No. 18-1763

IN THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

AMERICAN AXLE & MANUFACTURING, INC.,

Plaintiff-Appellant,

v.

NEAPCO HOLDINGS LLC, NEAPCO DRIVELINES LLC,

Defendants-Appellee.

Appeal from the United States District Court for the District of Delaware in C.A. No. 15-cv-1168, United States District Court Judge Leonard P. Stark

BRIEF FOR AMICUS CURIAE INTELLECTUAL PROPERTY OWNERS ASSOCIATION IN SUPPORT OF AMERICAN AXLE & MANUFACTURING'S PETITION FOR REHEARING OR REHEARING EN BANC

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Counsel for amicus curiae Intellectual Property Owners Association certifies the following:

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5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal is:

   None

/s/ Mark J. Abate
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INTEREST OF AMICUS CURIAE[1]

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[1] No counsel for any party authored this brief in whole or in part, and no party, counsel, or person contributed money to fund the preparation or submission of this brief. See Fed. R. App. P. 29(a)(4)(E).

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ARGUMENT

Each requirement of patentability as set forth in Title 35 of the United States Code plays a unique and important role in "promot[ing] the progress of science and useful arts." U.S. CONST. art. I, §VIII, cl. 8. The panel decision in *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC et al.*, 939 F.3d 1355 (Fed. Cir. 2019), blurred the lines between distinct requirements of the patent statute and thereby created uncertainty surrounding the metes and bounds of section 101 and its interplay with section 112. Furthermore, the decision may open the floodgates to section 101 challenges to mechanical inventions, which have not been the subject of recent eligibility decisions of this Court or the Supreme Court. *En banc* review of this case is therefore warranted to clarify the relationship between sections 101 and 112 and to remove any ambiguity that may result from the panel decision.

I. THE PANEL OPINION CREATES UNCERTAINTY REGARDING THE METES AND BOUNDS OF SECTION 101

Section 101 of the Patent Act provides:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. As the Supreme Court stated nearly 40 years ago, patentable subject matter should "include anything under the sun that is *made by man*." *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (emphasis added). However, the Supreme Court has recognized "important implicit exception[s]" to patentable subject matter, including: (1) laws of nature, (2) abstract ideas, and (3) natural phenomena. *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012). Section 101 acts as a "gate-keeper" to ensure that only subject matter that properly is patentable receives protection. *See Bilski v. Kappos*, 561 U.S. 593, 602 (2010) ("The § 101 eligibility inquiry is only a threshold test.").

The Supreme Court's decisions in *Mayo* and *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), established a two-step framework for determining whether a claim satisfies section 101 and is therefore patent eligible. First, a court must "determine whether the claims at issue are directed to one of [the three] patent-ineligible concepts." *Alice*, 573 U.S. at 217. If under step one the claimed invention is determined to be directed to a law of nature, abstract idea, or natural phenomena, then the court must proceed to step 2 to determine whether additional elements of the claim "transform" the claim into patent-eligible subject matter such that the claim provides "more than" the ineligible concept itself. *Id.*

Section 112, on the other hand, focuses on requirements for the written material in a patent. Section 112 provides, in relevant part:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

35 U.S.C. § 112.

The two main requirements of section 112-- written description and enablement—play separate and important roles in ensuring that a patent adequately describes an invention and instructs the public how to make and use it, which are essential to the purpose of the patent system. *See, e.g.*, *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) ("[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time."). In exchange for disclosing his or her invention to the public, the inventor is provided a time-limited right to exclude others from using that invention. Without adequate disclosure describing the invention and teaching the public how to make and use the invention, the inventor has not held up his or her end of the bargain and is not entitled to a patent.

In the years since the *Alice/Mayo* two-step test was announced, there has been confusion and uncertainty concerning its application. *See, e.g.*, *American Axle*, 2018-1763, slip op. at 25 (Fed. Cir. Oct. 3, 2019) (Moore, J., dissenting); *Athena Diagnostics v. Mayo Collaborative Servs., LLC*, 915 F.3d 743 (Fed. Cir.

2019) (Newman, J., dissenting); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335 (Fed. Cir. 2018) (referring to section 101 law as an "incoherent body of doctrine"). The *American Axle* decision adds to this ambiguity by apparently interjecting into the analysis the interplay between the test for subject-matter eligibility and the written description and enablement requirements under section 112. As the panel majority acknowledged, the Supreme Court in *Mayo* made clear that "section 101 serves a different function than enablement." *American Axle*, 2018-1763, slip op. at 20-21 (citing *Mayo*, 566 U.S. at 90) ("[T]o shift the patent-eligibility inquiry entirely to these later [statutory] sections risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do."). Yet, the decision included terms of art and other language evoking the test for whether a patent satisfies the requirements of section 112, not whether the invention is directed to patentable subject matter under section 101 and *Mayo/Alice*.

For example, the panel stated, "[m]ost significantly, the claims *do not instruct how* the variables would need to be changed to produce the multiple frequencies required to achieve a dual-damping result, or to tune a liner to dampen bending mode vibrations." *American Axle*, 2018-1763, slip op. at 14 (Fed. Cir. Oct. 3, 2019) (emphasis added). Similarly, the panel found that "[t]he claims here simply instruct the reader to tune the liner . . . without the benefit of *instructions on*

how to do so." *Id.* at 19 (emphasis added). However, whether a patent specification teaches or "instructs" a skilled artisan "how to" use the claimed invention is a question of enablement under section 112, *not* patent eligibility under section 101. *See, e.g.*, *Genentech Inc. v. Novo Nordisk A/S,* 108 F.3d 1361, 1365 (Fed. Cir. 1997) ("To be *enabling*, the specification of a patent must teach those skilled in the art *how to make and use* the full scope of the claimed invention without 'undue experimentation.'" (emphasis added)); *Gevo, Inc. v. Butamax Advanced Biofuels LLC*, 2013 WL 3914467, at *15 (D. Del. July 26, 2013) (concluding regarding enablement that "[t]here is no direction or guidance disclosed in the patent to *instruct a person of ordinary skill in the art on how to* optimize or change the process to achieve the [claimed property]." (emphasis added)).

The decision likewise incorporated language mirroring written description standards in its analysis. In particular, although the decision concedes that the patentee "may have discovered patentable refinements of [a] process . . . neither the specifics of any novel computer modelling nor experimental modal analysis *are disclosed in the patent*, much less included in the claims themselves." *American Axle*, 2018-1763, slip op. at 15 (Fed. Cir. Oct. 3, 2019) (emphasis added). Whether there is adequate disclosure in a patent specification is a question of sufficient written description under section 112, not eligibility under section 101. *See, e.g.*,

Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) ("[T]he hallmark of written description is disclosure . . .. [T]he test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification *must describe an invention* understandable to that skilled artisan and show that the inventor actually invented the invention claimed." (emphasis added)); *Idenix Pharm. LLC v. Gilead Scis. Inc.*, 2019 U.S. App. LEXIS 32456 at *24 (Fed. Cir. 2019) ("To fulfill the written description requirement, a patent owner must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and demonstrate that by *disclosure in the specification of the patent*." (emphasis added)).[3]

Even if the panel's ultimate holding-- that unclaimed aspects of the "tuning" process would constitute eligible subject matter—is correct, the decision has the

[3] Judge Moore pointed out that questions during oral argument appeared to relate to whether the patent satisfies Section 112, not subject matter eligibility. *See, e.g.*, *American Axle*, 2018-1763, slip op. at 11 (Fed. Cir. Oct. 3, 2019) (Moore, J., dissenting). For instance, at the oral argument, the following questions were asked: "[t]he problem is it really doesn't tell you how to do it, right? It says 'do tuning,' but it doesn't tell you how to do the tuning" and "[l]ooking at this patent, you couldn't tell how to do it. Someone skilled in the art wouldn't know how to do it. You would need additional information, right?" Oral Argument at 1:35, 2:08 *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC et al.*, 939 F.3d 1355 (Fed. Cir. 2019) (No. 69), http://www.cafc.uscourts.gov/oral-argument-recordings.

potential to blur the lines between the section 101 and 112 analysis. This will increase confusion and uncertainty in the law of patent eligibility and could open the door to hybrid eligibility and written description-enablement arguments in the future. Rehearing *en banc* is respectfully encouraged to provide clarity on the differentiation between standards under sections 101 and 112.

II. THE PANEL OPINION MAY OPEN THE FLOODGATES TO SECTION 101 CHALLENGES TO MECHANICAL INVENTIONS

The claims at issue in *American Axle* are generally directed to a method of manufacturing a shaft assembly of a driveline system. *American Axle*, 2018-1763, slip op. at 5-6 (Fed. Cir. Oct. 3, 2019). One step in the manufacturing process is "tuning" a liner placed within the shaft assembly to reduce specific types of vibrations. *Id.* The panel found the tuning step to be nothing more than the utilization of a natural law. *Id.* at 19. However, the generalized recitation of the natural law as Hooke's law, *and possibly other natural laws* opens the door to: (1) non-specific and vague attacks on patentability based on natural laws and (2) widespread challenges to the subject matter eligibility of mechanical inventions.

In reaching its conclusion that the claimed invention is directed to a law of nature under *Mayo/Alice* step one, the panel seems to conclude that step one can be satisfied even if the natural law, or laws, at issue are not identified. *See, e.g.*, *id.* at 15 ("[T]he claims' general instruction to tune a liner amounts to no more than a directive to use one's knowledge of Hooke's law, *and possibly other natural*

laws." (emphasis added)). This holding may incentivize subject matter eligibility challenges based on generalized statements, without identifying the specific natural law implicated by the invention. General and non-specific statements should not be enough to satisfy step one of the *Mayo/Alice* framework, given that their inherent ambiguity would certainly fail to meet the "clear and convincing" standard required to prove patent invalidity. *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011).

Second, the decision's broad, non-specific statements may also have unintended consequences because most, if not all inventions, utilize some natural law or a combination of natural laws. Some of the most important inventions in history are arguably nothing more than the application of one or more natural laws. Edison's invention of the light bulb could be seen as utilizing laws related to the flow of electricity. Similarly, the Wright Brothers' invention of the airplane is arguably just the utilization of the laws of aerodynamics and airflow around the wing of a plane. The decision, as it currently stands, may open the door to countless challenges to mechanical inventions with underpinnings in one or more, potentially unnamed natural laws. Recent cases of this Court and the Supreme Court involving patent eligibility challenges under section 101 have largely been confined to software and life sciences inventions. *See, e.g.*, *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576 (2013) (relating to breast and

ovarian cancer susceptibility gene); *Mayo*, 566 U.S. 66 (relating to optimizing drug efficacy for treatment of gastrointestinal disorders); *Finjan Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018) (relating to methods of computer virus scanning). This case has the potential for a significant expansion of the challenges under section 101 in a way that likely was not intended by precedent or the panel.

CONCLUSION

For the foregoing reasons, the Court should grant American Axle & Manufacturing's petition, and allow either panel rehearing or rehearing *en banc*.

Respectfully submitted,

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December 2, 2019

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