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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS J. GIULI,
KRISHNASWAMY VENKATESH PRASAD,
HENRY HEPING HUANG, and JOHN MATTHEW GINDER

Appeal 2017-006031
Application 12/612,985¹
Technology Center 3600

Before DEBRA K. STEPHENS, ADAM J. PYONIN, and
NABEEL U. KHAN, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–3, 10–13, 17, and 19–37, which are all of the claims pending in the application. Claims 4–9 14–16, and 18 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

According to Appellants, the claims are directed to a telematics computer system and method for mobile wireless retail order processing and

¹ According to Appellants, the real party in interest is Ford Global Technologies, LLC (App. Br. 2).

fulfillment (Abstract, Title). Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A computer-implemented method comprising:

establishing a wireless connection between a vehicle computing system (VCS) and a remote computing system (RCS);

presenting a list of available merchants, received from the RCS, from which a vehicular-based order can be placed via the VCS;

receiving an order at the VCS, including merchant and good selection; and

transmitting the order, payment account information pre-stored on the VCS, and vehicle-identifying visual traits including at least color and model from the VCS to the RCS.

App. Br. 11 (Claims Appendix).

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Barnes, Jr. (hereinafter “Barnes”)	US 2003/0065805 A1	Apr. 3, 2003
Spaur et al. (hereinafter “Spaur”)	US 2004/0185842 A1	Sept. 23, 2004
Vaughn et al. (hereinafter “Vaughn”)	US 2007/0088624 A1	Apr. 19, 2007

REJECTIONS

Claims 1–3, 10–13, 17 and 19–37 stand rejected under 35 U.S.C. § 101 as being directed to patent ineligible subject matter (Final Act. 11–18).

Claims 1–3, 10–13, 17, 19, 21–37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Spaur and Vaughn (Final Act. 18–29, 31–32).

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Spaur, Vaughn, and Barnes (Final Act. 29–31).

ISSUES

1. Are claims 1–3, 10–13, 17 and 19–37 directed to ineligible subject matter under 35 U.S.C. § 101?
2. Does the combination of Spaur and Vaughn teach or suggest “transmitting the order, payment account information pre-stored on the VCS, and vehicle-identifying visual traits including at least color and model from the VCS to the RCS,” as recited in claim 1?

ANALYSIS

35 U.S.C. § 101: Claims 1–3, 10–13, 17, 19–37

Section 101 defines patentable subject matter: “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. The Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). To determine patentable subject matter, the Supreme Court has set forth a two part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas” (*Alice Corp. v. CLS Bank Int’l*, 134 U.S. 2347, 2355 (2014)). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result” (*RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017)). A court must be cognizant that “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), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

The Federal Circuit has identified abstract ideas that are related to methods of organizing human activity, which are similar to the instant claimed invention. Specifically, the Federal Circuit stated “not every claim that recites concrete, tangible components escapes the reach of the abstract-idea inquiry,” including a finding that “claims reciting an ‘interface,’ ‘network,’ and a ‘database’ are nevertheless directed to an abstract idea” (*In re TLI Commc’n LLC Patent Litigation*, 823 F.3d 607, 611 (Fed. Cir. 2016) (citing *Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016)). The Federal Circuit found the “eleven steps for displaying an advertisement in exchange for access to copyrighted media” was directed to an abstract idea, despite the claim at issue reciting “certain

additional limitations . . . [that] add a degree of particularity” (*Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014)). Further, the Federal Circuit noted “the concept embodied by the majority of the limitations describes only the abstract idea of showing an advertisement before delivering free content,” and the addition of novel or non-routine components did not “necessarily turn[] an abstraction into something concrete” (*id.* at 716).

In contrast, the Federal Circuit has found claims that “are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database” are “directed to an improvement of an existing technology . . . achiev[ing] other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements” (*Enfish*, 822 F.3d at 1337 (citations omitted)). However, the heart of the claimed invention must be focused on the underlying technology itself, and *how* the underlying technology is altered “in a way that leads to an improvement in the technology” (*Intellectual Ventures I v. Erie Indem. Co.*, 850 F.3d 1315, 1328 (citing *Enfish*); *see also TLI Commc’n*, 823 F.3d at 612).

In the second step, 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 U.S. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78)). The Supreme Court has “described step two of this 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.* (quotation omitted)).

The Federal Circuit has also identified when abstract ideas related to methods of organizing human activity may amount to significantly more than the judicial exception. The Federal Circuit held the abstract idea of classifying and storing digital images in an organized manner was not significantly more than an abstract idea because “the recited physical components behave exactly as expected according to their ordinary use” and the claimed invention “fails to provide the requisite details necessary to carry out th[e] idea” (*TLI Commc’n*, 823 F.3d at 615). Moreover, the Federal Circuit held the idea of “receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to the media, and receiving payment from the sponsor of the ad” was not significantly more than the abstract idea because “the claims simply instruct the practitioner to implement the abstract idea with routine, conventional activity” (*Ultramercial, Inc.*, 772 F.3d at 715). Additionally, the Federal Circuit noted “[n]one of these eleven individual steps, viewed ‘both individually and ‘as an ordered combination,’” transform the nature of the claim into patent-eligible subject matter” (*id.* (citations omitted)).

In contrast, the Federal Circuit held claims directed to methods of organizing human activity may be significantly more “when the claim limitations were considered individually and as an ordered combination, they recited an invention that is not merely the ‘routine and conventional use’ of technology” (*Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1301–02 (Fed. Cir. 2016) (citing *DDR Holdings* and *BASCOM Global Internet Serv., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016))). Additionally, the Federal Circuit held the ordered combination of the

claimed invention recited an inventive concept because “the distributed, remote enhancement that *produced an unconventional result*,” which represented “a technical improvement over prior art technologies and served to improve the performance of the system itself” (*Amdocs*, 841 F.3d at 1302 (emphasis added); *see also BASCOM*, 827 F.3d at 1352 (“an inventive concept can be found in the ordered combination of claim limitations that transform the abstract idea of filtering content into a particular, practical application”)).

Here, for the first step, Appellants argue “the Examiner’s conclusion that ‘a full analysis is required rather than a streamlined analysis’ is completely misguided” (App. Br. 6). Further, Appellants argue the “analysis is not an optional analysis—unless the Examiner can prove that the claim clearly seeks to tie up an abstract idea *such that others cannot practice it*” (*id.* at 7). Appellants contend “[t]he Examiner’s response utterly fails to demonstrate how Applicant’s claim 1 has tied up the abstract idea of ‘making a purchase from a listed merchant,’ and thus the claim is patent eligible under the streamlined eligibility analysis” (*id.* at 7).

The Examiner responds the “[f]ull analysis was required because the claim as a whole fails to add significantly more than the abstract idea itself” (Ans. 25). Instead, the Examiner asserts, when “[v]iewing the claims as a whole, an implied user is making a purchase from a listed merchant” (*id.*). Specifically, the Examiner finds the claims are directed to “certain method of organizing human activity,” where the claimed purchasing from a listed merchant is implemented by an “order compris[ing] merchant and good selection information, vehicle-identifying information and payment

information that is transmitted from the vehicle computing system (VCS) to the remote computing system (RCS)” (*id.*; *see also* Final Act. 12–13).

Initially, the Board notes that eligibility under 35 U.S.C. § 101 is a question of law (*see SAP Am., Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1020 (Fed. Cir. 2018)); therefore, the Board will determine the eligibility of the claims based on the underlying facts. Additionally, Appellants’ argument that the Examiner’s full analysis is misguided is not persuasive. Appellants quote the streamlined analysis in their arguments, underlining portions “contradicting Examiner analysis” (App. Br. 6); however, Appellants fail to acknowledge the cited streamlined eligibility analysis “*can be* used for a claim that may or may not recite a judicial exception” (MPEP § 2106.06(a) (emphasis added)). More specifically, the Federal Circuit has explained that some improvements to technology or computer functionality may not require full analysis when appropriately claimed (*Enfish*, 822 F.3d at 1335–36). The Federal Circuit also clarified that when the claims represent a close call, as to whether the claims represent an improvement to technology or computer functionality, a full analysis is appropriate and should be performed to determine eligibility (*BASCOM*, 827 F.3d at 1349).

Here, the Examiner finds, and we agree, that a full analysis is appropriate. The Federal Circuit treats “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category” (*Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016)). We agree with the Examiner that claim 1 “describes a business process pertaining to making a purchase from a listed merchant” (Ans. 26).

For the second step, Appellants argue that the claims recite significantly more because “there is nothing about the claims at issue that represents an ‘abstract mathematical formula’” (App. Br. 8). However, we agree with the Examiner that claim 1 “executes the abstract idea with generic computing devices” (Ans. 26). The Examiner points out, and we agree, “[t]he claims as a whole [are] in fact a business process that transmits order data from one computing system to another” (*id.* at 29; *see also Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot”)).

Next, Appellants argue that the claims are patent eligible because like the claims “in *Enfish*, the claims are directed to a *specific* method of facilitating a purchase between a merchant and vehicle occupant and further expeditious completion of that purchase through transmission of merchant-relevant information” (App. Br. 8). As discussed *supra*, we agree with the Examiner that the claims utilize generic computing devices, and Appellants fail to explain how the underlying technology or technical field is improved. Unlike the claims in *Enfish*, which improved computing technology with more efficient processing utilizing a self-referential data-table, the instant claims and specification seek to improve order fulfillment for consumer convenience (*see e.g.*, Spec. 1, claim 1). In other words, Appellants are merely using the underlying technology to perform conventional tasks, rather than improving the underlying technology to better perform those tasks.

Accordingly, we sustain the Examiner’s rejection under § 101 of claims 1, 9, and 16 and dependent claims 2–8, 10–15, and 17–20, which Appellants do not argue separately (*see* App. Br. 4–9; 37 C.F.R. § 41.37(c)(1)(iv)).

35 U.S.C. § 103(a): Claims 1–3, 10–13, 17, 19, 21–37

Appellants contend their invention, as recited in claims 1–3, 10–13, 17, 19, 21–37, is patentable over Spaur and Vaughn (App. Br. 9–10).² Specifically, Appellants contend that Vaughn does not teach or suggest the transmission step recited in claim 1 because “Vaughn [] explicitly teaches that what is transmitted by the RFID tag of Vaughn is a unique identifier [0051], which Applicant notes is not *any* of the make, model, or color” of the vehicle-identifying visual traits, as recited in claim 1 (App. Br. 9). Further, Appellants contend “[t]he mere fact that a person utilizing a combination of Spaur and Vaughn can achieve the same result (identifying the vehicle by model and color) does not mean the two references render the claims obvious” (*id.*). Additionally, Appellants argue the “transmission of information cited in Spaur as ‘authorization/identification’ information is actually just ‘authorization’ information,” and while “[t]he identity aspect of this information may pertain to a user and the authorization thereof, [the authorization information] has nothing to do with a vehicle identification”

² Rather than repeat the arguments here, we refer to the Appeal Brief and Reply Brief for the positions of Appellant and the Final Office Action and Answer for the positions of the Examiner. Only those arguments actually made by Appellant have been considered in this decision. Arguments that Appellant did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2012).

(*id.*). Thus, Appellants argue, “even if Vaughn were cited for the mere reason of proving that a model and color can be used to identify a vehicle, nothing in either reference, alone or in combination, teaches or suggests that this information” would be used to perform the transmission step recited in claim 1.

The Examiner finds the combination of Spaur and Vaughn teaches or suggests the argued claim limitation (Final Act. 22–25; Ans. 31–36). Specifically, the Examiner relies on Spaur for teaching or suggesting “transmitting the order, payment account information pre-stored on the VCS, and a vehicle-identifying trait from the VCS to the RCS,” as recited in claim 1 (Final Act. 21–22 (citing Spaur ¶¶ 40, 45, 52, 85, 142, and Figure 3); Ans. 33–36). The Examiner additionally finds Vaughn teaches the recited “vehicle-identifying visual traits including at least color and model” (Final Act. 22–24 (citing Vaughn ¶¶ 29–31, 39–50, 54–65, 67, 69, 73, and Figures 1, 6, 7, and 9); Ans. 31–36). According to the Examiner, an ordinarily skilled artisan would have found it obvious to combine the authorization/identity information transmitted from the vehicle computer system, taught by Spaur, with the in-vehicle electronic commerce system that identifies a vehicle by make model, color, and license plate number, as taught by Vaughn, because the combination “would have yielded predictable results and resulted in an improved system” (Final Act. 22–25 (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007))); Ans. 31–36).

Section 103 forbids issuance of a claim when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to one at the time the invention was made to a person having ordinary skill in the art” (35

U.S.C. § 103). The ultimate determination of obviousness under § 103 is a question of law based on underlying factual findings (*In re Baxter Int'l, Inc.*, 678 F.3d 1357, 1362 (Fed. Cir. 2012) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1996))). These underlying factual considerations include: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of other, etc.” (*KSR Int'l*, 550 U.S. at 406 (quoting *Graham*, 338 U.S. at 17–18)).

We are not persuaded by Appellant’s arguments. We agree with the Examiner that Spaur discloses a secure telematics system allowing wireless transmission of an order to a vehicle, upon acceptance and payment (Spaur ¶ 142; *see also* Final Act. 22). Further, we agree with the Examiner that authorization/identity information of a vehicle identifying trait is transmitted from the vehicle computer to remote entities and is disclosed in the cited portions of Spaur (*see e.g.*, Spaur ¶ 52 (“[a]n important part is establishing or identifying a certificate authority (CA) that provide certificates for use in the secure telematics system 20. The CA is responsible for *issuing certificates to approved resources for use in the vehicle*” (emphasis added)); *see also* Final Act. 22).

The Examiner finds, and we agree, that Vaughn employs “vehicle-identifying visual traits including at least color and model” to identify a customer associated with a vehicle (Final. Act. 22–24). In particular, Vaughn discloses account information can be provided by the customer, where “[i]n addition to providing the make, model, and color of the car, the customer may also provide a license plate number which can be used to

uniquely identify the customer” (Vaughn ¶ 67; *see also* Final Act. 24). Additionally, Vaughn discloses (1) an RFID tag may transmit an identifier “uniquely associated with the customer,” or (2) a “license plate recognition (LPR) system may be implemented as part of the remote ordering system to automatically scan license plates of automobiles as they approach the restaurant” (Vaughn ¶¶ 51, 67; Final Act. 23–24).

The Examiner identifies the similarities of Spaur and Vaughn, and specifically, that both the Spaur and Vaughn systems provide in-vehicle commerce and both systems remotely transmit customer information (Final Act. 22). Therefore, we agree with the Examiner that an ordinarily skilled artisan would have found it obvious to modify the vehicle identifying trait in Spaur by “applying the known techniques of using visual vehicle traits, e.g[.], make, model, color and license plate tag, and a key fob that uniquely identif[ies] a customer associated with the vehicle[,] as taught by Vaughn,” yielding predictable results and an improved system (Final Act. 25).

We are persuaded the combination of Spaur and Vaughn teaches or suggests “transmitting the order, payment account information pre-stored on the VCS, and vehicle-identifying visual traits including at least color and model from the VCS to the RCS,” as recited in claim 1. Accordingly, we are not persuaded the Examiner fails to show the combination of Spaur and Vaughn teaches or suggests the limitations as recited in claim 1 and claims 2, 3, 10–13, 17, 19, and 21–37, not separately argued. Therefore, we sustain the rejection of claims 1–3, 10–13, 17, 19, 21–37 under 35 U.S.C. § 103(a) as being unpatentable over Spaur and Vaughn.

35 U.S.C. § 103(a): Claim 20

Appellants do not separately argue claim 20, instead relying on the reasons argued with respect to claims 1–3, 10–13, 17, 19, and 21–37 (App. Br. 10). For the reasons set forth above, we sustain the rejection of claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Spaur, Vaughn, and Barnes.

DECISION

For the reasons above, we affirm the Examiner’s decision rejecting claims 1–3, 10–13, 17 and 19–37 under 35 U.S.C. § 101.

We affirm the Examiner’s decision rejecting claims 1–3, 10–13, 17, 19–37 under 35 U.S.C. § 103(a).

No time for taking 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