

No. 20-891

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IN THE  
**Supreme Court of the United States**

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AMERICAN AXLE & MANUFACTURING, INC.,

*Petitioner,*

*v.*

NEAPCO HOLDINGS LLC AND  
NEAPCO DRIVELINES LLC.,

*Respondents.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED  
STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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**BRIEF OF THE CHICAGO PATENT  
ATTORNEYS AS *AMICI CURIAE* IN  
SUPPORT OF PETITIONERS**

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## INTEREST OF *AMICI CURIAE*

The *amici curiae* are patent practitioners who regularly prosecute and litigate U.S. patents. The *amici curiae* are concerned with preserving the integrity of a patent system that fosters innovation, and the companies that commercialize such innovation in the marketplace.<sup>1,2</sup>

## SUMMARY OF THE ARGUMENT

This Court has repeatedly warned against overbroad interpretations of the judicial exceptions to patent eligibility lest they “eviscerate” or “swallow all of patent law.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012) and *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). And yet the Federal Circuit has done just that in multiple opinions, including its recent decision that found that American Axle’s method of manufacturing vibration-damping driveline shafts had failed to satisfy 35 U.S.C. § 101. In doing so, the panel substituted its own patent eligibility test in place of the one set forth by this Court in *Alice*.

This failure to follow precedent has a remarkably high cost. Under the panel’s new test, subject matter eligibility of an invention that relies on unclaimed, underlying laws of

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1. No party’s counsel authored this brief in whole or part; no party or party’s counsel contributed money intended to fund preparing or submitting the brief; and no person other than *amici* or counsel for *amici* contributed money intended to fund preparing or submitting the brief. Sup. Ct. R. 37.6.

2. Counsel for the respective parties were provided timely notice and consented to the filing of this brief. Sup. Ct. R. 37.2(a).



physics - in other words, *any invention* - can be called into question. This Court has recognized that “all inventions ... embody, use, reflect, rest upon, or apply laws of nature,” and that inventions are not rendered ineligible for that reason alone. *Alice*, 573 U.S. at 217. But here the Federal Circuit has improperly asserted its own flawed reasoning that effectively reverses the letter and spirit of the law set forth in *Alice* and its predecessors. And half of the judges on that court disagree with this reasoning though they are now bound to follow it.

The pending petition for writ of certiorari identifies these and other issues that fundamentally affect the eligibility of patents under § 101 and impact the proper application of this Court’s jurisprudence. These issues are of substantial importance to American innovation, including as here advancements in manufacturing techniques, particularly those in mechanical, electro-mechanical, and materials science applications. These issues are not limited to the *American Axle* decision; the Federal Circuit has repeatedly failed to apply this Court’s patent eligibility test in a logical, reasonable, or consistent fashion. Such chaotic jurisprudence threatens to fundamentally damage U.S. patent law.

To illustrate the resulting ambiguity surrounding the validity of technological patents, *amici curiae* identify two historical patents that, although appropriately touted for over a century as being hallmarks of innovation, would nevertheless be invalidated under the Federal Circuit’s misguided application of this Court’s subject matter eligibility framework.

The Federal Circuit is crying out for this Court's guidance, as illustrated in their decision denying American Axle's petition for rehearing *en banc*. There, the judges demonstrated their deep, seemingly irreparable divisions regarding proper application of this Court's test for determining patent eligibility under § 101. Their intra-circuit split is unequivocal – the differing opinions resulted in only six judges agreeing with the *per curiam* decision to deny rehearing *en banc* and an equal number of judges dissenting, producing no less than five separate opinions to articulate their divergent views.

In particular, these factions argue about whether the claims at issue are “directed to” a law of nature, and whether the majority introduced yet another test for determining subject matter eligibility: the “nothing more” test. The panel majority opinion compared the circumstances of this case to those in *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 14 L. Ed. 601 (1853), and held that one of American Axle's claims was directed to Hooke's Law and “nothing more.” Pet App., 161a (Dyk, J., concurring in denial of rehearing *en banc*). The six judges dissenting from *per curiam* denial of rehearing *en banc* contended that their colleagues supporting denial overstepped by “hold[ing] that when technological advance is claimed too broadly, and the claims draw on scientific principles, the subject matter is barred ‘at the threshold’ from access to patenting.” Pet App., 174a (Newman, J., dissenting in denial of rehearing *en banc*).

The five opinions demonstrate an irreconcilable divide in the Federal Circuit's understanding of how (or whether) this Court's framework set forth in *Mayo* and *Alice* should be applied to patent claims. And this problem is neither

unique to the Federal Circuit’s *American Axle* decision nor of recent vintage. In *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, four Federal Circuit judges argued for the court to rehear the panel decision invalidating claims under § 101. 788 F.3d 1371 (Fed. Cir. 2015). By the time of the *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, decision, five judges were convinced the court had erred in not rehearing the panel decision to invalidate claims on subject matter eligibility grounds. 927 F.3d 1333 (Fed. Cir. 2019). Now, six judges of the court vigorously argued that invalidating American Axle’s claims required *en banc* review. The pattern is clear – an increasingly significant proportion of the Federal Circuit believes that its jurisprudence is in error and needs this Court’s correction.

*Amici curiae* submit that the dissenting judges have the better argument, and that the Federal Circuit has both misapprehended and misapplied the legal standard for patent eligibility of claims. Trapped by its own errors, the Federal Circuit has departed from this Court’s *Alice* and *Mayo* decisions, instead relying on a thin comparison of the claims at issue to the ones in *O’Reilly*. In creating the “nothing more” test, the panel majority added another discrete “rule” to the increasingly confused jumble of holdings and *dicta* regarding § 101 since *Mayo* and *Alice*.

In view of the “nothing more” test, patentees can have little confidence in the validity of *any* claim that relates in *any* way to applying *any* law of nature. Indeed, *amici curiae* agree with the dissenting judges that application of this new test calls into question “whether foundational inventions like the telegraph, telephone, light bulb, and airplane—all of which employ laws of nature—would

have been ineligible for patenting under the majority’s revised approach.” Pet App., 191a (Stoll, J., dissenting). This uncertainty puts a significant strain on the incentives for innovation that the Patent Act attempts to promote. For at least these reasons, *amici curiae* urge this Court to grant the petition for a writ of certiorari.

## ARGUMENT

### I. The Federal Circuit’s Order Denying Rehearing *en banc* Evinces a Troubling Divide in How Judges Interpret and Apply the *Alice/Mayo* Analysis

To promote the progress of science and useful arts, inventors of “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” may obtain a patent – a limited right to exclude others from practicing their claimed inventions. U.S. Const. art. I, § 8, cl. 8; 35 U.S.C. § 101.

While generally accepting the rule that “anything under the sun made by man” is eligible for patenting, this Court has carved out certain exceptions from the genus of “new and useful” patent eligible inventions. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980). Specifically, claims directed merely to laws of nature, natural phenomena, and abstract ideas (hereinafter collectively “the judicial exceptions”) are outside the scope of what is patent eligible. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *see also Bilski v. Kappos*, 561 U.S. 593, 601 (2010); *Diamond v. Chakrabarty*, 447 U.S. at 309; *O’Reilly*, 15 How. at 112–120; *Le Roy v. Tatham*, 14 How. 156, 175 (1853).

In *Alice*, this Court set forth a two-part test designed to distinguish between patent eligible subject matter and these patent ineligible judicial exceptions. The first part of the test requires a determination of whether a claim is “directed to one of [the] patent-ineligible concepts,” *i.e.*, the judicial exceptions. 573 U.S. at 217-18. If the answer to this initial determination is “yes”, then the second part of the test asks whether the claim elements contain an “inventive concept” sufficient to “transform the nature of the claim’ into a patent-eligible application.” *Id.* at 217 (quoting *Mayo*, 566 U.S. at 72-73, 79). To be patent eligible, the “inventive concept” must be “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 72-73 (citing *Parker v. Flook*, 437 U.S. 584, 594 (1978)). In determining the “sufficiency” of the inventive concept, one must find specific claim elements that add significantly more than what is merely “well-understood, routine, conventional activity, previously engaged in by those in the field.” *Mayo*, 566 U.S. at 71.

This Court has acknowledged that overly broad interpretations of the judicial exceptions could “eviscerate patent law” because “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Indeed, this Court has warned that “a process is not unpatentable simply because it contains a law of nature or a mathematical algorithm ... and an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Diehr*, 450 U. S. at 187 (quoting *Flook*, 437 U.S. at 590); *see also Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948) (“If there is to be invention from

[a discovery of a law of nature], it must come from the application of the law of nature to a new and useful end.”). Further, this Court has instructed that claims must be viewed as a whole to properly determine patent eligibility. *Mayo*, 566 U.S. at 79-80 (citing *Diehr*, 450 U.S. at 187). The two-part framework of *Mayo* and *Alice* should be applied in a manner consistent with these guiding principles.

*Amici curiae* respectfully submit that the Federal Circuit’s decision to deny rehearing *en banc* in this case is in direct contradiction with this Court’s jurisprudence under § 101. In particular, the panel majority’s fabrication and use of its own “nothing more” test sidesteps proper application of this Court’s two-part analytical framework and is instead an exercise in outcome-driven jurisprudence. The deep divide in the Federal Circuit over this new test promises to add further confusion to its already muddled case law post-*Alice*.

The Federal Circuit was evenly divided (6-6) on whether to rehear this case *en banc*. Varying combinations of the judges authored two opinions concurring in the denial, and three opinions in dissent. In these opinions, the judges offered divergent views of the *Alice/Mayo* analysis. In particular, the judges argued over whether the “nothing more” test introduced by the panel majority can be substituted for this Court’s *Mayo/Alice* jurisprudence to determine a claim’s validity.

According to the panel majority, a claim is directed to “nothing more” than a natural law if it invokes a patent ineligible concept to achieve a desired result and “contains no information as to how to achieve the claimed result.” Pet App., 160a-161a (Dyk, J., concurring) *citing Rapid Litig.*

*Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1048 (Fed. Cir. 2016). The majority and Judge Chen (concurring) claimed that this rule is an application of the holding in *O'Reilly*, 15 How. 62 (1854). But Judge Stoll argued that the “nothing more” test is not derived from this Court’s decision in *O'Reilly*, and offered that “the majority’s ‘nothing more’ test appears to be a new development with potentially far-reaching implications in an already uncertain area of patent law.” Pet App., 186a-187a (Stoll, J., dissenting). Judge O’Malley agreed, noting that the “nothing more” test “does not present a clear-cut application of *O'Reilly*. It is, instead, an expansion that would likely render ineligible claims found patent eligible by the *O'Reilly* court itself.” Pet App., 194a-195a (O’Malley, J., dissenting). Judge Newman also lamented that “[t]he court’s new spin on Section 101 holds that when technological advance is claimed too broadly, and the claims draw on scientific principles, the subject matter is barred at the threshold from access to patenting.” Pet App., 174a (Newman, J., dissenting).

*Amici curiae* agree with Judges Stoll, O’Malley, and Newman that the “nothing more” test is a new rule that is not derived from *O'Reilly*, and note that the Federal Circuit’s application of the rule directly contradicts this Court’s proviso in *Diehr* that “a process is not unpatentable simply because it contains a law of nature or a mathematical algorithm.” 450 U. S. at 187 (quoting *Flook*, 437 U.S. at 590). But whether the concurring or dissenting judges are correct is only part of the problem. The Federal Circuit has decided no fewer than 150 cases on § 101 grounds since *Alice* in 2014. During that time, there has been no shortage of confusing and conflicting outcomes. *See, e.g., Athena Diagnostics*, 927 F.3d at

1367-1368 (Newman, J., dissenting) (providing a non-exhaustive list of inconsistent § 101 rulings by the Federal Circuit). But in each of these cases, the Federal Circuit could at least agree upon the framework being applied to the claims at issue. Here, the fact that all twelve judges could not agree about whether a new rule for determining patent eligibility has been introduced is indicative of a fundamental and irreconcilable divide in the Federal Circuit. This Court's timely direction and guidance is clearly necessary.

## **II. The Federal Circuit's Misapplication of the *Alice/Mayo* Framework Would Render Invalid Patents that have Stood as Pillars of Technological Innovation**

In denying rehearing *en banc*, the Federal Circuit majority applied the “nothing more” test to claim 22 of U.S. Patent No. 7,774,911 (“the ’911 patent”). The “nothing more” test, as synthesized by Judge Chen, means that “a claim may be held ineligible if it invokes a natural law to achieve some desired result without reciting any further limitations as to the means for accomplishing that result.” Pet App., 163a (Chen, J., concurring). Despite protests from the six dissenting judges, the six concurring judges consented to the panel majority's application of this principle in view of the factual circumstances in *O'Reilly* in order to declare claim 22 invalid. *See* Pet App., 158a (Dyk, J., concurring).

*Amici curiae* submit that the amorphous and arbitrary “nothing more” test can, and likely will, be used to circumvent the framework set forth by this Court in *Alice* and *Mayo*. Consequently, patents that would



pass muster under the *Alice/Mayo* analysis would fall under the new analysis. Like Judges Stoll and Newman, *amici curiae* believe that historical inventions that were fundamental to America’s industrial revolution would be unpatentable under the panel majority’s misguided test. Pet App., 191a (Stoll, J., dissenting). To illustrate this point, *amici curiae* have applied the panel majority’s rationale to historical patents that are widely accepted as being pillars of technological innovation, and have found that the “nothing more” test would easily and consistently render these patents invalid under § 101. It is therefore critical that this Court intervene to clarify the eligibility framework.

**A. Bell’s Telegraphy Patent would have been Considered Invalid under Recent Federal Circuit Application of § 101**

On February 14, 1876, Alexander Graham Bell was granted Letters Patent No. 174,465 to an “Improvement in Telegraphy” (the Bell patent).<sup>3</sup>

The claims of the Bell patent recite:

1. A system of telegraphy in which the receiver is set in vibration by the employment undulatory currents of electricity, substantially as set forth.
2. The combination, substantially as set forth, of a permanent magnet or other body capable of inductive action, with a closed circuit, so that

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3. Although Bell used the term “telegraphy,” this invention is directed to what became known as the telephone.

the vibration of the one shall occasion electrical undulations in the other, or in itself, and this I claim, whether the permanent magnet beset in vibration in the neighborhood of the conducting-wire form simultaneously be set in vibration in each others neighborhood.

3. The method of producing undulations in a continuous voltaic current by the vibration or motion of bodies capable of inductive action, or by the vibration or motion of the conducting-wire itself, in the neighborhood of such bodies, as set forth.

4. The method of producing undulations in a continuous voltaic circuit by gradually increasing and diminishing the resistance of the circuit, or by gradually increasing and diminishing the power of the battery, as set forth.

5. The method of, and apparatus for, transmitting vocal or other sounds telegraphically, as herein described, by causing electrical undulations, similar in form to the vibrations of the air accompanying the said vocal or other sound, substantially as set forth.

It is almost self-evident that these claims would be readily invalidated if the same rationale used by the panel majority were to be applied to them. According to this rationale, one would only need to read the claims to determine whether they invoke a natural law to reach a desired result. Claim 1 of the Bell patent relies on one or

both of Ohm's law ( $I = V/R$ ) and Faraday's law of induction ( $\epsilon = -N \Delta\Phi/\Delta t$ ). For example, Bell's patent states that:

Undulations are caused in a continuous voltaic current by the vibration or motion of bodies capable of inductive action; or by the vibration of the conducting-wire itself in the neighborhood of such bodies. Electrical undulations may also be caused by alternately increasing and diminishing the resistance of the circuit, or by alternately increasing and diminishing the power of the battery.

Bell patent, sheet 2, col. 2, ll. 42-50. Despite the fact that Bell's claim 1 does not explicitly recite voltage, resistance, or inductance, this would not preclude the majority from finding the claim invalid.

For example, in the *American Axle* proceedings below, Judge Dyk acknowledged that “[c]laim 22 does not name Hooke's law, but the name is immaterial. The Supreme Court has not required reciting the natural law by name and has rejected a ‘draftsman's art’ approach to § 101 analysis.” Pet App., 159a (Dyk, J., concurring). Accordingly, the “nothing more” test could be applied to *impute* that claim 1 indeed invokes Ohm's law or Faraday's law of induction in order to achieve a desired result – transmitting sounds over a wire.

Claim 1 of the Bell patent also fails to recite any further limitations regarding the means for accomplishing the desired result. This is reminiscent of the panel majority declining to give any weight to how claim 22 of the '911 patent requires a tuned liner to be inserted in a hollow

shaft member in order to achieve two types of vibration damping (*see* Pet App., 188a (Stoll, J., dissenting)). In Bell’s case, there would be no need to consider the claim limitation that a “receiver is set in vibration” using undulations in current. Instead, under the panel majority’s rationale, claim 1 of Bell does not “provid[e] specific detail as to the “how”—the means for achieving the result.” Pet App., 154a-155a (Dyk, J., concurring) (*citing Mayo*, 566 U.S. at 71-73). Bell may have argued, as Judge Chen did, that incorporating the specification with the phrase “substantially as set forth” imbues the claim with a description of how to achieve the desired result.<sup>4</sup> *See* Pet App., 164a-166a (Chen, J., concurring). But this Court has rejected such an approach to § 101 analysis. *Mayo*, 566 U.S. at 72, 77. Accepting such an argument for the Bell patent would result in practitioners simply adding the phrase “substantially as set forth in the foregoing description” to each claim, which would conflict with this Court’s express intent in *Mayo*.

Under a similar rationale, claims 2-5 would inevitably fall with claim 1, except that a court could apply only Faraday’s law of induction to claims 2 and 3, could apply only Ohm’s law to claim 4, and could apply both laws of nature to claim 5.

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4. It is well understood that claims are intended to be construed in light of the specification. *See, e.g., In re Marosi*, 710 F.2d 799, 802, 218 USPQ 289, 292 (Fed. Cir. 1983) (“[C]laims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their ‘broadest reasonable interpretation.’” (quoting *In re Okuzawa*, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976))).

Importantly, it is entirely likely that these claims would be deemed valid under the *Alice/Mayo* analysis. In particular, the “nothing more” analysis omits the full step two of the *Alice/Mayo* framework. In the past, the Federal Circuit had determined that claims similar to these were allowable without questioning whether the claims themselves teach “how” the judicial exception is used to achieve a desired outcome.<sup>5</sup> Rather, in such prior cases the eligibility analysis turned on whether the claimed features recited an *application* of a judicial exception.<sup>6</sup>

Here, the claims follow this Court’s mandates by incorporating Ohm’s Law or Faraday’s law into such an application – setting a telephone receiver into vibration. It

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5. See, e.g., *SRI International, Inc. v. Cisco Systems, Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019) (concluding that the claim at issue, which recited using a plurality of network monitors to analyze specific network traffic data and integrate generated reports from the monitors to identify hackers and intruders on the network constituted an improvement in computer network technology); *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1389-1349 (Fed. Cir. 2017) (determining that, though the claims were recited in an outcome-oriented manner, “the claims are directed to systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame”); *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1338 (Fed. Cir. 2016) (concluding that, while the claims were directed to the concept of “filtering”, the claimed invention improved technology because the filtering tool was installed at a specific location, remote from the end-users, with customizable filtering features specific to each end user which provided both the benefits of a filter at a local computer and on an ISP server).

6. See *id.*

is well known that undulations in current have a multitude of other practical implementations, including wired power transfer, wireless data transfer, or information transfer within a system. But these uses fall outside of the scope of Bell's claims. Accordingly, the claims recite significantly more than any judicial exception and the Bell patent would likely be valid under prong two of the *Alice/Mayo* test.

While the panel majority attempted to downplay the concerns of some that our most innovative patents would be rendered invalid under the “nothing more” test,<sup>7</sup> it is difficult if not impossible to avoid the conclusion that the Bell patent could easily be deemed patent ineligible if evaluated using the misguided rationale in *American Axle*, despite these claims passing muster under this Court's *Alice/Mayo* analysis.

**B. Edison's Light Bulb Patent would have been Considered Invalid Under Recent Federal Circuit Application of § 101**

On January 27, 1880, Thomas A. Edison was granted Letters Patent No. 223,898 to an “Electric Lamp” (the Edison patent).

The claims of the Edison patent recite:

1. An electric lamp for giving light by incandescence, consisting of a filament carbon

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7. Pet App., 157a (Dyk, J., concurring) (“The assertions that the panel decision . . . calls into question the patentability of basic inventions such as ‘the telegraph, telephone, light bulb, and airplane’ are quite incorrect.”)

of high resistance, made as described, and secured to metallic wires, as set forth.

2. The combination of carbon filaments with a receiver made entirely of glass and conductors passing through the glass, and horn which receiver the air is exhausted, for the purposes set forth.

3. A carbon filament or strip coiled and connected to electric conductors so that only a portion of the surface of such carbon conductors shall be exposed for radiating light, as set forth.

4. The method herein described of securing the platina contact-wires to the carbon filament and carbonixin of the whole in a closed chamber, substantially as set forth.

Just like Bell's telephone patent, Edison's claims could be invalidated by applying the Federal Circuit's "nothing more" test. In so doing, the first and only step would be to read the claim to determine that it invokes a natural law to reach a desired result. In this case, the desired result is itself a natural law. Incandescence is a special case of thermal radiation wherein light from a heated body is emitted in the visible spectrum. If that were not enough, it could be recognized that claim 1 also invokes another law to achieve this desired result - namely, the Joule-Lenz law, which states that the power of heating generated by an electrical conductor is proportional to the product of its resistance and the square of the current. This interpretation would be supported by the specification of the Edison patent, which states that:

The invention consists in a light-giving body of carbon wire or sheets coiled or arranged in such a manner to offer great resistance to the passage of the electric current, and at the same time present but a light surface from which radiation can take place.

...

The invention further consists in the method of manufacturing carbon conductors of high resistance, so as to be suitable for giving light by incandescence.

Edison patent, sheet 1, col. 1, ll. 13-18 and 25-28.

Although the plain language of claim 1 refers to neither current nor heat and therefore does not expressly invoke the Joule-Lenz law, similar circumstances were not a deterrent to the *American Axle* panel majority.<sup>8</sup> Further damning under the Federal Circuit’s “nothing more” test, claim 1 of the Edison patent also fails to recite the means for accomplishing the desired result.

Just as the majority declined to consider additional features of the ‘911 patent, such as a tuned liner and a hollow shaft member into which the liner is inserted in order to achieve two types of vibration damping (*see* Pet App., 188a (Stoll, J., dissenting)), a court could ignore the recited “filament carbon of high resistance . . . and secured to metallic wires” used to achieve incandescence. Instead, under the panel majority’s rationale, claim 1 does

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8. Pet App., 159a (Dyk, J., concurring) (“Claim 22 does not name Hooke’s law, but the name is immaterial.”)



not “provid[e] specific detail as to the ‘how’—the means for achieving the result.” Pet App., 154a-155a (Dyk, J., concurring) (*citing Mayo*, 566 U.S. at 71-73).

Claims 2-4 would be deemed patent ineligible under a similar rationale. Although they include additional features, none of these clarify *how* incandescence is achieved. Accordingly, a court could determine that none of these claims specify the means for achieving the result. *See id.*

Contrary to the consequences of failing the Federal Circuit majority’s “nothing more” test, these claims are likely to be deemed valid under this Court’s *Alice/Mayo* analysis. Edison’s claims clearly are not directed to a natural law *per se*, but incorporate that law (the Joule-Lenz law) into an inventive concept: creating incandescent light. It is well known that the Joule-Lenz law has a multitude of other practical implementations, including radiative heating, immersion heating, water heating, and is used as the basis of operation of hot plates, clothes irons, and soldering irons. Accordingly, the patent claims amount to a specific application of a judicial exception rather than encompassing just the judicial exception itself. Thus, the Edison patent would be valid under prong two of this Court’s *Alice/Mayo* test.

### **III. This is an Appropriate Case to Provide Clarity and Guidance to Lower Courts**

Since this Court’s decision in *Alice*, the Federal Circuit has decided at least 150 cases on § 101 grounds. These cases have introduced unresolved confusion about the proper application of the *Alice/Mayo* framework, contrary to the Federal Circuit’s mandate to clarify and

harmonize U.S. patent law. The result has been a long list of contradictory panel decisions that are impossible to reconcile with one another.<sup>9</sup> This situation has now devolved into an even split of the Federal Circuit judges who seem locked in an entrenched dispute over whether the “nothing more” test is an appropriate method for analyzing patent claims.

It is uncertain how lower courts and the U.S. Patent and Trademark Office will interpret this test, risking even more confusion, irreconcilable outcomes, and harm to American innovation.<sup>10</sup> It is therefore critical for this

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9. See, e.g., *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) (holding claims grounded in internet technology invalid) *contra* *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (holding similar claims valid); *Trading Technologies International, Inc. v. CQG, INC.*, 675 Fed.Appx. 1001 (Fed. Cir. 2017) (holding claims directed to a graphical user interface valid) *contra* *Trading Technologies International, Inc. v. IBG LLC*, 921 F.3d 1084 (Fed. Cir. 2019) and *Trading Technologies International, Inc. v. IBG LLC*, 921 F.3d 1378 (Fed. Cir. 2019) (holding similar claims invalid); *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2019) (holding that claims for a user interface were not directed to an abstract idea) *contra* *Move, Inc. v. Real Estate Alliance Ltd.*, 721 Fed.Appx. 950 (Fed. Cir. 2018) (holding that similar claims were directed to an abstract idea and invalid); *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (holding that claims for automated animations of lip synchronization were not directed to an abstract idea) *contra* *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 132 (Fed. Cir. 2017) (holding claims for creating a composite facial image were abstract and invalid).

10. Indeed, the Patent Office has set forth its own version of the *Alice/Mayo* test for use by examiners that breaks step one of this Court’s test into two sub-steps. See *USPTO Manual of Patent Examining Procedure*, § 2106.04(II).

Court to clarify whether such a rule can be brought within the existing framework for subject matter eligibility analysis before the “nothing more” test is applied *en masse*.

**A. In *American Axle*, the Federal Circuit has provided a way to circumvent the *Alice/Mayo* framework**

The panel majority has circumvented a complete analysis under *Alice* and *Mayo* in favor of creating an analytical shortcut, a new rule based on an overbroad characterization of *O’Reilly* that clashes with guiding principles and ignores express warnings from this Court. In doing so, the Federal Circuit has abandoned this Court’s focus on preemption<sup>11</sup> in favor of something more akin to enablement: “the ‘how’—the means for achieving the result.” Pet App., 154a-155a (Dyk, J., concurring) (*citing Mayo*, 566 U.S. at 71-73). As demonstrated above, the effect of this shift in perspective can render patents invalid that previously would almost certainly have been eligible under this Court’s *Alice/Mayo* framework. These risks have been illustrated above by their unavoidable consequence – rendering invalid some of the most influential, iconic, and groundbreaking inventions in this nation’s history. To prevent such disastrous and untenable outcomes when this rule is applied to further patent claims (as it will be unless corrected promptly), this Court should grant certiorari in this case.

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11. *Alice*, 573 U.S. at 216 (2014) (“[T]he concern that drives this exclusionary principle [is] one of preemption”); *see also Mayo*, 566 U.S. at 85 (“The Court has repeatedly emphasized ... a concern that patent law not inhibit further discovery by improperly tying up the future use of laws of nature”).

**B. This case represents an opportune vehicle to provide clarity in proper application of § 101**

The American Axle claims recite steps unknown in the prior art that rely on novel techniques to produce a superior product. Practicing the claimed invention provides a beneficial result not found in the prior art. While relying on natural laws as all inventions must, the '911 patent does more than just recite a natural law and instruct the skilled person to “apply it.” *Mayo*, 566 U.S. at 72. Indeed, the structure of the American Axle claims resemble, even if they are not as influential as, those that defined the telephone and the light bulb.

The inventors of the '911 patent discovered a previously unknown manufacturing technique for dampening vibrations in a drive shaft. This innovation was so beneficial, and was spelled out in the patent in such careful detail, that a competitor used the claimed process to create a competing product, which is the subject of the litigation at hand.

The claimed method is limited in scope. Accordingly, there is no concern that it preempts the public's use of Hooke's law (though it is not clear that the Federal Circuit identified the correct natural law). If new methods of damping vibrations in a drive shaft are discovered at a later date, they can be freely practiced without infringing American Axle's claims. If future research discovers a new material for use in constructing a vibration-free drive shaft, or that a vibration-attenuating device can be attached to the outside of a drive shaft, or that a different shape of drive shaft reduces vibrations, such an application would not be preempted by the claims in the '911 patent.

Proper application of this Court’s patent eligibility framework reveals that American Axle’s method-of-manufacturing claims, like those in *Diehr*, may *rely* on a natural phenomenon, but do not entirely preempt use of the natural phenomenon. This case provides an ideal and timely opportunity to clarify the framework of patent eligibility and its proper application.

### CONCLUSION

The guiding principle of this Court’s *Alice/Mayo* two-part framework is to exclude claims that preempt the public’s use of a law of nature, natural phenomenon, or abstract idea because such claims impede progress in the useful arts. The Federal Circuit’s misapplication of the *Alice/Mayo* two-part framework in its *American Axle* decision disregards this purpose and has resulted in disincentives for skilled artisans to develop new and useful inventions.

The deep divide in the Federal Circuit over how to properly apply this Court’s patent eligibility test and that court’s plea for guidance demonstrate that this issue will not be resolved without direct intervention by this Court. Accordingly, the *amici curiae* urge this Court to grant American Axle’s petition for a writ of certiorari.

Respectfully Submitted,

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