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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NEVILLE BOSTON and MICHAEL JORDAN

Appeal 2019-001373
Application 13/117,089
Technology Center 3600

Before ROBERT E. NAPPI, JOHNNY A. KUMAR, and
LARRY J. HUME, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision rejecting claims 1 and 36–43, which are all claims pending in the application. Appellant has canceled claims 2–35 and 44–59. *See generally*, Appeal Br. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Revivermx, Inc. Appeal Br. 1.

STATEMENT OF THE CASE²

The claims are directed to a method and system for rendering content on the exterior of a vehicle. *See* Spec. (Title). In particular, Appellant’s disclosed embodiments and claimed invention relate “generally to the display field, and more specifically to a new and useful method and system for rendering content on the exterior of a vehicle.” Spec. ¶ 2.

Exemplary Claims

Claim 1, reproduced below, is representative of the subject matter on Appeal (*emphases* added to contested prior-art limitations):

1. A method of rendering content on the exterior of a road vehicle comprising:
 - detecting an enablement state of the vehicle;
 - determining a speed of the vehicle based on an output of a vehicle speed sensor coupled to the vehicle;
 - in response to a detected on state of the vehicle and a determined speed of the vehicle less than a threshold speed, rendering identification information of the vehicle on a display at a first power consumption level in a first mode, the display coupled to an exterior forward-facing surface of the vehicle;
 - *in response to a detected state of the vehicle and a determined speed of the vehicle greater than the threshold speed, defining a message and rendering, by a processing device, the message on the display in a second mode having a first orientation, the message rendered on the display device in the first orientation being a horizontally mirrored image of the*

² Our decision relies upon Appellant’s Appeal Brief (“Appeal Br.,” filed Apr. 16, 2018); Reply Brief (“Reply Br.,” filed Dec. 4, 2018); Examiner’s Answer (“Ans.,” mailed Oct. 4, 2018); Non-Final Office Action (“Non-Final Act.,” mailed Sept. 15, 2017); and the original Specification (“Spec.,” filed May 26, 2011) (claiming benefit of US 61/349,172, filed May 27, 2010).

message legible to a party viewing the display through a mirror external the vehicle in the second mode; and

- *in response to a detected off state of the vehicle, rendering, by the processing device the identification information of the vehicle on the display in a second orientation, the second orientation being horizontally mirrored relative to the first orientation, such that the identification information rendered on the display is legible to a party viewing the display from external the vehicle, the display at a second power consumption level less than the first power consumption level in a third mode.*

REFERENCES

The prior art relied upon by the Examiner as evidence is:

Name	Reference	Date
Steffan et al. (“Steffan”)	US 5,905,434	May 18, 1999
Naddeo	US 2002/0021210 A1	Feb. 21, 2002
Ozeki et al. (“Ozeki”)	US 2004/0105053 A1	June 3, 2004
Feng	US 2006/0142933 A1	June 29, 2006
McCann	US 2006/0213100 A1	Sept. 28, 2006
Lukawitz et al. (“Lukawitz”)	US 2011/0078933 A1	Apr. 7, 2011
Dawson et al. (“Dawson”)	US 9,147,192 B2	Sept. 29, 2015

REJECTIONS³

R1. Claims 1, 36–39, 42, and 43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCann, Steffan, and Naddeo. Non-Final Act. 7.⁴

R2. Claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCann, Steffan, Naddeo, and Feng. Non-Final Act. 16.

R3. Claim 41 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCann, Steffan, Naddeo, and Dawson. Non-Final Act. 7.

R4. Claims 1 and 36–43 stand rejected under the judicially created doctrine of obviousness-type double patenting (OTDP) over claims 1–14 of U.S. Patent 9,007,193 B2 and claims 1–13 of U.S. Patent 9,663,028 B2. Non-Final Act. 24.

³ The Examiner withdrew the rejection under 35 U.S.C. § 101, of appealed claims 1, 12 and 36–59. Ans. 3. Although not explicitly addressed by the Examiner, we proceed in this Decision under the assumption that the indefiniteness rejection of claims 12 and 44–59 (Non-Final Act. 6) has effectively been withdrawn because these claims have been canceled by Appellant. *Compare* Non-Final Act. 6 *with* Appeal Br. 4 (“Grounds of Rejection to be Reviewed on Appeal”), 14 and 16 (Claims App.). We leave it to the Examiner to formally withdraw the indefiniteness rejection of canceled claims 12 and 44–59.

⁴ The Examiner originally rejected claims 1, 12, 36–39, and 42–53 under Rejection R1, however, claims 12 and 44–53 were canceled by Appellant in an Amendment after Appeal filed Apr. 16, 2018. *See* Appeal Br. 1.

CLAIM GROUPING

Based on Appellant's arguments (Appeal Br. 7–12) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of patent-ineligible subject matter Rejection R1 of claims 1, 36–39, 42, and 43 on the basis of representative claim 1. Remaining claims 40 and 41 in obviousness Rejections R2 and R3, not argued separately, stand or fall with independent claim 1 from which they depend.⁵ We address OTDP Rejection R4 of claims 1 and 36–43, not argued separately, *infra*.

ISSUES AND ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellant. To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We disagree with Appellant's arguments with respect to Rejection R1 of claim 1 and, unless otherwise noted, we incorporate by reference herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellant's

⁵ “Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.” 37 C.F.R. § 41.37(c)(1)(iv). In addition, when Appellant does not separately argue the patentability of dependent claims, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

arguments. We highlight and address specific findings and arguments regarding claim 1 for emphasis as follows.

1. § 103(a) Rejection R1 of Claims 1, 36–39, 42, and 43

Issue 1

Appellant argues (Appeal Br. 7–11; Reply Br. 1–6) the Examiner’s rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious over the combination of McCann, Steffan, and Naddeo is in error. These contentions present us with the following issue:

Did the Examiner err in finding the cited prior art combination teaches or suggests “[a] method of rendering content on the exterior of a road vehicle” that includes, *inter alia*, the conditional limitations:

[(a)] in response to a detected state of the vehicle and a determined speed of the vehicle greater than the threshold speed, defining a message and rendering . . . the message on the display in a second mode having a first orientation . . . being a horizontally mirrored image of the message legible to a party viewing the display through a mirror external the vehicle in the second mode; and

[(b)] in response to a detected off state of the vehicle, rendering . . . the identification information of the vehicle on the display in a second orientation, the second orientation being horizontally mirrored relative to the first orientation, such that the identification information rendered on the display is legible to a party viewing the display from external the vehicle,

as recited in claim 1?

Principles of Law

“[O]ne cannot show non-obviousness by attacking references individually where . . . the rejections are based on combinations of

references.” *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *Id.* at 425.

The test for obviousness is what the combined teachings of the prior art would have suggested to the hypothetical person of ordinary skill in the art. *Keller*, 642 F.2d at 425.

In *KSR*, the Court stated “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill [A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

Id. at 417.

Further, the relevant inquiry is whether the Examiner has set forth “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in *KSR*, 550 U.S. at 418).

Analysis

Appellant’s primary argument against the Examiner’s rejection is that “there is no evidence whatsoever showing controlling the orientation (mirrored/non-mirrored) of text based on speed and on/off state.” Appeal Br. 7.

Limitation (a): “in response to a . . . determined speed of the vehicle”

The Examiner finds McCann teaches or suggests defining and rendering a message in a second mode having a first orientation in response to a detected state of the vehicle, and where the speed of the vehicle is greater than a threshold speed. Non-Final Act. 7, citing McCann ¶¶ 11, 14, Fig. 14. The Examiner further finds Steffan teaches that the message rendered on the display in the first orientation is a horizontally mirrored image of the message. *Id.* at 8, citing Steffan 2:59–63, 6:5–10, Fig. 7B (element 706). “A person having ordinary skill in the art would have been motivated to combine McCann with Steffan’s features because it would help to have information communicated through the display ‘quickly and easily and be clear and concise.’” *Id.* at 9, quoting Steffan 1:38–39.

Appellant argues that Steffan’s cited

passages show that when the display unit faces forward, the message is mirrored. However, these passages do not state that the display orientation (mirrored/non-mirrored) is changed in relation to the on state of the vehicle or based on comparison to a speed threshold. Instead, these passages show nothing more than that the message will be mirrored when facing forward. Accordingly, only the direction that the display unit is facing is considered when determining whether to mirror.

Appeal Br. 8.

In addition to reiterating in the Answer that the rejection relies upon the *combination* of McCann, Steffan, and Naddeo, the Examiner further finds “it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to display any data in the display of McCann because such data does not functionally relate to the invention and merely labeling the data differently from that in the prior art would have been obvious.” Ans. 6–7.

In support of the Examiner’s finding, we note McCann teaches “[o]nce the electronic control module determines that a specific threshold speed has been reached, the vehicle identity information, stored within the electronic control module, is transmitted to, and shown upon, the display.” McCann ¶ 11. Under the broadest reasonable interpretation standard,⁶ we further conclude *the specific type of information displayed* in McCann, including whether the displayed information is mirrored or not, is not dispositive to the patentability analysis.⁷ In support of this determination, we note McCann further teaches “[t]he first message may be an

⁶ During prosecution, claims must be given their broadest reasonable interpretation when reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under this standard, we interpret claim terms using “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

⁷ See MPEP § 2111.05 [R-10.2019] (no functional relationship exists “where the claim as a whole is directed towards conveying a message or meaning to a human reader independent of the supporting product.”).

advertisement, weather information, *or any other desired information.*” McCann ¶ 14 (emphasis added). We conclude, under the broadest reasonable interpretation standard, “any other desired information” may include the recited “horizontally mirrored image of the message,” as recited in claim 1. Even if we did interpret McCann’s disclosure as not teaching or suggesting displaying so-called mirrored information, we further point out that Steffan teaches mirroring information, as relied upon by the Examiner in the rejection as identified above. *See Steffan* 2:60–63, Fig. 7B.

We are not persuaded the Examiner erred because Appellant has not demonstrated that the Examiner’s proffered combination of references would have been “uniquely challenging or difficult for one of ordinary skill in the art.” *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418). Nor has Appellant provided objective evidence of secondary considerations which our reviewing court guides “operates as a beneficial check on hindsight.” *Cheese Sys., Inc. v. Tetra Pak Cheese and Powder Sys.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013).

Limitation (b): “in response to a detected off state of the vehicle”

The Examiner relies upon McCann as teaching or suggesting contested conditional limitation (b), i.e., “in response to a detected off state of the vehicle. . . .” Non-Final Act. 8, citing McCann ¶ 13 (“Thus, advertisements and other information may be displayed when the vehicle is not moving.”). The Examiner relies upon Steffan as teaching or suggesting the conditional response, i.e., displaying “identification information of the vehicle on the display in a second orientation . . . horizontally mirrored

relative to the first orientation, such that the identification information rendered on the display is legible to a party viewing the display from external the vehicle,” as recited in claim 1. Non-Final Act. 8, citing Steffan Fig. 7A (element 700), Fig. 3; *see also* Steffan 5:62–6:17.

Appellant contends McCann “paragraph 13 does not disclose that any of these actions include changing the orientation of text based on these conditions being met.” Appeal Br. 9. Appellant has not responded to the rejection as articulated by the Examiner by arguing the references separately. The Examiner relies upon Steffan as teaching or suggesting changing orientation to a mirrored orientation, and offers McCann for the conditional limitation, i.e., “in response to a detected off state.”

Based upon the findings above, on this record, we are not persuaded of error in the Examiner’s reliance on the cited prior art combination to teach or suggest the disputed limitations of claim 1, nor do we find error in the Examiner’s resulting legal conclusion of obviousness. Therefore, we sustain the Examiner’s obviousness rejection of independent claim 1, and grouped claims 36–39, 42, and 43, which fall therewith. *See Claim Grouping, supra.*

2. Rejections R2–R3 of Claims 40–41

In view of the lack of any substantive or separate arguments directed to obviousness Rejections R2 and R3 of claims 40 and 41 under § 103(a) (*see* Appeal Br. 12), we sustain the Examiner’s rejections of these claims. Arguments not made are waived.

3. OTDP Rejection R4 of Claims 1 and 36–43

In view of the lack of *any* argument directed to OTDP Rejection R4 of claims 1 and 36–43, we *pro forma* sustain the Examiner’s rejection of these claims. *See* Appeal Br. 1 *et seq.* Arguments not made are waived.

REPLY BRIEF

To the extent Appellant *may* advance new arguments in the Reply Brief (Reply Br. 1–6) not in response to a shift in the Examiner’s position in the Answer, arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the Examiner’s Answer will not be considered except for good cause (*see* 37 C.F.R. § 41.41(b)(2)), which Appellant has not shown.

CONCLUSIONS

(1) The Examiner did not err with respect to obviousness Rejections R1 through R3 of claims 1 and 36–43 under 35 U.S.C. § 103(a) over the cited prior art combinations of record, and we sustain the rejections.

(2) Appellant has presented no evidence or argument that the Examiner erred with respect to OTDP Rejection R4 of claims 1 and 36–43, and we *pro forma* sustain the rejection.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis / References	Affirmed	Reversed
1, 36–39, 42, 43	103(a)	McCann, Steffan, Naddeo	1, 36–39, 42, 43	
40	103(a)	McCann, Steffan, Naddeo, Feng	40	
41	103(a)	McCann, Steffan, Naddeo, Dawson	41	
1, 36–43		OTDP over claims 1–14, of U.S. 9,007,193 B2; claims 1–13 of U.S. 9,663,028 B2	1, 36–43	
Overall Outcome			1, 36–43	

FINALITY AND 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)(1)(iv). See 37 C.F.R. § 41.50(f).

AFFIRMED