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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PIETRO BUTTOLO, JAMES STEWART RANKIN II,
DIPANJAN GHOSH, GARY STEVEN STRUMOLO,
and STUART C. SALTER

Appeal 2019-005851
Application 14/635,321
Technology Center 3600

Before JENNIFER D. BAHR, DANIEL S. SONG, and
MICHAEL L. WOODS, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–7 and 19–22.² We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

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 Ford Global Technologies, LLC. Appeal Br. 1.

² Claims 8–18 have been withdrawn from consideration. Final Act. 1 (Office Action Summary).

CLAIMED SUBJECT MATTER

Appellant's invention is directed to "deployment of a user interface for interior vehicle component configuration by way of a personal user device." Spec. ¶ 1. Claims 1 and 22, reproduced below, are the only independent claims and are illustrative of the claimed subject matter.

1. A system comprising:

an in-vehicle component, including a first control set having physical controls to configure the component, configured to

identify a device associated with a user approach to the component;

send to the device a user interface definition descriptive of a second control set including at least one function to configure the component unavailable in the first control set; and

send an interaction request to the device to cause the device to display a user interface for the component including the second control set to configure the component.

22. A method comprising:

receiving, to a personal device as sent from an in-vehicle component including a first control set to configure the component, a user interface definition descriptive of a second control set to configure the component including functions unavailable in the first control set; and

receiving, to the device as sent from the component, a request to display a user interface for the component including the second control set to configure the component.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Hess	US 2012/0065815 A1	Mar. 15, 2012
Lippman	US 2014/0043152 A1	Feb. 13, 2014
Grimm	US 2014/0142783 A1	May 22, 2014
Jain	US 2014/0375477 A1	Dec. 25, 2014
General Motors Corporation, Pontiac GTO Owner's Manual 3-19, 3-20 (2005), https://my.gm/content/dam/gmownercenter/gmna/dynamic/manuals/2006/pontiac/gto/2006_pontiac_gto_owners.pdf (hereinafter "Pontiac GTO")		

REJECTIONS³

Claim 22 stands rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–3 and 20–22 stand rejected under 35 U.S.C. § 103 as unpatentable over Grimm and Hess.⁴

Claim 4 stands rejected under 35 U.S.C. § 103 as unpatentable over Grimm, Hess, and Jain.

³ Appellant presents an argument contesting the Examiner's objection to claim 22. *See* Appeal Br. 9; Final Act. 3. We do not address this argument because it relates to a petitionable matter and not to an appealable matter. *See In re Berger*, 279 F.3d 975, 984 (Fed. Cir. 2002) (stating that there are many kinds of decisions made by examiners that are not appealable to the Board when they are not directly connected with the merits of issues involving rejections of claims) (citing *In re Hengehold*, 440 F.2d 1395, 1403 (CCPA 1971))). Thus, the relief sought by Appellant should have been presented by a petition under 37 C.F.R. § 1.181 instead of by appeal to this Board. *Ex parte Frye*, 94 USPQ2d 1072, 1077–78 (BPAI 2010) (precedential).

⁴ The Examiner also cited Pontiac GTO "[a]s further evidence" that "it is well-known in the art that HVAC controls in vehicles are physical controls." Final Act. 4.

Claims 5–7 stand rejected under 35 U.S.C. § 103 as unpatentable over Grimm, Hess, and Lippman.

Claim 19 stands rejected under 35 U.S.C. § 103 as unpatentable over Grimm and Pontiac GTO.⁵

OPINION

Eligibility

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

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 573 U.S. at 217. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “transform the

⁵ See Final Act. 11–12 (applying Pontiac GTO’s teachings of an air-conditioning system on/off switch and intensity controls for fan and temperature control).

nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78, 79). This is “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.* at 217–18 (alteration in original).

In rejecting the pending claims under 35 U.S.C. § 101, the Examiner determined that claim 22 is directed to the “abstract idea of transmitting data,” *i.e.*, to a concept similar to other concepts that courts have held abstract. Final Act. 3 (citing *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607 (Fed. Cir. 2016)). The Examiner also determined that the claims do not include additional elements sufficient to amount to significantly more than the abstract idea itself. *Id.* at 3–4.

After the Final Action was mailed, the U.S. Patent and Trademark Office (the “USPTO”) published revised guidance on January 7, 2019, for use by USPTO personnel in evaluating subject matter eligibility under 35 U.S.C. § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (the “2019 Revised Guidance”). That guidance revised the USPTO’s examination procedure with respect to the first step of the *Mayo/Alice* framework by (1) “[p]roviding groupings of subject matter that [are] considered an abstract idea”; and (2) clarifying that a claim is not “directed to” a judicial exception if the judicial exception is integrated into a practical application of that exception. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. *Id.*

Step One of the Mayo/Alice Framework (2019 Revised Guidance, Step 2A)

The first step in the *Mayo/Alice* framework, as mentioned above, is to determine whether the claims at issue are “directed to” a patent-ineligible concept, e.g., an abstract idea. *Alice*, 573 U.S. at 217. This first step, as set forth in the 2019 Revised Guidance (i.e., Step 2A), is a two-prong test; in Step 2A, Prong One, we look to whether the claim recites a judicial exception, e.g., one of the following three groupings of abstract ideas: (1) mathematical concepts; (2) certain methods of organizing human activity, e.g., fundamental economic principles or practices, commercial or legal interactions; and (3) mental processes—concepts performed in the human mind. 2019 Revised Guidance, 84 Fed. Reg. at 52, 54. If so, we next consider whether the claim includes additional elements, beyond the judicial exception, that “integrate the [judicial] exception into a practical application,” i.e., that 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 (Step 2A, Prong Two). *Id.* at 54–55. Only if the claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application do we conclude that the claim is “directed to” the judicial exception, e.g., an abstract idea. *Id.*

Appellant argues that “‘transmitting data’ is not a mathematical concept, a method of organizing human activity, or a mental process” and, thus, is not an abstract idea in accordance with the 2019 Revised Guidance. Appeal Br. 5. In response, the Examiner explains that claim 22 “is directed to receiving a definition and receiving a request” and that “[t]hese two steps could be performed within the human mind, e.g., reading a definition and

request would be ‘receiving[.]’” Ans. 4. According to the Examiner, “but for the recitation of generic computer components, the claim could be performed wholly in the human mind and is, thus, directed to an abstract idea.” *Id.*

In other words, the Examiner determined that claim 22 recites mental processes, i.e., receiving a definition and receiving a request, which is one of the groupings of abstract ideas set forth in the 2019 Revised Guidance. 2019 Revised Guidance, 84 Fed. Reg. at 52; *see Mayo*, 566 U.S. at 71 (stating that “mental processes[] and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work” (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972))); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”). If the broadest reasonable interpretation of a claim covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind. *See Intellectual Ventures I 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.”); *CyberSource*, 654 F.3d at 1375, 1372 (holding that the incidental use of “computer” or “computer readable medium” does not make a claim otherwise directed to a process that “can be performed in the human mind, or by a human using a pen and paper” (i.e., mental processes) patent eligible).

The Examiner correctly found that claim 22 recites receiving a definition (i.e., “a user interface definition”) and receiving a request. Claim 22 does not recite any additional method steps. Appellant does not apprise us of error in the Examiner’s determination that, but for the recitation of generic computer components, the method of claim 22 (receiving two pieces of information—a definition and a request) could be performed wholly in the human mind and, thus, recites an abstract idea (i.e., mental processes).

Having concluded that claim 22 recites a judicial exception, i.e., an abstract idea (Step 2A, Prong One), we next consider whether claim 22 recites additional elements that integrate the judicial exception into a practical application (Step 2A, Prong Two). The Examiner found that the only additional items in claim 22, beyond the abstract idea, are “an in-vehicle component and personal device,” and these elements “are merely recited at a high level as the source and destination of the information.” Final Act. 3–4.

As an initial matter, we do not agree with the Examiner that claim 22 recites an in-vehicle component, even as a source of the information. Claim 22 does not recite receiving from an in-vehicle component; rather, claim 22 recites receiving a user interface definition and receiving a request “as sent” from an in-vehicle component. Nevertheless, even assuming claim 22 were construed as positively reciting an in-vehicle component as the source of the information (the definition and the request), for the reasons set forth below, the in-vehicle component and personal device, considered individually or as an ordered combination, do not integrate the abstract idea into a practical application.

As described in Appellant’s Specification, “a personal device may generally refer to a mobile device such as a smartphone, or a wearable device such as a smart watch or smart glasses,” and an in-vehicle component “may include various elements of the vehicle . . . having user-specific configurable settings.” Spec. ¶¶ 15, 35. Appellant does not direct our attention to, nor do we discern, any indication in the Specification that the steps recited in claim 22 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any allegedly inventive programming, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a different state or thing. Nor do we find anything of record, short of attorney argument, that attributes an improvement in technology and/or a technical field to the claimed invention or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the 2019 Revised Guidance.⁶

⁶ The 2019 Revised Guidance references MPEP § 2106.05(a)–(c) and (e) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 55. If the recited judicial exception is integrated into a practical

Appellant argues that “claim 22 integrates a practical application relating to display of a user interface for an in-vehicle component descriptive of functions of the component that are unavailable in a control set included by the component.” Appeal Br. 6. This argument is not persuasive because, as the Examiner points out, claim 22 “only requires receiving a request to display”: “there is no limitation directed to displaying.” Ans. 4. Considered as a whole, claim 22 appears focused on receiving two pieces of information—a definition and a request. The claim’s reference to displaying a user interface for an in-vehicle interface amounts to a recitation of a field of use for the information received and, thus, does not integrate the abstract idea into a practical application. *See Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (stating that “limiting an abstract idea to one field of use . . . did not make the concept patentable”).

We conclude, for the reasons outlined above, that claim 22 recites mental processes, i.e., an abstract idea, and that the additional elements in the claim are no more than field of use limitations or generic components used as tools to perform the recited abstract idea. As such, they do not integrate the abstract idea into a practical application. *See Alice*, 573 U.S. at 223–24 (“[W]holly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” (quoting *Mayo*, 566 U.S. at 77)). Accordingly, we agree with the Examiner that claim 22 is directed to an abstract idea.

application, as determined under one or more of these MPEP sections, the claim is not “directed to” the judicial exception.

Step Two of Mayo/Alice Framework (2019 Revised Guidance, Step 2B)

Having determined under step one of the *Mayo/Alice* framework that claim 22 is directed to an abstract idea, we next consider under Step 2B of the 2019 Revised Guidance, the second step of the *Mayo/Alice* framework, whether claim 1 includes additional elements or a combination of elements that provides an “inventive concept,” i.e., whether the additional elements amount to “significantly more” than the judicial exception itself.

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

The Examiner determined that the aforementioned “additional elements are generic computer components recited at a high level that perform actions consistent with known generic computer functions and do not add significantly more.” Final Act. 4. According to the Examiner, the recited steps of receiving information “are only intended to be implemented on the generic computer components, which does not amount to significantly more than the abstract idea.” Ans. 4.

As discussed above, Appellant’s Specification describes the “personal device” and “in-vehicle component” generically as conventional items. *See* Spec. ¶¶ 15, 35. Further, as discussed above, these components are merely recited at a high level as the source (or potential source) and destination of the information received in the receiving steps and, thus, considered both individually and as an ordered combination, do not add significantly more to the abstract idea so as to provide an inventive concept.

We are not apprised, on the present record, of error in the rejection of claim 22 under 35 U.S.C. § 101, which we, thus, sustain.

Obviousness—Claims 1–3 and 20–22

In contesting the rejection of claims 1–3 and 20–22 under 35 U.S.C. § 103, Appellant addresses independent claims 1 and 22 under separate sub-headings, but relies on the same arguments for both claims. Appeal Br. 6–9; *see id.* at 8–9 (stating that “independent claim 22 is patentable over Grimm in view of Hess at least for reasons similar to those given above for the patentability of independent claim 1”). Appellant also relies on these same arguments for dependent claims 2, 3, 20, and 21. *See id.* at 9. We decide the appeal of the rejection of claims 1–3 and 20–22 under 35 U.S.C. § 103 on the basis of claim 1, and claims 2, 3, and 20–22 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv) (permitting the Board to select a single claim to decide the appeal as to a single ground of rejection of a group of claims argued together).

The Examiner found that Grimm discloses a system substantially as recited in claim 1, including “the in-vehicle component sending data to the device and enabling interaction with the device,” but that Grimm “does not explicitly disclose send to the device a user interface definition descriptive” of the second control set. Final Act. 4–5. The Examiner, however, relied on Hess for this feature. *See id.* at 5. Appellant does not dispute the Examiner’s findings with respect to Hess or the Examiner’s reasoning in combining Hess with Grimm. *See* Appeal Br. 8.

Appellant argues that Grimm “fails to disclose that there is ‘a second control set including at least one function to configure the component unavailable in the first control set.’” Appeal Br. 7. With respect to this feature, the Examiner found that the touch-screen interface displayed by Grimm’s mobile device 14 allows the driver to control the various vehicle

components and, in particular, “adds additional features to the control set,” in that “the mobile device adds a second control set including at least a function of voice control to configure a component, such as the radio or HVAC system.” Final Act. 5–6 (citing Grimm ¶¶ 24, 25, 33, 39, 52); *see also id.* at 8 (finding, in addressing claim 22, that the touch-screen interface displayed by Grimm’s mobile device 14 “adds additional features to the control set, such as user preference for seat position and similar, and voice control”). Thus, we understand the Examiner to be reading the “second control set including at least one function to configure the component unavailable in the first control set” of claim 1 on the voice recognition feature that Grimm discloses in paragraph 33 and/or the vehicle personalization feature that Grimm discloses in paragraphs 24 and 39.

Appellant argues that Grimm’s voice recognition feature is not “a second control set including at least one function to configure the component unavailable in the first control set” because “[w]hether commands are accessed via voice or not using voice does not change what commands are available via the ‘device 14.’” Appeal Br. 7; *see also* Reply Br. 2 (submitting that “whether functions are accessed via voice or not using voice does not change what functions are available”). This argument is not persuasive because Grimm discloses that the voice commands are a “value-added feature” available on device 14, but unavailable on vehicle 10 (i.e., unavailable in the first control set of physical controls to configure the in-vehicle component). Grimm ¶ 33. Even assuming that the in-vehicle component responds in the same manner whether the commands are accessed via the voice command function *to configure* the component or via a manual function *to configure* the component, the voice command function

is a function *to configure* the component that is unavailable in the first control set (i.e., the control set of physical controls available on the in-vehicle component). *See id.* (disclosing taking advantage of the existing voice recognition capability in the mobile device and avoiding the cost of adding a voice recognition system to the vehicle).

Appellant also argues that “voice interface is audio, and is therefore not displayed within the plain meaning of the word display.” Reply Br. 2. Claim 1 does not require that the device display the voice command itself. Rather, claim 1 recites that the in-vehicle component is configured to “send an interaction request to the device to cause the device to display a user interface for the component including the second control set to configure the component.” Claims App. A-1. Thus, the interaction request need only cause the device to display a user interface including the voice recognition functionality, such as, for example, an option on the touch-screen to select or invoke voice recognition.

Moreover, the Examiner also cited the vehicle personalization feature of Grimm, as discussed above. Appellant argues that the mention of this vehicle personalization feature in paragraph 39 of Grimm

does not relate to “an in-vehicle component, including a first control set having physical controls to configure the component,” and in that context to “identify a device associated with a user approach to the component” and “send to the device a user interface definition descriptive of a second control set including at least one function to configure the component unavailable in the first control set.”

Appeal Br. 8. Further, Appellant notes that paragraph 24 of Grimm discloses that application 22 could retain the user’s preferences on device 14

to be employed whenever device 14 is placed on module 16. *Id.* Thus, Appellant contends that Grimm discusses personalization

as being possible when the user places the device, but no personalization is discussed in Grimm as being done that includes additional functions unavailable in the first control set, let alone in relation to the claim language to “send to the device a user interface definition descriptive of a second control set including at least one function to configure the component unavailable in the first control set.”

Id.

The Examiner found that Grimm discloses an in-vehicle component configured to identify a device associated with a user approach to the component in paragraphs 27 and 52. Final Act. 5. Appellant does not persuasively explain why this finding is in error.

In regard to the personalization option, the additional function of the second control set that is unavailable in the first control set is the retention on the device of preferences of the user of the device for use when the device is placed on the interface module of the vehicle to control various in-vehicle components. *See* Grimm ¶ 24. The user would enter these preferences and request that they be saved using the touch-screen interface that application 22 displays on device 14 from a user interface definition descriptive of the second control set sent from the in-vehicle component in the Grimm system as modified in view of Hess as discussed above. *See id.* ¶ 22 (disclosing that device 14 runs application 22, which receives data from vehicle 10 via interface module 16). Appellant does not persuasively explain why this is insufficient to satisfy the limitations of claim 1 to which Appellant alludes in the argument.

For the above reasons, Appellant does not apprise us of error in the rejection of claim 1 as unpatentable over Grimm and Hess. Accordingly, we sustain the rejection of claim 1 and of claims 2, 3, and 20–22, which fall with claim 1, as unpatentable over Grimm and Hess.

Obviousness—Claims 4–7 and 19

In contesting the rejections of dependent claims 4–7 and 19, Appellant merely relies on the arguments presented for independent claim 1, from which they depend. Appeal Br. 9. For the reasons discussed above, Appellant’s arguments fail to apprise us of error in the rejection of claim 1 under 35 U.S.C. § 103 and, likewise, fail to apprise us of error in the rejections of claims 4–7 and 19 under 35 U.S.C. § 103, which we, thus, sustain.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
22	101	Eligibility	22	
1–3, 20–22	103	Grimm, Hess	1–3, 20–22	
4	103	Grimm, Hess, Jain	4	
5–7	103	Grimm, Hess, Lippman	5–7	
19	103	Grimm, Pontiac GTO	19	
Overall Outcome			1–7, 19–22	

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TIME PERIOD FOR RESPONSE

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. § 1.136(a)(1)(iv).

AFFIRMED