

EXPLORING PATENT TAKINGS AFTER *OIL STATES*

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Should patent owners be owed compensation when their patents are invalidated through inter partes proceedings? The Supreme Court left open this question when it held in *Oil States Energy Services, LLC v. Greene's Energy Group, LLC* that the inter partes review (IPR) process did not violate Article III or the Seventh Amendment.¹

Under the Takings Clause, the government must provide property owners with just compensation when it appropriates private property for public use. The regulatory takings doctrine encompasses a variety of property rights that government regulations have deprived. This doctrine should be extended to determine whether patents invalidated in the IPR process are takings that require just compensation.

This Note explores the ramifications of applying the regulatory takings jurisprudence to patent invalidations during IPR proceedings. Part I provides background information in patent post-grant proceedings and developments in regulatory takings. Part II discusses the *Oil States* opinions. Part III explores which patent rights should be eligible for takings analysis and a framework for performing this analysis.

I. LEGAL BACKGROUND

A. PATENT GRANTS AND REVIEWS

While the goal of the patent system “[t]o promote the progress of science and useful arts”² is a worthy one, the system has required continual adjustments. Over time, Congress has introduced additional requirements that applicants must satisfy in order to exclude unworthy inventions from being patented.³

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1. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1378–79 (2018).

2. U.S. CONST. art. I, § 8, cl. 8.

3. In the current system, the United States Patent and Trademark Office issues patents for inventions that meet requirements such as patentable subject matter, utility, novelty, nonobviousness, and disclosure. *See* 35 U.S.C. §§ 101–103, 112.

In the early patent statutes, applicants only needed to register their invention to be granted patents.⁴ However, applicants quickly learned to abuse the system, resulting in a multitude of low-quality, “useless” patents that did little to advance the progress of science and the useful arts.⁵

Congress attempted to combat this issue by creating the Patent Office to examine applications before granting patents and more recently by adding post-grant procedures to fix erroneously granted patents.⁶ The IPR process is the most recently implemented of these post-grant proceedings.⁷ *Oil States* addressed the constitutionality of this latest effort by Congress to maintain the quality of issued patents.⁸ This Note further explores whether the IPR proceeding has gone too far and requires a constitutional check through the takings doctrine.

1. Early Post-Grant Procedures

The first post-grant procedure was the ex parte reexamination process enacted in 1980.⁹ This review process allowed both patent owners and third parties to request the U.S. Patent and Trademark Office (PTO) to review the validity of issued patents. Any third party can submit a piece of prior art reference that may affect the patentability of a patent claim and request the PTO to reexamine the claim.

The constitutionality of this first post-grant proceeding was affirmed by the Federal Circuit in *Patlex*.¹⁰ Appellant Patlex Corporation owned two patents granted prior to 1980. While Patlex was engaged in a patent infringement suit with a competitor, the ex parte reexamination statutes were enacted and applied retroactively to Patlex’s patents.¹¹ The PTO granted a reexamination request and Patlex immediately sued to stay the reexamination by raising a variety of challenges, including violations of the Due Process Clause, Seventh Amendment, Article III powers, and the statutory powers of Congress.¹²

The Federal Circuit dismissed the Seventh Amendment and Article III challenges, finding that “the grant of a valid patent is primarily a public

4. See, e.g., Patent Act of 1790, ch. 7, 1 Stat. 109 § 1 (1790) (repealed 1793).

5. See Edward C. Walterscheid, *Patents and Manufacturing in the Early Republic*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 855, 888 (1998) (quoting Letter from William Thornton to Amos Eaton (May 5, 1809)).

6. See Patent Act of 1836, ch. 357, 5 Stat. 117 §§ 1–2 (1836); Bayh-Dole Act, Pub. L. No. 96-517, ch. 30, 94 Stat. 3015 (1980).

7. 35 U.S.C. § 311 (2012).

8. See *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365 (2018).

9. Bayh-Dole Act, Pub. L. No. 96-517, ch. 30, 94 Stat. 3015 (1980).

10. *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 607 (Fed. Cir. 1985).

11. *Id.* at 602 (“Congress, without apparent objection, applied the legislation to all unexpired patents.”).

12. *Id.* at 596.

concern” as only Congress, which has delegated authority to the PTO, can grant a patent.¹³ As the purpose of the reexamination proceeding is to correct government and not private mistakes, “[a] defectively examined and therefore erroneously granted patent must yield to the reasonable Congressional purpose of facilitating the correction of governmental mistakes.”¹⁴ Neither the Seventh Amendment nor Article III were found to be violated.¹⁵

The Federal Circuit also considered whether the granted patent conferred vested property rights protected by the Fifth Amendment that could not be retroactively taken by ex parte reexamination.¹⁶ In its reasoning, the court weighed the Congressional intent against the intrusion on property rights from the ex parte reexamination procedure.¹⁷ On one hand, Congress intended for the reexamination procedure to be retrospective for the public purpose of “restoring confidence in the validity of patents issued by the PTO.”¹⁸ On the other hand, the court considered the property rights associated with a patent to determine whether the ex parte reexamination procedure was an improper taking of these rights by the government.¹⁹ In particular, the Federal Circuit highlighted the reasonable, investment-backed expectation of the patent owner, noting that the potential benefits of owning a patent that survived reexamination was sufficient to offset the loss from an invalidity finding.²⁰ Ultimately, the court found the public purpose intended by Congress to be “overriding” and affirmed the constitutionality of ex parte reexamination.²¹

The next post-grant proceeding established by Congress was the inter partes reexamination, a predecessor to IPR that allowed third parties to comment on responses from the patent owner.²² The Federal Circuit has not ruled on the constitutionality of the inter partes reexamination process.

13. *See id.* at 604.

14. *See id.*

15. *See id.* at 605. In a subsequent challenge of the ex parte reexamination procedure on similar grounds, petitioner claimed that the reexamination process deprived him by publicly disclosing the claims that were found invalid. The court noted that the petitioner’s rights were not deprived because the patent survived the reexamination process even though in a weakened form. *See Joy Techs., Inc. v. Manbeck*, 959 F.2d 226, 227–29 (Fed. Cir. 1992).

16. *See Patlex*, 758 F.2d at 598–99 (“It is beyond reasonable debate that patents are property.”).

17. *See id.* at 601–02.

18. *See id.* at 601.

19. *See id.* at 602 (applying test from *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978)).

20. *See id.* at 602–03.

21. *See id.* at 603.

22. American Inventors Protection Act of 1999, Pub. L. No. 106-13, §§ 4601–08 113 Stat. 1501.

Despite these attempts, low-quality patents continued to be issued and the cost of patent litigation continued to increase.²³ Congress created another post-grant proceeding, the IPR process, to counteract this trend.

2. *Inter Partes Review*

In 2012, Congress authorized the PTO to reconsider issued patents via the IPR process.²⁴ The Patent Trial and Appeal Board (PTAB) was created to administer this process.

The IPR proceeding is more robust than previous post-grant procedures. Any third party can request review of a granted patent. The Director of the PTO may institute an IPR if there is “a reasonable likelihood that the requester petitioner would prevail with respect to at least [one] of the claims challenged in the petition.”²⁵ Under this scheme, a patent owner must demonstrate to a panel of PTAB judges that the challenged patent claims meet the statutory patentability standards of novelty and nonobviousness.²⁶

After its creation, IPR has surged in popularity as a vehicle for challenging patents.²⁷ One of the main reasons for this is that over 50% of challenged patents where IPR is instituted are invalidated in part or in whole.²⁸ The large number of patent invalidations from IPR proceedings highlights the importance of an unanswered question—whether these invalidations can be considered a deprivation of private rights by the government.

B. TAKINGS CLAUSE

The Takings Clause has traditionally played a vital role as a check on government power. As the nature of patents evolved from the English system

23. For an example of how rising patent litigation costs due to an increasing number of granted patents has caused the patent system to markedly deteriorate in recent decades, see JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* 144 (2008).

24. In the Leahy-Smith America Invents Act of 2012, Pub. L. No. 112-29, 125 Stat. 284–341 (2011), Congress established three new procedures: IPR, covered business method review, and post-grant review. The IPR process is codified in 35 U.S.C. §§ 311–319 (2012).

25. 35 U.S.C. § 314(a).

26. *See* § 311.

27. United States Patent and Trademark Office, *Patent Trial and Appeal Board Statistics* (Oct. 31, 2015), <https://www.uspto.gov/sites/default/files/documents/2015-10-31%20PTAB.pdf> [<https://perma.cc/47L9-RR3X>] (showing that the number of IPR petitions filed increased from 514 in 2013, 1310 in 2014, to 1737 in 2015).

28. In aggregate from IPR's inception in 2012 up to 2018, for all patents challenged in IPR that reached a final written decision by the PTAB, only 19% were ultimately found to be entirely valid. *See* United States Patent and Trademark Office, *Trial Statistics IPR, PGR, CBM* (Dec. 31, 2018), https://www.uspto.gov/sites/default/files/documents/trial_statistics_201812.pdf [<https://perma.cc/7D2D-UQCN>].

to our current understanding, so has the role of takings.²⁹ In contrast to the current understanding of patents as mostly an exclusionary power, a compensable taking does not exclude certain government actions; instead, it forces the government to incur a cost for certain actions. In this way, unworthy goals that may not be the best use of public resources are filtered out; only the worthiest goals remain.

An examination of takings jurisprudence can shed light on the constitutional limits on the governmental taking of private property. In general, owners of property are granted basic rights such as the right to control the property's use, the right to transfer this use, and the right to enforce these rights against others.³⁰ These rights are especially important for patents since, unlike owners of real or other tangible forms of property, patent owners can license the use of the patented invention to others without limit. It has been proposed that patents, except for its time-limited duration, are essentially the same as other forms of property and should be afforded the same rights.³¹ When the government infringes on these rights, a constitutional taking has occurred.

The Takings Clause establishes the limits on the government's power to take private property. As "the most important protection of property rights in the Constitution,"³² the Takings Clause allows private property to be taken only when the taking is for "public use" and "just compensation" is provided.³³ A primary goal of the Takings Clause is "to bar [the] Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."³⁴ No bright-line test has been formulated to determine when a government action amounts to a taking, as the Court "has been unable to develop any 'set formula' for determining when 'justice and fairness' require that economic injuries caused by public action be

29. See Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689, 705–06 (2007) (noting that patents had evolved from the English understanding as a sovereign favor to an American understanding of a "mind-work which we term inventions").

30. See Robert P. Merges, *What Kind of Rights are Intellectual Property Rights?*, in THE OXFORD HANDBOOK OF INTELLECTUAL PROPERTY LAW 4–7 (Rochelle Dreyfuss & Justine Pila eds., 2017).

31. See Richard A. Epstein, *What Is So Special about Intangible Property? The Case for Intelligent Carryovers* 12–17 (John M. Olin Program in Law and Economics, Working Paper No. 524, 2010).

32. ERWIN CHEMERINSKY, CONSTITUTIONAL LAW 671 (5th ed. 2017).

33. U.S. CONST. amend. V ("nor shall private property be taken for public use, without just compensation").

34. *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994) (citing *Armstrong v. United States*, 364 U.S. 40, 49 (1960)).

compensated by the government.”³⁵ Rather, the Court has relied on a series of “ad hoc, factual inquiries” to determine when a taking has occurred.³⁶

While governmental seizure of privately-owned land is the classical taking, takings jurisprudence also recognizes certain types of regulatory actions as takings. In *Lingle*, the Court clarified that three categories of regulatory actions amounts to a taking: a *Loretto*-type permanent, physical invasion, a *Lucas*-type action that deprives the owner of all economic beneficial use of the property, and an action that meets a balancing test set forth in *Penn Central*.³⁷ Although the regulatory takings inquiry is not “unified,” each of these three tests “aims to identify regulatory actions that are functionally equivalent to the classic taking in which [the] government directly appropriates private property or outs the owner from his domain” and “focuses directly upon the severity of the burden that government imposes upon private property rights.”³⁸

1. *Property Subject to Takings*

Within the meaning of the Takings Clause, any government action that deprives all or most of an owner’s rights amount to a taking.³⁹ Thus, in addition to a deprivation of ownership, a taking includes damage, destruction, and depreciation of property.⁴⁰ Moreover, the property right subject to takings is not simply economic value.⁴¹ Instead, rights that can be taken include the rights that owners can exercise, such as the right to possess, use, and dispose of the property.⁴²

Thus, a broad array of property rights is subject to the Takings Clause. Patent rights should likewise be included.

In *Nollan*, the Supreme Court implied that government-mandated easements can qualify as a taking.⁴³ The petitioners owned a piece of beachfront property situated between two public beaches.⁴⁴ When they applied for a permit to replace a structure on their land, the California Coastal Commission conditioned the issuance of the permit on an uncompensated,

35. *See Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

36. *See id.*

37. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005) (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992), *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982), and *Penn Cent.*, 438 U.S. 104 (1978)).

38. *Id.* at 539.

39. *See United States v. Gen. Motors Corp.*, 323 U.S. 373, 378 (1945).

40. *See id.*

41. *See Phillips v. Washington Legal Found.*, 524 U.S. 156, 170 (1998).

42. *See id.*

43. *See Nollan v. California Coastal Comm’n*, 483 U.S. 825, 825 (1987).

44. *See id.* at 827–28.

permanent, public-access easement.⁴⁵ The Court held that the government-mandated easement was a taking that required compensation.⁴⁶

In *Lynch*, the property right at issue was payment from life insurance policies issued under a statute.⁴⁷ The Court found these life insurance policies to be valid contracts of the United States.⁴⁸ Annuling issued policies amounted to a taking for which the government must pay just compensation.⁴⁹

In *Horne*, a farmer's personal property was found to be a taking.⁵⁰ The Department of Agriculture imposed a reserve requirement wherein raisin farmers must set aside a percentage of their crop in certain years according to the government's allocation.⁵¹ The government's scheme was found to be a taking of the farmer's raisins and required just compensation.⁵² In so holding, the Court stressed that although the raisins were personal property, "[n]othing in the text or history of the Takings Clause, or our precedents, suggests that the rule is any different when it comes to appropriation of personal property."⁵³

In *Ruckelshaus*, the Supreme Court held that a trade secret is subject to the Takings Clause.⁵⁴ A federal statute permitted the Environmental Protection Agency to publicly disclose some of the data submitted by an applicant while seeking approval for a new pesticide.⁵⁵ The pesticide maker argued that the data was a trade secret and the public disclosure was an uncompensated taking by the agency.⁵⁶ The Court agreed, finding that the public disclosure "extinguished" the pesticide maker's property rights.⁵⁷

2. Regulatory Takings Analysis

In *Pennsylvania Coal*, the Supreme Court first recognized that "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."⁵⁸ The reason for this is that if a government regulation goes "too far," its effect on private property becomes so onerous that the regulation is essentially an appropriation of private property.⁵⁹ In this

45. *See id.* at 828–29.

46. *See id.* at 836–37.

47. *Lynch v. United States*, 292 U.S. 571, 574–75 (1934).

48. *Id.* at 576.

49. *See id.* at 579–80.

50. *See Horne v. Dep't of Agric.*, 135 S. Ct. 2419, 2421–22 (2015).

51. *See id.* at 2428.

52. *See id.* at 2428–29.

53. *Id.* at 2426.

54. *See Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002–04 (1984).

55. *Id.* at 990.

56. *See id.* at 998–99.

57. *See id.* at 1002–04.

58. *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

59. *See id.* at 415–16.

case, homeowners that owned surface property sued under a state statute to enjoin a company that owned the subsurface from mining.⁶⁰ While the “[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law,” the Court found that the state statute was a taking.⁶¹

Two categories of regulatory takings are per se takings: “where government requires an owner to suffer a permanent physical invasion of her property” and “where regulations completely deprive an owner of ‘all economically beneficial use’ of her property.”⁶² The first of these inquiries derives from *Loretto*.⁶³ There, a state statute required all landlords to permit the installation of a television cable box on their property.⁶⁴ The public purpose was “the rapid development of and maximum penetration by a means of communication which has important educational and community aspects.”⁶⁵ Despite the public purpose or the minimal impact of the cable box to the owner, the Court held that the “permanent physical occupation” was determinative to finding a taking.⁶⁶ Furthermore, the size of the permanently occupied area is a factor only for determining just compensation.⁶⁷

The second category of per se taking is when a complete deprivation of all economic use has occurred. In *Lucas*, legislation aimed at protecting the coast barred an owner of two beachfront properties from developing his land.⁶⁸ The Court explained that when the government strips a property of all economic value “in the name of the common good,” the property becomes essentially idle.⁶⁹ Since the property owner expected to construct residential structures on his property, the regulation has made his property economically worthless.⁷⁰ As the property owner was now deprived of “all economically beneficial or beneficial use” of the property, a taking was found that required just compensation.⁷¹

The third category of regulatory takings involves regulations that go “too far.”⁷² The multifactor balancing test for this category was introduced in *Penn Central*.⁷³ The petitioners were the owners of Grand Central Terminal in New

60. *See id.* at 412.

61. *See id.* at 413–16.

62. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 528 (2005).

63. *Loretto v. Teleprompter Manhattan Catv Corp.*, 458 U.S. 419, 426 (1982).

64. *Id.* at 419.

65. *Id.* at 425.

66. *See id.* at 427, 434.

67. *See id.* at 437.

68. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1007–08 (1992).

69. *Id.* at 1019.

70. *See id.* at 1027–29.

71. *Id.* at 1015.

72. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005).

73. *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

York City and were prevented from building a 20-story tower on top of the station due to restrictions from a landmark preservation act.⁷⁴ The Court stressed that there was no “set formula” for determining when a taking has occurred and that “ad hoc, factual inquiries” should be performed based on several factors: (1) the economic impact of the government action on the claimant; (2) the action’s interference with distinct investment-backed expectations; and (3) the character of the government action.⁷⁵ Of these, the Court highlighted distinct investment-backed expectations as an important factor and noted that Penn Central continued to earn a reasonable return on its investment in Grand Central Terminal.⁷⁶ Thus, the Court held that the restriction on building above the station was not a taking of the property owner’s airspace.⁷⁷ To date, *Penn Central* continues to serve as the catch-all test to analyze takings outside the two per se categories.⁷⁸

Thus, the regulatory takings jurisprudence lays out three categories of takings where just compensation is required: 1) permanent physical occupation; 2) deprivation of all economic use; and 3) regulation that goes “too far.”

3. *Other Takings Considerations*

The Supreme Court has also considered subsidiary takings issues that may apply when considering patent rights, including the effect of property acquisition post-regulation, a temporary restraint on property use, the scope of public use, and how just compensation should be considered.

The Court has held that property acquisition after a regulation is in effect does not bar a takings finding.⁷⁹ In *Palazzolo*, a landowner acquired title to a parcel of land that was mostly designated as protected coastal wetlands by regulation already in effect.⁸⁰ The owner was prevented from developing his land and challenged the regulation as a taking of his property.⁸¹ The Court held that automatically barring the takings claim would be akin to putting “an expiration date on the Takings Clause.”⁸² Owners who acquire property after a regulation is in effect still have the “right to challenge unreasonable limitations” on property rights.⁸³ Since some portion of the land could still be developed, the Court concluded that the regulation had not deprived the

74. *See id.* at 109–17.

75. *Id.* at 124.

76. *See id.* at 136.

77. *See id.* at 138.

78. *See* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 538 (2005).

79. *See* Palazzolo v. Rhode Island, 533 U.S. 606, 626–27 (2001).

80. *Id.* at 611.

81. *Id.*

82. *See id.* at 627.

83. *Id.*

owner of “all economic use” of the land and remanded the case for further consideration with the *Penn Central* factors.⁸⁴

In *Tahoe-Sierra*, the Court considered whether a time-limited moratorium on property development was considered a taking.⁸⁵ There, a regional planning agency prevented development near a lake for 32 months while they considered an environmental plan.⁸⁶ Landowners affected by this moratorium sought compensation.⁸⁷ The Court noted that the affected parcel should not be divided into temporal segments for consideration; instead, the regulatory takings analysis should focus on “the parcel as a whole.”⁸⁸ In assessing the *Penn Central* factors, the Court balanced the impact of the moratorium on the landowners’ investment-backed expectations against the public interest of having a sound development strategy; no taking was found.⁸⁹

Meanwhile, the public purpose for taking private property has been broadly interpreted. In *Kelo*, a city authorized a development agent to acquire land by using the city’s authority, citing a public purpose to further economic development.⁹⁰ The Court noted that while property may not be taken from one party for the sole purpose of transferring to another, transfer to a private party is allowed if the taking is related to future use by the public.⁹¹ Moreover, the Court concluded that legislatures have “broad latitude” to determine public use.⁹² Thus, the city’s actions did not violate the public use requirement.⁹³

Finally, the just compensation that the government must pay a property owner when a taking has occurred has been clarified by the Court to be “measured by the property owner’s loss rather than the government’s gain.”⁹⁴ In other words, the compensation is for the net loss to the property owner.⁹⁵ In *Brown*, a regulation required some funds to be held in a type of interest-free account and petitioners sought compensation for interests that they would have received if those same funds were held in an interest-paying account.⁹⁶ The Court looked to the lack of interest paid in the interest-free account and

84. *See id.* at 630–32.

85. *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 306 (2002).

86. *Id.* at 307–13.

87. *Id.*

88. *See id.* at 331.

89. *See id.* at 333–36.

90. *Kelo v. City of New London*, 545 U.S. 469, 469–71 (2005).

91. *See id.* at 477.

92. *See id.* at 483.

93. *See id.* at 489–90.

94. *See Brown v. Legal Found. Of Wash.*, 538 U.S. 216, 235–36 (2003).

95. *See id.* at 237.

96. *See id.* at 223–24.

determined that the net loss and just compensation to the petitioners was zero.⁹⁷

II. OIL STATES V. GREENE'S ENERGY

In *Oil States*, Justice Thomas (joined by Justices Kennedy, Ginsburg, Breyer, Alito, Sotomayor, and Kagan) wrote the 7–2 majority opinion holding that IPRs were constitutional, while Justice Breyer (joined by Justices Ginsburg and Sotomayor) issued a concurring opinion and Justice Gorsuch (joined by Chief Justice Roberts) issued a dissenting opinion.

A. FACTS AND PROCEDURAL HISTORY

In 2012, Oil States sued Greene's Energy for infringement of a patent Oil States acquired in 2001 for an apparatus and method related to hydraulic fracturing.⁹⁸ In response, Greene's Energy challenged the patent's validity and also petitioned the PTO to institute IPR to review two claims in the patent.⁹⁹

Parallel proceedings progressed in the PTAB and the District Court concurrently and reached contrary decisions.¹⁰⁰ Whereas the District Court interpreted the claims in such a way as to negate Greene's Energy's non-infringement arguments, the PTAB invalidated the two challenged claims. Oil States subsequently sought review of the PTAB decision in the Federal Circuit.¹⁰¹

In addition to arguing that the statutory patentability requirements were met, Oil States also challenged the constitutionality of IPRs, arguing that patents can only be revoked in an Article III court with the option of a jury trial.¹⁰² However, the Federal Circuit summarily affirmed the PTAB decision without issuing a written opinion after having considered the same constitutional arguments in *MCM Portfolio*.¹⁰³

In *MCM Portfolio*, the Federal Circuit found that the IPR proceeding did not violate Article III or the Seventh Amendment. The Federal Circuit considered *McCormick*, which stated that only the courts can revoke a patent: “upon the issue of the original patent, the Patent Office had no power to revoke, cancel, or annul it.”¹⁰⁴ However, the issue in *McCormick* was whether claims in a patent were still valid if they were rejected for novelty in a

97. *See id.* at 239–40.

98. *Oil States Energy Servs. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1372 (2018).

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 639 F. App'x 639 (Fed. Cir. 2016); *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294 (Fed. Cir. 2015).

104. *MCM Portfolio*, 812 F.3d at 1288–89 (citing *McCormick Harvesting Machine Co v. Aultman*, 169 U.S. 606, 609 (1898)).

subsequent patent reissue application.¹⁰⁵ Thus, the Federal Circuit found that *McCormick* was not a dispositive precedent as it “did not address Article III and certainly did not forbid Congress from granting the PTO the authority to correct or cancel an issued patent.”¹⁰⁶

Next, the Federal Circuit discussed the public rights nature of patents, citing both *Murray’s Lessee* and *Stern*.¹⁰⁷ The court found that the patent right “derives from a federal regulatory scheme” and thus is a public right for which Congress can delegate disputes to non-Article III courts.¹⁰⁸ As explained in *Stern*, “what makes a right ‘public’ rather than private is that the right is integrally related to particular Federal Government action.”¹⁰⁹ The court drew a parallel between patent reexamination in IPR and other permissible agency adjudications.¹¹⁰ Furthermore, the Federal Circuit recognized the Congressional intent to “utilize the expertise of the PTO for an important public purpose—to correct the agency’s own errors in issuing patents in the first place,” stating that “[i]t would be odd indeed if Congress could not authorize the PTO to reconsider its own decisions.”¹¹¹ Finding that patent rights are public rights, the Federal Circuit rejected the Article III and Seventh Amendment challenges.¹¹²

The Supreme Court granted certiorari on the issue of whether IPR is unconstitutional when it retroactively invalidates granted patents in a non-Article III court and when proceedings are not jury trials in accordance with the Seventh Amendment.¹¹³

B. SUPREME COURT OPINION

1. *The Majority Rejects Oil States’ Argument*

The Court considered the Article III question by looking to whether patents conferred public or private rights, since “matter[s] involving public rights . . . need not be adjudicated in Article III court.”¹¹⁴ Although the

105. *See id.*

106. *See id.* at 1289.

107. *See id.* at 1289–90 (citing *Stern v. Marshall*, 564 U.S. 462 (2011); *Murray’s Lessee v. Hoboken Land & Improvement Co.*, 59 U.S. 272 (1855)).

108. *See MCM Portfolio*, 812 F.3d at 1288–90.

109. *See id.* at 1290 (quoting *Stern*, 564 U.S. at 465).

110. *See id.* at 1289–90 (citing holdings that proceedings of the Commodity Futures Trading Commission and arbitration under the Federal Insecticide, Fungicide, and Rodenticide Act do not violate Article III); *see also* *Commodity Futures Trading Comm’n v. Schor*, 478 U.S. 833, 854 (1986); *Thomas v. Union Carbide Agricultural Products Co.*, 473 U.S. 568, 571 (1985).

111. *See id.* at 1290–91.

112. *See id.* at 1291–92.

113. *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 137 S. Ct. 2239 (2017).

114. *See Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018) (citations omitted).

distinction between public and private rights has not been “definitively explained,” the Court noted that Congress has “significant latitude to assign adjudication of public rights to entities other than Article III courts.”¹¹⁵ Moreover, the Court characterized patent owners’ right to exclude others from using their invention as “tak[ing] from the public rights of immense value[] and bestow[ing] them upon the patentee.”¹¹⁶ Thus, the Court found that patents are “squarely” a public right because they involve matters between the government and individuals.¹¹⁷ In labelling patent rights as public, Justice Thomas attempted to sidestep the heightened protection that a fundamental private right necessitates.

To support its finding that patents confer public rights, the Court looked to the PTO’s authority to grant patents.¹¹⁸ Congress, which is empowered by the Article I mandate to set up a patent system, has authorized the PTO to grant patents.¹¹⁹ When the PTO examines an invention’s patentability prior to granting a patent, it is exercising a power given by Congress.¹²⁰ Since Congress has given the PTO the authority to reexamine patents, the IPR’s post-grant consideration of patentability is proper.¹²¹

The Court found that the statutory requirements for patentability considered during IPR is the same as that considered during the initial grant of a patent. Both pre-grant and post-grant examinations by the PTO serve to protect “the public’s paramount interest in seeing that patent monopolies are kept within their legitimate scope.”¹²² Reiterating that patents grant public rights, the Court concluded that the reexamination of patents need not occur in an Article III court.¹²³

Next, the Court expressly rejected the challenges brought by Oil States. Oil States cited previous holdings stating that patents are private property and cannot be invalidated outside of an Article III court.¹²⁴ However, the Court interpreted the Patent Act to provide patent owners with notice that the rights associated with granted patents are subject to cancellation in IPR proceedings.¹²⁵

115. *See id.* (citing *Stern v. Marshall*, 564 U.S. 462, 488–92 (2011)).

116. *See id.* (citation omitted).

117. *Id.*

118. *Id.*

119. *Id.* at 1374.

120. *Id.*

121. *Id.*

122. *See id.* (citing *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016)).

123. *Id.*

124. *Id.* at 1375–76.

125. *See id.* at 1375 (citing 35 U.S.C. § 261 (2012) (“Subject to the provisions of this title, patents shall have the attributes of personal property.”)).

Moreover, the Court held that Congress properly delegated to the PTO the authority to reexamine patentability in post-grant proceedings even if this reexamination previously rested with the courts.¹²⁶ Although early patent statutes did not include post-grant proceedings, the Court found that Congress was not proscribed from implementing them via later statutes.¹²⁷

The Court also rejected Oil States' argument that IPR violated Article III because IPR has features similar to that of an Article III court.¹²⁸ Oil States claimed that because IPR includes features such as discovery, depositions, cross-examination, evidence procedures, and adversarial hearings, it is improperly exercising Article III judicial power.¹²⁹ However, the Court noted that the similarity between IPR and the courts is not an indication of the source of IPR's power, which is executive and not judicial.¹³⁰

Since Congress properly granted authority for IPRs, the Seventh Amendment challenge is likewise dismissed.¹³¹ Congress intended for IPR, a non-Article III tribunal, to take a second look at issued patents and so the Seventh Amendment right to a jury trial is not at issue here.¹³²

2. *Unaddressed Constitutional Challenges*

The Court emphasized "the narrowness of [the] holding."¹³³ Several areas were left open for future constitutional challenges: (1) "the retroactive application of [IPR]," (2) "a due process challenge," and (3) whether "patents are . . . property for purposes of the *Due Process Clause* or the *Takings Clause*."¹³⁴ For the latter point, the Court cited cases with such telling language as "[patents] are surely included within the 'property' of which no person may be deprived by a State without due process of law"¹³⁵ and "when it grants [patents] for a new invention or discovery in the arts, [the government] confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation."¹³⁶

3. *Justice Breyer's Concurrence*

Justice Breyer presented a brief concurrence stating that although IPR involves public rights and so does not violate Article III or the Seventh

126. *See id.* at 1378.

127. *See id.*

128. *See id.*

129. *Id.*

130. *Id.*

131. *Id.* at 1379.

132. *Id.*

133. *Id.*

134. *Id.*

135. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999).

136. *James v. Campbell*, 104 U.S. 356, 357–58 (1881).

Amendment, private rights can also sometimes be adjudicated by non-Article III courts.¹³⁷

4. *Justice Gorsuch's Dissent*

Justice Gorsuch voiced a strong dissent, describing the majority's opinion as one that “signals a retreat from Article III's guarantees.”¹³⁸ After finding granted patents to confer private rights, “no less than a home or farm,” Justice Gorsuch stressed that only independent judges should be able to revoke patents.¹³⁹ Justice Gorsuch further stated that only Article III judges are “endowed with the protections for their independence the framers thought so important.”¹⁴⁰ Although IPR may be “an efficient solution” to address the problem of having “too many low quality patents,” economic efficiency is not a “license for ignoring these—often vitally inefficient—[Article III] protections.”¹⁴¹

Furthermore, Justice Gorsuch noted that IPR's efficiency is achieved by “dispensing with constitutionally proscribed procedures.”¹⁴² The lack of independence in the PTAB starts with the Director of the PTO, a political appointee who “supervises and pays the Board members,” “select[s] which of these members, and how many of them, will hear any particular patent challenge,” and “can add more members to the panel—including himself—and order the case reheard.”¹⁴³ Thus, the PTAB lacks the independence of an Article III court to properly revoke granted patents.

Next, Justice Gorsuch looked to the historical treatment of patents to support the propriety of allowing only Article III judges to revoke granted patents. Unlike the majority, Justice Gorsuch found that “only courts could hear patent challenges in England at the time of the founding.”¹⁴⁴ Moreover, the importance of a granted patent is highlighted by its purpose: “the framers wrote the [Patent] Clause to protect only procompetitive invention patents that are the product of hard work and insight and add to the sum of useful knowledge.”¹⁴⁵ Thus, when a patent is granted, “the grantee is entitled to it *as a matter of right*” and “hold[s] a property in their inventions by as good a title as the farmer holds his farm and flock.”¹⁴⁶

137. *See Oil States*, 138 S. Ct. at 1379–80 (Breyer, J., concurring).

138. *See id.* at 1386 (Gorsuch, J., dissenting).

139. *See id.* at 1380.

140. *Id.* at 1381.

141. *Id.* at 1380.

142. *Id.*

143. *Id.* at 1380–81.

144. *Id.* at 1381, 1383 (noting that the cases described by the majority “represent the Privy Council's dying gasp in this area”).

145. *See id.* at 1383 (internal quotation marks omitted).

146. *See id.* at 1384 (internal quotation marks omitted).

Finally, Justice Gorsuch looked to decisions of the Court to find that the Executive branch does not have the power to revoke patents. In *McCormick*, which the majority dismissed as an interpretation of an old patent statute, Justice Gorsuch noted that invention patents, like land patents, “[have] become the property of the patentee” once issued and is subject to “the same legal protection as other property.”¹⁴⁷ Even if patents can be considered public rights, they cannot be revoked by the PTO. While “the Executive has always dispensed public lands[,] . . . it has never been constitutionally empowered to withdraw land patents from their recipients.”¹⁴⁸ Justice Gorsuch succinctly states of the government’s position: “[j]ust because you give a gift doesn’t mean you forever enjoy the right to reclaim it.”¹⁴⁹

III. PATENT INVALIDATION BY IPR CAN BE A REGULATORY TAKING

While Article III and Seventh Amendment challenges to IPR were addressed in *Oil States*, the Court left open due process and takings challenges from the Fifth Amendment.¹⁵⁰ This Note focuses on a future potential regulatory takings challenge to determine whether the IPR process has gone too far and just compensation is required. When the regulatory takings jurisprudence is applied to patents, it is apparent that a patent right invalidated by an IPR proceeding can be a regulatory taking. Some nuances of this application are discussed and a framework for approaching this question is offered.

A. PATENT RIGHTS ARE SUBJECT TO TAKINGS

1. *The Fundamental Nature of Patent Rights*

Even though scholars have traditionally struggled to justify the nature of private property rights, they nevertheless agree on the importance of these rights.¹⁵¹ An important protection afforded to private property rights is the Takings Clause, which has been justified via a series of fundamental principles:

- (1) Property pre-exists government;
- (2) Property pre-exists our government(s);

147. *Id.* (citing *McCormick Harvesting Machine Co. v. Aultman*, 169 U.S. 606, 608–09 (1898)).

148. *Id.* at 1385.

149. *See id.*

150. *See id.* at 1379 (majority opinion).

151. A myriad of theories, including natural rights, personhood, and utilitarianism, has been proposed to justify the concept of private property. *See generally* JOHN P. DWYER & PETER S. MENELL, PROPERTY LAW AND POLICY: A COMPARATIVE INSTITUTIONAL PERSPECTIVE (David L. Shapiro et al. eds., 1998).

- (3) People pre-exist government;
- (4) Property has a meaning that pre-exists the Constitution;
- (5) Property and rights therein supersede government power;
- (6) Government power supersedes property and rights therein;
- (7) Even the most important of public uses of property, e.g., constructing a military base, does not justify taking of property without express permission of the Constitution;
- (8) Even the most important of public uses of property do not justify using private property without express constitutional permission;
- (9) Government may not take private property without recognition of the right to property;
- (10) Government may not use private property without recognition of the right to property.¹⁵²

This constitutional protection of the Takings Clause for private property should be extended to intellectual property—specifically patents.¹⁵³ As Professor Robert Merges succinctly noted of intellectual property: “[i]t walks like property, talks like property, and acts like property. And, so it is.”¹⁵⁴ Thus, as private property, patents should also be protected by the Takings Clause.

Furthermore, the majority’s focus in *Oil States* on patents having aspects of public rights should not prevent a finding of takings. The government cannot take private patent rights without providing just compensation.¹⁵⁵ By calling patents a pure regulatory scheme, Justice Thomas equates the issuance of a patent as a grant wherein the owner takes something valuable from the public domain.¹⁵⁶ However, this is an incorrect conception. The totality of public knowledge is not a finite pie that is eaten up as each patent owner takes a slice. Rather, each patent embodies an invention that did not exist prior to its conception. Thus, whereas an owner’s patent rights can be taken, an inventor does not take the invention from the public when obtaining a patent. Moreover, just because patent rights are defined by statute does not

152. Stephen Durden, *Unprincipled Principles: The Takings Clause Exemplar*, 3 ALA. C.R. & C.L.L. REV. 25, 65 (2013).

153. For a discussion on patents (and copyright) having long been described as a form of property, see Justin Hughes, *Copyright and Incomplete Historiographies: Of Piracy, Propertization, and Thomas Jefferson*, 79 S. CAL. L. REV. 993, 1004–27 (2006).

154. Merges, *supra* note 30, at 3.

155. For a description of rights conferred to a patent owner, see 35 U.S.C. § 271 (2012).

156. *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018).

automatically make patents a pure regulatory scheme.¹⁵⁷ The underlying private rights remain.

There is historical support that patents are private property subject to the Takings Clause. Modern courts and scholars suffer from “modern myopia” when they ignore nineteenth-century jurisprudence that patents have historically been treated as private property subject to the Takings Clause.¹⁵⁸ Modern scholars have proposed that “if trade secrets are constitutional private property, then, all things being equal, ‘the same goes for patents’ because both are forms of intellectual property.”¹⁵⁹ However, a progression of cases from the nineteenth century show that patents are “a natural right to the fruits of mental labor” and that “the Takings Clause secured patents as constitutional private property.”¹⁶⁰ Chief Justice Roberts recognized this when he stated that a patent “confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser.”¹⁶¹

The modern regulatory takings jurisprudence affirms the importance of private property rights. Starting from the classical case of a taking, such as the government’s possession of a coal mine, the regulatory takings doctrine has become robust enough to apply to essentially any restriction on property rights. A compensable taking has occurred if a government action has gone too far.¹⁶² Despite potential philosophical or functional differences between real property and patents, the regulatory takings doctrine should be extended from the former to the latter.¹⁶³

Moreover, the government may not skirt the protections of the Takings Clause by conditioning the grant of a patent on the owner’s acceptance that the patent may be revoked at any point in the future in an IPR proceeding. Chief Justice Roberts discussed this briefly during oral arguments: “[Greene’s Energy’s] position, it strikes me, is simply that you’ve got to take the bitter with

157. See Merges, *supra* note 30, at 16 (“The need to apply for, secure, and maintain an IP right in no way undermines its status as a [private] right.”).

158. See Mossoff, *supra* note 29, at 693.

159. See *id.* at 698.

160. See *id.* at 700–11 (citing *James v. Campbell*, 104 U.S. 356 (1881); *Cammeyer v. Newton*, 94 U.S. 225 (1876); *United States v. Burns*, 79 U.S. 246 (1870); *McKeever v. United States*, 14 Ct. Cl. 396 (1878); *McClurg v. Kingsland*, 42 U.S. 202 (1843)).

161. See *Horne v. Dep’t of Agric.*, 135 S. Ct. 2419, 2427 (2015) (quoting *James v. Campbell*, 104 U.S. 356, 358 (1882)).

162. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005).

163. See generally Epstein, *supra* note 31 (finding parity between tangible and intangible property rights). But see Peter S. Menell, *The Property Rights Movement’s Embrace of Intellectual Property: True Love or Doomed Relationship?*, 34 *ECOLOGICAL L.Q.* 713, 741–52 (2007) (asserting that differences in characteristics should limit property concepts from applying to intellectual property).

the sweet. If you want the sweet of having a patent, you've got to take the bitter that the government might reevaluate it at some subsequent point."¹⁶⁴ The Chief Justice subsequently dismissed this supposition: "We've said you . . . cannot put someone in that position."¹⁶⁵ Along these lines, Justice Gorsuch illustrated the unfairness of the situation in his dissent:

After much hard work and no little investment you devise something you think truly novel. Then you endure the further cost and effort of applying for a patent, devoting maybe \$30,000 and two years to that process alone. At the end of it all, the Patent Office agrees your invention is novel and issues a patent. The patent affords you exclusive rights to the fruits of your labor for two decades. But what happens if someone later emerges from the woodwork, arguing that it was all a mistake and your patent should be canceled?¹⁶⁶

2. *The Vesting of Patent Rights*

But at what point in time does the constitutional protection of the Takings Clause apply? Surely, patent owners cannot be compensated for all instances of patent invalidations, especially before the patent is granted. There is a simple answer to this: patent rights are vested and are subject to the Takings Clause when the patent is granted.

Despite a potentially long and arduous patent prosecution process, applicants should not be assigned partial patent rights at any time before the patent is granted. Certainly, the scope of the granted patent may be significantly reduced from what the owner originally set out to claim. And the invention may be publicly disclosed when the application is published. However, by submitting a patent application, the applicant has agreed to abide by the prosecution process, including the fees, schedules, and publication of the application. What the applicant has not agreed to is the threat of invalidation from an IPR after the patent has been granted.

While an applicant may be uncertain of the outcome of the patent prosecution process, the grant of a patent marks a definitive point after which the owner may exercise patent rights. The Takings Clause applies when private property rights are vested. For patents, property rights are vested when the patent is granted.

164. *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*, No. 16-712, Oral Hearing Tr. at 32:1-16 (Nov. 27, 2017).

165. *Id.* In due process doctrine, this "bitter with the sweet" argument has been firmly rejected. *See Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 541 (1985) ("[I]t is settled that the 'bitter with the sweet' approach misconceives the [due process] constitutional guarantee."). Similarly, the bitter with sweet argument should be rejected in takings doctrine.

166. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1380 (2018) (Gorsuch, J., dissenting).

3. *Proper Protection of Patent Rights*

Prior to *Oil States*, the Federal Circuit hinted that the Takings Clause applies to patents. In *Patlex*, the Federal Circuit stated that “[i]t is beyond reasonable debate that patents are property,”¹⁶⁷ applying Jeremy Bentham’s classic definition of property as “a basis of expectations . . . that [owners] can depend on . . . which assure them that they will indeed be permitted to enjoy a substantial share of the product as the price of their labor or their risk of savings.”¹⁶⁸ In considering a takings challenge on the ex parte reexamination process, a process predating IPR, the Federal Circuit applied the *Penn Central* multifactor test for regulatory takings.¹⁶⁹ Although a compensable taking was not found, the application of the *Penn Central* test implies that patents are private property subject to the Takings Clause.¹⁷⁰

However, Article III courts provide constitutional protections that negate the necessity of applying the Takings Clause when a patent is invalidated there. There are a number of constitutional guarantees unique to Article III courts to ensure its independence and fairness, such as the lifetime tenure of judges and the guaranteed salary.¹⁷¹ Thus, it is this distinction that separates a patent invalidated in an Article III court and one that is cancelled in an IPR proceeding.

This is not to say that a patent invalidation during IPR is wholly improper. As noted in *Oil States*, both public rights and private rights can be adjudicated in a non-Article III setting.¹⁷² However, without the constitutional protections of an Article III court, extra care must be taken. In order to ensure that the broad powers of discretion inherent in an IPR proceeding are appropriately restricted, the Takings Clause should be applied.

167. See *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (Fed. Cir. 1985).

168. *Id.* (citation omitted).

169. See *id.* at 602. The court also applied regulatory takings doctrine in *Joy Tech., Inc. v. Manbeck*, 959 F.2d 226, 226 (Fed. Cir. 1992).

170. However, patents as private property rights subject to the Fifth Amendment are distinguished from consideration under the Seventh Amendment. While the Federal Circuit continues to present the view that patents are subject to the Takings Clause of the Fifth Amendment, this is not the case when the right to a jury trial under the Seventh Amendment is considered. In *Joy Technologies*, the Federal Circuit quotes *Patlex* in affirming that, under the Seventh Amendment, “the issuance of a valid patent is primarily a public concern and involves a ‘right that can only be conferred by the government.’” *Joy Tech.*, 959 F.2d at 228 (quoting *Patlex*, 758 F.2d at 604).

171. See U.S. CONST. art. 3, § 1 (“The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour, and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office.”).

172. The majority opinion found that public rights can be adjudicated outside of an Article III court while the concurring opinion noted that private rights can also be adjudicated outside of an Article III court. See *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373–75, 1379 (2018).

B. A TAKINGS ANALYSIS IS PROPER DURING IPR

There are several aspects of the IPR process that make its invalidation of granted patents susceptible to a takings analysis.¹⁷³

First, the potential for inconsistent findings weigh towards applying the takings framework. An example of the potential for abuse in IPR is the plenary power of the Director.¹⁷⁴ The Director has discretionary power to institute IPR or not. The Director can appoint the panel of judges that hear each case. Moreover, the Director has on occasion “packed” a panel to achieve a predetermined outcome.¹⁷⁵ All this is symptomatic of the problem with an IPR: that it can be abused by whoever happens to be the Director, a politically appointed individual. Thus, without Article III guarantees, the Takings Clause is proper for preventing abuse in the IPR process.

The inadequacies of the IPR process also stems from its origins. The IPR was created by Congress as an efficient means to correct the problem of too many low-quality patents being granted. However, rather than scrutinize the pre-grant examination process, Congress chose to employ an adversarial post-grant format, allowing third parties to challenge issued patents.¹⁷⁶ Resembling an Article III court, the IPR process allows parties to submit briefs and argue before PTAB judges who act as neutral arbiters and weigh the arguments of each side.¹⁷⁷

Despite this, the majority in *Oil States* maintains the notion that the IPR process is a second-look process for the PTO to fix its error of granting patents that did not meet the statutory requirements. The Court’s contention that the patent owner and the PTO are the true parties in contention in IPR despite the involvement of a third party is disingenuous.¹⁷⁸

The IPR process is a contentious proceeding between two private parties. Even though the majority in *Oil States* claims that the third party is acting on behalf of the PTO to reexamine an improperly granted patent, the third party likely petitioned for the IPR to be instituted in response to a patent infringement suit. Thus, the misalignment in motive between the third party (to strike down the patent) and the PTO (to carefully weigh the pros and cons

173. See Peter S. Menell, *Governance of Intellectual Resources and Disintegration of Intellectual Property in the Digital Age*, 26 BERKELEY TECH. L.J. 1523, 1555 (2011) (explaining that the “difficult question” is to determine when regulation of intellectual property triggers a taking).

174. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2134 (2016) (upholding that the discretion to institute IPR is “final and nonappealable”).

175. See Charles W. Shifley, *Don't Like Your PTAB Decision in IPR? Ask the PTAB to Pack the Court*, BANNER & WITCOFF PTAB HIGHLIGHTS (Sep. 11, 2017), <https://bannerwitcoff.com/wp-content/uploads/2017/09/Dont-Like-Your-PTAB-Decision-in-IPR.pdf> [<https://perma.cc/XP4G-RN3A>].

176. See *Oil States*, 138 S. Ct. at 1371.

177. See *id.*

178. See *id.* at 1378 n.5.

to determine whether an invention will advance the arts and sciences) leads to the conclusion that the protection of the Takings Clause is proper in an IPR setting.

Another hollow distinction noted by the Court in *Oil States* is the difference between the patentability considered during IPR and the invalidation considered during a district court case.¹⁷⁹ As the petitioner in *Oil States* posits, they are “two sides of the same coin.”¹⁸⁰ Both tribunals consider the same statutory issues of novelty and nonobviousness. Moreover, the same evidentiary standards exist in both tribunals.¹⁸¹ There is no meaningful distinction between the patentability issue in an IPR and the invalidity issue in district court. Both can result in patent invalidation.

Due to these defects of the IPR process, a takings analysis should be performed on every patent invalidation to determine whether the PTO has stepped over the line of justice and fairness such that the patent owner is owed just compensation.

C. TAKINGS ANALYSIS OF PATENTS

1. *Patent Rights Being Taken*

Although it is “ad hoc” in nature, a takings analysis must be performed with carefully defined rights so that there is a clear understanding of the rights that the government has taken. While Justice Thomas stated that an IPR can result in a revocation of a patent that should not have been issued, a clearing up of a mistake, a contrary perspective is that the revoked patent involves property rights that the patent owner had from the time of the initial grant to the time the patent was revoked.¹⁸² During this intervening period, a patent owner had the right to exclude others from using the invention. When the patent was invalidated, that right no longer existed. Something had been taken.

The facts in *Oil States* suggest that the IPR invalidation of patent claims warrant a takings analysis. The IPR was not instituted until years later, when *Oil States* had already commercially used its invention. Although the majority equated the IPR invalidation of a patent with the PTO not issuing the patent in the first place, the interim time when *Oil States* had patent rights was not considered. During this time, *Oil States* operated under an assumption that

179. The Court makes a distinction between the exercise of Executive power when the PTO invalidates a patent on patentability grounds as opposed to the exercise of judicial power when an Article III court invalidates a patent. *See id.* at 1373.

180. *See* Brief for Petitioner at 57, *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365 (2018) (No. 16-712).

181. Patent and Trademark Office; Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 197 (Oct. 11, 2018) (codified at 28 C.F.R. § 42.100, 42.200, 42.300).

182. *See Oil States*, 138 S. Ct. at 1374.

their patent was valid, that it had value.¹⁸³ Thus, in accordance with its patent rights, Oil States brought an infringement suit against Greene's Energy. However, the IPR proceeding resulted in the invalidation of the challenged patent claims. The associated patent rights were gone.

At a basic level, a patent owner has lost fees and costs associated with prosecuting the patent. This includes the myriad of filing fees as well as attorney costs associated with filing the initial provisional application, submission of the full application, responding to office actions, and filing possible continuations.

In addition, a patent invalidation during IPR extinguishes the patent owner's right to enforce claims against infringers. One of the hallmarks of private property is the freedom to do with it as one wishes. The owner is free to assign, license, and enforce claims against third parties. The granted patent led the patent owner to believe that the patent prosecution process was over. The owner relied on this to bring infringement actions against third parties to recover for profits and damages. The reduction of the patent owner's rights from an IPR proceeding should be subjected to a takings analysis to determine whether any part of this lost expectation is compensable.

2. Patent Takings Framework

The Takings Clause is concerned with whether a government action goes too far by imposing an undue burden on a private party. Run-of-the-mill changes are not considered takings.¹⁸⁴ For example, changes to the novelty and nonobviousness standards from new statutes or court holdings should not be considered takings. Otherwise, the government will be crippled if it must provide just compensation for every change in the law. The framework proposed here is limited to the IPR process. Essentially, for patents that are completely invalidated by an IPR proceeding, a compensable taking should be found. For patents that are partially invalidated, a more detailed analysis is required.

Applying the regulatory takings framework, the first step is to determine whether the IPR has resulted in a categorical per se taking. The first of these categories is a permanent physical occupation of the property.¹⁸⁵ Two scholars have presented the argument that a patent invalidation in IPR can fall in this category.¹⁸⁶ However, extending the category of permanent physical occupation to a patent, a time-limited grant of monopoly, requires ignoring the

183. *See id.*; 35 U.S.C. § 282(a) (2012) ("A patent shall be presumed valid.").

184. *See Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 528 (2005).

185. *See Loretto v. Teleprompter Manhattan Catv Corp.*, 458 U.S. 419, 426 (1982).

186. *See Gregory Dolin & Irena D. Manta, Taking Patents*, 73 WASH. & LEE L. REV. 719, 789–91 (2016).

physical aspects of the doctrine. Therefore, the first category of regulatory takings does not readily apply to patents.

The second category of per se takings occurs when a government action deprives a property owner of all economic value.¹⁸⁷ In the case of patents, a distinction must be made between a weakened patent with some claims invalidated in an IPR proceeding and a patent that has been completely invalidated. In the first case, the owner still retains residual rights. Although the patent is weakened, it is still intact and the owner can still exercise rights to use, license, or exclude others. However, in the second case, wherein the entire patent has been invalidated, all patent rights are essentially eliminated and the owner can no longer exercise any patent rights. Any economic advantage the owner may have relied on, such as a marketplace advantage or confidence used to secure investment, is dissipated. The owner may have incurred excessive losses from reliance on the granted patent, such as substantial investments made to develop the previously patented technology. While the owner can continue to practice the invention even when the patent is invalidated, the invention described in the patent suddenly becomes freely available to the public, including any potential competitors. Patent owners undeniably suffer enormous losses when their patent is completely invalidated in an IPR proceeding. In such cases, a per se taking should be found.

Partially invalidated patents fall into the third category of regulatory takings, requiring a multifactor balancing test.¹⁸⁸ An example of this is the facts in *Oil States*, where only two of a multitude of claims were challenged.¹⁸⁹ However, a takings analysis in this third category must also consider whether to evaluate the patent as a whole or look to individual claims. For real property, the entire parcel must be considered.¹⁹⁰ Thus, even though patent claims are individually considered when invalidity is considered, a takings analysis should look to the whole patent and consider the effect of partially invalidated claims on the patent as a whole.

Three factors have been proposed for evaluating regulatory takings: the economic impact of the statute, interference with investment-backed expectations, and the character of the statute.¹⁹¹

The character of the IPR process is evidently for the public good. Establishing a patent system is an enumerated power given to Congress, and the IPR's goal of improving the quality of granted patents easily meets the public use requirement. However, this factor alone is not dispositive. For example, the Court in *Tahoe-Sierra* engaged in a full takings analysis even when

187. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1007–08 (1992).

188. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

189. See *Oil States Energy Servs. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1372 (2018).

190. See *Penn Cent.*, 438 U.S. at 130–31.

191. See *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538–39 (2005).

it ultimately held that the character of the government action outweighed the other factors.¹⁹²

The economic impact of an IPR invalidation is immediate, as the patent owner is immediately deprived of the ability to exclude competitors from making use of the invalidated claims. Thus, the importance of the invalidated claims to the function of the overall invention will be crucial in determining whether this factor favors the finding of a compensable taking.

The last, and likely most crucial factor, is the distinct investment-backed expectation of a patent owner. This factor takes into account the investments that an owner has made in reliance of the granted patent prior to a partial invalidation via an IPR proceeding. A patent owner may have solicited investments using the granted patent as a competitive edge. Business agreements, including partnerships, licenses, contracts, and other business maneuvers may have been made relying on the granted patent. In an extreme case, a patent owner may have used the granted patent to secure large investments for increasing the size of the company staff or producing the patented product. For small businesses, a granted patent may be the only protection against a large competitor. Depending on the duration from the grant of the patent to an invalidation from an IPR, the investments made in expectation of the patent may be significant. Thus, these considerations should be taken into account when determining whether distinct investment-backed expectations have been unduly affected by the IPR proceeding.

If a taking is found, the patent owner should bring suit against the government for just compensation in the Court of Federal Claims.¹⁹³

3. *Unique Issues with Taking Patents*

Several distinct issues unique to patents include just compensation, the time-limited duration of patents, and retroactivity.

The first of these issues is the difficult problem of determining the proper just compensation for a takings finding. Applying the Court's previous holding that just compensation refers to the harm suffered by the property owner, the just compensation for patents is the economic harm suffered by the patent owner.¹⁹⁴ This may be the patent maintenance fees or other expenditures made in reliance of the granted patent, as these are actual costs incurred by the owner. However, the compensation due an owner would not include expected revenue, as those are likely projected values and not actual losses. While a

192. *See* *Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 333–36 (2002).

193. A patent that has been taken is tantamount to one that is taken for use by the government without license and should be subject to the remedies under 28 U.S.C. § 1498 (2012).

194. *See* *Brown v. Legal Found. Of Wash.*, 538 U.S. 216, 235–36 (2003).

commentator has noted that the just compensation requirement would in most situations make an application of takings to patents “superfluous,” the difficulty in determining the proper just compensation should not prevent the finding of a taking.¹⁹⁵

Another unique aspect of patents is the time-limited monopoly they represent.¹⁹⁶ Since inventions can be easily copied once they are known, the limited duration of patents is essential for protecting inventions before they enter the public domain.¹⁹⁷ Thus, the invalidation of a patent is a significant event, as the public immediately gains unlimited use of the invention. The Court has only tackled time-related takings in one instance, where no compensable taking was found with a three-year moratorium on land development due to the limited duration of the government’s action.¹⁹⁸ For patents, the remaining years of enforcement cut short by an IPR invalidation should be considered in a takings analysis.

Finally, the issue of the retroactive application of IPR to invalidate patents issued prior to the enactment of the IPR process may also play a role in a takings analysis. Although the Court in *Oil States* did not address this issue, the Court may have shed light on this in *Lucas*: “in the case of personal property . . . [the property owner] ought to be aware of the possibility that new regulation might even render his property economically worthless.”¹⁹⁹ Therefore, this issue will likely have minimal effect on a takings analysis.

4. *Developments Since Oil States*

Three cases of interest have brought a takings claim since *Oil States* was decided.

In the first case, Advanced Audio Devices petitioned for writ of certiorari on the question of whether instituting IPR on patents granted before the process was established violates the Takings Clause.²⁰⁰ Five patents owned by the petitioner were affected in IPR proceedings and the Federal Circuit had affirmed the outcome of the IPR. Enumerating the *Penn Central* factors, the petitioner noted that (1) the economic impact was significant because “no reasonable return remains”; (2) the investment-backed expectations were

195. See Davida H. Isaacs, *Not All Property is Created Equal: Why Modern Courts Resist Applying the Takings Clause to Patents, and Why They are Right to Do So*, 15 GEO. MASON L. REV. 1, 2–3 (2007).

196. See 35 USC § 154 (2012).

197. See Richard A. Epstein, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455, 483 (2010).

198. See *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 332 (2002) (“Logically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use, because the property will recover value as soon as the prohibition is lifted.”).

199. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027–28 (1992).

200. Petition for Writ of Certiorari, *Advanced Audio Devices, LLC v. HTC Corp.*, 2018 WL 3819237 (2018) (No. 18-183).

impacted since, “practically overnight, the chance of patent invalidation in an adversarial proceeding has more than tripled, to a near certainty”; and (3) the character of the government action was “akin to a physical taking [by] permitting complete invasion by strangers of what were otherwise boundary lines reserved solely for the benefit of the patentee.”²⁰¹ However, the Court denied the petition.²⁰²

In the second case, petitioners sought compensation in the Court of Federal Claims for losses from IPR proceedings.²⁰³ At the conclusion of two earlier IPR proceedings, eighteen of twenty claims in the petitioner’s patent were cancelled and petitioner alleged that the federal government had taken the petitioner’s “property rights in the invalidated claims, along with the issuance and maintenance fees and the investments made in the patented technologies.”²⁰⁴ In considering a motion to dismiss by the government, the court determined that “patent rights are not cognizable property interests for *Takings Clause* purposes” and determined that the petitioner had failed to state a claim.²⁰⁵

In dismissing petitioner’s complaint as a matter of law, the court focused on the Congressional intent of the patent statute.²⁰⁶ Noting that “patent rights derive wholly from federal law,” the court used a public rights argument to rebut the plain language in the patent statute that “patents shall have the attributes of personal property.”²⁰⁷ Because the PTO has “continuing authority to review and potentially cancel patents after they are issued,” the court inferred a lack of Congressional intent to treat patents similarly to other forms of personal property.²⁰⁸ However, the court failed to convincingly address why patent property rights derive entirely from Congressional intent.

In the third case, petitioner argued that the retroactive application of IPRs to their patents issued before its enactment amounted to a taking.²⁰⁹ The Federal Circuit addressed this issue and found that IPRs did not differ sufficiently from other post-grant proceedings, *ex parte* reexamination and *inter partes* reexamination, that were available when the petitioner applied for and were granted their patents.²¹⁰ While acknowledging differences between these older proceedings and IPRs, the court found their similarities more

201. *See id.* at 9–12.

202. *Advanced Audio Devices, LLC v. HTC Corp.*, 139 S. Ct. 334 (2018).

203. *Class Action Complaint* at 4, 33, *Christy, Inc. v. United States*, No. 18-657C (Fed. Cl. 2018).

204. *Christy, Inc. v. United States*, 141 Fed. Cl. 641, 657 (2019).

205. *Id.* at 660.

206. *See id.* at 660.

207. *See id.* at 658–59 (citing 35 U.S.C. § 261 (2012)).

208. *See id.* at 559.

209. *See Celgene Corp. v. Peter*, 931 F.3d 1342 (Fed. Cir. 2019).

210. *See id.* at 1360.

significant: same substantive grounds, same evidentiary standard of proof, and same standard for claim construction.²¹¹ Moreover, the court equated these post-grant proceedings with district court proceedings to serve the purpose of reexamining patents that should not have been issued in the first place.²¹² Thus, determining that patent owners have always had the expectation that the validity of their patent may be reconsidered, the court found that there is no constitutional issue with retroactively applying IPRs.²¹³

These cases hint at upcoming developments to the regulatory takings doctrine as the courts consider its application to patents.

D. CHALLENGES TO THE APPLICATION OF TAKINGS IN IPR INVALIDATIONS

The application of takings in the case of a patent invalidation during an IPR proceeding is not without potential challenges.

A consequentialist argument can be made against applying the Takings Clause to patents. With millions of patents granted and an increasing number of IPRs instituted annually, must a takings analysis be applied to every proceeding? Moreover, what principle should limit the expansion of the regulatory takings doctrine from applying to invalidity findings by a district court or even to a rejected patent application? One limiting factor is that, as previously discussed, there is a narrow zone where a takings analysis is proper. Patent rights vest when the patent is granted and so rejected patent applications are not takings. Furthermore, the constitutional guarantees of Article III courts are sufficient without the protection of the Takings Clause.

An efficiency argument may also be made to prevent applying takings to patents. The IPR was created as a rapid proceeding to quickly adjudicate patent disputes. Thus, applying a takings analysis is antithetical to the Congressional intent. However, any economic analysis, whether in terms of monetary or judicial resources, is inappropriate. The Takings Clause is a constitutional protection of property rights and it cannot be dispensed with for efficiency gains. Similar to voting rights or civil rights, patent rights should not be diluted in favor of efficiency.²¹⁴

A variation of the efficiency argument states that the Takings Clause is not necessary because the marketplace has already priced in the possibility of patent invalidations from IPR proceedings.²¹⁵ Essentially, patent owners,

211. *See id.*

212. *See id.* at 1361.

213. *See id.* at 1362–63.

214. Scholars such as Richard Epstein have argued that property rights are as fundamental as civil rights and this likewise applies to patent rights. *See generally* RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN (1985).

215. This follows from a view of intellectual property mainly as a means of promoting innovation in the marketplace. *See, e.g.*, Peter S. Menell, *supra* note 163, at 726–28.

investors, and other parties already recognize the ever-present invalidity risk and have accordingly deployed resources appropriately. Sophisticated businesses and investors will seldom rely on a single patent; rather, investment decisions are made based on a portfolio of patents spanning multiple families.²¹⁶ The invalidity risk is already diversified through this investment strategy. However, this marketplace approach should not somehow replace the constitutional protection of the Takings Clause.

Moreover, by not applying a takings analysis, the government is tacitly agreeing with a lopsided outcome wherein low-quality patents remain active for a full twenty years while the most valuable patents are frequently challenged in IPRs and invalidated. The government is not in the business of choosing which patents can better advance the arts and sciences. Rather, it should encourage all inventions that can achieve this aim by granting all patents that add to the total body of public knowledge. Thus, the IPR process allows third parties to decide which patent should be scrutinized rather than promote a more even-handed approach.

An additional concern for applying takings to patents is that a savvy owner may attempt to somehow game the system. For example, a patent owner may attempt to make the patent unsusceptible to invalidation in IPR by seeking large investments so as to bolster the investment-backed expectation. However, this scenario is unrealistic. Patents are only one of many concerns for a successful business. Since there is always a possibility that a patent is invalidated by an Article III court, it is unrealistic to suggest that investors will over-invest across multiple patents, as even the most heavily-invested patent can be invalidated.²¹⁷ Moreover, as most patents are of low value, massively investing in every granted patent is an inefficient strategy.²¹⁸

IV. CONCLUSION

In *Oil States*, the Court opened the door to defining patents as property subject to the Takings Clause. As the regulatory takings doctrine has developed and expanded, it is inevitable that a future case may appear before the Court applying regulatory takings to patents. While constitutional guarantees ensure that outcomes from an Article III court are in the interest of fairness and justice, the same cannot be said of IPR proceedings due to its inherent

216. See Michael Risch, *Patent Portfolios as Securities*, 63 DUKE L.J. 89, 103 (2013).

217. Even patents that survive IPRs do not become invulnerable. See Gregory Dolin, *Dubious Patent Reform*, 56 B.C. L. REV. 881, 943–44 (2015) (discussing the strategy of “stacking” IPR petitions and noting that “there is little to nothing that the patentee can do to prevent such abuse”).

218. See BESSEN & MEURER, *supra* note 23, at 100 (“[M]ost patents have little value . . . the distribution pattern of a variety of measures of patents . . . tend to adhere to the ‘80-20’ rule: 80 percent of the total value is contributed by 20 percent of the inventions.”).

inconsistencies. Thus, a takings analysis is the proper check on the IPR process. As the makeup of the Court continues to change, a majority of the justices may soon be ready to apply the Takings Clause to patents.