

Innovation and Leviathan: The Patent System Is Assimilated into the Growing Administrative State

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KEY TAKEAWAYS

The Patent Trial and Appeal Board (PTAB), a tribunal created in 2011 to cancel patents, represents the patent system's assimilation into the administrative state.

The PTAB's willy-nilly administrative actions have destabilized the reliable and effective patent rights that were the launching pad for the U.S. innovation economy.

Congress should repeal or reform the PTAB to restore patents as a secure foundation of its innovation economy, especially given increasing competition from China.

The United States has long been a global leader in technological innovation, which has fueled its explosive economic growth of the past two centuries from the Industrial Revolution in the 19th century to the mobile revolution in the 21st century. As economists and historians have explained, a key factor in this meteoric economic growth has been the U.S. patent system—the reliable and effective property rights secured in new inventions.¹ As with all property rights, patents have functioned as a launching pad for entirely new industries and business models, like the computer and biotech sectors of modern U.S. innovation economy.²

During the past 15 years, though, the U.S. patent system has been seriously weakened, undermining its function to promote inventions and grow the U.S. innovation economy. Among many legal and policy changes that have destabilized the patent system was Congress' enactment of the America Invents Act of 2011 (AIA). In

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addition to other structural changes to the U.S. patent system, the AIA created a new administrative tribunal at the U.S. Patent & Trademark Office (USPTO), called the Patent Trial and Appeal Board (PTAB). The sole function of the PTAB is to cancel patents previously issued by the USPTO.

As an agency tribunal, the PTAB has brought the patent system within the operations and practices of the modern administrative state, raising the same concerns about failures to follow due process and to respect the rule of law often expressed about the administrative state.³ Many lawyers and judges, including Supreme Court Justices, have complained that the PTAB engages in what has come to be widely identified as “shenanigans” in violating basic norms of due process in engaging in discretionary decision-making in pursuit of its *raison d’être*—to cancel patents. The cancellation rates from its administrative hearings bolster complaints that the PTAB is playing fast and loose with legal rules and processes to achieve its goal of canceling patents. During the past decade, the PTAB has been canceling patents at incredibly high rates ranging between roughly 66 percent and almost 100 percent in its various administrative hearings.⁴

This discretionary administrative decision-making at the PTAB and its highly unbalanced decisions in canceling patents have shaken the formerly reliable, stable, and effective legal foundation of the U.S. innovation economy—patent rights. The PTAB is a new experience for innovators who have long relied on patents as stable property rights to obtain venture capital financing to fund their start-ups, which are key drivers of the U.S. innovation economy.⁵ It also undermines patents as a stable legal platform by which companies can develop new commercial systems for efficiently delivering incredible new products and services to consumers, like today’s smartphones.⁶ Instead, all patents today have the pall of the PTAB hanging over them—what lawyers call a cloud on the title—threatening to cancel their property rights willy-nilly.

This *Legal Memorandum* describes this fundamental sea change that the PTAB has brought to the U.S. patent system and how the Supreme Court this past summer ultimately endorsed the PTAB as an acceptable administrative tribunal within the modern administrative state in its decision in *United States v. Arthrex*.⁷ Since 2016, the Supreme Court decided *six cases* addressing the PTAB’s operations and status as an administrative tribunal.⁸ After struggling with what to make of the PTAB in these rapid-fire succession of cases—one would be hard pressed to find this many Supreme Court decisions arising from a single administrative tribunal in such a short time frame—the Supreme Court came to terms with and accepted the PTAB as part and parcel of the modern administrative state in *Arthrex*.

Arthrex was a tremendously significant decision at the intersection of patent law, constitutional law, and administrative law. Yet it easily escapes the attention of many people given the seemingly esoteric and complex legal issues in the case. Despite these legal complexities, it is significant and its impact on the patent system and the U.S. innovation economy will be tremendous.

This *Legal Memorandum* thus places the *Arthrex* decision in historical context, describing how this somewhat obscure and complex decision by the Supreme Court threatens to undermine a key pillar of the U.S. innovation economy—just at the point in which the U.S. is facing increasing global competition from China for technological leadership. One issue is clear from *Arthrex*: A solution to the serious problems created by the PTAB will not come from the Supreme Court.

Congress must fix the PTAB, which makes sense, since it created this administrative tribunal in 2011. Thus, for example, the bipartisan Support Technology & Research for Our Nation’s Growth and Economic Resilience (STRONGER) Patents Act should be reintroduced and enacted into law, which imposes basic due process protections and other requirements of the rule of law on the operations of this administrative tribunal.⁹

Conversely, the Restoring the America Invents Act (RAIA) would expand the PTAB’s power to continue canceling patents at massively high rates and with little regard for the rule of law;¹⁰ thus, the RAIA should be opposed.

The PTAB: A Brief Summary of the What, Why, and How

At first blush, the PTAB may seem unremarkable, which is itself a statement about how much the administrative state has become entrenched in the modern U.S. constitutional order and legal system.

The Patent Trial and Appeals Board. In creating the PTAB, Congress merely recreated at the USPTO what has become a conventional feature of many agencies in the administrative state: a tribunal of “administrative law judges” who oversee proceedings that mimic some aspects of regular court processes in deciding the rights and liabilities of U.S. citizens. In this case, the PTAB’s administrative judges—called Administrative Patent Judges—hold administrative hearings in which “panels” of three Administrative Patent Judges consider arguments from petitioners that patents previously issued by the USPTO are in fact invalid under the legal requirements of the patent laws. If the PTAB agrees with these arguments, it cancels these patents, rendering the patents null and void.

But the PTAB is also unique as an administrative tribunal, which is why the Supreme Court was initially confused about how to classify it and apply to it the rules and norms that have been established in administrative law and constitutional law. These judicial developments will be described in more detail later in this *Legal Memorandum*. The purpose of this section is only to briefly describe what the PTAB is, why Congress created it in 2011, and briefly describe how it functions as an administrative tribunal. This is necessary to understand how much the PTAB has changed the patent system in the resolution of disputes and of the validity of patents under settled rules in traditional courts of law—what lawyers call “Article III courts,” given that the authorizing source of federal courts and their powers is in Article III of the U.S. Constitution.¹¹

Before the PTAB was created in 2011 and began holding administrative hearings in 2012, for most of U.S. history, the UPSTO issued patents according to legal rules created by Congress and the courts. If there was a dispute that resulted in a lawsuit, an accused infringer could challenge the validity of a patent, and its arguments were assessed by a court according to the same procedural and substantive rules that governed all litigants in court. Today, accused patent infringers can still challenge the validity of a patent in court as a defense; it is a commonplace defense in many lawsuits in which defendants allege that the plaintiff cannot sue the defendant because the plaintiff did not have a legal right that was violated in the first place. But Congress specifically created the PTAB as an *administrative tribunal* in which adversaries would present arguments challenging a patent’s validity separate from a dispute that was being resolved in court.

The PTAB’s Mission. The PTAB’s motivating principle was benign in the minds of some people, who viewed it as a tribunal at the USPTO that would be staffed by experts in law and technology who would efficiently cancel any mistakenly issued patents by the agency. But the creation of the PTAB was also driven by a deliberately crafted narrative by Big Tech about a horde of “patent trolls” using “bad patents” that impeded innovation by filing nuisance lawsuits.¹² Aside from some bad actors (who exist in all areas of law and for which there are many existing legal doctrines and regulations to address¹³), the facts about patent litigation and the impact it has had on innovation have consistently told a different story, especially in the high-tech sector.¹⁴ Still, this narrative, which continues to influence patent policy to this day,¹⁵ ensured that the PTAB would indeed function all too well in fulfilling its mission of canceling patents.

How the PTAB Functions. When Congress created the PTAB, it created a tribunal that had little substantive or procedural restraints imposed on it. The PTAB thus was a radical departure from how patents were evaluated in

regular trial proceedings in Article III courts. For example, anyone in the world can file a petition at the PTAB to cancel a patent—one does not have to have “standing,” which is the legal requirement that you cannot go to court if you have not been injured or threatened with injury by another person.¹⁶ Moreover, multiple petitions can be filed against the same patent owner and even against the same patent, a practice that quickly became commonplace and has come to be known as “serial petitioning.”¹⁷ For example, over a five-month period in 2014, 90 petitions were filed in the PTAB against a single patent owner who had sued several companies in an Article III court alleging infringement of its patents; just one of these defendants, Intel Corporation, filed 27 of these 90 total petitions.¹⁸ PTAB petitions have also been filed for purposes of extortion or manipulation of stock prices.¹⁹ Given the high cancellation rates at the PTAB, a company that has one of its valuable patents petitioned, and petitioned repeatedly at the PTAB, will see the stock market rationally respond to this.

All of this occurred for one simple reason: When Congress created the PTAB, it imposed very few structural or substantive limits in the AIA on how it could act. From the get-go, the PTAB was largely unconstrained in deciding how to set up its administrative hearings and how it would receive submissions by petitioners and hear responses from patent owners. It was even left entirely free to decide what legal standards it would use to interpret patents. Most of its rules and practices in running its administrative hearings were left to the PTAB’s discretionary rulemaking authority.

These are a few illustrative examples of many real-world differences between the PTAB as an administrative tribunal and the proceedings in a standard Article III court.²⁰ They establish the significant degree to which the PTAB is a radical departure from how patents had been interpreted and enforced by courts from the early years of the American Republic. From the beginning, the patent system was defined at its core as a private law system. As Professor Orin Kerr observed more than 20 years ago (and before the PTAB was created), “[t]he patent system operates not through regulation, but rather through the private law mechanisms of contract, property, and tort.”²¹ After the creation of the PTAB, in which thousands of petitions are filed annually, Professor Kerr’s observation is no longer true.

Administrative Shenanigans at the PTAB

When Congress created the PTAB in 2011, it imposed almost no substantive or procedural limitations on this administrative tribunal in its authorizing statutory provisions in the AIA. Aside from an express

requirement that the PTAB issue a decision within a single year, a delineation of what statutory requirements for valid patents could be reviewed by which hearings in the PTAB, and a few other relatively minor limits or authorizations, the PTAB was left largely to the discretion of the Director at the USPTO to administer, both procedurally and substantively. With the mission to cancel patents—and with few limits imposed on how it could go about achieving this institutional goal—the PTAB quickly became an example to many commentators and lawyers of an administrative tribunal run amok.

There have been many concerns raised about the operations of the PTAB during the past decade. One prominent example was the legal standard adopted by the PTAB in evaluating the validity of a patent in its hearings. Again, the AIA did not prescribe a standard, and former USPTO Director Michelle Lee adopted a lower legal standard for interpreting patents in PTAB hearings than the one used in an Article III court: the broadest reasonable interpretation (BRI) standard used during the application process for obtaining a patent—as opposed to the *Phillips* standard used in Article III courts.

The BRI Standard. The BRI standard is used by examiners at the USPTO to “stress test” a patent application to ensure that it truly meets the long-standing requirements for a valid patent, such as being novel, useful, nonobvious, and properly and fully described in the patent application. But once a patent has issued, it becomes a property right secured to its owner—in legal parlance, it is a “vested right” that was examined for validity before being granted to its owner. Thus, court decisions and the patent statutes have long deemed patents to have a presumption of validity,²² and courts have interpreted patents according to the plain meaning or terms of arts that the words in the document represent (deemed the “*Phillips* standard” after the modern court decision that reaffirmed this long-standing approach in interpreting patent²³).

This decision to adopt the BRI standard for interpreting patents challenged at the PTAB, as opposed to the *Phillips* standard used in courts, contributed to the PTAB’s inordinately high “kill rates” that at times were almost 100 percent in some of the PTAB’s review programs.²⁴ This difference in legal rules in interpreting patents also resulted in cases in which the PTAB canceled a patent *after* an Article III court had already construed a patent as valid and enforceable. Which decision trumped the other one—the administrative decision that a patent was invalid and cancelled or the Article III court decision that the patent is valid and enforceable?

The answer was given by the Court of Appeals for the Federal Circuit in 2017. The Federal Circuit ruled that this is an acceptable contradiction in legal decisions concerning the validity of the same property right reached between two institutions—an administrative tribunal and an Article III court—that have both been authorized by Congress to review issued patents.²⁵ But this was not a real answer to this constitutional and legal quandary, because it still left the matter unsettled. Ultimately, it simply defaulted to the conclusion that, given the uncertainty created by the cancelation of the patent by the PTAB, the PTAB’s decision *de facto* trumps the court decision simply as a practical matter.

Procedural Irregularities. In addition to vagaries in the legal rules used in its hearings to interpret patents, there have been procedural irregularities at the PTAB that would not occur in an Article III court. One particularly shocking practice in the PTAB that has raised serious due process concerns has been the practice of “panel stacking” of Administrative Patent Judges in its administrative hearings.²⁶ Panel stacking is the PTAB equivalent of what President Franklin Delano Roosevelt attempted to do in 1937 in “packing” the Supreme Court,²⁷ and which many on the Left have proposed should be done today.²⁸ In brief, additional Administrative Patent Judges are added to the standard three-person panel that hears a petition to cancel a patent. Expanding the panel is done for purposes of influencing the PTAB decision, at best, or dictating a specific decision, at worst.²⁹ Unlike with the Supreme Court, panel stacking is not merely a proposal in the PTAB—it is a shocking reality.

Panel Stacking: *Target Corp.* One particularly notorious example was *Target Corp. v. Destination Maternity Corp.*,³⁰ in which the USPTO Director Lee rejected a decision by the standard panel of three Administrative Patent Judges, which concluded that a challenged patent was in fact valid. She ordered the Administrative Patent Judges to rehear the case and issue a new decision. To ensure that the new panel reached the result she wanted, Director Lee added two more Administrative Patent Judges to the panel for a total of five Administrative Patent Judges to hear the case, giving the challenger a proverbial second bite at the apple. In the second decision, the panel predictably split in a 3–2 decision with the original three Administrative Patent Judges sticking to their original decision that the patent was valid and the two new Administrative Patent Judges on the panel declaring that patent was invalid. Again, Director Lee rejected this second decision and ordered a *third* hearing; this time, she added two more Administrative Patent Judges for a total of *seven* Administrative Patent Judges in a third

bite at the apple in holding a hearing to invalidate the challenged patent. After the third hearing, the panel predictably split 4–3 in its decision with the now four additional Administrative Patent Judges concluding that the patent was invalid and the original three Administrative Patent Judges still arguing (now in vain) that the patent was valid. The expanded panel of seven Administrative Patent Judges having finally reached the preordained “right” decision, Director Lee accepted this third decision that the patent was invalid.³¹

These are just a few examples of the new regulatory mode of governance in a patent system that was once defined by relatively clear legal requirements, the rule of law, and stable legal institutions in which patents were interpreted by Article III courts. Subsequent reforms were adopted by USPTO Director Andrei Iancu, who followed Director Lee as head of the agency. Director Iancu issued new regulations that reversed some of these prior rules and changed some of the practices.³² But these new rules are not legally mandated; thus, there is nothing that will prevent a future USPTO Director from reversing course again and reinstating as a matter of regulatory fiat all of these problematic practices at the PTAB, whose administrative panels one former federal judge once characterized as “death squads...killing property rights.”³³

Big Tech and the PTAB. In fact, Big Tech and its supporting policy organizations strongly contested and actively lobbied against many of the regulatory reforms instituted by Director Iancu. They lobbied Congress to enact legislation to reverse these new regulations (which ultimately led to the introduction of the RAIAs last fall, as will be discussed later in this *Legal Memorandum*).

Big Tech have lobbied the Secretary of Commerce to abrogate by regulatory fiat at least one of the reforms adopted during Director Iancu’s term at the USPTO that authorized the PTAB to deny a petition when a concurrent court case raising the same validity challenge to the same patent was about to be decided by an Article III court.³⁴ They also filed a court challenge to these regulatory reforms—and this litigation by Apple, Google, and other Big Tech companies continues to this day.³⁵ This massive lobbying of governmental officials and Congress, and the concomitant filing of court cases challenging administrative practices, capture perfectly the new regulatory mode of governance that has become the norm today for innovators. All of this creates uncertainty for innovators who once received reliable and effective patent rights issued by the USPTO that were then interpreted by Article III courts acting according to comparatively stable legal rules.

The Original Uncertain Status of the PTAB as an Administrative Tribunal

As originally conceived, the PTAB is supposed to function as an administrative board of experts—both in patent law and in the respective technical field of a patented invention—in making solely legal judgments about the validity of an issued patent under the statutory patentability requirements in the Patent Act. Its role is to assess in its various review programs the legal requirements for an inventor to receive a valid patent, such as that the invention be new and that it must be fully disclosed, among other statutory requirements of the Patent Act.³⁶

Unlike other agencies in the administrative state, the PTAB is not intended to implement or create policy embraced by the elected President in the executive branch. For this reason, the PTAB was structured from the get-go as an unusual animal for an administrative tribunal. In its institutional design and operational practices, the PTAB reflects elements of both adversarial proceedings in an Article III court and the discretionary decision-making processes that are more commonplace in other administrative agencies.

Mixed Signals. The Supreme Court was initially perplexed about what to make of this strange new tribunal—this institutional equivalent of a platypus that quacked like a legal duck but looked like an administrative beaver. In *Cuozzo Speed Technologies v. Lee*, the Court observed that “inter partes review is less like a judicial proceeding and more like a specialized agency proceeding.”³⁷ As an administrative agency creating rules to run its own proceedings without any express legislative restrictions on these rules, the Supreme Court granted the PTAB the same deference that courts have long given to agency decision-making.³⁸

In *SAS Institute Inc. v. Iancu* (2018), though, the Supreme Court stated that the IPR hearing is “an adversarial process before the Patent Office that mimics civil litigation.”³⁹ In that case, the Court held that the plain language of the AIA in creating this adversarial process prevented the USPTO from having the discretion to permit the PTAB to select which patent claims to review or not in granting a petition challenging multiple claims in a single patent.⁴⁰ So, which was it—a specialized agency proceeding or an adversarial process mimicking civil litigation?

An answer to this question began to emerge a little in *Oil States v. Greene’s Energy*,⁴¹ in which the PTAB’s cancellation of a patent in its administrative hearings was challenged as an unconstitutional deprivation of the rights of a patent owner in violation of the separation of powers and the

Seventh Amendment guarantee of the right to a jury trial.⁴² In *Oil States*, the Supreme Court held for the first time that a vested patent issued to an inventor remains a “public right” with respect to the statutory requirements for an inventor receiving a valid patent. Thus, the Supreme Court concluded that a patent can be canceled by executive agency action, such as by an administrative decree issued by Administrative Patent Judges in the PTAB, without violating the separation of powers or the Seventh Amendment’s guarantee of a right to a jury trial in court.

Although this weighed in favor of the view that patents are regulatory entitlements and not vested private property rights, *Oil States* did not fully resolve the institutional status of the PTAB, if only because this question was not presented in this case. Thus, it was still unclear whether the PTAB would be accountable to the legal rules governing Article III courts, such as respecting due process, or to the more pliable constitutional and legal standards applied to administrative agencies generally.⁴³

The *Arthrex* Court: The PTAB as an Administrative Tribunal

The answer to this institutional question finally emerged in last summer’s decision in *United States v. Arthrex*,⁴⁴ in which the Supreme Court addressed the issue of whether the Administrative Patent Judges who run the PTAB hearings are unconstitutionally appointed under the Appointments Clause of the Constitution.⁴⁵ The strictly legal issue in *Arthrex* concerned the constitutional classification of the Administrative Patent Judges in the PTAB: Are they principal officers or are they inferior officers?

The Constitution mandates, in what lawyers now identify as the Appointments Clause, that principal officers must be appointed by the President and confirmed by the Senate.⁴⁶ The phrase “principal officers” is not in the Constitution, but the Appointments Clause does identify some of the officials who count as principal officers: “ambassadors, other public ministers and consuls, Judges of the Supreme Court.”⁴⁷ This explains why the President nominates cabinet officials or Supreme Court Justices and the Senate holds hearings with the nominees and confirms or rejects their appointments by a Senate vote. Although the Appointments Clause specifically identifies three specific officials, courts have not identified or created any absolute rule defining what makes a governmental official a “principal” officer who must be appointed by the President and confirmed by the Senate.

Instead, courts have held that any official who wields “significant authority” within the now-massive administrative state with innumerable federal officials exercising a wide range of governmental powers is a principal officer

who must be appointed by the President and confirmed by the Senate.⁴⁸ Legal scholars have confessed that this legal test “is fraught with uncertainty,”⁴⁹ but it clearly includes, among others, cabinet heads, judges in regular courts (Article III courts),⁵⁰ and other high-ranking federal officials.

If an official is not a principal officer, then this person counts as an “inferior Officer” under the Appointments Clause. Inferior officers may be appointed as seen fit by Congress in legislation that can vest “the Appointment of such inferior Officers, as they think proper, in the President alone, in the Courts of Law, or in the Heads of Departments.”⁵¹ This explains the routine and commonplace appointment of innumerable officials and governmental employees by various directors and managers throughout all departments and agencies in the federal government.

Principal vs. Inferior Officers. With this constitutional framework in mind, the question in *Arthrex* can be restated more precisely as whether the Administrative Patent Judges in the PTAB are principal officers or inferior officers given the significant legal authority they wield in canceling vested patents. The power of the PTAB is significant: It cancels a patent, a legal property right that can be valued in the billions of dollars, such as a patent on a new drug, and this decision is conclusive.⁵² In fact, the PTAB’s decisions are not only final at the USPTO, some of them are not even appealable to Article III courts, such as the PTAB’s initial decision whether to grant a petition and hold a hearing to decide whether to cancel a patent.⁵³

These somewhat technical legal details all matter under the Constitution because the AIA established that the Administrative Patent Judges in the PTAB are appointed by the USPTO Director, not by the President with Senate confirmation. If these Administrative Patent Judges wield significant final legal authority in canceling vested patents, this means they are principal officers, and thus their appointment by the USPTO Director is in violation of the Appointments Clause. They must be appointed, similar to other legal officials who wield similar authority, by the President and confirmed by the Senate.

The counterargument was that the USPTO Director did exercise significant control over the PTAB and its decision-making process. One oft-cited example is the director’s creation of regulations governing the PTAB’s processes and decisions, such as the adoption of the BRI standard for construing claims and then its replacement (for the moment, anyway) with the *Phillips* standard. Another example invoked in the *Arthrex* case was the “panel stacking” practices, despite the widespread criticisms of this agency practice by commentators and scholars alike.⁵⁴

The confusion over the PTAB's institutional classification was explicitly raised in the *Arthrex* oral argument, in which the Justices repeatedly stressed the unusual nature of the PTAB. At one point, Justice Elena Kagan asked counsel, "Is this just an unaccountably strange bird?" Justice Neil Gorsuch expressed similar sentiments, asking counsel, "Isn't it fair to say, 'This is a rare bird? It's an unusual animal given that there isn't final review in the agency head?'"

Ultimately, the Court issued a highly fractured 5–4 decision in *Arthrex*. In terms of the legal question presented to the Court, a five-Justice majority concluded that the Administrative Patent Judges in the PTAB are principal officers who were unconstitutionally appointed by the USPTO Director.⁵⁵ In terms of the remedy, though, a different line-up of Justices formed a majority to cure this constitutional violation by judicially rewriting the AIA to give the director more immediate control over the PTAB's decisions by allowing appeals of PTAB panel decisions directly to the director, who can affirm or reverse the PTAB decision.⁵⁶

***Arthrex*: A Fractured Decision.** Chief Justice John Roberts wrote the opinion on both the constitutional issue and remedy that was joined in separate parts by concurring and dissenting Justices to form the separate majorities on both the constitutional question and the remedy. Justice Stephen Breyer wrote a concurring and dissenting opinion in which he argued that the appointment of the Administrative Patent Judges was constitutional, because they were inferior officers, but since a majority of Justices held otherwise, he concurred in the remedy adopted by Chief Justice Roberts in judicially rewriting the AIA. Justice Neil Gorsuch filed a concurring and dissenting opinion in which he joined Chief Justice Roberts' opinion on the constitutional issue, but he dissented on the remedy, arguing that the proper remedy was to respect the separation of powers by striking down the PTAB as unconstitutional and allowing Congress to enact new legislation that cured this constitutional defect in the PTAB. Justice Clarence Thomas dissented on both issues, arguing that the appointment of the Administrative Patent Judges in the PTAB was constitutional because they are inferior officers, and, if the Court held otherwise, the proper remedy was only to vacate the PTAB decision in this specific dispute. The other Justices joined various parts of Chief Justice Roberts' opinion, as well as parts of the concurring and dissenting opinions by Justices Gorsuch, Breyer, and Thomas.

With its overlapping portions of opinions and fractured majorities requiring a Venn Diagram to make sense of it all, the *Arthrex* decision is as much a judicial platypus as the agency platypus that was its progenitor. Yet there is some clarity in the *Arthrex* decision concerning an emerging

judicial consensus about the PTAB and the nature of patents as legal entitlements within the modern administrative state. The remedy adopted by Chief Justice Roberts (and joined by an unusual mix of conservative and liberal Justices⁵⁷) now makes PTAB decisions reviewable by the politically appointed Director of the USPTO. This remedy made sense to Chief Justice Roberts and the Justices who joined this portion of his opinion because it makes the PTAB less of a platypus and more like an administrative beaver. In other words, the *Arthrex* Court converted the PTAB into an administrative tribunal that looks and acts like administrative tribunals in other agencies throughout the modern administrative state.

Patent System Shift. In combination with *Oil States*, *Arthrex* confirms the fundamental shift in the U.S. patent system that began with the enactment of the AIA in 2011. As created in the AIA, the PTAB is supposed to engage in solely *legal* analysis in reviewing the subject matter eligibility and patentability requirements of issued patents, as set forth in the Patent Act. The PTAB is not supposed to engage in discretionary *policymaking* decisions under regulatory edicts or implement policy under a broadly framed organic statute that directs an agency to protect the “public interest,” which is what administrative law judges do in other agencies that implement the policies of the current Administration.⁵⁸

This is why the AIA insulated the PTAB from potentially political or policy-based decision-making by a political appointee at the USPTO—the USPTO Director. Even before the PTAB was created by the AIA, the director was still a different type of agency head as compared to the heads of other agencies, as the director historically has not exercised the substantive authority that other heads of administrative agencies implement in their policies as directed by the President.⁵⁹ In examining patent applications, the USPTO has historically been governed entirely by the Patent Act (and by court decisions interpreting and applying these legislative provisions). The USPTO was required to institute these substantive statutory and judicial mandates, and thus it had administrative authority only to create procedural rules for the submission and examination of patent applications.⁶⁰

A Strange Bird. All of this explains why the PTAB ended up looking and acting like a platypus or a “strange bird,” as Justices Kagan and Gorsuch put the point in oral argument in *Arthrex*. The PTAB was ostensibly an administrative tribunal exercising solely legal authority, not policymaking authority, in reviewing and canceling issued patents. As described earlier, it was intended to be an efficient legal mechanism for eliminating mistakenly issued patents. Thus, its solely *legal decisions* were final at the USPTO. This insulated the PTAB’s legal decision-making from policy decision-making by the director.

But the PTAB was indeed something new in the U.S. patent system: A full-blown administrative tribunal for canceling patents. The myriad of legal challenges of specific legal rules in *Cuozzo*, *SAS Institute*, and other cases were only legal skirmishes in a broader legal contest that was more directly addressed in *Oil States* and *Arthrex*. Ultimately, the Supreme Court was going to have to decide: Is the PTAB a type of court that should respect and be held accountable to the procedural and substantive requirements of Article III courts or is the PTAB another tribunal in the modern administrative state in which discretionary decision-making implements policy goals of the current Administration in the executive branch?

Despite some initially confusing back-and-forth decisions in *Cuozzo* and *SAS Institute*, *Arthrex* has resolved this question. It confirms that the Supreme Court views the PTAB through the lens of administrative law and the modern administrative state, and, following *Oil States*, that patents are “public rights” whose validity as property rights in the innovation economy can be determined by the vagaries of administrative processes and policy-based decision-making.

Why the Shift to an Administrative Patent System Matters

Economists and historians have long recognized that stable and reliable property rights are an essential foundation for economic growth and flourishing societies.⁶¹ This key economic and political principle applies equally to patents—property rights secured to innovators who have created the new products and services that have grown the U.S. innovation economy during the past two centuries.⁶² This was the genius of the Founders, who specifically authorized Congress in the Constitution to enact patent and copyright laws.⁶³ In *The Federalist* No. 43, James Madison wrote:

The utility of this power [to secure copyrights and patents in the Constitution] will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.⁶⁴

As explained in previous legal memoranda, such as “The Constitutional Protection of Intellectual Property,”⁶⁵ Congress and courts historically defined and secured patents, not through discretionary policymaking in the political institutions and modes of regulatory analysis in the executive branch, but through the private law doctrines of property law. Accordingly,

the Supreme Court and lower federal courts historically secured constitutional protections for patents as private property rights, as contrasted with the courts' simultaneous denial of these same constitutional protections for public franchises or monopoly grants. As private property rights, patents were vested rights in inventors and secured to their owners under legal doctrines interpreted and applied by courts operating under the rule of law.⁶⁶ This established a stable legal foundation in reliable and effective property rights, which then served as an essential basis for investments in and the commercialization of new products and services—the driving force of the dynamically growing U.S. innovation economy for two hundred years.

Moreover, Congress and courts defined and protected patents as private property rights on par with all other property rights. For example, in “The Supreme Court or Congress Must Restore Injunctions for Patent Owners,”⁶⁷ the author of this *Legal Memorandum* explained how a key legal element of private property rights—the protection of the exclusive use of an asset by an injunction against ongoing or willful infringement—serves the same economic function for patents as it does for all property rights. An injunction is an essential backstop for all commercial negotiations in the marketplace; American innovators were secured against pirates who would steal the fruits of their inventive labors and destroy their markets, and thus they commercialized their innovations in the free market through a myriad of new business models and other innovative commercial arrangements. This served as the launching pad for the explosive growth in the U.S. innovation economy from the Industrial Revolution in the 19th century to the mobile revolution in the early 21st century.

What to Do About the PTAB Today

This evidence of the overwhelming success of the U.S. patent system as a system of private property rights in promoting inventions and driving economic growth, as compared to administrative systems and other express forms of industrial policy, is important. It provides key insights and guidance on two issues facing U.S. policymakers today.

Pending Legislation: The Good and the Bad. First, several bills addressing the PTAB have been introduced in Congress, representing two different institutional and legal approaches to the patent system.

On one hand, the STRONGER Patents Act would impose important structural limitations on the PTAB, constraining its largely unbridled discretionary decision-making power that the Supreme Court has affirmed it possesses as an administrative tribunal in the modern administrative state.⁶⁸

The Supreme Court has made clear that it will not impose the necessary limits on the PTAB that are required by due process and related rule-of-law norms, confining innovators to the vagaries of agency policymaking in the administrative state. The STRONGER Patents Act would end some of the instability and weakness in patents created by the PTAB, restoring the reliable and effective property rights that have been a fountainhead of economic growth and global U.S. technological leadership.

Even better, the Restoring American Leadership in Innovation (RALI) Act would eliminate the PTAB entirely, returning the U.S. back to the successful innovation-promoting system in which patent owners received reliable and effective private property rights for licensing and other commercial activities in the marketplace.⁶⁹ When disputes concerning these intellectual property rights arise, including questions of the validity of the patents, these would be addressed—as they were historically—through proper legal processes in courts that respect the equal rights of all parties.

The RALI Act is aspirational and idealistic in limiting the growth of the modern administrative state that has impacted the lives of all Americans, but at least the STRONGER Patents Act realistically recognizes that, if the PTAB cannot be repealed, then the people’s representatives in Congress can—and should—insist that this administrative tribunal follow a modicum of respect for due process and the rule of law. The continued growth of the U.S. innovation economy and its continued status as a global technological leader should demand nothing less.

On the other hand, bills that would empower the PTAB even more—and thus continue to feed the growth of the leviathan of the administrative state—should be opposed. The recently introduced Restoring the America Invents Act (RAIA) would unleash the PTAB in its mission of canceling patents, ultimately expanding the power and decision-making authority of this administrative tribunal even more compared to traditional courts.⁷⁰

The RAIA is confusing because it was nominally introduced to abrogate a regulatory reform adopted by former USPTO Director Iancu that permitted the PTAB to reject a petition to cancel a patent on the ground that a court decision concerning the validity of a patent in a pending lawsuit was imminent. Thus, RAIA supporters claim that this bill removes discretionary authority in the PTAB, but this is not true. The RAIA broadly expands the power of the PTAB to cancel patents and reaffirms the processes the PTAB adopted under the Obama Administration that produced patent cancellation rates ranging between 70 percent to 100 percent. Thus, the RAIA doubles down on the assimilation of the patent system into the modern

administrative state and the related perspective of patents as merely regulatory entitlements, continuing to undermine this essential foundation of the U.S. innovation economy.

Innovation Policy. Second, the U.S. is currently facing strategic and economic competition as the global technological leader, especially from China. China has explicitly embraced the goal in its domestic industrial policies of growing its own innovation economy.⁷¹ Thus, China subsidizes its own high-tech companies, such as Huawei, and it promotes these companies through legal and economic advantages through its laws, regulations, and court decisions.⁷² The U.S. is currently considering numerous policies to respond to China and in response to various economic developments, such as a global shortage in computer chips, supply-chain problems, and the development of next-generation technologies, such as 5G, AI, and self-driving cars, among others.

Similar to the success of the U.S. in the Cold War with the Soviet Union in the 20th century, the U.S. will not win this new 21st-century technological Cold War with China by replicating the political and economic policies of its adversaries. The U.S. should continue to follow the path in innovation policy that has produced its explosive economic growth and global leadership: protection of property rights, the free market, and the support of these vital private rights and commercial institutions by stable legal institutions like courts that are governed by the rule of law and due process. In sum, the U.S. should recognize and support again a robust patent system that provides reliable and effective property rights to innovators.

Conclusion

The U.S. patent system, as first developed by the early Congresses and federal courts from 1790 through the 20th century, represented at its core a private law system in which patents were defined and secured as private property rights that were primarily interpreted and enforced by Article III courts. The AIA fundamentally altered the U.S. patent system in redefining patents as regulatory entitlements that are subject to discretionary cancelation by a tribunal in the modern administrative state—the PTAB. At first, patent owners sought protection of their property rights from the Supreme Court. The Supreme Court was initially confused about what had been wrought by the PTAB, but it has ultimately concluded that the PTAB is indeed an administrative tribunal, blessing its operations as a discretionary, policymaking authority, just as the Supreme Court has done so with other agencies in the modern administrative state.

It thus falls to Congress to protect the patent system from its assimilation into the modern leviathan that is the administrative state. Ideally, Congress should repeal the PTAB and return to the system of private property rights that successfully spurred the U.S. innovation economy for over 200 years. At a minimum, though, Congress should impose more structural restrictions on the PTAB and its operations, compelling it to respect due process and the rule of law. Congress should also reject any further attempts at merging the patent system even more into the modern administrative state.

If Congress fails to stop, or at least slow, the assimilation of the patent system into the modern administrative state, the implications of this radical change in the U.S. patent system will be felt for many years to come. Innovators will become subjected to the vagaries of shifting procedural and substantive rules at the PTAB that naturally result from changes in Administrations in the executive branch, mirroring the same policy shifts in other agencies that have long occurred over many decades.

If this happens, then the past serves as a guide. Economists and historians have long studied the U.S. patent system, finding the source of its successes in spurring the U.S. innovation economy as a private property rights system as compared to other countries' less successful administrative approaches to promoting innovation. If resistance to today's administrative leviathan is deemed futile, then the success of the U.S. patent system as a private property rights system in driving the U.S. innovation economy will itself become a thing of the past.

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Endnotes

1. See, e.g., B. ZORINA KHAN, *INVENTING IDEAS: PATENTS, PRIZES, AND THE KNOWLEDGE ECONOMY* (Oxford Univ. Press, 2021); Stephen Haber, *Patents and the Wealth of Nations*, 23 *Geo. Mason L. Rev.* 811 (2016).
2. See JONATHAN M. BARNETT, *INNOVATORS, FIRMS, AND MARKETS: THE ORGANIZATIONAL LOGIC OF INTELLECTUAL PROPERTY* (Oxford Univ. Press, 2021).
3. See PHILIP HAMBURGER, *IS ADMINISTRATIVE LAW UNLAWFUL?* (Univ. Chicago Press, 2014).
4. See Adam Mossoff & David Lund, *The Problems with the PTAB*, *IAM* 31 (Nov.–Dec. 2017).
5. See Joan Farre-Mensa et al., *What Is a Patent Worth? Evidence from the U.S. Patent “Lottery,”* 75 *J. Finance* 639 (2020), <https://ssrn.com/abstract=2704028>.
6. See, e.g., JONATHAN M. BARNETT, *INNOVATORS, FIRMS, AND MARKETS: THE ORGANIZATIONAL LOGIC OF INTELLECTUAL PROPERTY* (Oxford Univ. Press, 2021); see also B. ZORINA KHAN, *THE DEMOCRATIZATION OF INVENTION: PATENTS AND COPYRIGHTS IN AMERICAN ECONOMIC DEVELOPMENT, 1790–1920* (Cambridge Univ. Press, 2005) (identifying same function of patent system in the 19th century as a driver of commercial innovation in the Industrial Revolution).
7. *United States v. Arthrex*, 141 S. Ct. 1970 (2021).
8. See *United States v. Arthrex*, 141 S. Ct. 1970 (2021); *Thryv v. Click-To-Call Technologies*, 140 S. Ct. 1367 (2020); *Return Mail v. USPS*, 139 S. Ct. 1853 (2019); *Oil States Energy Services, LLC v. Greene’s Energy Group, LLC*, 138 S. Ct. 1365 (2018); *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016).
9. See STRONGER Patents Act of 2019, S. 2082 & H.R. 3666, 116th Cong. (2019). The bills were co-sponsored by a bipartisan group of five Senators and 18 House Members.
10. See Restoring the America Invents Act, S. 2891, 117th Cong. (2021).
11. See U.S. CONST. art. III, § 1 (“The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish.”).
12. See Joe Nocera, *The Patent Troll Smokescreen*, *N.Y. Times*, Oct. 23, 2015, <https://www.nytimes.com/2015/10/24/opinion/the-patent-troll-smokescreen.html>; Adam Mossoff, *Repetition of Junk Science & Epithets Does Not Make Them True*, *IPWATCHDOG* (Nov. 19, 2015), <http://www.ipwatchdog.com/2015/11/19/repetition-of-make-them-true/id=63302/>.
13. See, e.g., Press Release, Federal Trade Commission, *FTC Settlement Bars Patent Assertion Entity From Using Deceptive Tactics* (Nov. 6, 2014), <http://bit.ly/2tHm22m>.
14. See, e.g., Keith Mallinson, *Don’t Fix What Isn’t Broken: The Extraordinary Record of Innovation and Success in the Cellular Industry under Existing Licensing Practices*, 23 *Geo. Mason L. Rev.* 967 (2016); Jonathan M. Barnett, *From Patent Thickets to Patent Networks: The Legal Infrastructure of the Digital Economy*, 55 *JURIMETRICS J. I.* 1 (2014), <https://ssrn.com/abstract=2438364>; B. Zorina Khan, *Trolls and Other Patent Inventions: Economic History and the Patent Controversy in the Twenty-First Century*, 21 *Geo. Mason L. Rev.* 825 (2014), <http://demotesturl.com/george-mason/wp-content/uploads/2014/06/Khan-Website-Version.pdf>.
15. See, e.g., Adam Mossoff, *Thank You, Senator Tillis, for Recognizing the Need for Evidence-Based Policymaking in Patent Law*, *IPWATCHDOG* (Feb. 15, 2022), <https://www.ipwatchdog.com/2022/02/15/thank-senator-tillis-recognizing-need-evidence-based-policymaking-patent-law/id=145875/>; Adam Mossoff, *Big Tech’s Opposition to Section 101 Reform: Policy Rhetoric versus Economic Reality*, *IPWATCHDOG* (June 22, 2020), <https://www.ipwatchdog.com/2020/06/22/big-techs-opposition-section-101-reform-policy-rhetoric-versus-economic-reality/id=122709>.
16. See *Cuozzo*, 136 S. Ct. at 2143–44 (“Parties that initiate proceedings need not have a concrete stake in the outcome; indeed, they may lack constitutional standing.”).
17. See Anne S. Layne-Farrar, *The Cost of Doubling Up: An Economic Assessment of Duplication in PTAB Proceedings and Patent Infringement Litigation*, *LANDSLIDE*, May–June 2018, at 52, 55 (“On a per-patent basis, out of 3,460 patents with an IPR challenge filed, 842 (24 percent) were ‘serially petitioned patents.’” (footnotes omitted)); Saurabh Vishnubhakat, Arti K. Rai & Jay P. Kesan, *Strategic Decision Making in Dual PTAB And District Court Proceedings*, 31 *BERKELEY TECH L. J. I.* 1, 70 (2016) (“[W]e find that a number of patents have been targets of serial challenges spread across both multiple petitions and multiple challengers in IPR petitions.”); Gregory Dolin, *Dubious Patent Reform*, 56 *BOSTON COLLEGE L. REV.* 881, 939–44 (2015) (describing the practice of filing multiple petitions against a patent owner).
18. See *id.* at 48. The authors list the 90 petitions in a table in the index that runs three pages. See *id.*, at 113–116. For another example of this common practice of serial petitioning, see Dolin, *supra* note 17, at 938–39 (“Microsoft filed its own twelve separate petitions over the course of three months, challenging six separate patents owned by VirnetX. Four of these patents were previously challenged by RPX, and Microsoft’s petitions alleged the exact same grounds of invalidity that were alleged by RPX. This was easy to do because, as a client of RPX, Microsoft had access to its legal and factual research.”).
19. See Matthew Bulton, *Allergan Says Venture Fund’s AIA Petition Is ‘Extortion,’* *LAW360* (June 24, 2015), <https://www.law360.com/articles/671895>; Joseph Walker & Rob Copeland, *New Hedge Fund Strategy: Dispute the Patent, Short the Stock*, *WALL ST. J.* (Apr. 7, 2015), <http://on.wsj.com/2usPWqq>.
20. See Alden Abbott, et al., *Crippling the Innovation Economy: Regulatory Overreach at the Patent Office* (Regulatory Transparency Project of the Federalist Society, Aug. 14, 2017), <https://regproject.org/wp-content/uploads/RTP-Intellectual-Property-Working-Group-Paper.pdf> (describing PTAB processes as an administrative tribunal, as distinguished from an Article III court).
21. Orin S. Kerr, *Rethinking Patent Law in the Administrative State*, 42 *WM. & MARY L. REV.* 127, 129 (2000).

22. See 35 U.S.C. § 282 (“A patent shall be presumed to be valid.”).
23. See *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).
24. See Mossoff & Lund, *supra* note 4, at 29 (reporting that 97.8 percent of the business-method patents reviewed in the covered business method (CBM) hearings at the PTAB were canceled). The CBM administrative hearings were formally called the Transitional Business Method program, and, in accord with its name, this specific administrative hearing program was the only one with a sunset provision in the AIA. Despite an effort to extend it or make it permanent, the CBM program concluded operations on September 16, 2020. See James Edwards, *The Covered Business Methods Program Must Finally Be Laid to Rest*, IPWATCHDOG (Aug. 10, 2020), <https://www.ipwatchdog.com/2020/08/10/covered-business-method-program-must-finally-laid-rest/id=123980/>. Petitions to cancel business-method patents can still be filed in the other administrative hearings programs at the PTAB, which are permanent hearing programs in the PTAB.
25. See *Novartis AG v. Noven Pharms., Inc.*, 853 F.3d 1289, 1293–94 (Fed. Cir. 2017); see also Matthew Bultman, *PTAB Nixes Part of Garage Door Opener Patent Upheld By ITC*, LAW360 (Oct. 25, 2018), <https://www.law360.com/ip/articles/1095772/ptab-nixes-part-of-garage-door-opener-patent-upheld-by-itc> (reporting a patent canceled by the PTAB after it was construed as valid by the ITC, which applies the same legal standard in construing patents as Article III courts).
26. See Mossoff & Lund, *supra* note 4, 29, 32-33 (discussing *Target Corp. v. Destination Maternity Corp.*, in which the PTAB panel was increased from three to five judges, and ultimately to seven judges, before the panel finally reached the “right” result of invalidating the patent).
27. See William E. Leuchtenberg, *When Franklin Roosevelt Clashed With the Supreme Court—and Lost*, SMITHSONIAN MAG. (May 2005), <https://www.smithsonianmag.com/history/when-franklin-roosevelt-clashed-with-the-supreme-court-and-lost-78497994/>.
28. See, e.g., Quinta Jurecic & Sarah Hennessey, *The Reckless Race to Confirm Amy Coney Barrett Justifies Court Packing*, THE ATLANTIC (Oct. 4, 2020), <https://www.theatlantic.com/ideas/archive/2020/10/skeptic-case-court-packing/616607/>.
29. See Saurabh Vishnubhakat, *Disguised Patent Policymaking*, 76 WASH. & LEE L. REV. 1667, 1685 (2019) (noting that “the details of panel stacking reveal an admitted pattern of Patent Office policymaking in the guise of adjudication”).
30. No. IPR2014-00508 (P.T.A.B. Sept. 25, 2014).
31. See Vishnubhakat, *supra* note 28, at 1683–84 (describing the “repeated panel stacking in *Target Corp. v. Destination Maternity Corp.*”).
32. See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340, 51340 (Oct. 11, 2018) (to be codified at 37 C.F.R. pt. 42) (changing the legal rule for construing patents at the PTAB to be the same as the rule used in Article III courts).
33. Ryan Davis, *PTAB’s “Death Squad” Label Not Totally Off-Base, Chief Says*, LAW360 (Aug. 14, 2014) (quoting former Chief Judge of the Federal Circuit, Randall Rader), <https://www.law360.com/articles/567550/ptab-s-death-squad-label-not-totally-off-base-chief-says>.
34. See Eileen McDermott, *General Counsels Ask Raimondo to Immediately Repeal NHK-Fintiv Framework*, IPWATCHDOG (Feb. 14, 2022), <https://www.ipwatchdog.com/2022/02/15/general-counsels-ask-raimondo-immediately-repeal-nhk-fintiv/id=145968/>.
35. See Britain Eakin, *Tech Giants Urge Fed. Circ. To Abolish ‘Unlawful’ Fintiv Rule*, LAW360 (Feb. 9, 2022), <https://www.law360.com/articles/1463601/tech-giants-urge-fed-circ-to-abolish-unlawful-fintiv-rule>; Ryan Davis, *Tech Cos. Back Apple High Court Bid to Ax PTAB’s Fintiv Rule*, LAW360 (Aug. 31, 2021), <https://www.law360.com/articles/1417615/tech-cos-back-apple-high-court-bid-to-ax-ptab-s-fintiv-rule>.
36. See 35 U.S.C. § 101 (requiring that the invention be useful and that it fall within certain categories of inventions to be patentable); 35 U.S.C. § 102 (requiring that the invention be novel); 35 U.S.C. § 103 (requiring that the invention be nonobvious); 35 U.S.C. § 112 (requiring that the inventor describe the invention and clearly define it in the patent so that someone trained in this field understands it and can make and use it).
37. *Cuozzo*, 136 S. Ct. at 2135.
38. *Id.* This is known in legal parlance as “*Chevron* deference,” named after the Supreme Court case that established the rule that courts should give extreme deference to discretionary agency decision-making. See *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). In *Cuozzo*, the Supreme Court applied *Chevron* deference to the USPTO’s decision to adopt the BRI standard in construing patent claims in PTAB hearings. Two years later, though, the USPTO revised its rules and adopted the *Phillips* standard as one of the regulatory reforms instituted by then-Director Andrei Iancu.
39. *SAS Institute*, 138 S. Ct. at 1352.
40. *Id.*
41. 138 S. Ct. 1365 (2018).
42. See U.S. CONST., Seventh Amend. (“In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.”).
43. See generally HAMBURGER, *supra* note 3; Gary Lawson, *The Rise and Rise of the Administrative State*, 107 HARV. L. REV. 1231 (1994), https://scholarship.law.bu.edu/faculty_scholarship/948.
44. 141 S. Ct. 1970 (2021).

45. See U.S. CONST. art. II, § 2, cl. 2 (“[The President] shall have power, by and with the advice and consent of the Senate, to make treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the advice and consent of the Senate, shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States, whose appointments are not herein otherwise provided for, and which shall be established by law: but the Congress may by law vest the appointment of such inferior officers, as they think proper, in the President alone, in the courts of law, or in the heads of departments.”).
46. See *id.*
47. *Id.*
48. Buckley v. Valeo, 424 U.S. 1, 125–26 (1976) (per curiam). See Jennifer L. Mascott, *Who Are “Officers of the United States”?* 70 STANFORD L. REV. 443, 447–48 (2018) (describing the three-factor test used by courts to determine if an official wields “significant authority” and thus should be classified as a principal officer).
49. Mascott, *supra* note 43, at 126.
50. See *supra* note 11 and accompanying text (describing what is an Article III court).
51. U.S. CONST. art. II, § 2, cl. 2.
52. See Gary Lawson, *Appointments and Illegal Adjudication: The America Invents Act Through a Constitutional Lens*, 26 GEO. MASON L. REV. 1, 29 (2018) (“[T]he statute appears to make the PTAB the final executive authority on patent cancellation decisions. If so, then the PTAB members are principal rather than inferior officers under the Constitution....”).
53. See *Cuozzo*, 136 S. Ct. at 2139 (stating that “the ‘No Appeal’ provision’s language [in § 314(d)] must, at the least, forbid an appeal that attacks a ‘determination...whether to institute’ a review”).
54. See John M. Golden, *PTO Panel Stacking: Unblessed by the Federal Circuit and Likely Unlawful*, 104 IOWA L. REV. 2447 (2019) (describing the commentary on the practice and criticizing it); Vishnubhakat, *supra* note 28 (same).
55. The Justices forming this majority were Chief Justice John Roberts, Justice Samuel Alito, Justice Neil Gorsuch, Justice Brett Kavanaugh, and Justice Amy Coney Barrett.
56. The Justices forming the majority on the remedy were Chief Justice John Roberts, Justice Stephen Breyer, Justice Sonia Sotomayor, Justice Elana Kagan, Justice Samuel Alito, Justice Brett Kavanaugh, and Justice Amy Coney Barrett.
57. See *id.*
58. See, e.g., Federal Communications Act of 1934, 48 Stat. 1064, 47 U.S.C. § 309(a) (authorizing the Federal Communications Commission to grant an application for a broadcast license on the basis of whether it serves “the public interest, convenience, and necessity”).
59. See *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996) (observing that the Patent Act “does not grant the Commissioner [of the USPTO] the authority to issue substantive rules”).
60. *Id.* (stating that “the broadest of the PTO’s rulemaking powers—35 U.S.C. § 6(a)—authorizes the Commissioner to promulgate regulations directed only to ‘the conduct of proceedings in the [PTO]’”). The *Cuozzo* Court held, in part, that in the operations of the PTAB, the AIA abrogated this limitation of authority to solely procedural rulemaking. See *Cuozzo Speed Technologies*, 136 S. Ct. at 2143.
61. See *Haber*, *supra* note 1, at 811 (“There is abundant evidence from economics and history that the world’s wealthy countries grew rich because they had well-developed systems of private property. Clearly defined and impartially enforced property rights were crucial to economic development....”).
62. See *supra* notes 5–6 and accompanying text.
63. See U.S. CONST., art I, § 8, cl. 8 (“Congress shall have the Power...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.”).
64. *Federalist No. 43*, at 271–72 (Clinton Rossiter ed., 1961). See also Adam Mossoff, *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent “Privilege” in Historical Context*, 92 CORNELL L. REV. 953 (2007), https://papers.ssrn.com/abstract_id=892062 (detailing extensive historical evidence of definition and treatment of patents as property rights in the U.S.).
65. See Adam Mossoff, *The Constitutional Protection of Intellectual Property*, HERITAGE FOUND. LEGAL MEMO. No. 282, March 8, 2021, <https://www.heritage.org/economic-and-property-rights/report/the-constitutional-protection-intellectual-property>.
66. See Adam Mossoff, *Institutional Design in Patent Law: Private Property Rights or Regulatory Entitlements*, 92 SO. CAL. L. REV. 921 (2019); Adam Mossoff, *Statutes, Common-Law Rights, and the Mistaken Classification of Patents as Public Rights*, 104 IOWA L. REV. 2591 (2019).
67. See Adam Mossoff, *The Supreme Court or Congress Must Restore Injunctions for Patent Owners*, HERITAGE FOUND. LEGAL MEMO. No. 267, June 25, 2020, <https://www.heritage.org/economic-and-property-rights/report/the-supreme-court-or-congress-must-restore-injunctions-patent>.
68. See STRONGER Patents Act of 2019.
69. See Restoring American Leadership in Innovation Act of 2021, H.R. 5874, 117th Congress (2021).
70. See Restoring the America Invents Act, S. 2891, 117th Cong. (2021).

71. See Comment by Mark A. Cohen, Distinguished Senior Research Fellow at the Berkeley Center for Law and Technology at the University of California Berkeley Law School, on USDOJ, USPTO, and NIST Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments (Feb. 4, 2022), <https://www.regulations.gov/comment/ATR-2021-0001-0118>.
72. *Id.*; see also Office of the United States Trade Representative, *Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation under Section 301 of the Trade Act of 1974* (March 22, 2018), <https://ustr.gov/sites/default/files/enforcement/301Investigations/301%20Report%20Update.pdf>.