are extraordinary in their sharpness" that "[o]ne suspects that the Court felt, as an institution, that its authority had been flouted." Antonin Scalia, *Vermont Yankee: The APA, the D.C. Circuit, and the Supreme Court*, 1978 Supreme Court Review 345, 369-70.

[FN41]. The Court's interest has continued in the 2002 Term; through January of 2003, the Court has invited the Solicitor General to file amicus briefs on three certiorari petitions from Federal Circuit patent cases. See [Monsanto Co. v Bayer CropScience, S.A., 123 S Ct 579 \(order of Nov 18, 2002\)](#); [Dethmers Mfg. Co. v Automatic Equip. Mfg. Co., 123 S Ct 579 \(order of Nov 18, 2002\)](#); [Micrel, Inc. v Linear Tech. Corp., 123 S Ct 404 \(order of Oct 15, 2002\)](#). These account for 20% (3/15) of the cases in which the Court has requested the Solicitor General's views in the 2003 Term.

[FN42]. See [Dreyfuss, 64 NYU L Rev at 6-25 \(cited in note 21\)](#) (analyzing the early performance of the Federal Circuit and concluding that the court had “fulfill[ed] the expectations of [its] founders concerning both the precision and accuracy of patent law”).

[FN43]. Robert P. Merges, [One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000, 88 Cal L Rev 2187, 2224 \(2000\)](#) (noting “over time, [the Federal Circuit] has proven to be a more patent-friendly court than its scattered regional predecessors” and that the court has succeeded in its goal of “strengthen[ing] patents”).

[FN44]. See [Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F3d 558, 562-642 \(Fed Cir 2000\)](#) (en banc).

[FN45]. [28 USC § 1254](#).

[FN46]. Under the Patent Act of 1836, the circuit courts held exclusive original jurisdiction over “all actions, suits, controversies, and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries.” Act of July 4, 1836, § 17, 5 Stat 117, 124. That allocation of jurisdiction remained in place until the enactment of the Evarts Act in 1891. See, e.g., Revised Statutes § 629 (ninth paragraph) (codifying the circuit courts' jurisdiction over patent and copyright cases). Between 1800 and 1836, circuit courts also maintained exclusive original jurisdiction over patent infringement suits, which then accounted for most patent cases. See Act of April 17, 1800, [§ 3, 2 Stat 37, 38](#) (conferring exclusive jurisdiction); Thomas Sergeant, *Practice and Jurisdiction of the Courts of the United States* 120-21 (2d ed 1830) (locating patent infringement jurisdiction in the circuit courts). Between 1793 and 1800, circuit court and district courts exercised concurrent jurisdiction over infringement trials. See Patent Act of 1793, § 5, 1 Stat 318, 322. The Patent Act of 1790 did not specify which court held original jurisdiction in patent infringement cases, but a 1794 statute strongly suggests that cases had been brought in the district courts. See Act of June 7, 1794, 1 Stat 393 (reinstating district court patent cases that had been dismissed “by reason of” the repeal of 1790 Patent Act by the 1793 Patent Act). Between 1793 and 1836, the district courts also possessed a jurisdiction to declare patents invalid through a special statutory proceeding authorized under § 10 of the Patent Act of 1793. See 1 Stat at 323. That jurisdiction was exercised infrequently and generated few reported decisions. See, e.g., [Stearns v Barrett, 22 F Cas 1175 \(CCD Mass 1816\)](#) (opinion by Justice Story) (hearing an appeal from a district court decision rendered under § 10 of the 1793 Act); [McGaw v Bryan, 16 F Cas 96 \(SDNY 1821\)](#) (setting forth a rare report of district court decision in a § 10 case). Indeed, even prior to the 1836 Act's conferral of all patent jurisdiction on circuit courts, the sum total of district court patent jurisdiction was so slight that one district court described patent cases as being “no part of the ordinary or general jurisdiction of the district court.” [Id at 99](#).

[FN47]. Appellate review could be obtained under § 22 of the Judiciary Act of 1789, 1 Stat 73, 84, which granted the Supreme Court power to review, by writ of error, cases originally brought in the circuit courts if the amount in controversy exceeded \$2,000. As discussed in the text, Congress gradually eliminated the amount in controversy requirement in patent cases.

[FN48]. The only non-national appellate decision in a patent case during this era appears to be [Stearns v Barrett, 22 F Cas 1175 \(CCD Mass 1816\)](#), which, as previously noted, involved an appeal from one of the rare district court decisions rendered under § 10 of the 1793 Patent Act.

[FN49]. [Hogg v Emerson, 47 US 437, 477 \(1848\)](#) (interpreting § 17 of 1836 Patent Act, 5 Stat 117, 124, which permitted circuit courts to waive the \$2,000 jurisdictional amount requirement generally applicable under § 22 of the Judiciary Act of 1789). In 1861, the jurisdictional amount requirement was eliminated altogether in patent cases. See Act of Feb 18, 1861, 12 Stat 130. By contrast, federal admiralty law during the nineteenth century maintained a three-tiered jurisdictional structure, see, e.g., Judiciary Act of 1789, § 21, 1 Stat 73, 83-84; Erastus C. Benedict, *The American Admiralty: Its Jurisdiction and Practice* § 320 at 179 (1850); and the \$2,000 jurisdictional amount

limitation on the Supreme Court's appellate jurisdiction was raised to \$5,000 in 1875 by the Act of Feb 16, 1875, § 3, 18 Stat 315, 316.

[FN50]. The number of Supreme Court patent cases per term was determined first by searching the Westlaw headnote topic category 291, which purports to include all patent cases. This category is slightly overinclusive. About 3.5% of cases (23 of 655) were identified as not patent cases and removed from the set. In determining whether a case should be classified as not a patent case and removed from the initial set, a fairly inclusive standard was used. Thus, for example, *Osborne v Bank of the United States*, 22 US 738 (1824), was the only case removed from the first half century of the Court's decisions (*Osborne* was apparently included in the Westlaw category because the court mentioned a principle of patent law in dicta). The first and last fifty years of the set were also examined for underinclusiveness. An independent search discovered no additional patent cases in the 1810-60 period. In the past half century, three cases were added to the count. Two concerned the exclusive patent jurisdiction of the Federal Circuit (*Holmes Group and Christianson v Colt Industries*, 486 US 800 (1988)); these were included because, in other time periods, the baseline Westlaw set included cases presenting jurisdictional issues unique to patent law. Also included was one per curiam decision concerning appellate review of patent invalidity rulings (*Dennison Mfg. Co. v Panduit Corp.*, 475 US 809 (1986) (per curiam)). Throughout this article, the number of citations for a case refers to the number of subsequent judicial decisions that cite to the case; the data were drawn from the Lexis/Shepherd's database in late 2002.

[FN51]. The case, *Tyler v Tuel*, 10 US 324 (1810), was quite trivial. The plaintiffs in the case held an unusual "assignment" of patent rights that covered the entire United States, with the exception of four Vermont counties. The issue in case-which arose only because the purported assignment had been poorly drafted-was whether, given the reservation of the four counties, the plaintiffs could be considered the legal assignees of the patent and therefore entitled to sue for infringement. (Under the statute, assignees but not licensees could bring infringement actions.) In an unsigned, single-sentence opinion, the Court held that the plaintiffs were not assignees and vacated the circuit court's judgment of infringement. In nearly 200 years, fewer than twelve court decisions have cited the case.

[FN52]. Important cases decided during this decade include *Gayler v Wilder*, 51 US 477 (1850) (holding that the novelty of inventions is generally to be determined only on the basis of publicly available prior art); *Hotchkiss v Greenwood*, 52 US 248 (1851) (recognizing the doctrine that would eventually be codified as the nonobviousness requirement in 35 USC § 103); *O'Reilly v Morse*, 56 US 62 (1854) (imposing limits on the subject matter that could be claimed in a patent); *Winans v Denmead*, 56 US 330 (1854) (holding that the doctrine of equivalents could be used to expand the rights claimed in the patent); *Brown v Duchesne*, 60 US 183 (1857) (limiting the territorial scope of patent rights); *Kendall v Winsor*, 62 US 322 (1859) (holding that inventors do not necessarily abandon the right to patent even if they delay patenting for long periods). The first four of these cases have each been cited in more than 250 judicial opinions.

[FN53]. The Court decided 69 patent cases during the 1810-65 Terms. Only 19 of those decisions (28%) have been cited in more than 100 court opinions and only 10 (14%) in more than in 150 opinions. By contrast, 35 of those decisions (50%) have been cited in fewer than 50 judicial opinions, and 18 (26%) have been cited in fewer than 25 opinions. The number of significant opinions as a fraction of the total docket also appears to be dropping during this period. While 30% of decisions rendered during the 1810-40 Terms (3 of 10) have been cited in more than 150 judicial opinions, only 12% of decisions rendered during the 1841-65 Terms (7 of 59) have achieved that level of citations.

[FN54]. During the December 1869 Term-less than five years after the end of the war-the Court decided 169 cases, which was more cases than the Court had ever decided during a single term and, in fact, more cases than it had decided during most two-year periods prior to the war. That was just the beginning. Six years later, in the October 1875 Term, the Court decided 200 cases. Over the next 10 years, the Court averaged over 240 decisions per term; one year later, the Court fell just two cases shy of deciding 300 cases in its 1886 Term. The number of cases decided does not give a full picture of situation because, even though the Court was deciding over 200 cases per term, well

more than 300 cases were coming to the Court each year. See Strong, 132 N Am Rev at 438 (cited in note 11) (noting that an average of 390 cases per year were docketed between 1875 and 1880). Since the Court could not keep pace with its docket, it accumulated a backlog of more than a thousand cases by 1880, and parties had to wait several years after docketing their appeals for the Court to hear arguments. Id at 439 (stating that “[c]ases cannot be heard within less than from two and a half to three years after they have been brought into the court”).

[FN55]. The average of any five consecutive terms between 1868 and 1875 yields six patent cases per term, plus or minus a fraction of a case. The average through the eight-year period is 6.6 patent cases per term.

[FN56]. As was true for the rest of the Court's docket, patent appeals were being filed faster than the Court could decide them. By the end of the 1880s the Court had a several-years-long backlog of patent appeals. In fact, after the Evarts Act of 1891 eliminated the Court's mandatory appellate jurisdiction in patent cases, the number of patent cases decided by the Court did not drop significantly until four years later because the Court had to clear out the large backlog of cases filed prior to the effective date of the Act. (By law, the new statute eliminating mandatory Supreme Court appellate jurisdiction did not affect any appeal that had been perfected prior to July 1, 1891. See Act of March 3, 1891, 26 Stat 1115, 1116.)

[FN57]. Only 18 cases during this period (about 12%) have been cited more than 150 times in judicial opinions, and this test of significance almost certainly overstates the number of significant opinions. The number of citations needed to qualify as a “significant” opinion should probably be increased for opinions delivered during this era because the amount of patent litigation increased after the Civil War. Since courts tend to cite recently decided opinions more frequently, cases decided during this era tend to have more citations than antebellum cases. If the test of significance is raised to 200 citations, only 11 cases during this period (7%) qualify as significant.

[FN58]. Of 33 patent cases decided in the 1850s terms, only 11 cases (1.1 per term) have been cited in more than 100 judicial opinions, and only five (.5 per term) have been cited in more than 150 opinions.

[FN59]. Of the 341 patent decisions rendered during the 1866-99 Terms, only 61 (18%) have been cited more than 150 times—an average of 1.64 per term. If the threshold of significance is raised to 200 citations, only 42 (12%) opinions qualify—an average of 1.12 per term.

[FN60]. During the first half of the twentieth century, the Court decided about 178 patent cases, an average of 3.5 cases per term. That represents a 75% reduction in the average patent caseload from the 1880s—the last full decade before the Court gained certiorari jurisdiction in the field. The Court was no longer drowning in a flood of patent appeals, but it was still hearing a significant number of patent cases.

[FN61]. *Report of Committee of the Section of Patent, Trade-mark and Copyright Law*, 23 ABA Rep 543, 543 (1900).

[FN62]. Id at 548. The objection was considered to be “that a permanent court consisting of judges appointed for life and occupied in the sole work of deciding patent cases would be liable to grow narrow and technical in its views and procedure.” Id.

[FN63]. The report stated, without elaboration, that the patent court should be “subject only to that power of review by the Supreme Court which is necessary to keep it, as the Constitution has declared it shall be, the supreme judicial tribunal of the government.” Id at 547.

[FN64]. Id.

[FN65]. Id at 548.

[FN66]. See *Report of the Section on Patent, Trade-mark and Copyright Law*, 6 ABA J 505, 507 (1920).

[FN67]. *Report of the Committee on Patent, Trade-mark and Copyright Law*, 5 ABA J 440, 445 (1919).

[FN68]. Felix Frankfurter and James M. Landis, *The Business of the Supreme Court* 183 (Macmillan, 1928). See also *id.* at 180-84 (detailing the demise of the patent court proposals). See also 1919 Report, 5 ABA J at 445 (cited in note 67) (noting that the “Court has adopted the practice of issuing writs of *certiorari* where [circuit] conflicts exist” and that “[t]his mitigates the objection to the present system so emphasized in former reports”).

[FN69]. During the period from 1900 through 1950, the Court decided 178 patent cases of which 154 were certiorari cases. If the test of significance is citations in at least 150 subsequent judicial opinions, then 40% of the certiorari decisions (61/154) could be viewed as significant. If the test is raised to 200 citations, then the percentage drops to 27% (41/154). Each of these figures is about twice the corresponding figures calculated for the 1866-99 period. Thirty-two cases (21%) were cited 50 or fewer times. Comparing citations of cases from this era to citations of cases in the nineteenth century probably overestimates the significance of the more recent cases. While the more recent cases have been available for citation for less time than older cases (which might decrease somewhat the number of citations of recent cases), the more important effect is likely to be the growth of litigation and reported decisions which, when coupled with the tendency of courts to cite recent decisions, tends to increase the number of citations of recent cases.

[FN70]. This evidence suggests that, contrary to the suggestion of Justice Stevens in his *Holmes Group* concurrence, the circuit conflicts may not “be useful in identifying [patent] questions that merit this Court’s attention.” [122 S Ct at 1898](#) (Stevens concurring in part and concurring in the judgment). See also text at notes 36-38.

[FN71]. Though the Court often does not mention its reason for granting certiorari, approximately three dozen (or 23%) of the Court’s 154 certiorari decisions during the 1900-50 Terms explicitly mention a circuit split as the reason for granting certiorari.

[FN72]. [340 US 147 \(1950\)](#).

[FN73]. [Brunette Machine Works, Limited v Kockum Industries, Inc.](#), 406 US 706 (1972); [Blonder-Tongue Laboratories, Inc. v University of Illinois Foundation](#), 402 US 313 (1971); [Schnell v Peter Eckrich & Sons, Inc.](#), 365 US 260 (1961); [Fourco Glass Co. v Transmirra Products Corp.](#), 353 US 222 (1957); [Sanford v Kepner](#), 344 US 13 (1952).

[FN74]. [Kewanee Oil Co. v Bicron Corp.](#), 416 US 470 (1974); [Sperry v State of Fla. ex rel. Florida Bar](#), 373 US 379 (1963); [Compco Corp. v Day-Brite Lighting, Inc.](#), 376 US 234 (1964); [Sears, Roebuck & Co. v Stiffel Co.](#), 376 US 225 (1964).

[FN75]. [Aronson v Quick Point Pencil Co.](#), 440 US 257 (1979); [Standard Industries, Inc. v Tigrett Industries, Inc.](#), 397 US 586 (1970) (affirming lower court judgment by an equally divided Court); [Lear, Inc. v Adkins](#), 395 US 653 (1969).

[FN76]. [Dawson Chemical Co. v Rohm and Haas Co.](#), 448 US 176 (1980) (antitrust/patent misuse doctrine); [Zenith Radio Corp. v Hazeltine Research, Inc.](#), 395 US 100 (1969); [Walker Process Equipment, Inc. v Food Machinery & Chemical Corp.](#), 382 US 172 (1965); [Brulotte v Thys Co.](#), 379 US 29 (1964) (holding federal patent law preempts state contract law so as to preclude enforcement of a contractual obligation to pay royalties on an invention past the end of the patent term); [United States v Singer Mfg. Co.](#), 374 US 174 (1963) (antitrust liability for patent pools); [U.S. Gypsum Co. v National Gypsum Co.](#), 352 US 457 (1957) (holding that patentee could rely on patent

infringement and quantum meruit theories to recover damages against a licensee even though the license had been found unlawful under the antitrust laws).

[FN77]. [335 US 560, 566 \(1949\)](#).

[FN78]. [Id at 568 & 571](#) (Frankfurter dissenting) (internal quotation omitted).

[FN79]. [Id at 572](#) (Jackson dissenting).

[FN80]. See [35 USC § 103](#).

[FN81]. In the 1935-49 Terms, the Court decided 15 cases in which the patent was held invalid for want of invention or inventive genius. Those cases accounted for a full 20% (15 of 74 cases) of the Court's patent docket during the period and for 32% (15/47) if the cases involving only peripheral patent issues-procedural matters and licensing-antitrust issues-are removed from the count.

[FN82]. According to Giles Rich, one of the drafters of the 1952 Act who would later serve as a judge on the Court of Customs and Patent Appeals and on the Federal Circuit, the Court's decision in *Great Atlantic & Pacific Tea* "clinched the determination to include in the bill what is now [35 U.S.C. 103](#), in order to get rid of the vague requirement of 'invention.'" Giles S. Rich, *Congressional Intent-Or, Who Wrote the Patent Act of 1952?* in John F. Witherspoon, ed, *Nonobviousness-The Ultimate Condition of Patentability* 1:1, 1:8 (BNA, 1980).

[FN83]. See, e.g., the particularly sharp concurrence by Justice Douglas, joined by Justice Black, in [Great Atlantic & Pacific Tea, 340 US at 154-58](#). The concurrence charged the Patent Office with issuing "flimsy and spurious" patents that have to "be brought all the way to this Court to be declared invalid." [Id at 158](#). Justice Black also authored a number of separate opinions that were perceived to be anti-patent and that were joined by Justice Douglas. See, e.g., [Standard Industries, Inc. v Tigrett Industries, Inc., 397 US 586, 586 \(1970\)](#) (Black dissenting); [Aro Mfg. Co. v Convertible Top Replacement Co., 377 US 476, 515 \(1964\)](#) (Black dissenting); [Exhibit Supply Co. v Ace Patents Corp., 315 US 126, 137 \(1942\)](#) (Black dissenting) (arguing that the Court should, sua sponte, invalidate a patent on grounds not argued by any of the parties).

[FN84]. This point was made explicitly in the House Report on the legislation creating the Federal Circuit. See HR Rep No 97-312, 97th Cong, 1st Sess 22 (1981).

[FN85]. See [Cardinal Chemical Co. v Morton Intern., Inc., 508 US 83 \(1993\)](#) (concerning appellate procedure in patent cases); [Bonito Boats, Inc. v Thunder Craft Boats, Inc., 489 US 141 \(1989\)](#) (preemption); [Christianson v Colt Industries Operating Co., 486 US 800 \(1988\)](#) (the scope of the Federal Circuit's exclusive patent jurisdiction); [Dennison Mfg. Co. v Panduit Corp., 475 US 809 \(1986\)](#) (per curiam) (appellate procedure).

[FN86]. See [Eli Lilly and Co. v Medtronic, Inc., 496 US 661 \(1990\)](#). The Court also decided a case concerning the scope of rights under the Plant Varieties Protection Act, [7 USC § 2321](#) et seq, a patent-like statute administered by the Department of Agriculture that provides exclusive rights over certain types of new plants and seeds. See [Asgrow Seed Co. v Winterboer, 513 US 179 \(1995\)](#). This case is not counted as a patent case.

[FN87]. The four concerned the scope of the Federal Circuit's jurisdiction (*Holmes Group*); the States' Eleventh Amendment immunity in patent cases ([Florida Prepaid Postsecondary Education Expense Bd v College Saving Bank, 527 US 627, 642 \(1999\)](#)); the application of the Administrative Procedure Act to judicial review of PTO decisions ([Dickinson v Zurko, 527 US 150 \(1999\)](#)); and a Seventh Amendment challenge to the Federal Circuit's holding that juries have no role in interpreting patent claims ([Markman v Westview Instruments, Inc., 517 US 370 \(1996\)](#)).

[FN88]. [520 US 17 \(1995\)](#).

[FN89]. [525 US 55 \(1998\)](#).

[FN90]. [122 S Ct 593 \(2001\)](#).

[FN91]. Although the Court in one case stated that it had granted certiorari in part because of the tension between the Federal Circuit decision below and a few pre-Federal Circuit opinions from the regional circuits, see [Pfaff, 525 US at 60](#), the Court must have realized that the older circuit decisions posed little risk to the uniform application of patent law that is now dominated by the Federal Circuit's exclusive jurisdiction. Indeed, the Court did not explain its certiorari grant solely in terms of the circuit "split" but also provided, as an additional or alternative reason for granting review, the apparent tension between the Federal Circuit's ruling and the text of the relevant statute. See *id.*

[FN92]. Rehnquist, 14 Fla St U L Rev at 12 (cited in note 15).

[FN93]. Howard T. Markey, *The Federal Circuit and Congressional Intent*, 2 Fed Cir Bar J 303, 304 (1992).

[FN94]. It may be true, as Mark Janis writes, that "[n]either the time, temperament, nor resources of the Supreme Court will allow for the implementation of an interventionist approach to patent decision making." Janis, 2001 Ill L Rev at 395 (cited in note 17). But that is true only because Professor Janis defines an "interventionist" approach to mean "exercis [ing] certiorari jurisdiction routinely in patent cases." *Id.* The Court could, however, be interventionist in the sense of influential even with just a small number of patent cases per term.

[FN95]. In the ten terms prior to the creation of the Federal Circuit (1972-81 Terms), the Court decided nine patent cases, five of which came from the Court of Customs and Patent Appeals. See [Diamond v Diehr, 450 US 175 \(1981\)](#); [Diamond v Chakrabarty, 447 US 303 \(1980\)](#); [Parker v Flook, 437 US 584 \(1978\)](#); [Dann v Johnston, 425 US 219 \(1976\)](#); [Gottschalk v Benson, 409 US 63 \(1972\)](#).

[FN96]. [Sakraida v Ag Pro, Inc., 425 US 273 \(1976\)](#) (holding a patent invalid for obviousness).

[FN97]. Amicus briefs are available at <http://supreme.lp.findlaw.com/supreme_court/docket/2001/january.html>.

[FN98]. Because a regional court would hear only a fraction of the patent appeals occurring in the nation, it would be less likely to develop an intracircuit split on any particular issue in patent law and therefore less likely to devote full en banc treatment to a patent case. See [Fed R App Proc 35](#) (listing intracircuit conflict as one of two reasons for granting en banc hearing); Tracey E. George, *The Dynamics and Determinants of the Decision to Grant En Banc Review*, 74 Wash L Rev 213, 254-55 (1999) (showing by a statistical analysis that, while most judges will vote for en banc review of an intracircuit conflict, they do not "display the same willingness" to grant en banc rehearing on issues subject to intercircuit conflicts). Furthermore, the generation of multiple, lengthy opinions such as those in the *Festo* en banc is probably more likely when the court's law clerks are motivated to become steeped in the relevant legal issue, and the Federal Circuit tends to attract law clerks with scientific backgrounds who are likely to practice patent law after their clerkships. See Jonathan Ringel, *The Help Desk Clerks Know More Than Law*, Legal Times 71 (Mar 12, 2001) (surveying 36 of 38 Federal Circuit law clerks from one year and finding that 25 clerks possessed degrees in science, math, or engineering; also noting that Federal Circuit law clerks are in high demand by intellectual property firms).

[FN99]. See Peter L. Strauss, [One Hundred Fifty Cases per Year: Some Implications of the Supreme Court's Limited Resources for Judicial Review of Agency Action](#), 87 Colum L Rev 1093, 1115 (1987) (arguing that specialized

institutions such as the Federal Circuit “face handicaps” in “grappling with broad legal issues outside their particular responsibility” because they suffer from “obvious inexperience” with broader questions and because their specialized jurisdiction “can give them a distorted perspective”).

[FN100]. See, e.g., Samuel Estreicher and John E. Sexton, [A Managerial Theory of the Supreme Court's Responsibilities: An Empirical Study](#), 59 NYU L Rev 681 (1984) (arguing that the limitations of the modern Court's docket require the Court's responsibilities to be focused on “manag[ing] a system whose goal is to provide justice”).

[FN101]. [Dethmers Mfg. Co. v Automatic Equip. Mfg. Co.](#), 272 F3d 1365 (Fed Cir 2001) (refusing to give the PTO deference in its interpretation of its own administrative regulations); [In re Zurko](#), 142 F3d 1447 (Fed Cir 1998) (en banc) (holding that PTO patent decisions are subject to a more stringent judicial review standard than the generally applicable standard supplied by the Administrative Procedure Act), revd sub nom, [Dickinson v Zurko](#), 527 US 150 (1999); [Cybor Corp. v FAS Techs.](#), 138 F3d 1448 (Fed Cir 1998) (en banc) (holding that interpretations of patent claims by district courts are to be reviewed de novo on appeal); [Markman v Westview Instruments, Inc.](#), 52 F3d 967 (Fed Cir 1995) (en banc) (holding that juries have no role in interpreting patent claims), affd, 517 US 370 (1996); [Merck & Co. v Kessler](#), 80 F3d 1543 (Fed Cir 1996) (holding that the Federal Circuit owes no deference to the PTO's interpretations of the Patent Act). The Federal Circuit's attempt to limit the doctrine of equivalents in *Festo* can also be seen as an example. Patent infringement can be proven either as literal infringement of the patent claims or as infringement under the doctrine of equivalents. The Federal Circuit has held that it determines the scope of claims as a matter of law, while juries decided the scope of equivalents. Limiting the availability of the doctrine of equivalents forces patentees to bring infringement cases under the literal language of the claims rather than under the doctrine of equivalents and thus shifts decisional power in infringement cases toward the Federal Circuit and away from juries.

[FN102]. See, e.g., Harlan F. Stone, *The Common Law in the United States*, 50 Harv L Rev 4 (1936) (theorizing that administrative processes were substituted for common law courts “because the ever expanding activities of government in dealing with the complexities of modern life had made indispensable the adoption of procedures more expeditious and better guided by specialized experience than any which the courts had provided”); id at 18 (observing that administrative bodies having “specialized experience” have set up standards “which the courts could have formulated, if at all, only more tardily and with far greater difficulty”). See also Gerard C. Henderson, *The Federal Trade Commission: A Study in Administrative Law and Procedure* at v (Yale, 1924).

[FN103]. See, e.g., [Florida Prepaid Postsecondary Education Expense Bd. v College Saving Bank](#), 527 US 627, 642 (1999) (noting that patents “have long been considered a species of property”); [Bonito Boats, Inc. v Thunder Craft Boats, Inc.](#), 489 US 141, 150-51 (1989) (describing the patent as “a carefully crafted bargain” in which the inventor creates and discloses in formation “in return for the exclusive right”); [Markman v Westview Instruments, Inc.](#), 52 F3d 967, 984 (Fed Cir 1995), affd, 517 US 370 (1996) (finding “[t]he analogy of a patent to a contract” to be “appropriate”).

[FN104]. [Payne v Tennessee](#), 501 US 808, 828 (1991).

[FN105]. See [Rogers v Tennessee](#), 532 US 451 (2001) (describing “incremental and reasoned development of precedent” as the “foundation of the common law system”).

[FN106]. The problem of fitting language to innovation is not confined to patent law. See Federalist 37 (Madison) in Clinton Rossiter, ed, *The Federalist Papers* 229 (Mentor, 1961) (explaining that drafting a constitution containing “so many important changes and innovations” is difficult because “no language is so copious as to supply words and phrases for every complex idea, or so correct as not to include many equivocally denoting different ideas” and “this unavoidable inaccuracy must be greater or less, according to the complexity and novelty of the objects defined”).

[FN107]. See, e.g., Melville B. Nimmer and David Nimmer, 4 *Nimmer on Copyright* § 13.03[A] at 13-27 (1997) (articulating the modern “substantial similarity” test). Copyright law also requires that the accused infringer have copied the copyrighted work; thus, independent creation is a complete defense in copyright law, though not in patent law.

[FN108]. [Odiorne v Winkley, 18 F Cas 581, 582 \(CCD Mass 1814\)](#) (Justice Story's instructions to the jury).

[FN109]. Describing the relationship between the substantial identity test and the doctrine of equivalents, the great treatise writer George Curtis (brother of the Supreme Court Justice) wrote:

It is in relation to this question of substantial identity, that the doctrine of mechanical equivalents becomes practically applicable. This doctrine depends on the truth that the identity of purpose, and not of form or name, is the true criterion in judging of the similarity or dissimilarity of two pieces of mechanism.

George Ticknor Curtis, *A Treatise on the Law of Patents for Useful Inventions in the United States of America* § 310, at 404-05 (1849). Early formulations of the substantial identity test continue to be used in describing the doctrine of equivalents. For example, in 1818 Justice Washington (also on circuit duties) charged a jury “where the machines are substantially the same, and operate in the same manner, to produce the same result, they must be in principle the same.” [Gray v James, 10 F Cas 1015, 1016 \(CCD Pa 1817\)](#). This charge has frequently been cited as the genesis of a “triple identity” test for determining equivalents. See, e.g., [Hilton Davis Chemical Co. v Warner-Jenkinson Co., 62 F3d 1512, 1518 \(Fed Cir 1995\)](#).

[FN110]. Patent Act of 1793, [§ 3, 1](#) Stat 318, 321.

[FN111]. [Evans v Eaton, 20 US 356, 434 \(1822\)](#). See also Karl B. Lutz, *Evolution of the Claims of U.S. Patents*, 20 J Patent Off Socy 134, 137-40 (1938) (suggesting that claims arose as a reaction to judicial decisions such as *Evans*); William Redin Woodward, *Definiteness and Particularity in Patent Claims*, 46 Mich L Rev 755, 758-60 (1948) (same). *Evans v Eaton* and the statutory requirement of distinguishing the old from the new should not, however, be viewed as the primary impetus for the development of claims. Claims were beginning to emerge in patent practice at least a decade before *Evans*. Moreover, early claims were often very broad assertions of right, not the narrow claims that might be expected if the patentees' attorneys were merely trying to distinguish the old from the new.

[FN112]. See, e.g., [US Pat No 10](#), col 4, lines 13-15 (stating, in a patent for an improved woodcutting machine, that the “applicant does not claim the invention of a wheel with cutting, or plane irons set therein ...”).

[FN113]. [Odiorne, 18 F Cas at 582](#).

[FN114]. [Gray v James, 10 F Cas 1015, 1016 \(CCD Pa 1817\)](#).

[FN115]. Of course, a modern reader might think that, rather than using a formal “claim,” inventors could have simply included in their specifications statements like: “The principle of my invention is thus-and-such.” In fact, this is precisely what early claims were. The phrase “I claim” was attached to leave no doubt that the inventor was seeking to gain legal rights to the principle of the invention, but otherwise early claims are nothing more than informal attempts to articulate the basic principles that the inventor believed should be the guide to infringement analysis. Formalities grew up only with time.

[FN116]. The origins of the patent claim can be traced back to an 1811 patent to Robert Fulton. See Karl B. Lutz, *Evolution of the Claims of U.S. Patents*, 20 J Patent Off Socy 134, 137 (1938) (“Fulton can perhaps more properly be credited with invention of the ‘claim’ than of the steamboat”). Fulton's claims to invention were capacious; they included the following bold assertions of right: “I claim as my exclusive right, the use of two wheels, one over each side of the boat to take purchase on the water;” and “[t]his convenience in combining the machinery of Steam boats

I claim as my discovery and exclusive right whatever may be the mode by which it is executed.” H. W. Dickinson, *Robert Fulton: Engineer and Artist* 313-14 (John Lane, 1913) (reproducing the full specification of Fulton's 1811 patent). Similarly, Colt's basic patent on the revolver included eight broadly drafted claims. See [US Pat X9430](#), at 2-3 (Feb 25, 1836) (available at <<http://www.uspto.gov>>). Four of the claims were drafted to cover various “principle [s]” employed by the new gun-for example, the “principle of connecting-rod between the hammer and trigger” (claim 4) and the “principle of locking and turning the cylinder” (claim 6). *Id.*

[FN117]. [Carver v Braintree](#), 5 F Cas 235, 238 (CC Mass 1843).

[FN118]. [56 US 62, 113 \(1854\)](#).

[FN119]. [Id at 112](#) (quoting US Pat Re 117, at 3 (June 13, 1848)).

[FN120]. [Id at 119](#); see also *id.* (“the patent confers on him the exclusive right to use the means he specifies to produce the result or effect he describes, and nothing more”).

[FN121]. *Id.* (emphasis added).

[FN122]. [56 US 330 \(1854\)](#).

[FN123]. [Festo](#), 122 S Ct at 1838; [Graver Tank & Mfg. Co. v Linde Air Products Co.](#), 339 US 605, 608 (1950).

[FN124]. [Winans](#), [56 US at 342](#) (quoting the patentee's claim). The inventor discovered that the circular cross-section allowed a more even distribution of weight and thus reduced the amount of metal needed to construct the car. See [id at 339-40](#).

[FN125]. [Id at 344](#).

[FN126]. As George Ticknor Curtis (brother of Justice Curtis) stated in his influential 1849 treatise, infringement was understood to be “a copy of the thing *described in the specification* of the patentee, either without variation, or with only such variations as are consistent with its being in substance the same thing.” Curtis, *A Treatise on the Law of Patents* § 220 (cited in note 109) (emphasis added). The relative unimportance of claims can be seen in the index of Curtis's treatise, which lists claims only as a subheading of the patent specification and includes no cross-reference to claims under its infringement entries. See *id.* at 581-604. As a later commentator observed, “the courts for a long time did not regard [the claim] as the definitive measure of the scope of the patent” but rather looked to “the whole patent document, including the claims as a guide.” Woodward, 46 Mich L Rev at 760 (cited in note 111). The *Winans* decision merely maintained that approach.

[FN127]. [Merrill v Yeomans](#), 94 US 568, 570 (1877).

[FN128]. [Id at 573](#).

[FN129]. In 1847, the year in which the *Winans* patent was issued (see [US Pat No 5175 \(June 26, 1847\)](#)), the Patent Office issued about 500 patents, and only about 5,000 patents had been issued since the creation of the examination system in 1836. See <<http://www.uspto.gov/web/offices/ac/ido/oeip/taf/issuyear.htm>> (listing the issue years of patents). By 1869, the year in which the patent in *Merrill* was issued, and throughout the 1870s, the Patent Office was issuing about 12,000 patents per year. See *id.*

[FN130]. [Merrill](#), 94 US at 573.

[FN131]. The Patent Office began publishing its internal precedents in 1869, and these decisions—which were far more abundant than Supreme Court patent opinions—established and refined the rules of patent claiming. See, e.g., *Ex parte Perry & Lay*, 1869 Dec Comm'n Pat 3 (allowing redundant claims in a single patent so that “parties [may] put their claims in different forms to prevent misconstructions of them by the public or the courts”); *Ex parte Rubens*, 1869 Dec Comm'n Pat 107, 108 (“strongly condemn[ing]” the practice of using the words “substantially as described” in a patent claim because the phrase has “no fixed legal meaning”); *Ex parte Eagle*, 1870 Dec Comm'n Pat 137 (establishing early rules for “genus” and “species” claims). Indeed, as demonstrated by the following passage from an 1869 decision, the Commissioner of Patents seemed to understand that the Patent Office held chief responsibility for establishing the rules of patent claim drafting practice:

I know that in [a circuit court decision] Mr. Justice Curtis uses language which seems to imply a different doctrine; but it must be remembered that a claim may be saved by construction, that ought not to have passed the Patent Office in such a form as to make construction necessary to its salvation. The Commissioner ought not to send doubtful claims to the courts. The law makes him the judge in the first instance, and he has no right to turn out his work upon the country botched and blundering, in the hope that some court will patch it up. Many patents never go into the courts, and all patents ought to be so drawn that honest men of ordinary business capacity need not be afraid to deal with them.

Ex parte Thorne, 1869 Dec Comm'n Pat 76, 76-77. Moreover, even before the Supreme Court's decision in *Merrill*, the primacy of claims in defining patent rights was firmly established in the Patent Office's day-to-day decisions, which focused immediately on the claims in determining what rights were being sought by the applicant. See, e.g., *id* at 76 (following the common administrative form of beginning the analysis with a recitation of the claims); *Ex parte Ackerson*, *id* at 74 (same); *Ex parte Dean*, *id* at 77 (same); *Ex parte Webb*, *id* at 78 (same).

[FN132]. *Id* at 573.

[FN133]. See *Grant v Raymond*, 31 US 218 (1832) (sustaining the Patent Office's assertion of a power to remedy errors by reissuing a corrected patent even though no statutory provision or judicial decision had previously authorized such a process).

[FN134]. *Keystone Bridge Co. v Phoenix Iron Co.*, 95 US 274, 278 (1877).

[FN135]. *Hoyt v Horne*, 145 US 302, 309 (1892).

[FN136]. *Fay v Cordesman*, 109 US 408, 420 (1883) (holding that every element in a claim “must be regarded as material, leaving open only the question whether an omitted part is supplied by an equivalent device or instrumentality [in the accused product]”).

[FN137]. *Sargent v Hall Safe & Lock Co.*, 114 US 63, 86 (1885). See also *Goodyear Dental Vulcanite Co. v Davis*, 102 US 222, 228 (1880) (applying the same doctrine in the context of claims that were narrowed during reissue proceedings).

[FN138]. *Tilghman v Proctor*, 102 US 707, 728-29 (1881). See also *The Telephone Cases*, 126 US 1, 533-35 (1888).

[FN139]. *Morse*, 56 US at 119.

[FN140]. *Tilghman*, 102 US at 728.

[FN141]. 170 US 537 (1898).

[FN142]. [Id at 568.](#)

[FN143]. To support its holding, the Court cited [Burr v Duryee, 68 US 531 \(1864\)](#), a 34-year-old precedent articulating the substantial identity test as it had then existed. See [Westing-house, 170 US at 568-69.](#)

[FN144]. [Westinghouse, 170 US at 572.](#)

[FN145]. In fact, the Supreme Court opinion in *Festo* cites only two cases decided between 1860 and 1900. See [Festo, 122 S Ct at 1838-41.](#)

[FN146]. [315 US 126 \(1942\)](#). The issue involved no circuit split, but the Court was “moved to grant [certiorari] by the nature of the questions presented.” [Id at 128.](#)

[FN147]. See [id at 128-36](#) (facts); [id at 136-37](#) (legal discussion).

[FN148]. [339 US 605 \(1950\).](#)

[FN149]. [Machine Co. v Murphy, 97 US 120, 125 \(1878\).](#)

[FN150]. [339 US at 607](#) (concluding that the inventor should not be left “at the mercy of verbalism”).

[FN151]. For comparison, *Graver Tank* has been cited 1,689 times as of late 2002, and *Exhibit Supply*, 218 times.

[FN152]. [517 US 370 \(1996\).](#)

[FN153]. [520 US 17 \(1997\).](#)

[FN154]. [Hilton Davis Chem. Co. v Warner-Jenkinson Co., 62 F3d 1512, 1515-83 \(Fed Cir 1995\)](#) (en banc).

[FN155]. [520 US at 27.](#)

[FN156]. See [Pennwalt Corp. v Durand-Wayland, Inc., 833 F2d 931, 935 \(Fed Cir 1987\)](#) (en banc).

[FN157]. [Exhibit Supply Co., 315 US at 136-37.](#)

[FN158]. [Hughes Aircraft Co. v United States, 717 F2d 1351, 1363 \(Fed Cir 1983\)](#); see also [Warner-Jenkinson, 520 US at 30](#) (rejecting the argument that “the reason for an amendment during patent prosecution is irrelevant to any subsequent estoppel”).

[FN159]. [520 US at 31.](#)

[FN160]. See Joint Appendix, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, at I-1 (S Ct filed Aug 31, 2001) (docket entries showing filing of complaint).

[FN161]. [Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co., 72 F3d 857 \(Fed Cir 1995\).](#)

[FN162]. Another panel decision rendered after the Supreme Court's remand was vacated by the order granting en banc consideration. That panel decision would have held *Festo* to be not estopped from asserting an equivalents

theory for one of the two patents in the suit and would have remanded the case to the district court for further fact-finding on the reasons for Festo's amendments to the other patent in suit. See [Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.](#), 172 F3d 1361 (Fed Cir 1999).

[FN163]. See [Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.](#), 234 F3d 558, 563 (Fed Cir 2000) (en banc).

[FN164]. [Id at 569.](#)

[FN165]. [Markman](#), 517 US at 373 (internal quotations omitted).

[FN166]. The en banc ruling left only one theoretically possible scenario: Equivalents analysis could be used for the amended portion of a claim if the amendment had been made for reasons not related to patentability. However, the possibility of that scenario arising—which was already slight because attorneys generally should not, and generally do not, amend claims except for reasons related to patentability—was made even more remote because the en banc majority held that, to establish the reasons for amendments, a patentee may rely only on evidence found in the publicly available prosecution file. This rather unique evidentiary rule allowed the Federal Circuit to keep control over the new *Warner-Jenkinson* presumption of estoppel, for otherwise the court would have needed to remand *Festo*—and perhaps many other cases litigated prior to *Warner-Jenkinson*—for further factual development in district court. The evidentiary rule also, however, reinforced the practical impossibility of applying equivalents to amended portions of patent claims. If an attorney did not have a reason relating to patentability for narrowing the claims, the narrowing of the claims is almost certainly an error since, by assumption, the broader claim conferring greater rights would have been issued by the PTO. But for the patentee to escape prosecution history estoppel, the fact of the error had to be recognized and memorialized in the publicly available prosecution file.

[FN167]. [Festo](#), 234 F3d at 569.

[FN168]. *Hughes Aircraft Co. v United States*, 717 F3d 1351, 1363 (Fed Cir 1983) (quoting [Autogiro Co. of America v United States](#), 384 F2d 391, 401 (Ct Cl 1967)). See also [Warner-Jenkinson](#), 520 US at 30 (rejecting the argument that “the reason for an amendment during patent prosecution is irrelevant to any subsequent estoppel”).

[FN169]. [Festo](#), 234 F3d at 575.

[FN170]. Joint Appendix, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, at I-141 (S Ct filed Aug 31, 2001) (setting forth portions of the trial transcript); see also [Festo](#), 72 F3d at 863 (quoting this statement by counsel). Even during *Festo*'s first appearance at the Federal Circuit in late 1995, the court introduced the estoppel issue as a minor factual dispute that had been raised only to a limited extent at trial. See [id at 863-64.](#)

[FN171]. [520 US at 40.](#)

[FN172]. [234 F3d at 571-72](#) (quoting [Warner-Jenkinson](#), 520 US at 40; emphasis added).

[FN173]. Reply Brief for Petitioner, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, *5 (filed Nov 30, 2001) (available on Lexis at 2000 US Briefs 1543).

[FN174]. *J.E.M. Ag Supply, Inc. v Pioneer Hi-Bred Int'l, Inc.*, 122 S Ct 593, 604 (2001). Amendments designed to overcome nonenablement objections can be seen as the mirror image of amendments designed to avoid the prior art: The latter are necessary to avoid claiming material already discovered; the former, to avoid claiming something not yet discovered by anyone (including the applicant).

[FN175]. See [Festo, 122 S Ct at 1840](#) (noting that patent rights are given to an inventor “in exchange for” an enabling disclosure).

[FN176]. *Id.*

[FN177]. [Festo, 122 S Ct at 1840-41](#).

[FN178]. This justification is asserted in a recent academic article. See R. Polk Wagner, [Reconsidering Estoppel: Patent Administration and the Failure of Festo, 151 U Penn L Rev 159 \(2002\)](#).

[FN179]. [Festo, 122 S Ct at 1841](#).

[FN180]. Brief for the United States as Amicus Curiae Supporting Vacatur and Remand, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, *21 (filed Aug 31, 2001) (available on Lexis at 2000 US Briefs 1543).

[FN181]. [Festo, 122 S Ct at 1841](#).

[FN182]. [Id at 1842](#).

[FN183]. *Id.*

[FN184]. Brief for the United States as Amicus Curiae at *25-26 (cited in note 180).

[FN185]. See *Festo Corp. v Shoketsu Kinzoku Kabushiki, Ltd.*, Civ Act No 88-1814-PBS (D Mass, Oct 27, 1994), reprinted in Appendix to Petition for Writ of Certiorari, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, *211a (filed Apr 9, 2001) (available on Lexis at 2000 US Briefs 1543) (entering judgment based on a jury verdict for \$4,739,183). The actual amount of money at stake was somewhat greater because the jury verdict had calculated damages only through the end of the trial. The trial judge was going to “determine an amount of damages on the same [basis] as awarded by the jury” for later infringements. *Id.* The defendants were also enjoined from continuing infringement but, by the time the case reached the Court, both patents at issue had already expired.

[FN186]. [447 US 303 \(1980\)](#).

[FN187]. See, e.g., Eric von Hippel, *The Sources of Innovation* 131-207 (Oxford, 1988) (finding that small improvements are often important to progress).

[FN188]. Cf. Thomas S. Kuhn, *The Structure of Scientific Revolutions* 6 (Chicago, 1962) (distinguishing between “normal science,” which occupies the time of most scientists, and “scientific revolutions,” which occur infrequently and lead to major shifts in the prevailing paradigms of scientific analysis).

[FN189]. This description of the technology is drawn from the Festo Corporation's two patents, [US Pat No 3,779,401 \(Feb 17, 1972\)](#) and [US Pat No 4,354,125 \(Oct 12, 1982\)](#). The advantage of the device is that it allows the hydraulic system to remain completely sealed and yet to move things outside of the hydraulic tube. (For simplicity, certain features and variations of the technology are not mentioned. For example, the tube is described as a hydraulic tube, but the device can also be constructed with a pneumatic tube, with air pressure rather than fluid pressure pushing the piston to and fro. Such variations are irrelevant to the case.)

[FN190]. US Pat No B1 3,779,401, at col 2, lines 2-15 (reissue certificate issued Oct 25, 1988).

[FN191]. The function of the sealing rings is to “form a tight fluid seal” so that the hydraulic fluid does not simply flow around the piston. [US Pat No 3,779,401](#), at col 2, line 13.

[FN192]. [Festo, 122 S Ct at 1835](#).

[FN193]. See Richard A. Posner, *The Federal Courts: Challenge and Reform* 251 (Harvard, 1996).

[FN194]. The three were Chief Judge Mayer, Judge Clevenger, and Judge Schall, who wrote the *Festo* majority.

[FN195]. Richard A. Posner, *What Do Judges and Justices Mazimize? (The Same Thing Everybody Else Does)*, 3 S Ct Econ Rev 1, 28 (1993).

[FN196]. Judge Posner, for example, has argued that “decisions by a specialized court resist effective control by a higher generalist court.” Posner, *The Federal Courts* at 257 (cited in note 193).

[FN197]. [285 F3d 1046 \(Fed Cir 2002\)](#) (en banc).

[FN198]. [Id at 1057](#) (Rader concurring).

[FN199]. [Warner-Jenkinson, 520 US at 33](#).

[FN200]. [Id at 32 & n 6](#).

[FN201]. Transcript of Oral Argument, *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co.*, No 00-1543, 2002 US Trans Lexis 1, *9 (Jan 8, 2002).

[FN202]. [Id at *9 & *47](#).

[FN203]. See text at notes 182-84.

[FN204]. See, e.g., [US Pat No 6,418,989 \(July 16, 2002\)](#) (claiming “support wedges or the equivalent”).

[FN205]. [US Pat No 6,449,601](#), col 21, lines 61-62 (Sept 10, 2002) (emphasis added).

[FN206]. See *Ex parte Haasz*, 1873 Dec Comm'n Pat 170, 171-72 (holding that the phrase “or equivalents” should be “inhibited” in patent claims because no “useless word or phrase ought ever to be allowed in a claim” and “[i]t is well known to those versed in patent law, that equivalents are comprehended in every claim whether specified or not”); see also William C. Robinson, *The Law of Patents for Useful Inventions* § 516 at 128-29 (Little, Brown, 1890) (stating that equivocal words are not permitted in patent claims and that “[o]f this character is the word ‘equivalent;’ for as a true ‘equivalent,’ in the sense of the Patent Law, is always covered by the Claim”). Prior to the *Haasz* decision, the Patent Office had viewed the phrase “or equivalents” as “unobjectionable” even though it “add[ed] nothing that the applicant not be entitled to without them.” *Ex parte Continental Windmill Co.*, 1870 Dec Comm'n Pat 74, 74. The PTO's current Manual of Patent Examination Procedure seems to follow the earlier view; it does not prohibit patent applicants from expressly claiming “equivalents” and indeed recognizes that “broadening modifiers are standard tools in claim drafting in order to avoid reliance on the doctrine of equivalents.” Patent & Trademark Office, *Manual of Patent Examination Procedure* § 2173.05(b), at 2100-2196 (8th ed 2001) (available at <<http://www.uspto.gov/web/offices/pac/mpep/mpep.htm>>). But even in the absence of any express claim to equivalents, examiners are required, in determining patent-ability of the claim, to consider “[a]ll subject matter that is the equivalent of the subject matter as defined in the claim, even though specifically different from the definition

in the claim.” [Id. § 904.01\(b\), at 900-951](#); see also *Haasz*, at 1873 Dec Comm'n Pat at 171 (noting that the determination of equivalents “constitutes the major part of the duties of the examining corps” and rejecting the argument that “it is for the courts to determine what constitute equivalents”).

[FN207]. See *Festo Corp. v Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 2002 US App LEXIS 19734 (Sept 20, 2002).

[FN208]. [Festo, 122 S Ct at 1842.](#)

[FN209]. See, e.g., [Tyler v Union Oil Co.](#), 304 F3d 379 (5th Cir 2002); [United States v Walcott](#), 972 F2d 323, 325 (11th Cir 1992).

[FN210]. [Warner-Jenkinson](#), 520 US at 39 n 8.

[FN211]. [Festo, 122 S Ct at 1842.](#)

[FN212]. [Id at 1841.](#)

[FN213]. [Id at 1842.](#)

[FN214]. See, e.g., [In re Dembiczak](#), 175 F3d 994 (Fed Cir 1999).

[FN215]. The Supreme Court's test tends to conflate the roles of inventor and attorney. The test is based on the abilities of “one skilled in the art” in “draft[ing] a claim.” [Festo, 122 S Ct at 1842.](#) But there are two relevant arts at issue here. One is the technological art that is the subject of the patent, which is the province of the inventor; the other is the art of patent claim drafting, which is the province of the attorney. Though the Court's test appears to require an inquiry only into what can be reasonably demanded from the attorneys, that inquiry requires some understanding of the language available in the particular technological art.

[FN216]. The Supreme Court's test requires judgment about the difficulty of drafting good claims. Yet this is a point on which at least some judges of the Federal Circuit seem to have quite different views than the Justices of the Supreme Court. Compare the Court's view-“the nature of language makes it impossible to capture the essence of a thing in a patent application,” [Festo, 122 S Ct at 1837](#)-with that of Judge Lourie, who joined the Federal Circuit's en banc majority and who wrote separately to express his confidence “that competent patent attorneys can readily craft their claims to cover” even complicated subjects. [Festo, 234 F3d at 597](#) (Lourie concurring).

[FN217]. [Id at 572](#) (Jackson dissenting).

[FN218]. See [35 USC § 103](#) (requiring an invention to be not “obvious” in order for it to be patentable).

[FN219]. [Sakraida v AG Pro Inc.](#), 425 US 273 (1976).

[FN220]. See, e.g., [In re Lee](#), 277 F3d 1338 (Fed Cir 2002) (chastising the PTO for “refus[ing] to follow circuit precedent” in a case where the agency had “rejected the need for [finding] any specific hint or suggestion” to support its obviousness determination) (internal quotations omitted).

[FN221]. The standards applied by the Federal Circuit in reviewing district court interpretations of patent claims generated a fairly lengthy set of opinions in a 1998 en banc decision. That issue or a similar issue involving the allocation of power between the Federal Circuit and the district courts may yet attract the Court's review. Also, the

PTO has recently published guidelines concerning the requirement that patent applicants identify a utility for their inventions, see [Utility Examination Guidelines, 66 Fed Reg 1092 \(2001\)](#), and those guidelines may eventually lead to a conflict between the PTO and the Federal Circuit.

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