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Federal Circuit Narrows its Prior Decision; Court is Still Torn on Section 101 Patent Eligibility

Holland & Knight Section 101 Blog
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Following a combined petition for rehearing and rehearing en banc filed by patent owner American Axle, the U.S. Court of Appeals for the Federal Circuit has modified its earlier opinion. In that earlier decision – described in a [Holland & Knight blog post](#) on Oct. 4, 2019 – the majority affirmed the district court's findings that claims 1 and 22 were invalid under § 101 for being directed to a natural law. Judge Kimberly Moore offered a fiery dissent, arguing that the majority opinion greatly expanded § 101 beyond its gatekeeping function.

Now, in its modified opinion, the majority has determined that claim 1 may be directed to eligible subject matter. Claim 22 remains invalid. Once again, Judge

Moore offered a blistering dissent, arguing that the majority followed a "chimeric approach to § 101 which is inconsistent with precedent, a vast expansion of § 101, and bound to cause confusion in future cases."

The petition for rehearing en banc was denied with an evenly divided six-to-six. This split en banc ruling, along with the concurring opinion and three separate dissenting opinions, only underscores the disagreements within the court. Chief Judge Sharon Prost, along with Judges Timothy Dyk, Evan Wallach, Richard Taranto, Raymond Chen and Todd Hughes, all joined in the denial of the en banc petition, while Judges Moore, Alan David Lourie, Pauline Newman, Kathleen O'Malley, Jimmie Reyna and Kara Farnandez Stoll dissented from the denial.

The Majority Opinion

Judge Dyk, writing for himself and Judge Taranto, explained that the asserted patent discloses a method of manufacturing a driveline propshaft containing a liner designed such that its frequencies attenuate two modes of vibration simultaneously. The claims are directed to tuning liners – *i.e.*, "controlling a mass and stiffness of at least one liner to configure the liner to match the relevant frequency or frequencies."

The district court found that the claims merely invoke Hooke's law. Hooke's law is a natural law that mathematically relates the mass and/or stiffness of an object to the frequency with which that object vibrates. On appeal, American Axle argued that the claims are not merely directed to Hooke's law because there is evidence both in the patent and from witnesses at the district court suggesting that tuning a liner such that it attenuates two different vibration modes is a process that involves more than the application of Hooke's law.

Claim 22

Turning to claim 22, the majority disagreed with American Axle and found that what goes beyond Hooke's law is not found in claim 22. The majority noted that the court has "repeatedly held that features that are not claimed are irrelevant as to step 1 or step 2 of the *Mayo/Alice* analysis."

Under the district court's construction, the majority found that claim 22 was directed to "tuning" the liner via controlling mass and stiffness to match the relevant frequency – *i.e.*, Hooke's law. The majority noted that claim 22 did not claim any particular method of tuning and rather claimed the desired result, contrasting claim 22 with the claims in *Diamond v. Diehr*, where other steps

"added to the formula something that in terms of patent law's objectives had significance—they transformed the process into an inventive application of the formula."

American Axle argued that the process of tuning is complicated and involves extensive modeling and trial and error. The majority was not swayed, finding that "neither the specifics of any novel computer modelling, nor the specifics of any experimental modal analysis are included as limitations in claim 22" and such "unclaimed features cannot function to remove claim 22 from the realm of ineligible subject matter." In the majority's view, the "problem is that claim 22's instruction to tune a liner essentially amounts to simply claiming a result," without any particular limitations on how to achieve that result. The majority likened this to the U.S. Supreme Court's *Parker v. Flook* decision, where the claimed method "did not specify how variables were measured or how the alarm system functioned," and concluded that claim 22 "simply instructs the reader to tune the liner without limitation to particular ways to do so."

The takeaway at step 1 is that the claims need to describe the invention. The fact that practicing the claim is complicated is not going to do much good if those complicated steps are described in the patent's specification but not in the claims.

Turning to step two of the *Alice* inquiry, American Axle argued that there was an inventive concept, because liners had never previously been tuned in this way. The majority found this to be nothing more than a restatement of the desired result, and such "a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept." The majority stated that the "real inventive work" lies in designing a liner that meets claims 22, and that work is not claimed in claim 22.

In response to the dissent, the majority took issue with the dissent's criticisms that Hooke's law is not called out by name in claim 22. The majority found that nothing in the case law suggests that there must be an express recitation in the claims of a natural law for the claims to be directed to a natural law. Rather, the analysis is focused on the substance of the claims. To hold otherwise would allow patentee's to avoid the natural law exception through clever claim drafting, something the Supreme Court specifically cautioned against in *Alice*.

The majority further addressed the dissent's argument that this is really an issue of enablement, not eligibility. The majority argued that though both the eligibility and enablement inquiries focus on "how" the claims can be practiced, they are

different "how" requirements. With eligibility, the question is whether the claims themselves go beyond claiming a functional result, because the claims must also describe "how" that functional result is achieved. This is done by "limiting the claim scope to structures specified at some level of concreteness, in the case of a product claim, or to concrete action, in the case of a method claim." With enablement, the question is whether the specification describes "how" a person of skill in the art can practice the claims.

Claim 1

In contrast to claim 22, the majority found that claim 1 may be directed to eligible subject matter, because claim 1 requires "positioning" in addition to tuning and reflects a broader definition of tuning, either of which could be broader than simply applying Hooke's law.

Under the district court's construction, the majority found that claim 1 was directed to "controlling characteristics" of the liner to achieve certain vibrations. Based on the specification, the majority found that the "characteristics" that could be tuned involve variables other than mass and stiffness. The majority found that claim 1 also contained an additional claim limitation of positioning the liner. Thus, the majority found that they could not conclude that claim 1 is merely directed to an instruction to apply Hooke's law and nothing more. Accordingly, the court remanded the case for the district court to address eligibility of this claim.

The Dissent

In a fervent dissent, Judge Moore attacked the majority on four grounds. Underscoring each of these grounds is Judge Moore's fear that the majority decided scientific issues as a matter of law, with no briefing, argument or expert testimony.

First, Judge Moore argued that the majority greatly expands § 101, creating a new test she dubs the "Nothing More" test. Judge Moore explained that a "claim is not directed to a natural law simply because it touches upon, implicates, uses or involves a natural law," noting that the claims themselves do not even expressly recite any particular natural law. Judge Moore argued that the majority's "Nothing More" test would sweep in nearly every claimed invention, as "[u]nstated natural laws lurk in the operation of every claimed invention." Thus, a claim cannot be directed to a natural law "simply because compliance with a

natural law is required to practice the method." She noted that the majority opinion will be opening the floodgates of litigation by finding "that claims can be ineligible as directed to a natural law even though no actual natural law is articulated in the claim or even the specification."

In her analysis, Judge Moore focused on whether claim 22 would preclude the use of Hooke's law. Because claim 22 is limited to certain machinery, and because claim 22 does not recite Hooke's law, Judge Moore found that there would be no such preclusion.

Judge Moore further criticized the majority's moving target of exactly what natural law is claimed. In its initial opinion, the majority held that the claims were directed to Hooke's law "and possibly other natural laws." In its revised opinion, the majority argued that claim 22 is directed to Hooke's law. Judge Moore argued that this is simply an erasure of history, citing George Orwell's "1984."

Judge Moore also argued that by extending § 101 to unstated natural laws, the majority was making factual findings that the claim 22 is directed to "Hooke's law and *nothing more*" which were not supported by the record. She noted that both experts argued that portions of the claim were not achieved by only Hooke's law. Further, she felt that because the majority had previously recognized that Hooke's law "and possibly other natural laws" were in play undermined their current opinion that claim 22 is directed to "Hooke's law and nothing more." Judge Moore cautioned that "judges are not fact or technical experts," but the majority was reaching conclusions that could only be reached through fact finding based on expert testimony.

Second, Judge Moore argued that the majority ignores the claimed unconventional elements. Judge Moore found that because the liners had never been used in the claimed manner was strong evidence of non-conventionality. She argued that the majority misunderstands the claimed result. The result, Judge Moore argued, is a reduction of vibrations, not that the liners are tuned. And, since the claims require certain physical, concrete and structural limitations of the liner, the claims provide a physical structure or steps for achieving the claimed results (*i.e.*, reduction of vibrations).

Third, Judge Moore criticized the majority's analysis as a blend of § 101 and § 112, which she dubs "enablement on steroids." Judge Moore found the majority's "new blended 101/112 defense" to be confusing, converting factual issues into legal issues, and eliminating the knowledge of one of skill in the art. Again, Judge

Moore noted that the result of the claims is a reduction of vibrations, not that the liners are tuned. Thus the claims identify a precise structure and certain variables to be adjusted to achieve that result of reducing vibrations. Whether or not one of skill in the art would know how to adjust those variables is a question of enablement, not eligibility. Judge Moore dissented from what she called "the majority's attempt to inject a heightened enablement requirement into the § 101 analysis."

Lastly, Judge Moore noted she is concerned that the majority's decision is a deprivation of rights without due process. She noted that the majority made several representations with no basis, including: finding claims "representative" where no party argued that such claims were representative; finding that "positioning" and "inserting" limitations have different meanings, even though no party argued so; and finding that the patentee did not argue the limitations of the dependent claims. Judge Moore argued that the majority is engaging in unwarranted and unprecedented "result-orientated judicial activism" that is "fundamentally unfair."

* * * The case is *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC, Neapco Drivelines, LLC*, Case No. 2018-1763 (Fed. Cir. 2020)