Separation of Powers or Division of Labor? Patent Interference Disputes, the Grand Narrative, and the History of the Administrative State, 1790-1940

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Abstract

We use the history of the Patent Office to challenge the Grand Narrative of separation of powers that the current Supreme Court is using to invalidate congressional designs for administrative agencies. Focusing on the adjudication of patent interference disputes—cases in which two or more inventors applied for patents for essentially the same technology—we find that the division of labor between the Patent Office and the courts shifted repeatedly and dramatically over the century and a half preceding the Administrative Procedure Act. Rather than worries about separation of powers, the main drivers of change were (1) the Patent Office's efforts to curb inventors' exploitation of interference procedures to delay the award of patents to rivals and (2) the need to manage the workload that interference appeals imposed on the overburdened Patent Office and courts. Innovations in Patent Office procedures led to dramatic improvements in the efficiency of its frontline adjudication of interferences, but officials found it much more difficult to prevent losing parties from abusing appeals opportunistically. At the behest of the Patent Office, Congress repeatedly revised the appeals process for interferences, trying out direct review by ad hoc arbitration panels, individual judges, and variously constituted courts. It even eliminated direct appeals of interference decisions from 1870 until 1893, while continuing to provide for appeals from rejections of patent applications (where opportunistic delays posed less serious problems). Although interference parties sometimes raised legal challenges to these review structures, they reached a dead end in the Supreme Court, which throughout the nineteenth century deferred to Congress's authority to design the system. Finally, in 1939, after a century of trial and error, the Patent Office convinced Congress to eliminate all internal appeals in interference cases within the Patent Office, to authorize the Patent Office to issue patents based on its frontline adjudications of priority, and to shift review of interference decisions entirely to the courts. Again, this change did not apply to rejections of patent applications, which were still reviewed internally before they could be appealed to the courts. Both the great variety of appeal structures enacted over the years and the repeated divergence in the treatment of appeals of interferences and rejections support our emphasis on the primary role that pragmatic concerns played in the evolving division of labor between the Patent Office and the courts. This history reveals flexible adaptation over time rather than conformity to a standard model of separation of powers traceable to the framers.

Advancing a Grand Narrative about the separation of powers, the US Supreme Court has recently handed down a series of decisions invalidating Congress's design choices for administrative agencies.[1] According to this narrative, as the number and scope of federal agencies expanded over the course of the twentieth century, and especially during the New Deal, Congress strayed from the strict separation of powers the framers had built into the Constitution. Congress enacted laws that delegated legislative authority to administrative agencies in violation of Article I, isolated agencies from presidential oversight in violation of Article II, and granted them judicial powers in violation of Article III. Although previous Supreme Courts had upheld similar laws,[2] the current conservative majority on the Court is on a mission to correct these errors and restructure the administrative state in conformity with its own conception of the framers' vision.

The Grand Narrative depends for its plausibility on the idea that federal administrative agencies played an insignificant role in the country's governance until long after the founding era, by which point the original meaning of the Constitution's separation of powers had been deeply entrenched in American law.[3] From this perspective, Congress departed from well-established constitutional principles when it created and empowered the new regulatory agencies

[1] See Cass R. Sunstein, *Administrative Law's Grand Narrative*, 77 ADMIN. L. REV. 291 (2025) and cases cited therein. Cases include *Seila Law LLC v. Consumer Financial Protection Bureau*, 591 U.S. 197 (2020); *United States v. Arthrex, Inc.*, 141 S. Ct. 1970 (2021); *West Virginia v. EPA*, 142 S. Ct. 2587 (2022); *Loper Bright Enterprises v. Raimondo*, 603 U.S. 369 (2024).

[2] See, e.g., Whitman v. American Trucking Ass'ns, 531 U.S. 457 (2001) (upholding legislative delegation of authority to EPA in the Clean Air Act to promulgate national ambient air quality standards); Humphrey's Ex'r v. United States, 295 U.S. 602 (1935) (upholding for-cause legislative restrictions on removal of FTC commissioners by President); Crowell v. Benson, 285 U.S. 22 (1932) (upholding provisions for administrative adjudication of claims under Longshoremen's and Harbor Workers' Compensation Act).

[3] William Baude, *Constitutional Liquidation*, 71 STANFORD L. REV. 1 (2019) (discussing relevance of historical exposition and practice in settling meaning of ambiguous constitutional meanings).

of the twentieth century.[4] This chronology of the administrative state and its constitutional underpinnings, although once widely accepted,[5] has now been substantially discredited. Scholars have tracked the federal government's role in the early economy, showing that it was both more extensive and more effective than previously thought.[6] They have fleshed out the history of early administrative agencies, documenting their independence and increasing importance over the course of the nineteenth century.[7] And they have shown that federal agencies never, even during the country's first century, conformed to the rigid separation of powers imagined by those

[4] Arguably the Interstate Commerce Act of 1887, Pub. L. 49-41, 24 Stat. 379, places the start of these departures in the late nineteenth century. See John F. Duffy, *The FCC and the Patent System: Progressive Ideals, Jacksonian Realism, and the Technology of Regulation*, 71 U. COLO. L. REV. 1071 (2000).

[5] The most influential statement of this view is STEPHEN SKOWRONEK, BUILDING A NEW AMERICAN STATE: THE EXPANSION OF NATIONAL ADMINISTRATIVE CAPACITIES, 1877-1920 (1982).

[6] For example, Paul Paskoff has emphasized the early role of the federal government in building transportation infrastructure PAUL F. PASKOFF, TROUBLED WATERS: STEAMBOAT DISASTERS, RIVER IMPROVEMENTS, AND AMERICAN PUBLIC POLICY, 1821-1860 (2007). Peter Rousseau and Richard Sylla have claimed that the policies Alexander Hamilton put in place as the nation's first treasury secretary laid the foundation for subsequent financial development by the states and thus for economic growth. Peter L. Rousseau & Richard Sylla, *Emerging Financial Markets and Early U.S. Growth*, 42 EXPLORATIONS IN ECONOMIC HISTORY 1 (2005); Richard Sylla, *Financial Foundations: Public Credit, the National Bank, and Securities Markets*, *in* FOUNDING CHOICES: AMERICAN ECONOMIC POLICY IN THE 1790S 59 (Douglas A. Irwin & Richard Sylla eds. 2011); Max Edling has traced the origins of the U.S. fiscal-military state to the founding era, MAX M. EDLING, HERCULES IN THE CRADLE: WAR, MONEY, AND THE AMERICAN STATE, 1783-1867 (2015); Richard White has documented the state's importance for westward expansion and the destruction of native populations, RICHARD WHITE, "IT'S YOUR MISFORTUNE AND NONE OF MY OWN": A HISTORY OF THE AMERICAN WEST (1991), esp. Part II; and Lindsay Schakenbach Regele has tracked its role in the early development of manufacturing. LINDSAY SCHAKENBACH REGELE, MANUFACTURING ADVANTAGE: WAR, THE STATE, AND THE ORIGINS OF AMERICAN INDUSTRY, 1776-1848 (2019). Brian Balogh has argued that the federal government did not govern less during the nineteenth century, it just governed "less visibly." BRIAN BALOGH, A GOVERNMENT OUT OF SIGHT: THE MYSTERY OF NATIONAL AUTHORITY IN NINETEENTH CENTURY AMERICA (2009).

[7] Richard John studied the bureaucratic development of the Post Office from its creation by the Second Continental Congress in 1775, emphasizing the role it played in building a national transportation and communications infrastructure RICHARD R. JOHN, SPREADING THE NEWS: THE AMERICAN POSTAL SYSTEM FROM FRANKLIN TO MORSE (1995). Peter Conti-Brown and Sean Vanatta showed how the Office of the Comptroller of the Currency invented a system of bank supervision out of whole cloth in the decades following its creation in 1863. PETER CONTI-BROWN & SEAN H. VANATTA, PRIVATE FINANCE, PUBLIC POWER: A HISTORY OF BANK SUPERVISION IN AMERICA (2025). Alan Olmstead and Paul Rhode tracked the extraordinary use of federal power by the Bureau of Animal Industry after 1884 to control the infectious diseases spread by cattle. ALAN L. OLMSTEAD AND PAUL W. RHODE, ARRESTING CONTAGION: SCIENCE, POLICY, AND CONFLICTS OVER ANIMAL DISEASE CONTROL (2015). Daniel Carpenter explored the ways in which officials at the Post Office and the Department of Agriculture gained autonomy and power for their agencies in the period after the Civil War, while their counterparts at the Interior Department failed. DANIEL CARPENTER, THE FORGING OF BUREAUCRATIC AUTONOMY: REPUTATIONS, NETWORKS, AND POLICY INNOVATION IN EXECUTIVE AGENCIES, 1862-1928 (2020).

who subscribe to the Grand Narrative—not in design, not in practice, and not in the view of the courts.[8]

Jerry Mashaw has synthesized much of this literature, along with additional research of his own, and drawn out its implications for how we should understand the history of both the administrative state and the constitutional order during this "lost one hundred years."[9] His core insight is that contemporary concerns about the legitimacy of the administrative state are based on generalizations about the past that "are quite often simply wrong."[10] "From the earliest days of the Republic," he found, "Congress delegated broad authority to administrators, armed them with extrajudicial coercive powers, created systems of administrative adjudication, and specifically authorized administrative rulemaking."[11] Sometimes statutes subjected administrators to the president's authority, but in most cases presidential leadership played little role in the agencies' development or control. Congressional oversight was a more important source of accountability, but Congress typically depended on administrators' knowledge and insight, even when it came to drafting subsequent legislation.[12] Nor, for the most part, did the courts intervene, either to invalidate statutory design choices or to review agency decisions or policies for consistency with judicial interpretations of the law. Indeed, nineteenth-century

[8] See, e.g., Thomas W. Merrill, *Article III, Agency Adjudication, and the Origins of the Appellate Review Model of Administrative Law*, 111 COLUM. L. REV. 939 (2011); Jane Manners & Lev Menand, *The Three Permissions*, 121 COLUM L. REV. 1 (2021); Nikolas Bowie & Daphna Renan, *The Separation-of-Powers Counterrevolution*, 131 YALE L. J. 2020 (2022).

[9] JERRY L. MASHAW, CREATING THE ADMINISTRATIVE CONSTITUTION: THE LOST ONE HUNDRED YEARS OF AMERICAN ADMINISTRATIVE LAW (2012). For an alternative synthesis that emphasizes the decentralized and overlapping structure of American governance, see William J. Novak, *The Myth of the 'Weak' American State*, 113 AM. HIST. REV. 752 (2008) and William J. Novak, *The Concept of the State in American History*, *in* BOUNDARIES OF THE STATE IN US HISTORY 325 (James T. Sparrow, William J. Novak, & Stephen W. Sawyer eds. 2015).

[10] MASHAW, *supra* note 9, at 5. As Mashaw recounts in his preface, *id.* at viii, he had previously subscribed to these generalizations himself, but a quick initial look at the first volume of the US Statutes at Large was enough to convince him that they were misleading.

[11] *Id.* at 5.

[12] *Id.* at 290-291.

judges were more likely to see judicial review of administrative decisions as violating constitutional separation of powers than as preserving it.[13]

Our paper builds on Mashaw's analysis by examining the development of the United States Patent Office,[14] an administrative agency whose long history has been surprisingly neglected by historians and administrative law scholars.[15] We find that, once Congress created the Patent Office in 1836, officials in the agency took charge of designing an administrative structure, developing a set of internal procedures, and advising Congress on subsequent legislation, all as they worked to process applications for patents with the speed and accuracy that Congress demanded. This account resembles Mashaw's discussion of the development of other early federal agencies. However, we gain additional perspective on the evolving division of labor between the administrative state and branches of the federal government, particularly the courts, by studying the Patent Office's adjudication of patent interferences—inter partes administrative proceedings that determined priority of invention in cases where multiple applicants sought overlapping patent rights. Here our challenge to the historical accuracy of the Grand Narrative goes beyond Mashaw's by highlighting the pragmatic concerns that led to repeated restructurings of the division of labor between the Patent Office and the courts. A major concern was controlling inventors' persistent efforts to exploit interference procedures to

[13] *Id.* at 6-12, 301-308. Thomas Merrill traces the origins of the current model of appellate review of agency decisions by federal courts to the early decades of the 20th century. See Merrill, *supra* note 8.

[14] In 1975 Congress changed the name of the agency from "Patent Office" to "Patent and Trademark Office." Pub. L. 93-596, 88 Stat. 1945 (Jan. 2, 1975). Since this happened after the period of our study, we use the term "Patent Office" in this paper to conform to the usage in our sources.

[15] Notable exceptions include EDWARD C. WALTERSCHEID, TO PROMOTE THE PROGRESS OF THE USEFUL ARTS: AMERICAN PATENT LAW AND ADMINISTRATION, 1798-1836 (1998); Daniel Preston, *The Administration and Reform of the U.S. Patent Office, 1790-1836*, 5 J. EARLY REPUBLIC 351 (1985); Kara W. Swanson, *Making Patents: Patent Administration, 1790-1860*, 71 CASE W. RSRV. L. REV. 777 (2020); Robert C. Post, *'Liberalizers' versus 'Scientific Men' in the Antebellum Patent Office,* 17 TECH. & CULTURE 24 (1976) [hereinafter Post, *Scientific Men*]; Robert C. Post, PHYSICS, PATENTS, AND POLITICS: A BIOGRAPHY OF CHARLES GRAFTON PAGE (1976) [hereinafter POST, BIOGRAPHY OF PAGE].

gain strategic benefits from delaying the award of patents to rivals. But the sheer volume of work that interferences imposed on both the Patent Office and the courts was also a significant factor.

From the beginning, Congress sought to provide tribunals outside the Patent Office to review priority decisions in interferences. These early statutory appeal mechanisms never worked well, however, and, at the behest of the Patent Office, Congress repeatedly revised them, trying out a variety of configurations that included direct review by ad hoc arbitration panels, by individual judges, and by various courts. We find that pragmatic concerns drove these changes and see no evidence before the 1920s that Congress considered constitutional constraints as limiting its choice of available solutions. We note in particular the different way appeals from interference decisions were treated compared to appeals from rejections of applications. Separation of powers considerations would seem to set similar constraints on both types of appeals, yet they were handled quite differently. There was even a 23-year period (from 1870 to 1893) when direct appeal to the courts was eliminated for interference decisions but not for rejections. Although losing parties sometimes mounted legal challenges to these various review structures, they reached a dead end in the Supreme Court, which throughout the nineteenth century deferred to Congress's authority to make these choices.

The history of the US patent system begins in 1790, with Congress's first effort to delegate patent-granting authority to the executive branch, relying on the Secretary of State, the Secretary of War, and the Attorney General to determine which inventions were "sufficiently useful and important" to merit patents.[16] This delegation soon proved unworkable, leading to a dramatic change in course. From 1793 to 1836 the US operated under a patent registration

[16] Act of April 10, 1790, ch. 7, 1 Stat. 109 [hereinafter 1790 Patent Act] § 1. On the system proving unworkable see WALTERSCHEID, *supra* note 15.

system that minimized the role of the executive branch and relied more heavily on the courts. The 1793 Patent Act directed the Secretary of State to issue patents on all applications that met formal requirements without examining them for patentability, leaving the courts to sort out which issued patents met statutory standards for validity through litigation.[17] Section 1 of this paper shows that the Patent Act of 1836[18] was an attempt to reduce the opportunism that arose under this registration system by creating an administrative agency to vet applications from inventors before awarding patents. Although the new agency was housed in a cabinet department, higher executive branch officials played little role in its development. As Mashaw finds for other agencies, we show that, once authorized by Congress, the Patent Office effectively built itself from the ground up as it figured out how to accomplish its mission. Congress mostly ratified the Patent Office's improvised procedures and structures after the fact.

A case in point is the initiative taken by the Patent Office to curb the opportunistic use of interferences by parties seeking to block or delay the issuance of competitors' patents. Officials continually revised their internal procedures to speed the resolution of interferences. They also, as we show in Section 2, guided Congress through a series of attempts to reform the flawed statutory appeals process put in place by the 1836 Act, a process that spurred further opportunistic abuses. After several unsuccessful attempts at reform, in 1870 they convinced Congress to eliminate external appeals to a court in interferences while leaving them in place for rejections of patent applications—a difference in treatment that reflected the greater problem of opportunism in inter partes interferences compared to ex parte patent rejections.

Section 3 describes the dramatic improvement in efficiency that officials achieved after 1870 by leveraging the secrecy of the patent application process to resolve most interferences at

[17] Act of Feb. 21, 1793, ch. 11, 1 Stat. 318 [hereinafter 1793 Patent Act] §§ 1, 3, 6, 10.
[18] Act of July 4, 1836, ch. 357, 5 Stat. 117 [hereinafter 1836 Patent Act].

an early stage. Their innovations allowed them to head off parties' unfounded claims about invention dates—assertions that required much effort to disprove—and made it possible for most cases to be settled quickly without the need for a hearing or even for the parties to collect testimony and other evidence. However, as we discuss in Section 4, the Patent Office faced a much more difficult task in dealing with motions to dissolve that challenged the propriety of its interference declarations. On the one hand, officials recognized that well-founded motions helped ensure that applicants were not denied patent rights because of interferences that should never have been declared. On the other hand, they knew that even unsuccessful motions to dissolve provided opportunistic parties with a strategic tool to delay the award of a patent to the rightful inventor. The problem persisted through years of experimenting with different ways of getting it under control, until officials eventually concluded that the only solution was to pare down the appeals process within the Patent Office, to issue patents promptly based on their own frontline determinations of priority, and to hand off all appeals to the courts.

Section 5 shows how Patent Office officials deftly took advantage of the rise of antimonopoly sentiment in the late 1930s to secure legislation that moved appeals of interference decisions entirely to the courts. Although dissatisfied parties could still have their day in court, the Patent Office would award patents to the inventors it determined had priority without waiting for the conclusion of the appeals, thus curtailing the strategic benefit of appealing priority decisions for purposes of delay. As in 1870, this new structure applied only to interferences. The 1939 Act continued to provide a different division of labor between the Patent Office and the courts for reviews of *ex parte* patent rejections, where opportunism was not a serious problem.

Our emphasis in Sections 1 through 5 on the assiduousness with which Patent Office officials sought to improve efficiency and control opportunism might lead some readers to

wonder whether we have overlooked more self-interested drivers of their behavior. We cannot know for sure what was motivating the officials we study beyond what they said in public reports and testimony, but we can show that at least some of the major improvements they pushed for and secured (such as the elimination of appeals within the Patent Office) were not consistent with the standard prediction of public-choice theory that bureaucrats will seek to enlarge their domains.[19] To the extent that officials were self-interested, it makes more sense to see them as responding to external pressures, both from inventors and from Congress, to resolve interferences expeditiously. Inventors whose patents were caught up in interference delays could be highly vocal about their unhappiness. Congress required the Patent Office to report annually the number of patent applications awaiting action, and, when delays mounted, Commissioners were quick to explain the causes and propose solutions in their annual reports.[20] Throughout the period of our study, moreover, the Patent Office was resource-constrained. The two to three percent of applications involved in interferences consumed a disproportionate share of the time of its skilled workforce, delaying not only the patents involved in these disputes but also the processing of new applications.[21]

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[19] The classic works on public-choice theory are GORDON TULLOCK, THE POLITICS OF BUREAUCRACY (1965); ANTHONY DOWNS, INSIDE BUREAUCRACY (1967); and WILLIAM A. NISKANEN, JR., BUREAUCRACY AND REPRESENTATIVE GOVERNMENT (1971).

[20] See, e.g., 1916 COMM'R PAT. ANN. REP. at 10-11, (providing detailed breakdown of numbers of patents pending for more than two years, five years, ten years and 15 years and proposing speeding up prosecution through stricter enforcement of requirements on applicants and their attorneys); 1927 COMM'R PAT. ANN. REP. at 1, 5 (attributing increase in applications awaiting action from 43,765 in 1926 to 64,646 in 1927 to insufficient staffing)

[21] Some readers may wonder about the possibility of capture. Certainly, observers have criticized the Patent Office over the years for a pro-inventor bias that may have led it to issue too many patents of dubious value and validity. See, e.g., Post, *Scientific Men*, *supra* note 15; POST, BIOGRAPHY OF PAGE, *supra* note 15; Swanson, *supra* note 15; ADAM B. JAFFE AND JOSH LERNER, INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT (2004). Whether these pro-applicant policies arose from a sense of mission or from a more insidious form of capture, the Patent Office did not deny them. See, e.g., F.W.H. Clay, Ass't Comm'r Pat., *The Relation of the Examiner to the Inventor and his Attorney*, (Delivered before the fourth assistant examiners), in 1 J. PAT. OFF. SOC'Y 8 (1918) (advising examiners "one of your primary duties is to see that when applications are filed in this office they proceed without delay to patent…. In other words, if you have to choose between making a less thorough examination and a general and material delay in getting the applications through, it is probably more to the public interest that the prosecution be prompt….the general impression that the attorneys [for applicants] are arrayed on one side and examiners on the other of a never-

Section 6 shifts the focus of attention to the courts and to the Supreme Court's efforts to limit the volume of cases it heard. Although some early-twentieth-century decisions suggest that the justices were becoming less willing to defer to Congress in the design of appeals processes for administrative decisions, the Court's overarching concern during this era seems to have been less about the separation of powers than about controlling its own workload. In the end, the Court's efforts to block the flow of appeals had little effect on the handling of interferences and, if anything, reinforced the Patent Office's hard-fought efforts to get opportunism under control.

We end the paper before Congress's enactment of the Administrative Procedure Act (APA) in 1946.[22] The APA was a political compromise between supporters and critics of the New Deal that aimed to bring order to the tremendous growth in the number and activities of federal administrative agencies that occurred during the Great Depression.[23] Early in the process President Franklin D. Roosevelt appointed a committee headed by the attorney general to review existing administrative practices to find deficiencies and make suggestions for improvements.[24] Although the Final Report of the attorney general's committee indicates that members initially planned to include the Patent Office in this study, in the end they omitted it.[25] Nor, for that

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ending series of controversies, is entirely erroneous, and that it is due to a wrong impression of what we are all trying to do. We are in fact all attorneys for a public benefactor. The examiner, the inventor, and his attorney should all be in perfect harmony and sympathy, because they are all seeking the same object…"). We have found no evidence that the Patent Office was beholden to big business or to any industry or sector of the economy. Perhaps the breadth of economic interests affected by the patent system made industry capture more difficult, as policies favored by some sectors might elicit opposition from others. It is beyond the scope of this paper to document the many ways in which Patent Office procedures aimed to level the playing field for small, independent inventors. We simply note that the delays in interference proceedings that Patent Officials worked assiduously to eliminate were particularly harmful to those without the financial resources for long legal battles.

[22] Administrative Procedure Act of 1946, Pub. L. No. 79-404, ch. 324, 60 Stat. 237, codified as amended at 5 U.S.C. § 551 et seq.

[23] Roni Elias, *The Legislative History of the Administrative Procedure Act,* 27 FORDHAM ENVI'T L. REV. 207 (2015).

[24] For a contemporaneous account see Louis L. Jaffe, *The Report of the Attorney General's Committee on Administrative Procedures*, 8 U. CHI. L. REV. 401 (1941).

[25] Final Report of the Attorney General's Committee on Administrative Procedure (1941), S. Doc. No. 77-8 (1941), at 4 n.2 (explaining in a brief parenthetical that "the highly specialized character of the Patent Office and the insufficiency of the Committee's staff led first to postponement and then to abandonment of plans to study this agency").

matter, did they make any effort to understand the historical evolution of administrative practices in other early agencies.[26] As enacted, the APA provided a set of default rules of administrative procedure that aimed to fill gaps in the specific statutes governing each agency, including rules for judicial oversight of agency actions. These rules were applied only gradually to the Patent Office and other long-standing agencies. Even courts that reviewed decisions of the Patent Office after the passage of the APA continued much as they had done previously. Not until 1999, more than a half century later, did the Supreme Court hold in *Dickinson v. Zurko* that the APA governed judicial review of Patent Office fact-finding.[27] Today, largely because of the dominance of APA procedures, the distinctive features that characterized earlier administrative practices have been substantially erased from historical memory. This paper is part of an effort to recover that lost history.

Some readers may wonder about the extent to which it is possible to generalize from the history of the Patent Office. After all, the legislation that enabled it differed in its details from the acts that created other early agencies, as did the problems it faced and the structures and procedures it developed over time to solve them. But, as Mashaw has shown, despite differences in the details, the underlying constitutional principles at work during the administrative state's first century were essentially the same for all agencies: Congress would determine the initial setup, including how the agencies would interact with other parts of the government such as courts and department secretaries, later modifying the statute with the benefit of agency experience, and the Supreme Court would defer to the details of the specific statutes that

[26] The agencies the committee found time to study were mostly founded in the twentieth century. For those established earlier, the committee only researched current practice. For the list of agencies studied, see *id.* at 3-4. The committee published its research in a series of twenty-seven monographs, all available on Hathi Trust.
[27] Dickinson v. Zurko, 527 U.S. 150 (1999).

Congress enacted for each agency.[28] Although in recent years the Court has become notably less deferential toward both Congress and administrative agencies, it has never purported to apply to patent law and Patent Office procedures a different template for the separation of powers than it applies to other agencies administering other laws. To the contrary, in recent years the Court has rejected particularized understandings of patent law, taking instead a broader transsubstantive approach in patent cases to such matters as appellate review of factfinding, standards for injunctive relief, liability for inducement, availability of declaratory judgment, and application of antitrust laws.[29] Nor have the Court's recent decisions curbing the independence of administrative agencies exempted the Patent Office from the reach of the Grand Narrative. Indeed, in 2021, in *U.S. v. Arthrex*, the Court insisted that adjudication decisions in the Patent Office must be reviewable by the agency's head in conformity with the theory of the unitary executive, noting that such review is "the standard way to maintain political accountability and effective oversight for adjudication" across the administrative state.[30]

The Supreme Court's insistence on treating the Patent Office like other agencies makes it all the more important to study its history for the simple reason that it reaches further back than that of most of the other agencies in the crosshairs of Grand-Narrative-based challenges. To the extent that the Supreme Court invokes historical understandings of constitutional constraints as the basis for invalidating design features of current administrative agencies, it risks losing legitimacy if it relies on a view of history that excludes the practices of our oldest agencies going back to the founding era. The US administrative state did not begin in 1933 or even in 1887. By

[28] The Administrative Procedure Act now explicitly provides that the details of specific authorizing legislation for each agency control its procedures when they differ from the standard default provisions in the APA. See, e.g., 5 U.S.C. §§ 553, 554, 559 (recognizing that other statutes might provide different provisions for particular agencies).
[29] For a synthesis and review of these decisions, see Peter Lee, *The Supreme Assimilation of Patent Law*, 114 MICH. L. REV. 1413 (2016).
[30] See U.S. v. Arthrex, 594 U.S. 1, 20 (2021).

truncating its history, we truncate our understanding of what prior generations considered constitutionally permissible. Legal theorists may disagree about whether we should be bound today by those earlier understandings, but certainly we should not be bound by a mistaken view of what those understandings were.

1. The Making of an Administrative Agency

Article I of the Constitution gives Congress authority "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[31] It was not obvious at the outset that the exercise of this authority would require executive branch involvement. As petitions for patents streamed into Congress during its first session, legislators might well have decided to follow the practice of colonial and early state legislatures (and its own practice in other contexts) and issue patents by enacting private bills.[32] Instead, in the 1790 Patent Act Congress delegated the job of determining which inventions were "sufficiently useful and important" to warrant patents to three members of the president's cabinet—the Secretary of State, the Secretary of the War Department, and the Attorney General.[33] This first attempt to set up a patent examination system by commandeering the time of busy cabinet officials quickly proved unworkable. Rejecting as too costly a proposal to create a government office to evaluate patent applications, Congress in

[31] US Constitution, art. 1, S 8, cl. 8.
[32] WALTERSCHEID, *supra* note 15 at 82-87; B. Zorina Khan, *Looking Backward: Founding Choices in Innovation and Intellectual Property Protection*, in FOUNDING CHOICES, *supra* note 15 at 315; KENNETH W. DOBYNS, THE PATENT OFFICE PONY: A HISTORY OF THE EARLY PATENT OFFICE 11-16 (1994).
[33] 1790 Patent Act, *supra* note 16 § 1.

1793 switched from an examination system to a registration system modeled loosely on British practice.[34]

The 1793 Patent Act set the basic standard for patentability in broad terms: The Secretary of State could award a patent to any person or persons who "shall allege that he or they invented any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter, not known or used before the application."[35] But Congress did not task any administrative official with interpreting the standard of patentability or ensuring that applications satisfied it before issuing patents. Instead, inventors who submitted their applications in the form required by law, including the necessary oaths, allegations, descriptions, drawings, and so on, and paid the required fees, would receive patents as a matter of course.[36]

Whether their inventions in fact merited patents could not be determined without litigation. And there was plenty of litigation.[37] Any person, within three years of a patent issuing, could submit an "oath or affirmation" to a federal district court judge charging that the patent had been obtained "surreptitiously, or upon false suggestion," and if the judge determined the charge had merit, he could order repeal of the patent.[38] In addition, when a patentee sued for infringement, the defendant could avoid liability by presenting evidence that the patent had been

[34] 1793 Patent Act, *supra* note 17. For the legislative history see WALTERSCHEID, *supra* note 15 Ch. 7.
[35] 1793 Patent, *supra* note 17 § 1.
[36] As the Supreme Court explained in *Grant v. Raymond*, 31 U.S. 218 (1832), "It is undoubtedly true that the Secretary of State may be considered, in issuing patents, as a ministerial officer. If the prerequisites of the law be complied with, he can exercise no judgment on the question whether the patent shall be issued." *Id.* at 241.
[37] B. Zorina Khan counted 116 reported cases between 1800 and 1839, but Christopher Beauchamp turned up many unreported cases in the one district court he studied, the Southern District on New York. B. Zorina Khan, *Property Rights and Patent Litigation in Early Nineteenth-Century America*, J. ECON. HIST. 58 (1995); Christopher Beauchamp, *Repealing Patents*, 72 VANDERBILT L. REV. 647 (2019).
[38] 1793 Patent Act, *supra* note 17, § 10.

obtained deceptively or fraudulently or that the invention was not originally discovered by the patentee but had previously been in use or described in some public work.[39]

The many lawsuits filed during the 43-year life of the 1793 Act highlight the ways the registration system encouraged opportunistic behavior. Some fraudsters secured patents for technologies that were already in use and threatened businesses that adopted them with infringement actions. Others, seeking to avoid paying for licenses, harassed legitimate inventors with lawsuits charging that the technology embodied in their patents was already in the public domain. Still others copied the specifications and models that inventors submitted with their applications and obtained similar patents under their own names, forcing the original inventors to sue them to protect their intellectual property. And still others patented inventions that they knew did not work with the aim of selling the patent rights to gullible producers.[40]

Although officials in the Patent Bureau, as the office was then called, lacked authority to reject patent applications that complied with statutory formalities, they tried to discourage applicants from patenting inventions that were not new and sometimes even balked at issuing the patents. Although he acknowledged in an 1811 pamphlet that the Patent Bureau had "no discretionary power to refuse a patent,"[41] William Thornton, Supervisor of Patents from 1802 until his death in 1828, was more than once rebuked by the Attorney General for refusing to issue patents on applications he thought lacked novelty.[42] On one occasion he went so far as to publish in multiple newspapers his conviction that a patent obtained by one Michael Withers for

[39] 1793 Patent Act, *supra* note 17, §§ 5, 6.
[40] Beauchamp, *supra* note 37, at 673-679; Preston, *supra* note 15. See also Patent Bureau Supervisor Henry L. Ellsworth, Report to Congress dated 29 January 1836, published in 8 MECHANICS' MAGAZINE & J. MECHANICS' INSTITUTE 175 (1836).
[41] Thornton's warning was part of a pamphlet he circulated entitled "Patents" dated March 5, 1811, reprinted in 6 J. PAT. OFF. SOCIETY 97, 98 (1923).
[42] WALTERSCHEID, *supra* note 15 at 259-262; R. FARNHAM, 7 OFFICIAL OPINIONS OF THE ATTORNEYS GENERAL OF THE UNITED STATES (1852) at 170-71 (Letter dated Mar. 22, 1812 from Att'y Gen'l to Sec'y of State).

a common type of hardware was fraudulent.[43] For the most part, however, officials had recourse to little more than moral suasion to prevent abuse.

As complaints about the registration system mounted in the early 1830s, officials in the Patent Bureau took it upon themselves to develop a proposal to replace it with an examination system. Some scholars attribute the plan to Charles M. Keller, who had charge of the model room and who, continuing the practice pioneered by Thornton, saw it as his job to advise patent applicants when their inventions lacked novelty.[44] However, Keller's ideas did not receive serious consideration until the politically well-connected Henry L. Ellsworth was made Supervisor of Patents in 1835. With Ellsworth's help, Keller gained the ear of John Ruggles, the newly elected senator from Maine, himself an inventor with a personal interest in reforming the patent system.[45] That December Ruggles secured authorization from his Senate colleagues to form a committee to consider revising the patent laws. The committee report issued the next spring catalogued the many ills arising from the registration system, including the flood of "worthless and void" patents that conflicted with and infringed on one another, the "extensive and serious" frauds perpetrated on the public, and the "great number of lawsuits … which are daily increasing in an alarming degree, onerous to the courts, ruinous to the parties, and injurious to society."[46] Drawing on Keller's and Ellsworth's proposal that patent applications be vetted by expert examiners, the committee drafted a bill creating a new administrative agency, to be called

[43] Withers unsuccessfully sued Thornton for libel. On Thornton, see Preston, *supra* note 15; WALTERSCHEID, *supra* note 15 at 265-268; and Swanson, *supra* note 15.
[44] Keller took over charge of the model room from his father in 1829. Thaddeus Hyatt, *Charles M. Keller and the American Patent Office*, 14 SCIENTIFIC AMERICAN 310 (1859): Post, *supra* note 15 at 27; DOBYNS, *supra* note 32 at 92-99.
[45] Post, *supra* note 15 at 27. Walterscheid tells a somewhat different version of the story in which Ruggles first visited the Patent Bureau as a prospective patentee and met Keller when he inquired about delays in the process. WALTERSCHEID, *supra* note 15 at 421-23.
[46] S. Rep. No. 24-338 (1836), reprinted as *1836 Senate Committee Report* in 18 J. PAT. OFF. SOC'Y 853 (1836) [hereinafter Ruggles Committee Report] (language quoted in text appears in the reprint at 857).

the United States Patent Office, with authority to assess inventions for novelty and utility before awarding patents.[47] The bill passed both houses of Congress with only minor amendments, and President Andrew Jackson signed it into law on July 4, 1836.[48]

Congress initially kept the new agency in the State Department, where the Patent Bureau had been located, but in 1849 transferred it to the Department of the Interior and in 1925 to the Department of Commerce, where it remains today.[49] Headed by a Commissioner of Patents appointed by the President and confirmed by the Senate, the agency was staffed by examiners and clerks appointed by the Commissioner with the approval of the department secretary.[50] Before the twentieth century, however, department secretaries rarely displayed any interest in the Patent Office's internal affairs save as a source of patronage jobs. Although many of the early examiners were prominent men of science, after the move to the Department of the Interior in 1849[51] they were largely displaced by political appointees.[52] Indeed, few experienced examiners from any background survived the wholesale purges that followed James Buchanan's election to

[47] The Ruggles Committee Report drew on a report that Ruggles had earlier solicited from Ellsworth. The original, dated January 29, 1836, later surfaced at an estate sale and a transcription is available, courtesy of the University of New Hampshire's Franklin Pierce School of Law, at https://ipmall.law.unh.edu/content/patent-history-materials-index-29-jan-1836-letter-henry-l-ellsworth-regarding-defects-patent, accessed 9 Sept. 2025.

[48] Patent Act of 1836, *supra* note 18. Why it took until 1836 for Congress to act is not clear. The legislation was part of a broader set of bureaucratic reforms undertaken by the Jackson administration around the same time that included the General Land Office, the Indian Bureau, and the Post Office. Daniel Preston has argued that all these agencies were in crisis at that time. Preston, *supra* note 15 at 350-352. But the reforms were also enabled by new Jacksonian-era ideas about the administrative state. For scholarly debate about those ideas, see LEONARD D. WHITE, THE JACKSONIANS: A STUDY IN ADMINISTRATIVE HISTORY, 1829-1861 (1954); MATTHEW A. CRENSON, THE FEDERAL MACHINE: BEGINNINGS OF BUREAUCRACY IN JACKSONIAN AMERICA (1975); and MASHAW, *supra* note 9 Ch. 8.

[49] See Library of Congress Blogs, "The Peripatetic U.S. Patent Office: Locations 1790 to Present," https://blogs.loc.gov/inside_adams/2020/07/the-patent-office/#:~:text=During%20this%20time%2C%20the%20Patent,for%20the%20next%2076%20years, accessed Jan. 10, 2025.

[50] 1836 Patent Act, *supra* note 18, §§ 1, 2.

[51] Act of March 3, 1849, ch. 108, 9 Stat. 318.

[52] Robert C. Post has written that the Patent Office staff in the late 1840s was "perhaps the best assembly of physics and engineering brainpower under one roof anywhere in the country." See Post, *supra* note 15, at 38.

the presidency in 1856 and Abraham Lincoln's in 1860.[53] The situation did not change until 1869 when Samuel S. Fisher, newly appointed Commissioner of Patents, secured the backing of Secretary of the Interior Jacob D. Cox, an ardent supporter of civil service reform, to institute written, anonymously graded tests for new hires.[54] That was fourteen years before the Pendleton Act spread similar reforms across the federal workforce,[55] and early accounts suggest that the Patent Office exams went a long way toward professionalizing the examiner corps.[56]

Fisher had been a prominent patent attorney before he assumed the commissionership in 1869, and his experience gave him ideas about how Patent Office procedures might be improved. He did not serve as commissioner for very long, resigning after less than two years to return to private practice.[57] During his short term in office, however, he was a whirlwind of activity. In addition to instituting hiring exams, he advised Congress on the provisions of the 1870 Patent Act, improved the dissemination of information about patents to the public, and reorganized and streamlined the internal operations of the Patent Office, most notably for the handling of interferences.[58] As we will see, commissioners often seemed to take the lead in administrative innovations in the Patent Office, especially when new legislative authority or funding was

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[53] Post has argued that the dismissals were not "*purely* partisan"—that they were motivated as well by the growing political influence of inventors who complained that the scientists in the office were rejecting too many applications. Post, *supra* note 15 at 49-51. See also Robert C. Post, Physics, Patents, and Politics: The Washington Career of Charles Grafton Page 1838-1866, 109, 160-161 (1973) (Ph.D. dissertation, University of California, Los Angeles).
[54] 1869 Comm'r Pat. Ann. Rep. 6-7; William I. Wyman, *Seventy-Five Years of American Patent Administration*, 123 SCI. AM. 340-341, 364-364 (1920) [hereinafter Wyman, *75 Years*]; and William I. Wyman, *Samuel Sparks Fisher: Commissioner of Patents, 1869-70*, 2 J. PAT. OFF. SOC'Y 490 (1920) [hereinafter Wyman, *Fisher*]. Cox's support for civil service reform led to conflict with President Ulysses S. Grant and to Cox's departure from the cabinet. Eugene David Schmiel, The Career of Jacob Dolson Cox, 1828-1900: Soldier, Scholar, Statesman Ch. XIV (1969) (unpublished Ph.D. dissertation, Ohio State University).
[55] Pendleton Civil Service Reform Act, ch. 27, 22 Stat. 403 (1883).
[56] Wyman, *75 Years*, *supra* note 54 at 341, 364.
[57] Reportedly, he considered the salary inadequate and worried that his practice would suffer in his absence. He tried to resign even earlier, but President Ulysses S. Grant prevailed on him to stay a while longer. *In Memoriam: Samuel S. Fisher* (1874). Fisher died in an accident in 1874.
[58] Wyman, *75 Years*, *supra* note 54; Wyman, *Fisher*, *supra* note 54; "Past Leaders of the USPTO: Samuel Sparks Fisher, 1869-1870," https://www.uspto.gov/about-us/samuel-sparks-fisher, accessed Dec. 24, 2024; M. D. Leggett, *Death of Hon. S. S. Fisher*, 6 OFF. GAZ. PAT. OFFICE (11 Aug. 1874) 187.

necessary, although we cannot be sure that the ideas originated with them rather than coming from the professional staff.[59] Commissioners varied considerably in their prior experience with patent law, prior service in the Patent Office, and duration of their service as commissioner. Some commissioners were notably more innovative than others. Fisher was unusually effective in making big changes in a short period of time, perhaps because of a combination of prior experience and political connections.

Once the Patent Office gained control of its personnel decisions, for all practical purposes it operated independently of the Interior Department. The commissioners did not even make annual reports to the secretary until 1900.[60] An efficiency study of the Patent Office commissioned by President William Howard Taft pursuant to a joint resolution of Congress provides a rich description of the autonomy of the Patent Office.[61] According to the 1912 report, although the secretary "was charged with the duty of appointing" Patent Office employees, the Commissioner of Patents was really in charge because appointments were "subject by law to the nomination of the Commissioner." In other respects, too, the secretary exercised only "nominal" power: "no appeal lies to him, nor has he any authority to control the decisions of the Patent Office."[62]

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[59] For a model that explains why political appointees like commissioners might play such a prominent role in innovation, see Christian Fong, Heat Shields (unpublished working paper, 2025) (on file with authors).

[60] The introduction to the first report to the secretary in 1900 indicated that it was compiled at the secretary's request. See *Report of the Commissioner of Patents to the Secretary for the Fiscal Year 1899-1900*, reprinted in 92 OFF. GAZ. PAT. OFF. 785 (July 24, 1900).

[61] PRESIDENT'S COMMISSION ON ECONOMY AND EFFICIENCY, REPORT OF THE INVESTIGATION OF THE UNITED STATES PATENT OFFICE, H.R. Doc. No. 62-1110 (1912) [hereinafter 1912 President's Commission Report],

[62] The report recommended that the Patent Office be made an independent agency, "subject to the supervision of the President where any supervision is needed." *Id.* at 24-25. Apparently, the Interior Department controlled the budget for facilities in the building it shared with the Patent Office, and "the state of repair of the floors, walls, etc., and the condition of the furniture and equipment" was much better in the one quarter occupied by the Department than in the three-quarters occupied by the Patent Office. On the lack of authority of department secretaries to review adjudication decisions by the commissioner, see *Butterworth v. U.S. ex rel. Hoe*, 112 U.S. 50 (1884) and discussion in text at notes 111-115 *infra*.

In contrast to the secretaries' merely nominal involvement, members of Congress took an active interest in the business of the Patent Office. Within a year of passing the 1836 Act, the House and Senate had each created a standing Committee on Patents, and Congress had ordered the Commissioner of Patents to make annual reports detailing the revenues and expenditures of the office and listing the patents issued since the last report.[63] These reports would provide the Patent Office with an official organ it could use to make the case for increased budgetary appropriations and to propose changes to the patent system that required additional legislation.

Members of Congress seem to have been especially preoccupied with the amount of time it took the Patent Office to review patent applications. As early as 1848, for example, the House of Representatives instructed its Committee on Patents to investigate the reasons for delay in issuing patents.[64] Commissioners seem to have taken Congress's concern to heart, while also exploiting it to seek increases in staff.[65] At their instigation, the number of examiners grew from one in 1836 (Keller) to two dozen by 1860. Then, as applications for patents soared in the last third of the nineteenth century, the number continued to rise to more than 225 examiners by the end of the century (see Figure 1 and Table 1). Although the number of examiners grew faster during this period than the number of patent applications, the increasing complexity of technology and the growing body of prior art that had to be searched in the examination process made it challenging for the growing staff to keep up with the workload. The Patent Office reported in 1901 that 20 of the 36 examining divisions were "in arrears," meaning that they were

[63] Act of March 3, 1837, ch. 45, 5 Stat. 191, § 14.
[64] CONG. GLOBE, 30th Cong., 2d Sess., 85 (1848). See Margaret M. Conway, *Expediting Patent Office Procedure—A Legislative History: A Study of the Subcommittee on Patents, Trademarks, and Copyrights of the Committee of the Committee on the Judiciary, United States Senate*, 86th Cong., 2nd Sess. 4 (1960).
[65] See, e.g., 1853 COMM'R PAT. ANN. REP. CONG. at 12-15 (1853); 1858 COMM'R PAT. ANN. REP. CONG. at 5; 1875 COMM'R PAT. ANN. REP. CONG., in 9 OFF. GAZ. PAT. OFF. 101, 182 (Jan. 18, 1876); 1891 COMM'R PAT. ANN. REP. Cong., in 58 OFF. GAZ. PAT. OFF. 651, 652 (Feb. 2, 1892); 1894 COMM. PAT. ANN. REP. (1894) in 70 Off. Gaz. Pat. Off. 1195, 1196 (Feb. 26, 1895).

not able to take up new cases within a month of their filing dates. Examiners in divisions that were in arrears were required to work overtime, and the amount of overtime imposed that year was equivalent to hiring 20 additional examiners working normal hours.[66]

Retaining skilled examiners was a persistent problem. Commissioners repeatedly complained to Congress that the salaries authorized for examiners were too low relative to what professionals with their knowledge and experience could earn in the private sector, but they had little success convincing Congress to approve higher salaries.[67] Congress was willing, however, to divide the examining corps into ranks with different pay scales and to expand the number of examiners at the lower-paid ranks, enabling the Patent Office to create an internal job ladder by adding to the three existing ranks of examiners (principal, first assistant, and second assistant) the new ranks of third assistant in 1873 and fourth assistant in 1883. Entry-level hires who proved their worth and stayed in the job could move upward within the examining ranks and earn increasing salaries.[68] Patent Office officials were also able to improve efficiency and consistency by sorting examiners into ever more specialized divisions, a strategy that facilitated the training and supervision of new hires in specialized technological areas by their division superiors. The

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[66] 1901 COMM'R PAT. ANN. REP. CONG. at 12. See also 1912 President's Commission Report, *supra* note 61 at 103-106.

[67] Principal examiners earned $2,500 per year in 1865, and their nominal salary remained at that level or less (from 1879 to 1889 it was $2,400) through 1907, after which it was raised to $2,700. Only in the 1920s were salaries significantly increased, with principal examiners earning $3,900 a year in 1923. Congress's reluctance to increase salaries probably owed in part to the steady deflation of the late nineteenth century, which increased the real value of these earnings, but that deflation ended with the recovery from the Depression of the '90s. Salaries are from the *Official Register of the United States* for 1865 to 1909 [hereinafter *Official Register]*. The 1923 figure is from GUSTAVUS A. WEBER, THE PATENT OFFICE: ITS HISTORY, ACTIVITIES AND ORGANIZATION 78-79 (1924). The consumer price index is from Susan B. Carter, et al., *Historical Statistics of the United States: Millennial Edition Online* (New York, Cambridge University Press, 2006), Series Cc2, https://hsus-cambridge-org.yale.idm.oclc.org/HSUSWeb/toc/tableToc.do?id=Cc1-2. For examples of commissioners' complaints that examiners' salaries were too low relative to their outside opportunities, see COMM'R PAT. ANN. REP'T CONG. for 1874, 1876, 1881, 1884, 1888, 1897, and 1906.

[68] A Fourth Assistant Examiner hired in 1883 at a salary of $1,200 a year could be promoted to Third Assistant Examiner at $1,400, to Second Assistant Examiner at $1,600, to First Assistant Examiner at $1,800, and finally to Principal Examiner at $2,400. See *Official Register, supra* note 67 for 1885. The registers show that the Patent Office hired a small number of women (some of whom were married) as assistant examiners and promoted them within the ranks of assistant examiners but not, it seems, to the rank of principal examiner.

number of divisions increased over time in response to the development of new technologies, rising from twenty-two in 1871 to thirty by 1891 to forty-three by 1911, and including the addition of such "high-tech" fields as internal combustion engines, electric railways and signaling, and industrial chemistry.[69] Although we cannot prove causation, turnover declined over time. In 1891, eighteen of thirty principal examiners had been in the examining ranks for at least 10 years, and five had been there at least twenty years. By 1911, thirty-six of forty-three principal examiners had at least twenty years of experience.[70] The 1912 President's Commission Report found that between 1901 and 1912 the rate of resignation for examiners was less than 10 percent per year, with most departures coming from the lower ranks. Only six of the 234 resignations that occurred over these years were of principal examiners (the highest rank) and only nine were of first assistants.[71]

Patent Office officials also took charge of setting up internal procedures for the agency's operations. The first version of what came to be called the "Rules of Practice in the United States Patent Office" was a pamphlet, "Information to Persons Having Business to Transact at the Patent Office," issued shortly after passage of the 1836 Act.[72] This pamphlet stuck close to the statute, interspersing liberal quotations from the new law with specific details of the forms to be used and procedures applicants should follow. But the Patent Office soon began to develop a more expansive set of rules on procedural matters that the statute neither covered nor explicitly

[69] *Official Register, supra* note 67 for 1871, 1891, and 1911.
[70] We tracked the first appearances of these individuals as examiners in the *Official Register, supra* note 67, for 1865 to 1911.
[71] 1912 President's Commission Report, *supra* note 61 at 115. The report suggested some additional improvements, mainly to improve training by increasing the number of principal examiners relative to the lower ranking examiners they supervised and to institute examinations for promotions. *Id.* at 109-122.
[72] *Information to Persons Having Business to Transact at the United States Patent Office, reprinted in* 8 MECHANICS' MAGAZINE & J. MECHANICS' INSTITUTE 118 (1836) (available from Hathi Trust).

authorized the officials to address.[73] The 1851 version, published in the commissioner's *Annual Report to Congress* of that year, began with a forthright assertion of the commissioner's "constructive" power to make rules for the Patent Office's operations: "The following forms and rules are founded, the first upon positive law, and the second upon the constructive power the Commissioner has to issue such orders as will secure impartial justice to applicants and facilitate the transaction of business." The document went on to assert that the "rules, having their origin in the Commissioner, can be revised or modified at his discretion."[74]

Congress never challenged this broad interpretation of the commissioners' inherent powers, though, from time to time, it explicitly granted them narrower rulemaking authority for specific procedures. In 1839, for example, it authorized the commissioner to make rules governing the taking of evidence in contested cases (that is, in interferences).[75] In 1861, it not only ratified steps that the Patent Office had taken on its own to establish a Board of Examiners-in-Chief to hear appeals from examiners' decisions,[76] but also gave the commissioner explicit statutory authority to set rules for the board's operation.[77] Commissioners did not limit themselves to these explicit authorizations, but continued to assert their "constructive power" to promulgate rules more broadly by issuing new and more elaborate versions of the earlier pamphlets. Congress finally formalized the commissioners' constructive power over procedures in Section 19 of the Patent Act of 1870, which authorized them to "establish rules and regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office."[78]

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[73] See WOODBURY LOWERY, INTERFERENCE PROCEEDINGS IN THE UNITED STATES RULES OF PRACTICE 1869-1891 iii-iv (1891) (discussing evolution in statutory authority for Patent Office rules of procedure).
[74] 1851 COMM'R PAT. ANN. REP. CONG., H.R. DOC. 32-102 at 491-518.
[75] Act of March 3, 1839, ch. 88, 5 Stat. 353 [hereinafter 1839 Patent Act] § 12
[76] See section 2 *infra*.
[77] Act of March 2, 1861, ch. 88, 12 Stat. 246 [hereinafter 1861 Patent Act] §1.
[78] Act of July 8, 1870, ch. 230, 16 Stat. 198 [hereinafter 1870 Patent Act] § 19. The statute made this rule-making authority "subject to the approval of the Secretary of the Interior," but as already noted, the 1912 President's

Thereafter, the Patent Office frequently revised and expanded its rulebook—sometimes more than once a year.[79]

This account of the nineteenth-century history of the Patent Office highlights the extent to which the agency, for all practical purposes, built itself. Acutely aware of the problems of opportunism that the 1793 registration system had encouraged, officials of the predecessor Patent Bureau had proposed to Congress the establishment of a new examination system under which inventions would be evaluated for novelty before they could be patented. Once they found a receptive Senator Ruggles to shepherd the proposal into law in 1836, it was Patent Office officials who figured out how to make the plan work, putting flesh on the bare bones of the legislation by developing their own staffing hierarchy and internal procedures. In this endeavor, higher-ranking executive branch officers were more of a hindrance than anything until the Patent Office broke free of the patronage obligations that department secretaries had foisted on it. Congress played a bigger role in the Patent Office's internal development, but for the most part it followed the agency's lead—increasing appropriations at the behest of the commissioners (though never to the extent requested) and ratifying officials' design innovations ex post, sometimes explicitly and sometimes by implication. In the years after 1870, these patterns would be repeated time and again. As Patent Office officials battled new problems of opportunism that threatened their mission to examine inventions for novelty and issue patents promptly to those that met the standard, they modified their internal procedures, turning not to the executive branch but to Congress whenever their innovations required additional funding or formal authorization.

Commission Report concluded that the Secretary's authority was merely nominal. See *supra* notes 61-62 and accompanying text.

[79] For example, in 1873 new editions of the Patent Office Rules of Practice were released in both March and September.

2. Structuring Interference Adjudication and Review

An important defect of the registration system in effect from 1793 to 1836 was that there was no way to prevent more than one inventor from patenting the same invention. Although the 1793 Act included an arbitration mechanism for resolving the priority of conflicting applications,[80] the Patent Bureau lacked the authority to deny any applicant a patent, leaving the task of determining validity—whether for lack of priority or on any other available ground—to subsequent litigation in the courts. When Congress replaced the registration system with an examination system in 1836, it provided for an administrative process to resolve conflicts among interfering applications within the Patent Office before the patents were issued,[81] aiming, as the Ruggles Committee Report explained, to reduce the "great number of lawsuits" that resulted from the "interference and collision of patents."[82] The 1836 Act gave the commissioner authority to declare an interference if, in his opinion, a patent application conflicted with another application or with an unexpired patent, to decide which of the inventors had priority, and to issue patents accordingly.[83] It also set up two avenues for appealing the commissioner's decisions: an administrative appeal to an outside tribunal—initially an ad hoc "board of examiners" appointed by the secretary—that delayed the issuance of the patent until resolved; and a de novo bill in equity proceeding that could be filed in a federal court after the patent had been issued.[84]

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[80] 1793 Patent Act, *supra* note 17, § 9 (providing for submission of "interfering applications" to three arbitrators, one to be chosen by each of applicants and the third by the Secretary of State).
[81] 1836 Patent Act, *supra* note 18, § 8.
[82] Ruggles Committee Report, *supra* note 46 at 857.
[83] 1836 Patent Act, *supra* note 18 § 8. Before 1952 the commissioner could not cancel a patent already awarded, even if he found that another applicant had priority, but he could award another patent to the applicant with priority.
[84] 1836 Patent Act, *supra* note 18, §§ 7, 8, 16. The 1836 Patent Act provided only the first remedy (appeal to a board of examiners) to inventors whose applications for patents were rejected by the Patent Office, *id.* § 7, but the 1839 Patent Act extended the remedy by bill in equity to those inventors as well. 1839 Patent Act, *supra* note 18, § 10. See P. J. Federico, *Evolution of Patent Office Appeals*, 22 J. PAT. OFF. SOC'Y 838, 844 (1940) [hereinafter Federico Evolution Part I].

As noted above, the 1839 Act gave the commissioner power to make rules for handling "contested cases." From early on, commissioners delegated the task of identifying interfering applications to the examiners who were already reviewing them for patentability, along with responsibility for determining which inventor had priority. The problem with this practice, as noted in the commissioner's annual report for 1860, was that it yielded inconsistent procedures and decisions. With each examiner disposing of his own interferences, "there were as many different sets of rules and principles established as there were differently constituted minds," sowing confusion and complaint.[85] Without waiting for specific statutory authorization, Commissioner Philip F. Thomas addressed the problem in 1860 by assigning "one of the most practiced and competent examiners" to take over the adjudication of priority in all interference cases. He suggested in his annual report for that year that Congress should make the arrangement permanent, "giving the sanction of positive enactment to a rule eminently successful, if not imperatively required, in the future conduct of the business of the office."[86] Congress belatedly (and only indirectly) provided legislative sanction for an examiner of interferences by appropriating an annual salary of $2,500 for the position in the 1870 Patent Act, leaving it to the Patent Office to define the job and its duties.[87]

Inventors who were dissatisfied with the rulings of the examiner of interference often appealed to the commissioner, in whom the statute had formally vested authority to decide interferences since 1836. The increasing business of the Patent Office soon made the volume of these appeals too burdensome for the commissioner to handle, however, and by the 1840s,

[85] 1860 COMM'R PAT. ANN. REP. CONG. at 7.
[86] *Id.* The 1860 report was signed by Acting Commissioner S. T. Shugert during the interregnum between the departure of Commissioner Thomas on December 10, 1860 and the arrival of Commissioner David P. Holloway on March 28, 1861.
[87] 1870 Patent Act, *supra* note 78 § 4.

commissioners were creating ad hoc boards of two or more examiners to hear appeals on their behalf.[88] Worried that these ad hoc boards, which "lack[ed] permanence" and were "constantly changing," could not maintain "uniformity in action and in the assertion of principle," Commissioner Joseph Holt withdrew three examiners from their frontline adjudication duties in 1858 and assigned them to hear appeals on a full-time basis.[89] Declaring the results "eminently satisfactory" but lamenting the effective reduction in the size of the examining corps, Holt asked Congress for a "legalization" of the board so that he could restore the full number of authorized frontline examiner positions.[90] Congress provided the necessary statutory authority in the 1861 Patent Act. "[F]or the purpose of securing greater uniformity of action in the grant and refusal of letters-patent," the act created three new positions, designated as examiners-in-chief, to be appointed by the President with advice and consent of the Senate. The examiners-in-chief were to be "persons of competent legal knowledge and scientific ability," whose job was to review both rejections of patent applications by examiners and decisions of examiners in interferences.[91]

Although enacted in response to the commissioner's request, the 1861 Act constrained the evolution of Patent Office procedures in unprecedented ways that soon proved problematic. Prior statutes had not imposed any internal appeals structure on the Patent Office, but rather concentrated authority in the person of the commissioner. As the caseload of the office grew, commissioners had turned increasingly to the examining staff to help oversee performance and adjudicate appeals. However, the non-statutory boards to which the commissioners delegated these tasks were merely advisory; nothing in the statutes required commissioners to use them or prevented them from restructuring the process to eliminate them. The 1861 Act took away this

[88] This practice was referenced in *In re Aiken*, 1 F. Cas. 226 (1850). See Federico Part I, *supra* note 84 at 854-855.
[89] 1857 COMM'R PAT. ANN. REP'T CONG. 7-8.
[90] 1858 COMM'R PAT. ANN. REP'T CONG. 5.
[91] 1861 Patent Act, *supra* note 77 § 2.

flexibility. By codifying evolving practice into two fixed internal appeals—first, from the individual examiners to the examiners-in-chief, and second, from the examiners-in-chief to the commissioner—the statute locked this particular structure in place, limiting commissioners' ability to modify the system to address emerging problems without further legislation. The two levels of appeal may have improved the consistency of decisions within the Patent Office—a goal that featured prominently in commissioners' reports to Congress—but, as we will show, the arrangement did little to relieve the burden on the commissioner. It also created new opportunities for parties to use appeals strategically to delay the issuance of rivals' patents.

Perhaps policy makers should have known better. Problems of opportunism had already surfaced in the external review mechanisms that Congress had set up outside the Patent Office. The 1836 Act authorized the Secretary of State to appoint a "board of examiners, to be composed of three disinterested persons," whenever an applicant appealed an adverse decision by the commissioner. "[I]f practicable and convenient," the board would include at least one expert in the relevant technology, and the Act directed the commissioner to pay each member for his services "a sum not exceeding ten dollars … out of any moneys in his hands."[92] But as Commissioner Henry L. Ellsworth complained in his 1838 Annual Report to Congress, the statutory compensation was inadequate to induce qualified persons to serve, especially since appellants used the opportunity to reopen the "whole matter … to the reception of additional evidence, leading to much delay and expensive litigation before the board." Moreover, the ad-

[92] 1836 Patent Act, *supra* note 18, §§ 7, 8. Section 7 of the 1836 Patent Act explicitly provided this mechanism for appeals from rejections, and Section 8 extended it to interferences by providing that an applicant "dissatisfied with the decision of the Commissioner on the question of priority of right or invention … may appeal from such decision, on the like terms and conditions as are provided in the preceding section of this act; and the like proceedings shall be had, to determine which or whether either of the applicants is entitled to receive a patent as prayed for."

hoc character of the boards, with "different individuals being appointed in different cases," led to "various and unsettled" rules and courses of procedure.[93]

Ellsworth suggested an alternative mechanism, which Congress promptly adopted in the Patent Act of 1839. That Act replaced the appeal to an ad hoc board with an appeal to the local "chief justice of the district court of the United States for the District of Columbia," who would receive $100 in annual compensation for this service out of the patent fund.[94] This appeal was to the chief justice in his individual capacity rather than to the court itself (which at the time consisted of the chief and two assistant justices).[95] As Congressman Thomas Jenckes of Rhode Island later characterized the arrangement, the appeal was "to an officer who is neither an executive officer nor a judicial officer in the act he is required to perform, but only judicial in name."[96] The act made no provision for further appeals, but stated that the decisions of the chief justice were binding only on the Patent Office and did not preclude any party from contesting the validity of a patent "in any judicial court, in any action in which its validity may come in question."[97]

The revised system worked reasonably well at first under the stewardship of Chief Judge William Cranch, who handed down nineteen opinions in patent cases (including twelve in interferences) by 1850.[98] At that point, the 80-year-old judge told the commissioner that he was no longer able to continue hearing appeals under the patent laws "by reason of great age, sickness and infirmity" and therefore had "petitioned Congress to repeal such parts of those laws as require me to hear and determine appeals from the decisions of the Commissioner of

[93] 1838 COMM'R PAT. ANN. REP'T. CONG. at 2.
[94] 1839 Patent Act, *supra* note 75 § 13.
[95] Federico Part I, *supra* note 84 at 845.
[96] CONG. GLOBE, 41st Cong., 2nd Sess. (April 14, 1870), 2682. Jenckes supported elimination of this appeal mechanism. See below.
[97] Patent Act of 1839, *supra* note 75 § 11.
[98] Federico Part I, *supra* note 84 at 848.

Patents."[99] Congress responded to Cranch's petition in 1852 with an amendment to the 1839 Act providing that "appeals … may also be made to either of the assistant judges of the Circuit Court of the District of Columbia, and all the powers, duties and responsibilities [of the chief judge] are hereby imposed and conferred upon each of the said assistant judges."[100] Meanwhile, however, opportunistic inventors on the losing side of interferences had figured out that they could exploit Chief Judge Cranch's age and infirmity by continuing to appeal their cases to him rather than to one of the other judges, as the conditional wording of the amendment allowed them to do. In that way they could delay indefinitely the award of a patent to the rightful inventor. To put a stop to this maneuver, Commissioner Silas Hodge ordered appellants to transfer their cases to one of the assistant judges or else he would proceed, without waiting for a decision on the appeal, to issue a patent to the party who had prevailed in the Patent Office. Doubting the legality of this order, Hodge's successor, Commissioner Charles Mason, sought the opinion of the Attorney General, who agreed that it was invalid, insisting that "Congress, and Congress alone, has … power to remedy the evil."[101]

The death of Chief Judge Cranch in 1855 mitigated the problem of stalled appeals, but other problems with the revised statutory mechanism soon emerged.[102] Because the judges decided the cases before them in their individual capacities rather than as members of a court that followed its own precedents, there was no assurance of uniformity.[103] To the contrary, the statute encouraged forum shopping by appellants, who could choose the judge they wanted to hear their

[99] Judge Cranch's letter is reproduced in 1851 COMM'R PAT. ANN. REP'T CONG., H.R. Doc. 32-102 at 17.
[100] Act of Aug. 30, 1852, ch. 107, 10 Stat. 75 [hereinafter 1852 Patent Act].
[101] These events are detailed in 1860 COMM. PAT. ANN. REP'T CONG. at 5. See also R. FARNHAM 6 OFFICIAL OPINIONS OF THE ATTORNEYS GENERAL OF THE UNITED STATES, OPINIONS OF HON. CALEB CUSHING, 1853-1854 at 38-40 (Letter to Secretary of Interior R. McClelland dated June 2, 1853); and Federico Part I, *supra* note 84 at 848-852.
[102] After Cranch's death, the infirmity of another of the judges on the same court delayed some cases for about a year. 1860 COMM'R PAT. ANN. REP'T CONG. at 5.
[103] 1853 COMM'R PAT. ANN. REP'T CONG. at 18.

appeals. The 1852 law replaced the annual compensation to the chief justice with a $25 fee for each appeal, paid by the Patent Office to the individual judge who heard the case.[104] This compensation scheme created at least the appearance of a financial incentive for judges to resolve cases in favor of appellants in order to get chosen for more future appeals.[105] Calling for reform of the appeals process in his 1869 annual report to Congress, Commissioner Fisher asserted that one judge seemed to have succumbed to this temptation, noting that "during the administration of my immediate predecessor forty-two cases were appealed from him to one of the judges, and of these thirty-eight were reversed and only four affirmed."[106]

Fisher thought that this avenue of appeal was so flawed it should be abolished. There was already a process for appeals in place within the Patent Office, and he considered the expert examiners who handled the cases internally to be better qualified to evaluate the facts than the judges on the district court. Comparing the Patent Office with other administrative agencies, he pointed out that Congress had not required any similar external appeal from decisions made by the Commissioners of Pensions, Internal Revenue, Land Office, Indian Affairs, and other bureaus, and argued that the Patent Office should be treated similarly.[107] Congress agreed and, in the 1870 Patent Act, abolished the direct external appeal from Patent Office decisions in interference cases. The Act continued to allow such appeals in cases involving rejections of patent applications but addressed the problems of forum-shopping and inconsistent decisions by redirecting the appeals to the supreme court of the District of Columbia sitting "in banc," rather than to individual judges chosen by appellants.[108]

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[104] 1852 Patent Act, *supra* note 100 § 2.
[105] 1860 COMM'R PAT. ANN. REP'T CONG. at 5-6. See also Federico Part I, *supra* note 84 at 860-861.
[106] 1869 COMM'R PAT., ANN. REP'T CONG. at 12.
[107] 1869 COMM'R PAT. ANN. REP'T CONG, at 11-13.
[108] 1870 Patent Act, *supra* note 78 § 48.

The legislative decision to handle appeals of interferences differently from appeals of rejections indicates that Congress felt that it had considerable latitude to design and then modify appeals structures for administrative adjudication decisions to address emerging practical considerations as it thought appropriate. Unlike federal courts today, nineteenth-century jurists believed that giving the courts authority to review executive branch decisions violated constitutional requirements for separation of powers.[109] Yet Congress, always on the lookout to solve administrative problems on the cheap, was wont to assign what it thought were underutilized judicial resources to support the adjudicative work of administrative agencies (as it did in the Patent Acts of 1839 and 1852).[110] From a purely pragmatic perspective, it made sense to exclude appeals of interference decisions while retaining appeals of rejections because the risk of opportunistic abuse (and thus of overburdening the courts) was greater for interferences. Successful applicants for patents might sometimes want to delay the award of their own patents to extend the date when their patent protection would expire, but applicants could only appeal rejections, not allowances, and delay was unlikely to be the primary reason for appealing a rejection. By contrast, parties who expected to lose an interference could benefit from delaying the issuance of a rival's patent, thereby postponing liability for infringement and gaining time to develop their own alternative technology.

[109] MASHAW, *supra* note 9 at 24, 210-218, 301-308. For example, Chief Justice Roger Taney wrote in the 1853 case of *Bartlett v. Kane*, "The interference of the courts with the performance of the ordinary duties of the executive departments of the government would be productive of nothing but mischief; and we are satisfied that such a power was never intended to be given to them." 57 U.S. 263 at 272.

[110] For additional examples, see MASHAW, *supra* note 9 at 73-75. Characterizing the role of judges who reviewed patent office decisions as performing a task for the executive branch may have served to assuage the courts' concerns about separation of powers. See, for example, *U.S. v. Butterworth ex rel. Hoe*, 112 U.S. 50 (1884) at 60 ("It is evident that the appeal thus given to the Supreme Court of the District of Columbia from the decision of the Commissioner, is not the exercise of ordinary jurisdiction at law or in equity on the part of that court, but is one step in the statutory proceeding under the patent laws whereby that tribunal is interposed in aid of the Patent Office, though not subject to it.")

Responding creatively to the end of the external appeal for interferences, some inventors tried to open up an additional pathway for executive branch review by appealing commissioners' decisions to the Secretary of the Interior. According to P. J. Federico, the first such attempts began shortly after passage of the 1870 Act, but the secretaries initially claimed they did not have jurisdiction to consider these appeals. In 1881, however, the attorney general issued an opinion that the secretary's supervisory authority over the commissioner extended to quasi-judicial decisions, and the secretary began to accept appeals.[111] An interference case in which the secretary reversed the commissioner's award of priority came before the Supreme Court on review of a writ of mandamus in *Butterworth v. U.S. ex rel Hoe*. Rejecting the attorney general's view, the Court held that Congress's explicit statutory provisions for review of commissioner decisions left no room for an extra layer of implicit review authority in the secretary.[112] Although it was tempting, the Court recognized, to generalize about the supervisory powers of department secretaries, such arguments were "apt to mislead" unless "critical attention is given to the language of the statutes defining the jurisdiction of the chief and his subordinates."[113] This focus on the specific legislative text as setting the boundaries of review authority within the executive branch stands in contrast to the current Supreme Court's insistence that an implicit constitutional mandate for hierarchical executive-branch control of adjudication decisions requires it to invalidate nonconforming congressional designs.[114] Reviewing the relevant statutes

[111] P. J. Federico, *Evolution of Patent Office Appeals (Continued from November)*, 22 J. PAT. OFF. SOC'Y 920, 925-927 (1940) [hereinafter Federico Part II]. The same story is told in *Butterworth v. U.S. ex rel. Hoe*, 112 U.S. 50, 52-54 (1884).
[112]112 U.S. at 63.
[113] U.S. 50 at 56.
[114] E.g., U.S. v. Arthrex, 594 U.S. 1, 11 (2021) (invalidating statutory design that gave Patent Trial and Appeal Board (PTAB) final decision authority over administrative adjudications of patent validity, subject to judicial review but not to further executive branch review, because "[g]iven the insulation of PTAB decisions from any executive review, the President can neither oversee the PTAB himself nor attribute the Board's failings to those whom he can oversee").

in 1884, the Court concluded that "to whatever else supervision and direction on the part of the head of the department may extend, in respect to matters purely administrative and executive, they do not extend to a review of the action of the Commissioner of Patents in those cases in which, by law, he is appointed to exercise his discretion judicially."[115]

Congress restored direct external appeals in interferences in 1893 as part of a broader set of judicial reforms that we will discuss in Section 6 below.[116] From 1870 until that date, however, parties that lost interferences had no direct appeal from the Patent Office's decisions. Throughout this period, they could still file a bill in equity in federal court and relitigate the issue in a de novo proceeding. But this alternative seems to have been little used.[117] Part of the reason may have been the tendency of the courts in such proceedings to defer to the Patent Office's findings. Although parties could introduce new evidence in a de novo proceeding, courts hesitated to set aside Patent Office decisions without "testimony which in character and amount carries thorough conviction."[118] After Congress restored direct appeals from interference decisions in 1893, courts interpreted the statute as requiring that appellants must first exhaust the direct appeal remedy before pursuing a collateral bill in equity.[119] The result was to further lengthen the chain of appeals to include two appeals in the Patent Office (first to the board and then to the commissioner), followed by two external appeals in the courts (first a direct appeal to the Court of Appeals for the District of Columbia and then a de novo bill in equity proceeding before a trial court, whose decision could be further appealed to the Court of Appeals).[120]

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[115] *Butterworth v. U.S. ex rel. Hoe*, 112 U.S. at 67.
[116] Act of Feb. 9, 1893, ch. 74, 27 Stat. 434 § 1 [hereinafter 1893 Act].
[117] Federico, *supra* note 111 at 940-941; EMERSON STRINGHAM, PATENT INTERFERENCE EQUITY SUITS 5 (1930); CONG. GLOBE, 41st Cong., 2nd Sess. (April 14, 1870), 2682 (remarks of Congressman Jenckes).
[118] *Morgan v. Daniels*, 153 U.S. 120, 125 (1894).
[119] Kirk v. Comm'r Pat. & Sec'y Interior,1886 Dec. Comm'r Pat. 451.
[120] Frederico, Part II, *supra* note 111, at 939-941.

Perhaps a more important consideration limiting the use of the de novo proceeding was that it did not delay the issuance of patents to parties that prevailed in the Patent Office's determination of priority and, therefore, offered little benefit to opportunistically minded parties. As we will see in section 5 below, there was a period from 1927 to 1939 when Congress gave parties dissatisfied with Patent Office interference decisions the choice of appealing directly to a special court (first the Court of Appeals for the District of Columbia and then, starting in 1929, the Court of Customs and Patent Appeals) or filing a de novo bill in equity, specifying that in either case the patent would not issue until the appeal was finally resolved in court.[121] This was the only period when filing a de novo bill could be used opportunistically to forestall the issuance of a rival's patent, and by the one estimate we have, the number of bill in equity filings increased during this period from almost none to about 90 per year.[122]

3. Learning to Resolve Interferences More Speedily

As the number of patent applications soared in the last third of the nineteenth century (see Figure 1), so did the burden of interferences on Patent Office operations. We do not know exactly how many interferences there were during this period because commissioners did not routinely report the number in their annual reports until the second decade of the twentieth century (see Table 2). We estimate, however, that the number rose from around 500 cases per year in the late 1870s to nearly 1,500 per year in the early 1920s—that is, about 10 percent more rapidly than the number of applications.[123]

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[121] See Act of Mar. 2, 1927, ch.273, 44 Stat.1335 § 8 [hereinafter 1927 Patent Act].
[122] See Frederico Part II, *supra* note 111 at 941.
[123] The National Archives has an early count of interferences for the 1840s through the 1860s showing that the number rose from less than 10 per year in the 1840s to nearly 50 a year in the late 1850s and then peaked at 97 in 1865 before returning for the next couple of years to the level of the late 1850s. See National Archives and Record Administration, "Patent Interference Case Files: 1838-1900, A Special List of Patent Interference Cases in Record

Although the ratio of interference cases to the number of patent applications was always small—only about 2 percent—interferences were enormously time consuming for the Patent Office, and also for the parties involved.[124] Once an interference was declared, a date was set for hearing the case, "and a trial is had before the examiner."[125] In the interim, the parties had an opportunity to take depositions from witnesses under oath in the presence of lawyers for both sides. The parties could introduce motions to amend their testimony, to strike an opponent's testimony, to dissolve the proceedings, or to raise a variety of other matters, each of which had to be decided by an examiner (sometimes the primary examiner and sometimes the examiner of interferences), and each of which could be appealed to the Board of Examiners and eventually to the commissioner. After the testimony and accompanying exhibits were submitted to the Patent Office, the examiner of interferences held a hearing at which the parties presented their cases and responded to questions. After the examiner of interferences ruled on priority, the losing party in

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Group 241" (1993) and accompanying microfiche. Except for one year (1897) in which the Commissioner of Patents serendipitously reported the number of interferences in his Annual Report to Congress, there is no official count of interferences between 1870 and 1912. The inventory for Patent Interference Case Files, 1838-1978, in Record Group 241: Records of the Patent and Trademark Office, at the National Archives in Kansas City, lists nearly 11,000 boxes, many of which contain multiple (though uncounted) cases. Unfortunately, the inventory does not include dates for the boxes. At some point (we do not know exactly when), the Patent Office started assigning file numbers to interferences. A case from early 1875 bears the number 5,482 and a case from early 1885 bears the number 10,128, suggesting that around that time there may have been close to 500 cases a year on average. On the same basis, we estimate that the number of interferences increased to perhaps 700 a year on average between 1885 and 1905 and then doubled between 1905 and 1915. These numbers are likely overestimates because the Patent Office included a smattering of other types of proceedings in the same sequence of case numbers, though the one official figure we have for this period—815 interferences in 1897—is substantially above our estimate. After 1905, when Congress enacted legislation to authorize federal registration of trademarks, the files include trademark interferences in the same numbered sequence. Although commissioners began including counts of interferences in their annual reports in 1912, they did not distinguish between patent and trademark interferences until 1923. In 1923 there were 1,432 patent interferences and 329 trademark interferences, and in 1924 the numbers were 1,369 and 428 respectively, suggesting that about a fifth of the interferences before 1923 may have been trademark cases. See Table 2.

[124] As Table 2 indicates, from 1923 to 1930 there were 1,468 a year, making the ratio of interference cases to patent applications in that period about 1.8 percent. At least two patent applications were involved in each interference, so the percent of applications affected may have been double those figures. This is a very inexact multiple, however, because many interferences involved more than two applications, and some involved already issued patents.

[125] Rules and Directions for Proceedings in the Patent Office (Aug. 1867) [hereinafter 1867 Patent Office Rules], Rule 42.

an interference could seek to reverse the decision by appealing to the board, to the commissioner, and (before 1870) to a judge of the Circuit Court of the District of Columbia.[126]

These proceedings afforded multiple opportunities for the parties to behave strategically—not just by introducing motion after motion and appealing the resulting decisions, but, in Commissioner Fisher's words, by "striving on each side to learn an opponent's date of invention, only to manufacture such proof as may be necessary to fix an earlier time."[127] Fisher recognized that many interference cases could be resolved relatively easily, whereas others were messy affairs. His goal was to make quick work of the easy cases and, at the same time, reduce the messiness of the hard ones. Taking full advantage of the authority granted him by the 1870 Patent Act to "establish rules and regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office,"[128] he promulgated a new rule that cleverly leveraged the secrecy of the patent application process to speed the settlement of interferences.[129] Although issued patents were a matter of public record, the Patent Office treated pending applications as confidential prior to issuance. Even the application filing date—critical for establishing priority in an interference—was not ordinarily made public until the patent was issued.[130] The new rule required all parties to an interference to submit preliminary statements at the outset of the proceeding in which they declared under oath the dates of their inventive activities that were relevant to proving priority of invention (when they conceived of the invention, when they told

[126] 1867 Patent Office Rules, *supra* note 125, Rules 42 to 50.
[127] The quotations are from Fisher's decisions in *Foster and Townsend v. Fowle*, 1869 Dec. Comm'r Pat. at 27; and *Schenck v. Rider*, 1870 Dec, Comm'r Pat. at 135-136.
[128] 1870 Patent Act, *supra* note 78 § 19
[129] Rules and Regulations for Proceedings in the Patent Office (July 1870) [hereinafter 1870 Patent Office Rules] Rule 53.
[130] This practice of secrecy was itself a matter of Patent Office procedure, not statute, until 1952. House Committee on Government Operations, 35th Cong. 1st Sess., Survey and Study of Administrative Organization, Procedure and Practice in the Federal Agencies: Agency Response to Questionnaire: Part 2–Department of Commerce (1957) [hereinafter Patent Office Survey Response] at 234.

others about it, when they reduced it to practice, and so on). The parties had to submit their statements under seal before they knew the dates the other parties would claim. Only when all the statements had been submitted (or the time for filing statements had expired) would their contents be revealed to the others.[131]

As Fisher explained in an 1870 decision in the case of *Schenck v. Rider*, the purpose of the new rule was to "put an end to the practice" of learning about the dates an opponent would claim in order to concoct earlier dates for oneself.[132] The rule required that each party "must distinctly state the date which he proposes to prove as that of invention, and he must set forth the character of the substantive *act* of invention, upon which he proposes to rely." Importantly, the inventor could not ordinarily change his story once the other parties' dates were revealed: "If he fixes upon one date for his invention and then calls witnesses to fix another, such proof will be rejected, or will be viewed with the greatest suspicion."[133]

In addition to discouraging opportunistic fabrication of evidence to support changing stories about invention dates, the 1870 rule promoted efficiency by enabling the Patent Office to resolve many interferences without a hearing. The final sentence of the rule specified that an interference might be resolved "by default upon the case as it stands upon the record" in three distinct circumstances: first, if no party submitted a statement; second, if the statements revealed

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[131] The full text of the rule as originally promulgated reads as follows:

> Upon the declaration of an interference each party will be required, before any time is set for the taking of testimony, to file a statement under oath giving the date and a detailed history of the invention; showing the successive experiments, steps of development, extent and character of use, and forms of embodiment. Such statement shall not be open to inspection by the other party, until both are filed, or until the time for filing both has expired. In default of such filing by either party, or if the statement of either fails to overcome the *prima facie* case made by the respective dates of application, or if it shows that the invention has been abandoned or that it has been in public use for more than two years prior to the application of affiant, the other party shall be entitled to an adjudication by default upon the case as it stands upon the record.

1870 Patent Office Rules, *supra* note 129, Rule 53.

[132] *Schenck v. Rider*, *supra* note 127 at 135-136.

[133] *Id*. See, e.g., Guest v. Finch, 1876 Dec. Comm'r Pat. at 144-145 (rejecting the inventor's motion to amend his statement after the statements were in and evidence had been taken, explaining that "to allow amendments of statements … after each has learned the other's dates, would be to destroy their value altogether").

that one party had a filing date earlier than the invention dates claimed by the other parties; and third, if a statement reported dates indicating either that the invention had been abandoned or that it had been in public use for more than two years prior to the applicant's filing date. In the first two cases, the senior party (the party with the earliest filing date) would win by default. In the third case, the inventor's claim would be declared invalid under the statute based on the prior public use and the interference dissolved.[134]

This last circumstance highlights the dangers that constrained parties in drafting their statements. If they asserted dates that were too early, they risked losing the right to patent on grounds of abandonment or public use. For example, one of the parties in *Schenck v. Rider* not only alleged an early invention date but supported that allegation by pointing to commercial production that put the invention on sale and in public use more than two years prior to that party's application filing date.[135] This activity would have made the invention unpatentable under the statute, but in the normal course of an ex parte examination—that is, without the required disclosures made in the preliminary statements—it would have been unlikely to come to the attention of the examiner.[136] The rule thus created hazards that inventors had to navigate with great care. If they alleged dates that were too late, they would lose the interference. If they alleged dates they could not substantiate with evidence, they would lose to a party who could establish an earlier invention date. And allegations of early dates could sometimes lead to loss of the right to patent on grounds of public use or abandonment, even if the same evidence showed priority of invention.

[134] 1870 Patent Act, *supra* note 78 § 24.
[135] Schenck v. Rider, *supra* note 127 at 136.
[136] WILLIAM C. ROBINSON, THE LAW OF PATENTS AND USEFUL INVENTIONS (1890), Bk I, Ch. V § 351 at 477-479.

For the procedure to work effectively, the Patent Office had to limit the information it revealed when it declared the interference and requested statements from the inventors. Over the next decade and a half, officials tinkered with the details of how much information to give out. The 1871 version of the rule fortified the veil of ignorance by stating that each party should file his own statement "without the name of the other party being made known to him."[137] This language was deleted from the rule in 1872,[138] and an 1873 amendment went further toward lifting the veil by requiring the Patent Office to disclose the parties' filing dates and residences, as well as their names.[139] We do not know why the office decided to reveal to the parties the most important date they had to beat to prove priority, seemingly undermining much of the value of the rule as a mechanism for limiting opportunism.[140] What we do know is that the experiment with expanded disclosure came to an end in 1884, when the Patent Office rolled back the practice essentially to what it had been in 1872.[141] From then on, requests for preliminary statements revealed only the names and addresses of the parties to the interference, and not their

[137] Rules of Practice in the United States Patent Office (Aug. 1871) [hereinafter 1871 Patent Office Rules] Rule 53.
[138] Order dated Apr. 2, 1872, reprinted in 1 Off. Gaz. Pat. Off. 334 (Apr. 9, 1872) .
[139] Rules of Practice in the United States Patent Office (Mar. 1873) [hereinafter 1873 Patent Office Rules] Rule 53. Virtually identical language appears in the 1875, 1876, and 1878 Rules. The expanded disclosure requirement survived a more comprehensive revision of the rules in 1879, which provided in what was by then called Rule 97, "When an interference is found to exist … the principal examiner will forward to the examiner of interferences notices of interference for all the parties … which will disclose the name and residence of each party, and that of his attorney, the date of the filing of his application, and, if his case be a patent, its date and number, the date of its application …"). Rules of Practice in the United States Patent Office (Dec. 1879) [hereinafter 1879 Patent Office Rules] Rule 97.
[140] To be sure, the parties remained ignorant of the dates the other parties claimed for their pre-application inventive acts until the contents of the statements were revealed. But those dates were far less significant than the application filing dates. The pre-application dates disclosed in statements were not treated as prima facie invention dates, but merely allegations that the parties would be required to prove in the interference proceeding. Application dates, on the other hand, could support a default judgment on the record against a party whose statement failed to allege earlier invention. Perhaps Patent Office officials worried that withholding information about filing dates from the parties on the assumption that they would otherwise submit fraudulent statements under oath seemed unduly antagonistic and disrespectful to inventors. They may also have felt that, though early knowledge of other parties' filing dates might lead some parties to make fraudulent allegations of prior invention, others might recognize that they could not beat those dates and would concede priority instead of investing in a costly interference fight.
[141] Order dated October 29, 1884, reprinted in 29 Off. Gaz. Pat. Off. 369 (Nov. 4, 1884).

filing dates, except in the case of patents that had already been issued (for which the filing dates were already publicly available).[142]

In the early twentieth century, Commissioner Thomas Ewing took Fisher's innovation a step further. Like Fisher, Ewing had arrived in the job with extensive experience in both patent law and Patent Office procedures.[143] He had served as a Fourth Assistant Examiner in the Patent Office from 1888 to 1890 and then left to go into private practice, returning as commissioner from 1913 until 1917. According to an internal review that Ewing ordered, in cases where there was a difference of more than a year in the application dates of the parties, the junior party succeeded in establishing priority less than six percent of the time.[144] This evidence convinced Ewing that, before declaring an interference, he should contact junior parties whose filing dates lagged by more than a year and ask them for essentially the same information as would later be disclosed in the preliminary statement. If the junior party's dates predated the senior party's filing date, the Patent Office would declare an interference and the parties would be asked to submit preliminary statements. If, on the other hand, the junior party's dates were after the senior party's filing date (as Ewing claimed occurred in two-thirds of the cases), no interference would be declared, the senior party would be awarded the claim, and the junior party's claim would be rejected without an interference.[145] In Ewing's view, the chief duty of the Patent Office was to grant a patent to "an applicant entitled thereto" as expeditiously as possible. Delaying an award "to try out questions of priority which do not in fact exist and which the

[142] The only notable change thereafter in the information to be provided to the parties occurred in 1892, when the Patent Office decided to omit the disclosure of filing dates even for issued patents in the notices sent to the parties, while separately requiring a more complete disclosure to the examiner of interferences "for his use" in which the applications are "fully identified." Rules of Practice in the United States Patent Office (Apr. 1892) [hereinafter 1892 Patent Office Rules] Rule 97.
[143] "Past Leaders of the USPTO: Thomas Ewing," https://www.uspto.gov/about-us/thomas-ewing, accessed Dec. 26, 2024; *Official Register of the United States for 1889*.
[144] 1915 COMM'R PAT. ANN. REP. CONG. x
[145] *Id.*

Office has only to inquire to find do not exist is to permit the processes of the Office to be used for purposes not set forth in the statutes," and he aimed to put a stop to this "fruitful source of oppression."[146] Ewing's procedure provoked a court challenge in the form of a mandamus suit to force the commissioner to declare an interference. Ewing lost in the lower courts but prevailed in the Supreme Court, which ruled that the Ewing's innovation was consistent with the statute, which "commits to the opinion (judgment) of the Commissioner" the determination of whether patents interfered with each other.[147]

Although Patent Office leaders touted the improvement in handling interferences that preliminary statements made possible, [148] there are no records from the late nineteenth century that enable us to measure the immediate effect on Patent Office efficiency of this procedural change. However, for later years we can get a sense of how the statements enabled officials to speed the resolution of interferences. At the same time as the Patent Office was developing these new procedures for interferences, it was improving its record-keeping abilities, adopting new technologies such as the typewriter and printed forms, and standardizing the organization of files.[149] Case files from the 1870s appear to have been somewhat haphazardly organized. Clerks wrote identifying notations on the backs of the documents, which they then folded up, tied with ribbons, and stuffed into a box. By the 1890s, however, clerks were placing documents in file folders organized in a consistent way. The first item in the file was always the declaration of interference, a document prepared by the primary examiner for the examiner of interferences. The declaration was a printed form with typed entries showing the names and addresses of the

[146] *Id.* at x.
[147] Ewing v. U.S. ex rel. Fowler Car Co., 244 U.S. 1, 10 (1917).
[148] See, e.g., Thomas v. Weintraub, 38 App. D.C. 281 (1912), reprinted in 1912 Dec. Comm'r Pat 457 ; and *Revision of Patent Office Interference Practice: Hearing on H. R. 3264 Before the H. Comm. on Pat.,*78th Cong. (1944) 21-22 (Testimony of Conder C. Henry, Ass't Comm'r of Patents).
[149] For the importance of these innovations for large-scale businesses around the same time, see JOANNE YATES, CONTROL THROUGH COMMUNICATION: THE RISE OF SYSTEM IN AMERICAN MANAGEMENT (1989).

parties to the interference, the attorneys' names and addresses, the dates and numbers of the patent applications (or sometimes issued patents), the text of the "counts" that formed the issue of the interference (claim language drafted by the examiner to define the common inventions), and the corresponding claims from each of the interfering applications or patents. Incoming and outgoing correspondence and other documents were then added to the file in the order received. Each document placed in the file was noted on a numbered line on a docket affixed to the front of the folder, starting with the declaration itself, and the number of the line was also handwritten on the first page of the relevant document.

As the examples in Figure 2 illustrate, the dockets make it possible to see at a glance what transpired in each interference. To get a quantitative overview of how the Patent Office disposed of interferences, we drew a random sample of files from the early 1900s through the mid-1920s from the records of interferences stored at the National Archives in Kansas City.[150] Panel A in Figure 3 provides a frequency distribution of the number of lines in each docket in our sample, and Panel B provides a frequency distribution of the amount of time that elapsed between the date of the declaration of interference and the final substantive action in the case noted on the docket. As the figure makes apparent, the Patent Office resolved most cases expeditiously. Thirty percent of the dockets had less than ten entries and nearly two thirds less than twenty. Only a handful had more than 100. Similarly, more than 40 percent of the cases

[150] We gave the National Archives a set of about 400 random numbers that ran from 17,071 to 53,943, numbers that we expected corresponded with interference case numbers from the mid-1890s through the mid-1920s. Some case numbers may have been missing from the Archives; others corresponded to trademark interferences or other kinds of cases interfiled with the patent interference records. If a number in the set of random numbers corresponded to a patent interference case, we asked the Archives to select it. If not, we asked them to select the next highest number that represented a patent interference. For each case selected, we asked the Archives to scan the docket and the declaration of interference. On inspecting the data, it became clear to us that before 1901 the Patent Office disposed of most interferences that did not go to the hearing stage, so we restrict the analysis that follows to the 362 files dated 1901 to 1926, the last year in our sample data.

were resolved in less than half a year, more than two thirds in less than a year, and only about 10 percent took more than two and a half years to resolve.

The cases plotted on the right side of the distributions in Figure 3 could be quite complex and take many years to resolve. The longest docket in our sample (interference 28,667) involved three claims made by three different inventors (Edberg H. Gold, Edward E. Gold, and William P. Cosper) in their patent applications for a steam-heating apparatus for railroad cars. The interference was declared on March 10, 1908 and was finally resolved in late 1915 with a decision to dissolve the interference without reaching the issue of priority (after all that!). Along the way, the eight-page docket recorded multiple decisions and appeals to the Board of Examiners-in-Chief, the commissioner, and the courts.[151] This kind of costly and prolonged proceeding gave patent interferences a bad name,[152] but such cases were extremely rare. Some of the most notorious interferences involved high-stakes inventions by famous inventors like Thomas A. Edison, so they stood out in the public mind. These cases, however, would likely have generated massive litigation in the courts even if there was no interference process in the Patent Office. Edison's patent for a quadruplex telegraph provoked four lawsuits in federal courts and three more in state courts, in addition to seven interference proceedings in the Patent

[151] The three applicants were Egbert H. Gold of Chicago, Edward E. Gold of New York, and William P. Cosper of Chicago. Only Egbert H. Gold, the most junior party, ultimately received a patent for his application—patent 1,219,547, which issued on March 20, 1917. Edward E. Gold obtained a related patent he had applied for on the same day as the one at issue in the interference. Cosper applied for another patent for a heating system in the midst of the interference and received patent 1,012,329 on December 19, 1911. For this and subsequent queries, we matched the application numbers in the interference records to issued patents using Lexis's "TotalPatent One" search facility.

[152] For a late 19th century diatribe against the Patent Office that criticizes prominent interferences, see *Inventors Beware: Does the Patent Office Assist or Does it Harrass and Oppress You? A Dangerous Institution*, N.Y. WORLD, Jan. 12, 1889, at 1-2.

Office. The court cases dragged on from the mid-1870s at least until 1913, nearly two decades after the interferences had concluded.[153]

Most interference cases (those on the left side of the distributions in Figure 3) were resolved quickly in precisely the way Fisher had envisioned. For example, on June 5, 1906, the Patent Office declared an interference (number 26,148) between George L. Harvey of Chicago, Illinois and John Lange, Jr., of Moberly, Missouri. The two inventors had filed patent applications for draft gears for railway cars, and seven claims on their respective patent applications overlapped. Lange filed his application on October 31, 1904, and Harvey filed his over a year later, on December 20, 1905. As requested by the Patent Office, Harvey submitted his statement on June 25, 1906, and Lange submitted his on June 26. Apparently, the statements were dispositive of the question of priority because three days later the Patent Office sent Harvey an "order to show cause" why priority should not be awarded to Lange and giving him a deadline to respond of July 30, 1906. On August 3, it announced its decision in favor of Lange. The entire process took slightly less than two months. Lange's patent issued shortly thereafter on November 13, 1906.[154]

In some cases only one of the inventors submitted a preliminary statement, which meant that the others chose to rest on their filing dates for priority and forfeited the right to prove earlier

[153] THE PAPERS OF THOMAS A. EDISON, VOL. 2, FROM WORKSHOP TO LABORATORY, JUNE 1873-MARCH 1876 (Robert A. Rosenberg, Paul B. Israel, Keith A. Nier, and Melodie Andrews, eds. 1951), Appendix 3, 794-815. The interference cases (against Henry C. Nicholson) were numbered 6646, 6647, 6648, 7086, 7087, 8689, and 8690. We are grateful to the National Archives in College Park, Maryland for sending us scans of these interferences.

[154] Lange received U.S. Patent No. 835,540 for "Railway Car Draft Gear," which included nineteen claims. We know from the numbers of the claims noted on the declaration of interference that Lange had listed at least eleven other claims on his initial application, and Harvey had listed at least fourteen. Harvey does not seem to have received a patent for his invention, although his original application had other claims that were not at stake in the interference. Maybe he thought it was not worth pursuing a patent for the other claims if Lange owned the ones at issue in the interference, or maybe the prior Lange invention would have made the other claims invalid. Harvey was a frequent inventor with a couple dozen US patents to his name.

invention dates.[155] A good example is case 21,398, which involved an interference declared on October 8, 1901, between an application from three inventors (Lewis C. McLouth, Hector J. Hayes, and John H. Wissman), and another application from Henry F. Eastman as sole inventor. The applications involved metallic bodies for automobiles, and eleven counts were at issue in the interference. Eastman submitted a preliminary statement, but the team of McLouth, Hayes, and Wissman did not, even though they had initially requested, and received, an extension of time to submit their statement. The Patent Office immediately decided in favor of Eastman, and shortly thereafter McLouth et alia conceded priority and waived their right of appeal. Eastman had the earlier filing date, and the McLouth team, having failed to submit a statement asserting earlier inventive acts, was precluded from proving an invention date before their own (later) filing date. Eastman obtained his patent on January 21, 1902, just three and a half months after the declaration of interference.[156]

Sometimes none of the parties submitted statements, and the Patent Office immediately awarded priority to the senior party based on filing dates.[157] In other cases, one of the parties quickly conceded priority to the other, and the matter was settled before the preliminary statements were due. In case 22,869 involving laundry bluing, for example, the senior party, Charles C. Borchers, conceded priority to the junior party, William C. Pope, who filed his application only eight days after Borchers. Pope obtained U.S. Patent 738,481 on September 8, 1903, just over a month after the declaration of interference. We do not know what, if anything, went on behind the scenes. We know from the declaration that both Borchers and Pope

[155] See, e.g., 1892 Patent Office Rules, *supra* note 142, Rule 115 ("If a party to an interference fail to file a statement, testimony will not be received subsequently from him to prove that he made the invention at a date prior to his application.") Other editions of the rules were similar.
[156] U.S. Patent No. 691,455. McLouth, Hayes, and Wissman apparently abandoned their application, but the same team submitted a related application on April 22, 1901 and received U.S. Patent No. 717,250 on December 30, 1902.
[157] See, for example case 22,989.

lived in St. Louis, so it is possible that they (or their lawyers) were acquainted with each other and that Borchers knew he would not be able to prove priority. It is also possible that money changed hands or that the parties worked out an agreement for Borchers to license the technology from Pope.[158] Perhaps the knowledge that they would soon have to reveal—and commit to—their critical dates of invention motivated them to end their dispute quickly. Later officials indicated it was Patent Office policy to encourage such behind-the-scenes settlements, even to the extent of "exercising liberality in extensions of time when the parties are negotiating their differences."[159]

When the Patent Office began to publish data on the number of patent interferences in 1912, it also reported the number of interferences that were terminated before going to a hearing—another indicator of the extent to which the office was able to resolve these disputes expeditiously (see Table 2).[160] For the years 1912 to 1924 (the years when the Patent Office data overlap the period of our sample), the proportion of declared interferences resolved without a hearing averaged 81 percent. The result from our sample is very similar: we found that 80 percent of the interferences were resolved without a hearing (see Table 3). Moreover, from our sample data we can see that resolving an interference without a hearing brought enormous time

[158] The Patent Office did not record licensing agreements. It did record assignments (that is, sales) of patent rights, including shares in patents. Pope did not have an assignee at the time his patent issued.
[159] Patent Office Survey Response, *supra* note 130 at 187. The dockets are full of requests for extensions by one party that were not contested by another party and that seem routinely to have been granted.
[160] The proportion is for the number of interferences terminated in each year—not the number of interferences declared. Even expeditiously resolved interferences might terminate in a different year from the one in which they were declared. Ewing's rule may have succeeded, at least modestly, in reducing the number of interferences the Patent Office declared. Using the figures in Table 2 to compare the 1920s to the period 1912 to 1917 (when the Supreme Court allowed Ewing's procedure), we find that there does seem to have been a fall in the ratio of interference declarations to patent applications from around 0.024 to about 0.018. We do not include in this comparison the years during and immediately following the First World War, which Patent Office histories consider to be a period of severe disorder. See for example, "Past Leaders of the USPTO: James T. Newton," https://www.uspto.gov/about-us/james-t-newton, accessed Dec. 27, 2024.

savings, concluding the matter in less than a third the amount of the time spent on cases that went to a hearing.

However, as Table 3 also shows, time to resolution nonetheless increased on average in the early twentieth century. Even cases decided without hearings took a lot longer to resolve, lengthening from an average of 179 days for the period 1901-1910 to 282 days for 1911-1920 to 343 days for 1921-1926. Behind this increase was the growing use of a variety of interlocutory motions, particularly motions to dissolve the interference. As we discuss in the next section, these motions had the potential to rescue an inventor's claims by terminating the interference without a determination of priority or, alternatively, to increase an inventor's bargaining power in a settlement. They also could be used opportunistically to delay the issue of patents to rivals. In our sample, about a quarter of the cases that were resolved without a hearing included motions to dissolve, and the time it took to resolve them was not only greater than but increased much more steeply than cases that did not include such motions. The duration of cases with motions to dissolve increased from 289 days on average in the first decade of the century to 674 days in the 1920s (a rise of 233 percent), whereas those without motions to dissolve rose from 139 to 233 days (or 168 percent).[161] To keep opportunism in check, the Patent Office would have to learn how to manage these motions.

4. The Problem of Motions to Dissolve

Determinations that two patent applications claim the same invention are not always clear cut, and examiners sometimes got them wrong. Inventors caught up in improperly declared

[161] Other types of motions, such as motions to amend the preliminary statements or motions to shift the burden of proof from the junior to the senior party, also prolonged the duration of the cases in our sample.

interferences could see their costs in time and money to secure a patent soar, even if they ultimately prevailed. And if they lost, the adverse finding could narrow their patents or even prevent them from being issued altogether.[162] Recognizing that it was improper to proceed to a determination of priority if the interference had been declared in error, Patent Office officials allowed parties to interferences to move to dissolve the proceeding if they thought that the interference had been improperly declared or that the other party's application did not support the claims at issue in the proceeding.[163] Depending on the grounds asserted in a motion to dissolve, the Patent Office might determine that there was no interference in fact and that all the applications could therefore proceed to issuance as if no interference had ever been declared, that the technology at issue was not patentable and neither party could secure a patent for it, or that one or more of the parties could not receive a patent but that the other(s) could.

Motions to dissolve thus raised fundamental issues that could determine the fate of the applications at stake, and many turned out to be well-founded. In the one year (1918) for which the Patent Office provided the relevant numbers, 83 of 195 motions to dissolve (43 percent) were granted in whole, and 20 (10 percent) were granted in part.[164] In our 1901-1926 sample, 28 percent of the cases that included motions to dissolve ended in a complete dissolution of the

[162] Because patent applications involved in interferences often included more claims than the ones at stake in the proceeding, applicants who lost interferences could, and often did, obtain patent on other claims.
[163] The 1870 Patent Office Rules, *supra* note 129, allowed such motions if "the invention is found not to be patentable, or to have been abandoned, or that it has been in public use for more than two years prior to the application of either party, or that no interference in fact exists." *Id.* Rule 59. Over time, the list of grounds expanded and contracted. A 1905 version allowed motions to dissolve on the ground that the counts at issue "have different meanings in the cases of different parties." Rules of Practice in the United States Patent Office (Feb. 1905) [hereinafter 1905 Patent Office Rules] Rule 122. By 1916 the rules had stabilized around three main criteria, permitting dissolution if "there has been such informality" in declaring the interference "as will preclude a proper determination of the question of priority," if an applicant's claim was unpatentable, or if the text of an application did not support a claim to the invention defined in the interference count. Rules of Practice in the United States Patent Office (Jan. 1916) [hereinafter 1916 Patent Office Rules] Rule122. This version of the rule was still in place in 1942. Rules of Practice in the United States Patent Office (Oct. 1942) [hereinafter 1942 Patent Office Rules] Rule 122.
[164] 1918 COMM'R PAT, ANN. REP. CONG. 15-16. An additional 20 interferences were dissolved at the instigation of a primary examiner who had discovered new information after the initial declaration.

interference and another 7 percent resulted in partial dissolutions. The large proportion that were granted in both sets of figures suggests that motions to dissolve provided a useful check on the quality of the examiners' work by correcting errors they made in declaring interferences. The motions undoubtedly slowed the resolution of some cases, but they brought a speedier end to those that had been mistakenly declared.

However, motions to dissolve could serve opportunistic ends. In his 1926 book *Patents: What a Business Executive Should Know About Patents*, patent attorney Roger Sherman Hoar shared the advice he typically gave to parties in interferences: If the preliminary statements revealed them to be "hopelessly junior," Hoar exhorted, they should move to dissolve the interference. First, however, they should offer to concede priority to the senior party in exchange for "a non-exclusive license on a nominal royalty basis." Explaining that "the threat of a motion to dissolve will be a material aid in securing the acceptance of such an offer," Hoar went on to assert that the senior party in such cases should make a deal with the junior party unless he or she was "absolutely certain of winning, for you never can tell which way the Patent Office will decide."[165]

The use of (perhaps dubious) motions to dissolve for bargaining leverage may seem improper at first glance, but it can be interpreted more benignly (at least in some cases) as a spur to reach an agreement.[166] The information provided by the preliminary statements may have signaled the likely allocation of the patent right if the matter proceeded to a determination of

[165] ROGER SHERMAN HOAR, PATENTS: WHAT A BUSINESS EXECUTIVE SHOULD KNOW ABOUT PATENTS 97 (1926). Hoar was a former assistant attorney general of Massachusetts. At the time of writing this advice manual, he was head of the patent department of the Bucyrus Company, a Wisconsin company that made steam shovels and other heavy equipment. See SOUTH MILWAUKEE HISTORY, Ch. 2, https://www.southmilwaukee.gov/379/Chapter-2-Bucyrus-History, accessed Jan. 18, 2025.

[166] As Ronald Coase theorized, if the allocation of the property right was clear and there were no transactions costs, the parties could come to a bargain. In a world characterized by uncertainty and transactions costs, these kinds of threats may have helped parties reach a settlement. See R. H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

priority, but the outcome was still uncertain. By signaling an applicant's willingness to bear the costs of a fight, motions to dissolve may have encouraged the parties to settle. Whether intentionally or not, the Patent Office revised its rules in a way that not only encouraged such agreements but may even have accelerated them. In the 1870s, the Patent Office required that some motions to dissolve (specifically, those that "deny the patentability of an applicant's claim, or his right to make the claim") be submitted *before* the preliminary statements were due, precluding the kind of strategic behavior that Hoar described. But motions to dissolve on the "ground that no interference in fact exists," or that there has been too great an "irregularity in the declaring the same" could be made at any time before the taking of testimony, allowing the process to drag on.[167] In 1884, the Patent Office revised its rules to require that both sets of motions "should, if possible, be made *within twenty days after the statements of the parties have been received and approved* [emphasis in the original]."[168] The change allowed the parties to wait to bring motions to dissolve until they learned the likely outcome from the preliminary statements, but limited the period for bringing such motions, perhaps to encourage quick settlements.

Although motions to dissolve could be used to put pressure on the parties to come to an agreement, they could also be exploited for the more nefarious purpose of delaying the award of a patent to the rightful first inventor, allowing the applicant destined to lose priority to continue using the technology in the interim without infringement liability. Judge Charles Holland Duell, a former patent commissioner, summarized the problem in a 1905 opinion for the Court of

[167] 1879 Patent Office Rules, *supra* note 139 Rules 116 and 117.
[168] Rules of Practice in the United States Patent Office (Mar. 1885) [hereinafter 1985 Patent Office Rules] Rule 116. Later the time was extended to thirty days. 1905 Patent Office Rules, *supra* note 163 Rule 122. Still later, when complaints about opportunistic behavior in interferences became more politically salient during the Great Depression, the Patent Office reverted to the practice of not opening the preliminary statements until all motions to dissolve had been "finally disposed of." Rules of Practice in the United States Patent Office ((May 1935) [hereinafter 1935 Patent Office Rules] Rule 111.

Appeals of the District of Columbia. "It is known to all who are familiar with the practice in interference proceedings," he grumbled, "that, by motions, petitions, and appeals of every conceivable character that the ingenuity of the skilled attorney can devise, interferences can be, and are, prolonged for years, to the injury of the public, and often to the financial ruin of the parties."[169] These kinds of delaying tactics in interferences were a perennial source of complaint, and the subject of repeated Congressional inquiries into Patent Office practice.[170] They also imposed a burden on Patent Office operations and especially on the commissioner, to whom many of the decisions on these motions were appealed. Although the average ratio of interferences to patent applications was only about 2 percent, appeals in interference cases, particularly appeals of interlocutory motions, took up a disproportionate share of the commissioner's time. From 1911 to 1927 (the year when, as discussed in section 5 below, Congress streamlined the statutory appeals process at the behest of the Patent Office), ex parte appeals to the commissioner of rejections of patent applications averaged about 180 per year, appeals of priority decisions in interference cases averaged about 120 per year, and appeals of interlocutory motions in interference cases averaged more than 200 per year (see Table 4).[171] Moreover, appeals of priority decisions and interlocutory motions in interferences were typically more time consuming than appeals of rejections because, as inter partes actions, they involved sequential briefs and replies from multiple parties.

The Patent Office tried to curb the use of motions to dissolve by improving its processes for deciding on the motions' validity. One key procedural choice that officials had to make was

[169] Allen v. United States ex rel. Lowry, 26 App. D.C. 8 (1905) at 18. Duell was commissioner from 1898 to 1901. His father, Robert Holland Duell, was commissioner from 1875-1876. See *Past Leaders of the USPTO*, https://www.uspto.gov/about-us/history/past-uspto-leaders, accessed Jan. 18, 2025.

[170] See, e.g., *Revision of Patent Office Interference Practice: Hearings before the Committee on Patents, House of Representative*s, 78th Cong. (1944).

[171] As Table 4 shows, there were relatively more appeals to the board in ex parte cases than in interferences, but fewer of them were appealed to the commissioner.

who in the office would rule on such motions. Would it be the primary examiner who had previously declared the interference? Or would it be the examiner of interferences who, if the motion were denied, would proceed to a determination of priority? There were pros and cons to each assignment. The primary examiner had the more relevant technical expertise but might be less likely than someone with a fresh pair of eyes to recognize that the declaration had been a mistake.[172] The examiner of interferences had less knowledge of the technology at issue in the case but was in a better position to bring consistency to the rules and procedures applied to such motions. In addition, sending the case back from the examiner of interferences to the primary examiner for consideration threatened to delay not only the interference but also all the other patent applications awaiting the examiner's review. It was, after all, to minimize such distractions that the position of examiner of interferences had been created in the first place.[173]

Over the years the Patent Office attempted to resolve these tradeoffs in various ways. Commissioner Fisher tried, in an 1870 decision, to draw a sharp line between the duties of primary examiners and those of the examiner of interferences by insisting that, once an interference had been declared, it could only be dissolved by the examiner of interferences or, on appeal, by the examiners-in-chief or the commissioner.[174] The next year, however, his successor rejected that approach and reassigned motions to dissolve to the primary examiner who had

[172] Giving the primary examiner the first opportunity to revisit a declaration decision would bring the practice for interference declarations into conformity with the statutory practice for rejections, first codified in the Patent Act of 1861, of deferring further appeals until after the primary examiner has made the same decision twice. 1861 Patent Act, *supra* note 77 § 3.
[173] 1860 COMM'R PAT. ANN. REP. CONG. at 7
[174] *Traut & Traut v. Disston & Morse*, 1870 Dec. Comm'r Pat.99. ("After the declaration of an interference it cannot be dissolved, except by the order of the examiner in charge of interferences, or the Commissioner, or by the board of examiners-in-chief or Commissioner on appeal. If facts come to the notice of the primary examiner which render it proper that the interference should be dissolved, or if new cases are filed which he thinks should be included in the interference, he can only act through the examiner in charge of interferences, to whom application must be made.")

declared the interference.[175] That practice continued until 1914, when Commissioner Ewing sought to exercise greater control over these decisions by assigning responsibility for ruling on motions to a member of his own staff who held the position of "law examiner."[176] Although his stated reason for the change was to increase the uniformity of the rulings, Ewing may also have hoped to reduce the number of decisions that were subsequently appealed.[177] Because the law examiner was a member of the commissioner's staff, his views may have been expected to accord with those of the commissioner, reducing the odds of a reversal on appeal. Ewing also sought to obviate the need for motions to dissolve by improving the quality of the interference declarations. He assigned a law examiner to review draft declarations and sign off on them before they were sent out. According to the commissioner's report to the Secretary of the Interior for 1918, of the 1,193 interferences the law examiner reviewed, 54.7 percent were approved as proposed, 21.5 percent were approved after modification, and 23.8 percent were turned down.[178] As Table 4 shows, however, none of these changes did much to reduce the burden of appeals on the commissioner; by the mid-1920s, the number of interlocutory appeals he received each year was higher than before Ewing's interventions.

The Patent Office also tried to reduce opportunistic delays by tinkering with the appeals process. As discussed in Section 2, the 1861 Patent Act had put in place a two-step process

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[175] 1871 Patent Office Rules, *supra* note 137 Rule 59 ("A motion for the dissolution of an interference on the ground that it was improperly declared, if made before the taking of testimony, will be heard by the primary examiner who declared the interference.") The rule did not specify who would hear motions for dissolution on other grounds.
[176] See *Changes in Rules of Practice (Order No. 2,129)*, 202 Off. Gaz. Pat. Off. 361 (May 12, 1914) ("Rule 122 is amended by substituting in lines 13, 24, and 25 for the words 'primary examiner' and in line 18 for the words 'proper primary examiner' the words *law examiner.*"). After Congress passed a statute collapsing the appeals process within the Patent Office, see 1927 Patent Act, *supra* note 121, the task reverted to the examiner of interferences in 1930 and then to the primary examiner who had issued the declaration in 1933. 1930 Comm'r Pat. Ann. Rep. Sec'y Comm. 2; *Amendments to the Rules of Practice (Order No. 3290)*, 448 Off. Gaz. Pat. Off. 266 (Nov. 13, 1934).
[177] See his *Address before the Patent Bar Association in Chicago*, reprinted in 111 SCI. AM. 491, 497-498 (Dec. 12, 1914).
[178] 1918 COMM'R PAT. ANN. REP. SEC'Y INTERIOR 15. This is the only year the commissioner provided these figures.

within the Patent Office for appealing priority decisions in interferences.[179] Because the process was written into the statute, it could not be changed unless Congress revised the law. Although the Act said nothing about appeals of interlocutory motions (indeed, it said nothing about interlocutory motions at all), in many situations the Patent Office treated interlocutory appeals in the same way as appeals of priority decisions. That is, rulings on motions to dissolve could be appealed to the Board of Examiners-in-Chief, and board decisions could be appealed to the commissioner. With the aim of streamlining the handling of interlocutory motions, officials revised the rules in 1873 to allow direct appeals to the commissioner in cases where the motion to dissolve rested on the grounds that "neither party is entitled to a patent, or that no interference in fact exists, or that there has been such irregularity in declaring the same as will preclude the proper determination of the question of right between the parties."[180] Sending these appeals straight to the commissioner did nothing to relieve his workload and denied him the benefit of the board's analysis, so the Patent Office subsequently backtracked and forced at least some of these appeals to be heard first by the examiners-in-chief. For example, the 1879 Rules excluded from direct appeals to the commissioner decisions on "motions to dissolve interferences denying the patentability of applicant's claims, or their right to make the claims, and other lawful motions involving the merits of the case."[181] But reintroducing the second layer of appeal again increased opportunities for delay.

[179] See *supra* text at notes 88-91.
[180] 1873 Patent Office Rules, *supra* note 139, Rule 59.
[181] 1879 Patent Office Rules, *supra* note 139, Rule 118. One other change to the appeals process in the 1879 Patent Office Rules did limit opportunism: no appeal could be taken "from a decision affirming the patentability of the claim or the applicant's right to make the same." *Id.* Rule 116. Although opposing parties could use motions to dissolve an interference to challenge the patentability of an applicant's claims or the applicant's right to make the claim before the examiner, if the examiner denied the motion and affirmed patentability, they could not further stall the issuance of the patent by appealing that determination.

Congress's reinstitution in 1893 of direct appeals in interferences, now to the Court of Appeals for the District of Columbia,[182] did not improve matters. Not only did it increase the number of appeals of priority decisions that losing parties could pursue before the Patent Office could issue a patent, it opened new ground for parties seeking to reverse Patent Office decisions on interlocutory motions. Although the judges on the court soon made it clear that their remit did not include appeals of such motions, lawyers found ways of forcing the court at least to consider them by arguing that the grounds for dissolution were "ancillary" to reviewable questions of priority.[183] Ambiguities of this sort proved to be fertile territory for delays, even when the procedural gambit failed.

5. Getting Appeals Under Control

The reinstatement in 1893 of the direct external appeal of priority decisions gave parties on the losing side of interferences yet another tool to delay the award of patents to rivals—beyond the two levels of appeal that already existed within the Patent Office. In response, officials lobbied Congress for changes that eventually streamlined the appeals process from top to bottom. It took decades to secure the necessary legislation, but Congress finally, in 1927, enacted a statute that consolidated the two appeals within the Patent Office and also limited parties to one external appeal, either a direct appeal to the court or a de novo bill in equity proceeding, but not both.[184] Under the 1927 Act, however, either of these two options could now

[182] 1893 Act, *supra* note 116, § 9,
[183] For the ruling that interlocutory decisions could not be appealed to the court, see *Allen v. United States ex rel. Lowry*, 26 App. D.C. 8 (1905). For an example of a case that nonetheless involved two such appeals, one that failed and another that succeeded, see the docket for Interference 28,667 and the cases *Cosper v. Gold and Gold*, 34 App. D. C. 194 (1909); and *Cosper v. Gold*, 36 App. D. C. 302 (1911).
[184] 1927 Patent Act, *supra* note 121.

be used to delay the issuance of patents, so despite the simplification, parties were able to continue to exploit the appeals process strategically. Not until 1939 did the Patent Office secure a more far-reaching reform that substantially curtailed opportunistic delays by moving all appeals to the courts and authorizing the Patent Office to issue patents immediately on the basis of its frontline priority decisions. As we will argue in this section, the Patent Office's determination first to streamline appeals and then to spin them off to the courts does not fit the standard view of public-choice theorists, who assume that the primary aim of self-interested bureaucrats is to extend their domains.[185] Lobbying hard to get rid of this substantial administrative assignment only makes sense if one takes seriously the Patent Office's commitment to alacrity in issuing patents.

The 1893 Act made the two-stage internal appeals process for interferences seem unnecessarily complicated. As we described in Section 2, the Patent Office had developed this process at a time when the external appeal to individual judges on the DC court was plagued with opportunism and forum shopping, and it had provided Commissioner Fisher with the justification he needed to convince Congress to cut off that appeal. Because the two-stage process was locked into statute by the 1861 Patent Act, however, the Patent Office could not revise it without Congress's permission. Even before the restoration of the external appeal, commissioners had begun to lobby Congress to allow them to restructure their internal procedures. These efforts increased after the 1893 Act's passage and, when no legislation was forthcoming, accelerated in the early twentieth century.[186] From 1908 through 1911, each of

[185] See TULLOCK, *supra* note 19; DOWNS, *supra* note 19; and NISKANEN, *supra* note 19.
[186] According to Federico, criticism of this complex and lengthy system of appeals and efforts at simplification "began almost immediately after the Act of 1870 and continued with periodical bursts of intensity until considerable simplification was finally achieved in 1927. See Federico Part II, *supra* note 111, at 951. For examples of early proposals for reform, see 1885 COMM'R PAT. ANN. REP CONG. and 1891 COMM'R PAT. ANN. REP. CONG..

their annual reports to Congress included proposals to replace the statutory requirement of two sequential appeals within the Patent Office with a single appeal to a consolidated board consisting of the commissioner, the assistant commissioner, and the examiners-in-chief.[187] Bills embodying these proposals were introduced in the House and Senate in 1908 and 1910 but not enacted.[188] In 1912, the President's Commission on Economy and Efficiency, which Congress had asked to conduct a study of the Patent Office, recommended eliminating the appeal to the commissioner from the Board of Examiners-in-Chief and expanding the membership of the Board from three members to five.[189] A bill incorporating this recommendation was introduced in Congress in 1912 but again not enacted.[190] Finally, after a hiatus of more than a decade, Congress passed legislation in 1927 collapsing the two levels of appeal within the Patent Office into one.[191]

The 1927 Patent Act created a single internal nine-member board of appeals that included the commissioner, first assistant commissioner, assistant commissioner, and six examiners-in-chief.[192] The board would sit in three-member panels chosen by the commissioner to resolve appeals, with no further appeal to the commissioner from board decisions. The Act also streamlined the external appeals procedure by giving the parties a choice of either a direct appeal to the Court of Appeals for the District of Columbia (changed by 1929 legislation to the Court of Customs and Patent Appeals) or a de novo bill in equity proceeding, but not both.[193] The result was to eliminate one of the two layers of administrative appeal that had been locked into the

[187] 1908 COMM'R PAT. ANN. REP. CONG.; 1909 COMM'R PAT. ANN. REP. CONG.; 1910 COMM'R PAT. ANN. REP. CONG.; 1911 COMM'R PAT. ANN. REP. CONG.
[188] Conway, *supra* note 64 at 30-33.
[189] 1912 President's Commission Report, *supra* note 61 at 13.
[190] Conway, *supra* note 64, at 34-39.
[191] 1927 Patent Act, *supra* note 121.
[192] *Id.* § 3.
[193] *Id.* § 8.

statute since 1861 and one of the two judicial appeals that interference parties had been able to pursue seriatim since 1893.[194]

The 1927 Patent Act ended appeals of interference decisions to the commissioner and also coincided with a drastic reduction of appeals of interlocutory motions to the commissioner (see Table 4). Because the commissioner allocated the members of the board to panels and could decide whether to participate in any individual case, the new arrangement gave him more control over his own workload. It did not, however, eliminate the opportunistic use of interference appeals for delay within the Patent Office. Indeed, as Table 4 shows, the Board of Appeals continued to receive approximately the same number of interlocutory appeals each year as had previously been heard by the commissioner. At the same time, the 1927 Patent Act allowed losing parties to delay the issuance of a patent to the inventor with priority until the external appeal was finally decided, regardless of whether that appeal went to the Court of Appeals of the District of Columbia or to a trial court through use of a bill in equity (with an appeal to follow). Hence, although the Act streamlined both the internal and external appeals available in interferences, it left intact the primary strategic benefit driving opportunistic delays.

The Patent Office continued to operate under this arrangement until the rise of antimonopoly sentiment during the Great Depression (much of which was directed at the patent system) gave officials another chance to reform the appeals process. As antipathy to big business peaked during the late 1930s, Congress set up the Temporary National Economic Committee (TNEC) to study the concentration of economic power in the United States and recommend remedial legislation.[195] One of the first subjects on which committee investigators focused their

[194] See *supra* text at notes 119-120.
[195] S.J. Res. 300, 75th Cong., 3d Sess. (June 16, 1938). The classic work on this development is ELLIS W. HAWLEY, THE NEW DEAL AND THE PROBLEM OF MONOPOLY: A STUDY OF ECONOMIC AMBIVALENCE (1966).

attention was the use of patents by big businesses to erect barriers to entry.[196] They then turned their attention to a series of proposed changes in the laws governing patents.[197] The TNEC had little to no interest in improving the efficiency of Patent Office procedures. Its members were preoccupied with reforms like compulsory licensing that they thought would promote competition.[198] Patent officials objected to such measures, believing they would weaken the protection that patent rights afforded inventors, and they strongly opposed compulsory licensing at the hearings.[199] At the same time, however, the attention that TNEC members directed at the patent system had the unintended effect of providing the agency with an opportunity to push its own agenda.

One of the proposed reforms favored by the antimonopolists was an idea that Patent Office officials had long supported: changing the patent term from a fixed seventeen years beginning on the date the patent was issued to a term that would end twenty years after the date the application was filed. The purpose of the reform was to discourage applicants from deliberately delaying the issuance of their own patents so that their 17-year patent terms would run during a more lucrative stage in the commercial life-cycle of their technologies.[200] An

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[196] Committee members held extensive hearings on the relationship between patents and economic concentration in the automobile and glass container industries, finding what they regarded as substantial abuse of patent monopolies in the latter, though not the former. Temporary National Economic Committee (hereafter TNEC), Investigation of Concentration of Economic Power: Hearings, Part 2, Patents: Automobile Industry, Glass Container Industry (1939); TNEC, PRELIMINARY REPORT S. Doc. No. 95, 76th Cong. (1939), extracted in 21 J. PAT. OFF. SOC'Y 650-663 (1939) [hereinafter TNEC Preliminary Report Extracts].

[197] INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER: HEARINGS BEFORE THE TEMPORARY NATIONAL ECONOMIC COMMITTEE, 75TH CONG., PART 3, PATENTS: PROPOSALS FOR CHANGES IN LAW AND PROCEDURE (1939) [hereinafter TNEC Hearings Part 3].

[198] See Jonathan M. Barnett, *The Great Patent Grab*, in THE BATTLE OVER PATENTS: THE HISTORY AND POLITICS OF INNOVATION, 207 (Stephen H. Haber & Naomi R. Lamoreaux eds, 2021).

[199] See *Statement of Commissioner of Patents Conway P. Coe's Before the Temporary National Economic Committee*, reprinted in 21 J. PAT. OFF. SOC'Y 87 (1939) [hereinafter Coe TNEC Statement].

[200] The Patent Office had long sought to eliminate this source of delay, and Commissioner Charles Duell had proposed the 20-year reform as early as 1898 in his Annual Report to Congress. See 1898 COMM'R PAT. ANN. REP., CONG., 86 OFF. GAZ. PAT. OFF. 1169 at 1177. At the TNEC hearings, Commissioner Conway P. Coe devoted a portion of his testimony to describing the various ways in which applicants delayed the issue of their patents, labeling them "abuses of the patent monopoly." TNEC Hearings, Part 3*, supra* note 197, 848-854, 1132-1134.

important objection to the change was the possibility that interferences could delay the issuance of a patent, especially if the procedures were deliberately prolonged by opportunistic parties, and eat up much of the term of a patent that expired twenty years after its filing date. Commissioner Conway P. Coe deftly used the popularity of the proposal for a 20-year term to resolve once and for all the problem of appeals in interferences, noting that interference delays posed an obstacle to agreement on that change.[201] "I urge," Coe wrote in his statement to the committee, "that the interference procedure be terminated with a single decision of the Examiner of Interferences and that a patent be promptly granted on the basis of the decision." The point was to abolish all appeals of interferences within the Patent Office and, at the same time, eliminate the strategic benefit of appeals to the court for the purpose of delay. It would still be possible for a dissatisfied party to appeal an interference decision to a court, which could review the decision "and, if the facts justified, award the appellant the patent and also cancel the patent already issued." But meanwhile the prevailing party in the interference would enjoy the benefits of an issued patent. This reform, Coe suggested, would both "minimize the duration of an interference and make it possible to apply the twenty-year proposal without unfairness or injustice."[202]

Coe's proposal compels us to take seriously the Patent Office's commitment to issuing patents speedily. Contrary to standard public-choice theory, officials voluntarily reduced the scope of activity of the Patent Office, hiving off an important part of the Office's business and moving it to the courts. We do not know who came up with the idea. Coe testified at the TNEC hearings that the proposal had received "the deliberate and thorough consideration of the Patent

[201] Coe was another example of a commissioner with prior experience in the Patent Office and also in private practice. Both before and after the First World War he worked as an assistant examiner in the Patent Office, earning a law degree from George Washington University at the same time. In 1923 he joined a law firm in Akron, Ohio and then returned to Washington to start his own practice. President Franklin D. Roosevelt appointed him Commissioner of Patents in 1933. See *Conway P. Coe*, https://www.uspto.gov/about-us/conway-p-coe, accessed January 26, 1926.

[202] Coe TNEC Statement, *supra* note 199 at 123-124.

Office Advisory Committee" that had been set up a few years earlier by the Secretary of Commerce.[203] We do know, however, that the Patent Office pushed hard for the change. Coe presented the proposal, along with several other recommendations, in a long statement to the committee, replete with detailed supporting charts and diagrams. And he and his top aides were a constant presence at the hearings, interjecting comments and information that reinforced their message, countering contrary testimony from witnesses. and helping to shape the direction of questioning.[204]

The influence Coe exerted at the hearings can be seen in the TNEC's 1939 preliminary report to Congress. The committee recommended that Congress enact all the Patent Office's proposals, copying them almost verbatim from Coe's statement into its report.[205] The committee also followed Coe's lead and backed away from the idea of compulsory licensing, instead limiting its antimonopoly reforms to more modest proposals such as prohibiting patent owners from writing restrictions on quantities and prices into licensing agreements.[206] That same year Congress passed five patent bills, based largely on the Patent Office's recommendations. The bills included all the significant reforms to interference procedures that Coe had

[203] We know, however, that the idea did not come from the secretary but had only "been formally recommended to him" by the time of the hearings. TNEC Hearings Part 3, *supra* note 197 at 863.
[204] *Id.* Coe's statement, which includes his responses to questions, is at pp. 838-867, with his exhibits appearing on pp. 1107-1138. In addition to the proposals noted in text to spin off appeals and institute a twenty-year patent term, Coe recommended the abolition of patent renewal applications, the reduction from two years to one of the period in which an inventor could make public use of an invention before filing a patent, the reduction from two years to one of the period in which an applicant could copy claims from an issued patent for the purpose of asserting priority, and granting the commissioner authority to require an applicant to respond to an official action in less than the statutory period of six months. All of these recommendations aimed to reduce delays in issuing patents.
[205] The recommendations are set forth in TNEC Preliminary Report Extracts, *supra* note 196, at 652-53. In addition to the 20-year patent term and the restructuring of interference appeals, the Patent Office recommended abolishing renewal applications, reducing the period in which an inventor might make public use of his invention before filing from two years to one, reducing from two years to one year the period in which an applicant could copy claims from an issued patent to provoke an interference, and allowing the commissioner to require an applicant to respond to a Patent Office action in less than the existing statutory period of six months
[206] TNEC Preliminary Report Extracts, *supra* note 196, at 653-656.

recommended.[207] Congress did not, however, change the length of the patent term to end twenty years after the filing date.[208] Nor did it act on any of the proposals for more sweeping changes to the patent system, such as requiring compulsory licensing of patents or even prohibiting restrictive terms in licensing agreements.

The interference reforms enacted in 1939 collapsed frontline adjudication and internal Patent Office appeals for interference priority decisions into a single proceeding by authorizing the commissioner, upon finding an interference, "to direct a board of three examiners of interferences to proceed to determine the question of priority."[209] The legislation also authorized the commissioner to issue a patent to the party that the interference examiners determined had priority, deleting prior statutory language that deferred issuance of a patent pending further review.[210] The losing party could appeal the priority decision of the interference examiners directly to the courts (or, alternatively, challenge the decision in a de novo bill in equity proceeding), but those appeals could no longer be used to delay the issuance of a patent to the prevailing party. Conforming amendments to the Patent Office Rules of Practice followed promptly that extended the reforms to interlocutory motions.[211] The revised rules continued to

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[207] The interference reforms were enacted in Act of Aug. 5, 1939, Pub. L. No. 76-287, ch. 451, 53 Stat.1212 [hereinafter 1939 Patent Act]. Four other laws enacted all the Patent Office's proposals except for the 20-year patent term. See Act of Aug. 5, 1939, Pub. L. No. 76-286, ch. 450, 53 Stat. 1212 (reducing permitted time for public and publication prior to filing applications for patents from 2 years to 1 year); Act of Aug. 9, 1939, Pub. L. No. 76-358, ch. 619, 53 Stat. 1293 (requiring payment of final fee within 3 months of notice of allowance to avoid loss of right to patent); Act of Aug. 9, 1939, Pub. L .No. 76-288, ch. 452, 53 Stat. 1213 (reducing time for provoking interference with issued patent from 2 years to 1 year by prohibiting copying of claims from a patent to establish priority more than a year after issuance); Act of Aug. 7, 1939, Pub. L. No. 76-341, ch. 568, 53 Stat. 1264 (authorizing Commissioner to requires replies to Patent Office actions on applications in less than 6 months but not less than 30 days). For the text of the laws, see *Changes in the Patent Laws*, 21 J. Pat. Off. Soc'y 703-723 (1939):.

[208][208] Congress eventually made that change as part of the Uruguay Round Amendments Act, Pub. L. No. 103-465, 108 Stat. 4809 (Dec. 8, 1994), codified in pertinent part at 35 U.S.C. § 154, to bring US law into compliance with the GATT-TRIPS Agreement.

[209] 1939 Patent Act, *supra* note 207 § 1.

[210] 1939 Patent Act, *supra* note 207 §§ 3, 4.

[211] See *U.S. Patent Office Order No. 3487* (Sept. 28, 1939), reproduced in 507 OFF. GAZ. PAT. OFF. 239-240 (Oct. 10, 1939).

assign decisions on motions to dissolve interferences to primary examiners, but parties no longer had any way to appeal their rulings.[212]

The 1939 Act continued the longstanding practice of treating appeals of rejections of patent applications differently from appeals of priority decisions in interferences. In the case of patent rejections, there was still a double sequence of appeals, first within the Patent Office and then, after internal remedies had been exhausted, to the courts. In the case of patent interferences, however, there was now a sharp division of labor between the Patent Office and the courts. The Patent Office would determine priority and issue patents to prevailing parties. Losing parties who wanted to appeal priority decisions could still go to court, but there was no longer any incentive to do this if the goal was simply to delay the inevitable. The Patent Office had finally secured a practical solution to the longstanding and seemingly intractable problem of opportunism in interference cases.

6. The View from the Courts

While the Patent Office was lobbying Congress to restructure its procedures for handling the growing volume of appeals in interference cases, the federal courts were struggling with their own burgeoning caseloads and dockets.[213] The Supreme Court was especially overwhelmed, with parties waiting up to three years to get a hearing by the early 1890s.[214] Both entities needed

[212] Rules of Practice in the United States Patent Office (Oct. 1940) [hereinafter 1940 Patent Office Rules], Rule 124 ("No appeal will be permitted from a decision rendered on a motion brought under the provisions of rules 109 and 122.") and Rule 143 ("There is no appeal to the Board of Appeals in interferences.").
[213] Two sources provide closely observed overviews of legislative efforts to address each of these problems. On reform of patent procedures, see MARGARET M. CONWAY, supra note 64. On reform of the federal judiciary, see FELIX FRANKFURTER & JAMES M. LANDIS, THE BUSINESS OF THE SUPREME COURT: A STUDY IN THE FEDERAL JUDICIAL SYSTEM (Routledge 2017) (1928). For a view from the bar, see Walter B. Hill, *The Federal Judicial System*, 12 ANNUAL REPORT OF THE AMERICAN BAR ASSOCIATION 289 (1889).
[214] FRANKFURTER & LANDIS, *supra* note 213 at 86, 257.

Congressional action to address their complaints effectively, and their pleas for relief were roughly synchronous, perhaps because both patent applications and litigation tended to rise during economic booms and subside during wars and recessions.[215] In both cases, proposed reform legislation was repeatedly introduced and then died in one Congress after another, but the broader mission of reforming the courts seems to have taken precedence over the specific problem of appeals from the Patent Office.[216] Certainly, members' worries about the potential burden on the courts affected their reception of the Patent Office's proposals for reforming interference appeals.[217]

Congress enacted broad judicial reforms in the 1890s and again in the 1920s, followed in both cases by more targeted legislation for patent appeals. In each case a single political party controlled both houses of Congress and the presidency,[218] which undoubtedly made it easier to pass legislation that created new judicial appointments for the president to fill.[219] The Judiciary Act of 1891, also known as the Evarts Act, created nine new regional circuit courts of appeals with jurisdiction over the majority of appeals from federal trial court decisions.[220] Although it continued to allow direct appeal to the Supreme Court as a matter of right in some cases,[221] for

[215] We have better data during the period of our study to observe changes in the volume of patent applications than to observe changes in the volume of litigation. See Fig. 1. Frankfurter & Landis cite the creation of the Conference of Senior Circuit Judges in 1922 as marking a new era of data reporting on the business of the federal courts to guide reform. FRANKFURTHER & LANDIS, s*upra* note 213 at 242-254.
[216] Legislation to reform patent appeals was referred to the Judiciary Committee(s) that also handled judicial reform legislation. See Conway, *supra* note 64, at 47-49.
[217] This is most clear in the history of 1929 legislation assigning Patent Office appeals to the renamed Court of Customs Appeals. See discussion *infra.*
[218] U.S. H.R. HIST., ART, & ARCHIVES, *Party Government Since 1857*, https://history.house.gov/Institution/Presidents-Coinciding/Party-Government/ (indicating unified government under the Republicans during the 51st Congress from 1889-1891 and under the Democrats during the 68th Congress from 1933-1935),
[219] On the appeal of new appointments to the party in power and opposition to creating new judgeships during periods of divided government, see FRANKFURTER & LANDIS, *supra* note 213, at 42, 231.
[220] Judiciary Act of 1891 (also known as Evarts Act), ch. 517, 26 Stat. 826 [hereinafter Evarts Act] §§ 2, 6. The long legislative history is recounted in detail in FRANKFURTER & LANDIS, *supra* note 213 at 69-101.
[221] Evarts Act, *supra* note § 5.

other categories of cases—including those arising under the patent laws—decisions of the circuit courts of appeals were final unless the Court chose to grant certiorari as a matter of discretion.[222]

The Evarts Act concerned only appeals from federal trial courts and did not address appeals from Patent Office decisions, leaving in place prior law that since 1870 had allowed direct appeals from rejections of patent applications to the supreme court of the District of Columbia but made no provision for direct appeals from interference decisions.[223] However, Congress followed the Evarts Act in 1893 with legislation establishing a new court of appeals for the District of Columbia.[224] In addition to giving the new court jurisdiction over appeals from the supreme court of the District of Columbia (which now became just a trial court), the 1893 Act transferred to the new court of appeals jurisdiction over direct appeals from the Patent Office, including jurisdiction over newly restored direct appeals from priority decisions in interferences.[225] But the 1893 Act did nothing to constrain the abuse of Patent Office appeals. To the contrary, as we saw in Section 4, the restoration of direct appeals from interference decisions brought back previously eliminated opportunities for delay.

Although initially the Evarts Act made a noticeable difference in the docket of the Supreme Court,[226] by the early 1920s the Court's workload was again rising rapidly, with cases requiring mandatory review comprising 80 percent of the total.[227] When former President William Howard Taft became Chief Justice, he turned his political skills to securing passage of

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[222] *Id.* § 6.
[223] See *supra* notes 104-110 and 116-120 and accompanying text.
[224] Act of Feb. 9, 1893, ch. 74, 27 Stat. 434 § 1 [hereinafter 1893 Act].
[225] 1893 Act § 9. Subsequent legislation enlarged the scope of the court of appeals' jurisdiction over appeals in municipal matters in the District of Columbia, in addition to its jurisdiction over federal matters like those considered by the regional circuit courts of appeals under the Evarts Act. For a review of this history see Lorin H. Bleecker, *A History of the District of Columbia Courts*, 20 AM U. L. REV. 651, 663-64 (1971).
[226] See Frankfurter & Landis, *supra* note xx at 101 (new cases docketed at the Supreme Court fell from 623 in 1890 in the last full year before the Evarts Act to 275 cases in 1892 in the first full year after the Evarts Act).
[227] Felix Frankfurter & James M. Landis, *The Supreme Court Under the Judiciary Act of 1925*, 42 HARV. L. REV. 1 (1928) at 10, Table III.

the 1925 Judges Bill—legislation that for most cases would replace Supreme Court review as a matter of right by appeal or writ of error with discretionary review by writ of certiorari.[228] By this point the Court of Appeals for the District of Columbia was also suffering from an overcrowded docket, with patent appeals representing about a third of its caseload. According to Federico, during the decade from 1920 to 1929 that court heard an annual average of 47 ex parte appeals from patent rejections, 50 interference appeals, and 32 trademark appeals.[229] Congress's solution—with the unofficial endorsement of the Supreme Court[230]—was to enact legislation in 1929 redirecting Patent Office appeals from this very busy court (which had only three judges) to the less busy US Court of Customs Appeals (which had five judges), and renaming the latter the Court of Customs and Patent Appeals (CCPA).[231] Congress's primary goal was to reallocate the workload among existing courts rather than to create a specialized court for patent appeals.[232] Nonetheless, patent appeals loomed large in the caseload of the CCPA, enabling its judges to

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[228] Judiciary Act of 1925 (also known as Judges Bill), ch. 229, 43 Stat. 936 [hereinafter 1925 Judges Bill]; FRANKFURTER & LANDIS, *supra* note at 273-280; Robert Post, *The Supreme Court's Crisis of Authority: Law, Politics, and the Judiciary Act of 1925* (Draft 7 Dec. 29 2024) at 2-7, available at SSRN: https://ssrn.com/abstract=5075524 or http://dx.doi.org/10.2139/ssrn.5075524; Charles W. Bunn, *New Appellate Jurisdiction in Federal Courts*, 9 MINN. L. REV. 309 (1925); William H. Taft, *The Jurisdiction of the Supreme Court Under the Act of Feb. 13, 1925*, 35 YALE L. J. 1 (1925).

[229] Federico Part II, *supra* note at 932 and 946 n.128 (citing Congressional Record, 69th Cong., 1st Sess., part 9, page 10108).

[230] After the bill was read, Congressman Vestal announced, "I may say—unofficially—that this bill has the indorsement of the Chief Justice of the United States Supreme Court and the other members of the court." Change in Title of the United States Court of Customs Appeals: Hearing Before the H. Comm. on the Judiciary, 70th Cong., on H.R.6687 (Feb. 1, 1928) [hereinafter CCPA House Hearing] at 3. (remarks of Congressman Vestal). The Justices had then recently taken a much larger role in drafting the 1925 Judges Bill to allow them to control their own docket more effectively. See Robert Post, *The Supreme Court's Crisis of Authority: Law, Politics, and the Judiciary Act of 1925* (December 29, 2024), available at SSRN: https://ssrn.com/abstract=5075524 or http://dx.doi.org/10.2139/ssrn.5075524. See also William H. Taft, *The Jurisdiction of the Supreme Court Under the Judiciary Act of 1925*, 35 YALE L.J. 1 (1925).

[231] Act of March 2, 1929, ch..488, Pub. L. No. 70-914, 45 Stat. 1475 [hereinafter 1929 CCPA Act]. Congress had previously passed legislation to ease the court's workload by allowing other local judges, including judges on the US Court of Claims, to sit by designation on the court of appeals for the District of Columbia when requested by the Chief Justice. See "Evolution of Patent Office Appeals (Continued from November)," 946. See also *Glidden v. Zdanok*, 370 U.S. 530 (1962), discussing statutory authorization for judges on the Court of Customs and Patent Appeals to sit by designation on other courts in the District of Columbia).

[232] Indeed, according to Judge Giles Rich, who was appointed to the CCPA by President Dwight David Eisenhower in 1956, he was the first patent lawyer to serve on that court—nearly three decades after its creation. Giles S. Rich, *A Brief History of the United States Court of Customs and Patent Appeals* (1980).

acquire significant expertise and providing stability and consistency to the court's oversight of Patent Office decisions.[233]

Although by this point the supreme court of the District of Columbia had been deciding appeals from Patent Office rejections for over two decades, the change in the identity of the court hearing appeals from Patent Office decisions and the expansion of its jurisdiction to include interference appeals provoked a series of legal challenges that reached the Supreme Court. The Court's opinions in those cases provide a useful window on how its understanding of the administrative state and Congress's role in providing for review of agency decisions were evolving between the late nineteenth and the early twentieth centuries.

The first case, *U.S. v. Duell*, was decided in 1899, six years after Congress had restored direct appeals from Patent Office decisions in interferences.[234] A party whose award of priority had been affirmed by the commissioner but reversed by the court of appeals for the District of Columbia sought a writ of mandamus to compel the commissioner to issue the patent to him, arguing that Congress had no power to authorize a court to revise the decision of the commissioner, an executive branch officer, in an interference. The Supreme Court rejected this argument in sweeping language in *U.S. v. Duell*, deferring to Congress's choice of how to provide for review of Patent Office decisions in interferences. Congress had constitutional authority to secure patents to inventors and to make all laws which shall be necessary and proper for carrying that expressed power into execution. Therefore, "Congress may provide such instrumentalities in respect of securing to inventors the exclusive right to their discoveries as in

[233] Because the CCPA heard appeals from the Patent Office, while decisions of the US District Courts in patent cases were appealed to the various regional circuit courts of appeal, there remained considerable room for inconsistent application of patent law (including inconsistent decisions involving the same patent) until Congress created the Court of Appeals for the Federal Circuit in 1982. Federal Courts Improvement Act, Pub. L. No. 97-164, 96 Stat. 25 (1982) (codified as amended in scattered sections of 28 U.S.C.).
[234] U.S. v. Duell, 172 U.S. 576 (1899).

its judgment will be best calculated to effect that object."[235] The Court cited as "directly in point" its decision five years earlier in *Butterworth v. Hoe*, rejecting the asserted authority of the Secretary of the Interior to review decisions of the Commissioner when Congress had instead provided by statute for review in the courts.[236] Taken together, these two decisions show the Supreme Court at the end of the nineteenth century to understand that the design of review mechanisms for Patent Office adjudication decisions was a job that the Constitution allocated to the discretion of Congress, without presupposing either control through a strict executive branch hierarchy (rejected in *Butterworth v. Hoe*) or a strict formal separation between the executive and judicial branches (rejected in *U.S. v. Duell)*.

In the early twentieth century, the Supreme Court considered several additional challenges to the authority of the courts to review decisions of the Patent Office, showing notably less deference to congressional design choices than it had displayed in *Butterworth* and *Duell*. Although these later cases would raise constitutional concerns about the separation of powers, the Court's main goal seems to have been to keep appeals of Patent Office decisions off the Supreme Court's docket rather than to assert judicial its constitutional authority to redesign review mechanisms for the administrative state. In its 1908 decision in *Frasch v. Moore,* for example, the Supreme Court declined to review a decision of the Court of Appeals for the District of Columbia in an interference case that had been appealed from the Patent Office, notwithstanding a provision in the 1893 Act "[t]hat any final judgment or decree [of that court] may be reexamined and affirmed, reversed, or modified by the Supreme Court of the United States."[237]

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[235] *Id.* at 583.
[236] *Id*. at 586-88 (citing Butterworth v. U.S. ex rel. Hoe, 112 U.S. 50 (1894). See discussion of *Butterworth* in Section 2 at notes 111-116 *supra.*
[237] Frasch v. Moore, 211 U.S. 1, 7 (1908) (quoting 1893 Act, *supra* note 224, § 8,

As a formal matter, the question before the Court was one of statutory interpretation rather than of constitutional law: was the decision of the Court of Appeals a "final judgment or decree" within the meaning of the statute? Noting that patent law allowed the Court of Appeals' decision to be revisited in a bill in equity proceeding, the court decided it was not a final judgment.[238] The reviewable "final judgment or decree" referred to in the statute was therefore "obviously the judicial decision on the bill in equity, while in interference cases and in all others going up from the Commissioner to the Court of Appeals there is no final judgment in the case, but one interlocutory in its nature and binding only upon the Commissioner."[239] Since by this point the courts had held that a party seeking review of an interference decision by bill in equity must first exhaust any remedy by direct appeal,[240] the Court's interpretation of the statute in *Frasch v. Moore* meant that there would be no final judgment to review until after the Court of Appeals had ruled against the aggrieved party twice: first on direct appeal from the commissioner, and second on appeal from the court hearing the equity proceeding. The Court did not even cite, much less distinguish, its own decision nine years earlier in *U.S. v. Duell*, where it had disapproved the use by a party who had lost in the Court of Appeals of a writ of mandamus rather than an appeal "directly to this court" in order to compel the Commissioner to issue a patent in defiance of that court's decision.[241] The *Duell* Court went on to characterize the judgment of the Court of Appeals as "not the less a judgment 'because its effect may be to aid an administrative or executive body in the performance of duties legally imposed upon it by Congress in execution of a power granted by the Constitution,'"[242] and concluded that Congress

[238] 211 U.S. at 8-9 (1908)
[239] 211 U.S. at 9.
[240] Kirk v. Comm'r, *supra*.
[241] U.S. v. Duell, *supra* note 234, 172 U.S. at 581.
[242] 172 U.S. at 588, citing *Interstate Commerce Comm'n v. Brimson*, 154 U.S. 447.

not only had the power to create a special tribunal to perform this task, but "a fortiori, existing courts of competent jurisdiction might be availed of."[243]

Two Supreme Court cases from the 1920s—neither involving a patent or patent law, but both discussing patent appeals at length—reached beyond the statutory interpretation at issue in *Frasch v. Moore* to find a constitutional constraint on review of Patent Office decisions by courts vested with the judicial power of the United States under Article III of the Constitution. The first, *Postum Cereal v. California Fig Nut,* arose from a trademark interference in the Patent Office.[244] The Court of Appeals of the District of Columbia had declined to review a decision of the Commissioner, holding that the governing statute (the Trademark Act of 1920[245]) did not provide for such an appeal. The Supreme Court in turn declined to review the decision of the Court of Appeals, but on constitutional rather than statutory grounds. Chief Justice Taft's opinion for the Court explained that the decision of the Court of Appeals was not a judicial decision, but an administrative one—"merely an instruction to the Commissioner of Patents by a court which is made part of the machinery of the Patent Office for administrative purposes."[246] In this respect, the Court saw the trademark statute before it as parallel to the patent statute at issue in *Butterworth v. Hoe*, as neither statute "precludes any person interested from having the

[243] 172 U.S. at 589. A lurking issue that the Court did not clearly address in *Frasch v. Moore* was that the provision that the Court focused on for revisiting a Patent Office adjudication in a bill in equity proceeding is not the only statutory means for interested parties to challenge Patent Office decisions in subsequent judicial proceedings. Congress had long allowed (and still allows) defendants in infringement actions to avoid liability by establishing that an issued patent fails to satisfy statutory requirements for validity. Such challenges were an essential check on patents issued without prior examination during the period before Congress created a Patent Office in 1836, and for the many pre-1836 patents remained in force beyond that date. But Congress never limited such challenges to pre-1836 patents, and infringement defendants may still challenge patent validity to this day. See, e.g., 1793 Patent Act, *supra* note 17, § 6; 1836 Patent Act, *supra* note 18, § 15; 1870 Patent Act, *supra* note 18, § 61; current version at 35 U.S.C. § 282. Did it therefore follow from *Frasch v. Moore* that no decision of a reviewing court—whether on direct appeal from the Patent Office or on appeal from a lower court decision—would ever count as a final judgment?

[244] Postum Cereal v. California Fig Nut, 272 U.S. 693 (1927).

[245] Act of March 19, 1920, Pub. L. No. 66-163, 41 Stat. 533.

[246] Postum Cereal v. California Fig Nut, 272 U.S. at 698-99.

right to contest the validity of such patent or trademark in any court where it may be called in question."[247] The possibility of later collateral review prevented a further appeal from the Court of Appeals to the Supreme Court, "which can only review judicial judgments" (and not administrative decisions). Congress could assign such an administrative review function to the courts of the District of Columbia "in its constitutional exercise of exclusive legislation over the District," but "it may not do so with this Court or any federal court established under Article III of the Constitution."[248]

Shortly after the *Postum* decision, Congress eliminated the specific obstacle to finality that the Court had noted in *Frasch v. Moore* —the availability of de novo review by a court in an equity proceeding after the decision of the Court of Appeals on direct review of a Patent Office decision. As we explained in Section 5, the 1927 Patent Act allowed the parties only one judicial appeal outside the Patent Office—either a direct appeal to the Court of Appeals of the District of Columbia or a bill in equity proceeding, but not both—preventing the use of an equity proceeding to overturn the decision of the Court of Appeals on direct appeal.[249] This change in

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[247] *Id.* at 699 (citing Rev. Stat. 4914, the codified version of the provision permitting direct review of Commissioner decisions). The text of that provision read as follows:

> "SEC. 4914. The court, on petition, shall hear and determine such appeal, and revise the decision appealed from in a summary way, on the evidence produced before the Commissioner, at such early and convenient time as the court may appoint; and the revision shall be confined to the points set forth in the reasons of appeal. After hearing the case the court shall return to the Commissioner a certificate of its proceedings and decision, which shall be entered of record in the Patent Office, and shall govern the further proceedings in the case. *But no opinion or decision of the court in any such case shall preclude any person interested from the right to contest the validity of such patent in any court wherein the same may be called in question*."

(as set forth in Frasch v. Moore, 211 U.S. 1 (1908) (emphasis added)). Perhaps, as Chief Justice Taft surmised, the later proceeding contemplated in this provision was a bill in equity proceeding, but the breadth of the language indicates that the drafters may also have contemplated a later challenge to validity by a defendant in an infringement action.

[248] *Postum Cereal*, 272 U.S. at 700. Although in the cases the Court relies on the obstacle to review by an Article III court had been the lack of finality for the decisions, the Court in *Postum* seems to see a more intractable obstacle in the administrative character of the tribunal's task. See *id.* at 699 ("It was said in [cited] cases that the appeal was denied because the action of the Court of Appeals was not a final judgment. This reason was a true one, but it should not be understood to imply that, in such a proceeding, circumstances might give it a form that would make it a final judgment subject to review by this Court…. Whatever the form of the action taken in respect of such an appeal, it is not cognizable in this Court upon review, because the proceeding is a mere administrative one.")

[249] See *supra* text at notes 193-194.

the law was not a response to the Supreme Court, but rather the culmination of a decades-long campaign to streamline the patent appeals process both within the Patent Office and in the courts. Nonetheless, the intervening legislative change complicated the task of figuring out the relevance of the Court's decisions to additional legislation still pending in Congress that would redirect appeals from Patent Office decisions from the Court of Appeals to what would become the Court of Court of Customs and Patents Appeals (CCPA).[250]

While Congress debated and enacted that legislation, the Supreme Court expanded upon the reasoning of the *Postum* decision in *Ex parte Bakelite*, a case arising under the Tariff Act.[251] The Bakelite Corporation had filed a complaint with the Tariff Commission charging unfair trade practices in the importation and sale of certain goods. The Tariff Commission recommended that the goods be excluded from entry, and the importers appealed to the Court of Customs Appeals (predecessor of the soon to be created CCPA). Bakelite sought a writ prohibiting that court from entertaining the appeal on the grounds (1) that as a court created under Article III of the Constitution it could not take jurisdiction over any proceeding which is not a case or controversy within the meaning of that Article,[252] and (2) that, because the Tariff Act proceeding left the final decision to the president rather than to the court, it was not an Article III case or controversy, but merely an advisory proceeding in aid of executive action. The Court of Customs Appeals held that it had jurisdiction to consider the appeal, and Bakelite petitioned the Supreme Court for a writ of prohibition. The Supreme Court denied the writ after concluding that the Court of Customs Appeals was not a "constitutional court" created under Article III, but rather a "legislative court" created by Congress "in the exertion of other powers" and therefore free of

[250] 1929 CCPA Act, *supra* note 231.
[251] 279 U.S. 438 (1929).
[252] See U.S. Constitution Art. III, § 2, cl. 1.

the constraints imposed by Article III.[253] Congress could give legislative courts the authority and duty "of giving advisory decisions in proceedings which are not cases or controversies within the meaning of Article III, but are merely in aid of legislative or executive action, and therefore outside the admissible jurisdiction of courts established under that Article."[254] The Court of Customs Appeals was such a court, created by Congress "in virtue of its power to lay and collect duties on imports," and it hears matters that "do not inherently or necessarily require judicial determination, but could be committed to executive officers," despite their "quasijudicial" character.[255] The status of a court as constitutional or legislative does not turn on the intent of Congress, nor on its appointment of judges to hold office during good behavior, but rather "lies in the power under which the court was created and in the jurisdiction conferred."[256]

In a footnote that may have surprised some members of Congress, the Court asserted in support of its decision in *Bakelite* that Congress did not intend for the Court of Customs Appeals to be a constitutional court when it recently enacted legislation assigning to that court "the advisory jurisdiction in respect of appeals from the Patent Office which formerly was vested in the Court of Appeals of the District of Columbia."[257] The legislative record does not support the Court's inference as to legislative intent. Members of Congress and witnesses at hearings on the proposed bill showed awareness of the Court's recent decision in *Postum*, but also confusion and disagreement about where in the Supreme Court's taxonomy of legislative and constitutional courts the Court of Appeals of the District of Columbia and the Court of Customs Appeals belonged, as well as about what difference the Court's distinctions made to their legislative goals

[253] 279 U.S. at 446-450.
[254] 279 U.S. at 450.
[255] 279 U.S. at 458-59.
[256] 279 U.S. at 459.
[257] *Id.* at 460 n. 30.

of simplifying and expediting the appeals process.[258] The main purpose of the bill was to transfer jurisdiction from the overburdened Court of Appeals, which had only three judges and was way behind in its work, to the Court of Customs Appeals (as it was then called), which had five judges and could better handle the workload. As one representative put it, "This must be done, or we must have two or three more judges appointed to the court of appeals. There isn't any question about it, so I am told by the Chief Justice of the Supreme Court."[259] But what was Congress to make of the Chief Justice's alleged approval of the proposed legislation? Did he approve because the proposed legislation would delete statutory language that the Court had called out in the *Postum* decision as preventing the exercise of jurisdiction by an Article III court? Or, at a time when the Court was more concerned with decluttering its own docket than with controlling the administrative state, did he approve because he welcomed assignment of these appeals to a legislative court whose decisions the Supreme Court would not have to review? The speakers at the hearing had different interpretations. [260]

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[258] CCPA House Hearing, *supra* note 230. Witnesses and members of Congress discussed a version of the bill that would have deleted from the statute language that since 1839 had preserved the right of interested parties to contest the validity of any patent before a court in a later action, notwithstanding the decision in an appeal from the Patent Office decision. The deleted language—"But no opinion or decision of the court in any such case shall preclude any person interested from the right to contest the validity of such patent in any court wherein the same may be called in question."—had been highlighted by the Supreme Court in declining to review the lower court decisions in *Frasch v. Moore* and *Postum Cereal v. California Fig Nut*, perhaps indicating that that language was the source of unintended constitutional problems that might complicate the job of reforming patent appeals.

[259] CCPA House Hearing, *supra* note 230 at 4 (remarks of Congressman Vestal).

[260] Both Congressman Vestal and Acting Commissioner Kinnan, wanted to retain in the statute the longstanding right to contest patent validity in a later court proceeding. According to Kinnan, the proposed deletion from the statute of the right of interested parties to contest patent validity reflected a desire on the part of the bar to ensure that the decisions of the court hearing appeals from Patent Office decisions would be appealable to the U.S. Supreme Court. But in his view, which he noted was shared by the Commissioner, "there is no hope whatever" that the Supreme Court would entertain writs of certiorari "to this court of customs and patent appeals" even if the clause were left out of the statute, and he would prefer to see the longstanding language retained. *Id.* at 8-10.The next witness, patent attorney Karl Fenning, corrected the Acting Commissioner for misinterpreting the point of the proposal, which was not to preserve Supreme Court review of decisions of the Court of Customs Appeals, but rather to ensure that the Court of Customs Appeals itself could take jurisdiction of appeals from the Commissioner over the objection that those appeals were administrative rather than judicial matters. Kinnan figured that the court of appeals for the District of Columbia was a "municipal court" to which Congress could assign "not merely judicial cases, but also any administrative matter which it desires." But the Court of Customs Appeals, he asserted shortly before the Supreme Court would contradict him in the *Bakelite* decision, "has judicial jurisdiction, which is the jurisdiction of

In the end, when Congress transferred the authority to review decisions of the Patent Office from the Court of Appeals of the District of Columbia to the renamed Court of Customs and Patent Appeals, the contested language permitting subsequent challenges to patent validity remained in the statute. The Court's assertion that Congress intended for the CCPA to be a legislative court seems questionable. Nonetheless, preserving a path to the Supreme Court for review of CCPA decisions could not have been a priority for Patent Office reformers, whose goal was to streamline the appeals process rather than prolong it. As for the Supreme Court, at the time it may well have been more interested in clearing its bloated docket than in establishing control of the administrative state. It would take decades for Congress and the Court to overcome the shifting and uncertain obstacles to judicial review of Patent Office decisions by Article III courts.[261] Indeed, another 36 years would pass before the Court would review a decision in an interference on certiorari to the CCPA.[262] By that time, the primary obstacle to such oversight was the Court itself which, having resorted to constitutional constraints to limit its own review of Patent Office decisions, could not readily back down from that position.

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the United States courts, and it is a United States court under the judicial section of the Constitution." On that assumption, in order to give the Court of Customs Appeals jurisdiction over the appeals, it was necessary to delete from the statute the words which the Supreme Court had said in Postum Cereal prevented Patent Office appeals from qualifying as Article III cases that could be reviewed by an Article III court. *Id.* at .4-5. Congressman Vestal, Acting Commissioner Kinnan, and Mr. Fenning may each have misunderstood what the Supreme Court was trying to say in *Postum Cereal*, and they surely could not have known what it was about to say in *Ex parte Bakelite*.

[261] See Postum Cereal v. California Fig Nut, 272 U.S. 693 (1927) (Supreme Court under Article III could not review decision of Court of Appeals of the District of Columbia on direct appeal from Patent Office decision in trademark interference, although Congress "may vest courts of the District [of Columbia] with administrative or legislative functions which are not properly judicial"); Ex parte Bakelite, 279 U.S. 438 (1929) (Court of Customs Appeals, whose jurisdiction was transferred to the CCPA, was a "legislative court" that was not limited by Article III to deciding "cases of controversies"); O'Donoghue v. U.S., 289 U.S. 516 (1933) (Court of Appeals of the District of Columbia is an Article III court whose judges hold office during good behavior and whose compensation cannot be reduced during their lifetimes); Hoover v. Coe, 329 U.S. 79 (1945) (Article III does not prevent U.S. District Court from reviewing Patent Office decision in bill in equity proceeding notwithstanding that later proceedings may lead to loss of patent rights); Act of June 25, 1948, ch. 646, 62 Stat. 928, codified at 28 U.S.C. § 1256 (authorizing Supreme Court to review decisions of CCPA by writ of certiorari); Pub. L. No. 85-722, 72 Stat. (Aug. 25, 1958) (declaring CCPA to be a court established under Art. III of the Constitution); Glidden v. Zdanok, 370 U.S. 530 (1962) (CCPA was an Article III court whose judges could sit by designation on other Article III courts; prior decisions of Court to the contrary "have long been considered of questionable soundness," *id.* at 543).

[262] See Brenner v. Manson, 383 U.S. 519 (1965).

7. Postscript and Conclusion

In 1944 the Patent Committee of the House of Representatives held hearings on a bill "to amend the patent laws with respect to practice in interference cases."[263] The bill, which was drafted by a committee of the American Bar Association (ABA), proposed to take responsibility for adjudicating interference cases away from the Patent Office and place it in the courts. Patent attorney Otto R. Barnett, who headed the ABA committee, was the first witness to testify. Asserting that inventors used interferences to hold up rivals, he claimed that an applicant with "no chance of succeeding on the issue of priority" could unleash a series of "interlocutory proceedings and appeals" (he seemed to have missed the rule changes ending these appeals) with the sole aim of delaying the award of a patent to the other party and forcing "the rightful applicant" to buy him out or grant him "rights under the invention to which he is not entitled." He cited as evidence an interference case he had been involved in that delayed issuance of his client's patent for fifteen years, but he provided no statistics or other evidence to show that such instances were common. Nor did he offer any reason to believe that moving the determination of priority to the courts would prevent similar opportunism or resolve these disputes more expeditiously.[264] Two other members of Barnett's committee testified later in the hearings, making essentially the same points as Barnett in the same anecdotal way.[265]

The second witness at the hearing, Assistant Commissioner of Patents Conder C. Henry, provided numbers to show that Barnett had greatly exaggerated the problem.[266] Although in the past, motions and appeals of motions had resulted in significant delays, even for interferences

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[263] *Revision of Patent Office Interference Practice: Hearings before the H. Comm. on Patents on H. R. 3264,* 78th Cong. (1944) [hereinafter 1944 Interference Revision Hearing].
[264] *Id.* 5-19 (Statement and testimony of Otto R. Barnett). The quotations are at 6- 7.
[265] *Id.* at 34-36 (testimony of Daniel C. Cullen) and 40-41 (testimony of Dean S. Edmonds).
[266] *Id.* at 19-32 (Statement of Conder C. Henry, Ass't Comm'r of Pat.)

that never went to a hearing, the 1939 statute eliminating appeals within the Patent Office had greatly reduced the problem. Of the 1,094 interferences declared during the first year the 1939 Act was in effect, more than a quarter were resolved within six months, nearly 60 percent within a year, more than three quarters within a year and a half, and more than 90 percent within two years. Only 3 percent of the cases—totaling just 35 in all—went on for more than three years.[267] And yet, in response to this small number of outliers, Bartlett and his colleagues proposed dramatically to change the operation of the patent system—and not for the better.

As Henry patiently explained, the motions that Barnett dismissed as delaying tactics needed to be treated seriously. Interference proceedings "nearly always" involve "a number of preliminary matters … [relating] to the question of the patentability of an applicant's claim, or to his right to make the claim." These matters, he claimed (and our evidence above confirms), result in many interferences being "terminated because of the showings made on motions."[268] Under the proposed bill, the question of a competing applicant's right to make a claim could only be determined by a lawsuit in court, which in turn would require the courts to enable plaintiffs to pierce the veil of secrecy that shrouded pending patent applications. One consequence would be a return to the pre-1870 days when parties to interferences adjusted their asserted dates strategically in response to their opponents' claims, making interferences more difficult to resolve. But the change would have other pernicious consequences as well. For example, "it would enable a late applicant to inspect an earlier filed application which discloses noninterfering subject-matter without the owner's knowledge, and to amend his claims with knowledge of the earlier filed case."[269]

[267] *Id.* at 27.
[268] *Id.* at 21.
[269] *Id.* 22.

We do not know what drove Barnett and the other members of the ABA committee who drafted the proposal to recommend shifting interferences to the courts. It is possible that their motivation was ideological—a manifestation of the growth in anti-government sentiment awakened by the New Deal. We know that members of the ABA's Patent Section had overwhelmingly opposed a similar proposal in 1929, by a vote of 217 to 60.[270] Now it seemed the idea had gained in popularity, though it sparked considerable opposition when it was discussed in the section and never received the formal approval of the ABA.[271] It is also possible that self-interest was behind the proposal. When Congress was considering revising the appeals procedure in 1939, the ABA's Patent Section had favored the provision that shifted appeals to the courts but had not supported authorizing the Patent Office to issue patents on its determination of priority—the one change that promised significantly to reduce the number of appeals.[272] Perhaps the attorneys who specialized in litigating interferences thought moving all interferences to the courts would open up a new lucrative source of income.

Whatever the motivation of the lawyers might have been, Assistant Commissioner Henry was perplexed. The proposals, he asserted, "do not come from industry, big or little; and they do not come from inventors. There is not a single manufacturer or an inventor here today, insofar as I know, supporting this measure."[273] Although we have no way of checking the validity of this assertion, we know there was considerable opposition to the bill, including from the portions of the patent bar that worked most closely with inventors. C. W. Rivise, a prominent patent attorney who represented mainly small-scale businesses and independent inventors, testified that

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[270] A.B.A. Sec. Pat. Trademark and Copyright L., *Complete Record of Action of Section on Patent, Trade-Mark and Copyright Matters, 1929-1939*, at 20.
[271] 1944 Interference Revision Hearing, *supra* note 263, 42-43 (Statement of Chester L. Davis, chairman of A.B.A. Comm. on Leg.)
[272] *Report of the Committee on Patent Law Revision,* 1941 ABA Sec. Pat., Trademark and Copyright Law, Comm. Rep. 32.
[273] 1944 Interference Revision Hearing, *supra* note 263, 23 (Testimony of Conder C. Henry).

his clients had "the utmost confidence in our Patent Office" and that they looked "with horror" at the thought of transferring interferences to the courts."[274] The Patent Law Association of Los Angeles declared in a letter to the House committee that it had taken a poll of its members and 25 out of 26 opposed the bill, the consensus being "that priority contests are decided more promptly and competently, and at materially less expense to the applicants, by the highly experienced and technically trained interference examiners in the Patent Office than would be the case if such contests were to be decided by the courts."[275] The Patent Law Association of San Francisco submitted a similar statement.[276] So did the national American Patent Law Association, which predicted that passage of the bill would be an "awful mistake."[277]

Although the House committee received a few letters from individuals who supported the bill, almost all the patent attorneys and inventors who wrote to the committee expressed vehement disapproval. In the face of such extensive opposition, Congress let the bill die. The division of labor that the 1939 Act put in place for interferences would stand.

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The history of the Patent Office that we have recounted in this paper challenges the Grand Narrative of a strict separation of powers that the current Supreme Court is using to curb the independence of administrative agencies. Shortly after the founding, Congress tried to delegate to high-ranking executive branch officers its Article I power to grant patents for inventions. When that effort failed, it set up a British-style patent registration system, essentially delegating to the courts responsibility for determining the validity of patent rights. When that

[274] *Id.* at 43 (Statement of C. W. Rivise)
[275] *Id.* at 50.
[276] *Id.* at 51.
[277] *Id.* at 78.

system in turn led to excessive litigation, it set up a professional Patent Office. From the beginning, the Patent Office had considerable independence from higher-ups in the executive branch. It developed its own procedures to assess patent applications and decide which inventions met the statutory criteria for patents, and it operated its own internal quasi-judicial proceedings to determine which of two or more interfering inventors was the first to make the invention. Although its decisions in most periods could be appealed to a judge or court, for nearly a quarter century that was not the case for interferences.

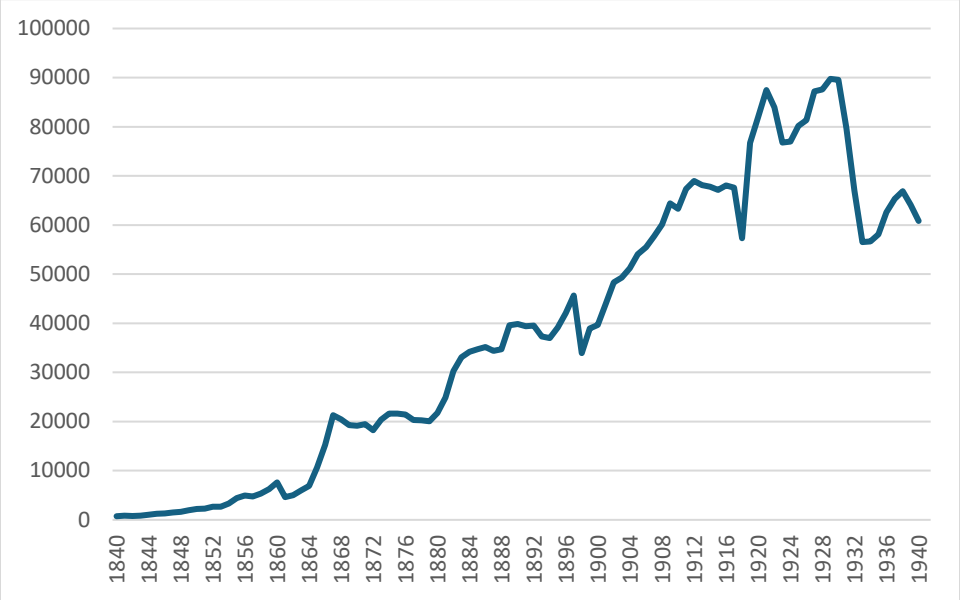
The Patent Office's structure and history had idiosyncratic features, but the general outlines were similar to those that Mashaw and other scholars have sketched out for other early administrative agencies. Once Congress provided the Patent Office with its basic mission, authorities, and (always inadequate) resources, officials took responsibility for figuring out how to get the job done, returning to Congress for further legislation and funding rather than for further directions. Congress may have been slow to respond to requests from the Patent Office for legislative change, but it generally followed officials' advice whenever it modified the statute, including the periodic reforms that restructured the relationship between the Patent Office and the courts. As we have argued, the details of these restructurings—the different treatment of appeals of interference decisions from appeals of rejections and the dramatic shifts in the tribunals assigned to hear appeals inside the Patent Office and in the courts—make sense only if one adopts a pragmatic view of how the division of labor between administrative agencies and the courts evolved historically. Appeals of interferences were much more likely to be exploited opportunistically than appeals of rejections, and the Patent Office's efforts to eradicate opportunism drove officials' proposals for reform. The trial-and-error way in which the division of labor between the Patent Office and the courts shifted back and forth over time fits uneasily

into a formal approach to separation of powers. Yet nineteenth-century Supreme Courts consistently supported these changing arrangements, deferring to Congress, which in turn deferred to the Patent Office.

In the early twentieth century, the relationship between federal administrative agencies and the different branches of government began to change. We can see the shift in small ways in our narrative—in the growing reluctance of the Supreme Court to defer to Congress's design of the appeals process for interferences (perhaps driven by worries about the potential burden on the courts), in the Secretary of the Interior's request in 1900 that the Patent Office submit annual reports to the department as well as to Congress, in the 1912 study of the Patent Office by President Taft's Commission on Economy and Efficiency, in the creation of a Patent Office Advisory Committee by the Secretary of Commerce in 1933, and, of course, in the enactment of the APA in 1946. Today the relationship continues to evolve. That is as it should be. As the government's activities expand, as the problems society faces change, administrative practice must change as well. But the Court's wielding of the Grand Narrative is not about adapting to change but about constraining permissible legislative and administrative responses. It is about overturning the design choices that Congress has made, and is making, for federal agencies by claiming they violate the shared constitutional understandings of an earlier era. Our paper uses the history of the Patent Office to document the radical novelty of this move, tracing instead the pragmatic and flexible way that this administrative agency evolved alongside other parts of the government, including the courts. By no means are we arguing that the product of this evolution is somehow sacrosanct or optimal—that it cannot be improved upon. Quite the contrary, the history of the Patent Office underscores the importance of continuing adaptation to change. The Grand Narrative threatens that process, however, by looking to an imagined past for clear rules

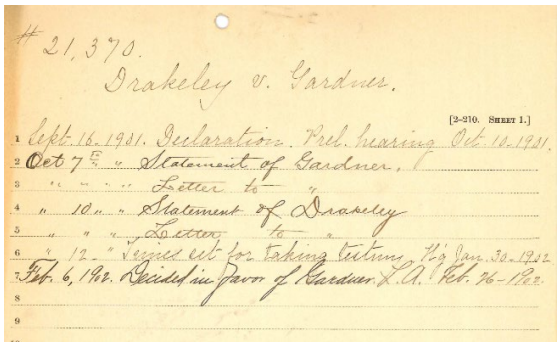
about separation of powers. In what, ironically, is itself a sharp departure from historical practice, it locks in the choices made by prior generations to constrain the choices available today.

Figure 1. Number of Applications for Utility Patents by Calendar Year



Source: The counts of patent applications are for calendar years. USPTO, "Table of Annual U.S. Patent Activity Since 1790," https://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.htm

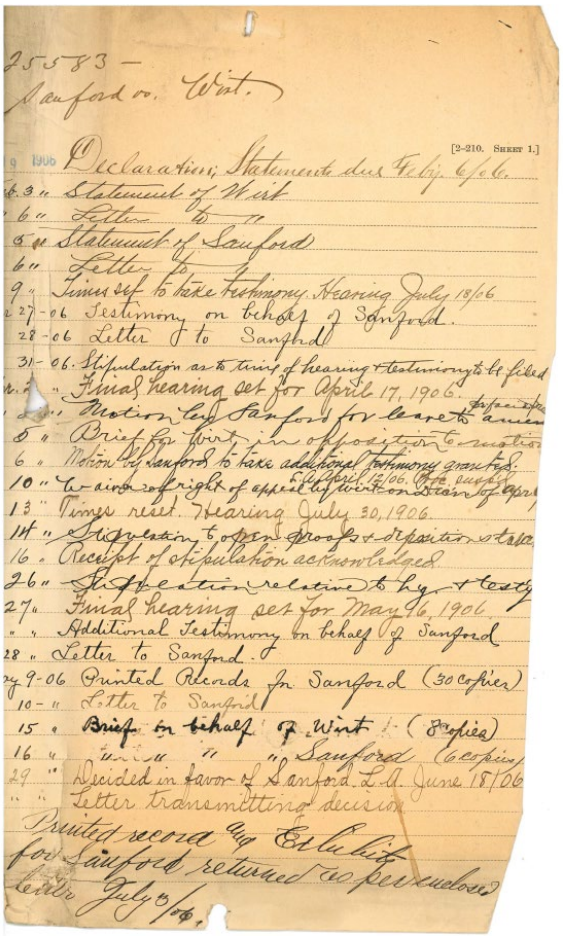
Figure 2. Examples of Dockets from Interference Case Files



#21,370.
Drakeley v. Gardner.

[2-210. SHEET 1.]

1 Sept. 16. 1901. Declaration. Prel. hearing Oct. 10. 1901.
2 Oct 7th " Statement of Gardner.
3 " " " Letter to "
4 " 10 " " Statement of Drakeley
5 " " " Letter to "
6 " 12 " Times set for taking testimony Feb 20 - 1902
7 Feb. 6, 1902. Decided in favor of Gardner L.A. Feb. 26-1902
8
9



25583 —
Sanford vs. West.

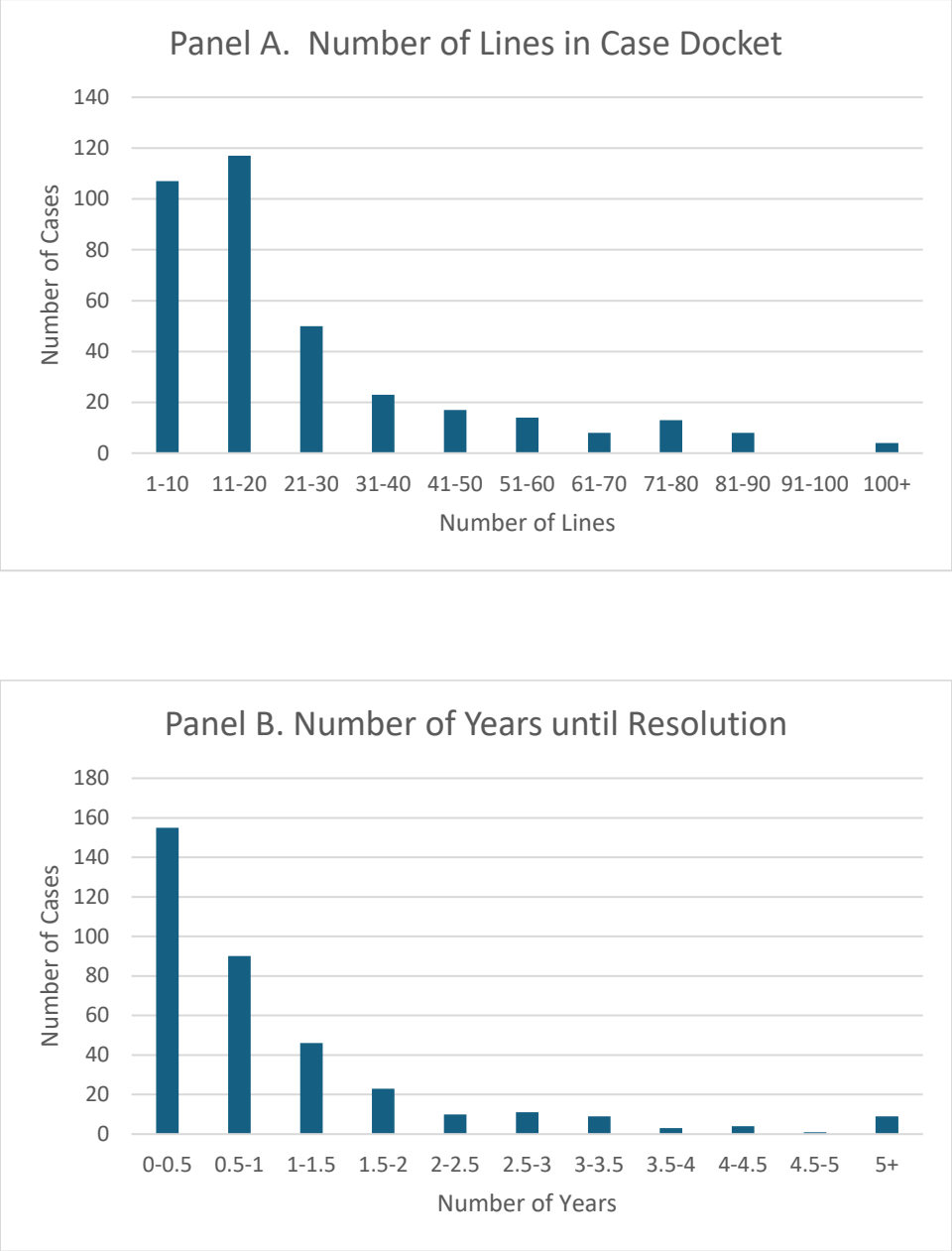
[2-210. SHEET 1.]

9 1906 Declaration; Statements due Feby. 6/06.
6-3 " Statement of West
6 " Letter to "
6 " Statement of Sanford
6 " Letter to "
9 " Times set to take testimony Hearing July 18/06
27-06 Testimony on behalf of Sanford.
28-06 Letter J to Sanford
31-06. Stipulation as to time of hearing & testimony to be filed
" " Final hearing set for April 17, 1906.
" " Motion by Sanford for leave to amend
5 " Brief for West in opposition to motion
6 " Motion of Sanford to take additional testimony granted.
10 " Notice of right of appeal by West on decision of Appl
13 " Times reset. Hearing July 30, 1906.
14 " Stipulation to open proofs & deposition & testa
16 " Receipt of stipulation acknowledged
26 " Stipulation relating to hy. & testy
27 " Final hearing set for May 26, 1906.
" " Additional Testimony on behalf of Sanford
28 " Letter to Sanford.
29-06 Printed Records for Sanford (30 Copies)
10 " Letter to Sanford
15 " Brief on behalf of West (8 copies)
16 " " " " Sanford (6 copies)
29 " Decided in favor of Sanford L.A. June 18/06
" " Letter transmitting decision
Printed record and Exhibits
for Sanford returned (2 per enclosed)
letter July 9/06.

Source: Interference Case Files, RG 241 National Archives, Kansas City, Kansas, RG 241.

Notes: Dockets could extend over multiple pages. The shortest docket in our sample had just two lines; the longest had 182 lines. There were 30 lines on a page.

Figure 3. Speed of Resolution of Interference Cases, 1901-1926



Source: Random sample of interference cases from Interference Case Files, RG 241 National Archives, Kansas City, Kansas, RG 241.

Notes: There were 362 cases in the random sample, but we dropped one case because of missing data. The number of lines is the total number of lines in the docket from the declaration of interference to the last substantive action. The number of years is the time elapsed between the first and last line counted. Files could be resolved by a decision to award priority, a decision to

dissolve the interference, or a decision to consolidate the interference into another case. When a case was consolidated into another, we added the number of extra lines and extra time to resolution from the file into which it was consolidated.

Table 1. Increase in the Number of Examiners Relative to Applications, various dates, 1865-1923

Year	No. of Applications for Utility Patents	No. of Principal Examiners	No. of First Assistant Examiners	No. of Second Assistant Examiners	No. of Third Assistant Examiners	No. of Fourth Assistant Examiners	Total No. of Examiners	No. of Applications per Examiner
1865	10,664	14	12	6	0	0	32	333
1867	21,276	20	20	17	0	0	57	373
1869	19,271	22	20	20	0	0	62	311
1871	19,472	22	22	22	0	0	66	295
1873	20,414	24	24	22	16	0	86	237
1875	21,638	24	23	22	19	0	88	246
1877	20,308	22	19	22	21	0	84	242
1879	20,059	22	22	22	22	0	88	228
1881	24,878	23	24	23	22	0	92	270
1883	33,073	23	26	26	26	25	126	262
1885	34,697	24	28	28	30	35	145	239
1887	34,420	27	32	36	41	49	185	186
1889	39,607	28	32	36	40	47	183	216
1891	39,418	30	34	38	42	47	191	206
1893	37,293	32	34	38	43	50	197	189
1895	39,145	32	34	38	43	51	198	198
1897	45,661	32	34	38	43	52	199	229
1899	38,937	36	38	42	50	60	226	172
1901	43,973	36	38	42	53	59	228	193
1903	49,289	39	41	50	61	70	261	189
1905	54,034	39	44	52	62	70	267	202
1912	68,969	43	58	55	78	110	344	200
1923	76,783	50	88	101	106	100	445	173

Sources: For the number of applications, see Figure 1. The number of examiners is from US Department of the Interior, *Official Register of the United States* (Washington: Government Printing Office, 1865-1905); President's Commission on Economy and Efficiency, "Report of the Investigation of the United States Patent Office," 99; Weber, *Patent Office*, 78-79.

Table 2. Number of Interferences Declared Relative to Applications and Number Terminated Before Final Hearing, various years, 1912-1940, fiscal years ending June 30

Year	No. of Utility Patent Applications	No. of Interferences Declared	Ratio of Interferences to Patent Applications	Total No. of Interferences Terminated	No. of Interferences Terminated before Final Hearing	Ratio of Interferences Terminated before Final Hearing to Total
1912	69,236	1,642	0.024	1,525	1,241	0.81
1913	67,986	1,469	0.022	1,686	1,400	0.83
1914	69,311	1,702	0.025	1,506	1,235	0.82
1915	66,497	1,472	0.022	1,553	1,341	0.86
1916	67,348	1,677	0.025	1,367	1,113	0.81
1917	68,690	1,682	0.024	1,787	1,473	0.82
1918	62,399	1,258	0.020	1,453	1,118	0.77
1919	62,755	1,264	0.020	1,207	930	0.77
1920	81,943	1,443	0.018	1,242	939	0.76
1921	84,428	1,951	0.023	1,657	1,340	0.81
1922	88,243	2,260	0.026	1,912	1,505	0.79
1923	77,645	1,432	0.018	1,222	1,016	0.83
1924	76,024	1,369	0.018	1,227	958	0.78
1925	77,926	1,506	0.019			
1926	80,682	1,401	0.017			
1927	84,511	1,472	0.017	1,468	1,210	0.82
1928	88,482	1,519	0.017	1,445	1,200	0.83
1929	87,039	1,503	0.017	1,454	1,194	0.82
1930	91,430	1,540	0.017	1,537	1,332	0.87
1931	84,097	1,838	0.022	1,825	1,525	0.84
1932	74,275	2,165	0.029	1,917	1,645	0.86
1933	60,202	2,418	0.040	2,160	1,882	0.87
1934	56,875	2,356	0.041	1,948	1,732	0.89

1935	57,593	2,155	0.037	2,051	1,821	0.89
1936	60,544	1,941	0.032	2,370	1,957	0.83
1937	64,605	1,489	0.023	1,907	1,567	0.82
1938	66,959	1,494	0.022	1,744	1,464	0.84
1939	66,947	1,232	0.018	1,479	1,245	0.84
1940	62,194	1,190	0.019	1,261	1,039	0.82

Sources: 1912-1930 are from *Annual Reports of the Commissioner of Patents* to the Secretary of the Interior/Commerce; 1932 to 1940 are from House of Representatives, *Hearings before the Committee on Patents on H.R. 3264 to Amend the Patent Laws with Respect to Practice in Interference Cases* (Washington, DC: Government Printing Office, 1944), 27.

Notes: These figures are for fiscal years ending June 30. Declarations of interferences include two or more patent applications, some of which may have been submitted in previous years. Interferences may have been terminated in a year subsequent to their declaration. Before 1923, the figures for interferences include trademark interferences. Starting in 1923 the Patent office reported trademark interferences separately. We have not included them in this table but note here that there were 329 trademark interferences declared in 1923 and 428 in 1924, suggesting that trademark interferences constituted perhaps one fifth of the total in the preceding years. There seems to have been a backlog of trademark interferences to resolve from the early 1920s because 950 were terminated in 1923 and 1,212 in 1924.

Table 3. Duration of Interference Cases in Files Resolved Before Hearing that Included Motions to Dissolve

Period	No. of Files	Proportion of Files **without** Hearings	Ave. No. of Lines in Files **without** Hearings	Ave. No. of Lines in Files **with** Hearings	Ave. No. of Days in Files **without** Hearings	Ave. No. of Days in Files **with** Hearings	Proportion of Files Resolved Before Hearings **with** Motions to Dissolve	Ave. No. of Lines in Files Resolved Before Hearing **with** Motions to Dissolve	Ave. No. of Lines in Files Resolved Before Hearings **without** Motions to Dissolve	Ave. No. of Days in Files Resolved Before Hearings **with** Motions to Dissolve	Ave. No. of Days in Files Resolved Before Hearings **without** Motions to Dissolve
1901-1910	132	0.79	14.5	51.6	179	786	0.28	25.3	9.4	289	139
1911-1920	136	0.82	19.5	46.4	282	751	0.31	32.0	14.0	403	228
1921-1926	93	0.80	19.8	56.7	343	1040	0.24	41.0	13.0	674	233
Entire period	*361*	*0.80*	*17.7*	*51.1*	*259*	*840*	*0.28*	*31.6*	*12.3*	*422*	*196*

Sources and Notes: See Figure 3.

Table 4. Number of Appeals of Priority Decisions and Interlocutory Motions within the Patent Office, 1908 to 1942

Fiscal Year	*Ex Parte* Decisions Appealed to the Board	Priority Decisions Appealed to the Board	Interlocutory Motions Appealed to the Board	*Ex Parte* Decisions Appealed to the Commissioner	Priority Decisions Appealed to the Commissioner	Interlocutory Motions Appealed to the Commissioner
1908	622	187	na	117	128	207
1911	931	171	na	168	151	225
1912	933	176	na	173	100	245
1913	915	190	na	136	124	210
1914	799	147	na	182	137	263
1915	983	147	na	191	114	191
1916	1,254	154	na	213	88	208
1917	1,438	187	na	192	98	185
1918	1,255	253	na	192	149	125
1919	1,280	168	na	198	103	133
1920	1,233	216	na	173	138	132
1921	1,028	104	na	155	97	164
1922	903	209	na	179	120	160
1923	940	229	na	108	115	228
1924	978	229	na	162	157	242
1925	1,355	253	na	196	118	246
1926	1,616	288	na	207	144	280
1927	1,659	330	na	269	124	238
1928	2,032	301	na	109	15	33
1929	2,262	387	na	0	0	31
1930	2,435	353	na	0	0	11
1931	2,519	357	na	0	0	19
1932	2,735	175	205	0	0	9
1933	2,338	166	214	0	0	11

1934	2,395	119	187	0	0	20
1935	2,337	117	359	0	0	11
1936	2,816	282	362	0	0	21
1937	2,899	258	240	0	0	18
1938	3,237	207	205	0	0	22

Sources: Commissioner of Patents, *Annual Report to Congress*, 1918; Commissioner of Patents, *Annual Report to the Secretary of the Interior*, 1908, 1911-1917, 1919-1924; Commissioner of Patents, *Annual Report to the Secretary of Commerce*, 1925-1938.

Notes: The identity of the "board" changed over time. From 1908 to 1926 it was the Board of Examiners-in-Chief; from 1926 to 1938 the Board of Appeals. A small number of trade interferences are included in these figures. We do not have data for the years before 1908 or for the years 1909-1911.