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Target Brands Inc. 1000 Nicollet Mall, TPS-3165 Minneapolis, MN 55403			ROSS, SCOTT M	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* STACEY L. FAULKENBERG, LISA ANNE MILLER, and  
CHRISTOPH JONATHAN STEFFEN MEYER

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Appeal 2017-004925  
Application 13/682,286  
Technology Center 3600

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Before JOHN A. JEFFERY, BRUCE R. WINSOR, and  
JUSTIN BUSCH, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellants<sup>1</sup> appeal from the Examiner's decision to reject claims 1–20, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> Appellants identify the real party in interest as Target Brands, Inc. App. Br. 2. Target Brands, Inc. is the Applicant for the instant patent application. *See* Bib. Data Sheet.

## STATEMENT OF THE CASE

Appellants' invention forecasts sales in a region based on past weather data in the region. *See generally* Abstract.

Claim 1, reproduced below, is illustrative:

1. A method for improving computerized frontload inventory quantity forecasting comprising:

generating, by a computing device, a plurality of weather classifications for a location based on past weather data for the location, wherein each weather classification represents a level of a characteristic of the weather at the location;

generating, by the computing device, a plurality of weather scenarios for a time frame comprising a plurality of time segments over which sales of a product will occur in the future, wherein each weather scenario comprises a different combination of weather classifications assigned to each of the time segments in the time frame;

calculating a forecast of unit sales of the product over the time frame for each weather scenario based on the past weather data for the location and past sales data associated with both the product and the weather classifications;

calculating a probability that each weather scenario will occur in the time frame;

iteratively selecting a plurality of test frontload inventory quantities for the product and calculating a function comprising the sum of the products of the probability that each weather scenario will occur and the difference between each test frontload inventory quantity and the forecasted unit sales of the product for each weather scenario, wherein a frontload inventory quantity comprises a quantity of the product to place in inventory prior to or at the beginning of the time frame configured to approximate demand for the product over the entire time frame;

selecting one of the test frontload inventory quantities as a final frontload inventory quantity for the product based on the calculated function for each of the test frontload inventory

quantities; and, wherein the difference between each test frontload inventory quantity and the forecasted unit sales of the product for each weather scenario further comprises one of an estimated excess or shortage inventory quantity of the product, and further comprising assigning a first weight to the estimated excess inventory quantity and a second weight to the estimated shortage inventory; and,

wherein the first weight and the second weight are based on a desired frequency to maintain a predetermined amount of inventory over a time frame.

### THE REJECTION<sup>2</sup>

The Examiner rejected claims 1–20 under 35 U.S.C. § 101 as directed to ineligible subject matter. Final Act. 2–4.<sup>3</sup>

### FINDINGS AND CONTENTIONS

The Examiner finds that specific language from independent claim 1 is directed to an abstract idea. Final Act. 2–3. The Examiner adds that claim 1 does not include additional elements sufficient to transform the abstract idea into a patent-eligible application of the abstract idea. *Id.* at 3. As such, the Examiner determines claim 1 does not recite significantly more than the abstract idea itself and, therefore, is ineligible under § 101. *Id.*

Appellants argue the Examiner fails to establish a prima facie case of subject matter eligibility. App. Br. 14–15; Reply Br. 2. Appellants further

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<sup>2</sup> Because the Examiner withdrew rejections under § 103(a) (*see* Ans. 3), those rejections are not before us. Thus, only the rejection under § 101 is before us.

<sup>3</sup> Throughout this opinion, we refer to (1) the Final Rejection mailed February 3, 2016 (“Final Act.”); (2) the Appeal Brief filed August 2, 2016 (“App. Br.”); (3) the Examiner’s Answer mailed December 19, 2016 (“Ans.”); and (4) the Reply Brief filed February 4, 2017 (“Reply Br.”).

argue the claimed invention is not directed to an abstract idea. Reply Br. 9–10. Appellants further argue the elements of Appellants’ claims amount to significantly more than an abstract idea. App. Br. 34; Reply Br. 10–14.

## ISSUES

- I. Has the Examiner met the basic requirements for establishing a prima facie case of subject matter ineligibility under § 101?
- II. Has the Examiner erred in rejecting claims 1–20 by concluding that they are directed to ineligible subject matter under § 101?

## ANALYSIS

### *Introduction*

The Patent Act defines patent-eligible subject matter broadly: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 70 (2012), and *Alice Corp. Proprietary Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 2354 (2014), the Supreme Court explained that § 101 “contains an important implicit exception” for laws of nature, natural phenomena, and abstract ideas. See *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). In *Mayo* and *Alice*, the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter. First, we determine whether the claims are directed to a patent-ineligible concept: laws of nature, natural phenomena, and abstract ideas. *Id.* at 2354–55. If so, we then proceed to the second step and examine the claim’s elements—both individually and as an ordered

combination—to determine whether the claim contains an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application. *Id.* at 2357.

#### *Prima Facie Case*

We find unavailing Appellants’ contention that the record lacks the required analysis, evidence and legal authority to establish a prima facie case to reject the claims under 35 U.S.C. § 101. App. Br. 14–15; Reply Br. 2. During prosecution, the Examiner is governed by 35 U.S.C. § 132, which requires notifying an applicant of the reasons for a rejection with “such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (quoting *Chester v. Miller*, 906 F.2d 1574, 1578 (1990)). The PTO violates § 132 “when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *Chester*, 906 F.2d at 1578. But if the USPTO “adequately explain[s] the shortcomings it perceives . . . the burden shifts to the applicant to rebut the prima facie case with evidence and/or argument.” *Hyatt v. Dudas*, 492 F.3d 1365, 1370 (Fed. Cir. 2007).

Appellants argue the claims as a group. *See* App. Br. 30–35; Reply Br. 2–15. We, therefore, select independent claim 1 as the representative claim for this group, and claims 2–20 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv) (2016).

The Examiner explained the rejection of claim 1 under 35 U.S.C. § 101 in sufficient detail to permit Appellants to respond meaningfully. In particular, under the first step of *Alice* analysis, the Examiner finds claim 1

calls for four distinct functions—(1) generating weather classifications and weather scenarios, (2) calculating forecast sales and probabilities for each scenario, (3) performing an optimization function, and (4) determining an inventory quantity. Final Act. 2. The Examiner further finds that claim 1 is directed to ideas our reviewing court has found abstract: (1)(a) using categories to organize, store, and transmit information; and (b) collecting information in classified form, and then separating and transmitting the information according to its classification, *Cyberfone Sys., LLC v. CNN Interactive Grp.*, 558 F. App'x 988 (Fed. Cir. 2014) (unpublished); and (2) organizing information through mathematical correlations, *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014). Under the second step of *Alice* analysis, the Examiner finds generically recited computer elements (“computing device”) of claim 1 do not add a meaningful limitation to the abstract idea because they would be routine in any computer implementation. *Id.* at 3. Thus, we find that the Examiner set forth a prima facie case of ineligibility for claims 1–20.

Nor do we find availing Appellants’ argument, for the first time in the Reply Brief, concerning an unfounded requirement that specific claim limitations which resulted in a withdrawal of an obviousness rejection must be shown by the Examiner as necessarily being inherent, necessary, or essential to an abstract idea. Reply Br. 2, 4, 11. Appellants argue there is no assertion, analysis, or evidence that the claims, and in particular the “iteratively selecting” step of claim 1, are well-known, conventional, and routine or are necessary, essential, or inherent, to any abstract idea. *Id.* at 9–11. Appellants further argue the ordered combination of steps in the claims are not well-known, conventional, or routine. *Id.* at 14.

These newly-raised arguments are waived as untimely. *See* 37 C.F.R. § 41.41(b)(2). The Examiner made findings on pages 3 and 5–7 of the Final Rejection to which Appellants could have responded in the Appeal Brief. Appellants’ belated contention provides the Examiner no opportunity to respond to this contention made only in the Reply Brief. *See Ex parte Borden*, 93 USPQ2d 1473, 1475 (BPAI 2010) (informative). A contention not raised in an appeal brief and raised for the first time in a reply brief and “not responsive to an argument raised in the examiner’s answer, including any designated new ground of rejection, will not be considered by the Board for purposes of the present appeal, unless good cause is shown.” 37 C.F.R. § 41.41(b)(2).

Even assuming, without deciding, that Appellants’ contentions are timely, which they are not, the Examiner’s findings that the functions of the claims are conventional, routine, and well-understood in the art (*see, e.g.*, Final Act. 6) are officially noticed facts “capable of such instant and unquestionable demonstration as to defy dispute.” *See In re Ahlert*, 424 F.2d 1088, 1091 (CCPA 1970) (citations omitted). On this record, then, Appellants’ belated challenge does not reasonably comply with the requirements of challenging such officially noticed facts. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2144.03 (9th ed. Rev. 08.2017, Jan. 2018).

Moreover, the mere fact that the Examiner has not presented specific claim limitations that resulted in withdrawing an obviousness rejection does not overcome a § 101 rejection. “[P]atent-eligibility does not turn on ease of execution or obviousness of application. Those are questions that are examined under separate provisions of the Patent Act.” *Rapid Litig. Mgmt.*

*Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1052 (Fed. Cir. 2016) (citing *Mayo*, 566 U.S. at 89–90); *see also Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013).

### *Alice Step One*

Regarding the first step of the *Alice* analysis, although “[t]he Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the [*Alice*] inquiry,” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016), “the first step in the inquiry is a meaningful one.” *Id.* at 1335. Further, it is “sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Id.* at 1334.

In that regard, Appellants do not squarely address—let alone persuasively rebut—the Examiner’s finding that the claims are directed to the abstract ideas our reviewing court has found abstract in *Cyberfone* and *Digitech* discussed above. Rather than distinguishing the claimed invention from these abstract ideas, Appellants contend the claims are more than the abstract idea our reviewing court has found abstract in *Cyberfone*. App. Br. 34. According to Appellants, that is, the claims are directed to “improving computerized frontload inventory quantity forecasting,” *id.*—an argument that best fits under the second step of the *Alice* analysis.

Moreover, we note a human can use pen and paper to perform the steps of claim 1. A method is merely an abstract idea and is not patent-eligible under § 101 if the method can be performed by human thought alone, or by a human using pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011); *see also*

*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). That claim 1 adds a “computer device” to perform the first two steps does not change our conclusion. *See Alice*, 134 S. Ct. at 2357–58.

Accordingly, we agree with the Examiner that the claims are directed to an abstract idea.

#### *Alice Step Two*

Turning to the second step of the *Alice* analysis, because we find that claim 1 is directed to an abstract idea under the first step of the *Alice* analysis, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78). The Supreme Court describes the second step of the *Alice* analysis as “a search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (quoting *Mayo*, 566 U.S. at 72–73).

Appellants contend the claims are directed to “improving computerized frontload inventory quantity forecasting.” App. Br. 30, 34; Reply Br. 4, 7. At the outset, we note that merely *computerizing* an abstract idea alone does not render an abstract idea non-abstract: there must be more. *See Alice*, 134 S. Ct. at 2359. “[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible. The bare fact that a computer exists in the physical rather than purely conceptual realm is beside the

point.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (internal citations and quotation marks omitted).

Appellants’ Specification does not define the term “frontload inventory quantity,” but does note it may be a quantity of a product determined for a region. Spec. ¶ 3. Despite Appellants’ contention that the claims are directed to an *improvement* to computerized frontload inventory quantity forecasting, the improvement is still merely an improvement to determining a product’s forecasted quantity in a region, and does not parallel any improvement to computer functionality itself, such as with *Enfish*’s “self-referential table for a computer database.” *Enfish*, 822 F.3d at 1336. Nor do Appellants identify any recitation in the claims that is directed to an improvement a problem specifically arising in the realm of computer networks, such as *DDR*’s overriding of routine and conventional sequence of events ordinarily triggered by the click of a hyperlink. *See DDR*, 773 F.3d at 1245. Thus, the claims are directed to “an economic or other [process] for which the computer is used in its ordinary capacity” as a tool. *Enfish*, 822 F.3d at 1336.

Nor do we find availing Appellants’ argument that the claims transform the abstract idea into patent-eligible subject matter because they are not rejected over prior art. App. Br. 34. Although Appellants are correct that novelty is a factor to be considered when determining “whether the claims contain an ‘inventive concept’ to ‘transform’ the claimed abstract idea into patent-eligible subject matter,” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (2014), a finding of novelty or nonobviousness does not necessarily lead to the conclusion that subject matter is patent-eligible.

“Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.” *Myriad*, 133 S. Ct. at 2117.

For the foregoing reasons, then, the recited elements—considered both individually and as an ordered combination—do not contain an “inventive concept” sufficient to transform the claimed abstract idea discussed above into a patent-eligible application. Therefore, we are not persuaded that the Examiner erred in rejecting claims 1–20 under § 101.

#### CONCLUSION

The Examiner did not err in rejecting claims 1–20 under § 101.

#### DECISION

The Examiner’s decision to reject claims 1–20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED