

## Despite Fears, American Axle Is Rarely Used To Nix Patents

By **Ryan Schermerhorn, Christopher Zahn and Daniela Dulworth** (August 17, 2023)

A Federal Circuit decision from 2020 is still ringing alarm bells for many patent practitioners focused on mechanical technologies, many of whom thought they were largely immune from the Section 101 issues that have plagued colleagues in the electrical and biotechnology areas.

While the decision is still making its way through the courts, our research shows that its impact hasn't been nearly what critics feared.

In 2019, a three-judge panel of the U.S. Court of Appeals for Federal Circuit issued its decision in *American Axle & Manufacturing Inc. v. Neapco Holdings LLC*. The decision invalidates claims for a method for manufacturing a driveshaft as being directed to ineligible subject matter under Section 101 of the U.S. Patent Act.

In 2020, the full Federal Circuit denied rehearing the case en banc, but Federal Circuit Judge Timothy Belcher Dyk issued a modified majority opinion, writing for the court that several independent claims were directed to "a natural law" and lack "any physical structure or steps for achieving the claimed result."<sup>[1]</sup>

Instead, Judge Dyk added, they rely on unclaimed features such as the specifics of novel computer modeling and experimental modal analysis that are not sufficient to remove the claims "from the realm of ineligible subject matter."

Relying in part on the U.S. Supreme Court's 1978 *Parker v. Flook* decision, Judge Dyk contended that, for example, invalidated claim 22 simply "instructs the reader to tune the liner to achieve a claimed result," without specifying how to do so.

Following the *American Axle* decision, many hoped that Congress or the Supreme Court would step in and change, or at least clarify, what constitutes eligible subject matter under Section 101.

Despite the U.S. solicitor general's recommendation to the contrary, the high court denied certiorari in June 2022. And, while U.S. Sen. Thom Tillis, R-N.C., introduced a bill to expand and clarify the scope of eligibility in August 2022, the Senate has not formally considered the bill and does not appear to have plans to so.

Further confusion and concern may stem from the U.S. International Trade Commission's October 2022 decision *In the Matter of Certain Polycrystalline Diamond Compacts and Articles Containing Same*.<sup>[2]</sup>

The ITC's opinion followed an administrative law judge's similar determination invalidating claims for a polycrystalline diamond compact, or PDC, a piece often used in drill bits to allow for longer use and better performance.



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At step one of the Supreme Court's now familiar two-step Mayo-Alice framework for analyzing patent eligibility under Section 101, the ITC held that the claims at issue were directed to an abstract idea, despite the complainant's contention that the manmade PDC is an article of manufacture or composition or matter that is "quintessential patent-eligible subject matter under 35 U.S.C. 101."

At step two of the framework, the ITC contended that although the magnetic and electrical properties recited in the claims may be "nonconventional," the achievement of those properties is abstract "because they effectively cover any PDCs with those properties no matter how it is made."

Interestingly, although the claims at issue included physical structure, the ITC nonetheless invalidated the claims, seemingly placing this decision in conflict with the Federal Circuit's American Axle decision.

Patent prosecutors and litigators alike continue to wonder how much, if at all, the American Axle decision has affected the eligibility and validity of mechanical patents vis-à-vis Section 101.

Former Federal Circuit Chief Judge Paul R. Michel, in an amicus brief supporting American Axle, has argued that the decision places "seemingly every patent [in] eligibility jeopardy."<sup>[3]</sup>

Neapco's response to American Axle's petition for the Federal Circuit to hear the case en banc, however, argued that "any concern over the potential impact of this case on future cases is vastly overstated, and this case is narrowly limited to the unique claims at issue."<sup>[4]</sup>

So, have things changed since American Axle? Let's look at the data.

### **Impact on Patent Prosecution**

Almost four years after the initial American Axle opinion and three years after its aforementioned modified opinion, we submit that Neapco may have accurately predicted how the decision would affect patent prosecution in the mechanical arts.

Indeed, based on our own anecdotal evidence and prosecution data obtained from Juristat, we submit that American Axle has not affected the prosecution of mechanical inventions in any significant way.

We first analyzed data with respect to rejections issued by Tech Centers 3600 and 3700 at the U.S. Patent and Trademark Office — the centers classified by the USPTO as being responsible for examining mechanical inventions.

In 2018, before the American Axle opinion, Tech Centers 3600 and 3700 issued 131,065 total rejection bases in office actions, 43,252 of which involved Section 101 — i.e., approximately 33% of the total rejection bases issued.

Meanwhile, in 2020, after the initial American Axle opinion, the same tech centers issued 111,033 total rejection bases. Of those, approximately 29.9%, or 33,245, involved Section 101.

Finally, since the beginning of 2021, and since the Federal Circuit's modified American Axle

decision, the same tech centers have issued 144,257 total rejection bases, 47,350 of which involved Section 101 — i.e., approximately 32.9% of the total rejection bases issued.

The data demonstrates that the use of Section 101 to reject patents in the mechanical sphere has only marginally changed, if not slightly diminished, in Tech Centers 3600 and 3700 since the Federal Circuit's initial decision in *American Axle*.

This trend is further exemplified by analyzing the data for Art Unit 3726, the Art Unit responsible for examining and granting the patent at issue in *American Axle*. In 2018, 2020 and between 2021 and 2023, respectively, that Art Unit issued 72, 88 and 118 total rejection bases. In the same time periods, that Art Unit issued 18, 14 and 29 total rejection bases using Section 101, respectively — i.e., 20.5%, 19.4% and 24.5% of the total rejection bases issued, respectively.

Furthermore, despite the slightest uptick in 101 rejections issued by Art Unit 3726 since 2021, it should be noted that not a single office action from that Art Unit has cited the *American Axle* decision, and only eight office actions in Tech Centers 3600 and 3700 have done so, with two coming from 2019 and three coming from each of 2020 and 2021.

Although few and far between, these office actions shed light on how examiners and applicants at the USPTO have utilized the *American Axle* decisions.

For example, in U.S. Application No. 15/172,499 — now U.S. Patent No. 11,120,505 — the applicant referenced the modified 2020 *American Axle* opinion, unprompted, as a means to argue that the claims at issue, directed to a method for processing a set of images to identify property damage using a trained model or trained classifier, were distinguishable from those in *American Axle* and were directed to patent eligible subject matter:

However the Federal Circuit noted: 'To be clear, we do not suggest that such specific novel computer or experimental processes could not be claimed. This case would be significantly different if, for example, specific FEA models were included in the claim 22.'

In response, the examiner rejected the applicant's contentions by noting that not only was the application at issue unrelated to the manufacturing of a shaft assembly, but also that the Federal Circuit's statement in *American Axle* did not make subject matter positively identifiable as eligible under Section 101 just by claiming FEA or other trained models as the applicant hoped.

Additionally, in a June 5 office action, the examiner rejected the claims at issue in U.S. Application No. 17/708,158 under Section 101 because they "instruct one as to how the machine is intended to operate without any particular means as to the combination of elements necessary to perform them."

The examiner asserted that those claims, which were for a method for installing an automatic card shuffler at a gaming table, had "the effect of covering all structures capable of performing the step, including when performed by a human acting as the transport device," and therefore were patent ineligible under the decision in *American Axle*.

Finally, in U.S. Application No. 16/027,572, claims for a therapy device that provided feedback to a patient performing an exercise were rejected under Section 101, with the examiner providing an interesting summary of the holding in the *American Axle* decision highlighting the connection between abstract ideas and the claimed tangible features.

According to the examiner, the court in American Axle held "that claims reciting an abstract idea (Hooke's law) as well as very concrete and tangible limitations of providing a hollow shaft member and positioning a liner in that shaft member were patent ineligible."

It remains to be seen if Congress or the Supreme Court will take up this issue in earnest in the future; however, although utilized by applicants and examiners on occasion, the sparse use of American Axle suggests that the opinion has not significantly impacted the prosecution of mechanical inventions like many thought, and feared, it would.

## **Patent Litigation**

Since the Federal Circuit's modified opinion in 2020, 36 decisions have cited one of the American Axle opinions, with most of those decisions issued by the U.S. District Court for District of Delaware, U.S. District Court for the Central District of California and the U.S. District Court for the Northern District of California.

Ten other districts have cited the case one or two times. Thus, on the litigation side as well, we submit that Neapco may be right that "any concern over the potential impact of this case on future cases is vastly overstated."

The majority in the modified American Axle opinion held that claim 22 only disclosed a result of applying a mathematical law, "without establishing specific processes, or even improved processes, for implementing the underlying natural laws the patent claimed."

Frequently, parties now argue that patent claims at issue define a result without specifying how that result is achieved, thus making the patent invalid under 101. However, the courts have frequently dismissed the arguments advanced by these parties, finding that the patent claims at issue do, in fact, state how the improvement is achieved.[5]

In many of these cases, judges have cited American Axle in their application of the two-step Alice-Mayo framework to distinguish the patent claims at issue from the patent claims American Axle invalidated.

Instead, judges have found that the claims at issue were not abstract ideas and therefore eligible concepts, contained inventive concepts or that the invention was listed in the claims, not just the specification — one of the reasons used by the majority in the American Axle decisions for invalidating claims under Section 101.

At the same time, a few decisions have cited the American Axle opinions to successfully invalidate patent claims under 101. In the March 17 Splunk Inc. v. Crible Inc. decision in the U.S. District Court for the Northern District of California, five patents were found invalid under Section 101.[6]

The representative claim of one patent disclosed "a method for 'selecting a portion of raw data from at least one data source'; 'analyzing [it] to find a match ... corresponding to a parsing rule in a plurality of stored parsing rules.'" It failed, however, to specify "how to select parsing rules based on data analysis."

Although the specification laid out how the claims were inventive, the court referenced American Axle's reminder that "unclaimed features are irrelevant to the Alice analysis." Other patents were invalidated under Section 101 using similar reasoning.[7]

Many in the patent field feared that American Axle would have a large impact on both patent prosecution and patent litigation. The biggest concern was that the decision would be used to invalidate claims under Section 101.

While that may occur in some very specific circumstances, the case has actually been more frequently used to show that patents are still valid under Section 101[8] and thus the impact has not been as substantial as was feared.

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[1] [http://cafc.uscourts.gov/sites/default/files/opinions-orders/18-1763.OPINION.7-31-2020\\_1628791.pdf](http://cafc.uscourts.gov/sites/default/files/opinions-orders/18-1763.OPINION.7-31-2020_1628791.pdf).

[2] <https://www.federalregister.gov/documents/2022/10/07/2022-21828/certain-polycrystalline-diamond-compact-and-articles-containing-same-notice-of-the-commissions>.

[3] <https://www.law360.com/articles/1228041/michel-says-drive-shaft-ruling-puts-all-patents-in-jeopardy>.

[4] <https://www.law360.com/articles/1229364>.

[5] See *RJ Tech. LLC v. Apple Inc.*, No. 822CV01874JVSJDEX, 2023 WL 3432237 (C.D. Cal. Mar. 23, 2023) (However, unlike the patent in *American Axle*, Claim 1 here also "established processes ... for implementing" the asserted improvement."); *Barry v. SeaSpine Holdings Corp.*, No. CV 21-806-RGA, 2022 WL 605816 (D. Del. Jan. 26, 2022) (Unlike the claim in *American Axle*, claim 6 recites a specific configuration of surgical tools and steps for achieving the claimed result.).

[6] <https://caselaw.findlaw.com/court/us-dis-crt-n-d-cal/2193720.html>.

[7] See *People.ai Inc. v. SetSail Techs. Inc.*, 575 F. Supp. 3d 1193, 1204 (N.D. Cal. 2021), *aff'd sub nom. People.ai Inc. v. Clari Inc.*, No. 2022-1364, 2023 WL 2820794 (Fed. Cir. Apr. 7, 2023) (The claims failed to show how the abstract idea was improved upon, and "an unclaimed feature cannot constitute an inventive concept."); *FacetoFace Biometrics Inc. v. Apple Inc.*, No. 4:22 CV 429 CDP, 2023 WL 2561758 (E.D. Mo. Mar. 17, 2023), appeal dismissed, No. 2023-1792, 2023 WL 4196270 (Fed. Cir. June 26, 2023) (Any means for accomplishing the generic, result-oriented steps actually claimed by the '623 patent are absent from the intrinsic record.); *EscapeX IP LLC v. Block Inc.*, No. 22-CV-3575 (JMF), 2023 WL 373180 (S.D.N.Y. Jan. 24, 2023) ("The fact that the '113 Patent claims results rather than a specific method reaffirms the conclusion that it is directed to an abstract idea.").

[8] See *Xodus Med. Inc. v. Prime Med. LLC*, No. 3:18-CV-413-JPM, 2021 WL 6070581 (E.D. Tenn. Dec. 22, 2021); *Nw. Univ. v. KUKA AG*, No. 21 C 599, 2021 WL 4711538 (N.D. Ill. Oct. 8, 2021); *RJ Tech. LLC v. Apple Inc.*, No. 822CV01874JVSJDEX, 2023 WL 3432237 (C.D. Cal. Mar. 23, 2023); *Philips N. Am. LLC v. Garmin Int'l Inc.*, 606 F. Supp. 3d 963 (C.D. Cal. 2022).