No.

# In THE <br> Supreme Court of the $\mathfrak{H}$ nited $\mathcal{B}$ atess 

Arthrex, Inc., Petitioner,<br>v.<br>Smith \& Nephew, Inc.; ARTHRoCare Corp.; and United States of America, Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

## PETITION FOR A WRIT OF CERTIORARI

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## QUESTIONS PRESENTED

The Appointments Clause requires principal officers to be appointed by the President with the advice and consent of the Senate, but permits inferior officers to be appointed by department heads. U.S. Const. art. II, § 2. This case concerns the appointment of the Patent Office's administrative patent judges ("APJs"). APJs issue decisions that are not reviewable by any superior executive officer, and they are removable from office only for cause. Nonetheless, APJs are appointed by the Secretary of Commerce.

The Federal Circuit held that, given their tenure protection and the absence of Executive Branch review, APJs are principal officers who cannot be appointed by the Secretary. The court purported to remedy the constitutional defect by severing APJs' tenure protections. The court deemed that change sufficient to render APJs inferior officers even though APJs still issue decisions that are not reviewable by any principal executive officer.

The questions presented are:

1. Whether the court of appeals' severance remedy is consistent with congressional intent, where Congress has long considered tenure protections essential to secure the independence and impartiality of administrative judges.
2. Whether the court of appeals correctly held that the elimination of APJ tenure protections was sufficient to render APJs inferior officers, even though their decisions still are not reviewable by any principal executive officer.

# PARTIES TO THE PROCEEDINGS BELOW 

Petitioner Arthrex, Inc., was the patent owner in proceedings before the Patent Trial and Appeal Board and the appellant in the court of appeals.

Respondents Smith \& Nephew, Inc., and ArthroCare Corp. were petitioners in proceedings before the Patent Trial and Appeal Board and appellees in the court of appeals.

Respondent United States of America was an intervenor in the court of appeals.

## CORPORATE DISCLOSURE STATEMENT

Pursuant to this Court's Rule 29.6, petitioner Arthrex, Inc., states that it has no parent corporation and that no publicly held company owns $10 \%$ or more of its stock.

## RELATED PROCEEDINGS

The following proceedings are directly related to this case within the meaning of Rule 14.1(b)(iii):

- Arthrex, Inc. v. Smith \& Nephew, Inc., No. 20182140 (Fed. Cir.), judgment entered on October 31, 2019; and
- Smith \& Nephew, Inc. v. Arthrex, Inc., Case IPR2017-00275 (P.T.A.B.), final written decision entered on May 2, 2018.


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# In THE <br> Supreme Court of the $\mathfrak{Z}$ nited $\mathfrak{z a t a s}$ 

Arthrex, Inc., Petitioner, v.<br>Smith \& Nephew, Inc.; ArthroCare Corp.; and United States of America, Respondents.<br>On Petition for a Writ of Certiorari to the United States Court of Appeals for the Federal Circuit<br>\section*{PETITION FOR A WRIT OF CERTIORARI}

Arthrex, Inc., respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

## OPINIONS BELOW

The court of appeals' opinion (App., infra, 1a-32a) is reported at 941 F.3d 1320. The Patent Trial and Appeal Board's final written decision (App., infra, 33a-75a) is unreported.

## STATEMENT OF JURISDICTION

The court of appeals entered its decision on October 31, 2019. App., infra, 1a. The court denied rehearing and rehearing en banc on March 23, 2020. Id. at 76a. On March 19, 2020, by general order, the Court extended the
time to file this petition to August 20, 2020. This Court has jurisdiction under 28 U.S.C. § 1254(1).

## CONSTITUTIONAL AND STATUTORY <br> PROVISIONS INVOLVED

Relevant provisions of the U.S. Constitution; Titles 5 and 35 of the U.S. Code; Act of Mar. 2, 1861, ch. 88, 12 Stat. 246; Pub. L. No. 93-601, 88 Stat. 1956 (1975); Pub. L. No. 106-113, app. I, 113 Stat. 1501A-521 (1999); and Pub. L. No. 110-313, 122 Stat. 3014 (2008), are reproduced in the appendix. App., infra, 139a-176a.

## PRELIMINARY STATEMENT

This case arises out of Congress's decision to grant administrative patent judges ("APJs") final authority to revoke previously issued patents. No superior officer in the Executive Branch can review their decisions. The court of appeals recognized that, given their power and independence, APJs are principal officers and were appointed in violation of the Appointments Clause.

The court, however, did not leave it to Congress to fix the problem-for example, by providing for APJs to be appointed by the President and confirmed by the Senate. Instead, it eliminated the tenure protections that shield APJs from politics and improper influence. That remedy not only contravenes congressional intent, but fails to cure the Appointments Clause violation.

Congress has long considered tenure protections essential to ensure that administrative judges are impartial and independent. Those objectives were particularly pressing here. Patents are property rights-often very valuable ones. For centuries, their validity was tested in Article III courts. In establishing a new administrative scheme for review, Congress was not trying to invalidate patents at all costs. It wanted a process that was adjudicative and fair.

By making APJs removable for policy reasons, political reasons, or no reason at all, the court eliminated a key safeguard Congress has traditionally deemed essential to make adjudicative processes fair.

The court's remedy, moreover, was no remedy at all. Even without tenure protections, APJs are still principal officers because they still have the power to issue final decisions on behalf of the agency without any possibility of review by a principal officer. They are thus still appointed in a manner that violates the Appointments Clause.

Intellectual property is the backbone of the Nation's economy. Before an agency revokes such important property rights, due process entitles inventors to a fair hearing by an impartial adjudicator. Congress would not have created a regime in which the fate of patents rests with subordinate officers issuing final decisions while trying to please their superiors and preserve their jobs. Congress had many reasonable ways to address the constitutional defect. The court invented a new review scheme that Congress would never have envisioned.

## STATEMENT

## I. Statutory Background

Under the Constitution's Appointments Clause, officers of the United States must be appointed by the President with the advice and consent of the Senate. U.S. Const. art. II, §2. Congress, however, 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." Ibid. This case concerns the application of the Appointments Clause to the Patent Office's administrative patent judges.

## A. Appointment of Administrative Patent Judges

The position of administrative patent judge, formerly known as "examiner-in-chief," was created in 1861. Act of Mar. 2, 1861, ch. 88, §2, 12 Stat. 246, 246. For 114 years, those officers were appointed in the traditional manner for principal officers-"by the President, by and with the advice and consent of the Senate." Ibid.; see also Pub. L. No. 82-593, sec. 1, §3, 66 Stat. 792, 792 (1952).

In 1975, Congress transferred authority to appoint examiners-in-chief to the Secretary of Commerce. Pub. L. No. 93-601, §1, 88 Stat. 1956, 1956 (1975). At the same time, it required them to be "appointed under the classified civil service," thereby granting them the tenure protections long held by other federal civil servants. Id. § 2, 88 Stat. at 1956.

In 1999, Congress renamed examiners-in-chief "administrative patent judges" and transferred appointment authority to the Director of the Patent Office-someone who is not a department head and thus not capable of appointing even inferior officers. Pub. L. No. 106-113, app. I, §4717, 113 Stat. 1501A-521, 1501A-580 to -581 (1999). Congress continued to provide tenure protections by making APJs "subject to the provisions of title 5, United States Code, relating to Federal employees." Id. § 4713, 113 Stat. at 1501A-577 (enacting 35 U.S.C. §3(c)).

In 2008, after a law professor pointed out that the new appointment scheme was "almost certainly unconstitutional," John F. Duffy, Are Administrative Patent Judges Unconstitutional?, 2007 Patently-O Patent L.J. 21, 21, Congress transferred appointment authority back to the Secretary, Pub. L. No. 110-313, § 1(a), 122 Stat. 3014, 3014 (2008) (codified at 35 U.S.C. §6(a)). APJs remained subject to Title 5's civil service protections. 35 U.S.C. §3(c). Those protections permit removal only "for such cause
as will promote the efficiency of the service," 5 U.S.C. §7513(a), a standard that requires "misconduct *** likely to have an adverse impact on the agency's performance of its functions," Brown v. Dep't of Navy, 229 F.3d 1356, 1358 (Fed. Cir. 2000), cert. denied, 533 U.S. 949 (2001). Title 5 also provides a broad range of procedural protections. 5 U.S.C. § 7513(b)-(e).

## B. Authority of Administrative Patent Judges

While diluting the appointment process for APJs, Congress expanded their powers. Traditionally, examiners-in-chief served on a Board of Appeals that reviewed examiner decisions, such as denials of patent applications. Pub. L. No. 690, §3, 44 Stat. 1335, 1335-1336 (1927). They had no authority to invalidate previously issued patents-a power reserved to Article III courts. 35 U.S.C. §282(b).

In 1980—nearly 200 years after the first Patent ActCongress created an administrative scheme known as ex parte reexamination for revoking previously issued patents. Pub. L. No. 96-517, §1, 94 Stat. 3015, 3015 (1980). Congress granted the Board power to hear appeals from those decisions. Id. sec. 1, §306, 94 Stat. at 3016 (citing 35 U.S.C. § 134). In 1984, Congress renamed the Board the Board of Patent Appeals and Interferences and directed it to conduct interference proceedings to resolve disputes between competing applicants. Pub. L. No. 98622, §§ 201-202, 98 Stat. 3383, 3386-3387 (1984).

In 1999, Congress created inter partes reexamination, another administrative scheme for reviewing previously issued patents, but with slightly more third-party participation. Pub. L. No. 106-113, app. I, § 4604(a), 113 Stat. at 1501A-567. Congress granted the Board authority to hear appeals from those decisions too. Id. sec. 4604(a), § 315, 113 Stat. at 1501A-569 (citing 35 U.S.C. § 134).

This case concerns Congress's latest and most substantial augmentation of APJ authority: the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011). The AIA created the Patent Office's first adjudicative schemes for revoking previously issued patents. Ex parte and inter partes reexaminations were "examinational" proceedings in which patent examiners directed the process, applying the same procedures that govern consideration of patent applications. See 35 U.S.C. § 305; 35 U.S.C. §314(a) (2006). In the AIA, Congress sought to "convert[] inter partes reexamination from an examinational to an adjudicative proceeding." H.R. Rep. No. 112-98, pt. 1, at 46 (2011). It wanted a process that was "objective, transparent, clear, and fair to all parties." 157 Cong. Rec. 3433 (Mar. 8, 2011) (Sen. Kyl). Congress created a "party-directed, adversarial" agency process that "mimics civil litigation." SAS Inst. Inc. v. Iancu, 138 S. Ct. 1348, 1352, 1355 (2018).

The AIA replaced inter partes reexamination with three new procedures: inter partes review, post-grant review, and covered business method review. Pub. L. No. 112-29, §§6(a), 6(d), 18, 125 Stat. at 299, 305, 329 (codified at 35 U.S.C. $\S \$ 311$ et seq.). All those proceedings are conducted by panels of the Patent Trial and Appeal Board, which consists of about 260 administrative patent judges as well as the Patent Office's Director, Deputy Director, and two Commissioners. Id. §§7(a), 18(a)(1), 125 Stat. at 313, 329 (codified at 35 U.S.C. §6(a)-(b)); Gov't C.A. Reh'g Pet. 4. Each panel must include "at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director." 35 U.S.C. §6(c). The Director is the only Board member appointed by the President and confirmed by the Senate. Id. §§3(a)-(b), 6(a). APJs continued to be appointed by the

Secretary of Commerce and removable only for cause. 35 U.S.C. §§3(c), 6(a).

Any person can petition for inter partes review of a previously issued patent on the ground that the invention was anticipated or obvious in light of a prior-art patent or printed publication. 35 U.S.C. §311. The Director may institute review if he finds a "reasonable likelihood" the petitioner will prevail. Id. §314(a). The statute then calls for an adversarial proceeding in which both sides can take discovery, submit evidence and briefs, and present oral argument. Id. §316(a). The petitioner need only prove invalidity by a preponderance of the evidence. Id. §316(e). The Patent Office refers to those proceedings as "trial[s]." 37 C.F.R. §42.100(a).

At the end of the proceeding, the Board issues a final written decision on the patentability of the claims. 35 U.S.C. §318(a). The Director cannot review that decision; it is appealable only to the Federal Circuit. Id. § 319 (citing 35 U.S.C. §141). Nor can the Director grant rehearing. "Only the Patent Trial and Appeal Board may grant rehearings." Id. §6(c).

As of May 2020, the Patent Office had received over 10,700 petitions for inter partes review. Patent Trial \& Appeal Board, Trial Statistics 3 (May 2020). The Board invalidated some or all claims in $80 \%$ of cases that reached final written decision. Id. at 10.

## II. Proceedings Below

## A. Arthrex's '907 Patent

Arthrex is a pioneer in the field of arthroscopy and a leading developer of medical devices and procedures for orthopedic surgery. This case concerns Arthrex's U.S. Patent No. 9,179,907 (the "'907 patent"), which covers a novel surgical device for reattaching soft tissue to bone.

App., infra, 36a. Early suture anchors required surgeons to tie knots to secure the tissue, a time-consuming and tedious process. Id. at 36a-37a. The '907 patent discloses a device for securing soft tissue without knots, reducing surgery times and attendant complications. Ibid.

The '907 patent stems from an application filed in 2001. App., infra, 47a, 49a-50a \& n.7. That application described a surgical device that uses an eyelet to position the suture where it can be secured without tying knots. Id. at 37a, 43a. As prosecution proceeded, the inventors filed additional applications that incorporated the original disclosure by reference and also mentioned the advantages of a rigid eyelet over a flexible one. Id. at 49a-52a, 59a. In 2014, the inventors filed the application that matured into the ' 907 patent, once again disclosing both variations:


Id. at 37a-39a, 49a-50a. Rather than claim a particular type of eyelet, rigid or flexible, the inventors claimed a knotless surgical device with a generic "eyelet." Id. at 40a. They invoked the benefit of the original filing date. $I d$. at 46a-47a. The Patent Office issued the ' 907 patent in 2015. C.A. App. 559.

Arthrex sued Smith \& Nephew, Inc., and its subsidiary ArthroCare Corp. for infringement. App., infra, 35a; Arthrex, Inc. v. Smith \& Nephew, Inc., No. 2:15-cv-1047 (E.D. Tex.). The jury returned a verdict for Arthrex, finding the claims valid and infringed. App., infra, 35a. The parties then settled the case. Id. at 36a.

## B. The Inter Partes Review

Smith \& Nephew responded to Arthrex's infringement suit by seeking inter partes review. App., infra, 34a. Smith \& Nephew did not rely primarily on someone else's invention as prior art. Instead, it argued that the Patent Office's publication of the inventors' own 2001 application was prior art that anticipated the '907 patent. Id. at 50a n.7. An invention in a later application can benefit from the filing date of an earlier one only if the earlier one provides a written description of the same invention. 35 U.S.C. § 120; App., infra, 48a-49a. Smith \& Nephew argued that the inventors' prior applications did not meet that standard-the same theory it urged unsuccessfully in the infringement litigation. App., infra, 47a; E.D. Tex. 12/9/16 Tr. 1649-1651 (Dkt. 339).

The Patent Trial and Appeal Board agreed with Smith \& Nephew. It acknowledged that each intervening application incorporated the original disclosure of a knotless surgical device with an eyelet. App., infra, 59a. Nonetheless, citing expert opinion and prior inventor testimony, it found those applications insufficient to describe the '907 patent's generic eyelet because they also mentioned the advantages of a rigid eyelet over a flexible one. $I d$. at 50a-54a, 60a-61a, 72a-74a. The Board thus deemed the
disputed claims anticipated by the inventors' own original application. $I d$. at 72a, 74a. ${ }^{1}$

## C. The Federal Circuit's Decision

The court of appeals vacated and remanded. App., infra, 1a-32a. On appeal, Arthrex challenged the Board's written-description finding and argued that Smith \& Nephew's claim was not cognizable in inter partes review, which permits challenges only for anticipation or obviousness, not lack of written description. Arthrex C.A. Br. 32-59. Arthrex also argued that the APJs who presided over its case were appointed in violation of the Appointments Clause. APJs, it urged, are principal officers who must be appointed by the President and confirmed by the Senate, rather than inferior officers who may be appointed by the Secretary of Commerce. Id. at 59-66. The government intervened to defend the appointments. The court of appeals reached only the constitutional claim.

1. The court of appeals first rejected the argument that Arthrex had forfeited its Appointments Clause argument by not challenging the APJs' appointments before the APJs themselves. App., infra, 4a-6a. Because the claim was a constitutional challenge to the Board's enabling statute, "the Board could not have corrected the problem." Id. at 6a. In any case, the court held, it had discretion to reach the challenge even if not raised below. Id. at 4a-5a.
2. Turning to the merits of the Appointments Clause claim, the court held that APJs are principal officers who must be appointed by the President and confirmed by the
[^0]Senate. Under Edmond v. United States, 520 U.S. 651 (1997), it explained, "'inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by Presidential nomination with the advice and consent of the Senate." App., infra, 9a (quoting 520 U.S. at 663). Edmond emphasizes three factors that distinguish principal from inferior officers: "(1) whether [a presidentially] appointed official has the power to review and reverse the officers' decision; (2) the level of supervision and oversight an appointed official has over the officers; and (3) the appointed official's power to remove the officers." Ibid.

The first factor, review authority, pointed to principal officer status. No principal executive officer has authority to review APJ decisions-parties can only appeal to the Federal Circuit or seek rehearing by the Board itself. App., infra, 10a. Although the Patent Office's Director is a Board member, Board panels must include at least three members. Ibid. As a result, the Director cannot "singlehandedly review, nullify or reverse" APJ decisions. Ibid.

On the second factor, supervision and oversight, the court explained that the Director can promulgate regulations and issue policy guidance. App., infra, 14a. He can also decide whether to institute an inter partes review and designate panels. Ibid. In the court's view, that authority favored inferior officer status. Id. at 15a.

As to the third factor, removal power, the court identified significant limitations. While the Director can designate APJs to panels, that authority is "not nearly as powerful as the power to remove from office without cause." App., infra, 15-17a. The Secretary can remove an APJ from office only for "misconduct *** likely to have an adverse impact on the agency's performance of its functions." Id. at 17a-18a.

Considered together, the court held, those factors made APJs principal officers. App., infra, 21a. As a result, the Secretary could not appoint them. Ibid.
3. Turning to the remedy, the court observed that "[s]evering the statute is appropriate if the remainder of the statute is '(1) constitutionally valid, (2) capable of functioning independently, and (3) consistent with Congress' basic objectives in enacting the statute.'" App., infra, 22a (quoting United States v. Booker, 543 U.S. 220, 258-259 (2005)).

The government proposed severing the requirement that at least three Board members sit on every panel-a remedy that would permit the Director to unilaterally rehear any decision. App., infra, 23a. The court rejected that proposal because it "would be a significant diminution in the procedural protections afforded to patent owners." Id. at 24 a . The court " $\mathrm{d}[\mathrm{id}]$ not believe that Congress would have created such a system." Ibid. "The breadth of backgrounds and the implicit checks and balances within each three-judge panel contribute to the public confidence by providing more consistent and higher quality final written decisions." Ibid.

Instead, the court severed the for-cause removal protections for APJs. App., infra, 25a-28a. The court opined that Congress "intended for the inter partes review system to function" and "would have preferred a Board whose members are removable at will rather than no Board at all." Id. at 26a. The court also deemed its approach sufficient to remedy the violation: "[S]evering the restriction on removal of APJs renders them inferior rather than principal officers," even though "the Director
still does not have independent authority to review decisions rendered by APJs." Id. at 27a. ${ }^{2}$

Because Arthrex's case was heard by APJs who were not properly appointed when they issued their decisionbefore the court severed their tenure protections-the court ordered a new hearing before a different panel of APJs under Lucia v. SEC, 138 S. Ct. 2044 (2018). App., infra, 28a-32a. The court rejected the government's argument that Lucia did not apply because Arthrex did not raise its challenge before the Board. Id. at 28a-31a. Because "the Board was not capable of providing any meaningful relief to this type of Constitutional challenge," it would have been "futile for Arthrex to have made the challenge there." Id. at 29a.
4. The government and Smith \& Nephew sought rehearing en banc. Arthrex did too, urging that the court's remedy was contrary to congressional intent and did not cure the Appointments Clause violation regardless. Arthrex C.A. Reh'g Pet. 6-17. The court of appeals denied rehearing en banc, over three dissents joined by a total of four judges. App., infra, 76a-138a.

[^1]The dissenting judges disagreed with the panel's remedy. "By eliminating Title 5 removal protections for APJs," they urged, "the panel is performing major surgery to the statute that Congress could not possibly have foreseen or intended." App., infra, 97a (Dyk, J., joined by Newman, Wallach, and Hughes, JJ., dissenting). "Removal protections for administrative judges have been an important and longstanding feature of Congressional legislation, and this protection continued to be an important feature of the AIA enacted in 2011 ***."Id. at 98a. " $[R]$ emoval protections were seen as essential to fair performance of the APJs' quasi-judicial role." Id. at 101a. Another dissent agreed: "Given the federal employment protections APJs and their predecessors have enjoyed for more than three decades, *** I do not think Congress would have divested APJs of their Title 5 removal protections to cure any alleged constitutional defect in their appointment." Id. at 122a (Hughes, J., joined by Wallach, J., dissenting).

## REASONS FOR GRANTING THE PETITION

The America Invents Act authorizes administrative patent judges to revoke previously issued patents with no review by any presidentially appointed, Senate-confirmed executive officer. The court of appeals correctly held that Congress's attempt to vest that authority in APJs renders them principal officers, and that APJs are not appointed in the manner the Appointments Clause requires for such officers. The court's remedy, however, raises serious questions that warrant this Court's review.

Patents represent massive investments of time and money. Bedrock due process principles prohibit the government from revoking those valuable property rights except through fair procedures administered by neutral decisionmakers. Since the dawn of the modern adminis-
trative state, Congress has insisted on tenure protections for administrative judges to ensure that impartiality.

The court of appeals eliminated those protections for APJs. Under the court's new regime, APJs revoke valuable property rights under the omnipresent specter of termination for policy disagreements, political reasons, or no reason at all. Congress would not have left patents to the mercy of subordinates more concerned about pleasing their superiors and saving their jobs than about fair and impartial adjudication. Infringers use the AIA's new procedures to target about a thousand patents a year-even in cases like this where the patent's validity was upheld in federal court. The court's ruling eliminates a fundamental protection central to the fairness of those adjudicative proceedings.

Even under the court's new regime, moreover, APJ decisions still are not reviewable by any principal executive officer. The court's remedy thus utterly fails to solve the problem the court was trying to address: APJs remain principal officers, but continue to be appointed by a method permissible only for inferior officers.

Congress is far better positioned to craft an appropriate remedy. Congress could provide for presidential appointment and Senate confirmation of APJs-just like it did for 114 years. Or Congress could permit the Director to supervise APJs in a transparent manner by reviewing their decisions. The court's alternative, in which subordinates revoke valuable property rights to appease their superiors and avoid unemployment, subject to no agency head review, cannot possibly be considered an improvement. Congress would not plausibly have preferred that approach, and the Constitution does not permit it.
I. The Severability Of Administrative Patent Judges’ Tenure Protections Is An Important Issue That Warrants Review
Severability is primarily a question of congressional intent. See United States v. Booker, 543 U.S. 220, 246 (2005). A court "cannot rewrite a statute and give it an effect altogether different from that sought by the measure viewed as a whole." Murphy v. Nat'l Collegiate Athletic Ass'n, 138 S. Ct. 1461, 1482 (2018). That is what the court of appeals did here. The court severed APJs' tenure protections because, in its view, Congress was more concerned about providing a potent new mechanism for canceling patents than about the impartiality of the adjudicative process through which those property rights may be revoked. By dramatically understating the importance of tenure protections necessary to ensure impartiality and independence, the decision undermines the integrity of the AIA review schemes and threatens the fairness of agency adjudication generally.

## A. Congress Has Long Recognized the Importance of Tenure Protections To Ensure Impartial Administrative Adjudication

Since the first days of the Administrative Procedure Act, Congress has deemed tenure protections crucial to ensure fair and impartial agency adjudications.

1. Before the APA, officers who conducted administrative hearings were often dependent upon their superiors for their job, salary, and promotion. See Ramspeck v. Fed. Trial Exam'rs Conference, 345 U.S. 128, 130, 132 \& n. 2 (1953). Many complained that the officers were "mere tools of the agency concerned and subservient to the agency heads in making their proposed findings of fact and recommendations." Id. at 131; e.g., Report of the Special Committee on Administrative Law, 61 Ann. Rep.
A.B.A. 720, 723 (1936) (officers often held "day-to-day employment *** at the whim of executive officials").

Those objections reflected widespread concerns. Attorney General Robert Jackson's influential Committee on Administrative Procedure warned of a "progressive decline" in the quality of decisions where hearing officers lacked independence. Attorney General's Comm. on Admin. Procedure, Final Report 46 (1941). Others noted that "[i]t is not easy to maintain judicial independence or high standards of judicial conduct when a political sword of Damocles continually threatens the judge's source of livelihood." Report of the Special Committee on Administrative Law, 57 Ann. Rep. A.B.A. 539, 546 (1934). Those dangers were discussed "with more sincerity and less heat than almost any other question." Administrative Procedure: Hearings Before the H. Comm. on the Judiciary, 79th Cong. 81 (June 21, 1945) (Carl McFarland).

To meet those concerns, the committees advising Congress urged tenure protections for agency adjudicators. "Removal of a hearing commissioner during his term should be for cause only and by a trial board independent of the agency." Attorney General's Comm., supra, at 49; see also President's Comm. on Admin. Mgmt., Administrative Management in the Government of the United States 37 (1937) (adjudicators should be "removable only for causes stated in the statute"). Those protections would help ensure impartial decisions: "Independence of judgment on the part of hearing officers $* * *$ will be achieved $* * *$ [by a] definite tenure of office at a fixed salary." Attorney General's Comm., supra, at 47.
2. Congress paid heed to that advice when it enacted the APA in 1946. Section 11 provided that examiners could be removed "only for good cause established and determined by the Civil Service Commission." Pub. L.

No. 79-404, §11, 60 Stat. 237, 244 (1946). That same standard protects administrative law judges in agencies around the Nation today. 5 U.S.C. §7521(a).

By providing those protections, Congress sought "to render examiners independent and secure in their tenure and compensation." S. Rep. No. 79-752, at 215 (1945). It wanted adjudicators whose "independence and tenure are so guarded $*^{* *}$ as to give the assurances of neutrality." Wong Yang Sung v. McGrath, 339 U.S. 33, 52 (1950); see also Butz v. Economou, 438 U.S. 478, 513-514 (1978). "The substantial independence that the Administrative Procedure Act's removal protections provide to administrative law judges" remains "a central part of the Act's overall scheme." Lucia v. SEC, 138 S. Ct. 2044, 2060 (2018) (Breyer, J., concurring in judgment in part).
3. Congress's close attention to tenure protections reflects the significant due process concerns at stake. Administrative adjudications must afford parties a "fair trial in a fair tribunal." Withrow v. Larkin, 421 U.S. 35, 46 (1975). They cannot do so unless decisionmakers are "neutral and detached." Ward v. Village of Monroeville, 409 U.S. 57, 61-62 (1972); see also Caperton v. A.T. Massey Coal Co., 556 U.S. 868, 878 (2009).

Making administrative adjudicators removable at will for policy reasons, political reasons, or no reason at all imperils that neutrality. It creates the danger that adjudicators will reach outcomes designed to please superiors and secure continued employment rather than ones dictated by the facts and law. And it permits superiors to exert subtle yet powerful influence over adjudications without the accountability that comes from a transparent review process.

Congress's concerns were hardly novel. The Framers provided tenure protections for federal judges to secure a fair and impartial judiciary. See U.S. Const. art. III, § 1; United States v. Will, 449 U.S. 200, 217-221 (1980). As Hamilton explained, "[i]n the general course of human nature, a power over a man's subsistence amounts to a power over his will." The Federalist No. 79 (Hamilton). The tenure protections Congress traditionally affords to agency adjudicators reflect that same timeless insight.

## B. Tenure Protections Play an Especially Important Role Under the America Invents Act

Tenure protections are particularly crucial here. For nearly 200 years, the validity of previously issued patents was strictly a matter for the courts. 35 U.S.C. § 282(b). It was not until 1980 that Congress gave the Patent Office power to cancel patents through reexamination. Id. §§ 302 et seq. But reexaminations followed the same procedures as initial examinations. Id. § 305; 35 U.S.C. § 314(a) (2006). They were "agency-led, inquisitorial process[es]" in which third parties played at most a limited role. SAS Inst. Inc. v. Iancu, 138 S. Ct. 1348, 1355 (2018).

In the AIA, Congress sought to "convert[] inter partes reexamination from an examinational to an adjudicative proceeding." H.R. Rep. No. 112-98, pt. 1, at 46 (2011); see also 157 Cong. Rec. 3428 (Mar. 8, 2011) (Sen. Kyl) ("important structural change" was "conver[sion] into an adjudicative proceeding"); 157 Cong. Rec. 3375 (Mar. 7, 2011) (Sen. Sessions) (similar). The Patent Office's Director explained the role APJs would play: "You could think of them as judges. Administrative Law Judges- *** They are trained essentially as judges. So they are not examining patent applications, they are adjudicating." Commerce, Justice, Science, and Related Agencies Appropriations for 2012: Hearings Before the Subcomm. on

Commerce, Justice, Science, and Related Agencies of the H. Comm. on Appropriations, 112th Cong. 196 (Mar. 2, 2011) (David Kappos). Congress created a "partydirected, adversarial process" that "mimics civil litigation." SAS Inst., 138 S. Ct. at 1352, 1355.

A critical element of "mimic[king] civil litigation" is the disinterested decisionmaker. APJs conduct adversarial proceedings with all the trappings of formal adjudication. Parties take discovery, submit briefs and evidence, and present oral argument. 35 U.S.C. §316(a). APJs can issue protective orders and impose sanctions. Ibid. The Patent Office refers to the proceedings as "trial[s]." 37 C.F.R. §42.100(a). Congress would not have directed APJs to function as paradigmatic administrative judges without providing the tenure protections Congress has long considered essential to independence and impartiality.

Congress's "overarching purpose" in the AIA was "to create a patent system that is clearer, fairer, more transparent, and more objective." 157 Cong. Rec. 12,984 (Sept. 6, 2011) (Sen. Kyl); see also 157 Cong. Rec. 3433 (Mar. 8, 2011) (Sen. Kyl) ("objective, transparent, clear, and fair to all parties"); 157 Cong. Rec. 3375 (Mar. 7, 2011) (Sen. Sessions) (similar). Ensuring that agency adjudicators are free from political pressures and other incentives to please their superiors is critical to that goal.

## C. The Court of Appeals' Decision Fundamentally Undermines Congress's Objectives

The court of appeals fundamentally distorted that regime. By eliminating tenure protections for APJs, the court discarded a safeguard Congress has long considered imperative for agency adjudicators-one that is indispensable to make the trial-like proceedings Congress created in the AIA actually fair.

As the judges dissenting from denial of rehearing en banc urged, "the panel [wa]s performing major surgery to the statute that Congress could not possibly have foreseen or intended." App., infra, 97a (Dyk, J., dissenting). "Removal protections for administrative judges have been an important and longstanding feature of Congressional legislation, and this protection continued to be an important feature of the AIA enacted in 2011 ***."Id. at 98a. "Given the federal employment protections APJs and their predecessors have enjoyed for more than three decades," the dissenting judges " $d[i d]$ not think Congress would have divested APJs of their Title 5 removal protections." Id. at 122a (Hughes, J., dissenting).

Members of Congress echoed those concerns. One explained:"I find it inconsistent with the idea of creating an adjudicatory body to have judges who have no job security. It goes against the idea of providing independent, impartial justice if a judge is thinking about his or her livelihood while also weighing the facts of a case." The Patent Trial and Appeal Board and the Appointments Clause: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary, 116th Cong. 45:45-46:03 (Nov. 19, 2019) ("2019 House Hearings") (Rep. Johnson). "[L]itigants will be left wondering if the decision they receive truly represents the impartial weighing of facts and evidence under the law. *** [T]hat is generally not consistent with the way that adjudicatory tribunals are structured." Id. at 53:41-53:58 (Rep. Nadler); see also id. at 50:39-50:54 (Rep. Roby) ("[T]hese decisions are so impactful $* * *$ it raises doubts that agency officials who are not Senate confirmed should have so much independent authority.").

Nor is the damage limited to the AIA. The Administrative Procedure Act provides tenure protections to nearly 2,000 administrative law judges in 27 different agencies. 5 U.S.C. §7521(a); U.S. Office of Personnel Mgmt., ALJs by Agency (Mar. 2017), https://bit.ly/3hiG5sW. There are also some 10,000 agency adjudicators who are not ALJs, most of whom also have tenure protections. See Christopher J. Walker \& Melissa F. Wasserman, The New World of Agency Adjudication, 107 Calif. L. Rev. 141, 153-154 (2019); e.g., 31 U.S.C. § 751(d). The decision below invites courts to eliminate those protections in response to perceived shortcomings in supervision. The D.C. Circuit invoked essentially the same reasoning to eliminate tenure protections for Copyright Royalty Judges in Intercollegiate Broadcasting System, Inc. v. Copyright Royalty Board, 684 F.3d 1332, 1336-1341 (D.C. Cir. 2012), cert. denied, 569 U.S. 1004 (2013), a decision the court relied on heavily below, App., infra, 26a-27a. Absent review, other courts could follow the same path, imperiling the fairness of administrative proceedings across the government.

It is one thing for courts to accept that Congress has transferred some adjudicative authority to executive agencies. It is quite another for courts to fundamentally alter the nature of that adjudicative process by eliminating protections designed to ensure that agency adjudicators are impartial and independent.

## D. The Court of Appeals' Decision Defies Settled Principles

A court may sever invalid portions of a statute only where the remaining provisions are "(1) constitutionally valid, (2) capable of 'functioning independently,' and (3) consistent with Congress' basic objectives in enacting the statute." Booker, 543 U.S. at 258-259 (citations omitted). Courts may not give a statute "an effect alto-
gether different from that sought by the measure viewed as a whole." Murphy, 138 S . Ct. at 1482 . The remaining provisions must "function in a manner consistent with the intent of Congress." Alaska Airlines, Inc. v. Brock, 480 U.S. 678, 685 (1987). A court may not sever tenure protections if "striking the removal provisions would lead to a statute that Congress would probably have refused to adopt." Bowsher v. Synar, 478 U.S. 714, 735 (1986).

The court of appeals asserted that Congress "intended for the inter partes review system to function to review issued patents" and "would have preferred a Board whose members are removable at will rather than no Board at all." App., infra, 26a. But Congress was trying to improve patent review-not mow down patents by any means necessary. Congress envisioned an "adjudicative proceeding," H.R. Rep. No. 112-98, pt. 1, at 46, one that was "clearer, fairer, more transparent, and more objective," 157 Cong. Rec. 12,984 (Sept. 6, 2011) (Sen. Kyl). Congress obviously contemplated that APJs would have the independence and impartiality that are traditional hallmarks of agency adjudicators.

The statutory structure confirms that Congress intended the Board to be independent. Congress made Board decisions appealable only to Article III courts; it provided that only the Board itself may grant rehearing; and it limited the Director to serving as just one member of a multi-member panel. 35 U.S.C. §§6(a), (c), 141. Empowering the Secretary to dominate the Board's decisions by firing anyone who fails to please him would create a
regime "altogether different from that sought by the measure viewed as a whole." Murphy, 138 S. Ct. at $1482 .{ }^{3}$

The court of appeals was more sensitive to Congress's objectives elsewhere in its opinion, when it refused to sever the three-judge requirement that prevented the Director from unilaterally rehearing Board decisions. Given "[t]he breadth of backgrounds and the implicit checks and balances within each three-judge panel," the revision "would be a significant diminution in the procedural protections afforded to patent owners." App., infra, 24a. The court thus "d[id] not believe that Congress would have created such a system." Ibid. That reasoning was absolutely correct-but no less applicable to the tenure protections the court eliminated.

APJs decide the fate of billions of dollars of intellectual property. Congress plainly intended them to have the tenure protections it has long considered essential to independent and impartial adjudication. The court of appeals' ruling defies Congress's intent and undermines the fairness of those important proceedings.

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## II. The Court Of Appeals' Remedy Raises Serious Appointments Clause Questions

The court of appeals' attempt to remedy the constitutional defect by striking APJ tenure protections suffers from a further flaw: It does not fix the problem. Even without tenure protections, there is still no principal executive officer who can review APJ decisions. That alone makes APJs principal officers. The court of appeals' contrary ruling-that removal authority is sufficient even without any superior officer able to reverse or modify APJ decisions-raises its own serious constitutional issues that warrant this Court's consideration.

## A. This Court's Cases Treat Review of Decisions as Critical to Inferior Officer Status

In Edmond v. United States, 520 U.S. 651 (1997), this Court held that "'inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by Presidential nomination with the advice and consent of the Senate." Id. at 663. In applying that test to administrative judges, this Court has consistently examined whether the judges' decisions were subject to review by more senior executive officers.

1. In Edmond itself, the Court held that Coast Guard Court of Criminal Appeals judges were inferior officers. 520 U.S. at 666. While the Coast Guard's Judge Advocate General "exercise[d] administrative oversight" and could "remove [the judges] *** from [their] judicial assignment without cause," the Court described that control as "not complete" because the Judge Advocate General "ha[d] no power to reverse decisions." Id. at 664. The Court therefore also relied on the authority of the Court of Appeals for the Armed Forces-an Executive Branch tribunal composed of principal officers, 10 U.S.C. §942(b)—to review the judges' decisions. Edmond, 520
U.S. at 664-665 \& n.2. The Court found it "significant" that the Coast Guard judges "have no power to render a final decision on behalf of the United States unless permitted to do so by other Executive officers." Id. at 665. It contrasted them with Tax Court judges whose "decisions are appealable only to courts of the Third Branch." Id. at 665-666.

In Free Enterprise Fund v. Public Company Accounting Oversight Board, 561 U.S. 477 (2010), the Court similarly relied on review of decisions to find that PCAOB members were inferior officers. Id. at 510. The Court had already severed Board members' tenure protections to remedy a separation-of-powers problem. Id. at 508510. But the Court did not rely solely on the SEC's removal power to find that Board members were inferior officers. Instead, it looked to the SEC's "other oversight authority," which included the power to "approv[e] and alter[]" the Board's rules and adjudications. Id. at 486, 510 (citing 15 U.S.C. § 7217(b)-(c)).

In Department of Transportation v. Association of American Railroads, 575 U.S. 43 (2015), Justice Alito perceived "serious questions under the Appointments Clause" for arbitrators who decided railroad disputes. $I d$. at 63 (Alito, J., concurring). An arbitrator could issue a final decision with no principal officer review. Id. at 5960. Justice Alito asked: "As to that 'binding' decision, who is the supervisor? Inferior officers can do many things, but nothing final should appear in the Federal Register unless a Presidential appointee has at least signed off on it." Id. at 64. On remand, the D.C. Circuit held that the arbitrators were principal officers because there was no "procedure by which [an] arbitrator's decision is reviewable by the [agency head]." Ass'n of Am. R.Rs. v. U.S. Dep't of Transp., 821 F.3d 19, 39 (D.C. Cir. 2016).

In all those cases, the fulcrum of the Court's analysis was whether there was meaningful review of decisions by a principal executive officer. That review was critical to whether the challenged officer was principal or inferior. ${ }^{4}$
2. Where this Court has found administrative judges to be inferior officers rather than mere employees, their decisions were similarly reviewable by principal officers.

In Freytag v. Commissioner, 501 U.S. 868 (1991), the Court held that the Tax Court's "special trial judges" were inferior officers rather than employees. Id. at 880882. In some cases, special trial judges lacked authority to enter decisions at all, and instead merely conducted proceedings. Id. at 873 . In others, they could enter decisions. Ibid. But even then, the Tax Court had authority to review the decisions. See Pub. L. No. 99-514, §1556, 100 Stat. 2085, 2754-2755 (1986) (codified as amended at 26 U.S.C. §7443A(c)) (decisions "subject to such conditions and review as the [Tax Court] may provide"). All of the special trial judges' decisions were thus reviewable by superior officers. 26 U.S.C. § 7443(b).

Most recently, in Lucia v. SEC, 138 S. Ct. 2044 (2018), the Court held that SEC ALJs were inferior officers rather than employees. Id. at 2053-2055. ALJ decisions were subject to review by the Commission; they became the agency's final decision only if the Commission declined review. Id. at 2049 (citing 17 C.F.R. §201.360(d)).
3. That focus on review of decisions makes sense. Although removal is a "powerful tool for control," for administrative judges it is "not complete." Edmond,

[^3]520 U.S. at 664 . Removal may prevent the judge from making future mistakes. But it does not permit a superior to reverse or revise a decision already issued on behalf of the agency.

Absent review, an administrative judge can speak for the United States-a hallmark of principal officer status. Ass'n of Am. R.Rs., 575 U.S. at 63-64 (Alito, J. concurring). He can bind the agency to positions even if they are contrary to the agency's own policies or interpretation of the law. That sort of authority belongs only to principal officers. See Gary Lawson, Appointments and Illegal Adjudication: The America Invents Act Through a Constitutional Lens, 26 George Mason L. Rev. 26, 61 (2018) (noting that "[t]he firing of the judges does not, in itself, vacate their decision" and that inferior officer status therefore depends on "whether the officer's decisions are subject to review").

## B. Principal Officer Review Is a Longstanding Norm of Administrative Law

This Court's focus on review by other officers is consistent with longstanding administrative tradition.

1. From the earliest days of the Republic, "Congress reinforced supervisory authority in numerous provisions specifying that lower-level officials were subject to the superintending instruction of higher-level administrators." Jerry L. Mashaw, Recovering American Administrative Law: Federalist Foundations, 1787-1801, 115 Yale L.J. 1256, 1307 (2006). The 1789 statute that created the Treasury Department, for example, allowed parties to appeal an auditor's decision to the Comptroller of the Treasury, a presidentially appointed, Senate-confirmed officer. Act of Sept. 2, 1789, ch. 12, §§ 1, 5, 1 Stat. 65, 6567. Similar statutes abounded over the following century: "[I]nternal administrative review of lower-level determi-
nations" was "common." Mashaw, supra, at 1309 n.166; see also Harold M. Bowman, American Administrative Tribunals, 21 Pol. Sci. Q. 609, 613-614 (1906) (describing "system of appellate jurisdiction" within agencies). ${ }^{5}$

The patent laws followed a similar course. Under the original Patent Act, decisions were made by a panel of cabinet-level officers. Act of Apr. 10, 1790, ch. 7, § 1, 1 Stat. 109, 109-110. In 1836, Congress created the Commissioner of Patents, a presidentially appointed, Senateconfirmed officer who had final authority within the Patent Office over decisions. Act of July 4, 1836, ch. 357, §§ 1, 7, 5 Stat. 117, 117-120 (arbitral review); Act of Mar. 3,1839 , ch. $88, \S 11,5$ Stat. 353,354 (judicial review). The 1861 statute that created examiners-in-chief permitted appeals of their decisions to the Commissioner. Act of Mar. 2, 1861, ch. 88, §2, 12 Stat. 246, 246-247. Congress replaced that scheme with judicial review in 1927, Pub. L. No. 690, §8, 44 Stat. 1335, 1336 (1927), but examiners-in-chief themselves remained presidentially appointed, Senate-confirmed officers until 1975, Pub. L. No. 93-601, § 1, 88 Stat. 1956, 1956 (1975).
2. Principal officer review remains a cornerstone of the modern administrative state. Attorney General Jackson cited the "long-continued policy of Congress [to] jealously confine[] the power of final decision in matters of substantial importance to a few principal administrative officers." H.R. Doc. No. 76-986, at 10 (1940). The Attorney General's committee recommended that "[a]gency

[^4]heads should have the authority, when reviewing hearing commissioners' determinations, to affirm, reverse, modify ***, or remand for further hearing." Attorney General's Comm., supra, at 53. Professor Kenneth Culp Davis, a chief architect of the APA, later emphasized that principle:
[T]he agency must retain both power and responsibility with respect to every decision. One of the most pernicious ideas on the loose in the realm of administrative law is the idea that someone on behalf of the agency should have power to commit the agency to a position that the agency actively opposes. ${ }^{* * *}[\mathrm{~N}]$ o one but the Presidential appointees can have final responsibility for what is done in the name of an agency.
Administrative Procedure Act: Hearings on S. 1663 Before the Subcomm. on Admin. Practice \& Procedure of the S. Comm. on the Judiciary, 88th Cong. 256 (July 23, 1964).

Congress embraced that view in the Administrative Procedure Act, granting agency heads authority to review hearing officer decisions in all formal adjudications. Pub. L. No. 79-404, §8(a), 60 Stat. 237, 242 (1946) ("On appeal from or review of the initial decisions of such officers the agency shall $* * *$ have all the powers which it would have in making the initial decision."). That remains the law today. 5 U.S.C. §557(b).

Principal officer review is also the norm for adjudications not subject to the APA's formal process. "Despite th[e] great diversity in adjudication across the modern administrative state, the 'standard federal model' continues to vest final decision-making authority in the agency head." Walker \& Wasserman, supra, at 143-144;
see also id. at 157 ("[I]n the vast majority of [informal] adjudication models, the agency head has some degree of decision-making authority."); Michael Asimow, Admin. Conference of the U.S., Federal Administrative Adjudication Outside the Administrative Procedure Act 20 n. 77 (2019) (similar); Ronald A. Cass, Agency Review of Administrative Law Judges' Decisions, in Admin. Conference of the U.S., Recommendations and Reports 115, 116, 201-216 (1983) (surveying structures). ${ }^{6}$

## C. The America Invents Act Is a Sharp Departure from Precedent and Tradition

Contrary to that longstanding practice, APJs issue final Patent Office decisions that are appealable only to Article III courts, without any review by a superior executive officer. 35 U.S.C. § 141. The court of appeals acknowledged that the Director had no authority to review APJs' decisions, even after it severed their tenure protections. App., infra, 10a-13a, 27a. But the court held that APJs could be inferior officers nonetheless. Id. at 27a. That ruling approves a structure that departs starkly from precedent and from a long tradition of vesting final authority and accountability in a presidentially appointed, Senate-confirmed officer.

That departure is especially striking given the scope of APJ authority. Even as Congress diluted the appointment process for APJs, it steadily increased their powers. Now, they not only decide ex parte appeals, ex parte re-

[^5]examination appeals, and derivation proceedings (which replaced interferences). 35 U.S.C. §6(b)(1)-(3). They also adjudicate three different types of proceedings to review previously issued patents. Id. §6(b)(4). Inter partes reviews alone target about a thousand patents per year. Patent Trial \& Appeal Board, Trial Statistics 5 (May 2020). APJs thus regularly revoke property rights that represent massive investments of time and money.

Commentators have highlighted that troubling and unusual aspect of the AIA's review scheme. Professor Lawson explains that "[a]ny executive actor who issues final decisions on behalf of the United States is constitutionally a principal rather than inferior officer." Lawson, supra, at 64. For that reason, "all the PTAB members *** must be appointed as principal officers." Ibid.; see also Walker \& Wasserman, supra, at 196-197 (lack of "agency-head final decision-making authority" could "prove problematic").

Despite APJs' ability to issue final decisions with no review by any superior executive officer, the court of appeals held that APJs would be mere inferior officers so long as they were stripped of their tenure protections. App., infra, 27a. That decision has broad implications. Thousands of administrative judges decide cases throughout the federal government. See p. 22, supra. The court's decision invites Congress to strip principal officers of their power to review those decisions and vest final authority in lesser officials insulated from accountable oversight. The D.C. Circuit took a similar approach to Copyright Royalty Judges, severing their tenure protections and then declaring them inferior officers despite the lack of review by any executive officer. Intercollegiate Broad., 684 F.3d at 1340-1341. The decision below threatens a proliferation of regimes that are less fair and less trans-
parent-where open review of decisions is replaced by threats of removal, the desire to please superiors, and other unseen influences, with no principal officer accountable for decisions made on behalf of the United States.

## III. The Court Of Appeals’ Refusal To Defer To Congress To Craft An Appropriate Remedy Warrants This Court's Review

Given the constitutional defect, the court of appeals should have left the solution to Congress, rather than trying to recraft the statute itself. While Congress remains free to amend the statute, the court of appeals' ruling invites inertia rather than encouraging Congress to bring its expertise to bear.

Congress is far better positioned to determine how best to revise the statute. Congress can edit a statute as it sees fit. Courts, by contrast, cannot. See Free Enter. Fund, 561 U.S. at 510 ("[E]ditorial freedom *** belongs to the Legislature, not the Judiciary."). Congress can weigh competing policy concerns. Courts cannot "foresee which of many different possible ways the legislature might respond to the constitutional objections." Randall v. Sorrell, 548 U.S. 230, 262 (2006) (plurality).

Congress has the expertise to analyze the full impact of a statutory revision on an agency's work. That broader perspective is particularly important here, given the many proceedings APJs oversee. 35 U.S.C. §6(b); see 2019 House Hearings 46:58-47:35 (Rep. Johnson) ("I worry that we cannot trust the courts to fix this. *** I believe it is our responsibility to consider a legislative fix to the Appointments Clause problem.").

Congress could select from a range of historically grounded remedies that are not available to the courts. Congress could provide for APJs to be appointed by the

President and confirmed by the Senate, consistent with the important functions they perform. Examiners-inchief were appointed that way for 114 years. Ch. 88, §2, 12 Stat. at 246.

The Senate already considers tens of thousands of nominations per year. See Elizabeth Rybicki, Cong. Research Serv., RL31980, Senate Consideration of Presidential Nominations: Committee and Floor Procedure 1 (2017) (approximately 65,000 military nominations and 2,000 civilian nominations every two years). The volume used to be even greater: Until 2004, the Senate confirmed all commissioned military officers. Compare Weiss v. United States, 510 U.S. 163, 168 n. 2 (1994), with Pub. L. No. 108-375, §501(a)(4), 118 Stat. 1811, 1873 (2004). There are only approximately 260 APJs in total. Gov't C.A. Reh'g Pet. 4. Because they serve indefinite terms, the Senate would need to confirm only a small fraction each year.

Alternatively, Congress could grant the Patent Office's Director authority to review APJ decisions, consistent with how adjudications work in most administrative schemes. That approach would permit the Director to supervise APJs in a transparent manner, rather than through unseen influence and implicit threats of removal.

Finally, Congress could abandon inter partes review entirely. The procedure continues to stoke controversy. See, e.g., STRONGER Patents Act of 2019, H.R. 3666, 116th Cong. (July 10, 2019). Congress could well conclude that the interests of fairness and impartiality would be best served by reserving the power to adjudicate the validity of previously issued patents to the impartial judicial branch, where it resided for centuries before the AIA. Congress, not the courts, should choose how to remedy the problem.

## CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted.

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June 2020

# APPENDIX A <br> UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT 

> No. 2018-2140

ARTHREX, INC.,
Appellant,
v.

Smith \& Nephew, Inc., ArthroCare Corp., Appellees, United States,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal

Board in No. IPR2017-00275.
$\qquad$
October 31, 2019

Anthony P. Cho, Carlson, Gaskey \& Olds, PC, Birmingham, MI, argued for appellant. Also represented by David Louis Atallah, David J. Gaskey, Jessica E. Zilberberg.

Charles T. Steenburg, Wolf, Greenfield \& Sacks, PC, Boston, MA, argued for appellees. Also represented
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Melissa N. Patterson, Appellate Staff, Civil Division, United States Department of Justice, Washington, DC, argued for intervenor. Also represented by Courtney Dixon, Scott R. McIntosh, Joseph H. Hunt; Sarah E. Craven, Thomas W. Krause, Joseph Matal, Farheena Yasmeen Rasheed, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA.

Before Moore, Reyna, and Chen, Circuit Judges. Moore, Circuit Judge.

Arthrex, Inc. appeals from the final written decision of the Patent Trial and Appeal Board holding claims 1, 4, 8, $10-12,16,18$, and $25-28$ of U.S. Patent No. 9,179,907 unpatentable as anticipated. Arthrex appeals this decision and contends that the appointment of the Board's Administrative Patent Judges ("APJs") by the Secretary of Commerce, as currently set forth in Title 35, violates the Appointments Clause, U.S. Const., art. II, §2, cl. 2. We agree and conclude that the statute as currently constructed makes the APJs principal officers. To remedy the violation, we follow the approach set forth by the Supreme Court in Free Enterprise Fund v. Public Company Accounting Oversight Board, 561 U.S. 477 (2010) and followed by the D.C. Circuit in Intercollegiate Broadcasting System, Inc. v. Copyright Royalty Board, 684 F.3d 1332 (2012). As the Supreme Court instructs, "‘[g]enerally speaking, when confronting a constitutional flaw in a statute, we try to limit the solution to the problem,' severing any 'problematic portions while leaving the remainder intact.'" Free Enterprise Fund, 561 U.S. at 508 (quoting Ayotte v. Planned Parenthood of Northern

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New Eng., 546 U.S. 320, 328-29 (2006)). We conclude that severing the portion of the Patent Act restricting removal of the APJs is sufficient to render the APJs inferior officers and remedy the constitutional appointment problem. As the final written decision on appeal issued while there was an Appointments Clause violation, we vacate and remand. Following Lucia v. S.E.C., 138 S. Ct. 2044 (2018), the appropriate course of action is for this case to be remanded to a new panel of APJs to which Arthrex is entitled.

## BaCkground

Arthrex owns the ' 907 patent, which is directed to a knotless suture securing assembly. Smith \& Nephew, Inc. and ArthroCare Corp. (collectively "Petitioners" or "Appellees") filed a petition requesting inter partes review of claims $1,4,8,10-12,16,18$, and $25-28$ of the ' 907 patent.

Inter partes review is a "'hybrid proceeding' with 'adjudicatory characteristics' similar to court proceedings." Saint Regis Mohawk Tribe v. Mylan Pharms., 896 F.3d 1322, 1326 (Fed. Cir. 2018). After a petitioner files a petition requesting that the Board consider the patentability of issued patent claims, the Director of the United States Patent and Trademark Office ("USPTO") determines whether to institute an inter partes review proceeding. 35 U.S.C. §314. ${ }^{1}$ A three-judge panel of Board members then conducts the instituted inter partes review. Id. §316(c). ${ }^{2}$ If an instituted review is not dismissed before

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the conclusion of the proceedings, the Board issues a final written decision determining the patentability of challenged claims. Id. §318(a). Once the time for appeal of the decision expires or any appeal has been terminated, the Director issues and publishes a certificate canceling any claim of the patent finally determined to be unpatentable. Id. §318(b).

The inter partes review of the '907 patent was heard by a three-judge panel consisting of three APJs. The Board instituted review and after briefing and trial, the Board issued a final written decision finding the claims unpatentable as anticipated. J.A. 12, 14, 42.

## Analysis

## A. Waiver

Appellees and the government argue that Arthrex forfeited its Appointments Clause challenge by not raising the issue before the Board. Although "[i]t is the general rule ... that a federal appellate court does not consider an issue not passed upon below," we have discretion to decide when to deviate from that general rule. Singleton v. Wulff, 428 U.S. 106, 120-21 (1976). The Supreme Court has included Appointments Clause objections to officers as a challenge which could be considered on appeal even if not raised below. Freytag v. Commissioner of Internal Revenue, 501 U.S. 868, 878-79 (1991); Glidden Co. v. Zdanok, 370 U.S. 530, 535-36 (1962).

In Freytag, the Supreme Court exercised its discretion to decide an Appointments Clause challenge despite petitioners' failure to raise a timely objection at trial. 501

Commissioners are appointed by the Secretary of Commerce; the former being nominated by the Director. Id. §§3(b)(1)-(2). The Administrative Patent Judges "are appointed by the Secretary [of Commerce], in consultation with the Director." Id. § 6(a).

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U.S. at 878-79. In fact, the Court reached the issue despite the fact that it had not been raised until the appellate stage. The Court explained that the structural and political roots of the separation of powers concept are embedded in the Appointments Clause. It concluded that the case was one of the "rare cases in which we should exercise our discretion to hear petitioners' challenge to the constitutional authority." Id. at 879. We believe that this case, like Freytag, is one of those exceptional cases that warrants consideration despite Arthrex's failure to raise its Appointments Clause challenge before the Board. Like Freytag, this case implicates the important structural interests and separation of powers concerns protected by the Appointments Clause. Separation of powers is "a fundamental constitutional safeguard" and an "exceptionally important" consideration in the context of inter partes review proceedings. Cascades Projection LLC v. Epson America, Inc., 864 F.3d 1309, 1322 (Fed. Cir. 2017) (Reyna, J., dissenting from denial of petition for hearing en banc). The issue presented today has a wide-ranging effect on property rights and the nation's economy. Timely resolution is critical to providing certainty to rights holders and competitors alike who rely upon the inter partes review scheme to resolve concerns over patent rights.

Appellees and the government argue that like In re $D B C$ we should decline to address the Appointments Clause challenge as waived. $D B C$ recognized that the court retains discretion to reach issues raised for the first time on appeal, but declined to do so in that case. 545 F.3d 1373, 1380 (Fed. Cir. 2008). The court predicated its decision on the fact that if the issue had been raised before the Board, it could have corrected the Constitutional infirmity because there were Secretary appointed

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APJs and that Congress had taken "remedial action" redelegating the power of appointment to the Secretary of Commerce in an attempt to "eliminat[e] the issue of unconstitutional appointments going forward." Id. at 1380. As the court noted, "the Secretary, acting under the new statute, has reappointed the administrative patent judges involved in DBC's appeal." Id. at 1381. Not only had Congress taken remedial action to address the constitutionality issue, the Secretary had already been implementing those remedies limiting the impact. Id. No such remedial action has been taken in this case and the Board could not have corrected the problem. Because the Secretary continues to have the power to appoint APJs and those APJs continue to decide patentability in inter partes review, we conclude that it is appropriate for this court to exercise its discretion to decide the Appointments Clause challenge here. This is an issue of exceptional importance, and we conclude it is an appropriate use of our discretion to decide the issue over a challenge of waiver.

## B. Appointments Clause

Arthrex argues that the APJs who presided over this inter partes review were not constitutionally appointed. It argues the APJs were principal officers who must be, but were not, appointed by the President with the advice and consent of the Senate.

The Appointments Clause of Article II provides:
[The President] . . . 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

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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.
U.S. Const. art. II, §2, cl. 2. APJs are appointed by the Secretary of Commerce, in consultation with the Director of the USPTO. 35 U.S.C. $\S 6(\mathrm{a})$. The issue, therefore, is whether APJs are "Officers of the United States" and if so, whether they are inferior officers or principal officers; the latter requiring appointment by the President as opposed to the Secretary of Commerce. We hold that in light of the rights and responsibilities in Title 35, APJs are principal officers.

An "Officer of the United States," as opposed to a mere employee, is someone who "exercis[es] significant authority pursuant to the laws of the United States." Buckley v. Valeo, 424 U.S. 1, 125-26 (1976). The Appointments Clause ensures that the individuals in these positions of significant authority are accountable to elected Executive officials. See Lucia, 138 S. Ct. at 2056 (Thomas, J., concurring) (citing The Federalist No. 76, p. 455 (C. Rossiter ed. 1961) (A. Hamilton)). It further ensures that the President, and those directly responsible to him, does not delegate his ultimate responsibility and obligation to supervise the actions of the Executive Branch. See Free Enterprise Fund, 561 U.S. at 496. The Appointments Clause provides structural protection against the President diffusing his accountability and from Congress dispensing power too freely to the same result. "The structural interests protected by the Appointments Clause are not those of any one branch of Government but of the entire Republic." Freytag, 501 U.S. at 880. Because "people do not vote for the 'Officers of the United States,'" the public relies on the Appointments Clause to connect their interests to the officers exercising signifi-

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cant executive authority. Free Enterprise Fund, 561 U.S. at 497-98. Arthrex argues that the APJs exercise the type of significant authority that renders them Officers of the United States. Neither Appellees nor the government dispute that APJs are officers as opposed to employees. We agree that APJs are Officers of the United States. See John F. Duffy, Are Administrative Patent Judges Constitutional?, 2007 Patently-O Patent L.J. 21, 25 (2007) (concluding that administrative patent judges are officers as opposed to mere employees).

Under 35 U.S.C. §6(a), APJs "hold a continuing office established by law ... to a position created by statute." Lucia, 138 S. Ct. at 2053. The APJs exercise significant discretion when carrying out their function of deciding inter partes reviews. They oversee discovery, 37 C.F.R. §42.51, apply the Federal Rules of Evidence, 37 C.F.R. $\S 42.62(\mathrm{a})$, and hear oral arguments, 37 C.F.R. §42.70. And at the close of review proceedings, the APJs issue final written decisions containing fact findings and legal conclusions, and ultimately deciding the patentability of the claims at issue. See 35 U.S.C. §318(a). The government itself has recognized that there is a "functional resemblance between inter partes review and litigation," and that the Board uses "trial-type procedures in inter partes review." Br. of United States at 26, 31, Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 138 S. Ct. 1365 (2018). The Board's patentability decisions are final, subject only to rehearing by the Board or appeal to this court. See 35 U.S.C. §§6(c), 141(c), 319. Like the special trial judges ("STJs") of the Tax Court in Freytag, who "take testimony, conduct trials, rule on the admissibility of evidence, and have the power to enforce compliance with discovery orders," 501 U.S. at 881-82, and the SEC Administrative Law Judges in Lucia, who have
"equivalent duties and powers as STJs in conducting adversarial inquiries," 138 S . Ct. at 2053, the APJs exercise significant authority rendering them Officers of the United States.

The remaining question is whether they are principal or inferior officers. The Supreme Court explained that
 he has a superior," and "inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by Presidential nomination with the advice and consent of the Senate." Edmond v. United States, 520 U.S. 651, 662-63 (1997). There is no "exclusive criterion for distinguishing between principal and inferior officers for Appointments Clause purposes." Id. at 661. However, the Court in Edmond emphasized three factors: (1) whether an appointed official has the power to review and reverse the officers' decision; (2) the level of supervision and oversight an appointed official has over the officers; and (3) the appointed official's power to remove the officers. See id. at 664-65; see also Intercollegiate, 684 F .3 d at 1338. These factors are strong indicators of the level of control and supervision appointed officials have over the officers and their decision-making on behalf of the Executive Branch. The extent of direction or control in that relationship is the central consideration, as opposed to just the relative rank of the officers, because the ultimate concern is "preserv[ing] political accountability." Edmond, 520 U.S. at 663. The only two presidentially-appointed officers that provide direction to the USPTO are the Secretary of Commerce and the Director. Neither of those officers individually nor combined exercises sufficient direction and supervision over APJs to render them inferior officers.

## 1. Review Power

The Supreme Court deemed it "significant" whether an appointed official has the power to review an officer's decision such that the officer cannot independently "render a final decision on behalf of the United States." Edmond, 520 U.S. at 665. No presidentially-appointed officer has independent statutory authority to review a final written decision by the APJs before the decision issues on behalf of the United States. There are more than 200 APJs and a minimum of three must decide each inter partes review. 35 U.S.C. §6(c). The Director is the only member of the Board who is nominated by the President and confirmed by the Senate. The Director is however only one member of the Board and every inter partes review must be decided by at least three Board judges. At the conclusion of the agency proceeding, the Board issues a final written decision. 35 U.S.C. §318(a).

There is no provision or procedure providing the Director the power to single-handedly review, nullify or reverse a final written decision issued by a panel of APJs. If parties are dissatisfied with the Board decision, they may request rehearing by the Board or may appeal to this court. 35 U.S.C. §§6(c), 141(c), 319. "Only the Patent Trial and Appeal Board may grant rehearings," upon a party's request. Id. §6(c). Again, the decision to rehear would be made by a panel of at least three members of the Board. And the rehearing itself would be conducted by a panel of at least three members of the Board.

The government argues that the Director has multiple tools that give him the authority to review decisions issued by APJs. The government argues that the Director possesses the power to intervene and become a party in an appeal following a final written decision with which he disagrees. See 35 U.S.C. §143. But that authority

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offers no actual reviewability of a decision issued by a panel of APJs. At most, the Director can intervene in a party's appeal and ask this court to vacate the decision, but he has no authority to vacate the decision himself. And the statute only gives the parties to the inter partes review the power to appeal the decision, not the Director. See id. § 319. If no party appeals the APJs' decision, the Director's hands are tied. "[T]he Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable. . . ." Id. §318(b) (emphasis added). The Director cannot, on his own, sua sponte review or vacate a final written decision.

The government argues that the Director has additional review authority through his institution of the recently created Precedential Opinion Panel. That standing panel, composed of at least three Board members, can rehear and reverse any Board decision and can issue decisions that are binding on all future panels of the Board. See Patent Trial and Appeal Board Standard Operating Procedure 2 at 8. The Director's authority is limited to "conven[ing] a Precedential Opinion Panel to review a decision in a case and determine whether to order sua sponte rehearing" and to act as one of the three default members of the panel. Id. at 4-5. When the Director sits on a panel as a member of the Board, he is serving as a member of the Board, not supervising the Board.

Additionally, the government points out that the Director "may designate any decision by any panel, including the Precedential Opinion Panel, as precedential . . ." Id. at 8 . These powers do not, however, provide the type of reviewability over APJs' decisions comparable to the review power principal officers in other cases have had. See, e.g., Edmond, 520 U.S. at 664-65; Masias v. Secretary of Health and Human Servs., 634 F.3d 1283, 1294-

12a
95 (Fed. Cir. 2011) (special masters under the Vaccine Act were inferior officers in part because their decisions were "subject to review by the Court of Federal Claims" (an Article I court)). To be clear, the Director does not have the sole authority to review or vacate any decision by a panel of APJs. He can only convene a panel of Board members to decide whether to rehear a case for the purpose of deciding whether it should be precedential. No other Board member is appointed by the President. The government certainly does not suggest that the Director controls or influences the votes of the other two members of his special rehearing panel. Thus, even if the Director placed himself on the panel to decide whether to rehear the case, the decision to rehear a case and the decision on rehearing would still be decided by a panel, two-thirds of which is not appointed by the President. There is no guarantee that the Director would even be in the majority of that decision. Thus, there is no review by other Executive Branch officers who meet the accountability requirements of the Appointments Clause. Moreover, the Standard Operating Procedure makes clear that the Director would convene such a panel only in cases of "exceptional importance": to potentially set precedent for the Board. In other words, this form of re-view-constrained to a limited purpose-is still conducted by a panel of APJs who do not meet the requirements of the Appointments Clause and represents the exception.

Finally, the government alleges that the Director has review authority over Board decisions because he can decide not to institute an inter partes review in the first instance. We do not agree that the Director's power to institute (ex ante) is any form of review (ex post). For the past several years, the Board has issued over 500 inter partes review final written decisions each year. The
relevant question is to what extent those decisions are subject to the Director's review.

The situation here is critically different from the one in Edmond. In Edmond, the Supreme Court considered whether military judges on the Coast Guard Court of Criminal Appeals were principal as opposed to inferior officers. 520 U.S. at 655. There, the Court of Appeals for the Armed Forces, an Executive Branch entity, had the power to reverse decisions by the military judges and "review[ed] every decision of the Court of Criminal Appeals in which: (a) the sentence extends to death; (b) the Judge Advocate General orders such review; or (c) the court itself grants review upon petition of the accused." Id. at 66465. And while the Judge Advocate General (a properly appointed Executive officer) could not reverse decisions of the military judges, he could order any of those decisions be reviewed by the Court of Appeals for the Armed Forces (a presidentially-appointed Executive Branch, Article I court). Id. The Court deemed it "significant [] that the judges of the Court of Criminal Appeals ha[d] no power to render a final decision on behalf of the United States unless permitted to do so by other Executive officers." Id. at 665 (emphasis added). That is simply not the case here. Panels of APJs issue final decisions on behalf of the USPTO, at times revoking patent rights, without any principal officers having the right to review those decisions. Thus, APJs have substantial power to issue final decisions on behalf of the United States without any review by a presidentially-appointed officer. We find that there is insufficient review within the agency over APJ panel decisions. This supports a conclusion that APJs are principal officers.

## 2. Supervision Power

The extent to which an officer's work is supervised or overseen by another Executive officer also factors into determining inferior versus principal officer status. See Edmond, 520 U.S. at 664. The Director exercises a broad policy-direction and supervisory authority over the APJs. The Director is "responsible for providing policy direction and management supervision" for the USPTO. 35 U.S.C. §3(a)(2)(A). Arthrex argues the Director's oversight authority amounts to little more than high-level, arms-length control. We disagree.

The Director has the authority to promulgate regulations governing the conduct of inter partes review. Id. $\S 316$. He also has the power to issue policy directives and management supervision of the Office. Id. §3(a). He may provide instructions that include exemplary applications of patent laws to fact patterns, which the Board can refer to when presented with factually similar cases. Moreover, no decision of the Board can be designated or de-designated as precedential without the Director's approval. Patent Trial and Appeal Board Standard Operating Procedure 2 at 1. And all precedential decisions of the Board are binding on future panels. Id. at 11. In addition to these policy controls that guide APJ-panel decision making, the Director has administrative authority that can affect the procedure of individual cases. For example, the Director has the independent authority to decide whether to institute an inter partes review based on a filed petition and any corresponding preliminary response. 35 U.S.C. §314(a). And the Director is authorized to designate the panel of judges who decides each inter partes review. See 35 U.S.C. §6(c). Not only does the Director exercise administrative supervisory authority
over the APJs based on his issuance of procedures, he also has authority over the APJs' pay. 35 U.S.C. §3(b)(6).

The Director's administrative oversight authority is similar to the supervisory authority that was present in both Edmond and Intercollegiate. In Edmond, the Judge Advocate General "exercise[d] administrative oversight" and had the responsibility of "prescrib[ing] uniform rules of procedure" for the military judges. 520 U.S. at 664. Likewise, in Intercollegiate, the Librarian of Congress was responsible for approving the Copyright Royalty Judges’ ("CRJs") "procedural regulations . . . and [] overseeing various logistical aspects of their duties." 684 F.3d at 1338. And the Register of Copyrights, who was subject to the control of the Librarian, had "the authority to interpret the copyright laws and provide written opinions to the CRJs." Id. The Director possesses similar authority to promulgate regulations governing inter partes review procedure and to issue policy interpretations which the APJs must follow. Accordingly, we conclude that the Director's supervisory powers weigh in favor of a conclusion that APJs are inferior officers.

## 3. Removal Power

The Supreme Court viewed removal power over an officer as "a powerful tool for control" when it was unlimited. Edmond, 520 U.S. at 664 . Under the current Title 35 framework, both the Secretary of Commerce and the Director lack unfettered removal authority.

Appellees and the government argue that the Director can remove an APJ based on the authority to designate which members of the Board will sit on any given panel. See 35 U.S.C. §6(c). The government argues that the Director could exclude any APJ from a case who he expects would approach the case in a way inconsistent with his views. The government suggests that the Direc-
tor could potentially remove all judicial function of an APJ by refusing to assign the APJ to any panel. The government also claims that the Director could remove an APJ from an inter partes review mid-case if he does not want that particular APJ to continue on the case. Br. of United States at 3, 41. Section 6(c) gives the Director the power to designate the panel who hears an inter partes review, but we note that the statute does not expressly authorize de-designation. The government argues that because Title 35 authorizes the Director to designate members of a panel in an inter partes review proceeding, he also has the authority to change the panel composition at any time because "removal authority follows appointment authority." Oral Arg. 35:52-54; see also Br. of United States at 3, 41. It is correct that when a statute is silent on removal, the power of removal is presumptively incident to the power of appointment. See In re Hennen, 38 U.S. 230 (1839); Myers v. United States, 272 U.S. 52 (1926). The government argues by analogy to these cases that the power to de-designate follows the power to designate. We do not today decide whether the Director in fact has such authority. ${ }^{3}$

[^7]The government analogizes the Director's designation power to the Judge Advocate General's power in Edmond, which allowed him to remove a military judge "from his judicial assignment without cause." 520 U.S. at 664. The Director's authority to assign certain APJs to certain panels is not the same as the authority to remove an APJ from judicial service without cause. Removing an APJ from an inter partes review is a form of control, but it is not nearly as powerful as the power to remove from office without cause. "[T]he power to remove officers at will and without cause is a powerful tool for control of an inferior." Free Enterprise Fund, 561 U.S. at 501.

The only actual removal authority the Director or Secretary have over APJs is subject to limitations by Title 5. Title 35 does not provide statutory authority for removal of the APJs. Instead, 35 U.S.C. §3(c) provides, "[o]fficers and employees of the Office shall be subject to the provisions of title 5, relating to Federal employees." No one disputes that Title 5 creates limitations on the Secretary's or Director's authority to remove an APJ from his or her employment at the USPTO. Specifically, APJs may be removed "only for such cause as will promote the efficiency of the service." 5 U.S.C. §7513(a). ${ }^{4}$ This limi-

[^8]tation requires "a nexus between the misconduct and the work of the agency, i.e., that the employee's misconduct is likely to have an adverse impact on the agency's performance of its functions." Brown v. Department of the Navy, 229 F.3d 1356, 1358 (Fed. Cir. 2000). ${ }^{5}$ Moreover, § 7513 provides procedural limitations on the Director's removal authority over APJs. See, e.g., 5 U.S.C. § 7513(b) (entitling the APJ to 30 days advanced written notice stating specific reasons for the proposed removal, an opportunity to answer with documentary evidence, entitlement to representation by an attorney, and a written decision with specific reasons); Id. §7513(d) (right of appeal to the Merit Systems and Protections Board).

The government argues that the Secretary's authority to remove APJs from employment for "such cause as will promote efficiency of the service"-the same standard applied to any other federal employee-underscores that APJs are subject to significant supervision and control. It argues that Title 5's removal restrictions are less cumbersome than the restrictions on the Court of Federal Claims' removal authority over the special masters who were deemed inferior officers in Masias. In Masias, we held that special masters authorized by the Vaccine Act were inferior officers. 634 F.3d. at 1295. The special masters were appointed and supervised by judges of the Court of Federal Claims, who are presidentially-appointed. Id. at 1294 . The special masters could be removed only "for incompetency, misconduct, or neglect of duty or for physical or mental disability or for other good cause shown." Id. (quoting 42 U.S.C. §300aa-12(c)(2)). Though there

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were significant limits on removal in Masias, our court recognized that "decisions issued by the special masters are subject to review by the Court of Federal Claims." Id. at 1294. We held that the review power over the special masters' decisions paralleled the review by the Court of Appeals for the Armed forces in Edmond, and although the review was not de novo, it favored a finding that the special masters were not principal officers. Id. at 1295. That significant power of review does not exist with respect to final written decisions issued by the APJs.

The APJs are in many ways similar to the CRJs in Intercollegiate for purposes of determining whether an officer is principal or inferior. The CRJs issued ratemaking decisions that set the terms of exchange for musical works. Intercollegiate, 684 F.3d at 1338. The APJs issue written decisions determining patentability of patent claims. Both are intellectual property decisions upon which "billions of dollars and the fates of entire industries can ride." Id. In Intercollegiate, the Librarian approved procedural regulations, issued ethical rules, and oversaw logistical aspects of the CRJs' duties. Id. Additionally, the Register of Copyrights provided written opinions interpreting copyright law and could correct any legal errors in the CRJs' decisions. Id. at 1338-39. Similarly, the Director has the authority to promulgate regulations governing inter partes review and provides written policy directives. He does not, however, have the ability to modify a decision issued by APJs, even to correct legal misstatements. The Director's inability to review or correct issued decisions by the APJs likens those decisions to "the CRJs' rate determinations [which] are not reversible or correctable by any other officer or entity within the executive branch." Id. at 1340. Moreover, the limitations on removal in Title 5 are similar to the limita-
tions on removal in Intercollegiate. There, the Librarian could only remove CRJs "for misconduct or neglect of duty." Id. at 1340. Here, APJs can only be removed from service for "such cause as will promote the efficiency of the service," meaning for "misconduct [that] is likely to have an adverse impact on the agency's performance of its functions." 5 U.S.C. § 7513; Brown, 229 F.3d at 1358. The D.C. Circuit in Intercollegiate determined that given the CRJs' nonremovability and the finality of their decisions, "the Librarian's and Register's supervision functions still fall short of the kind that would render [them] inferior officers." 684 F.3d at 1339. Likewise, APJs issue decisions that are final on behalf of the Executive Branch and are not removable without cause. We conclude that the supervision and control over APJs by appointed Executive Branch officials in significant ways mirrors that of the CRJs in Intercollegiate.

## 4. Other Limitations

We do not mean to suggest that the three factors discussed are the only factors to be considered. However, other factors which have favored the conclusion that an officer is an inferior officer are completely absent here. For example, in Morrison v. Olson, 487 U.S. 654 (1988), the Court concluded that the Independent Counsel was an inferior officer because he was subject to removal by the Attorney General, performed limited duties, had limited jurisdiction, and had a limited tenure. Edmond, 520 U.S. at 661. Unlike the Independent Counsel, the APJs do not have limited tenure, limited duties, or limited jurisdiction.

Interestingly, prior to the 1975 amendment to Title 35, "Examiners-in-Chief"-the former title of the current APJs-were subject to nomination by the President and confirmation by the Senate. 35 U.S.C. §3 (1952). In

1975, Congress eliminated their Presidential appointment and instead gave the Secretary of Commerce, upon nomination by the Commissioner, the power to appoint. 35 U.S.C. §3 (1975). There can be no reasonable dispute that APJs who decide reexaminations, inter partes reviews, and post-grant reviews wield significantly more authority than their Examiner-in-Chief predecessors. But the protections ensuring accountability to the President for these decisions on behalf of the Executive Branch clearly lessened in 1975.

Having considered the issues presented, we conclude that APJs are principal officers. The lack of any presi-dentially-appointed officer who can review, vacate, or correct decisions by the APJs combined with the limited removal power lead us to conclude, like our sister circuit in Intercollegiate, which dealt with the similarly situated CRJs, that these are principal officers. While the Director does exercise oversight authority that guides the APJs procedurally and substantively, and even if he has the authority to de-designate an APJ from inter partes reviews, we conclude that the control and supervision of the APJs is not sufficient to render them inferior officers. The lack of control over APJ decisions does not allow the President to ensure the laws are faithfully executed because "he cannot oversee the faithfulness of the officers who execute them." Free Enterprise Fund, 561 U.S. at 484. These factors, considered together, confirm that APJs are principal officers under Title 35 as currently constituted. As such, they must be appointed by the President and confirmed by the Senate; because they are not, the current structure of the Board violates the Appointments Clause.

## C. Severability

Having determined that the current structure of the Board under Title 35 as constituted is unconstitutional, we must consider whether there is a remedial approach we can take to address the constitutionality issue. "In exercising our power to review the constitutionality of a statute, we are compelled to act cautiously and refrain from invalidating more of the statute than is necessary." Helman v. Department of Veterans Affairs, 856 F.3d 920, 930 (Fed. Cir. 2017) (citing Regan v. Time, Inc., 468 U.S. 641, 652 (1984)). Where appropriate, we "try to limit the solution to the problem, [by] severing any problematic portions while leaving the remainder intact." Free Enterprise Fund, 561 U.S. at 508. Severing the statute is appropriate if the remainder of the statute is "(1) constitutionally valid, (2) capable of functioning independently, and (3) consistent with Congress' basic objectives in enacting the statute." United States v. Booker, 543 U.S. 220, 258-59 (2005).

The government suggests possible remedies to achieve this goal. As to 35 U.S.C. §3(c)'s requirement that "Officers and employees of the Office shall be subject to the provisions of title 5," the government argues that we could construe Title 5's "efficiency of the service" standard to permit removal in whatever circumstances the Constitution requires. Construing the words "only for such cause as will promote the efficiency of the service" as permitting at-will, without-cause removal is not a plausible construction. Commodity Futures Trading Commission v. Schor, 478 U.S. 833, 841 (1986) ("[a]lthough this Court will often strain to construe legislation so as to save it against constitutional attack, it must not and will not carry this to the point of perverting the purpose of a statute . . . or judicially rewriting it." (citations omitted));

Jennings v. Rodriguez, 138 S. Ct. 830, 842 (2018) ("The canon of constitutional avoidance 'comes into play only when, after the application of ordinary textual analysis, the statute is found to be susceptible of more than one construction. In the absence of more than one plausible construction, the canon simply has no application." (internal citations omitted)). Moreover, that statutory section pertains to nearly all federal employees. We will not construe 5 U.S.C. § 7513 one way for APJs and a different way for everyone else to which it applies. The government next argues that we could construe the statute as providing the Director the authority to unilaterally revise a Board decision before it becomes final. We see no language in the statute that could plausibly be so construed. The statute is clear that Board decisions must be rendered by at least three Board judges and that only the Board can grant rehearing. 35 U.S.C. § 6(c) ("Each appeal, derivation proceeding, post-grant review, and inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director. Only the Patent Trial and Appeal Board may grant rehearings."). Indeed, the government recommends in the alternative that we simply sever the "threemember clause."

Allowing the Director to appoint a single Board member to hear or rehear any inter partes review (appeal, derivation proceeding, and post grant review), especially when that Board member could be the Director himself, would cure the Constitutional infirmity. While the Board members would still not be subject to at-will removal, their decision would not be the "final decision on behalf of the United States unless permitted to do so by other Executive officers." Edmond, 520 U.S. at 665. This combined with the other forms of supervision and con-
trolled exercised over APJs would be sufficient to render them inferior officers. We conclude, however, that severing three judge review from the statute would be a significant diminution in the procedural protections afforded to patent owners and we do not believe that Congress would have created such a system. Eliminating threeAPJ panels from all Board proceedings would be a radical statutory change to the process long required by Congress in all types of Board proceedings. The current three-judge review system provides a broader collection of technical expertise and experience on each panel addressing inter partes reviews, which implicate wide cross-sections of technologies. The breadth of backgrounds and the implicit checks and balances within each three-judge panel contribute to the public confidence by providing more consistent and higher quality final written decisions. ${ }^{6}$ We are uncomfortable with such a sweeping change to the statute at our hands and uncertain that Congress would have been willing to adopt such a change.

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And, importantly, we see a far less disruptive alternative to the scheme Congress laid out.

The government also suggested partially severing 35 U.S.C. §3(c), the provision that applies Title 5 to officers and employees of the USPTO. Br. of United States at 35 ("Alternatively, this Court could hold that 35 U.S.C. §3(c)'s provision that USPTO officers and employees are subject to Title 5 cannot constitutionally be applied to Board members with respect to that Title's removal restrictions, and thus must be severed to that extent."). We think this the narrowest viable approach to remedying the violation of the Appointments Clause. We follow the Supreme Court's approach in Free Enterprise Fund, similarly followed by the D.C. Circuit in Intercollegiate. See 561 U.S. 477; 684 F.3d 1332. In Free Enterprise Fund, the Supreme Court held that a "for-cause" restriction on the removal power of the SEC's Commissioners violated the Constitution. Id. at 492. The Court invalidated and severed the problematic "for-cause" restriction from the statue rather than holding the larger structure of the Public Company Accounting Oversight Board unconstitutional. Id. at 508

The D.C. Circuit followed this approach in Intercollegiate, by invalidating and severing the restriction on the Librarian's removal power over CRJs. 684 F.3d at 1340. The court held unconstitutional all language in the relevant removal statute other than, "[t]he Librarian of Congress may sanction or remove a Copyright Royalty Judge." Id. The Court determined that giving the Librarian of Congress unfettered removal power was sufficient such "that the CRJs' decisions will be constrained to a significant degree by a principal officer (the Librarian)." Id. at 1341. And the constraint of that power was enough to render the CRJs inferior officers. Id.

Severing Title 5's removal restrictions might arguably be achieved either by severing the words "Officers and" or by concluding that those removal restrictions are unconstitutional as applied to APJs. The government recommends a partial invalidation, namely that we sever the application of Title 5's removal restrictions to APJs. See United States v. Nat'l Treasury Emps. Union, 513 U.S. 454 (1995); United States v. Grace, 461 U.S. 171 (1983). All parties and the government agree that this would be an appropriate cure for an Appointments Clause infirmity. This as-applied severance is the narrowest possible modification to the scheme Congress created and cures the constitutional violation in the same manner as Free Enterprise Fund and Intercollegiate. Title 5's removal protections cannot be constitutionally applied to APJs, so we sever that application of the statute.

Severability turns on whether "the statute will function in a manner consistent with the intent of Congress." Alaska Airlines, Inc. v. Brock, 480 U.S. 678, 685 (1987) (emphasis omitted). In Free Enterprise Fund, the Court severed the removal provision because it concluded that "nothing in the statute's text or historical context" suggested that Congress "would have preferred no Board at all to a Board whose members are removable at will." 561 U.S. at 509. Indeed, we answer affirmatively the question: "Would the legislature have preferred what is left of its statute to no statute at all?" Ayotte, 546 U.S. at 330. It is our view that Congress intended for the inter partes review system to function to review issued patents and that it would have preferred a Board whose members are removable at will rather than no Board at all.

The narrowest remedy here is similar to the one adopted in Intercollegiate, the facts of which parallel this case. Thus, we conclude that the appropriate remedy to
the constitutional violation is partial invalidation of the statutory limitations on the removal of APJs. Title 35 U.S.C. §3(c) declares the applicability of Title 5 rights to "Officers and employees of the Office." See also Supp. Br. of United States at 9-10 (noting that Title 5 definitions might cover APJs). Title 5 U.S.C. §7513(a) permits agency action against those officers and employees "only for such cause as will promote the efficiency of the service." Accordingly, we hold unconstitutional the statutory removal provisions as applied to APJs, and sever that application. Like the D.C. Circuit in Intercollegiate, we believe severing the restriction on removal of APJs renders them inferior rather than principal officers. Although the Director still does not have independent authority to review decisions rendered by APJs, his provision of policy and regulation to guide the outcomes of those decisions, coupled with the power of removal by the Secretary without cause provides significant constraint on issued decisions.

The decision to partially invalidate statutory removal protections limits the effect of the severance to APJs and to their removal protections. We are mindful that the alternative of severing the "Officers and" provision from §3(c) may not have been limited to APJs (there might have been other officers whose Title 5 rights would have been affected) and it might have removed all Title 5 protections, not just removal protections. Severing the application to APJs of removal protections is the narrowest remedy. The choice to sever and excise a portion of a statute as unconstitutional in order to preserve the statute as a whole is limited, and does not permit judicial rewriting of statutes. Booker, 543 U.S. at 258 (to address the constitutional infirmity, we consider "which portions of the ... statute we must sever and excise as incon-
sistent with the Court's constitutional requirement"); Ayotte, 546 U.S. at 329 ("[W]e restrain ourselves from 'rewrit[ing] . . . law to conform it to constitutional requirements' even as we strive to salvage it"). "'Unless it is evident that the Legislature would not have enacted those provisions which are within its power, independently of that which is not, the invalid part may be dropped if what is left is fully operative as a law.'" Buckley, 424 U.S. at 108-09 (quoting Champlin Refining Co. v. Corporation Comm'n of Oklahoma, 286 U.S. 210, 234 (1932)). We are not, under the guise of severability, permitted to add exceptions for APJs to the language $\S 3(\mathrm{c})$ officer protections. Railroad Retirement Bd. v. Alton R. Co., 295 U.S. 330, 362 (1935) (when severing a statute, we must avoid "rewrit[ing] a statute"). We hold that the application of Title 5's removal protections to APJs is unconstitutional and must be severed. And we are convinced that Congress would preserve the statutory scheme it created for reviewing patent grants and that it intended for APJs to be inferior officers. Our severance of the limits on removal of APJs achieves this. We believe that this, the narrowest revision to the scheme intended by Congress for reconsideration of patent rights, is the proper course of action and the action Congress would have undertaken.

Because the Board's decision in this case was made by a panel of APJs that were not constitutionally appointed at the time the decision was rendered, we vacate and remand the Board's decision without reaching the merits. The government argues that while this court has the discretion to vacate and remand in the event there is an Appointments Clause challenge, we should decline to do so because the challenge was not first brought before the Board. The government argues that Arthrex's challenge
was not timely and as such we should decline to award the relief Lucia deems appropriate. Arthrex argues it would have been futile to raise the Appointments Clause challenge before the Board because the Board lacked the authority to grant it relief. Arthrex argues it raised the challenge at the first stage where it could have obtained relief and therefore its argument is timely. We agree with Arthrex that the Board was not capable of providing any meaningful relief to this type of Constitutional challenge and it would therefore have been futile for Arthrex to have made the challenge there. "An administrative agency may not invalidate the statute from which it derives its existence and that it is charged with implementing." Jones Bros., Inc. v. Sec'y of Labor, 898 F.3d 669, 673 (6th Cir. 2018) (citing Mathews v. Diaz, 426 U.S. 67, 76 (1976); Weinberger v. Salfi, 422 U.S. 749, 765 (1975); Johnson v. Robison, 415 U.S. 361, 368 (1974); PUC v. United States, 355 U.S. 534, 539-40 (1958)). The PTAB itself has declined to examine this issue in other cases. See Samsung Elecs. Am., Inc. v. Uniloc, 2017 LLC, No. IPR2018-01653, 2019 WL 343814, at *2 (PTAB Jan. 25, 2019) (declining to consider constitutional challenge to appointments because "administrative agencies do not have jurisdiction to decide the constitutionality of congressional enactments" and "[t]his is especially true when, as here, the constitutional claim asks the agency to act contrary to its statutory charter") (internal citations and quotation marks omitted); see also Intel Corp. v VLSI Tech. LLC, No. IPR2018-01107, 2019 PAT. APP. LEXIS 4893, at *26-27 (P.T.A.B. Feb. 12, 2019); Unified Patents Inc. v. MOAEC Techs., LLC, No. IPR2018-01758, 2019 WL 1752807, at *9 (P.T.A.B. Apr. 17, 2019). The only possibility of correction which the government claims the agency could have made is the Director shutting down the IPR regime by refusing to institute. Petitioners argue
that if the Appointments Clause challenge had been raised at the Board, it "could have prompted the PTAB to defer institution decisions on all IPRs" and "[t]he Executive Branch could have then championed legislation to address the alleged constitutional infirmity." Arthrex sought to have its case decided by a constitutionally appointed board. The PTO could not provide this relief.

We agree with Arthrex that its Appointments Clause challenge was properly and timely raised before the first body capable of providing it with the relief sought-a determination that the Board judges are not constitutionally appointed. Our decision in $D B C$ is not to the contrary. In $D B C$, the Appointments Clause challenge was to the particular APJs who were appointed by the Director, rather than the Secretary. We observed that if the issue had been raised before the agency, the agency could have "corrected the constitutional infirmity." $D B C$, 545 F.3d at 1379. At that time, there were APJs who had been appointed by the Secretary who could have decided the case and thus the agency could have cured the constitutional defect. In $D B C$, we observed that in LA Tucker and Woodford, had the issue been raised at the agency, the agency could have corrected the problem. See id. at 1378 (citing Woodford v. Ngo, 548 U.S. 81 (2006); United States v. LA Tucker Truck Lines, 344 U.S. 33 (1952)). Ryder v. United States, cited by the government, likewise involved a challenge made to a particular judge, and the problem could have been cured by reassigning the case to a different judge at the trial level. 515 U.S. 177 (1995). In contrast, here the Director is the only Presi-dentially-appointed, Senate confirmed member of the Board. The Board was not capable of correcting the constitutional infirmity. We conclude that this Constitutional challenge is one in which the Board had no authority to
provide any meaningful relief and that it was thus futile for Arthrex to have raise the challenge before the Board.

The Lucia court explained that Appointments Clause remedies are designed to advance structural purposes of the Appointments Clause and to incentivize Appointments Clause challenges. Lucia, 138 S. Ct. at 2055 n.5. We conclude that both of these justifications support our decision today to vacate and remand. See Collins v. Mnuchin, 938 F.3d 553, 593 (5th Cir. 2019) (recognizing, "the Court has invalidated actions taken by individuals who were not properly appointed under the Constitution"). The Supreme Court held in Freytag that Appointments Clause challenges raise important structural interests and separation of powers concerns. We conclude that challenges under these circumstances should be incentivized at the appellate level and accordingly the remedy provided is appropriate. We have decided only that this case, where the final decision was rendered by a panel of APJs who were not constitutionally appointed and where the parties presented an Appointments Clause challenge on appeal, must be vacated and remanded. Appointments Clause challenges are "nonjurisdictional structural constitutional objections" that can be waived when not presented. Freytag, 501 U.S. at 878-79. Thus, we see the impact of this case as limited to those cases where final written decisions were issued and where litigants present an Appointments Clause challenge on appeal.

Finally, on remand we hold that a new panel of APJs must be designated and a new hearing granted. See Appellant's Supp. Br. at 12 ("This Court should thus order a remand to a new PTAB panel for a new oral argument.") The Supreme Court has explained that when a judge has heard the case and issued a decision on the merits, "[h]e cannot be expected to consider the matter as though he

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had not adjudicated it before. To cure the constitutional error, another ALJ ... must hold the new hearing." Lucia, 138 S. Ct. at 2055. Lucia suggests that the remedy is not to vacate and remand for the same Board judges to rubber-stamp their earlier unconstitutionally rendered decision. Like Lucia, we hold that a new panel of APJs must be designated to hear the inter partes review anew on remand. To be clear, on remand the decision to institute is not suspect; we see no constitutional infirmity in the institution decision as the statute clearly bestows such authority on the Director pursuant to 35 U.S.C. §314. Finally, we see no error in the new panel proceeding on the existing written record but leave to the Board's sound discretion whether it should allow additional briefing or reopen the record in any individual case.

## Vacated And Remanded

Costs
The parties shall bear their own costs.

# 33a <br> APPENDIX B <br> UNITED STATES PATENT <br> AND TRADEMARK OFFICE 

## BEFORE THE PATENT TRIAL AND APPEAL BOARD

No. 2018-2140

Smith \& Nephew, Inc. and ArthroCare Corp., Petitioners,
v.

Arthrex, Inc.,
Patent Owner.

Case IPR2017-00275
Patent 9,179,907 B2

Final Written Decision
35 U.S.C. §318(a) and 37 C.F.R. § 42.73
Paper 36

May 2, 2018

Before William V. Saindon, Barry L. Grossman, and Timothy J. Goodson, Administrative Patent Judges.

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GOODSON, Administrative Patent Judge.

## I. Introduction

Petitioners filed a Petition (Paper 1, "Pet.") requesting inter partes review of claims $1,4,8,10-12,15,16,18,25-$ 28, and 30 of U.S. Patent No. 9,179,907 B2 (Ex. 1001, "the '907 patent"). Patent Owner filed a Preliminary Response. Paper 6. We instituted an inter partes review of claims 1, $4,8,10-12,16,18$, and $25-28$ on the following grounds under 35 U.S.C. § 102:

| Reference | Claims |
| :--- | :--- |
| ElAttrache $^{1}$ | $1,4,8,10-12,16,18$, and 25-28 |
| Martinek $^{2}$ | 1 and 16 |

See Paper 7 ("Dec. on Inst.").
After institution of trial, Patent Owner filed a Patent Owner Response (Paper 17, "PO Resp."), and Petitioners filed a Reply (Paper 21, "Reply"). Patent Owner also filed a motion to exclude (Paper 25), which we address in Section VI below. We held a hearing, a transcript of which is included in the record. Paper 33 ("Tr."). Following the hearing, and after receiving our authorization to do so, the parties filed supplemental briefs to address a decision the Federal Circuit issued after the hearing. See Paper 34; Paper 35.

We have jurisdiction under 35 U.S.C. §6. Petitioners bear the burden of proving unpatentability of the challenged claims, and the burden of persuasion never shifts

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to Patent Owner. Dynamic Drinkware, LLC v. Nat'l Graphics, Inc., 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioners must prove unpatentability by a preponderance of the evidence. See 35 U.S.C. §316(e); 37 C.F.R. §42.1(d). This Final Written Decision is issued pursuant to 35 U.S.C. §318(a) and 37 C.F.R. §42.73. For the reasons that follow, we determine that Petitioners have shown by a preponderance of the evidence that claims $1,4,8,10-12,16,18$, and $25-28$ of the ' 907 patent are unpatentable. See 35 U.S.C. § 316(e).

We note at the outset that the central question in this case is whether the challenged claims are entitled to the earliest priority date claimed in the ' 907 patent. In particular, the parties dispute whether the entire chain of priority documents provides adequate written description support for a generic "first member including an eyelet" that includes both a flexible suture loop species and a rigid implant species. We address that question in Section V of this Decision. The priority issue is dispositive because Patent Owner agrees that if the cited references qualify as prior art, the challenged claims are anticipated. See Tr. 53:21-54:9.

## A. Related Matters

Patent Owner asserted the '907 patent against Petitioners in a civil action in the U.S. District Court for the Eastern District of Texas, Arthrex, Inc. v. Smith \& Nephew, Inc., Consolidated Civil Action Nos. 2:15-cv01047 and 2:15-cv-01756. Pet. 7-8; Paper 3, 1. After trial in that case, a jury found that Patent Owner proved by a preponderance of the evidence that Petitioners infringed claims $4,8,16$, and 27 of the ' 907 patent, and that Petitioners did not prove by clear and convincing evidence that any of those claims were invalid as anticipated. Paper 19, 1; Ex. 2038, 2. The district court entered judgment
finding that Petitioners willfully infringed claims $4,8,16$, and 27 of the '907 patent and further finding those claims not invalid. Paper 19, 1; Ex. 2039, 1. The parties then entered a settlement agreement and filed a Joint Stipulated Motion for Dismissal with Prejudice. Paper 19, 1-2; Ex. 2040. The district court granted the motion, dismissing all claims and counterclaims with prejudice. Paper 19, 1-2; Ex. 2041.

Neither party has argued that the Dismissal with Prejudice, or any other ruling of the district court, presents a bar to this proceeding. See Tr. 5:18-6:21; 52:1019. The Federal Circuit has explained that a dismissal with prejudice is a judgment on the merits for purposes of claim preclusion, but that the parties can, in a separate agreement, reserve the right to litigate a claim that would otherwise be barred by res judicata. Pactiv Corp. v. Dow Chem. Co., 449 F.3d 1227, 1230-31 (Fed. Cir. 2006). The parties' settlement agreement that resulted in the Dismissal with Prejudice is not of record in this proceeding, but the parties indicated at the hearing that their settlement agreement provides for this proceeding to continue. Tr. 6:19-21; 52:20-53:3. In the absence of any argument that this proceeding is precluded, and in view of the parties' agreement that their earlier settlement allows this proceeding to continue, we are satisfied that the Dismissal with Prejudice does not bar this proceeding.

## B. The ' 907 Patent

The ' 907 patent describes a knotless suture securing assembly. Ex. 1001, at [54], [57]. The Background explains that suture anchors are one type of fixation device that can be used for reattaching soft tissue that has become detached from bone. Id. at 1:20-33. A drawback of prior art suture anchors, however, is that a surgeon is "generally require[d] ... to tie knots in the suture to
secure the tissue to the bone, which is tedious and timeconsuming." Id. at 1:33-36. The Summary section states that the disclosed embodiments "are useful for securing soft tissue to bone with excellent pullout strength without requiring a surgeon to tie suture knots to secure the suture in place or to secure the tissue to the bone." Id. at $1: 43-46$. As relevant to the issues in this proceeding, the '907 patent describes two main embodiments: a flexible suture loop embodiment and a rigid implant embodiment.

Figures 15 and 16, reproduced below, depict the flexible suture loop embodiment:


Figures 15 and 16 illustrate a driver, screw, suture loop and graft with graft sutures attached. Id. at 2:46-50.

In that embodiment, as shown in Figures 15 and 16, driver 30 is pre-loaded with screw 10, and traction suture 68 is passed into the cannula of driver 30 until looped end 70 is exposed at the distal end. Id. at 5:48-53. Sutures 62, which are attached to graft 60, are passed through traction suture loop 70. Id. at 5:51-55. By drawing on traction suture 68, suture loop 70 is tightened and tension is applied to graft sutures 62. Id. at 5:62-64.

Figures 17 and 18 are reproduced below:


Figures 17 and 18A illustrate the driver, screw and suture loop engaging graft sutures in a bone socket. Id. at 2:52-57.

As shown in Figure 17, driver 30 is positioned such that screw 10 engages bone 64 at the edge of hole 66 . Rotating driver 30 causes screw 10 to be inserted into hole 66 until fully installed, as shown in Figure 18A. Id. at 6:8-13. In that position, "sutures 62 or the graft 60 [is] pinned and/or wound between the base and sidewall of socket 66 and interference screw 10." Id. at 6:13-15. Driver 30 can then be removed. $I d$. at 6:18-19.

The rigid implant embodiment is shown in Figure 21, reproduced below:


Figure 21 depicts driver 100, interference device 120, and eyelet implant 150.
$I d$. at 6:47-55, 7:4-5.

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Eyelet implant 150 includes "aperture 155 for receiving a suture attached to a graft to pass through the eyelet implant 150." Id. at 7:12-14. Interference device 120 can be a screw or an interference plug, and is "preferably formed of a bioabsorbable material such as PLLA." Id. at 6:5557. "[E]yelet implant 150 is made of a material similar to that of the interference device 120." Id. at 7:10-12.

Figures 24, 25, and 27 are reproduced below:


Figures 24, 25, and 27 are schematic views of the surgical site undergoing a graft fixation with a push lock driver. Id. at 3:8-23.
Figure 24 depicts suture 180, which is attached to graft 170 , passing through aperture 155. Id. at 7:44-49. Implant 150 is then inserted into bone socket 190, as shown in Figure 25. Id. at 7:50-53. As can be seen in Figure 27, "interference device 120 is then impacted into the pilot hole 190 so that the interference device 120 advances toward the distal end 112 of driver 100 and securely engages and locks in the eyelet implant 150 with the sutures 180." Id. at 7:59-63. The driver is removed and the suture ends are clipped, "leaving the graft 170 securely fastened to bone 193." Id. at 7:64-67.

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## C. Claims Challenged in Instituted Grounds

As noted above, we instituted trial as to claims $1,4,8$, $10-12,16,18$, and 25-28. See Dec. on Inst. 20. Of these, only claims 1 and 16 are independent claims. Claims 4,8 , and 10-12 depend from claim 1, and claims 18 and 25-28 depend from claim 16. Claim 1 is representative, and is reproduced below with emphasis indicating the language on which the parties' dispute focuses:

1. A suture securing assembly, comprising:
an inserter including a distal end, a proximal end, and a longitudinal axis between the distal end and the proximal end;
a first member including an eyelet oriented to thread suture across the longitudinal axis, the first member being situated near the distal end of the inserter, the first member being configured to be placed in bone; and
a second member situated near the distal end of the inserter, the second member being moveable by a portion of the inserter relative to the first member in the distal direction toward the eyelet into a suture securing position where the second member locks suture in place.
Ex. 1001, 10:21-34 (emphasis added).
We note that in their Petition, Petitioners also challenged claims 15 and 30. See Pet. 59-60, 65. Those dependent claims recited that "the first member is a rigid implant defining the eyelet." Ex. 1001, 11:16-17, 12:42-43. However, on the same day Patent Owner filed its Preliminary Response, Patent Owner filed a statutory disclaimer of claims 15 and 30. See Ex. 2001; Prelim. Resp. 20 n.6, 65. Consequently, in accordance with 37 C.F.R. §42.107(e), claims 15 and 30 were not included in the grounds on
which we instituted trial and our institution decision was based solely on the remaining claims. See Dec. on Inst. $7-8$. Because claims 15 and 30 have been disclaimed, we do not address them in this Decision. See SAS Institute Inc. v. Iancu, No. 16-969, _ U.S. __, 2018 WL 1914661, at *7 (Apr. 24, 2018) ("[T]he claims challenged 'in the petition' will not always survive to the end of the case; some may drop out thanks to the patent owner's actions. And in that light it is plain enough why Congress provided that only claims still challenged 'by the petitioner' at the litigation's end must be addressed by the Board's final written decision.").

## II. Claim Construction

In an inter partes review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. §42.100(b); Cuozzo Speed Techs. LLC v. Lee, 136 S. Ct. 2131, 2144-46 (2016) (upholding the use of the broadest reasonable interpretation standard). In our Institution Decision, we determined that resolution of the disputed issues at that stage of the proceeding did not require an express interpretation of any claim term. See Dec. on Inst. 7 (citing Vivid Techs., Inc. v. Am. Sci. \& Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999)). In its Patent Owner Response, Patent Owner states that no construction is necessary because it is undisputed that the phrase "first member including an eyelet" includes both the flexible and rigid eyelet species. PO Resp. 6. Petitioners do not present any claim construction arguments in their Reply. Based on our review of the complete record, we agree with the parties that no express construction is necessary to resolve the disputed issues in this proceeding.

## III. Level Of Ordinary Skill In The Art

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 962 (Fed. Cir. 1986); Orthopedic Equip. Co., Inc. v. U.S., 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioners propose that a person of ordinary skill in the art of the ' 907 patent would have had
(a) a master's degree in mechanical engineering or equivalent, or a bachelor's degree in such field and at least two years of experience designing suture anchors; or (b) a medical degree and at least two years of experience performing surgeries that involve suture anchors and/or advising engineers on suture anchor design.
Pet. 16 (citing Ex. 1019 ๆा 91-94). Patent Owner does not contest Petitioners' proposal in its Patent Owner Response, and Dr. Geoffrey Higgs, Patent Owner's declarant, states that he agrees with the proposed level of ordinary skill in the art. Ex. 2037 I 39 . We adopt Petitioners' unopposed statement of the level of ordinary skill in the art.

## IV. Anticipation Analysis

## A. Legal Standard

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. Inc., v. Union Oil Co., 814 F.2d 628, 631 (Fed. Cir. 1987). "Because the hallmark of anticipation is prior invention, the prior art reference-in order to anticipate under 35 U.S.C. § 102—must not only disclose
all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1369 (Fed. Cir. 2008).

## B. Anticipation Based on ElAttrache

Petitioners argue that claims $1,4,8,10-12,16,18$, and 25-28 are anticipated by ElAttrache. Pet. 45-59.

ElAttrache is the published version of one of the applications to which the ' 907 patent claims priority. Ex. 1010 at [21]; Ex. 1001, 1:13-14; Pet. 46. ElAttrache published on January 31, 2002. Ex. 1010 at [43]. Patent Owner has not established entitlement to a priority date before ElAttrache's publication. For the reasons discussed in Section V below, the challenged claims are not entitled to priority to any of the applications before May 8, 2014, the filing date of the application that issued as the ' 907 patent. See Ex. 1001 at [22]; 35 U.S.C. § 100(i)(1). Thus, ElAttrache qualifies as prior art under 35 U.S.C. § 102(a)(1). ${ }^{3}$

ElAttrache describes a knotless suture anchor. Ex. 1010 आTा 6-7. Figures 14-19 and the accompanying disclosure in ElAttrache are similar, if not identical, to the figures and description of the flexible suture loop embodiment of the ' 907 patent, summarized above. Compare Ex. 1010 बT $T$ 45-48, with Ex. 1001, 5:35-6:22.

Petitioners argue that ElAttrache discloses every limitation of the challenged claims. For example, with respect to claim 1, Petitioners assert that ElAttrache's driver 30 corresponds to the "inserter," ElAttrache's traction suture 68 and suture loop 70 correspond to the "first member,"

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and ElAttrache's screw 10 corresponds to the "second member." Pet. 47-49. Petitioners also provide a detailed explanation of how ElAttrache discloses the limitations of the other challenged claims. Id. at 50-59. Patent Owner agrees that if ElAttrache qualifies as prior art, ElAttrache discloses the subject matter of each of the challenged claims. See Tr. 53:23-54:5. After reviewing Petitioners' unrebutted evidence and argument, we find that ElAttrache discloses, arranged as in the claims, each limitation of claims $1,4,8,10-12,16,18$, and 25-28.

There is no inconsistency between our finding that ElAttrache discloses each limitation of the challenged claims under §102 and our determination that ElAttrache qualifies as prior art to the challenged claims. Indeed, Patent Owner does not argue that there is any such inconsistency. As the Federal Circuit's predecessor court explained, "the description of a single embodiment of broadly claimed subject matter constitutes a description of the invention for anticipation purposes..., whereas the same information in a specification might not alone be enough to provide a description of that invention for purposes of adequate disclosure." In re Lukach, 442 F. 2 d 967, 970 (CCPA 1971). In application here, we find that the broad recitation of an "eyelet" is anticipated by the narrower disclosure in ElAttrache of the suture loop.

## C. Anticipation Based on Martinek

Petitioners argue that claims 1 and 16 are anticipated by Martinek. Pet. 59-65.

Martinek describes a knotless suture anchor. Ex. 1011, 2. Figure 8 of Martinek is reproduced below:


Figure 8 depicts a cross-sectional view of implantation apparatus 200 positioned in bore B drilled in shoulder bone C, with tissue section A secured to setting pin 24. Id. at 6,12 . Once in position, apparatus 200 is actuated, driving expandable member 12 distally and causing the distal ends of legs 18 to be driven radially outward by setting pin 24. Id. at 12-13. "As legs 18 are driven radially outward, barbs 22 engage and secure a portion of suture 40 against the bone C within bore B." Id. at 13.

Petitioners contend that Martinek discloses every limitation of claims 1 and 16. Specifically, Petitioners argue that Martinek's implantation apparatus 200 corresponds to the "inserter" of claim 1 and the "driver" of claim 16. Pet. 62 (citing Ex. 1011, 10), 64. Petitioners correlate Martinek's setting pin 24 to the "first member" of claims 1 and 16, and Martinek's expandable body 12 to the "second member" of claims 1 and 16. Pet. 62-64 (citing Ex.

1011, 4, 8, 13). As with ElAttrache, Patent Owner agrees that if Martinek qualifies as prior art, Martinek discloses the subject matter of claims 1 and 16. See Tr. 54:6-9. After reviewing Petitioners' unrebutted evidence and argument, we find that Martinek discloses, arranged as in the claims, each limitation of claims 1 and 16.

We also determine that Martinek qualifies as prior art under §102(a)(1). Patent Owner has not established entitlement to a priority date before Martinek's publication on March 21, 2002. Ex. 1011, at [43]. As discussed in greater detail in Section $V$ below, the effective filing date of claims 1 and 16 of the ' 907 patent is May 8, 2014. Accordingly, Petitioners have established that Martinek anticipates claims 1 and 16 of the '907 patent.

## V. Priority Analysis

## A. Priority Claim in the ' 907 Patent

The application that issued as the ' 907 patent was filed on May 8, 2014, as U.S. Patent App. No. 14/272,601 ("the '601 application" ${ }^{4}$ ). See Ex. 1001 at [21], [22]; see also Ex. 1002, 11-58 (reproducing the '601 application as filed in the file history of the ' 907 patent).

The ' 907 patent claims priority to a chain of continuation, continuation-in-part, and divisional applications reaching back to June 22, 2001, as well as a provisional

[^13]application filed on June 22, 2000. In particular, the '907 patent contains the following priority claim, with bracketed labels and indentations added for clarity:

This is a continuation of U.S. patent application Ser. No. 13/765,218 [Ex. 1008, "the '218 application"] filed Feb. 12, 2013,
which is a divisional of U.S. application Ser. No. 13/182,893 [Ex. 1007, "the '893 application"], filed Jul. 14, 2011, now U.S. Pat. No. 8,430,909, which is a continuation of U.S. application Ser. No. 12/022,868 [Ex. 1006, "the '868 application"], filed Jan. 30, 2008, now U.S. Pat. No. 7,993,369,
which is a continuation-in-part of U.S. application Ser. No. 10/405,707 [Ex. 1005, "the '707 application"], filed Apr. 3, 2003, now U.S. Pat. No. 7,329,272,
which is a continuation-in-part of U.S. application Ser. No. 09/886,280 [Ex. 1004, "the '280 application"], filed Jun. 22, 2001, now U.S. Pat. No. 6,544,281, which claims the benefit of U.S. Provisional Application No. 60/213,263 [Ex. 1003, "the '263 provisional"], filed Jun. 22, 2000.
Ex. 1001, 1:6-16.

## B. Summary of the Disputed Priority Issue

Petitioners argue that the challenged claims are not entitled to a priority date before May 8, 2014, because the applications to which the ' 907 patent claims priority do not provide written description support for a generic "first member" that can be either a flexible loop or a rigid implant. Pet. 20. Although the priority chain at issue here is lengthy and the parties have presented extensive evidence and argument, the priority dispute is circumscribed to a single issue: it focuses solely on the "first member"
limitation in claims 1 and $16^{5}$ and solely on the written description requirement of 35 U.S.C. §112. PO Resp. 67; Tr. 5:4-17. ${ }^{6}$

## C. Allocation of Burden to Establish Entitlement to Priority

Because Patent Owner seeks to antedate the ElAttrache and Martinek references cited in the Petition, Patent Owner bears the burden to argue or produce evidence that the challenged claims of the '907 patent are entitled to the benefit of a filing date that pre-dates those references. See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc., 800 F.3d 1375, 1379-80 (Fed. Cir. 2015); Research Corp. Techs., Inc. v. Microsoft Corp., 627 F.3d 859, 870-71 (Fed. Cir. 2010). Our Decision on Institution articulated this same burden allocation, and Patent Owner did not contest it in the Patent Owner Response. See Dec. on Inst. 14. At the hearing, Patent Owner acknowledged that "we have the burden to demonstrate that we can show priority back to the original disclosure." Tr. 57:9-11.

## D. Legal Standards Governing Disputed Priority Issue

For a claim in a later-filed application to be entitled to the filing date of an earlier application, the earlier application must provide written description support for the claimed subject matter. Anascape, Ltd. v. Nintendo of Am. Inc., 601 F.3d 1333, 1337 (Fed. Cir. 2010). Moreover, when a priority claim involves a chain of priority

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documents, "each application in the chain leading back to the earlier application must comply with the written description requirement of 35 U.S.C. § 112." Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1571 (Fed. Cir. 1997).

The written description requirement "guards against the inventor's overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation." Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1561 (Fed. Cir. 1991). To satisfy the written description requirement, "the disclosure of the earlier application, the parent, must reasonably convey to one of skill in the art that the inventor possessed the later-claimed subject matter at the time the parent application was filed." Tronzo v. Biomet, Inc., 156 F.3d 1154, 1158 (Fed. Cir. 1998).

## E. Analysis

Petitioners provide the following diagram that summarizes their position on the ' 907 patent's priority claim:


Pet. 4. The diagram illustrates the relationship of the applications to which the ' 907 patent claims priority. As
indicated in the diagram, Petitioners contend that "Patent Owner's applications in 2000 and $2001^{[7]}$ described only the flexible loop embodiment, whereas subsequent applications in 2003, 2008, 2011, and 2013 described only the rigid implant embodiment and disparaged the suture loop as a problematic prior concept." Id. at 20. Petitioners further assert that the '601 application filed in 2014 is inaccurately denominated as a continuation because it made substantial changes to the disclosure of the applications between 2003 and 2013, including additional description of the flexible loop approach and deletion of the criticism of the flexible loop approach. Id. at 1-3, 22-23.

Petitioners present several arguments for why the challenged claims are not entitled to priority, but our analysis below focuses on Petitioners' argument concerning the ' 707 application and the other applications appearing in orange labels in the diagram above (i.e., the '707, '868, '893, and '218 applications). Petitioners argue that the '707 application and other applications in this group only support claims to the rigid implant species, not the flexible loop species or genus claims that would encompass the flexible loop species. Pet. 28-39. We find that argument persuasive. Further, because the absence of written description support in the ' 707 application for a generic first member covering both the flexible loop and rigid implant embodiments cuts off the chain of priority such that Patent Owner cannot antedate the cited references, this deficiency is dispositive.

Patent Owner acknowledges that "[t]he '707 application is the first in the priority chain to explicitly disclose a

[^15]51a
rigid eyelet embodiment." PO Resp. 19. ${ }^{8}$ Patent Owner maintains that the earlier '263 provisional and ' 280 application do not limit the suture-capturing eyelet to a flexible loop and their disclosure is sufficient to support a generic first member, but there is no dispute that the only embodiment of the first member actually described in those earlier applications is the flexible suture loop embodiment. See $i d$. at 13 ("In the embodiments of the provisional application, a looped end 38 of suture is exposed at the distal end of the driver 36 and receives another suture 32 , which is used to reattach tissue back to bone.") (citing Ex. 1003, 5, 9, 13); id. at 15 ("In the detailed description of the ' 280 application, the eyelet is described much like it was in the provisional application as, a looped end 70 of traction suture 68 exposed at the distal end of the driver.") (citing Ex. 1004, 11-12); Pet. 24 (asserting that the '263 provisional and '280 application disclose only the flexible loop species).

The '707 application summarizes the '280 application's disclosure in its "Background of the Invention" section. Ex. 1005 『 4 . The ' 707 application explains that in the technique described in the '280 application, "a cannulated plug or screw is pre-loaded onto the distal end of a can-

[^16]nulated driver, and a suture or wire loop is passed through the cannula of the driver so that a looped end of the suture or wire is exposed at the distal end of the driver." $I d$. After suture strands attached to the tissue graft are fed through the loop, "tension [is] applied to the suture or wire loop to keep the graft at the desired location relative to the bone hole, [and] the screw or plug is then fully advanced into the hole." Id. Having summarized the technique of the '280 application, the Background of the '707 application then warns against its drawbacks:

Although the above-described technique provides an improved method of graft fixation to bone, the flexible loop configuration at the end of the driver disadvantageously impedes sliding of the suture or graft which is fed through the suture loop. In addition, because the cannulated driver of [the '280 application] is provided with a flexible loop at its distal end, placement of the suture or graft at the bottom of the blind hole or socket and the cortical bone must be approximated, thus sometimes necessitating additional removal, tapping and insertion steps to ensure full insertion of the plug or screw into the blind hole or socket. This, in turn, may abrade the adjacent tissue and/or damage the bone or cartilage.
Id. $\mathbb{I} 5$ (emphasis added). Based on these disadvantages, the ' 707 application explains that "a need exists for an improved surgical technique and associated device for securing soft tissue to bone which allows the free sliding of the suture ends attached to a graft to ensure the positioning of the graft at an appropriate distance from the device." Id. 16 (emphasis added).

The "Summary of the Invention" section presents the invention as an improvement that solves the problems of the suture loop described in the '280 application:

The instruments and methods of the present invention overcome the disadvantages of the prior art, such as those noted above, by providing an eyelet implant at the distal end of a driver that securely engages and locks into a cannulated ribbed body of an interference plug or screw. The eyelet implant includes a fixed aperture for receiving a suture attached to a graft, such that the suture is able to freely slide through the aperture.
Id. IT 7 (emphases added).
After describing in the Background that the flexible suture loop disadvantageously impedes sliding and explaining in the Summary that the invention remedies that deficiency by providing a fixed aperture though which suture can freely slide, the remainder of the ' 707 application never suggests that a flexible suture loop is a potential embodiment of the disclosed invention. See id. ๆT 7-34; see also Ex. 1019 ๆ 123 (Petitioner’s expert, Dr. David McAllister, testifying that "the ' 707 application never mentions the 'flexible loop' configuration aside from this criticism" in the Background section). Instead, the Detailed Description repeatedly emphasizes the ability of suture to freely slide through the aperture-the same feature that the ' 707 application described as absent in the flexible loop of the '280 application. See Ex. 1005 II 28 ("The suture 80 freely slides though aperture 55 of the eyelet implant 50, allowing the graft 70 to be positioned close to the edge of the pilot hole 90. ."); id. I 29 (describing advantages of the invention, the most important of which is "the suture attached to the graft is allowed to freely slide through the aperture of the eyelet implant").

Finally, at the close of the Detailed Description, the '707 application notes that configurations other than the embodiments specifically disclosed are possible, but un-

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derscores that the ability of suture to slide freely though the aperture is a critical feature of the invention: "[T]he present invention also contemplates implants affixed to or detachable from a preloaded driver and having an aperture of any configuration of any geometrical shape, as long as it captures suture and allows the captured suture to freely slide within the aperture." Id. $\mathbb{I} 33$ (emphasis added).

We find credible the testimony of Petitioners' expert, Dr. David McAllister, that an ordinarily skilled artisan reviewing the ' 707 application "would understand that the 'flexible loop' configuration was a problematic prior art concept that that the inventors had moved beyond when proposing the rigid implant as their 'present invention' that 'overcome[s] the disadvantages of the prior art' described in the Background section." Ex. 1019 T124 (quoting Ex. 1005 I 7); see also Pet. 30. As Dr. McAllister correctly notes, "the only ‘disadvantages' of any sort discussed in the 'Background of the Invention' section" are the disadvantages of the flexible loop. Ex. 1019 I 124; see Ex. 1005 $\mathbb{T T} 3-6$. We also credit Dr. McAllister's testimony that an ordinarily skilled artisan reading the '707 application "would have come away with the understanding that the suture securing assembly described in the '707 application cannot rely on a flexible loop as the eyelet [and] would understand a flexible loop to be contrary to the invention's stated purpose to allow suture to freely slide within the aperture." Ex. 1019 ๆ 123 (citing Ex. 1005 ๆ 33 ).

We further agree with Petitioners that this case presents a close analog to the operative facts of Tronzo. See Pet. 31-32. Like this case, Tronzo concerned a mechanical medical device-specifically, an artificial hip socket that included cup implants adapted for insertion into an acetabular bone. Tronzo, 156 F.3d at 1156. The applica-
tion that issued as the patent in suit (the '262 patent) was filed as a continuation-in-part. Id. at 1157. After a jury trial, the district court determined that the asserted claims of the '262 patent were infringed and were not invalid. Id. at 1155. The Federal Circuit reversed the judgment of no invalidity for two of the asserted claims "[b]ecause claims 1 and 9 are not entitled to the filing date of the '262 patent's parent application and are anticipated by intervening prior art." Id.

In particular, the Federal Circuit held that the specification of the parent patent failed to provide written description support for claims 1 and 9 of the '262 patent because those claims were generic as to the shape of the cup. Id. at 1158-60. The Federal Circuit noted that parent patent described the invention as a trapezoid, a truncated cone, or a cup of conical shape, which labels applied to the same cup. Id. at 1159. The court further explained:
[T]he only reference in the [parent] patent's specification to different shapes is a recitation of the prior art. . . . Instead of suggesting that the [parent] patent encompasses additional shapes, the specification specifically distinguishes the prior art as inferior and touts the advantages of the conical shape of the [parent patent's] cup. . . . Such statements make clear that the [parent] patent discloses only conical shaped cups and nothing broader. The disclosure in the [parent patent's] specification, therefore, does not support the later-claimed, generic subject matter in claims 1 and 9 of the ' 262 patent.
$I d$. (emphasis added).
Similar to the disclosure of the parent patent in Tronzo, the ' 707 application discusses flexible suture loops only in its Background in order to distinguish that technique as inferior and to tout the advantages of the rigid eyelet,
which allows the captured suture to freely slide within the aperture. Ex. 1005 IT 5-7. Thus, Tronzo supports Petitioners' argument that the '707 application's criticism of the flexible loop species and the invention's ability to overcome the deficiencies of the flexible loop signify a lack of written description support in the ' 707 application for the generic "first member" limitation in the challenged claims of the ' 907 patent.

Anascape provides further support for Petitioners' contention that "a specification that criticizes a prior art configuration in the Background and never otherwise discusses it does not support generic claims encompassing the very same configuration that the Background criticizes as undesirable." Pet. 31. Anascape was another case in which the Federal Circuit reversed a district court's judgment, after a jury trial, of infringement and no invalidity because the Federal Circuit determined that the asserted patent was not entitled to the priority date it claimed, such that intervening prior art anticipated the claims. Anascape, 601 F.3d at 1334-35, 1341.

Anascape concerned hand-operated controllers for use in video games, allowing an operator to move images on the screen in six general directions called degrees of freedom or DOF: "linear movement along three axes (forward/backward, left/right, or up/down), and rotational movement about the three linear axes (roll, pitch, or yaw)." Id. at 1334. The asserted patent, the ' 700 patent, was filed as a continuation-in-part of an application that issued as the '525 patent. Id. The '700 patent claimed controllers having multiple input members that together operate in six degrees of freedom, but the specification of the '525 patent described only a single input member that operates in six degrees of freedom. Id. at 1335.

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In determining that the '525 patent's specification did not provide written description support for the claims of the ' 700 patent, the Federal Circuit noted that "[t]he '525 specification does not describe a controller with input members limited to fewer than six degrees of freedom." Id. at 1336. Moreover, "[t]he '525 patent stresses the advantages of using a single input member operable in six degrees of freedom, and describes the use of multiple input members as having 'significant disadvantages.'" $I d$. at 1337. In these respects, the deficiencies of the '707 application as a priority document supporting claims to a generic "first member" are similar to those of the '525 specification in Anascape: the ' 707 application does not describe the flexible loop species other than in the Background to describe its disadvantages in impeding free sliding, and the ' 707 application stresses as a benefit of the invention that it overcomes that deficiency and permits free sliding within the aperture. Ex. 1005 IT 5-7, 29, 33.

Another parallel to the facts of this case resides in changes the patentee in Anascape made when filing the '700 patent specification. The patentee changed references in the ' 525 specification to a "single input member" to instead reference "at least one output member" in the ' 700 patent specification. Anascape, 601 F.3d at 1338. "The ' 700 specification also deleted all mention of the prior art Chang controller [i.e., the controller the '525 patent described as having significant disadvantages due to its use of multiple input members] and its deficiencies." Id. Noting that "[a] description can be broadened by removing limitations," the Federal Circuit found the changes made to the ' 700 specification to be "classical new matter." Id.

Similarly, returning to the present case, in the '601 application that issued as the '907 patent, Patent Owner
made several changes relative to the ' 707 application (and the other intervening applications in the priority chain). See generally Ex. 1009 (presenting a redline version of the '601 application reflecting changes relative to the '218 application, which is the immediately preceding application in the priority chain). These changes were extensive, resulting in a 48-page specification with 81 paragraphs and 35 figures-significantly longer than the preceding applications in the priority chain, such as the ' 707 application, which included 34 paragraphs of description and 10 figures. Compare Ex. 1002, 11-58, with Ex. 1005. One change Patent Owner made in the ' 601 application was deletion of the criticism of the suture loop species in the Background section, as well as deletion of the statement in the Summary section that the invention overcomes those disadvantages and provides a fixed aperture though which suture is able to freely slide. Compare Ex. 1002, 11-12, with Ex. 1005 TIT4-7. Another change was the addition of figures and description of the suture loop species in the Detailed Description section. See Ex. 1002, 18-19, 40-45.

Similar to the changes made in the '700 patent in Anascape, Patent Owner's changes in the '601 application signal an effort to broaden the disclosure to support a generic "first member" encompassing a flexible loop, in contrast to earlier applications in the priority chain such as the ' 707 application, which had criticized the flexible loop as a problematic technique that the invention sought to overcome. Consistent with that view, we note that in his testimony in the parallel district court proceeding, Dr. ElAttrache agreed that the '907 patent application was the first application to include both the suture loop and the rigid eyelet. Ex. 1035, 381:6-15.

Petitioners' briefing cites additional decisions from the Federal Circuit and other courts and tribunals to but-

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tress its contention that the claimed priority documents do not provide written description support for a generic "first member," but in our view, the pertinent facts of this case align most closely with Tronzo and Anascape. ${ }^{9}$

We have considered Patent Owner's arguments as to why the ' 707 application provides written description support for a generic "first member" that encompasses a flexible loop, but those arguments are not persuasive for the reasons that follow. Patent Owner argues that the '707 application incorporates the disclosure of the '280 application by reference, and "[b]y virtue of that incorporation by reference, the ' 707 application discloses the very same suture loop eyelet species disclosed in the '280 application." PO Resp. 17-18 (citing Ex. 1005, 2; Ex. 2037 TIT 155-156). Patent Owner points out that the '868, '893, and '218 applications also include the same incorporation by reference of the ' 280 application as the ' 707 application. See id. at 21-22 (citing Ex. 1006, 3; Ex. 1007; Ex. 1008; Ex. 2037 Tी 181-183, 189-192). According to Patent Owner, "[g]iven that every application in the priority chain discloses the same suture loop eyelet species and that species conveys possession of a first member including an eyelet to a POSA, every application satisfies the general rule in Bilstad that disclosing a single species provides written description support for a genus including a species." PO Resp. 23.

Patent Owner's mechanistic application of a "general rule" from Bilstad does not accord with the Federal Circuit's repeated emphasis that "written description questions are intensely factual, and should be dealt with on a case-by-case basis, without the application of wooden

[^17]rules." Paice LLC v. Ford Motor Co., 881 F.3d 894, 910 (Fed. Cir. 2018) (quoting Union Oil Co. of Cal. v. Atl. Richfield Co., 208 F.3d 989, 1000 (Fed. Cir. 2000)); see also Ariad Pharms., Inc. v. Eli Lilly \& Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) ("[W]e do not try here to predict and adjudicate all the factual scenarios to which the written description requirement could be applied. Nor do we set out any bright-line rules governing, for example, the number of species that must be disclosed to describe a genus claim, as this number necessarily changes with each invention, and it changes with progress in a field."). The Federal Circuit has explained that "while we did state in Bilstad that the mechanical field was 'fairly predictable,' we did not hold that all inventions that may be characterized as 'mechanical' allow claiming a genus based on disclosure of a single species." Synthes USA, LLC v. Spinal Kinetics, Inc., 734 F.3d 1332, 1345 (Fed. Cir. 2013). As Petitioners point out, in several cases addressing mechanical technology, the Federal Circuit has held that disclosure of one species did not support a broader genus. Reply 2-3 (citing Synthes, 734 F.3d at 1335-36; Tronzo, 156 F.3d at 1156; Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1478-1479 (Fed. Cir. 1998)).

Moreover, Patent Owner's argument looks at the incorporation by reference statement in isolation without taking account of the '707 application's disclosure as a whole. Considered in its entirety, the '707 application's disclosure undermines Patent Owner's argument that the incorporation by reference establishes written description support for the flexible loop species or a generic "first member." The incorporation by reference of the '280 application's disclosure appears in the Background section of the ' 707 application. Ex. 1005 I 4 . The '707 application discusses the flexible loop of the '280 applica-
tion only in the Background section, and only in order to introduce the disadvantage of that structure that the invention overcomes. Id. बIT 4-7.

In this context, the incorporation by reference of the '280 application does not demonstrate to a skilled artisan reviewing the entire disclosure of the '707 application that the application embraced a generic "first member" that could be either a suture loop or a rigid implant. See Ex. 1019 ๆTा123-124; see also Tronzo, 156 F.3d at 1159 (explaining that a reference in the parent patent to cup shapes other than conical did not support later claims to a generic cup shape because that reference "served the narrow purpose of reviewing the prior art and did not describe the invention"); Anascape, 601 F.3d at 1336-37 (rejecting argument that parent specification supported input members with fewer than six degrees of freedom because the cited sentence "is not a description of the '525 invention; it is a description of prior art joysticks"). Indeed, as Petitioners point out in Reply, Dr. ElAttrache, a named inventor of the '907 patent and each of the applications in the priority chain, testified in the parallel district court proceeding that the ' 707 application disclosed only a rigid eyelet and not a suture loop. See Reply 1819; Ex. 1035, 379:24-380:4. ${ }^{10}$

Patent Owner argues that Petitioners "overstate the effect of the background discussion" in the ' 707 application and that "the alleged disparaging statements at best amount to a difference of degree between embodiments rather than of kind." PO Resp. 50; see also id. at 56-57. In this regard, Patent Owner's expert, Dr. Higgs, testifies that a person of ordinary skill would not understand

[^18]the '707 application to indicate that the inventors had moved beyond the flexible eyelet:

The point a person of skill would take away from those statements is that the inventors had improved on their invention with the additional embodiments disclosed for the first time in the ' 707 Application because those embodiments did not impede sliding as much as their previously preferred embodiment. The difference in degree of slideability of suture between eyelet embodiments in the same disclosure would certainly not cause a person of ordinary skill in the art to conclude the inventors "walked away" from the suture loop eyelet because this embodiment still works to achieve knotless fixation, the primary object of the invention.
Ex. 2037 IT 175 (emphasis added). This argument and testimony do not square with the disclosure of the '707 application itself. See Anascape, 601 F.3d at 1339 (dismissing expert testimony because it "cannot override the objective content of these [priority] documents"). The '707 application does not present the suture loop and the rigid implant as alternative embodiments with different degrees of slideability. Rather, in the '707 application, the background suture loop technique is said to impede sliding and the invention overcomes that deficiency by allowing free sliding. Ex. 1005 बाT 5-7.

Relatedly, Patent Owner argues that "[i]f the inventors were leaving the flexible eyelet species behind ... and moving on to 'only' the rigid eyelet species, there would have been no reason to rely on the ' 280 application for priority" or to incorporate it by reference. PO Resp. 58-59 (citing Ex. 2037 TTI 155, 160, 178, 273). Petitioners respond that the priority claim to, and incorporation of, the ' 280 application in the ' 707 application may have been

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an effort to hold open the possibility of claims focusing on other aspects of the '280 application, such as the second member. Tr. 9:23-10:20. In our view, the potential reasons why an application contains a priority claim or includes an incorporation by reference rather than simply citing an earlier application are technical matters of patent drafting and prosecution strategy. These questions may affect how a patent attorney interprets the ' 707 application's disclosure, but a person of ordinary skill in the art reading the ' 707 application is less likely to be influenced by those legalistic curiosities. See Ariad, 598 F.3d at 1351 ("[T]he test [for written description] requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed."). To the extent that the '707 application's priority claim and incorporation by reference send a subtle signal of continuing allegiance to some aspect of the disclosure in the '280 application, the ' 707 application speaks with a much louder voice when it describes the suture loop as a problematic background technique that the invention seeks to remedy.

Patent Owner further argues that the ' 707 application does not disrupt the priority chain with respect to the suture loop species because "[m]ere recognition in the specification that an aspect of a prior art system is 'inconvenient' does not constitute 'disparagement' sufficient to limit the described invention ...." PO Resp. 45 (quoting ScriptPro, 833 F.3d at 1341). Patent Owner points out that "a specification's focus on one particular embodiment or purpose cannot limit the described invention where that specification expressly contemplates other embodi-

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ments or purposes." Id. at 49 (quoting ScriptPro, 833 F.3d at 1341). Patent Owner's reliance on ScriptPro is inapposite because a significant factor there was that "the same specification expressly contemplates that some embodiments of the described invention incorporate the 'inconvenient' aspect." ScriptPro, 833 F.3d at 1341. That is not the case here. The '707 application repeatedly emphasizes the need for captured suture to be able to freely slide within the aperture and indicates that free sliding was something that the flexible suture loop did not provide. Ex. 1005 TT5-7, 29, 33. Patent Owner does not point to, and we do not find, any disclosure in the ' 707 application contemplating that some embodiments of the invention of the ' 707 application do not allow the captured suture to freely slide within the aperture.

Similarly, Patent Owner relies on Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc., 620 F.3d 1305, 1315 (Fed. Cir. 2010), abrogated on other grounds by Halo Electronics, Inc. v. Pulse Electronics, Inc., 136 S. Ct. 1923, 1930, 1934 (2016), for the proposition that where a specification notes it is "particularly difficult" to achieve something with the prior art, such a statement "does not rise to the level of an express disclaimer sufficient to limit the scope of the claims." PO Resp. 46 (quoting Spine Solutions, 620 F.3d at 1315). But beyond simply noting a disadvantage of a prior art approach, as in Spine Solutions, the ' 707 application goes on to state in the Summary of the Invention that "the present invention overcome[s] the disadvantages of the prior art" by permitting free sliding. Ex. 1005 I 7. The Detailed Description also specifically provides that "the present invention" can include other configurations than the embodiments specifically discussed "as long as" it provides for the ability of captured suture to freely slide within the
aperture. Id. $\mathbb{1}$ 33. These factual distinctions make Spine Solutions less relevant to the analysis here than the Tronzo and Anascape cases discussed above.

Patent Owner also argues that the statements in the Background section of the ' 707 application relating to the inventors' own previous work-the flexible loop of the '280 application-are not a disparagement of a prior art approach because the ' 707 application's priority claim means that "the flexible loop of the '280 application cannot be prior art to the '707 application." PO Resp. 47-48; see also $i d$. at 33-34 (arguing that "the commentary on the ' 280 application in the ' 707 application is not a discussion of prior art, but, instead, is merely commentary on the inventors' own earlier work"). Yet as Petitioners point out in their Reply, the ' 707 application itself describes the flexible suture loop of the '280 application as "prior art" having "disadvantages" overcome by the invention of the '707 application. Ex. 1005 ๆศ 5-7; Ex. 1019 ๆ 124; Reply 20. In any event, Patent Owner's argument appears to be circular or question-begging, since it assumes that the '707 application provides continuity of written description support for the flexible loop species through its priority claim to the '280 application, which is the very question at issue. The '280 application published on January 31, 2002, more than twelve months before the April 3, 2003 filing date of the ' 707 application. Ex. 1010, at [43]; Ex. $1001,1: 12$. Thus, despite the common inventorship of the '280 and ' 707 applications, the published version of the '280 application would constitute pre-AIA §102(b) prior art for subject matter in the ' 707 application that is not entitled to priority.

In another argument for why the '707 application conveys possession of the flexible loop species or a generic first member encompassing that species, Patent Owner

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focuses on the original claims of the '707 application. See PO Resp. 51, 58. Claim 1 as filed in the ' 707 application recites a driver having a shaft, a preloaded interference device, and "an aperture provided at the distal end of the driver." Ex. 1005, claim 1. The other independent claims as originally filed include the same or similar quoted phrase. Id. at claim 12 ("capturing the suture attached to the graft with an aperture provided at a distal end of the driver"), claim 25 ("feeding a suture attached to the soft tissue graft through an aperture of the implant").

Patent Owner argues that "the originally filed claims of the ' 707 application, which generically recite an aperture at a distal end of the driver, encompass flexible eyelets even if they do inconveniently inhibit sliding or approximation of suture in some circumstances." Id. at 51 (citing Ex. 2037 ๆाI 238, 243-245). Patent Owner argues that "[t]here is no dispute that such an aperture includes the flexible eyelet embodiment of the '280 application as well as the rigid eyelet embodiment introduced in the ' 707 application." Id. at 58 (citing Ex. 1019, 厅 112; Ex. 2037 बT 159-162).

Petitioners disagree that this issue is undisputed. Reply 22 n.14; Pet. 34-35. Petitioners argue that the aperture recited in the original claims of the ' 707 application does not encompass the flexible suture loop given the statements in the specification that the invention allows suture to freely slide and that the suture loop disadvantageously impedes sliding. Id. at 22-23 (citing Ex. 1005 TT 5, 7, 33). Petitioners cite several cases in which seemingly broad claim language was narrowed by the specification's characterizations of "the present invention" or its descriptions of prior art problems overcome by the invention because "the public 'is entitled to take a patentee at his word.' Here, the word for ten years (2003-2013) was that the invention required free sliding of suture, which a
flexible loop did not permit." Reply 23-24 (quoting Honeywell v. ITT, 452 F.3d 1312, 1318 (Fed. Cir. 2006)); see also id. at 22-23 (citing Edwards Lifesciences v. Cook, 582 F.3d 1322, 1330 (Fed. Cir. 2009); In re East, 495 F.2d 1361, 1366 (CCPA 1974)); Pet. 34-35 (citing LizardTech, Inc. v. Earth Res. Mapping, Inc., 424 F.3d 1336, 1343-44 (Fed. Cir. 2005); O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1581 (Fed. Cir. 1997)).

After considering the parties' arguments and evidence on this point, we are not persuaded that the claim phrase "an aperture at the distal end of the driver" would indicate to a skilled artisan reviewing the entirety of the '707 application possession of the flexible suture loop described in the '280 application. As Petitioners correctly point out, the specification is unambiguous in describing the disadvantages of the suture loop in impeding sliding and stating that the invention allows free sliding. Ex. 1005 ITI $5,7,33$. The Detailed Description of the 707 application describes two embodiments for capturing suture: a rigid eyelet and a horseshoe-shaped implant. See Ex. 1005 ๆTI 24, 30, Fig. 1, Fig. 9. These two embodiments are separately claimed as different types of apertures in dependent claims. See id. at claims 5, 6, 16, 18, 27, 28. When the ' 707 application teaches that configurations other than the rigid eyelet of Figure 1 or the horseshoeshaped implant of Figure 9 can be used, it states that "the present invention also contemplates implants ... having an aperture of any configuration or geometrical shape, as long as it captures suture and allows the captured suture to freely slide within the aperture." Id. I 33 (emphasis added). Considering the specification and original claims as a whole, the breadth of the claim phrase "an aperture" does not convey possession of the disadvantageous flexible loop that does not allow free
sliding, but instead reflects that the phrase could include an aperture in the shape of a horseshoe, an eyelet, or some other shape or configuration that allows captured suture to freely slide.

Furthermore, even if we were to agree with Patent Owner that written description support for a generic "first member" exists in the ' 707 application by virtue of the broad "aperture" term in the original claims, a separate problem arises for Patent Owner in the original claims of the ' 893 application. As Petitioners note, the original claims of the ' 893 application expressly require an aperture that allows suture to "slide freely." See Reply 24. Specifically, claims 1 and 9 , the only two independent claims originally filed in the ' 893 application, recite that "the suture can freely slide through the aperture of the implant." Ex. 1007, claims 1, 9. Just like the '707 application, the Background section of the '893 application states that the flexible loop configuration of the '280 application "disadvantageously impedes sliding of the suture or graft which is fed through the suture loop." $I d$. ब 5 . Since written description support for a generic "first member" must be present in each application in the priority chain, the absence of written description support in the '893 application is sufficient by itself to prevent Patent Owner from antedating the ElAttrache and Martinek references. See Lockwood, 107 F.3d at 1571-72. ${ }^{11}$

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Turning to Patent Owner's comments regarding the cases on which Petitioners rely, Patent Owner seeks to distinguish Tronzo on the ground that the specification in Tronzo described the shape of the cup as an "extremely important aspect of the present device." PO Resp. 54-55 (quoting Tronzo, 156 F.3d at 1159). Patent Owner argues that "[t]here is no such statement in Patent Owner's specification(s)" (id. at 55), but Patent Owner does not address the ' 707 application's repeated emphasis that the invention permits captured suture to freely slide within the aperture. See Ex. 1005 โT 6, 7, 29, 33. Patent Owner also argues that unlike Tronzo, where only one embodiment with a critical feature was disclosed, "the '707 application contains both eyelet embodiments because of the incorporation of the '280 application by reference. With both eyelets disclosed and originally filed claims that encompass both generically, the '707 application is not limited to just a rigid eyelet." PO Resp. 56 (citing Ex. 2037 ITl 155-174). Patent Owner's reliance on the ' 707 application's incorporation by reference statement and its original claims is unpersuasive for the reasons discussed above.

As for Anascape, Patent Owner argues that a "key factor in the court's decision in that case was that all original claims of the earlier application required a 'single input member' and the claims of the CIP broadened beyond that so that more than one input member could provide the six degrees of freedom." PO Resp. 32 (citing Anascape, 601 F.3d at 1335). Patent Owner is correct that the Federal Circuit noted that the original claims of the parent application recited a single input member, but it does not appear to have been a key factor in the court's decision. After pointing out this fact in a single sentence, the court spent the next two pages detailing the many passages in the parent patent's specification indicating
that the invention was directed to a single input member. Anascape, 601 F.3d at 1335-37. Those passages included the specification's teaching that a primary object of the invention was to provide a 6DOF controller including a single input member, the absence of any description in the specification of controllers with input members limited to fewer than six degrees of freedom, and description of the prior art's use of multiple input members as having "significant disadvantages." Id. at 1336-37.

In these respects, the deficiencies of the parent specification in Anascape parallel the '707 application's criticism of the suture loop and its emphasis on the invention's ability to allow suture to freely slide. See Ex. 1005 बT 5-7, 29, 33. Moreover, to the extent that Patent Owner is correct that the original claims of the ' 707 application present a distinction with the operative facts of Anascape, that distinction is absent in the ' 893 application. As discussed above, the original claims of the '893 application expressly require an aperture that allows suture to slide freely, which feature is absent in the suture loop according to the '893 application's description. Ex. 1007 I 5, claims 1, 9.

Patent Owner also notes that the patentee in Anascape made numerous changes in the child specification relative to the parent specification to broaden "single input member" to "at least one input member." PO Resp. 33. According to Patent Owner, "there was no such change in the ' 907 Patent compared to its parent applications" because the suture loop description from the '280 application that was incorporated by reference in the ' 707 application "remained that way in the '907 Patent" and the rigid implant description in the '707 application was unchanged. Id.

This argument overlooks several significant changes in the '601 application that became the ' 907 patent at issue in this case. As discussed above, compared to the '707

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application, the '601 application deleted criticism of the suture loop species in the Background section, and deleted the statement in the Summary section that the invention overcomes those disadvantages and provides a fixed aperture though which suture is able to freely slide. Compare Ex. 1002, 11-12, with Ex. 1005 TIT 4-7. The '601 application also added figures and description of the suture loop species in the Detailed Description section. See Ex. 1002, 18-19, 40-45. Even if Patent Owner is correct that this content is the same as what was in the '280 application, that material was previously incorporated in the Background section of the ' 707 application describing the problematic technique that impeded sliding. Ex. 1005 TTT4-5. Its appearance in the Detailed Description of the '601 application, in conjunction with the other changes in the '601 application, signals that the suture loop is an alternative embodiment rather than a problematic prior art technique that the invention improves upon. Indeed, Dr. ElAttrache agreed, in his testimony in the parallel district court proceeding, that the '601 application was the first application to include both the suture loop and the rigid eyelet. Ex. 1035, 381:6-15. Accordingly, we disagree with Patent Owner's argument that "[n]o Anascapelike modification was made to the specification of the '601 application for the ' 907 Patent." PO Resp. 33. ${ }^{12}$

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## F. Conclusion Regarding Priority

For the reasons discussed above, we find that '707 application does not provide written description support for a generic "first member" that encompasses a flexible loop. The absence of written description support in the '707 application for the "first member" limitation in each of the independent claims of the ' 907 patent means that Patent Owner cannot establish entitlement to a priority date antedating the cited references. Lockwood, 107 F.3d at 1571.

Further, the '868, '893, and '218 applications lack written description support for a generic "first member" for the same reasons. The passages from the ' 707 application indicating that the suture loop impedes free sliding and that the invention overcomes that deficiency and allows captured suture to freely slide are present in each of the '868, '893, and '218 applications. Ex. 1006 $\mathbb{T} T 5-7$, 32, 41; Ex. 1007 बा $5-7,32,41$; Ex. 1008 $\boldsymbol{T} \boldsymbol{T} 5-7,32,41$. Thus, we determine that the challenged claims are not entitled to priority to any earlier application.

Accordingly, under 35 U.S.C. §100(i)(1)(A), the effective filing date of the challenged claims is May 8, 2014, the actual filing date of the ' 601 application.

## VI. Patent Owner's Motion To Exclude

Patent Owner moved to exclude Exhibit 1035 on the grounds that it is irrelevant under Rules 401-403 of the Federal Rules of Evidence. See Paper 25, 3-6. ${ }^{13}$ Exhibit 1035 is an excerpt of the testimony of Dr. Neal ElAttrache, one of the named inventors of the ' 907 patent, from the

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trial in the parallel district court case in the U.S. District Court for the Eastern District of Texas. Id. at 1. Petitioners opposed the motion, and Patent Owner filed a reply in support of its motion. Paper 27; Paper 29.

The test for relevance is whether the evidence "has any tendency to make a fact more or less probable than it would be without the evidence" and "the fact is of consequence in determining the action." Fed. R. Evid. 401. Here, Dr. ElAttrache's sworn testimony, in pertinent part, tends to show that the ' 707 application describes rigid eyelets as the invention and does not describe flexible suture loop eyelets, and that the ' 601 application that issued as the ' 907 patent was the first application to include both the suture loop and the rigid eyelet. Ex. 1035, 379:24-380:5, 381:6-15. These facts are of consequence to the priority analysis for the reasons discussed above in Section V.E.

Patent Owner argues that the cited testimony was part of a cross-examination focusing on certain figures, and that Dr. ElAttrache may have been responding based on those figures rather than his review of the entire application. Paper 25, 4-5; Paper 29, 2. This argument goes to the weight to be given Dr. ElAttrache's testimony, not its admissibility. Patent Owner also argues that the written description analysis focuses on the content of the patent applications themselves, not the inventor's recollection of them. Paper 25, 6; Paper 29, 2-3. Patent Owner is correct that the written description inquiry turns on what the four corners of a specification convey to a hypothetical person of ordinary skill. See Ariad, 598 F.3d at 1351. Dr. ElAttrache's testimony is probative on that issue for at least the reason that his testimony sheds light on what a person of ordinary skill in the art would have understood. See Ex. 1035, 316:22-317:6 (testifying that he has

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been practicing as an orthopedic surgeon since completion of his fellowship in sports medicine in 1990).

As Petitioners point out, Dr. ElAttrache's trial testimony in Exhibit 1035 runs counter to some of the positions Patent Owner has staked out in this proceeding. Paper 27, 11-12. In Ultratec, Inc. v. CaptionCall, LLC, 872 F.3d 1267, 1275 (Fed. Cir. 2017), the Federal Circuit held that the Board abused its discretion when it refused to admit the testimony of a witness from a parallel district court proceeding that was allegedly inconsistent with testimony the same witness provided in the Board proceeding. Unlike the witness in Ultratec, Dr. ElAttrache did not testify in this proceeding, but he is nevertheless closely associated with Patent Owner through his status as an inventor of the '907 patent, his continuing work for Patent Owner, and the $\$ 38$ million in compensation he has received from Patent Owner over their 20 year relationship. See Ex. 1035, 344:17-345:15, 348:23-349:5. We conclude that his testimony as a witness called by Patent Owner in the district court proceeding on the same topics that are being disputed here is relevant and admissible.

For the foregoing reasons, we deny Patent Owner's motion to exclude Exhibit 1035.

## VII. Order

In consideration of the foregoing, it is hereby:
ORDERED that claims $1,4,8,10-12,16,18$, and 25-28 have been shown to be unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude Exhibit 1035 is denied; and

FURTHER ORDERED that parties to the proceeding seeking judicial review of this Final Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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# 76a <br> APPENDIX C <br> UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT 

No. 2018-2140

> Arthrex, INC., Appellant, v. Smith \& NEPHEW, InC., ArthroCARE CORP., Appellees, United STATES, Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2017-00275.

On Petitions For Rehearing En Banc

March 23, 2020

Anthony P. Cho, Carlson, Gaskey \& Olds, PC, Birmingham, MI, for appellant. Also represented by David Louis Atallah, David J. Gaskey, Jessica E. Fleetham; Trevor Arnold, John W. Schmieding, Arthrex, Inc., Naples, FL; Robert Kry, Jeffrey A. Lamken, MoloLamken LLP, Washington, DC.

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Melissa N. Patterson, Appellate Staff, Civil Division, United States Department of Justice, Washington, DC, for intervenor. Also represented by Courtney Dixon, Scott R. McIntosh, Joseph H. Hunt; Sarah E. Craven, Thomas W. Krause, Joseph Matal, Farheena Yasmeen Rasheed, Daniel Kazhdan, Nicholas Theodore Matich, IV, Molly R. Silfen, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA.

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Matthew S. Hellman, Jenner \& Block LLP, Washington, DC, for amicus curiae The Association of Accessible Medicines. Also represented by Yusuf Esat, Chicago, IL; Jeffrey Francer, The Association for Accessible Medicines, Washington, DC.

Before Prost, Chief Judge, Newman, Lourie, Dyk, Moore, O'Malley, Reyna, Wallach, Taranto, Chen, Hughes, and Stoll, Circuit Judges.

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Moore, Circuit Judge, with whom O’Malley, Reyna, and Chen, Circuit Judges, join, concurs in the denial of the petitions for rehearing en banc.
O'Malley, Circuit Judge, with whom Moore and Reyna, Circuit Judges, join, concurs in the denial of the petitions for rehearing en banc. Dyк, Circuit Judge, with whom NEWMAN and Wallach, Circuit Judges, join, and with whom Hughes, Circuit Judge, joins as to Part I.A, dissents from the denial of the petitions for rehearing en banc.
Hughes, Circuit Judge, with whom Wallach, Circuit Judge, joins, dissents from the denial of the petitions for rehearing en banc.
Wallach, Circuit Judge, dissents from the denial of the petitions for rehearing en banc.

## Per Curiam.

## Order

Petitions for rehearing en banc were filed by appellant Arthrex, Inc.; appellees Smith \& Nephew, Inc. and ArthroCare Corp.; and intervenor United States. Responses to the petitions were invited by the court and filed by all three parties. Two motions for leave to file amici curiae briefs were filed and granted by the court. The petitions for rehearing, responses, and amici curiae briefs were first referred to the panel that heard the appeals, and thereafter to the circuit judges who are in regular active service. A poll was requested, taken, and failed.

Upon consideration thereof,
It Is Ordered That:

1) The petitions for panel rehearing are denied.
2) The petitions for rehearing en banc are denied.

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3) The mandate of the court will issue on March 30, 2020.

For the Court<br>March 23, 2020<br>Date<br>/s/ Peter R. Marksteiner<br>Peter R. Marksteiner<br>Clerk of Court

# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT 

No. 2018-2140
Arthrex, Inc.,
Appellant,
v.
Smith \& NEPHEW, Inc.,
ArthroCare Corp.,
Appellees,
United States,
Intervenor.

Intervenor.

Appeal from the United States Patent
and Trademark Office, Patent Trial and Appeal
Board in No. IPR2017-00275.

Moore, Circuit Judge, with whom O’Malley, Reyna, and Chen, Circuit Judges, join, concurring in the denial of the petitions for rehearing en banc.

I concur in the court's decision to deny the petitions for rehearing en banc as rehearing would only create unnecessary uncertainty and disruption. The Arthrex panel followed Supreme Court precedent to conclude that the administrative patent judges (APJs) of the USPTO's Patent Trial and Appeal Board were improperly appointed principal officers. It further followed the Supreme Court's direction by severing a portion of the statute to solve that constitutional problem while preserving the remainder of
the statute and minimizing disruption to the inter partes review system Congress created. The panel's curative severance and subsequent decisions from this court have limited the now constitutionally composed Board's burden of addressing cases on remand. I see no merit to the alternative courses laid out by the dissents. I agree with the government that we are not free to affirm despite the constitutional infirmity. Finally, I do not agree with Judge Dyk that we ought to propose a USPTO restructuring of our making and stay all proceedings (presumably this and other inter partes review appeals) while both Congress and the USPTO consider Judge Dyk's legislative proposal. If Congress prefers an alternate solution to that adopted by this court, it is free to legislate, and in the meantime, the Board's APJs are constitutionally appointed and inter partes reviews may proceed according to Congress' initial intent.

## I

In Arthrex, the court followed Supreme Court precedent in reaching its conclusion that APJs were principal officers who were not constitutionally appointed. The Supreme Court explained that, while there is no "exclusive criterion for distinguishing between principal and inferior officers ... 'inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by Presidential nomination with the advice and consent of the Senate." Edmond v. United States, 520 U.S. 651, 661-63 (1997). Arthrex recognized Edmond's broad framework as well as factors the Supreme Court considers when addressing an Appointments Clause issue. Arthrex, Inc. v. Smith \& Nephew, Inc., 941 F.3d 1320, 1329-30 (Fed. Cir. 2019). After weighing those factors and considering the relationship between the Presidentially-appointed Director of the USPTO and the

Board's APJs, the panel held that APJs were principal officers who must be Presidentially appointed to comport with the Constitution's Appointments Clause. Id. at 1335.

As the Arthrex panel explained, the Director has some authority over conducting the inter partes review pro-cess-such as institution decisions and panel composi-tion-and may issue guidance or designate decisions as precedential for future panels of APJs. Id. at 1329-32. But the Director lacks the authority to independently alter a panel's final written decision, and he lacks sufficient control over the panel's decision before it issues on behalf of the Executive. Id. at 1335. APJs had the authority to "render a final decision on behalf of the United States." Edmond, 520 U.S. at 663, 665. The panel also recognized that the Director lacked the "powerful tool for control" that is the authority to remove APJs "at will and without cause." Free Enter. Fund v. Pub. Co. Accounting Oversight Bd., 561 U.S. 477, 501 (2010). ${ }^{1}$ The Arthrex decision followed Supreme Court precedent and was consistent with analyses of other circuits addressing Appointments Clause questions. See, e.g., Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd., 684 F.3d 1332, 1342 (D.C. Cir. 2012); Jones Bros., Inc. v. Sec'y of Labor, 898 F.3d 669, 679 (6th Cir. 2018).

## II

When an officer's appointment violates the Appointments Clause, courts "try to limit the solution to the problem, severing any problematic portions while leaving the remainder intact." Free Enter. Fund, 561 U.S. at 508. As the Supreme Court explained, "we must retain

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those portions of the Act that are (1) constitutionally valid, (2) capable of functioning independently, and (3) consistent with Congress' basic objectives in enacting the statute." United States v. Booker, 543 U.S. 220, 258-59 (2005) (internal citations omitted). The Arthrex decision adopted the severance proposed by the USPTO, which would cause the least disruption while preserving the inter partes review scheme Congress intended. Arthrex, 941 F.3d at 1337-38.

Severing APJ removal protections gives properly appointed officers sufficient direction and supervision over APJ decision-making to render them inferior officers. The curative severance was consistent with the Supreme Court's approach to a separation of powers violation in Free Enterprise Fund. 561 U.S. at 508 (severing a "forcause" removal restriction as unconstitutional). It similarly aligned with the D.C. Circuit's approach in Intercollegiate, which severed a removal restriction to rectify an Appointments Clause violation. 684 F.3d at 1340-41.

While there may have been other possible curative severances, the Arthrex severance, which the USPTO itself proposed, was consistent with Congress' intent in enacting the inter partes review system. Although Congress originally intended that APJs have removal protections, that was not Congress' central objective when it created the USPTO's inter partes review system. The "basic purpose" of the inter partes review proceeding is "to reexamine an earlier agency decision." Cuozzo Speed Techs. LLC v. Lee, 136 S. Ct. 2131, 2144 (2016) ("[T]he proceeding offers a second look at an earlier administrative grant of a patent."); see, e.g., 157 Cong. Rec. S1326 (March 7, 2011) (Sen. Sessions) ("This will allow invalid patents that were mistakenly issued by the PTO to be fixed early in their life, before they disrupt an entire in-

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dustry or result in expensive litigation."). Arthrex's severance properly retained the portions of the statute necessary to effectuate Congress' basic objective of providing an agency mechanism where the validity of issued patents may be challenged. Congress "would have preferred a Board whose members are removable at will rather than no Board at all." Arthrex, 941 F.3d at 133738; see Ayotte v. Planned Parenthood of N. New England, 546 U.S. 320, 330 (2006) ("After finding an application or portion of a statute unconstitutional, we must next ask: Would the legislature have preferred what is left of its statute or no statute at all?"). ${ }^{2}$ So too does the USPTO, which proposed the severance that Arthrex adopted to preserve the system in lieu of the entire thing being struck down as unconstitutional.

The Arthrex panel's severance was the "narrowest possible modification to the scheme Congress created" and the approach that minimized the disruption to the continuing operation of the inter partes review system. Arthrex, 941 F.3d at 1337. Because the APJs were constitutionally appointed as of the implementation of the severance, inter partes review decisions going forward were no longer rendered by unconstitutional panels. Additionally, subsequent decisions issued by this court significantly limited the number of appeals that needed to be remanded based on Appointments Clause challenges raised on appeal. See Customedia Techs., LLC v. Dish Network Corp., 941 F.3d 1174, 1175 (Fed. Cir. 2019) (holding that Appointments Clause challenges not raised prior to or in

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the appellant's opening brief are waived). The window for appeals from Board decisions issued prior to October 31, 2019-the date Arthrex issued-has closed. And no more than 81 appeals including Arthrex itself can be vacated and remanded ${ }^{3}$ based on preserved Appointments Clause violations. ${ }^{4}$ The Board decides on average 820 cases each month ( 39 inter partes reviews and 781 ex parte appeals). ${ }^{5}$ The Arthrex decision will result in at

[^24]most 81 remands. And the remands are narrow in scope and will not necessitate anything like a full-blown process. Arthrex, 941 F.3d at 1340 (holding that the USPTO is not required to reopen the record or permit new briefing).

The severance applied in Arthrex resulted in minimal disruption to the inter partes review system and no uncertainty presently remains as to the constitutionality of APJ appointments. Rehearing this case en banc would have unraveled an effective cure and created additional disruption by increasing the potential number of cases that would require reconsideration on remand. Judge Dyk's suggestion that Arthrex be stayed to allow Congress to legislate a cure makes little sense. Staying the case, and any other pending appeal that challenges the Appointments Clause, would result in an unnecessary backlog of cases pending a congressional cure that is not guaranteed. And even if Congress did codify a new inter partes review scheme, those stayed cases would still need to be reprocessed on remand under the new scheme.

Nothing in the Arthrex decision prevents Congress from legislating to provide an alternative fix to the Appointments Clause issue. Congress can reinstate title 5 removal protections for APJs while ensuring that the inter partes review system complies with the Appointments Clause, if it so chooses.

## III

There are several problems with the creative approach suggested in Judge Dyk's dissent. The dissent proposes that we stay this (and possibly other inter partes review appeals) while Congress or the USPTO considers an agency restructuring of his proposal. I am not convinced that it would be appropriate or wise to issue such stays. Curing the constitutional defect had immediate and significant benefits. And there is a significant difference be-
tween a court's election to sever a statutory provision as unconstitutional and issuing legislative or regulatory advisory mandates. The Constitution does not provide us authority to legislate, and, "mindful that our constitutional mandate and institutional competence are limited," we should refrain from proposing legislative or regulatory fixes. Ayotte, 546 U.S. at 329. The dissent goes far afield by proposing an entirely new agency framework for review for Congress to adopt. Dissent at 9-14 (Dyk, J., dissenting). We should not attempt to correct a separation of powers issue by creating one of our own.

Finally, Judge Dyk's proposed fix has not been reviewed and should not be presumed to pass constitutional muster. ${ }^{6}$ The dissent suggests that a reconsideration panel comprising the Director, Deputy Director, and Commissioner of Patents would suffice. Id. at 9-12. But it is not clear, as Judge Dyk suggests, that the Director has the authority to remove either the Deputy Director or the Commissioner of Patents without cause. Section 3(b)(2)(C) limits the Secretary of Commerce's ability to remove the Commissioner of Patents to situations of "misconduct or nonsatisfactory performance ...." 35 U.S.C. §3(b)(2)(C). And §3(c) may afford the Deputy Director removal protections under title $5 .{ }^{7}$ For the rea-

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sons given, I do not believe it proper or prudent to stay cases while Congress considers Judge Dyk's restructuring of the USPTO.

## IV

The Arthrex panel followed Supreme Court precedent in reaching its decision. The severance provided has minimized disruption and preserved Congress' intent as best possible while ensuring that the Constitution's structural protections are minded. Given that the Arthrex decision is squarely rooted in Supreme Court precedent, I agree with the court's denial of rehearing en banc. If the curative severance adopted by this court is not consistent with Congress' intent, Congress can legislate to restore the removal protections and adopt a different curative mechanism.

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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Appellant, v.

Smith \& Nephew, Inc., ArthroCare Corp.,

Appellees, United States,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2017-00275.

O'Malley, Circuit Judge, with whom Moore and Reyna, Circuit Judges, join, concurring in the denial of the petitions for rehearing en banc.

I join Judge Moore's concurrence in full. I agree that the panel correctly concluded that, under the Supreme Court's Appointments Clause jurisprudence, Administrative Patent Judges ("APJs") are principal officers who were not properly appointed to their adjudicative positions. I also agree that, rather than invalidate the entirety of the America Invents Act ("AIA"), Congress would prefer to preserve the patent review scheme it created under that Act. In severing from the AIA the application of the

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removal restrictions in 5 U.S.C. § 7513 ("Title 5") to APJs, the panel hewed closely to the principles guiding judicial severance: refraining from rewriting the statute or invalidating more of it than was absolutely necessary. See R.R. Ret. Bd. v. Alton R.R. Co., 295 U.S. 330, 362 (1935); Helman v. Dep't of Veterans Affairs, 856 F.3d 920, 930 (Fed. Cir. 2017). While I agree with Judge Dyk and Judge Hughes that Title 5's protections for government employees are both important and long-standing, I do not believe Congress would conclude that those protections outweigh the importance of keeping the remainder of the AIA intact-a statute it debated and refined over a period of more than six years.

I write separately to address one issue: the suggestion in Judge Dyk's dissent that the court's decision to sever the application of Title 5's removal protections from the remainder of the AIA retroactively renders all prior APJ decisions constitutional, thereby obviating the need for panel rehearings in any cases decided under the AIA. Respectfully, that suggestion confuses the remedy the panel deemed appropriate in this case with the constitutional fix it deemed necessary to allow APJs to render future decisions in proceedings under the AIA.

That dissent urges that, "to be consistent with Harper," retroactive application of Arthrex and its "remedy" is necessary. Dyk Op. at 17. But that contention misreads Harper v. Virginia Dep't of Taxation, 509 U.S. 86 (1993). Harper addressed whether a prior Supreme Court decision holding certain taxes unconstitutional applied to taxes levied before that decision issued. Harper is best described by the Supreme Court itself: "when (1) the Court decides a case and applies the (new) legal rule of that case to the parties before it, then (2) it and other courts must treat that same (new) legal rule as 'retroactive,'

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applying it, for example, to all pending cases, whether or not those cases involve predecision events." Reynoldsville Casket Co. v. Hyde, 514 U.S. 749, 752 (1995). Judge Dyk argues that the general rule requiring that we give retroactive effect to constitutional decisions "applies to remedies as well, such as the remedy in this case," meaning, in his view, that once severance occurs, all actions taken by APJs before that point, even if unconstitutional at the time, are rendered constitutional nunc pro tunc. Dyk Op. at 17 (citing Reynoldsville, 514 U.S. at 759). I disagree. While the principle of retroactive application requires that we afford the same remedy afforded the party before the court to all others still in the appellate pipeline, judicial severance is not a "remedy"; it is a for-ward-looking judicial fix.

It is true that if, as the panel concluded, the appointment of APJs ran afoul of the Constitution, that fact was true from the time of appointment forward, rendering all APJ decisions under the AIA unconstitutional when rendered. But, no one claims that our declaration of that fact in this case would permit us to reopen closed cases decided under that unconstitutional structure. See, e.g., Reynoldsville, 514 U.S. at 758 ("New legal principles, even when applied retroactively, do not apply to cases already closed."). All that Harper and Reynoldsville say is that we must afford all litigants with pending matters the same remedy we afford to the Arthrex appellant. ${ }^{1}$ In other words, we may not give prospective-only effect to our rulings, both as to the merits and as to the precise remedy.

[^27]But our curative severance of the statute, does not "remedy" the harm to Arthrex, whose patent rights were adjudicated under an unconstitutional scheme. So too, in Harper: the Court's ruling that the state taxes at issue had been collected unconstitutionally did not remedy the harm caused by the unlawful collection of taxes. The Court remanded for additional relief to the litigants before it in the form of reimbursement of the unconstitutionally collected taxes or "some other order" to rectify the "unconstitutional deprivation." Harper, 509 U.S. at $98-99,100-101$. We did the same here: the remedy afforded the parties in Arthrex is a new hearing before a properly appointed panel of judges. Under the Supreme Court's Appointments Clause jurisprudence, Arthrex is entitled to that relief because "the 'appropriate' remedy for an adjudication tainted with an appointments violation is a new 'hearing before a properly appointed' official." Lucia v. S.E.C., 138 S. Ct. 2044, 2055 (2018) (quoting Ryder v. United States, 515 U.S. 177, 183, 188 (1995)); see also NLRB v. Noel Canning, 573 U.S. 513, 521, 557 (2014); Bowsher v. Synar, 478 U.S. 714, 736 (1986). Our decision that the statute can be rendered constitutional by severance does not remedy any past harm-it only avoids continuing harm in the future. It is only meaningful prospectively, once severance has occurred. ${ }^{2}$

The Government agrees. See Supp. Br. of United States, Polaris v. Kingston, Nos. 2018-1768, -1831, at 1314. Presented with an opportunity to brief this very issue,

[^28]the Government expressly rejected the suggestion in Judge Dyk's concurrence in Bedgear, LLC v. Fredman Bros. Furniture Co., 783 F. App’x 1029 (Fed. Cir. 2019) (and his dissent here) that the Arthrex panel's severance order applies retroactively. Id. ("[N]either Arthrex's determination that the statutory restrictions on removal of APJs violated the Appointments Clause, nor the panel's invalidation of those restrictions, was sufficient to eliminate the impact of the asserted constitutional violation on the original agency decision.").

The cases on which the dissent relies do not counsel a contrary conclusion. For example, the suggestion that, in Free Enterprise Fund v. Public Company Accounting Oversight Board, 561 U.S. 477 (2010), "[t]he Court did not view [severance] as fixing the problem only prospectively" reads too much into the case. Dyk Op. at 21. Free Enterprise considered the petitioners' request for a declaratory judgment that the Public Company Accounting Oversight Board is unconstitutional and for an injunction preventing the Board from exercising any of its powers prospectively. 561 U.S. at 510. The Court held that statutory restrictions on the Securities and Exchange Commission's power to remove Board members were "unconstitutional and void," and invalidated the removal provision. Id. at 509-10. The Court further held that, because it found the unconstitutional removal provisions could be excised from the remainder of the statute, "petitioners [were] not entitled to broad injunctive relief against the Board's continued operations." Id. at 513 (emphasis added). The decision did not render all prior Board actions constitutional. The Court simply explained that, by virtue of having severed the non-removal provisions, the Board could act in the future free of the taint of those unconstitutional provisions.

Like Harper, neither Reynoldsville nor Edmond v. United States, 520 U.S. 651, 662-63 (1997), support the dissent's position that rehearing before a new panel is unnecessary. In Reynoldsville, the Court made clearas it did in Harper-that any remedy provided the party bringing the original constitutional challenge must be afforded to all other parties with cases that remained open. 514 U.S. at 758-59. It held that a court may not fashion a remedy for a party before it and then declare that the remedy not apply to any other party still in the pipe-line-i.e., whose claim was decided under an unconstitutional scheme and remains open. Id. at 753-54. And in Edmond, the challenged appointment was found constitutional. 520 U.S. at 655, 666. Severance was not even at issue. Neither case addressed retroactive application of orders fixing constitutional violations by severance.

By contrast, Booker makes clear that, even once judicial severance of a statute occurs, individuals adjudged under the statute as originally written still are entitled to a remedy if their cases are pending on direct review. In Booker, the Supreme Court held that 18 U.S.C. §3553(b)(1)-the provision of the federal sentencing statute making the United States Sentencing Guidelines mandatory-violated the Sixth Amendment's requirement that juries, not judges, find facts relevant to sentencing. 543 U.S. at 244. Accordingly, the Court severed and excised §3553(b)(1) from the statutory scheme. And, the Court ruled that any defendant whose sentence was "authorized by the jury's verdict-a sentence lower than the sentence authorized by the Guidelines as written ... may seek resentencing under the system set forth in today's opinions." Id. at 267-68 (emphasis added). In permitting a defendant to seek resentencing post-severance, the Supreme Court made clear that judicial severance of a

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statute is necessarily a prospective act. Id.; see also Free Enter., 561 U.S. at 513. This is the same conclusion reached by the DC Circuit in Intercollegiate Broadcasting System, Inc. v. Copyright Royalty Board, 684 F.3d 1332 (2012), with which the panel decision in this case rightly agrees.

The dissent's attempt to read retroactive application of severance orders designed to obviate future or ongoing constitutional violations into Harper and the other Supreme Court case law it cites, respectfully, is misplaced. Those cases address retroactive application of remedies, not the forward-looking curative act of severance.

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No. 2018-2140

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Appellees, United States, Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal

Board in No. IPR2017-00275.

Dyk, Circuit Judge, with whom NEWMAN and WaLLach, Circuit Judges join, and with whom Hughes, Circuit Judge, joins as to Part I.A, dissenting from the denial of rehearing en banc.

I respectfully dissent from the court's decision not to rehear this case en banc.

The panel here holds that the appointment of Administrative Patent Judges ("APJs"), when conducted in accordance with the America Invents Act ("AIA"), would be unconstitutional if those APJs were protected by the removal provisions of Title 5. The panel avoids this result by severing the Title 5 removal provisions as applied to APJs,
and thereby "render[ing] the APJs inferior officers and remedy[ing] the constitutional appointment problem." Arthrex, Inc. v. Smith \& Nephew, Inc., 941 F.3d 1320, 1325 (Fed. Cir. 2019).

As discussed in Part I, I conclude that even if the panel were correct that the present structure of IPR proceedings violates the Appointments Clause, the draconian remedy chosen by the panel-invalidation of the Title 5 removal protections for APJs-rewrites the statute contrary to Congressional intent. That remedy should not be invoked without giving Congress and the United States Patent and Trademark Office ("PTO") itself the opportunity to devise a less disruptive remedy. In Part II, I conclude that even if the Title 5 remedy were adopted, this would not require invalidation of preexisting Board decisions. In Part III, I address the question of whether APJs are principal officers.

A
The panel's invalidation of Title 5 removal protections and severance is not consistent with Supreme Court precedent. Severability analysis requires "looking to legislative intent." United States v. Booker, 543 U.S. 220, 246 (2005) (collecting cases). In performing this analysis, the court cannot sever portions of the statute that would be consistent with "Congress' basic objectives in enacting the statute." Booker, 543 U.S. at 259. Severance is appropriate if the remaining statute "will function in a manner consistent with the intent of Congress." Alaska Airlines, Inc. v. Brock, 480 U.S. 678, 685 (1987) (emphasis omitted). The panel departs from these requirements. By eliminating Title 5 removal protections for APJs, the panel is performing major surgery to the statute that Congress could not possibly have foreseen or intended.

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Removal protections for administrative judges have been an important and longstanding feature of Congressional legislation, and this protection continued to be an important feature of the AIA enacted in 2011, as Judge Hughes detailed in his concurrence in Polaris Innovations Ltd. v. Kingston Tech. Co., Inc., 792 F. App’x 820, 828-830 (Fed. Cir. 2020) (Hughes, J., concurring).

Before the passage of the Administrative Procedure Act ("APA") in 1946, administrative law judges (then called "hearing examiners") did not have any removal protections or any special status distinguishing them from other agency employees. See Ramspeck v. Fed. Trial Examiners Conference, 345 U.S. 128, 130 (1953). "Many complaints were voiced against the actions of the hearing examiners, it being charged that they were mere tools of the agency concerned and subservient to the agency heads in making their proposed findings of fact and recommendations." Id. at 131. To address these concerns in the APA, Congress "provide[d] for a special class of semi-independent subordinate hearing officers." H.R. Rep. No. 79-1980, at 10 (1946). "Since the securing of fair and competent hearing personnel was viewed as 'the heart of formal administrative adjudication,' the Administrative Procedure Act contain[ed] a number of provisions designed to guarantee the independence of hearing examiners." Butz v. Economou, 438 U.S. 478, 514 (1978) (quoting Final Report of the Attorney General's Committee on Administrative Procedure 46 (1941) (citation omitted)).

One such provision was Section 11 of the APA, which provided that Administrative Law Judges ("ALJs") generally would be "removable ... only for good cause," Administrative Procedure Act, ch. 324, §11, 60 Stat. 237, 244 (1946). These provisions were continued in the Civil

Service Reform Act of 1978. H.R. Rep. No. 95-1403, at 304 (1978) ("An administrative law judge appointed under section 3105 of this title may be removed by the agency in which he is employed only for good cause established and determined by the Civil Service Commission on the record after opportunity for hearing."). This for-cause removal protection was codified in 5 U.S.C. § 7521. ${ }^{1}$

While the protections of section 7521 were inapplicable to administrative judges of the PTO (since they were not "appointed under section 3105 "), similar concerns led to the enactment of protections for PTO administrative judges. Current APJs trace their lineage to the PTO's examiners-in-chief, who were originally nominated by the President and confirmed by the Senate. Arthrex, 941 F.3d at 1334; 35 U.S.C. §3 (1952). Beginning with the 1975 amendments to Title 35, the examiners-in-chief (now APJs) were "remove[d] ... from the political arena by changing these positions from ones of Presidential appointment." Hearings Before Subcommittee No. 3 of the Committee on the Judiciary House of Representatives, 92d Cong. 43 (1971) (statement of Edward J. Brenner, Former Commissioner of Patents). The 1975 amendment gave the Secretary of Commerce the sole authority to

[^29]appoint examiners-in-chief "under the classified civil service." 35 U.S.C. § 7 (1976); see also An Act to Amend Title 35, United States Code, "Patents", and For Other Purposes, Pub. L. 93-601, §§1-2, 88 Stat. 1956 (1975) (codified as amended at 35 U.S.C. §§ 3, 7 (1976)); Polaris, 792 F. App'x at 828-29 (Hughes, J., concurring). This had the result of extending the Civil Service protections for competitive service employees to the examiners-in-chief (now APJs). See Arnett v. Kennedy, 416 U.S. 134, 150-51 (1974), overruled in part on other grounds by Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532 (1985). This included both provisions concerning appointment and removal.

Until 1999, despite several amendments, Congress retained the status of APJs as federal employees in the competitive service under Title 5. Polaris, 792 F. App’x at 829 (Hughes, J., concurring) (citing Patent Law Amendment Acts of 1984, Pub. L. 98-622, title II, sec. 201, § 7(a), 98 Stat. 3383, 3386 (1984) (codified as amended at 35 U.S.C. § 7 (1988), and the 1978 Civil Service Reform Act, Pub. L. 95-454, 92 Stat. 1121)). In 1999, Congress eliminated the requirement that APJs be appointed under competitive service provisions, but added the current 35 U.S.C. §3(c) language, which extended Title 5 removal protections to APJs. Patent and Trademark Office Efficiency Act, Pub. L. 106-113, ch. 1, sec. 4713, §3(c), 113 Stat. 1501 A (codified as amended at 35 U.S.C. §3(c) (2000)). ${ }^{2}$ Thus, although APJs were not subject to appointment as competitive service employees, "APJs remained subject to discipline or dismissal subject to the efficiency of the

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service standard." Polaris, 792 F. App'x at 830 (Hughes, J., concurring). Significantly, the language of §3(c) remained unaltered despite the otherwise major overhaul in AIA legislation. See id. at 830; 35 U.S.C. § 3(c) (2012). Those removal protections were seen as essential to fair performance of the APJs' quasi-judicial role.

In sum, ALJs in general and APJs in particular have been afforded longstanding and continuous protection from removal. The panel gives little weight to the existing statutory protections in its severance analysis. Moreover, here, the provision being partially invalidated is not even part of the Patent Act but is instead in Title 5. ${ }^{3}$ Elimination of those protections cannot be squared with Congressional design.

To be sure, I do not suggest that the inappropriateness of the Title 5 invalidation should lead to invalidation of the entire AIA statutory scheme. What I do suggest is that Congress almost certainly would prefer the opportunity to itself fix any Appointments Clause problem before imposing the panel's drastic remedy.

There is no question that Congress could pass a far simpler and less disruptive fix and that such a fix is avail-able-Congress could amend the statute to provide agency review of APJ decisions. ${ }^{4}$ Soon after the issuance of the

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panel Arthrex opinion, the House Judiciary Committee held hearings to discuss the remedial implications of this case. The Patent Trial and Appeal Board and the Appointments Clause: Implications of Recent Court Decisions: Hearing Before the Subcommittee on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary, 116th Cong. (2019) ("Arthrex Hearing"). ${ }^{5}$ At the hearing, subcommittee members expressed concern that striking the removal protections for APJs would be "inconsistent with the idea of creating an adjudicatory body" capable of "providing independent impartial justice." Id. at 45:30 (statement of Rep. Hank Johnson). They agreed that it was Congress, not this court, that bears the "responsibility to consider a legislative fix," id. at 46:00-47:00 (statement of Rep. Hank Johnson), and "question[ed] whether [the panel decision was] the right way to achieve the apparent objective behind the Appointments Clause jurisprudence, namely, to ensure that there is an official sufficiently accountable to the President, who signs off on important executive branch decisions," $i d$. at 53:00 (statement of Rep. Jerrold Nadler).

Both subcommittee members and witnesses urged that providing agency review of PTAB decisions was a preferable solution. They noted how this could be achieved: (1) establishing a review board comprised of properly appointed principal officers with authority to review APJ

Revision, Pub. L. 110-313, §1, 122 Stat. 3014, 3014 (2008) (codified as amended at 35 U.S.C. § 6(a) (2012)) (providing for appointments of APJs by Secretary of Commerce instead of by the Director).
${ }^{5}$ Citations are to the video recording of the hearing, available at https://judiciary.house.gov/calendar/eventsingle.aspx?EventID=2249.
decisions, or (2) providing review of APJ decisions by the Director. ${ }^{6}$

If Congress provided such agency review of APJ panel decisions, this would cure the core constitutional issue identified by the panel by subjecting all APJ decisions to review by a principal officer. If APJs were subject to review by executive officials at the PTO, then they would no longer be principal officers. The APJs would "have no power to render a final decision on behalf of the United States unless permitted to do so by other Executive officers, and hence they [would be] inferior officers within the meaning of Article II." Edmond, 520 U.S. at 665; id. at 664-65 (concluding that the judges of the Coast Guard Court of Criminal Appeals are inferior officers because the Court of Appeals for the Armed Forces has the "power to reverse decisions of the court" if it "grants review upon petition of the accused"); id. at 662 ("Whether one is an 'inferior officer' depends on whether he has a superior."); see also Freytag v. Comm'r, 501 U.S. 868, 881-82 (1991) (holding that a Tax Court special trial judge is an "inferior officer" even though "special trial judges ... render [final] decisions of the Tax Court in [certain] cases"); Helman v. Dep't of Veterans Affairs, 856 F.3d 920, 929 (Fed. Cir. 2017) ("[T]he special trial judges [were] inferior officers [in Freytag]."). Even the panel here appears to agree. Arthrex, 941 F.3d at 1329-31 (in finding an Appointments Clause violation, relying on there being "no provision or procedure providing the Director the power to single-handedly review, nullify or reverse a final written decision issued by a panel of APJs").

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Supreme Court precedent and circuit authority support a temporary stay to allow Congress to implement a legislative fix in the Appointments Clause context. Buckley v. Valeo, 424 U.S. 1, 144 (1976) (finding the Federal Election Commission's exercise of enforcement authority to be a violation of the Appointments Clause, but "draw[ing] on the Court's practice in the apportionment and voting rights cases and stay[ing] ... the Court's judgment" to "afford Congress an opportunity to reconstitute the Commission by law or to adopt other valid enforcement mechanisms"); N. Pipeline Constr. Co. v. Marathon Pipe Line Co., 458 U.S. 50 (1982) (staying a judgment holding that "the broad grant of jurisdiction to the bankruptcy courts contained in 28 U.S.C. § 1471 [(1976)] is unconstitutional" for over three months in order to "afford Congress an opportunity to reconstitute the bankruptcy courts or to adopt other valid means of adjudication, without impairing the interim administration of the bankruptcy laws"); see also Bowsher v. Synar, 478 U.S. 714, 736 (1986) ("Our judgment is stayed for a period not to exceed 60 days to permit Congress to implement the [constitutional] fallback [reporting] provisions [of the Balanced Budget and Emergency Deficit Control Act]."); Md. Comm. for Fair Representation v. Tawes, 377 U.S. 656, 676 (1964) (after finding a reapportionment violation, suggesting that the state legislature be given the opportunity "to enact a constitutionally valid state legislative apportionment scheme"); Aurelius Inv., LLC v. Puerto Rico, 915 F.3d 838, 863 (1st Cir. 2019) ("[O]ur mandate in these appeals shall not issue for 90 days, so as to allow the President and the Senate to validate the currently defective appointments or reconstitute the Board in accordance with the Appointments Clause.").

B
So too, it may well be that Congressional legislation would be unnecessary because the agency itself could fix the problem by creating an agency review process. As discussed below, the Director may be able to designate a special panel to rehear decisions rendered by the original panel of APJs, that rehearing panel to be composed of only officers not subject to Title 5 removal protections, i.e., an executive rehearing panel with panel members appointed by the President or essentially removable at will by the Secretary of Commerce-the Director, the Deputy Director, and the Commissioner of Patents. See, e.g., Patent Trial and Appeal Board Standard Operating Procedure 2 (version 10), https://www.uspto.gov/sites/ default/files/documents/SOP2\%20R10\%20FINAL.pdf. Far from raising separation of powers concerns, this approach permits the agency to chart its own course as to the appropriate fix.

Section 6(c) requires that "[e]ach appeal . . . and inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board." 35 U.S.C. §6(c). It also specifies that "[o]nly the Patent Trial and Appeal Board may grant rehearings." Id. Section 6(a) provides that "[t]he Director, the Deputy Director, the Commissioner of Patents, the Commissioner for Trademarks, and the administrative patent judges shall constitute the Patent Trial and Appeal Board." 35 U.S.C. §6(a). And the statute provides that panel members "shall be designated by the Director." 35 U.S.C. §6(c). ${ }^{7}$

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There is no requirement in the statute or regulations that the rehearing panel be the same as the original panel. We have previously held that the statutory grant of authority under section 6(c) (then 35 U.S.C. § 7 (1988)) to "designate the members of a panel hearing an appeal ... extend[s] to [the] designation of a panel to consider a request for rehearing." In re Alappat, 33 F.3d 1526, 1533 (Fed. Cir. 1994), abrogated on other grounds by In re Bilski, 545 F.3d 943 (Fed. Cir. 2008) (interpreting an earlier version of the statute); see also Oil States Energy Services, $L L C$ v. Greene's Energy Group, LLC, 138 S. Ct. 1365, 1381 (2018) ("[T]he Director can add more members to the panel-including himself-and order the case reheard.") (Gorsuch, J., dissenting, with Chief Justice Roberts joining). "In those cases where a different panel of the Board is reconsidering an earlier panel decision, the Board is still the entity reexamining that earlier decision; it is simply doing so through a different panel." Id. at 1533-34. The regulations do not specify the composition of a rehearing panel, simply stating that " $[w]$ hen rehearing a decision on petition, a panel will review the decision for an abuse of discretion." 37 C.F.R. §42.71(c) (emphasis added).

The legislative history similarly confirms the Director's authority. In 1927, Congress, at the same time that it eliminated the provision requiring the Commissioner (now the Director) to review board of examiner decisions, made clear that the "supervisory power of the commissioner [to rehear panel decisions], as it has existed for a number of decades, remains unchanged by the bill." S. Rep. No. 69-1313, at 4 (1927).

The Director has previously created such special rehearing panels. See Arthrex, 941 F.3d at 1330 ("That standing [Precedential Opinion] [P] anel, composed of at least three Board members, can rehear and reverse any

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Board decision and can issue decisions that are binding on all future panels of the Board."); see also Patent Trial and Appeal Board Standard Operating Procedure 2 (version 10), https://www.uspto.gov/sites/default/files/documents/ SOP2\%20R10\%20FINAL.pdf.

A rehearing panel consisting of the Director, the Deputy Director, and the Commissioner of Patents would itself comply with the Appointments Clause. The Director is a principal officer appointed by the President and confirmed by the Senate. ${ }^{8}$ The Deputy Director and the Commissioner of Patents are properly appointed inferior officers because they are removable by principal officers. "The power to remove officers, [the Supreme Court has] recognized, is a powerful tool for control." Edmond, 520 U.S. at 664. The Deputy Director is appointed by the Secretary of Commerce (a Presidentially appointed officer) under 35 U.S.C. §3(b)(1). The Deputy Director is removable at will by the Secretary of Commerce because "[i]n the absence of all constitutional provision, or statutory regulation as to the removal of [inferior] officers, . . . the power of removal [is] incident to the power of appointment." In re Hennen, 38 U.S. 230, 259 (1839). ${ }^{9}$ Under

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the statute, "Commissioners [such as the Commissioner of Patents] may be removed from office by the Secretary for misconduct or nonsatisfactory performance . . , without regard to the provisions of title 5"-essentially at-will removal. 35 U.S.C. $\S 3(\mathrm{~b})(2)(\mathrm{C})$. In contrast, to be removed under Title 5, "the agency must show . . . that the employee's misconduct is likely to have an adverse impact on the agency's performance of its functions." Brown v. Dep't of the Navy, 229 F.3d 1356, 1358 (Fed. Cir. 2000) (emphasis added).

The Deputy Director and the Commissioner of Patents are also inferior officers because they are supervised by the Director. Again, in Edmond, the Supreme Court "th[ought] it evident that 'inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by Presidential nomination with the advice and consent of the Senate." Edmond, 520 U.S. at 662 (emphasis added). The Director has significant administrative oversight of the duties of these two officers. The USPTO's organizational chart shows that the Deputy Director and the Commissioner of Patents report to the Director. See, e.g., USPTO Fiscal Year 2019 Congressional Justification, at 3, https://www.uspto. gov/sites/default/files/documents/fy19pbr.pdf. The Deputy Director is appointed by the Secretary of Commerce only "upon nomination by the Director." 35 U.S.C. § 3(b)(1). And the Secretary of Commerce, acting through the Direc-

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tor, annually evaluates the Commissioner's performance, which determines the Commissioner's annual bonus. 35 U.S.C. §3(b)(2)(B).

In sum, the roles that would be played by these three members of an executive rehearing panel would be constitutional because the Director is a principal officer, and the Deputy Director and the Commissioner of Patents are inferior officers subject to the supervision of the Director of and the Secretary. If an appropriate stay were granted, it would seem possible that the Director, if he chose to do so, could achieve agency review without Congressional legislation.

Of course, as I discuss in the next section, either a Congressional fix or an agency fix could not be retroactive. The new rehearing procedure would have to be made available to losing parties in past cases.

II
Alternatively, I conclude that if the panel's Title 5 protection remedy remained, this would still not require a remand for a new hearing before a new panel, as the Arthrex panel opinion holds. Arthrex, 941 F.3d at 1340. This new hearing remedy is not required by Lucia v . S.E.C., 138 S. Ct. 2044 (2018), imposes large and unnecessary burdens on the system of inter partes review, and involves unconstitutional prospective decision-making.

A
After holding the APJ removal protection provisions unconstitutional and severable, the panel set aside all panel decisions of the Board where the issue was properly raised on appeal. These cases are remanded for a new hearing before a new panel "[b]ecause the Board's decision in this case was made by a panel of APJs that were
not constitutionally appointed at the time the decision was rendered." Arthrex, 941 F.3d at 1338.

This holding is in part constitutional interpretation and part statutory construction. In essence, the panel improperly makes the application of its decision prospective only, so that only PTAB decisions after the date of the panel's opinion are rendered by a constitutionally appointed panel. In my view, the panel improperly declined to make its ruling retroactive. If the ruling were retroactive, the actions of APJs in the past would have been compliant with the constitution and the statute. In this respect, I think that the panel in Arthrex ignored governing Supreme Court authority.

## B

I first address the Arthrex panel's claim that Lucia mandates remanding for a new hearing. In Lucia, the issue was whether Securities and Exchange Commission ("SEC") ALJs were inferior officers that had to be appointed by an agency head-the SEC. Lucia, 138 S. Ct. at $2051 \& n .3$ (2018). The Supreme Court held that "[t]he Commission's ALJs are 'Officers of the United States,' subject to the Appointments Clause." Id. at 2055. The ALJs were found to be unconstitutionally appointed as "Officers of the United States" because they were appointed by "[o]ther staff members, rather than the Commission proper." Id. at 2049, 2051.

While the case was pending, "the SEC issued an order 'ratif[ying]' the prior appointments of its ALJs," thus apparently curing the constitutional defect. ${ }^{10}$ Id. at 2055 n. 6 (alteration in original) (quoting SEC Order, In re:

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Pending Administrative Proceedings (Nov. 30, 2017), https://www.sec.gov/litigation/opinions/2017/33-10440.pdf). The Supreme Court nevertheless held that "the 'appropriate' remedy for an adjudication tainted with an appointments violation is a new 'hearing before a properly appointed' official." Id. at 2055 (quoting Ryder v. United States, 515 U.S. 183, 183, 188 (1995)).

The difference between Lucia and Arthrex is that the fix in Lucia was an agency fix, whereas the fix in Arthrex is a judicial fix. Agencies and legislatures generally act only prospectively, while a judicial construction of a statute or a holding that a part of the statute is unconstitutional and construing the statute to permit severance are necessarily retrospective as well as prospective.

C
As the Supreme Court concluded in Rivers v. Roadway Exp., Inc., 511 U.S. 298 (1994), in construing a statute, courts are "explaining [their] understanding of what the statute has meant continuously since the date when it became law." Id. at 313 n. 12 (emphasis added). The same is true as to constitutional decisions, as Harper v. Virginia Dep't of Taxation, 509 U.S. 86 (1993) confirmed:"'[B]oth the common law and our own decisions' have 'recognized a general rule of retrospective effect for the constitutional decisions of this Court.'" Id. at 94 (quoting Robinson v. Neil, 409 U.S. 505, 507 (1973)). As Justice Scalia put it in his concurrence in the later Reynoldsville decision:

In fact, what a court does with regard to an unconstitutional law is simply to ignore it. It decides the case "disregarding the [unconstitutional] law," Marbury v. Madison, 1 Cranch 137, 178 (1803) (emphasis added), because a law repugnant to the Constitution "is void, and is as no law," Ex parte Siebold, 100 U.S. 371, 376 (1880).

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Reynoldsville Casket Co. v. Hyde, 514 U.S. 749, 760 (1995) (Scalia, J., concurring) (alterations in original). In other words, "[w]hen [a c]ourt applies a rule of federal law to the parties before it, that rule is the controlling interpretation of federal law and must be given full retroactive effect in all cases still open on direct review and as to all events, regardless of whether such events predate or postdate [the court's] announcement of the rule." Harper, 509 U.S. at $97 .{ }^{11}$

The requirement for retroactivity applies to remedies as well, such as the remedy in this case. In Reynoldsville, the Court reversed an Ohio Supreme Court decision declining to apply a constitutional decision as to a limitations period retroactively. 514 U.S. at 759. The Court rejected the respondent's argument that the Ohio Supreme Court's decision was based on "remedy" rather than "nonretroactivity" and held that accepting the Ohio Supreme Court's "remedy" would "create what amounts to an ad hoc exemption from retroactivity." $I d$. at 758. The Court noted only four circumstances where retroactive application of a constitutional ruling is not outcomedeterminative. ${ }^{12}$ None is remotely relevant to Arthrex.

[^37]Thus, to be consistent with Harper, the statute here must be read as though the APJs had always been constitutionally appointed, "disregarding" the unconstitutional removal provisions. Marbury v. Madison, 5 U.S. 137, 178 (1803). Since no Congressional or agency action is required in order to render the appointment of the PTAB judges constitutional, when the PTAB judges decided cases in the past, they did not act improperly. Thus, the past opinions rendered by the PTAB should be reviewed on the merits, not vacated for a new hearing before a different panel.

To be sure, a new decision or hearing may sometimes be necessary where a deciding official might have acted differently if he had been aware of the unconstitutional nature of a restriction on his authority. That was the situation in Booker, where judges' decision-making might have been affected by their perception that the sentencing guidelines were mandatory and where the mandatory provision was held unconstitutional and severed. Booker, 543 U.S. at 249-265. Booker was not an Appointments Clause case, and even in Booker, a new sentencing hearing was not required in every case. $I d$. at 268 . Here, even applying the Booker approach, it is simply not plausible that the PTAB judges' decision-making would have been affected by the perceived existence or non-existence of the removal protections of Title 5. As the Fifth Circuit has concluded in this respect, "[r]estrictions on removal are different" from Appointments Clause violations where "officers were vested with authority that was never properly theirs to exercise." Collins v. Mnuchin, 938 F.3d 553, 593 (5th
the principle of retroactivity itself." Reynoldsville, 514 U.S. at 759 (internal citations omitted).

Cir. 2019) (en banc) (separate majority opinion). ${ }^{13}$ As discussed above, Lucia required a new determination, but in that case the fix was imposed only prospectively-the making of new appointments by the agency head and the ratification of earlier appointments-rather than a retroactive court decision involving severance. See Lucia, 138 S. Ct. at 2055 n. 6 .

## D

While the Circuits appear to be divided as to the retroactivity issue in Appointments Clause and similar cases, ${ }^{14}$
${ }^{13}$ In Collins, the Fifth Circuit explained:
Restrictions on removal are different. In such cases the conclusion is that the officers are duly appointed by the appropriate officials and exercise authority that is properly theirs. The problem identified by the [different] majority decision in this case is that, once appointed, they are too distant from presidential oversight to satisfy the Constitution's requirements.

Perhaps in some instances such an officer's actions should be invalidated. The theory would be that a new President would want to remove the incumbent officer to instill his own selection, or maybe that an independent officer would act differently than if that officer were removable at will. We have found no cases from either our court or the Supreme Court accepting that theory.
938 F.3d at 593-94 (separate majority opinion)
${ }^{14}$ In Collins v. Mnuchin, 938 F.3d 553 (5th Cir. 2019) (en banc), the en banc Fifth Circuit found that the Federal Housing Finance Agency ("FHFA") was unconstitutionally structured because Congress "[g]rant[ed] both removal protection and full agency leadership to a single FHFA Director." Id. at 591. It did not invalidate prior agency actions. Id. at 592 (separate majority opinion). It concluded that the only appropriate remedy, and one that "fixes the . . . purported injury," is a declaratory judgment "removing the 'for cause' provision found unconstitutional." Id. 595 (separate majority opinion).

In Intercollegiate Broadcasting and Kuretski, the D.C. Circuit reached the opposite result. See Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd., 684 F.3d 1332 (D.C. Cir. 2012); Kuretski v.
the very Supreme Court decisions relied on in Arthrex have given retroactive effect to statutory constructions or constitutional decisions that remedied potential Appointment Clause violations. In Free Enterprise Fund v. Public Co. Accounting Oversight Board, 561 U.S. 477 (2010), the SEC's Public Company Accounting Oversight Board had instituted an investigation against an accounting firm, Beckstead and Watts ("B\&W"). Id. at 487. B\&W and another affiliated organization, Free Enterprise Fund, filed suit, asking the district court to enjoin the investigation as improperly instituted because members of the Board had not been constitutionally appointed. Id. at 487-88. The Supreme Court found that the statutory removal protections afforded to members of the Board were unconstitutional. Id. at 484. "By granting the Board executive power without the Executive's oversight [i.e., by limiting removal], th[e Sarbanes-Oxley] Act subvert[ed] the President's ability to ensure that the laws are faithfully executed-as well as the public's ability to pass judgment on his efforts." Id. at 498. But the Court severed the unconstitutional removal provisions from the remainder of the statute, leaving the rest of relevant act fully operational and constitutional. Id. at 509.

Comm'r, 755 F.3d 929 (D.C. Cir. 2014). In Intercollegiate Broadcasting, the D.C. Circuit found that the appointments of the Copyright Royalty Judges in the Library of Congress violated the Appointments Clause because they could be removed only for cause. 684 F.3d at 1334. The court invalidated the for-cause restriction on the removal of the judges, rendering them "validly appointed inferior officers." Id. at 1340-41. Yet, the D.C. Circuit declared that "[b]ecause the Board's structure was unconstitutional at the time it issued its determination, we vacate and remand the determination." $I d$. at 1342. These two cases were not based on Supreme Court precedent, did not consider the Supreme Court precedent suggesting a different result, and were an apparent departure from the Court's rulings in similar circumstances.

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The Court did not view this action as fixing the problem only prospectively. It refused to invalidate or enjoin the prior actions of the Board in instituting the investigation, explaining that "properly viewed, under the Constitution, ... the Board members are inferior officers" and "have been validly appointed by the full Commission." Id. at 510, 513. The Court remanded for further proceedings, but explained that the plaintiffs were only "entitled to declaratory relief sufficient to ensure that the reporting requirements and auditing standards to which they [we]re subject will be enforced only by a constitutional agency accountable to the Executive. ${ }^{15}$ Id. at 513 .

So too in Edmond v. United States, 520 U.S. 651 (1997), past actions by the Coast Guard Court of Criminal Appeals were not set aside. The criminal defendants' convictions had been affirmed by the Coast Guard Court of Criminal Appeals. Id. at 655. The defendants contended that the Coast Guard Court of Criminal Appeals judges had not been properly appointed, rendering the convictions invalid. See id. The issue was "whether Congress ha[d] authorized the Secretary of Transportation to appoint civilian [judges to] the Coast Guard Court of Criminal Appeals, and if so, whether this authorization [wa]s constitutional under the Appointments Clause of Article II [because the judges were inferior officers]." Id. at 653.

The Court construed the relevant statutes so that "Article 66(a) d[id] not give [the] Judge Advocates General authority to appoint Court of Criminal Appeals

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judges; [and] that §323(a) d[id] give the Secretary of Transportation authority to do so." Id. at 658. The Court explained that "no other way to interpret Article 66(a) that would make it consistent with the Constitution" because "Congress could not give the Judge Advocates General power to 'appoint' even inferior officers of the United States." Id. The Court then found that the judges of the Coast Guard Court of Criminal Appeals were inferior officers and that "[their] judicial appointments [by the Secretary] . . . [we]re therefore valid." Id. at 666. Most significantly, the Court did not remand for a new hearing but rather "affirm[ed] the judgment of the Court of Appeals for the Armed Forces." Id. Nowhere did the Court suggest that the actions taken before the Court's construction were rendered invalid.

In Appointments Clause cases, the Supreme Court has required a new hearing only where the appointment's defect had not been cured ${ }^{16}$ or where the cure was the result of non-judicial action. ${ }^{17}$ The contrary decision in

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Arthrex is inconsistent with binding Supreme Court precedent and creates a host of problems in identifying the point in time when the appointments became valid. ${ }^{18}$

I respectfully suggest that Arthrex was wrongly decided for two reasons. First, the panel's remedy invalidating the Title 5 removal protections for APJs is contrary to Congressional intent and should not be invoked without giving Congress and the PTO the opportunity to devise a less disruptive remedy. Second, even if the Arthrex remedy (to sever Title 5 protections) were adopted, there would be no need for a remand for a new hearing before a new panel because, under this judicial construction, APJs will be retroactively properly appointed by the Secretary of Commerce and their prior decisions will not be rendered invalid.

III
Finally, the panel's conclusion that PTAB judges are principal officers under the existing statutory structure is open to question. It does appear to be the case under the Supreme Court's decision in Lucia that PTAB judges are "officers," but it seems to me far from clear that they are "principal officers." The panel concluded that they were because "'inferior officers' are officers whose work is directed and supervised at some level by others who
a new hearing before properly appointed Social Security Administration ALJs despite SSA's later reappointment of all agency judges).
${ }^{18}$ The difficulty of identifying at what point in time the appointments becomes effective is evident. Is it when the panel issues the decision, when the mandate issues, when en banc review is denied, when certiorari is denied, or (if there is an en banc proceeding) when the en banc court affirms the panel, or (if the Supreme Court grants review) when the Supreme Court affirms the court of appeals decision?
were appointed by Presidential nomination with the advice and consent of the Senate." Arthrex, 941 F.3d at 1329 (quoting Edmond, 520 U.S. at 662-63). The panel held that no principal officer "exercise[d] sufficient direction and supervision over APJs to render them inferior officers." Id. Despite the quoted language in Edmond, I do not think that the sole distinction between "inferior officers" and "principal officers" lies in agency supervision. In Morrison v. Olson, 487 U.S. 654 (1988), the Supreme Court held that an independent counsel was an "inferior officer" despite the fact that she was removable only for "good cause" and "possesse[d] a degree of independent discretion to exercise the powers delegated to her," $i d$. at $671,691$.

In Morrison, the Court was in part persuaded by the fact that the independent counsel's "grant of authority $\mathrm{d}[\mathrm{id}]$ not include any authority to formulate policy for the Government or the Executive Branch." Morrison, 487 U.S. at 671. The First Circuit squared the holdings in Edmond and Morrison "by holding that Edmond's supervision test was sufficient, but not necessary." Aurelius, 915 F.3d at 860. The First Circuit explained that "inferior officers are those who are directed and supervised by a presidential appointee; otherwise, they 'might still be considered inferior officers if the nature of their work suggests sufficient limitations of responsibility and authority.'" Id. (quoting United States v. Hilario, 218 F.3d 19, 25 (1st Cir. 2000)).

Similarly, here, it seems appropriate to also examine whether the role of the officers in question includes articulation of agency policy. PTAB judges have no such role. They are not charged with articulating agency policy, and certainly are not the principal officers charged with that articulation. Their sole function is to determine the facts in individual patent challenges under the AIA; as to the

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law, they are obligated to follow the law as articulated by the Supreme Court and this court. It appears to be the case that review of administrative judges' decisions by an Article I court prevented the administrative judges in Edmond and Masias v. Sec'y of Health \& Human Servs., 634 F.3d 1283 (Fed. Cir. 2011), from being "officers." See Edmond, 520 U.S. at 664; Masias, 634 F.3d at 1294. It is hard for me to see how identical review by an Article III court (which severely cabins the authority of PTAB judges) does not prevent PTAB judges from being principal officers.

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# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT 

No. 2018-2140

Arthrex, Inc.,
Appellant, v.

Smith \& Nephew, Inc., ArthroCare Corp.,

Appellees, United States, Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal

Board in No. IPR2017-00275.

Hughes, Circuit Judge, with whom Wallach, Circuit Judge, joins, dissenting from the denial of the petitions for rehearing en banc.

I respectfully dissent from the court's decision declining to rehear this appeal en banc. I believe that, viewed in light of the Director's significant control over the activities of the Patent Trial and Appeal Board and Administrative Patent Judges, APJs are inferior officers already properly appointed by the Secretary of Commerce. And even if APJs are properly considered principal officers, I have grave doubts about the remedy the Arthrex panel applied to fix their appointment. In the face of an uncon-

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stitutional statute, our role is to determine whether severance of the unconstitutional portion would be consistent with Congress's intent. Given the federal employment protections APJs and their predecessors have enjoyed for more than three decades, and the overall goal of the America Invents Act, I do not think Congress would have divested APJs of their Title 5 removal protections to cure any alleged constitutional defect in their appointment. As Judge Dyk suggests in his dissent, which I join as to Part I.A, I agree that Congress should be given the opportunity to craft the appropriate fix. Dyk Op. at 6.

None of the parties here dispute that APJs are officers who exercise "significant authority pursuant to the laws of the United States." Buckley v. Valeo, 424 U.S. 1, 126 (1976) (per curiam). But "significant authority" marks the line between an officer and an employee, not a principal and an inferior officer. Despite being presented with the opportunity to do so, the Supreme Court has declined to "set forth an exclusive criterion for distinguishing between principal and inferior officers for Appointments Clause purposes." Edmond v. United States, 520 U.S. 651, 661 (1997).

Instead, the pertinent cases make clear that the hallmark of an inferior officer is whether a presidentiallynominated and senate-confirmed principal officer "direct[s] and supervise[s] [her work] at some level." Id. at 663. Edmond does not lay out a more exacting test than this, and we should not endeavor to create one in its stead. Instead, I believe the Supreme Court has engaged in a context-specific inquiry accounting for the unique systems of direction and supervision of inferior officers in each case. See infra Section I. Importantly, the Court has not required that a principal officer be able to single-

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handedly review and reverse the decisions of inferior officers, or remove them at will, to qualify as inferior. And I believe that the Supreme Court would have announced such a simple test if it were proper.

Finally, Edmond also makes clear that the Appointments Clause seeks to "preserve political accountability relative to important government assignments." 520 U.S. at 663. The Director's power to direct and supervise the Board and individual APJs, along with the fact that APJs are already removable under the efficiency of the service standard, provides such political accountability. APJs are therefore inferior officers.

A
The Director may issue binding policy guidance, institute and reconsider institution of an inter partes review, select APJs to preside over an instituted inter partes review, single-handedly designate or de-designate any final written decision as precedential, and convene a panel of three or more members of his choosing to consider rehearing any Board decision. The Arthrex panel categorized some of these as "powers of review" and others as "powers of supervision," but I view them all as significant tools of direction and supervision.

As Arthrex recognized, "[t]he Director is 'responsible for providing policy direction and management supervision' for the [United States Patent and Trademark Office]." Arthrex, Inc. v. Smith \& Nephew, Inc., 941 F.3d 1320, 1331 (Fed. Cir. 2019) (quoting 35 U.S.C. §3(a)(2)(A)). Not only can the Director promulgate regulations governing inter partes review procedures, but he may also prospectively issue binding policy guidance "interpreting and applying the patent and trademark laws." Gov't Br. 37. APJs must apply this guidance in all subsequent inter partes review proceedings. Such guidance might encom-
pass, for instance, exemplary application of the law to specific fact patterns, such as those posed in pending cases. These powers provide the Director with control over the process and substance of Board decisions. Gov't. Br. 3637. And though the Director cannot directly reverse an individual Board decision that neglects to follow his guidance, APJs who do so risk discipline or removal under the efficiency of the service standard applicable under Title 5. See infra Section I C. Such binding guidance, and the consequences of failing to follow it, are powerful tools for control of an inferior officer. ${ }^{1}$

The Director also has unreviewable authority to institute inter partes review. 35 U.S.C. §314(a), (d). Cf. Free Enter. Fund v. Pub. Co. Accounting Oversight Bd., 561 U.S. 477, 504 (2010) (discussing the importance of the ability to "start, stop, or alter individual [PCAOB] investigations," even where the reviewing principal officer already had significant "power over [PCAOB] activities"). Though the Arthrex panel did not address the Director's ability to reconsider an institution decision, our precedent holds that the Board ${ }^{2}$ may reconsider and reverse its initial institution decision. See, e.g., Medtronic, Inc. v. Robert Bosch Healthcare Sys., Inc., 839 F.3d 1382, 138586 (Fed. Cir. 2016) (explaining that "§ 318(a) contemplates that a proceeding can be 'dismissed' after it is instituted,

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and, as our prior cases have held, administrative agencies possess inherent authority to reconsider their decisions, subject to certain limitations, regardless of whether they possess explicit statutory authority to do so" (internal quotation and citation omitted)).

The Director also controls which APJs will hear any given instituted inter partes review. 35 U.S.C. §6(c). In my view, this power of panel designation is a quintessential method of directing and controlling a subordinate. Importantly, I do not believe that in stating that the power to remove an officer at-will from federal employment is "a powerful tool for control of an inferior," Free Enterprise, 561 U.S. at 510 (internal quotation omitted), the Supreme Court meant that such removal power is the only effective form of control in the context of the Appointments Clause. For example, the Judge Advocate General in Edmond could remove the Court of Criminal Appeal judges from judicial service without cause, but not necessarily federal employment altogether. Edmond, 520 U.S. at 664. See also Free Enterprise, 561 U.S. at 510 (relying on both at-will removal authority and "the [SEC's] other oversight authority" in finding with "no hesitation" that the PCAOB members are inferior officers). That is akin to the Director's authority to designate which APJs will consider a certain case. And despite acknowledging that "when a statute is silent on removal, the power of removal is presumptively incident to the power of appointment[,]" the Arthrex panel declined to opine on the Director's ability to de-designate APJs from a panel under §6(c). Arthrex, 941 F.3d at 1332. But Edmond referenced the ability to remove the judges there "from [their] judicial assignment[s]," followed by a recognition of the potent power of removal. 520 U.S. at 664. If the Director's ability to control APJs plays a significant part in the

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unconstitutionality at issue, such that the remedy is to make APJs removable at will, the panel should have definitively addressed the Director's de-designation authority. Moreover, as outlined in Section I C, infra, APJs already may be disciplined or removed from federal employment under the routine efficiency of the service standard, which is not incompatible with discipline or removal for failing to follow the Director's binding guidance.

And the Director may continue to provide substantial direction and supervision after the Board issues its final written decision. As Arthrex recognizes, the Director may convene a Precedential Opinion Panel (POP), of which the Director is a member, to consider whether to designate a decision as precedential. Arthrex, 941 F.3d at 1330. But I read the Standard Operating Procedures more broadly, such that the Director may also make a precedential designation or de-designation decision singlehandedly, ${ }^{3}$ thereby unilaterally establishing binding agency authority on important constitutional questions and other exceptionally important issues. Standard Operating Procedure 2, at 3-4. Indeed, it appears that the Director has done so in at least sixteen cases in 2018 and 2019. See USPTO, Patent Trial and Appeal Board Precedential and informative decisions, available at https://www.uspto. gov/patents-application-process/patent-trial-and-appeal-board/precedential-informative-decisions (listing decisions

[^41]designated as precedential in the past year, where some are labeled as "Precedential Opinion Panel decision" and others are not). The Director may also convene a POP of his choice, of which he is by default a member, to consider whether to rehear and reverse any opinion. Standard Operating Procedure 2, at 4. And, the Director may "determine that a panel of more than three members is appropriate" and then choose those additional members as well. Id. Though the Arthrex panel recognized these powers, it dismissed them because the Director has only one vote out of at least three. 941 F.3d at 1331-32. This assessment, however, misses the practical influence the Director wields with the power to hand-pick a panel, particularly when the Director sits on that panel. The Director's ability to unilaterally designate or de-designate a decision as precedential and to convene a POP of the size and composition of his choosing are important tools for the direction and supervision of the Board even after it issues a final written decision. ${ }^{4}$

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Combined, all of these powers provide the Director constitutionally significant means of direction and supervision over APJs-making them inferior officers under the rule of Edmond.

## B

Despite the Director's significant powers of direction and supervision, the Arthrex panel concluded that APJs are principal officers in large part because no principal officer may "single-handedly review, nullify or reverse" the Board's decisions. Arthrex, 941 F.3d at 1329. But Supreme Court precedent does not require such power. And in the cases in which the Court emphasized a principal officer's power of review, that principal officer had less authority to direct and supervise an inferior officer's work ex ante than the Director has here.

In Edmond, for instance, the Court of Appeals for the Armed Forces, an Article I court, could review decisions of the Court of Criminal Appeals judges at issue. However, its scope of review was limited. Edmond, 520 U.S. at 665 (explaining that the Court of Appeals for the Armed Forces may only reevaluate the facts when there is no "competent evidence in the record to establish each element of the offense beyond a reasonable doubt"). And while the Judge Advocate General "exercise[d] administrative oversight" and could "prescribe uniform rules of procedure," he could "not attempt to influence (by threat of removal or otherwise) the outcome of individual proceedings." Id. at 664. Nonetheless, the Supreme Court

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found that the Court of Criminal Appeals judges were inferior, not principal, officers. In comparison, while the Director may not unilaterally decide to rehear or reverse a Board decision, he has many powers to direct and supervise APJs both ex ante and ex post, Section I A, supra, that no principal officer had in Edmond.

Similarly, in Freytag v. Comm'r, 501 U.S. 868 (1991), the Supreme Court considered the status of special trial judges appointed by the Tax Court, whose independent decision-making varied based on the type of case before them. The Court held that the special trial judges were inferior officers-not employees-when presiding over "declaratory judgment proceedings and limited-amount tax cases" because they "render[ed] the decisions of the Tax Court" in those cases. Id. at 882. In doing so, the Court distinguished between cases in which the special trial judges acted as "inferior officers who exercise independent authority," and cases in which they still had significant discretion but less independent authority. Id. The Court's analysis distinguished between inferior officer and employee; nowhere did the Court suggest that special trial judges' "independent authority" to decide declaratory judgment proceedings and limited-amount cases rendered them principal officers. See id. at 881-82. Most recently, the Court applied the framework of Freytag in deciding whether administrative law judges (ALJs) of the Securities and Exchange Commission (SEC) are inferior officers or employees. Lucia v. S.E.C., 138 S. Ct. 2044, 2053 (2018). The Court reasoned that SEC ALJs and Freytag's special trial judges are extremely similar, but SEC ALJs arguably wield more power because their decisions become final if the SEC declines review. Id. at 2053-54. But again, the Court found this structure still only rendered SEC ALJs officers, not employees. Id. at 2054. No

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mention was made of SEC ALJs being principal officers. ${ }^{5}$ See $i d$. at 2051 n. 3 (explaining that the distinction between principal and inferior officers was "not at issue here"). Just as the special trial judges in Freytag and the SEC ALJs in Lucia were inferior officers, so too are APJs.

Nor does this court's precedent require unfettered review as a marker of inferior officer status. In Masias v . Sec'y of Health \& Human Servs., we rebuffed the argument that because the Court of Federal Claims does not review decisions of the Vaccine Program's special masters de novo, the special masters are principal officers. 634 F.3d 1283, 1293-94 (Fed. Cir. 2011). There, we recognized that the Court of Federal Claims may only "set aside any findings of fact or conclusions of law of the special master found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . " Id. at 1294. This limited review means that many of the special masters' decisions are effectively final because the Court of Federal Claims has no basis to set aside findings of fact or conclusions of law. We reasoned that such limited review of special masters' decisions by the Court of Federal Claims resembled the review in Edmond, and that "the fact that the review is limited does not mandate that special masters are necessarily 'principal officers.'" Id. at 1295.

Finally, the panel analogized the Arthrex issue to the one addressed by the D.C. Circuit in Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd., 684 F.3d 1332 (D.C. Cir. 2012). See Arthrex, 941 F.3d at 1334. But the facts

[^44]of Intercollegiate are significantly different than those in Arthrex. The Librarian of Congress-the principal officer who supervises the Copyright Royalty Judges (CRJs) at issue-was much more constrained in her ability to direct and supervise the CRJs than the Director. The governing statute grants CRJs broad discretion over ratemaking. See 17 U.S.C. §802(f)(1)(A)(i) (stating that "[CRJs] shall have full independence in making" numerous copyright rate-related decisions). The Librarian "approv[es] the CRJs' procedural regulations, ... issu[es] ethical rules for the CRJs, [and] . . . oversee[s] various logistical aspects of their duties," such as publishing CRJs' decisions and providing administrative resources. Intercollegiate, 684 F.3d at 1338. In fact, it appears the only way the Librarian can exercise substantive control over the CRJs' ratemaking decisions is indirectly through the Register of Copyrights, whom she, not the President, appoints. See 17 U.S.C. §701(a). The Register corrects any legal errors in the CRJs' ratemaking decisions, 17 U.S.C. § 802(f)(1)(D), and provides written opinions to the CRJs on "novel question[s] of law," 17 U.S.C. §802(f)(1)(B), or when the CRJ requests such an opinion. 17 U.S.C. §802(f)(1)(A)(ii). But the CRJs may not consult with the Register about a question of fact. 17 U.S.C. $\S 802(\mathrm{f})(1)(\mathrm{A})(\mathrm{i})$. The Librarian therefore exerts far less control over CRJs than the Director can over APJs using all the powers of direction and supervision discussed in Section I A, supra.

The comparison to Intercollegiate in Arthrex again highlights how the unique powers of direction and supervision in each case should be viewed in totality, rather than as discrete categories weighing in favor of inferior officer status or not. In particular, breaking up the analysis into three discrete categories-Review, Supervision, and Re-moval-overlooks how the powers in each category im-

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pact each other. Again, for example, whereas ex post the Court of Appeals for the Armed Forces has more power to review the Court of Criminal Appeals judges' decisions than the Director has to review a Board decision, neither the JAG nor the Court of Appeals for the Armed Forces have the Director's ex ante control, such as the power to decide whether to hear a case at all or to issue binding guidance on how to apply the law in a case. Viewed through this integrated lens, I believe APJs comfortably fit with prior Supreme Court precedent that has never found a principal officer in a challenged position to date.

Finally, Title 5's efficiency of the service standard does not limit the ability to discipline or remove APJs in a constitutionally significant manner. It allows discipline and removal for "misconduct [that] is likely to have an adverse impact on the agency's performance of its functions." See Brown v. Dep't of the Navy, 229 F.3d 1356, 1358 (Fed. Cir. 2000). To be sure, the efficiency of the service standard does not allow discipline or removal of APJs "without cause," as in Edmond. See Arthrex, 941 F.3d at 1333. But neither the Supreme Court nor this court has required that a civil servant be removable at will to qualify as an inferior officer. To the contrary, the Supreme Court and this court have upheld for-cause removal limitations on inferior officers. See, e.g., Morrison v. Olson, 487 U.S. 654, 692-93 (1988) (holding that the "good cause" restriction on removal of the independent counsel, an inferior officer, is permissible); Masias, 634 F.3d at 1294 (stating that the Court of Federal Claims can remove special masters for "incompetency, misconduct, or neglect of duty or for physical or mental disability or for other good cause shown"). See also Free Enterprise, 561 U.S. at 494 (explaining that the Court
previously "adopted verbatim the reasoning of the Court of Claims, which had held that when Congress '"vests the appointment of inferior officers in the heads of Departments[,] it may limit and restrict the power of removal as it deems best for the public interest"," (alteration in original) (quoting United States v. Perkins, 116 U.S. 483, 485 (1886) (itself quoting Perkins v. United States, 20 Ct. Cl. 438, 444 (1885)))).

The efficiency of the service standard allows supervisors to discipline and terminate employees for arguably an even wider range of reasons than the standards above. Failing or refusing to follow the Director's policy or legal guidance is one such reason. Together with the significant authority the Director wields in directing and supervising APJs' work, the ability to remove an APJ on any grounds that promote the efficiency of the service supports finding that APJs are inferior officers.

II
Assuming for the sake of argument that APJs are principal officers, the present appointment scheme requires a remedy. The Arthrex fix makes APJs removable at will by partially severing 35 U.S.C. §3(c) as it applies Title 5's removal protections to APJs. Arthrex, 941 F.3d at 1337-38. Though the key question in a severance analysis is congressional intent, Arthrex disposed of the question in a few sentences. I believe a fulsome severance analysis should have considered Congress's intent in establishing inter partes review against the backdrop of over thirty years of employment protections for APJs and their predecessors. And doing so would have revealed the importance of removal protections for APJs, particularly in light of Congress's desire for fairness and transparency in the patent system.

Our touchstone must remain the intent of Congress. See United States v. Booker, 543 U.S. 220, 246 (2005). As I outlined in my concurrence in Polaris Innovations Ltd. v. Kingston Tech. Co., 792 F. App’x 820, 828-31 (Fed. Cir. 2020), the long-standing employment protections provided to APJs leads me to believe that Congress intended for them to have removal protections, regardless of changes made to the Board in the AIA. Given this history, it seems unlikely to me that Congress, faced with this Appointments Clause problem, would have chosen to strip APJs of their employment protections, rather than choose some other alternative.

I recognize that the panel considered several potential fixes and chose the one it viewed both as constitutional and minimally disruptive. But removing long-standing employment protections from hundreds of APJs is quite disruptive. It paradoxically imposes the looming prospect of removal without cause on the arbiters of a process which Congress intended to help implement a "clearer, fairer, more transparent, and more objective" patent system. See, e.g., America Invents Act, 157 Cong. Rec. S5319 (daily ed. Sept. 6, 2011) (statement of Sen. Kyl).

Given no clear evidence that Congress would have intended such a drastic change, I would defer to Congress to fix the problem. I agree with Judge Dyk that Congress "would prefer the opportunity to itself fix any Appointments Clause problem before imposing the panel's drastic remedy." Dyk Op. at 6. Congress can best weigh the need for a fair and transparent patent system with the need for federal employment protections for those entrusted with carrying out that system. And Congress faces fewer constraints than we do in fixing an unconstitutional statute. We should allow it to do so.

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# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT 

No. 2018-2140

Arthrex, Inc.,
Appellant, v.

Smith \& Nephew, Inc., Arthrocare Corp.,

Appellees, United States,

Intervenor.
Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal

Board in No. IPR2017-00275.
Wallach, Circuit Judge, dissenting from denial of a petition for rehearing en banc.

I write to express my disagreement with the merits of the decision in Arthrex, Inc. v. Smith \& Nephew, Inc., 941 F.3d 1320 (Fed. Cir. 2019). Given the significant direction to and supervision of an administrative patent judge ("APJ") of the U.S. Patent and Trademark Office's ("USPTO") Patent Trial and Appeal Board ("PTAB") by the USPTO Director, an APJ constitutes an inferior officer properly appointed by the Secretary of Commerce. Specifically, the Director's ability to select a panel's members, to designate a panel's decision as precedential, and

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to de-designate precedential opinions gives the Director significant authority over the APJs and preserves the political accountability of the USPTO. This framework strongly supports the contention that APJs are inferior officers. I respectfully disagree with the Arthrex decision.

The Supreme Court explained that it "ha[s] not set forth an exclusive criterion for distinguishing between principal and inferior officers for Appointment Clause purposes[,]" Edmond v. United States, 520 U.S. 651, 661 (1997), but that it is "evident that 'inferior officers' are officers whose work is directed and supervised at some level by others who were appointed by presidential nomination with the advice and consent of the Senate[,]" id. at 663 (emphasis added). The inquiry is context specific; the Supreme Court has sought to determine whether a principal officer "exercises administrative oversight over" another, by examining, for instance, whether a principal officer "is charged with the responsibility to prescribe uniform rules of procedure," "formulate[s] policies and procedure[s] in regard to review of" the officer's work, and may remove the officer without cause. Id. at 664 (internal quotation marks omitted). The oversight need not be "plenary," Free Enter. Fund v. Pub. Co. Accounting Oversight Bd., 561 U.S. 477, 504 (2010), and the officer's actions may be "significant" and done "largely independently" of the principal officer, id. at 504. Edmond instructs that the Appointments Clause is "designed to preserve political accountability relative to important Government assignments[.]" 520 U.S. at 663. The current framework for appointing, directing and supervising, and removing APJs preserves political accountability of the important work done at the USPTO.

The Director has broad authority to direct and supervise the APJs; this includes removal powers, see 35 U.S.C.
§3(c), and supervision responsibilities, such as the promulgation of regulations, $i d . \S 2(\mathrm{~b})$, including those governing inter partes review, $i d$. §316(a)(4), and establishing USPTO policy, $i d . \S \S 3(\mathrm{a}), 6$. In particular, there are specific ways the Director may direct and supervise the APJs and effectively determine the outcome of their work. First, the Director has the ability to select APJ panel members and designate which panel decisions are precedential. Specifically, the Director controls which APJ will hear any given appeal, proceeding, or review. See id. §6(c) ("Each appeal, derivation proceeding, post-grant review, and inter partes review shall be heard by at least [three] members of the [PTAB], who shall be designated by the Director." (emphasis added)). Accordingly, the Director holds the authority to select which APJ will be on a panel and is free to exclude an APJ from a panel for any reason. I see this as overwhelming support for the proposition that APJs are inferior officers.

Second, the Director possesses an additional supervisory tool in exercising his or her statutory authority to form a standing Precedential Opinion Panel of at least three PTAB members who can rehear and reverse any PTAB decision. See Patent Trial and Appeal Board Standard Operating Procedure 2 at 2-4, https://www.uspto.gov/ sites/default/files/documents/SOP2\%20R10\%20FINAL.pdf. The Precedential Opinion Panel's opinion is precedential and binds all future panels of the PTAB. Id. at 3. The Director selects the members of the Precedential Opinion Panel and, by default, serves as a member of the panel as well. Id. at 4. The ability to select is the ability to direct. Moreover, the Director has the authority to de-designate precedential opinions as she or he sees fit. Id. at 12. These tools certainly preserve political accountability at the USPTO. Even though the Arthrex panel focused on

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the Director's authority-or lack thereof-over APJs as an essential building block in its analysis, the panel failed to give adequate weight to these compelling features of the Director's authority.

Other indicia support the view that APJs are inferior officers, but I view panel selection and precedential determinations as key, and noticeably absent from the discussion in Arthrex. Accordingly, I respectfully disagree with the Arthrex decision.

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## APPENDIX D

RELEVANT CONSTITUTIONAL AND STATUTORY PROVISIONS

1. The United States Constitution provides in relevant part as follows:

## Article II, § 2

*     *         *             *                 * 

[The President] 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.
2. Title 5 of the United States Code provides in relevant part as follows:

## § 7513. Cause and procedure

(a) Under regulations prescribed by the Office of Personnel Management, an agency may take an action covered by this subchapter against an employee only for such cause as will promote the efficiency of the service.
(b) An employee against whom an action is proposed is entitled to-
(1) at least 30 days' advance written notice, unless there is reasonable cause to believe the employee has committed a crime for which a sentence of imprisonment may be imposed, stating the specific reasons for the proposed action;
(2) a reasonable time, but not less than 7 days, to answer orally and in writing and to furnish affidavits and other documentary evidence in support of the answer;
(3) be represented by an attorney or other representative; and
(4) a written decision and the specific reasons therefor at the earliest practicable date.
(c) An agency may provide, by regulation, for a hearing which may be in lieu of or in addition to the opportunity to answer provided under subsection (b)(2) of this section.
(d) An employee against whom an action is taken under this section is entitled to appeal to the Merit Systems Protection Board under section 7701 of this title.
(e) Copies of the notice of proposed action, the answer of the employee when written, a summary thereof when made orally, the notice of decision and reasons therefor,

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and any order effecting an action covered by this subchapter, together with any supporting material, shall be maintained by the agency and shall be furnished to the Board upon its request and to the employee affected upon the employee's request.

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3. Title 35 of the United States Code provides in relevant part as follows:

## §3. Officers and employees

(a) Under SEcretary and Director.-
(1) In general.-The powers and duties of the United States Patent and Trademark Office shall be vested in an Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (in this title referred to as the "Director"), who shall be a citizen of the United States and who shall be appointed by the President, by and with the advice and consent of the Senate. The Director shall be a person who has a professional background and experience in patent or trademark law.
(2) Duties.-
(A) In general.-The Director shall be responsible for providing policy direction and management supervision for the Office and for the issuance of patents and the registration of trademarks. The Director shall perform these duties in a fair, impartial, and equitable manner.
(B) Consulting with the public advisory committees.-The Director shall consult with the Patent Public Advisory Committee established in section 5 on a regular basis on matters relating to the patent operations of the Office, shall consult with the Trademark Public Advisory Committee established in section 5 on a regular basis on matters relating to the trademark operations of the Office, and shall consult with the respective Public Advisory Committee before submitting budgetary proposals to the Office of Management and Budget or changing or proposing to change patent or trademark user
fees or patent or trademark regulations which are subject to the requirement to provide notice and opportunity for public comment under section 553 of title 5 , as the case may be.
(3) OATH.-The Director shall, before taking office, take an oath to discharge faithfully the duties of the Office.
(4) Removal.-The Director may be removed from office by the President. The President shall provide notification of any such removal to both Houses of Congress.
(b) Officers and Employees of the Office.-
(1) DEPUTY UNDER SECRETARY AND DEPUTY DIREC-TOR.-The Secretary of Commerce, upon nomination by the Director, shall appoint a Deputy Under Secretary of Commerce for Intellectual Property and Deputy Director of the United States Patent and Trademark Office who shall be vested with the authority to act in the capacity of the Director in the event of the absence or incapacity of the Director. The Deputy Director shall be a citizen of the United States who has a professional background and experience in patent or trademark law.
(2) Commissioners.-
(A) Appointment and duties.-The Secretary of Commerce shall appoint a Commissioner for Patents and a Commissioner for Trademarks, without regard to chapter 33,51 , or 53 of title 5 . The Commissioner for Patents shall be a citizen of the United States with demonstrated management ability and professional background and experience in patent law and serve for a term of 5 years. The Commissioner for Trademarks shall be a citizen of the United

States with demonstrated management ability and professional background and experience in trademark law and serve for a term of 5 years. The Commissioner for Patents and the Commissioner for Trademarks shall serve as the chief operating officers for the operations of the Office relating to patents and trademarks, respectively, and shall be responsible for the management and direction of all aspects of the activities of the Office that affect the administration of patent and trademark operations, respectively. The Secretary may reappoint a Commissioner to subsequent terms of 5 years as long as the performance of the Commissioner as set forth in the performance agreement in subparagraph (B) is satisfactory.
(B) SALARY AND PERFORMANCE AGREEMENT.The Commissioners shall be paid an annual rate of basic pay not to exceed the maximum rate of basic pay for the Senior Executive Service established under section 5382 of title 5, including any applicable locality-based comparability payment that may be authorized under section $5304(\mathrm{~h})(2)(\mathrm{C})$ of title 5. The compensation of the Commissioners shall be considered, for purposes of section 207(c)(2)(A) of title 18 , to be the equivalent of that described under clause (ii) of section 207(c)(2)(A) of title 18. In addition, the Commissioners may receive a bonus in an amount of up to, but not in excess of, 50 percent of the Commissioners' annual rate of basic pay, based upon an evaluation by the Secretary of Commerce, acting through the Director, of the Commissioners' performance as defined in an annual performance agreement between the Commissioners and the Secretary. The annual performance agreements shall

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incorporate measurable organization and individual goals in key operational areas as delineated in an annual performance plan agreed to by the Commissioners and the Secretary. Payment of a bonus under this subparagraph may be made to the Commissioners only to the extent that such payment does not cause the Commissioners' total aggregate compensation in a calendar year to equal or exceed the amount of the salary of the Vice President under section 104 of title 3.
(C) Removal.-The Commissioners may be removed from office by the Secretary for misconduct or nonsatisfactory performance under the performance agreement described in subparagraph (B), without regard to the provisions of title 5 . The Secretary shall provide notification of any such removal to both Houses of Congress.
(3) OTHER OFFICERS AND EMPLOYEES.-The Director shall-
(A) appoint such officers, employees (including attorneys), and agents of the Office as the Director considers necessary to carry out the functions of the Office; and
(B) define the title, authority, and duties of such officers and employees and delegate to them such of the powers vested in the Office as the Director may determine.
The Office shall not be subject to any administratively or statutorily imposed limitation on positions or personnel, and no positions or personnel of the Office shall be taken into account for purposes of applying any such limitation.

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(4) Training of examiners.-The Office shall submit to the Congress a proposal to provide an incentive program to retain as employees patent and trademark examiners of the primary examiner grade or higher who are eligible for retirement, for the sole purpose of training patent and trademark examiners.
(5) National security positions.-The Director, in consultation with the Director of the Office of Personnel Management, shall maintain a program for identifying national security positions and providing for appropriate security clearances, in order to maintain the secrecy of certain inventions, as described in section 181, and to prevent disclosure of sensitive and strategic information in the interest of national security.
(6) Administrative patent Judges and adminISTRATIVE TRADEMARK JUDGES.-The Director may fix the rate of basic pay for the administrative patent judges appointed pursuant to section 6 and the administrative trademark judges appointed pursuant to section 17 of the Trademark Act of 1946 (15 U.S.C. 1067) at not greater than the rate of basic pay payable for level III of the Executive Schedule under section 5314 of title 5. The payment of a rate of basic pay under this paragraph shall not be subject to the pay limitation under section 5306(e) or 5373 of title 5.
(c) Continued Applicability of Title 5.-Officers and employees of the Office shall be subject to the provisions of title 5, relating to Federal employees.
(d) Adoption of Existing Labor Agreements.The Office shall adopt all labor agreements which are in effect, as of the day before the effective date of the Patent and Trademark Office Efficiency Act, with respect to such Office (as then in effect).
(e) Carryover of Personnel.-
(1) From PTO.-Effective as of the effective date of the Patent and Trademark Office Efficiency Act, all officers and employees of the Patent and Trademark Office on the day before such effective date shall become officers and employees of the Office, without a break in service.
(2) Other Personnel.-Any individual who, on the day before the effective date of the Patent and Trademark Office Efficiency Act, is an officer or employee of the Department of Commerce (other than an officer or employee under paragraph (1)) shall be transferred to the Office, as necessary to carry out the purposes of that Act, if-
(A) such individual serves in a position for which a major function is the performance of work reimbursed by the Patent and Trademark Office, as determined by the Secretary of Commerce;
(B) such individual serves in a position that performed work in support of the Patent and Trademark Office during at least half of the incumbent's work time, as determined by the Secretary of Commerce; or
(C) such transfer would be in the interest of the Office, as determined by the Secretary of Commerce in consultation with the Director.

Any transfer under this paragraph shall be effective as of the same effective date as referred to in paragraph (1), and shall be made without a break in service.
(f) Transition Provisions.-
(1) Interim appointment of director.-On or after the effective date of the Patent and Trademark

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Office Efficiency Act, the President shall appoint an individual to serve as the Director until the date on which a Director qualifies under subsection (a). The President shall not make more than one such appointment under this subsection.
(2) CONTINUATION IN OFFICE OF CERTAIN OFFI-CERS.-(A) The individual serving as the Assistant Commissioner for Patents on the day before the effective date of the Patent and Trademark Office Efficiency Act may serve as the Commissioner for Patents until the date on which a Commissioner for Patents is appointed under subsection (b).
(B) The individual serving as the Assistant Commissioner for Trademarks on the day before the effective date of the Patent and Trademark Office Efficiency Act may serve as the Commissioner for Trademarks until the date on which a Commissioner for Trademarks is appointed under subsection (b).

## §6. Patent Trial and Appeal Board

(a) In General.-There shall be in the Office a Patent Trial and Appeal Board. The Director, the Deputy Director, the Commissioner for Patents, the Commissioner for Trademarks, and the administrative patent judges shall constitute the Patent Trial and Appeal Board. The administrative patent judges shall be persons of competent legal knowledge and scientific ability who are appointed by the Secretary, in consultation with the Director. Any reference in any Federal law, Executive order, rule, regulation, or delegation of authority, or any document of or pertaining to the Board of Patent Appeals and Interferences is deemed to refer to the Patent Trial and Appeal Board.

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(b) Duties.-The Patent Trial and Appeal Board shall-
(1) on written appeal of an applicant, review adverse decisions of examiners upon applications for patents pursuant to section 134(a);
(2) review appeals of reexaminations pursuant to section 134(b);
(3) conduct derivation proceedings pursuant to section 135; and
(4) conduct inter partes reviews and post-grant reviews pursuant to chapters 31 and 32.
(c) 3-Member Panels.-Each appeal, derivation proceeding, post-grant review, and inter partes review shall be heard by at least 3 members of the Patent Trial and Appeal Board, who shall be designated by the Director. Only the Patent Trial and Appeal Board may grant rehearings.
(d) Treatment of Prior Appointments.-The Secretary of Commerce may, in the Secretary's discretion, deem the appointment of an administrative patent judge who, before the date of the enactment of this subsection, held office pursuant to an appointment by the Director to take effect on the date on which the Director initially appointed the administrative patent judge. It shall be a defense to a challenge to the appointment of an administrative patent judge on the basis of the judge's having been originally appointed by the Director that the administrative patent judge so appointed was acting as a de facto officer.

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§ 141. Appeal to Court of Appeals for the Federal Circuit
(a) Examinations.-An applicant who is dissatisfied with the final decision in an appeal to the Patent Trial and Appeal Board under section 134(a) may appeal the Board's decision to the United States Court of Appeals for the Federal Circuit. By filing such an appeal, the applicant waives his or her right to proceed under section 145.
(b) Reexaminations.-A patent owner who is dissatisfied with the final decision in an appeal of a reexamination to the Patent Trial and Appeal Board under section 134(b) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit.
(c) Post-Grant and Inter Partes Reviews.-A party to an inter partes review or a post-grant review who is dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) or 328(a) (as the case may be) may appeal the Board's decision only to the United States Court of Appeals for the Federal Circuit.
(d) Derivation Proceedings.-A party to a derivation proceeding who is dissatisfied with the final decision of the Patent Trial and Appeal Board in the proceeding may appeal the decision to the United States Court of Appeals for the Federal Circuit, but such appeal shall be dismissed if any adverse party to such derivation proceeding, within 20 days after the appellant has filed notice of appeal in accordance with section 142, files notice with the Director that the party elects to have all further proceedings conducted as provided in section 146. If the appellant does not, within 30 days after the filing of such notice by the adverse party, file a civil action under section 146, the Board's decision shall govern the further proceedings in the case.

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## § 311. Inter partes review

(a) In General.-Subject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the review.
(b) Scope.-A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.
(c) Filing Deadline.-A petition for inter partes review shall be filed after the later of either-
(1) the date that is 9 months after the grant of a patent; or
(2) if a post-grant review is instituted under chapter 32 , the date of the termination of such post-grant review.

## §312. Petitions

(a) Requirements of Petition.-A petition filed under section 311 may be considered only if-
(1) the petition is accompanied by payment of the fee established by the Director under section 311;
(2) the petition identifies all real parties in interest;
(3) the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim, including-

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(A) copies of patents and printed publications that the petitioner relies upon in support of the petition; and
(B) affidavits or declarations of supporting evidence and opinions, if the petitioner relies on expert opinions;
(4) the petition provides such other information as the Director may require by regulation; and
(5) the petitioner provides copies of any of the documents required under paragraphs (2), (3), and (4) to the patent owner or, if applicable, the designated representative of the patent owner.
(b) Public Availability.-As soon as practicable after the receipt of a petition under section 311, the Director shall make the petition available to the public.

## § 313. Preliminary response to petition

If an inter partes review petition is filed under section 311, the patent owner shall have the right to file a preliminary response to the petition, within a time period set by the Director, that sets forth reasons why no inter partes review should be instituted based upon the failure of the petition to meet any requirement of this chapter.

## §314. Institution of inter partes review

(a) Threshold.-The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.
(b) Timing.-The Director shall determine whether to institute an inter partes review under this chapter

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pursuant to a petition filed under section 311 within 3 months after-
(1) receiving a preliminary response to the petition under section 313 ; or
(2) if no such preliminary response is filed, the last date on which such response may be filed.
(c) Notice.-The Director shall notify the petitioner and patent owner, in writing, of the Director's determination under subsection (a), and shall make such notice available to the public as soon as is practicable. Such notice shall include the date on which the review shall commence.
(d) No Appeal.-The determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable.

## § 315. Relation to other proceedings or actions

(a) InFringer's Civil Action.-
(1) Inter partes review barred by civil ac-TION.-An inter partes review may not be instituted if, before the date on which the petition for such a review is filed, the petitioner or real party in interest filed a civil action challenging the validity of a claim of the patent.
(2) Stay of civil action.-If the petitioner or real party in interest files a civil action challenging the validity of a claim of the patent on or after the date on which the petitioner files a petition for inter partes review of the patent, that civil action shall be automatically stayed until either-
(A) the patent owner moves the court to lift the stay;

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(B) the patent owner files a civil action or counterclaim alleging that the petitioner or real party in interest has infringed the patent; or
(C) the petitioner or real party in interest moves the court to dismiss the civil action.
(3) Treatment of counterclaim.-A counterclaim challenging the validity of a claim of a patent does not constitute a civil action challenging the validity of a claim of a patent for purposes of this subsection.
(b) Patent Owner's Action.-An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c).
(c) Joinder.-If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.
(d) Multiple Proceedings.-Notwithstanding sections $135($ a), 251 , and 252 , and chapter 30 , during the pendency of an inter partes review, if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the inter partes review or other proceeding or matter may proceed, including providing for stay, transfer, consolidation, or termination of any such matter or proceeding.
(e) ESTOPPEL.-
(1) Proceedings before the Office.-The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review.
(2) Civil actions and other proceedings.-The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

## $\S 316$. Conduct of inter partes review

(a) Regulations.-The Director shall prescribe reg-ulations-
(1) providing that the file of any proceeding under this chapter shall be made available to the public, except that any petition or document filed with the intent that it be sealed shall, if accompanied by a motion to seal, be treated as sealed pending the outcome of the ruling on the motion;
(2) setting forth the standards for the showing of sufficient grounds to institute a review under section 314(a);

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(3) establishing procedures for the submission of supplemental information after the petition is filed;
(4) establishing and governing inter partes review under this chapter and the relationship of such review to other proceedings under this title;
(5) setting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to-
(A) the deposition of witnesses submitting affidavits or declarations; and
(B) what is otherwise necessary in the interest of justice;
(6) prescribing sanctions for abuse of discovery, abuse of process, or any other improper use of the proceeding, such as to harass or to cause unnecessary delay or an unnecessary increase in the cost of the proceeding;
(7) providing for protective orders governing the exchange and submission of confidential information;
(8) providing for the filing by the patent owner of a response to the petition under section 313 after an inter partes review has been instituted, and requiring that the patent owner file with such response, through affidavits or declarations, any additional factual evidence and expert opinions on which the patent owner relies in support of the response;
(9) setting forth standards and procedures for allowing the patent owner to move to amend the patent under subsection (d) to cancel a challenged claim or propose a reasonable number of substitute claims, and ensuring that any information submitted by the patent owner in support of any amendment entered under

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subsection (d) is made available to the public as part of the prosecution history of the patent;
(10) providing either party with the right to an oral hearing as part of the proceeding;
(11) requiring that the final determination in an inter partes review be issued not later than 1 year after the date on which the Director notices the institution of a review under this chapter, except that the Director may, for good cause shown, extend the 1-year period by not more than 6 months, and may adjust the time periods in this paragraph in the case of joinder under section 315(c);
(12) setting a time period for requesting joinder under section 315(c); and
(13) providing the petitioner with at least 1 opportunity to file written comments within a time period established by the Director.
(b) CONSIDERATIONS.-In prescribing regulations under this section, the Director shall consider the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.
(c) Patent Trial and Appeal Board.-The Patent Trial and Appeal Board shall, in accordance with section 6 , conduct each inter partes review instituted under this chapter.
(d) Amendment of the Patent.-
(1) In GENERAL.-During an inter partes review instituted under this chapter, the patent owner may file 1 motion to amend the patent in 1 or more of the following ways:

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(A) Cancel any challenged patent claim.
(B) For each challenged claim, propose a reasonable number of substitute claims.
(2) Additional motions.-Additional motions to amend may be permitted upon the joint request of the petitioner and the patent owner to materially advance the settlement of a proceeding under section 317, or as permitted by regulations prescribed by the Director.
(3) Scope of claims.-An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.
(e) Evidentiary Standards.-In an inter partes review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.

## §317. Settlement

(a) In General.-An inter partes review instituted under this chapter shall be terminated with respect to any petitioner upon the joint request of the petitioner and the patent owner, unless the Office has decided the merits of the proceeding before the request for termination is filed. If the inter partes review is terminated with respect to a petitioner under this section, no estoppel under section 315(e) shall attach to the petitioner, or to the real party in interest or privy of the petitioner, on the basis of that petitioner's institution of that inter partes review. If no petitioner remains in the inter partes review, the Office may terminate the review or proceed to a final written decision under section 318(a).
(b) Agreements in Writing.-Any agreement or understanding between the patent owner and a petitioner, including any collateral agreements referred to in such agreement or understanding, made in connection with, or
in contemplation of, the termination of an inter partes review under this section shall be in writing and a true copy of such agreement or understanding shall be filed in the Office before the termination of the inter partes review as between the parties. At the request of a party to the proceeding, the agreement or understanding shall be treated as business confidential information, shall be kept separate from the file of the involved patents, and shall be made available only to Federal Government agencies on written request, or to any person on a showing of good cause.

## § 318. Decision of the Board

(a) Final Written Decision.-If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 316(d).
(b) Certificate.-If the Patent Trial and Appeal Board issues a final written decision under subsection (a) and the time for appeal has expired or any appeal has terminated, the Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable, confirming any claim of the patent determined to be patentable, and incorporating in the patent by operation of the certificate any new or amended claim determined to be patentable.
(c) Intervening Rights.-Any proposed amended or new claim determined to be patentable and incorporated into a patent following an inter partes review under this chapter shall have the same effect as that specified in section 252 for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything
patented by such proposed amended or new claim, or who made substantial preparation therefor, before the issuance of a certificate under subsection (b).
(d) Data on Length of Review.-The Office shall make available to the public data describing the length of time between the institution of, and the issuance of a final written decision under subsection (a) for, each inter partes review.

## §319. Appeal

A party dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) may appeal the decision pursuant to sections 141 through 144. Any party to the inter partes review shall have the right to be a party to the appeal.

## § 321. Post-grant review

(a) In General.-Subject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute a post-grant review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the postgrant review.
(b) Scope.-A petitioner in a post-grant review may request to cancel as unpatentable 1 or more claims of a patent on any ground that could be raised under paragraph (2) or (3) of section 282(b) (relating to invalidity of the patent or any claim).
(c) Filing Deadline.-A petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).

## § 322. Petitions

(a) Requirements of Petition.-A petition filed under section 321 may be considered only if-
(1) the petition is accompanied by payment of the fee established by the Director under section 321 ;
(2) the petition identifies all real parties in interest;
(3) the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim, including-
(A) copies of patents and printed publications that the petitioner relies upon in support of the petition; and
(B) affidavits or declarations of supporting evidence and opinions, if the petitioner relies on other factual evidence or on expert opinions;
(4) the petition provides such other information as the Director may require by regulation; and
(5) the petitioner provides copies of any of the documents required under paragraphs (2), (3), and (4) to the patent owner or, if applicable, the designated representative of the patent owner.
(b) Public Availability.-As soon as practicable after the receipt of a petition under section 321 , the Director shall make the petition available to the public.

## § 323. Preliminary response to petition

If a post-grant review petition is filed under section 321 , the patent owner shall have the right to file a preliminary response to the petition, within a time period set by the Director, that sets forth reasons why no post-grant
review should be instituted based upon the failure of the petition to meet any requirement of this chapter.

## $\S 324$. Institution of post-grant review

(a) Threshold.-The Director may not authorize a post-grant review to be instituted unless the Director determines that the information presented in the petition filed under section 321, if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.
(b) Additional Grounds.-The determination required under subsection (a) may also be satisfied by a showing that the petition raises a novel or unsettled legal question that is important to other patents or patent applications.
(c) Timing.-The Director shall determine whether to institute a post-grant review under this chapter pursuant to a petition filed under section 321 within 3 months after-
(1) receiving a preliminary response to the petition under section 323 ; or
(2) if no such preliminary response is filed, the last date on which such response may be filed.
(d) Notice.-The Director shall notify the petitioner and patent owner, in writing, of the Director's determination under subsection (a) or (b), and shall make such notice available to the public as soon as is practicable. Such notice shall include the date on which the review shall commence.
(e) No Appeal.-The determination by the Director whether to institute a post-grant review under this section shall be final and nonappealable.

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## § 325. Relation to other proceedings or actions

(a) Infringer's Civil Action.-
(1) Post-Grant Review barred by civil ac-TION.-A post-grant review may not be instituted under this chapter if, before the date on which the petition for such a review is filed, the petitioner or real party in interest filed a civil action challenging the validity of a claim of the patent.
(2) Stay of civil action.-If the petitioner or real party in interest files a civil action challenging the validity of a claim of the patent on or after the date on which the petitioner files a petition for post-grant review of the patent, that civil action shall be automatically stayed until either-
(A) the patent owner moves the court to lift the stay;
(B) the patent owner files a civil action or counterclaim alleging that the petitioner or real party in interest has infringed the patent; or
(C) the petitioner or real party in interest moves the court to dismiss the civil action.
(3) Treatment of counterclaim.-A counterclaim challenging the validity of a claim of a patent does not constitute a civil action challenging the validity of a claim of a patent for purposes of this subsection.
(b) Preliminary Injunctions.-If a civil action alleging infringement of a patent is filed within 3 months after the date on which the patent is granted, the court may not stay its consideration of the patent owner's motion for a preliminary injunction against infringement of the patent on the basis that a petition for post-grant

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review has been filed under this chapter or that such a post-grant review has been instituted under this chapter.
(c) JoInder.-If more than 1 petition for a postgrant review under this chapter is properly filed against the same patent and the Director determines that more than 1 of these petitions warrants the institution of a post-grant review under section 324, the Director may consolidate such reviews into a single post-grant review.
(d) Multiple Proceedings.-Notwithstanding sections 135(a), 251, and 252, and chapter 30, during the pendency of any post-grant review under this chapter, if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the post-grant review or other proceeding or matter may proceed, including providing for the stay, transfer, consolidation, or termination of any such matter or proceeding. In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.
(e) Estoppel.-
(1) Proceedings before the office.-The petitioner in a post-grant review of a claim in a patent under this chapter that results in a final written decision under section 328(a), or the real party in interest or privy of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that post-grant review.
(2) Civil actions and other proceedings.-The petitioner in a post-grant review of a claim in a patent
under this chapter that results in a final written decision under section 328(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that post-grant review.
(f) Reissue Patents.-A post-grant review may not be instituted under this chapter if the petition requests cancellation of a claim in a reissue patent that is identical to or narrower than a claim in the original patent from which the reissue patent was issued, and the time limitations in section 321(c) would bar filing a petition for a post-grant review for such original patent.

## $\S 326$. Conduct of post-grant review

(a) Regulations.-The Director shall prescribe reg-ulations-
(1) providing that the file of any proceeding under this chapter shall be made available to the public, except that any petition or document filed with the intent that it be sealed shall, if accompanied by a motion to seal, be treated as sealed pending the outcome of the ruling on the motion;
(2) setting forth the standards for the showing of sufficient grounds to institute a review under subsections (a) and (b) of section 324;
(3) establishing procedures for the submission of supplemental information after the petition is filed;
(4) establishing and governing a post-grant review under this chapter and the relationship of such review to other proceedings under this title;
(5) setting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to evidence directly related to factual assertions advanced by either party in the proceeding;
(6) prescribing sanctions for abuse of discovery, abuse of process, or any other improper use of the proceeding, such as to harass or to cause unnecessary delay or an unnecessary increase in the cost of the proceeding;
(7) providing for protective orders governing the exchange and submission of confidential information;
(8) providing for the filing by the patent owner of a response to the petition under section 323 after a postgrant review has been instituted, and requiring that the patent owner file with such response, through affidavits or declarations, any additional factual evidence and expert opinions on which the patent owner relies in support of the response;
(9) setting forth standards and procedures for allowing the patent owner to move to amend the patent under subsection (d) to cancel a challenged claim or propose a reasonable number of substitute claims, and ensuring that any information submitted by the patent owner in support of any amendment entered under subsection (d) is made available to the public as part of the prosecution history of the patent;
(10) providing either party with the right to an oral hearing as part of the proceeding;
(11) requiring that the final determination in any post-grant review be issued not later than 1 year after the date on which the Director notices the institution of a proceeding under this chapter, except that the

Director may, for good cause shown, extend the 1-year period by not more than 6 months, and may adjust the time periods in this paragraph in the case of joinder under section 325(c); and
(12) providing the petitioner with at least 1 opportunity to file written comments within a time period established by the Director.
(b) Considerations.-In prescribing regulations under this section, the Director shall consider the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.
(c) Patent Trial and Appeal Board.-The Patent Trial and Appeal Board shall, in accordance with section 6 , conduct each post-grant review instituted under this chapter.
(d) Amendment of the Patent.-
(1) In GENERAL.-During a post-grant review instituted under this chapter, the patent owner may file 1 motion to amend the patent in 1 or more of the following ways:
(A) Cancel any challenged patent claim.
(B) For each challenged claim, propose a reasonable number of substitute claims.
(2) Additional motions.-Additional motions to amend may be permitted upon the joint request of the petitioner and the patent owner to materially advance the settlement of a proceeding under section 327, or upon the request of the patent owner for good cause shown.

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(3) SCOPE OF CLAIMS.-An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.
(e) Evidentiary Standards.-In a post-grant review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.

## § 327. Settlement

(a) In General.-A post-grant review instituted under this chapter shall be terminated with respect to any petitioner upon the joint request of the petitioner and the patent owner, unless the Office has decided the merits of the proceeding before the request for termination is filed. If the post-grant review is terminated with respect to a petitioner under this section, no estoppel under section 325(e) shall attach to the petitioner, or to the real party in interest or privy of the petitioner, on the basis of that petitioner's institution of that post-grant review. If no petitioner remains in the post-grant review, the Office may terminate the post-grant review or proceed to a final written decision under section 328(a).
(b) Agreements in Writing.-Any agreement or understanding between the patent owner and a petitioner, including any collateral agreements referred to in such agreement or understanding, made in connection with, or in contemplation of, the termination of a post-grant review under this section shall be in writing, and a true copy of such agreement or understanding shall be filed in the Office before the termination of the post-grant review as between the parties. At the request of a party to the proceeding, the agreement or understanding shall be treated as business confidential information, shall be kept separate from the file of the involved patents, and shall be made available only to Federal Government
agencies on written request, or to any person on a showing of good cause.

## § 328. Decision of the Board

(a) Final Written Decision.-If a post-grant review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 326(d).
(b) Certificate.-If the Patent Trial and Appeal Board issues a final written decision under subsection (a) and the time for appeal has expired or any appeal has terminated, the Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable, confirming any claim of the patent determined to be patentable, and incorporating in the patent by operation of the certificate any new or amended claim determined to be patentable.
(c) Intervening Rights.-Any proposed amended or new claim determined to be patentable and incorporated into a patent following a post-grant review under this chapter shall have the same effect as that specified in section 252 for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation therefor, before the issuance of a certificate under subsection (b).
(d) Data on Length of Review.-The Office shall make available to the public data describing the length of time between the institution of, and the issuance of a final written decision under subsection (a) for, each post-grant review.

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§329. Appeal
A party dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 328(a) may appeal the decision pursuant to sections 141 through 144. Any party to the post-grant review shall have the right to be a party to the appeal.

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4. Act of March 2, 1861, Chapter 88, 12 Stat. 246 (1861), provided in relevant part as follows:

SEC. 2. And be it further enacted, That, for the purpose of securing greater uniformity of action in the grant and refusal of letters-patent, there shall be appointed, by the President, by and with the advice and consent of the Senate, three examiners-in-chief, at an annual salary of three thousand dollars each, to be composed of persons of competent legal knowledge and scientific ability, whose duty it shall be, on the written petition of the applicant for that purpose being filed, to revise and determine upon the validity of decisions made by examiners when adverse to the grant of letters-patent; and also to revise and determine in like manner upon the validity of the decisions of examiners in interferences cases, and when required by the Commissioner in applications for the extension of patents, and to perform such other duties as may be assigned to them by the Commissioner; that from their decisions appeals may be taken to the Commissioner of Patents in person, upon payment of the fee hereinafter prescribed; that the said examiners-in-chief shall be governed in their action by the rules to be prescribed by the Commissioner of Patents.

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5. Pub. L. No. 93-601, 88 Stat. 1956 (1975), provided in relevant part as follows:
[S]ection 3, title 35, of the United States Code is amended to read as follows:
"§ 3. Officers and employees
"(a) There shall be in the Patent Office a Commissioner of Patents, a Deputy Commissioner, two Assistant Commissioners, and not more than fifteen examiners-inchief. The Deputy Commissioner, or, in the event of a vacancy in that office, the Assistant Commissioner senior in date of appointment shall fill the office of Commissioner during a vacancy in that office until the Commissioner is appointed and takes office. The Commissioner of Patents, the Deputy Commissioner, and the Assistant Commissioners shall be appointed by the President, by and with the advice and consent of the Senate. The Secretary of Commerce, upon the nomination of the Commissioner, in accordance with law, shall appoint all other officers and employees.
"(b) The Secretary of Commerce may vest in himself the functions of the Patent Office and its officers and employees specified in this title and may from time to time authorize their performance by any other officer or employee.
"(c) The Secretary of Commerce is authorized to fix the per annum rate of basic compensation of each exam-iner-in-chief in the Patent Office at not in excess of the maximum scheduled rate provided for positions in grade 17 of the General Schedule of the Classification Act of 1949, as amended."

SEC. 2. The first paragraph of section 7 of title 35 of the United States Code is amended to read as follows:
"The examiners-in-chief shall be persons of competent legal knowledge and scientific ability, who shall be ap-

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pointed under the classified civil service. The Commissioner, the deputy commissioner, the assistant commissioners, and the examiners-in-chief shall constitute a Board of Appeals, which on written appeal of the applicant, shall review adverse decisions of examiners upon applications for patents. Each appeal shall be heard by at least three members of the Board of Appeals, the members hearing such appeal to be designated by the Commissioner. The Board of Appeals has sole power to grant rehearings."

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6. Pub. L. No. 106-113 app. I, 113 Stat. 1501A-521 (1999), provided in relevant part as follows:

SEC. 4713. Organization and Management.
Section 3 of title 35, United States Code, is amended to read as follows:

## "§3. Officers and employees

*     *         *             *                 * 

"(c) Continued Applicability of Title 5, United States Code.-Officers and employees of the Office shall be subject to the provisions of title 5, United States Code, relating to Federal employees.

## SEC. 4717. Board of Patent Appeals and Interferences.

Chapter 1 of title 35, United States Code, is amended-
(1) by striking section 7 and redesignating sections

8 through 14 as sections 7 through 13 , respectively; and
(2) by inserting after section 5 the following:
"§ 6. Board of Patent Appeals and Interferences
"(a) Establishment and Composition.-There shall be in the United States Patent and Trademark Office a Board of Patent Appeals and Interferences. The Director, the Commissioner for Patents, the Commissioner for Trademarks, and the administrative patent judges shall constitute the Board. The administrative patent judges shall be persons of competent legal knowledge and scientific ability who are appointed by the Director.
"(b) Duties.-The Board of Patent Appeals and Interferences shall, on written appeal of an applicant, review adverse decisions of examiners upon applications for patents and shall determine priority and patentability of

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invention in interferences declared under section 135(a). Each appeal and interference shall be heard by at least three members of the Board, who shall be designated by the Director. Only the Board of Patent Appeals and Interferences may grant rehearings."

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7. Pub. L. No. 110-313, 122 Stat. 3014 (2008), provided in relevant part as follows:

## SEc. 1. Appointment of Administrative Patent Judges and Administrative Trademark Judges.

(a) Administrative Patent Judges.-Section 6 of title 35, United States Code, is amended-
(1) in subsection (a)-
(A) in the second sentence, by striking "Deputy Commissioner" and inserting "Deputy Director"; and
(B) in the last sentence, by striking "Director" and inserting "Secretary of Commerce, in consultation with the Director"; and
(C) by adding at the end the following:
"(c) Authority of the Secretary.-The Secretary of Commerce may, in his or her discretion, deem the appointment of an administrative patent judge who, before the date of the enactment of this subsection, held office pursuant to an appointment by the Director to take effect on the date on which the Director initially appointed the administrative patent judge.
"(d) Defense to Challenge of Appointment.-It shall be a defense to a challenge to the appointment of an administrative patent judge on the basis of the judge's having been originally appointed by the Director that the administrative patent judge so appointed was acting as a de facto officer."


[^0]:    ${ }^{1}$ The Board held two of the fourteen challenged claims anticipated by another prior-art reference as well, and Arthrex disclaimed two other claims. App., infra, 40a-41a, 44a-46a.

[^1]:    ${ }^{2}$ The court of appeals mistakenly stated that "[a]ll parties and the government agree that this would be an appropriate cure for an Appointments Clause infirmity." App., infra, 26a. In fact, Arthrex argued that APJ tenure protections are not severable as a matter of congressional intent, Arthrex C.A. Supp. Br. 19 (Dkt. 67) ("[S]triking the removal provisions would lead to a statute that Congress would probably have refused to adopt."), and that the lack of review was itself sufficient to make APJs principal officers, Arthrex C.A. Br. 64 ("[0]fficers are principal officers where their authorizing statutes do not 'provide any procedure by which the [officer's] decision is reviewable" ***."); Arthrex C.A. Reply 30 (similar); Arthrex C.A. Reh'g Pet. 2 (noting error).

[^2]:    ${ }^{3}$ Free Enterprise Fund v. Public Company Accounting Oversight Board, 561 U.S. 477 (2010), does not support the court's remedy. The officers there were the head of an agency with broad policymaking and prosecutorial authority. Id. at 485. The Court expressly distinguished them from "administrative law judges [who] * * * perform adjudicative rather than enforcement or policymaking functions." Id. at 507 n.10; see also Seila Law LLC v. Consumer Fin. Prot. Bureau, No. 19-7 (June 29, 2020) (agency head with broad regulatory and enforcement powers). Congress's long history of providing tenure protections to administrative judges was not at issue in Free Enterprise Fund or Seila Law. But it is the whole ball game here.

[^3]:    ${ }^{4}$ See also, e.g., NLRB v. SW Gen., Inc., 137 S. Ct. 929, 947-948 (2017) (Thomas, J., concurring) (NLRB General Counsel "likely a principal officer" in part because his "prosecutorial decisions are unreviewable").

[^4]:    ${ }^{5}$ See, e.g., Act of Mar. 3, 1797, ch. 13, § 1, 1 Stat. 506, 506 (penalties reviewable by Secretary of the Treasury); Act of Jan. 9, 1808, ch. 8, § 6, 2 Stat. 453, 454 (same); Act of Mar. 3, 1839, ch. 82, § 2, 5 Stat. 339, 348-349 (customs collector decisions); Act of Aug. 30, 1852, ch. 106, $\S \S 9,18,10$ Stat. 61, 67, 70 (steamboat inspector decisions).

[^5]:    ${ }^{6}$ Some agencies have delegated review to other officers, but even then, principal officers remain the source of final decisionmaking authority and may revoke or modify their delegation as they see fit. See, e.g., 85 Fed. Reg. 13,186, 13,188 (Mar. 6, 2020) (providing for Secretary of Labor review of Administrative Review Board decisions where Secretary had previously delegated final authority to Board).

[^6]:    ${ }^{1}$ The Director delegated that authority to the Board, so now "[t]he Board institutes the trial on behalf of the Director." 37 C.F.R. § 42.4(a). ${ }^{2}$ The Board consists of "[t]he Director, the Deputy Director, the Commissioner for Patents, the Commissioner for Trademarks, and the administrative patent judges." 35 U.S.C. §6(a). The Director of the USPTO is "appointed by the President, by and with the advice and consent of the Senate." Id. §3(a). The Deputy Director and the

[^7]:    ${ }^{3}$ It is not clear the Director has de-designation authority. To be sure, someone must have the power to remove an officer from government service, so when a statute is silent about removal, we presume that the person who appoints the officer to office has the power to remove him. But it is not clear that Congress intended panels once designated to be able to be de-designated. Such a conclusion could run afoul of Congress' goal of speedy resolution through "quick and cost effective alternatives to litigation." H.R. Rep. No. 112-98, pt. 1, at 48 (2011). Additionally, it is not clear whether this type of mid-case de-designation of an APJ could create a Due Process problem. However, we need not decide whether the Director has such authority or whether such authority would run afoul of the Constitution because even if we accept, for purposes of this appeal, that he does possess that authority, it would not change the outcome.

[^8]:    ${ }^{4}$ The parties dispute which provision of Title 5 governs removal of APJs. Arthrex argues that 5 U.S.C. § 7521(a) limits removal of the APJs to removal "only for good cause established and determined by the Merit Systems Protection Board on the record after opportunity for hearing before the Board." Whereas the government argues that § 7521 does not apply to APJs because they are appointed not under 5 U.S.C. §3105, but under 35 U.S.C. §6. The government argues therefore that removal of APJs is governed by the section of Title 5 related to federal employees generally, which limits removal "only for such cause as will promote the efficiency of the service." 5 U.S.C. §7513(a). We agree with the government that the applicable provision to removal of APJs in Title 5 is $\S 7513$. Section 7513 contains a lower threshold to support removal than does $\S 7521$.

[^9]:    ${ }^{5}$ Under §7513(b), the Director does not have unfettered authority to remove an APJ from service. We do not, however, express an opinion as to circumstances which could justify a removal for such cause as would promote the efficiency of service.

[^10]:    ${ }^{6}$ In 2015, the USPTO requested comments on a proposed pilot program under which institution decisions for inter partes reviews would be decided by a single APJ as opposed to three-APJ panels. Multiple commenters expressed concern that such a change would reduce consistency, predictability, and accuracy in the institution decisions. See, e.g., Comments of the American Bar Association Section of Intellectual Property at 3 (Nov. 12, 2015) ("a single judge panel . . . will increase the likelihood of incorrect decisions"); Comments of Various Automotive Companies at 3 (Nov. 17, 2015) ("Using just one APJ to decide a particular matter would greatly dilute . . . deliberativeness."); Comments of Askeladden LLC at 2 (Nov. 18, 2015) ("the inherent safeguard of a three-judge arbiter gives the public confidence"); Comments of Public Knowledge and Electronic Frontier Foundation at 2 (Nov. 18, 2015) ("by changing the institution decision body from a three-judge panel to a single judge, the USPTO risks a decline in quality of institution decisions").

[^11]:    ${ }^{1}$ U.S. Patent App. Pub. No. US 2002/0013608 A1, published Jan. 31, 2002, Ex. 1010.
    ${ }^{2}$ Int'l Patent App. Pub. No. WO 02/21999 A2, published Mar. 21, 2002, Ex. 1011.

[^12]:    ${ }^{3}$ Because the effective filing date of at least one claim of the ' 907 patent is after March 16, 2013, the first inventor to file version of 35 U.S.C. $\S 102$ is applicable under the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"). See AIA §3(n)(1).

[^13]:    ${ }^{4}$ The parties followed different conventions in referring to the applications at issue, with Patent Owner generally using the last three digits of the application's serial number (see, e.g., PO Resp. 4 ("The ' 907 patent . . issued from the ' 601 application . . . .")) and Petitioners alternating between the application's abbreviated serial number (see, e.g., Pet. 39 ("The ' 601 Application . . . purports to be a 'continuation' of the '218.") and the year in which the application was filed (see, e.g., Reply 1 ("Arthrex wrongly maintains that the one species . . . disclosed in its 2001 application . . .")). Citations in this Decision use the abbreviated serial number except in quotations.

[^14]:    ${ }^{5}$ The "first member" limitation is also present in each of the other challenged claims, by virtue of their dependency from claims 1 or 16. ${ }^{6}$ Petitioner criticizes Patent Owner's written description arguments for allegedly blending enablement standards and case law into the written description analysis (see Tr. 5:15-17; Reply 17 n .11 ), but Petitioner's only challenge to the ' 907 patent's priority claim is based on the written description requirement.

[^15]:    ${ }^{7}$ We note that the ElAttrache reference Petitioners rely on for their anticipation challenge is the printed publication of the ' 280 application filed in June of 2001, i.e., the latter of Petitioners' so-called flexible loop only disclosures.

[^16]:    ${ }^{8}$ Consistent with that acknowledgement, Patent Owner's disclosures under the local rules for patent cases in the parallel district court case listed April 3, 2003, the filing date of the '707 application, as the priority date for the now-disclaimed claims 15 and 30. Ex. 1018. Those claims depended from claims 1 and 16 , respectively, and added the requirement that "the first member is a rigid implant defining the eyelet." Ex. 1001, 11:16-17, 12:42-43. At the hearing in this proceeding, Patent Owner was asked whether now-disclaimed claim 15 requiring a rigid implant would have written description support in the '263 Provisional and responded that "that specific subspecies was not disclosed with respect to any expressed terms of a rigid eyelet." Tr. 40:18-20.

[^17]:    ${ }^{9}$ Patent Owner's arguments seeking to distinguish Tronzo and Anascape are discussed below.

[^18]:    ${ }^{10}$ Patent Owner's motion to exclude Exhibit 1035 is addressed in Section VI.

[^19]:    ${ }^{11}$ When asked about this issue at the hearing, Patent Owner explained that the ' 893 application does not break the priority chain because it includes the priority claim back to the ' 280 application and it incorporates the '280 application by reference. See Tr. 48:7-49:13. Patent Owner's arguments regarding the priority claim and incorporation by reference have already been discussed. To the extent Patent Owner is relying on the language of the original claims of the ' 707 application to establish written description support, the ' 893 application presents a separate impediment.

[^20]:    ${ }^{12}$ Patent Owner also argues that the parent application in Anascape distinguished the single input member from prior art, whereas the '707 application's discussion of the '280 application "is merely commentary on the inventors' own earlier work," not a discussion of prior art. PO Resp. 33-34. Patent Owner's argument that common inventorship prevents the '280 application from being prior art to the '707 application is unpersuasive for the reasons discussed above.

[^21]:    ${ }^{13}$ Patent Owner's motion also included an argument that Exhibit 1035 constitutes inadmissible hearsay, but Patent Owner withdrew its hearsay objection in light of Petitioners' arguments in opposition. See Paper 25, 1-3; Paper 29, 1.

[^22]:    ${ }^{1}$ To the extent that the dissents suggest otherwise, it is the Secretary of Commerce, not the Director, who appoints (35 U.S.C. § 6(c)) and thus can remove APJs.

[^23]:    ${ }^{2}$ Judge Hughes suggests that Congress would not have divested APJs of their removal protection to preserve the remainder of the statute and that Congress should fix the statute. To be clear, this would require holding the inter partes review statute unconstitutional and paralyzing the Board until Congress acts.

[^24]:    ${ }^{3}$ Per the Supreme Court's decision in Lucia, Arthrex, and the other appeals with preserved Appointments Clause challenges, were vacated and remanded for hearings before new panels of APJs, who are now properly appointed. Lucia v. SEC, 138 S. Ct. 2044, 2055 (2018) ("[T]he 'appropriate' remedy for an adjudication tainted with an appointments violation is a new 'hearing before a properly appointed' official."); see Intercollegiate, 684 F.3d at 1342; Jones Bros., 898 F.3d at 679. Harper v. Virginia Dep't of Taxation does not establish that an applied severance, which preserves an otherwise unconstitutional statute, applies retroactively. 509 U.S. 86 (1993). The panel of APJs that decided the inter partes review in this case was not constitutionally appointed when it rendered that decision. To forgo vacatur as Judge Dyk suggests would be in direct contrast with Lucia and would undermine any incentive a party may have to raise an Appointments Clause challenge. The USPTO briefed this issue and likewise rejects the argument that Harper creates a basis for affirming. Supp. Br. of United States, Polaris v. Kingston, Nos. 2018-1768, -1831, at 14.
    ${ }^{4}$ We have thus far vacated and remanded 37 appeals which properly preserved the Appointments Clause challenge by raising it before or in their opening brief. There are 44 Board decisions rendered prior to our curative decision (October 31, 2019) where a notice of appeal has been filed by the patent owner, but no opening brief as of yet, or where an opening brief has been filed and does raise an Appointments Clause challenge. Thus, the universe of cases which could be vacated and remanded (if every one of these appellants requests remand) is 81 . ${ }^{5}$ See https://www.uspto.gov/patents-applicationprocess/patent-trial-and-appeal-board/appeals-and-interferences-statistics-page (to ascertain ex parte stats); see https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/statistics/aia-trial-statisticsarchive (to ascertain inter partes review stats).

[^25]:    ${ }^{6}$ Even if the USPTO were to adopt the dissent's proposed framework, Arthrex and all other similarly situated cases would still need to be vacated and remanded to the Board. The new framework did not exist when Arthrex was decided and it would not rectify the constitutional infirmity retroactively.
    ${ }^{7}$ Section 3(c) expressly says that title 5 protections apply to the agency's "officers and employees" of which the Deputy Director is undeniably one. Moreover, in other sections of the same statute when Congress intended to exempt an officer from title 5 protections it stated so explicitly. See, e.g., 35 U.S.C. §3(b)(2)(C) ("[T]he Com-

[^26]:    missioners may be removed from office by the Secretary . . . without regard to the provisions of title 5 . . . .").

[^27]:    ${ }^{1}$ This does not mean, of course, that we must provide a remedy to litigants who waived the issue. United States v. Booker, 543 U.S. 220, 268 (2005) ("[W]e expect reviewing courts to apply ordinary prudential doctrines" including those relating to waiver and harmless-error).

[^28]:    ${ }^{2}$ That dissent's attempt to distinguish Lucia is predicated on this same misunderstanding of Harper. Because judicial severance of one portion of an unconstitutional statute is, by necessity, only applicable prospectively, I agree with the Arthrex panel that a new hearing before a new panel of APJs is the only appropriate remedy for those whose proceedings were tainted by the constitutional violation.

[^29]:    ${ }^{1}$ "An action may be taken against an administrative law judge appointed under section 3105 of this title by the agency in which the administrative law judge is employed only for good cause established and determined by the Merit Systems Protection Board on the record after opportunity for hearing before the Board." 5 U.S.C. § 7521 (emphasis added). Though Executive Order 13843, dated July 10, 2018, placed all administrative law judges in the excepted service, and thus "not subject to the requirements of 5 CFR, part 302" and further amended 5 C.F.R. $\S 6.4$ to eliminate the application of title 5 protections to administrative law judges in general, the order was limited by this statutory provision. 83 Fed. Reg. 32756-57 ("Except as required by statute . . . .").

[^30]:    ${ }^{2}$ In fact, even when certain prior bills of the 1999 Act were considering making the PTO exempt from Title 5 , a special carve out provision was always contemplated for "quasi-judicial examiners," who would still be removable "only for such cause as will promote the efficiency" of the agency. S. Rep. No. 105-42, at 9, 48 (1997).

[^31]:    ${ }^{3}$ The panel relies on Intercollegiate Broad. Sys. v. Copyright Royalty Bd., 684 F.3d 1332 (D.C. Cir. 2012), to justify its severance decision. However, that case is neither binding nor apposite to the situation here. In Intercollegiate, the severed removal protections were part of the same substantive statute that authorized the Copyright Royalty Judges and there was no showing that excising the removal protections was contrary to Congressional intent. Id. at 1340-41; see also 17 U.S.C. § 802.
    ${ }^{4}$ In fact, Congressional fixes of PTAB Appointments Clause problems have been a feature of past Congressional legislation. See Patent and Trademark Administrative Judges Appointment Authority

[^32]:    ${ }^{6} I d$. at 1:04:00 (statement of John F. Duffy); $i d$. at 1:16:20 (statement of Arti K. Rai); id. at 1:42:12 (statement of Rep. Hank Johnson); see also id. at 1:11:00 (statement of John M. Whealan); id. at 1:44:231:46:30 (witnesses arguing for unilateral review by the Director).

[^33]:    ${ }^{7}$ The Director is "responsible for providing policy direction and management supervision for the Office," 35 U.S.C. §3(a)(2)(A), with the authority to "govern the conduct of the proceedings in the Office," 35 U.S.C. § 2(b)(2)(A). He is also "vested" with "[t]he powers and duties of the United States Patent and Trademark Office." 35 U.S.C. § 3(a)(1).

[^34]:    ${ }^{8}$ The statute also specifies that the Director is appointed and removable at will by the President. 35 U.S.C. § 3(a)(1), (4).
    ${ }^{9}$ The Deputy Director is not an "employee" for purposes of 5 U.S.C. § 7513, which provides removal protections to PTO officers and employees through 35 U.S.C. §3(c)'s application of Title 5 to the PTO's "[o]fficers and employees." Section 7511(b)(2)(C) of Title 5 excludes from the definition of "employees" subject to these protections those "employees whose position has been determined to be of a confidential, policy-determining, policy-making or policy-advocating character" by "the head of an agency for a position excepted from the competitive service by statute." The legislative history of this provision indicates that political appointees (of which the Deputy Director is one) were not meant to be included in the definition of "employee" for purposes of § 7513 removal protections. H.R. Rep. No. 101-328, 4-5

[^35]:    (1989); see also Special Counsel v. Peace Corps, 31 M.S.P.R. 225, 231 (1986) ('The[] terms ['policy-making,' 'confidential', and 'policyadvocating'] . . . are, after all, only a shorthand way of describing positions to be filled by so-called 'political appointees.'"); Aharonian v. Gutierrez, 524 F. Supp. 2d 54, 55 (D.D.C. 2007) (describing the appointment of the PTO Deputy Director as a "decision[] involving high-level policymaking personnel.").

[^36]:    ${ }^{10}$ The Court declined to decide whether the agency cured the defect when it "ratified" the appointments, but assumed that it did so. Lucia, 138 S. Ct. at 2055 n. 6.

[^37]:    ${ }^{11}$ Harper overruled prior caselaw that provided for exceptions allowing prospective application of a new rule of law in constitutional and other cases. Reynoldsville Casket Co. v. Hyde, 514 U.S. 749, 752 (1995) ("Harper overruled [a prior Supreme Court decision] insofar as the [prior] case (selectively) permitted the prospective-only application of a new rule of law.").
    ${ }^{12}$ Namely, where there is: "(1) an alternative way of curing the constitutional violation; or (2) a previously existing, independent legal basis (having nothing to do with retroactivity) for denying relief; or (3) as in the law of qualified immunity, a well-established general legal rule that trumps the new rule of law, which general rule reflects both reliance interests and other significant policy justifications; or (4) a principle of law, such as that of 'finality' . . . , that limits

[^38]:    ${ }^{15}$ On remand, the parties agreed that the Supreme Court's decision did not require invalidating the Board's prior actions. The agreedupon judgment stated: "[a]ll relief not specifically granted by this judgment is hereby DENIED." Judgment, Free Enter. Fund v. Pub. Co. Accounting Oversight Bd., No. 06-0217 (D.D.C. Feb. 23, 2011), ECF No. 66.

[^39]:    ${ }^{16}$ See Ryder v. United States, 515 U.S. 177, 187-88 (1995) (declining to apply the de facto officer doctrine to preserve rulings made by an unconstitutionally appointed panel); N.L.R.B. v. Noel Canning, 573 U.S. 513, $519,520,557$ (2014) (affirming the DC Circuit in vacating an NLRB order finding a violation because the Board lacked a quorum as "the President lacked the power to make the [Board] recess appointments here at issue"); see also Bandimere v. Sec. \& Exch. Comm'n, 844 F.3d 1168, 1171, 1188 (10th Cir. 2016) (setting aside opinion of an improperly appointed SEC ALJ where "the SEC conceded the ALJ had not been constitutionally appointed").
    ${ }^{17}$ See Lucia, 138 S. Ct. at 2055 n.6; see also Jones Bros., Inc. v. Sec'y of Labor, 898 F.3d 669, 679 (6th Cir. 2018) (improperly appointed ALJ's decision vacated despite Mine Commission's attempt to cure the improper appointment during judicial review by ratifying the appointment of every ALJ); Cirko on behalf of Cirko v. Comm'r of Soc. Sec., 948 F.3d 148, 152 (3d Cir. 2020) (affirming district court's remand for

[^40]:    ${ }^{1}$ To be sure, I do not mean to suggest that the Director's extensive powers of supervision mean that he can dictate the outcome of a specific inter partes proceeding. Rather, his ability to issue guidance and designate precedential opinions provides the general type of supervision and control over APJs' decision-making that renders them inferior, not principal, officers.
    ${ }^{2}$ The Director's delegation of his institution power to the Board does not diminish its existence. 37 C.F.R. § 42.4(a) (stating that "[t]he Board institutes the trial on behalf of the Director"). See also Ethicon EndoSurgery, Inc. v. Covidien LP, 812 F.3d 1023, 1033 (Fed. Cir. 2016).

[^41]:    ${ }^{3}$ "No decision will be designated or de-designated as precedential or informative without the approval of the Director. This SOP does not limit the authority of the Director to designate or de-designate decisions as precedential or informative, or to convene a Precedential Opinion Panel to review a matter, in his or her sole discretion without regard to the procedures set forth herein." Patent Trial and Appeal Board, Standard Operating Procedure 2 (Revision 10) at 1 (Standard Operating Procedure 2), available at https://www.uspto. gov/sites/default/files/documents/SOP2\%20R10\%20FINAL.pdf.

[^42]:    ${ }^{4}$ The underestimation of the Director's power is particularly evident in light of this court's prior en banc decision in In re Alappat, 33 F.3d 1526 (Fed. Cir. 1994), abrogated on other grounds by In re Bilski, 545 F.3d 943 (Fed. Cir. 2008). Alappat contained strong language about the ability to control the composition and size of panels. See, e.g., id. at 1535 (noting that "the Board is merely the highest level of the Examining Corps, and like all other members of the Examining Corps, the Board operates subject to the Commissioner's overall ultimate authority and responsibility"). While the duties of the Board and the Director have changed since Alappat was decided, the authority to determine the Board's composition for reconsideration of an examiner's patentability determination mirrors the current authority with respect to inter partes review. Compare 35 U.S.C. §6(c) (2012) (giving the Director authority to designate "at least 3 members of the Patent Trial and Appeal Board" to review "[e]ach appeal, derivation proceeding, post-grant review, and inter partes review"), with 35 U.S.C. § 7(b) (1988) (giving the Commissioner power

[^43]:    to designate "at least three members of the Board of Appeals and Interferences" to review "adverse decisions of examiners upon applications for patents"). Therefore, I believe the panel should have at least discussed how Alappat's view of the power to control the Board might impact the Appointments Clause analysis.

[^44]:    ${ }^{5}$ In fact, the Court declined "to elaborate on Buckley's 'significant authority' test" marking the line between officer and employee, citing two parties' briefs which argued that the test between officer and employee, not principal and inferior officer, should include some measure of the finality of decision making. Lucia, 138 S. Ct. at 2051-52.

