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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LAWNIE HENDERSON TAYLOR

Appeal 2020-004192
Application 14/971,878
Technology Center 1700

Before ROMULO H. DELMENDO, KAREN M. HASTINGS, and
JANE E. INGLESE, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ requests our review under 35 U.S.C. § 134 of the Examiner’s decision rejecting claims 131–153. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as “Lawnie H. Taylor” (Appeal Br. 4). We note there was a previous appeal in this case, wherein we affirmed the Examiner’s rejection of similar subject matter (2018–005029). As the Examiner points out, a closely related case, *In re Taylor*, (Fed. Cir. 2015 (No. 15-1582) was decided in prior application 13/067,574 (wherein the court affirms the Board’s decision holding all

We AFFIRM.

Claim 131 is illustrative:

131. A method for prescribing the natural fabric effect quality of a hypochlorite bleach composition, said quality in the range of fabric-damaging to abated-damaging to cotton-safe, said composition in the process of formulation,

wherein the amounts of the essential components of a bleach composition are expressed in a ratio value as wt % alkali-metal hydroxide over wt % alkali-metal hypochloride-salt, or the reciprocal, wherein a selected ratio value defines the desired natural fabric effect quality of the composition (eg., 1:30 – fabric-damaging, 1:2– cotton-safe, etc.),

wherein a bleach composition so composed and set with a natural fabric effect quality must be characterized by the selected ratio value that defines said fabric effect quality,

wherein said ratio value and the amount of an essential component are expressed as *known* factors of the ratio equation by which the amount of the other essential component is determined and limited,

wherein a bleach composition composed with a prescribed natural fabric effect quality in the range of damaging to abated-damaging to cotton-safe comprises,

(a) an amount of an alkali-metal hypochlorite -salt, as a *known* factor of a ratio equation, said amount effective for cleaning stain from a soft-fabric article,

(b) an amount of an alkali-metal hydroxide as an *unknown* term of the ratio equation, said amount calculated by (a) and (c),

(c) a ratio value, as a *known* factor of the ratio equation, said value selected in the range 1:30 to 1:1, or

claims of the '574 Application unpatentable) (Ans. 13); *see also In re Taylor*, 445 F. App'x 343 (Fed. Cir. 2011) (Fed. Cir. 2011), which was decided in prior application 11/505,445 (wherein the court affirms the Board's decision holding all claims of the '445 Application unpatentable).

reciprocal value selected in the range 30:1 to 1.1, to set the prescribed quality of natural fabric effect of the bleach composition in the range of fabric-damaging to abated-damaging to cotton-safe;

wherein the pH of said composition is at least 11.

Claim 145, the only other independent claim, is directed to a bleach product with a ratio value of alkali metal hypochlorite salt to alkali metal hydroxide “selected” in the range of 1:30 to 1:1 or its reciprocal, similar to claim 131, “to set the quality of natural fabric safety of the bleach product” (Claims Appendix filed Feb. 21, 2020).

The Examiner maintains, and Appellant appeals, the following rejections:

- I. Claims 131–144 under 35 U.S.C. § 112, ¶ 2, as indefinite;
- II. Claims 131–144 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter;
- III. Claims 131–153 under 35 U.S.C. §102(b) as anticipated by, or in the alternative under § 103(a) as obvious over, Scialla (US 6,120,555, issued Sept. 19, 2000);
- IV. Claims 131–135, 137–149, and 151–153 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative under § 103(a) as obvious over, Agostini (US 6,416,687 B1; issued July 9, 2002); and
- V. Claims 131–135, 137–149, and 151–153 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative under § 103(a) as obvious over, Grande (US 6,448,215 B1, issued Sept. 10, 2002).

At the outset, we note this appeal is from the Examiner’s Non-final action mailed April 4, 2019 (after the previous Board Decision in Appeal No. 2018-005029). This Examiner’s Non-final action explicitly set forth the

§ 112 rejection and the § 101 rejection of claims 131–144 and did not explicitly set out in full the prior art rejections. However, the Examiner stated that all such rejections made “under 35 USC 102 and 35 USC 103 set forth in the Examiner’s Answer dated 2/22/2018 are maintained for the reasons of record.” (Non-Final Act. 7). The Examiner further set out these prior art rejections in the Examiner’s Answer mailed March 10, 2020. Accordingly, all of these rejections listed at I. to V. above are properly before us.

ANALYSIS

The Rejection under 35 U.S.C. § 112, ¶ 2, as indefinite

During prosecution, claims are definite if they “set out and circumscribe a particular area with a reasonable degree of precision and particularity.” *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971).

The Examiner found the language of independent method claim 131 indefinite because it “does not include a single positive method step” (Ans. 4), nor can one determine “how the ratio has been calculated or selected” as there is no requirement for any specific definite amounts of bleach components (*id.*; the Examiner also asks “how is [the ratio] known?”).

In prosecution before the PTO “[i]t is the applicants’ burden to precisely define the invention, not the PTO’s.” *In re Morris*, 127 F. 3d 1048, 1056 (Fed. Cir. 1997). The purpose of this requirement is to provide the public with adequate notice of the boundaries of protection involved. The time to do so is during prosecution where an applicant has the ability to amend the claims to more precisely define the metes and bounds of the claimed invention. *See Ex parte Miyazaki*, 89 USPQ2d 1207, 1210–12 (BPAI 2008).

Notably, method claim 131 does not recite any positive method steps. Contrary to Appellant’s contention that clauses (a) through (c) are “Steps” (Appeal Br. 10), these clauses do not recite any positive physical method steps (such as mixing, etc.). The claim recites a method “for prescribing” the quality of a bleach composition. The broadest reasonable interpretation and plain meaning of “prescribing” includes recommending or stating as a rule that a procedure should be carried out.² The claim as written encompasses no more than a mental exercise in recommending or deciding many different formulations of a bleach composition.

In light of these circumstances, we affirm the Examiner’s § 112, second paragraph rejection.

The Rejection under 35 U.S.C. § 101

Principles of Law

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court’s two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of

² *See, e.g.,* <https://www.lexico.com/definition/prescribe>.

intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that “a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citation omitted) (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that

an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim recites an abstract idea, we turn to the second part of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”).³ “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

³ In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

Pursuant to applicable statute and precedential decisions and consistent with the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).⁴

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

⁴ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance — Section III(A)(2), 84 Fed. Reg. 54–55.

§ 101 Analysis of Claims 131–144

Appellant argued the claims as a group in this rejection, thus we select claim 131 as representative of these method claims. 37 C.F.R.

§ 41.37(c)(1)(iv).

Appellant contends that claim 131 was “amended [] to remove the mental activity phrasing” to make it comparable to claim 145 which is directed to a composition (Appeal Br. 11). Appellant also argues that “the Examiner made no effort to comply with the instructions of the USPTO [guidance] dated 4 May 2016” (*id.* at 12) (emphasis omitted).

These arguments are not persuasive of error in the Examiner’s rejection as to method claim 131 (claim 131 remains directed to a method). The 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), hereinafter “2019 Revised Guidance,” was in effect at the time the Appeal Brief was filed (Oct. 8, 2019).

Claim 1 covers a “method” and is thus statutory subject matter for which a patent may be obtained.⁵ This is not in dispute.

As discussed earlier, § 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

⁵ This discussion corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether a “claim is to a statutory category.” 2019 Revised Guidance, 84 Fed. Reg. at 53; *see also id.* at 53–54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101”).

In that regard, notwithstanding that claim 131 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 131 is directed to an abstract idea.

Alice step one — the “directed to” inquiry

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”). The Revised Guidance lays out three types of abstract ideas: mathematical concepts, methods of organizing human activity, and mental processes. 2019 Revised Guidance, 84 Fed. Reg. at 52. *See also Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) (holding that claims to a “process of organizing information through mathematical correlations” are directed to an abstract idea); *Intellectual Ventures LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”).

The Examiner determined that the claims recite limitations corresponding to a mathematical relationship (Non-Final Act. 5). The Examiner contends that prescribing a ratio so as to obtain the natural fabric effect quality for a bleach composition are “directed to” (i.e., recites) an abstract idea/ mathematical algorithm/mental process (Non-Final Act. 5–7). The Examiner contends that the method of claim 131, which merely at best adds mixing the bleach components is the ratio prescribed to obtain the

desired fabric quality is directed to the abstract idea without significantly more (Ans. 5).

Appellant *de facto* contends that the claims do not merely recite an abstract idea, and do not contain the phrase “selecting a ratio” (Reply Br. 8). Appellant contends he developed “a new mathematical concept for expressing a ratio number” which is named “the selected ratio” (*id.*). Appellant contends the selected ratio is a limitation “instrumental in formulating a neat bleach composition with a prescribed quality of fabric safety” and “is a major advancement over the bleach technology of the prior art” (Reply Br. 8) which could only improve fabric safety by adding other ingredients (*id.*).

Accordingly, there is a dispute over whether the invention, because of its alleged improvement to the existing state of the art, recites patent eligible subject matter.

The Abstract Idea⁶ (Step 2A, Prong One)

Claim 131 recites a method for prescribing the natural fabric effect quality of a bleach composition. As discussed previously in the analysis of the §112 rejection, there are no active method steps recited in the claim. At best, one is selecting a ratio, or determining “the selected ratio value” (e.g., based on the Specification’s Table 1) and mixing/making a bleach composition composed of the two recited bleach components in the prescribed or selected ratio value (claim 131).

⁶ This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. 2019 Revised Guidance 53. Step 2A is a two prong inquiry.

The court has held that abstract ideas include the concepts of collecting data, analyzing the data, and reporting the results of the collection and analysis, including when limited to particular content. *See, e.g., Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (identifying the abstract idea of collecting, displaying, and manipulating data); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) (claims directed to a “process of organizing information through mathematical correlations” are directed to an abstract idea).

Claim 131 does recite the selected ratio value as a specific type of safety data for a bleach composition, but it does not recite any affirmative steps. There are no steps; rather the method is akin to making a selection that can (only) be performed in the human mind (e.g., by deciding how safe to make a fabric safe bleach or not) and thus the recitations are matters that fall within the “[M]ental processes” enumerated grouping of abstract ideas, both as to each claim limitation and the claim as a whole.⁷ Alternately, mixing

⁷ This corresponds to Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] (b) of Step 2A of the 2019 Revised Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” *Id.* at 54. This case implicates subject matter grouping “(a)” and “(c)”:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Id. at 52.

two bleach components is insignificant extra-solution activity. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55 n.31; *see also* MPEP § 2106.05(g). *Cf. Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1242 (Fed. Cir. 2016) (agreeing with the Board that printing and downloading generated menus are insignificant post-solution activities).

Therefore, we have reviewed the record and are unpersuaded as to reversible error in the Examiner’s characterization of what claim 131 recites.

Practical Application (Step 2A, Prong Two)

Having concluded that claim 131 recites a judicial exception, i.e., an abstract idea (Step 2A, Prong One), we next consider whether the claim recites additional elements that integrate the judicial exception into a practical application (Step 2A, Prong Two).⁸

Here, it is clear from the Specification (including the claim language) that the claims focus on an abstract idea, and not on any improvement to technology and/or a technical field. The Specification’s description of the problem and solution focuses on examples that show that any advance over

⁸ This corresponds to Prong Two (“If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application”) of Step 2A of the 2019 Revised 101 Guidance. 2019 Revised Guidance, 84 Fed. Reg. at 54. “A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *Id.* One consideration, implicated here, that is “indicative that an additional element (or combination of elements) may have integrated the exception into a practical application” (*id.* at 55) (footnote omitted) as if “[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field” (*id.*).

the prior art by the claimed invention is in utilizing a table to determine a ratio of two known fabric bleach components to formulate a bleach with a desired fabric (e.g., cotton) safety property (Spec. ¶¶ 6, 7, 9, 39, 59, 60, Table 1). Appellant’s argument that this invention is a “new mathematical concept for expressing a ratio number” (Reply Br. 8) only underscores that the claimed subject matter is based on an abstract idea. Merely improving an abstract idea does not prevent it from still being an abstract idea.

Synopsys, Inc. v. Mentor Graphics Corp., 839 F.3d 1138, 1151 (Fed. Cir. 2016) (“[A] claim for a new abstract idea is still an abstract idea.”).

Therefore, after careful review, there is insufficient evidence in the record before us that the claimed subject matter reflects any improvement in technology.

Last, the application to a certain field, that is, of fabric safety for a bleach composition, does not do more than generally link the use of a judicial exception to a particular technological environment. This does not render the idea non-abstract, however, since “the prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or [by] adding ‘insignificant post solution activity.’” *Bilski*, 561 U.S. at 610–12 (quoting *Diehr*, 450 U.S. at 191–92). Accordingly, within the meaning of the 2019 Revised Guidance, we find there is no integration into a practical application.

The Examiner correctly determined that a method for “prescribing the natural fabric effect quality of a hypochlorite bleach composition” as recited in claim 131 is a mental step and determining or selecting a ratio indicative of fabric safety is thus an abstract idea, which is nonstatutory subject matter

(e.g., Ans. 14 (the Examiner states “‘selecting a ratio’ is certainly a mental activity, as a selection or decision, if it is conducted by a human, can only take place in the mind”)).

Therefore, because claim 131 recites a judicial exception and does not recite additional elements that integrate the judicial exception into a practical application, the claim is directed to a judicial exception.⁹

We have considered all the Appellant’s arguments challenging the Examiner’s determination under step one of the *Alice* framework and find them unpersuasive. For the foregoing reasons, the record supports the Examiner’s determination that claims 131–144 recite an abstract idea (i.e., ineligible subject matter) and the claims do not integrate the abstract idea into a practical application.

*Alice step two — Does the Claim Provide an Inventive Concept?*¹⁰

Step two is “a search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in

⁹ The Federal Circuit has explained that “the ‘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.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

¹⁰ This corresponds to Step 2B of the 2019 Revised Guidance page 56 (“[I]f a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself.”).

practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)). As part of this step, we also look to whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. 2019 Revised Guidance, 84 Fed. Reg. at 52–56.

In that regard, the Examiner asserts that the step of, at best, mixing two known bleach components is a well-understood, routine, and conventional step which does not amount to significantly more than the abstract idea of the selected ratio value (e.g., Non-Final Act. 5–7). The Examiner goes on to cite, in the rejections under 35 U.S.C. 102 and 103, the use of the two named bleach components being used together in a bleach composition, as shown by, e.g., Scialia (Ans. 7, 8).

We agree with the Examiner.

Consistent with precedential law, we addressed Appellant’s argument as to purported specific asserted improvements in technology under step one of the *Alice* framework. *See Ancora Techs., Inc. v. HTC Am. Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”). Such an argument can also challenge a determination under step two of the *Alice* framework. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014). “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be

identified either at the first or the second step of the *Alice/Mayo* [framework].” 2019 Revised Guidance at 53.

We are not persuaded that claim 131 presents an element or combination of elements indicative of a specific asserted improvement in technological capabilities, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon using the abstract idea of a selected ratio value algorithm in order to create various bleach compositions.

We have reviewed the Specification and, as explained above, we can find no suggestion of any technical improvements associated with the performance of any of the (passively) recited steps which integrate the abstract idea into a patent eligible concept. *Alice*, 573 U.S. at 223 (“[M]ere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea while adding the words ‘apply it’ is not enough for patent eligibility.” (Citation and internal quotation omitted)). *Cf. In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (“Put differently, the telephone unit itself is merely a conduit for the abstract idea of classifying an image and storing the image based on its classification”). For the reasons discussed above, we are unpersuaded that the record supports interpreting the (at best passive) step(s) recited in the claim as yielding any improvement in technology.

Looking to the additional elements of the two bleach components of claim 131, we ask if they are, simply conventional elements/components of a bleach composition. While “[t]he patent eligibility inquiry may contain underlying issues of fact,” “[w]hen there is no genuine issue of material fact

regarding whether the claim element or claimed combination is well-understood, routine, [and] conventional to a skilled artisan in the relevant field” the question of patent eligibility taking into account well-understood, routine and conventional elements can be decided as an issue of law.

Berkheimer v. HP Inc., 881 F.3d 1360, 1365, 1368 (Fed. Cir. 2018) (quoting *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016); see also *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018) (“A factual allegation or dispute should not automatically take the determination out of the court’s hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination.”)).

The Examiner *de facto* determined that generically linking the use of a judicial exception to a particular technological environment or field of use is insufficient; determining fabric safety indicia of a bleach based on a wide range of ratios for known components of a bleach composition is likewise insufficient to qualify as significantly more. The Examiner correctly determined that there is nothing more in the claim to make its subject matter “patent eligible” since there is no dispute that the routine step of mixing hypochlorite bleach and sodium hydroxide is well known, and even this step is not expressly recited in claim 131 (e.g., Ans. 7).

As demonstrated by the Specification (as well as the applied prior art), the bleach components recited herein are known bleach components. *Cf. Alice*, 573 U.S. at 225. See also *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“[T]he use of a computer in an otherwise patent-ineligible process for no more than its most basic function—making calculations or computations—fails to

circumvent the prohibition against patenting abstract ideas and mental processes.”).

Therefore, we find clear support demonstrating that the recited bleach components are components that are well-understood, routine and conventional.

On the record before us, Appellant has not shown that the claims on appeal add a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional, when the claim limitations are considered both individually and as an ordered combination. We conclude that no error has been committed in the determination under *Alice* step two that claim 131 does not include an element or combination of elements circumscribing the patent-ineligible concept so as to transform the concept into an inventive application.

Accordingly, because we are not persuaded as to reversible error in the Examiner’s position that representative claim 131, and claims dependent thereon, are directed to an abstract idea and do not present an “inventive concept,” we sustain the Examiner’s conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101.

The Rejections under 35 U.S.C. §§ 102/103

Appellant does not argue any claim separate from the other in any of the rejections listed as III to V above; Appellant also does not present arguments specific to any of the three applied references (Appeal Br. 11, 12 (Appellant’s arguments are set out to apply to all three prior art rejections)).

Accordingly, we select independent claim 145 directed to a “bleach product” with a “natural fabric safety quality . . . in the range of fabric-

damaging to . . . cotton-safe” that “comprises” a “selected” ratio from 1:30 to 1:1 of hypochlorite to sodium hydroxide, as representative of the subject matter before us for review on appeal for all three prior art rejections (*see*, Claims Appendix page 3, filed Feb. 21, 2020). We decide the appeal based on the arguments made by Appellant in support of the patentability of claim 145, which are the same for each rejection (Appeal Br. 8, 9; Reply Br. 5, 6).

We have reviewed each of Appellant’s arguments for patentability. We determine that a preponderance of the evidence supports the Examiner’s finding that the claimed subject matter of each independent claim is anticipated, or alternatively obvious, within the meaning of § 102 or § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner’s rejections for essentially those reasons expressed in the Answer, including the Examiner’s Response to Argument section, and we add the following primarily for emphasis.

In order to anticipate, a reference must identify something falling within the claimed subject matter with sufficient specificity to constitute a description thereof within the purview of § 102. *In re Schaumann*, 572 F.2d 312, 317 (CCPA 1978). It is well established that specific examples of the claimed subject matter are not necessary to establish anticipation. Rather, to anticipate, one skilled in the art must be able to “at once envisage” the claimed subject matter in the prior art disclosure. *In re Petering*, 301 F.2d 676, 681 (CCPA 1962). It is also well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed by the prior art, the burden is on the applicant to prove that the prior art product does not necessarily or inherently possess characteristics attributed to the claimed product, and that it is of no moment whether the rejection is based

on § 102 or § 103 since the burden on the applicant is the same. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990); *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

Appellant has not provided any persuasive reasoning or credible evidence to refute the Examiner’s determination that the sodium hypochlorite:sodium hydroxide bleach compositions found in each reference possess a ratio thereof within the range recited in each independent claim, and the amount of each component necessarily provided an effective fabric cleaning composition that was, e.g., fabric safe (Ans. 13–15; e.g., Scialla col. 8, Examples 4, 5, ll. 25–26 (the compositions “provided improved fabric safety and/or improved whiteness to fabrics”). *See, e.g., Atlas Powder Co. IRECO, Inc.*, 190 F.3d 1342, 1345 (Fed. Cir. 1999)(presuming anticipation based on a substantial overlap between the claimed ranges of ingredients in an explosive composition and the ranges of the same disclosed in a prior art reference); *In re Ornitz*, 351 F.2d 1013, 1016–17 (CCPA 1965) (“Even assuming arguendo appellant to have discovered that ranges of some constituents are critical to certain [important] properties, we are not convinced of novelty in the claimed range of compositions since Payson [i.e., prior art,] discloses those properties for substantially the same ranges of composition.”).

Appellant’s arguments that the references fail to teach all the elements, specifically “the selected ratio”, of the independent claims is unavailing (Appeal Br. 8; Reply Br. 5).¹¹ Contrary to Appellant’s argument,

¹¹ Appellant urges us to consider the prosecution and claims of US 8,846,597 (e.g., Reply Br. 5, 6); however, we merely note that a bleach product as recited in claim 145 is not claimed therein, nor is a method as set out in claim 131.

the “calculated ratio” derived from each reference may be relied upon in the rejection of the claims (Appeal Br. 8). Appellant fails to appreciate that one simply may not rely upon a mental process, or decision (that is, Appellant’s selected ratio value), to formulate the bleach composition in a claim directed to the bleach composition product or in a claim to prescribe the natural fabric effect of a bleach composition. Appellant also fails to fully appreciate that the claims on appeal are indeed open to additional components (via the use of “comprising” language), and do not recite a “neat” solution of sodium hypochlorite with sodium hydroxide (Reply Br. 3 (pointing out the invention uses selected ratios from Specification Table 1 to formulate a neat bleach solution)). Limitations not appearing in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). The Examiner has made out a prima facie case, thereby shifting the burden of proof to Appellant, and Appellant has not met the burden to show that the compositions of the applied prior art do not inherently satisfy the claimed invention. Conclusory arguments in a brief cannot take the place of evidence. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

Assuming *arguendo* that a case of anticipation has not been met, a “recognition in the prior art that a property is affected by the variable is sufficient to find the variable result-effective.” *In re Applied Materials, Inc.*, 692 F.3d 1289, 1297 (Fed. Cir. 2012). As indicated by the applied prior art, the amount of sodium hydroxide and sodium hypochlorite are each a result-effective variable for a fabric cleaning composition, and the prior art exemplifies overlapping ranges for both components (*Ans. generally*). Moreover, it is well settled that it would have been obvious for an artisan with ordinary skill to develop workable or even optimum ranges for result-

effective parameters. *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (where the difference between the claimed invention and the prior art is some range, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results). Appellant does not rely upon any evidence of unexpected results.

Accordingly, the Examiner has presented a prima facie case of unpatentability under either one of § 102 or § 103 of the bleach composition as recited in claim 145 (or the corresponding method claim 131 and all dependent claims not separately argued) for all the reasons set forth in the Non-Final Action mailed Feb. 2, 2017 and Answer.

Accordingly, the Examiner’s § 102 and, in the alternative, § 103, rejections are affirmed with respect to all of the claims on appeal.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
131–144	112, second paragraph	Indefiniteness	131–144	
131–144	101	Eligibility	131–144	
131–153	102(b)/103(a)	Scialla	131–153	
131–135, 137–149, 151–153	102(b)/103(a)	Agostini	131–135, 137–149, 151–153	
131–135, 137–149, 151–153	102(b)/103(a)	Grande	131–135, 137–149, 151–153	
Overall Outcome			131–153	

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136.

AFFIRMED