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MOOT COURT BOARD

Eurasia Bicycle Corp.,
Petitioner,

-against-

Oceania Manufacturing, Inc.,
Respondent.

Memorandum of Law

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QUESTION PRESENTED

What role should the specification of a patent play in determining whether said patent is “directed to” patent-ineligible subject matter pursuant to 35 U.S.C. § 101?

STATEMENT OF FACTS

Oceania Manufacturing, Inc. (“Respondent”) is a bicycle manufacturing company located in the State of Airstrip One. Respondent’s employee developed a novel method of manufacture for a bicycle brake in the course of his employment. Respondent’s General Counsel took notice of this innovation and filed a patent for the method, which was ultimately issued as U.S. Patent No. 1,111,984 (“the ’984 patent”) and was set to expire in 2033.

Claim 1 of the ’984 patent¹ is representative of the other claims of the patent and reads as follows:

A method for manufacturing an arm assembly of a brake system, the brake system further including an arm member and a brake cord and at least one angled bracket, the brake cord being arranged to transmit tension between the arm member and the angled bracket, the method comprising:

providing an arm member and a brake cord;

tuning an angle for at least one angled bracket; and

attaching the brake cord around the at least one angled bracket;

wherein the at least one angled bracket is tuned to generate tension through the brake cord to the arm member when the brake system is activated.

’984 Patent.

The specification of the ’984 patent² expands further on the methods for tuning the angle of a bracket, some of which the parties agree are well known in the art. The

¹ A claim of a patent is an element of the patent document that defines the scope of the patent by covering the specific subject matter that the patent applicant regards as their invention. *Markman v. Westview Instruments*, 517 U.S. 370, 373 (1996).

² The specification of a patent is an element of the patent document that provides a written description of the invention in a manner that enables a person skilled in the art to make and use the patented invention. 35 U.S.C. § 112(a).

specification also contains information about brackets in the prior art,³ and describes common materials used in their manufacture.

Respondent continued to manufacture bicycle brakes after the issuance of the patent, though its market share was not affected by the invention. It did not attempt to license the design to other manufacturers. In 2022, Eurasia Bicycle Corp. (“Petitioner”), the domestic subsidiary of Eastasia Bicycle Co., began competing with Respondent in the bicycle manufacturing market in Airstrip One. After examining some of Petitioner’s products, Respondent determined that Petitioner’s brakes were manufactured using the method of the ’984 patent. Respondent then brought this action claiming patent infringement.

PROCEDURAL POSTURE

Respondent brought a patent infringement case against Petitioner in the District Court of Airstrip One. Petitioner moved for summary judgment on the grounds that the claims of the ’984 patent are ineligible under 35 U.S.C. § 101. The district court granted summary judgment in favor of Petitioner and held that the claims of the ’984 patent were invalid under § 101, as they were directed to patent-ineligible material. Respondent appealed the district court’s decision to the Court of Appeals for the Federal Circuit, which reversed in favor of Respondent. The Federal Circuit’s reasoning was that the claims of the ’984 patent, when construed in light of the specification, were not directed to ineligible material. Petitioner petitioned for a writ of certiorari to the United States Supreme Court, which was granted.

SUMMARY

The legal question of what constitutes patent-eligible subject matter has been one of the more contested areas of patent law since the Supreme Court created a two-step analytical framework to determine eligibility in *Mayo Collaborative Services v. Prometheus Lab’ys, Inc.*, 566 U.S. 66 (2012) and *Alice Corp. Prop. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014) (together “*Mayo/Alice*”). This case explores an intra-circuit split in the Federal Circuit regarding the role of the specification in the first step: determining whether the claims of a patent are directed to a patent-ineligible concept. *Compare Am. Axle & Mfg. v. Neapco Holdings LLC*, 967 F.3d 1285, 1293 (Fed. Cir. 2019) (“The Supreme Court’s cases focus on the claims, not the specification, to determine section 101 eligibility.”) *with Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (“[T]he ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”).

³ Prior art refers to patents, patent applications, publications, and other information available to the public at the time that the patent in question was filed at the Patent Office. 35 U.S.C. § 102(a).

Petitioner will argue that the '984 patent is invalid because the representative claim is directed to a natural law without adding an inventive element. *See, e.g., Alice*, 573 U.S. at 226–27 (invalidating claims to a computer system and a computer-readable medium because they recite the abstract idea of intermediated settlement merely implemented on a computer). Petitioner will argue that the information present in the specification has minimal relevance to the first step of the *Mayo/Alice* inquiry, except where statutorily incorporated under 35 U.S.C. § 112(f). Petitioner will draw parallels between the '984 patent and the invalid patent in *American Axle*. Petitioner will urge the Court to apply the *Mayo/Alice* two-step inquiry to find that the patent is directed to a law of nature, and that the level of detail in the specification does not change the district court's determination.

Respondent will argue that the '984 patent is valid because the claim is directed to a concrete method of manufacture. Respondent will argue that Federal Circuit precedent holds that the information present in the specification informs the language of the claim. Respondent will also apply the framing of the step one “directed to” analysis used by the Federal Circuit in *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358 (Fed. Cir. 2020) and *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017) that considers the specification important. Respondent will urge this Court to apply the *Mayo/Alice* two-step inquiry as well, but to include the information from the specification to find that the patent is not directed to an abstract concept, affirming the determination of the Federal Circuit.

DISCUSSION

I. Standard of Review

Patent eligibility under § 101 is a question of law and is reviewed de novo. *BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litig. v. Ambry Genetics Corp.*, 774 F.3d 755, 759 (Fed. Cir. 2014). Construction of a patent claim is a question of law, but may depend on findings of fact, which are reviewed for clear error. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326–27 (2015).

II. Patent Eligibility and the *Mayo/Alice* Framework

Since the procedural posture indicates that the challenge was made on § 101 eligibility grounds, any arguments made by either party about the validity of the patent based on novelty under § 102 or non-obviousness under § 103 are irrelevant to the problem.

A. Patent-Eligible Material Is Defined by 35 U.S.C. § 101 and Its Judicial Exceptions.

Section 101 of the Patent Act provides that “[w]hoever 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,” may have patent-eligible subject matter. 35 U.S.C. § 101.

The Supreme Court has long recognized that § 101 excludes laws of nature, natural phenomena, and abstract ideas from being patent eligible. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *Bilski v. Kappos*, 561 U.S. 593, 601 (2010); *Parker v. Flook*, 437 U.S. 584, 588–89 (1978). This is because each of these categories are “manifestations of . . . nature, free to all men and reserved exclusively to none.” *Diehr*, 450 U.S. at 185 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)).

However, the Court recognized that these exceptions could invalidate most patents, as all inventions utilize natural principles at some level. *Mayo Collaborative Servs. v. Prometheus Lab’ys, Inc.*, 566 U.S. 66, 71 (2012). As such, patents that contained laws of nature or abstract ideas risked becoming patent ineligible if they were applications of such principles. *See id.* (allowing claims that employ a well-known mathematical principle to determine the optimal cure time of synthetic rubber).

B. The Current Eligibility Framework Was Determined by Supreme Court Decisions in *Mayo* and *Alice*.

The Supreme Court first developed its current framework for determining patent eligibility in *Mayo*, where it held that a diagnostic method was not patentable. 566 U.S. at 72. A patent could not simply “recite a law of nature and then add the instruction ‘apply the law,’” as the Court viewed that as “a drafting effort designed to monopolize the law of nature itself.” *Id.* at 77–78. The Court was concerned by this monopolization because it risked inhibiting “further discovery by improperly tying up the future use of laws of nature.” *Id.* at 85. For a patent that was focused on an ineligible concept to be eligible, the Court required that the patent claim have an “‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself.” *Id.* at 72–73 (quoting *Parker*, 437 U.S. at 594). This concept could not be satisfied by adding steps to a natural law or phenomenon that were in context “obvious, already in use, or purely conventional.” *Mayo*, 566 U.S. at 81.

In *Alice Corp. Prop. Ltd. v. CLS Bank Int’l*, the Court applied a two-step test derived from *Mayo* to determine the eligibility of a computer-implemented scheme for mitigating “settlement risk.” 573 U.S. 208, 216–22 (2014). The first step of the test is to determine whether the claims at issue are “directed” to a patent-ineligible concept, such as laws of nature, natural phenomena, or abstract ideas. *Id.* at 218. If the patent is directed to ineligible subject matter, the court moves to the second step and determines if there is sufficient transformation from the ineligible concept to render

the claims patentable. *Id.* at 221. The Court maintained that its concern about allowing ineligible matters to be claimed was that this practice would preclude other innovators from using the underlying ideas for other innovations. *Id.* at 217. Ultimately, the Court unanimously ruled that the claims at issue in *Alice* were not patentable using this new *Mayo/Alice* framework. *See id.* at 212 (holding that merely requiring generic computer implementation fails to transform the abstract idea of intermediated settlement into patentable concept).

III. The Relationship Between the Claims and the Specification of a Patent Varies Based on the Analysis the Court Is Performing.

A patent document is comprised of several elements, the most important of which are the claims and specification. Patent claims define the scope of the patent by covering the specific subject matter that the patent applicant regards as their invention. *Markman v. Westview Instruments*, 517 U.S. 370, 373 (1996). The patent's specification provides a written description of the invention in a manner that enables a person skilled in the art to make and use the invention. 35 U.S.C. § 112(a). These two elements limit the scope of the patent, setting the boundaries of the exclusive right to the invention that the government gives to the patentee. *Motion Picture Pats. Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 510 (1917).

The interpretation of patent claims is determined as a matter of law in a process called claim construction. *Markman*, 517 U.S. at 379; *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326 (2015). Claim construction requires that the patent claims are read in light of the specification. *Id.* at 351. However, limitations from the specification are not permitted to be imported into the claims during construction. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). The boundary between proper claim construction in light of the specification and improper importation of specification limitations is often thin. *Id.*; *Comark Communs., Inc. v. Harris Corp.*, 156 F.3d 1182, 1186–87 (Fed. Cir. 1998).

Compounding the issue of proper claim construction, specification details are sometimes unambiguously incorporated into the language of the claim. *See Am. Axle & Mfg. v. Neapco Holdings LLC*, 967 F.3d 1285, 1302 (Fed. Cir. 2019) (“The first such requirement, that of eligibility, is that the claim itself (whether by its own words or by statutory incorporation of specification details under section 112(f)) must go beyond stating a functional result.”). Section 112(f) of the Patent Act defines a means-plus-function claim, as follows:

Element in claim for a combination. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the

corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112(f).

If a patent claim is construed to be a means-plus-function claim, both the claim and the relevant portions of the specification become involved in patent actions that typically involve only the claims. *See, e.g., Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 1379 (Fed. Cir. 2000) (construing a means-plus-function patent claim for a belt-laying work vehicle to include a pair of hydraulic cylinders shown in the specification).

Both *Mayo* and *Alice* focus on the language of the patent’s claims, and do not mention the specification when describing the step one “directed to” analysis. *Mayo Collaborative Servs. v. Prometheus Lab’s, Inc.*, 566 U.S. 66, 72 (2012) (“We must determine whether the claimed processes have transformed these unpatentable natural laws into patent-eligible applications of those laws.”); *Alice Corp. Prop. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 221 (2014) (“[W]e must examine the elements of the claim to determine whether it contains an ‘inventive concept.’”). The Federal Circuit has interpreted this as requiring any reliance on the specification to “always yield to the claim language.” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019); *see also Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on the language of the Asserted Claims themselves.”).

Petitioner and Respondent should agree about the above case law. Petitioner is not likely to argue that there is no role for the specification in § 101 analysis, and Respondent, on the other hand, will likely concede whenever a contradiction between claim 1 and the specification of the ’984 patent is pointed out. Petitioner is likely to argue that the unambiguous inclusion of the specification into § 112(f) claims indicates that Congress intended not to include the specification into other types of patent claims. Neither party should argue that claim 1 is a means-plus-function claim, as it is a mere “series of steps” not written in the means-plus-function format. *See Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371, 1381 (Fed. Cir. 2004).

IV. Federal Circuit Caselaw Is Divided on the Role of a Patent’s Specification at Step One of the *Mayo/Alice* Framework.

The main point of contention between the parties in this case is “that there exist two conflicting lines of Federal Circuit caselaw—one that stresses the role of the specification in the step-one analysis and another that minimizes it.” *Fortinet, Inc. v. Forescout Techs., Inc.*, 543 F. Supp. 3d 814, 827 (N.D. Cal. 2021).

The Federal Circuit has held several times that a claim is construed in light of the specification. *See, e.g., Kinik Co. v. U.S. Int’l Trade Comm’n*, 362 F.3d 1359, 1365 (Fed. Cir. 2004) (“The words of patent claims have the meaning and scope with which they are used in the specification and the prosecution history.”); *Grain Processing Corp. v. American Maize Prods. Co.*, 840 F.2d 902, 908 (Fed. Cir. 1988) (“All claims must be construed in light of the specification and the prosecution history.”). In *Enfish, LLC v. Microsoft Corp.*, the Federal Circuit applied the same standard in its step one “directed to” analysis. 822 F.3d 1327, 1335 (Fed. Cir. 2016). In addition, the Federal Circuit used the specification to bolster their conclusion that the claim was directed to patent-eligible material. *Id.* at 1337.

The Federal Circuit in *CardioNet, LLC v. InfoBionic, Inc.* continued to read claims “in light of the written description” at step one of the *Mayo/Alice* test. 955 F.3d 1358, 1368 (Fed. Cir. 2020). In addition to adopting that standard, the court also considered statements from the specification important to step one. *Id.* at 1369. This framing of the “directed to” inquiry was used to reverse a district court’s invalidation of a cardiac monitoring patent on § 101 grounds. *Id.* at 1362. This framing was also used to reverse a § 101 invalidation of a computer memory system patent in *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259–60 (Fed. Cir. 2017), which the *CardioNet* court considered to have similarly eligible claims, 955 F.3d at 1369.

On the other hand, the Federal Circuit minimized the role of the specification in the step one analysis in *American Axle*, where it upheld the invalidation of a claim about the manufacture of driveline propeller shafts. *Am. Axle & Mfg. v. Neapco Holdings LLC*, 967 F.3d 1285, 1302 (Fed. Cir. 2019). The panel interpreted the Supreme Court’s opinion in *Mayo* and *Alice* as “focus[ing] on the claims, not the specification, to determine section 101 eligibility.” *Id.* at 1293. According to the *American Axle* court’s interpretation of Federal Circuit precedent, “features that are not claimed are irrelevant as to step 1 or step 2 of the *Mayo/Alice* analysis.” *Fortinet*, 543 F. Supp. 3d at 829 (quoting *Am. Axle*, 967 F.3d at 1293); *see also Accenture Glob. Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (“[T]he level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method.”).

A. Petitioner Will Argue that Claim 1 Fails Step One of the *Mayo/Alice* Test.

Petitioner will argue that the Federal Circuit erred in determining that the ’984 patent failed the first step of the *Mayo/Alice* test since claim 1 is directed to a natural law. Petitioner will support the district court’s opinion that the claim is directed to the ideal gas law because it mentions that the manufacturing method tunes the assembly for pressure and volume, which are elements of the ideal gas law. Petitioner will analogize this step one analysis to the Federal Circuit’s invalidation of the patent in *American Axle* and argue that the Federal Circuit’s treatment of the ’984 patent ignores the established precedent. *See* 967 F.3d at 1293 (“[W]e have

repeatedly held that features that are not claimed are irrelevant as to step 1 or step 2 of the Mayo/Alice analysis.”).

Petitioner will argue that Respondent’s effort to apply the approach of *CardioNet* and *Visual Memory* to the ’984 patent runs counter to the *Mayo/Alice* framework, as they incorporate the specification into a test that only mentions the claims of a patent. *Id.* Petitioner may also distinguish these cases from the current controversy by arguing that details in the specification of the ’984 patent are not present at all in the representative claim, whereas in prior cases, the information in the specification was alluded to in the claim, making the specification important for claim construction. *See, e.g., CardioNet*, 955 F.3d at 1368 (using the specification to confirm claim limitations in step one analysis); *Visual Memory*, 867 F.3d at 1259 (using the specification’s discussion of advantages to determine that patent claims are directed to a technological improvement).

If Petitioner proffers a step two argument, they may argue that there is not sufficient transformation from the natural law to render the claims patentable. Petitioner will again analogize to *American Axle*, which determined that “[t]here is no other inventive concept at step two in the claims and no dispute of any material fact.” 967 F.3d at 1299. Beyond that, step two is outside the disputed caselaw of the problem and arguments regarding it are not responsive to the problem.

B. Respondent Will Argue that Claim 1 is Not Directed to a Law of Nature.

Respondent will argue that the Federal Circuit was correct in determining that the ’984 patent is not “directed to” a law of nature and therefore passes step one of the *Mayo/Alice* test. Respondent will urge the Court to adopt an interpretation of “directed to” that considers the specification important, pointing out that the Supreme Court has itself cautioned against “too broad an interpretation of” ineligible subject matter since “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. Respondent will point out that the claims in this case are directed to a method of manufacture “considered in light of the specification.” *Enfish*, 822 F.3d at 1335. Respondent will also note that a similar reading of claims is used for other aspects of patent litigation, such as direct infringement. *Grain Processing*, 840 F.2d at 908.

In addition, Respondent will argue that the *American Axle* court’s interpretation of the *Mayo* and *Alice* decisions is erroneous or weak precedent given its contested nature. *See Am. Axle*, 966 F.3d at 1348 (Fed. Cir. 2020) (denying rehearing en banc at the Federal Circuit, with six judges holding in favor of denial and six judges dissenting). Respondent might point out that even the concurring judges in the en banc denial of rehearing used examples of the specification being important to the eligibility of a claim, though this can be countered by noting that the example claims made explicit reference to the specification. *See id.* at 1353

(describing how references to the specification were dispositive in determining the eligibility of the claims at controversy in *O'Reilly v. Morse*, 56 U.S. 62 (1854)) (Dyk, J., concurring).

Respondent may also argue that even if the Court determines that the '984 patent is directed to a natural law at step one, the claim sufficiently transforms the natural law to make it patent eligible at step two. However, as mentioned above, step two is outside the disputed caselaw and arguments regarding it are not responsive to the problem.

CONCLUSION

This case explores an intra-circuit split that has divided the Federal Circuit regarding the role of the specification in the first step of the *Mayo/Alice* framework for determining patent eligibility under § 101. Petitioner will argue that the information present in the specification has minimal relevance to the first step of the *Mayo/Alice* inquiry, with the result that the '984 patent is invalid because the representative claim is directed to a natural law without adding an inventive element. Respondent will argue that Federal Circuit precedent holds that the information present in the specification informs the language of the claim for step one analysis, meaning that the '984 patent is valid because the claim is directed to a concrete method of manufacture.

Under existing caselaw, Petitioner may have a slight advantage over Respondent, as the patent claim and specification were based on *American Axle*, in which the patent was determined to be invalid, and as *Mayo* and *Alice* both do not mention the specification in the two-step framework. However, *American Axle* was significantly contested at the Federal Circuit level, and there exist several other Federal Circuit cases that have differing holdings. Respondent will likely highlight that the caselaw backing its position has significant precedent, even if it is not mentioned explicitly by the Supreme Court cases.