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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* DANIAL SULLIVAN, RAJARATHINAM JAYACHANDRAN,  
NIKHIL ILLINDALA, and SAMER WADI

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Appeal 2018-001448<sup>1</sup>  
Application 14/666,446<sup>2</sup>  
Technology Center 3600

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Before HUBERT C. LORIN, KENNETH G. SCHOPFER, and  
BRADLEY B. BAYAT, *Administrative Patent Judges*.

SCHOPFER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the rejection of claims 1 and 3–17. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our decision references the Appeal Brief (“Appeal Br.,” filed May 30, 2017), the Reply Brief (“Reply Br.,” filed Nov. 22, 2017), the Examiner’s Answer (“Ans.,” mailed Sept. 27, 2017), and the Final Office Action (“Final Act.,” mailed Jan. 3, 2017).

<sup>2</sup> According to Appellants, the real party in interest is Ford Global Technologies, LLC. Appeal Br. 3.

## BACKGROUND

According to Appellants, the Specification “relates to an integrated NVH decoupler and brace which advantageously not only reduces NVH during vehicle operation, but also reduces damage to the cooling system in the event of a frontal impact to the vehicle.” Spec. ¶ 1.

## CLAIMS

Claims 1 and 10 are the independent claims on appeal. Claim 1 is illustrative of the appealed claims and recites:

1. An integrated noise, vibration, and harshness (NVH) decoupler and front impact brace for a vehicle, comprising:

one or more brackets configured for attaching at a first end to a front grille support member and at an opposed end to a radiator support member; and

an air flow deflector strip associated with the one or more brackets, wherein the air flow deflector strip is configured to substantially prevent a flow of air through a gap defined between the front grille support member and a lower air deflector of the vehicle.

Appeal Br. 16.

## REJECTIONS

1. The Examiner rejects claims 1, 3–6, 8–13, 15–17 under 35 U.S.C. § 103(a) as unpatentable over Kojima<sup>3</sup> in view of Jacquay.<sup>4</sup>
2. The Examiner rejects claims 7 and 14 under 35 U.S.C. § 103(a) as unpatentable over Kojima in view of Jacquay and Bernt.<sup>5</sup>

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<sup>3</sup> Kojima et al., US 8,919,864 B2, iss. Dec. 30, 2014.

<sup>4</sup> Jacquay, US 7,165,515 B2, iss. Jan. 23, 2007.

<sup>5</sup> Bernt et al., US 8,128,153 B2, iss. Mar. 6, 2012.

## DISCUSSION

*Claims 1, 4, 5, 8–12, and 15–17*

With respect to claim 1, the Examiner finds that Kojima teaches “an assembly which is capable of reducing noise, vibration, and harshness (NVH) in a vehicle” including each of the elements of claim 1, except that Kojima does not specifically disclose that air flow seal S is a strip, as claimed. Final Act. 2–3. The Examiner finds that “Jacquay teaches another radiator air flow guiding device including a bracket (42) that supports an air flow deflector strip (e.g., strip 32 formed in a ring; see Fig. 2) via an angular retainer (48).” *Id.* at 3. The Examiner concludes that it would have been obvious to modify Kojima to use a strip as a seal as taught by Jacquay and that “doing so constitutes applying a simple substitution of one known element (a seal formed as a strip) for another (a generic seal) to obtain predictable results (e.g., a seal that deflects air over the entire length of a given structure[]).” *Id.* Additionally, the Examiner notes that Jacquay “was introduced to teach that air flow deflector seals can take a strip configuration.” Ans. 7.

We agree with and adopt the Examiner’s findings and conclusions with respect to the rejection of claim 1. *See* Final Act. 2–3; Ans. 5–7. As discussed below, we are not persuaded of reversible error by Appellants’ arguments.

Appellants first argue that “the seal (S) cited by the Examiner in Kojima is not associated with or carried by the bracket 131-133.” Appeal Br. 11. Appellants assert that the seal “is carried by the seal stay 140, which is a separate element, distinct from bracket 130.” *Id.* Alternatively, Appellants argue that if the seal stay 140 is considered as part of the bracket

130, then the bracket would not be attached to the front grille support member as required by the claims. *Id.*

We are not persuaded by this argument for the reasons provided by the Examiner. *See* Ans. 6. Appellants' argument indicates an interpretation of the claim that requires a direct connection between the seal and the bracket in order for the seal to be associated with and carried by the bracket. We are not persuaded that the broadest reasonable interpretation of the claim requires direct contact between the seal and the bracket. Rather, we agree with the Examiner that the seal is both associated with and carried by the bracket because the bracket forms "the sole under-supporting element of [] both the grille (100) and seal (S)." *Id.* We agree that this structural relationship in which the bracket provides the sole underlying support for the grill, seal stay, and seal is sufficient to show that the seal is carried by and associated with the bracket under the broadest reasonable interpretation of the claims.<sup>6</sup> With respect to Kojima specifically, the seal stay is attached to the lower wall 112 of frame 110, which itself is supported by bracket 130. *See* Kojima col. 4, ll. 45–48. Thus, the bracket indirectly supports the seal stay and seal, and we agree with the Examiner that this connection is sufficient to show that the seal is associated with and carried by the bracket 130 under the broadest reasonable interpretation of the claims.

Next, Appellants argue that Kojima does not disclose that the seal prevents a flow of air between the air dam 12 and the grille support member

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<sup>6</sup> See, e.g., MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/carry> (last visited October 30, 2018) (defining "carry" as "to move while supporting" and "to sustain the weight or burden of.").

as required by the claim. We disagree for the reasons provided by the Examiner. *See* Ans. 6. In particular, the seal stay and seal fill the gap between the spaced apart grill frame and air dam such that they operate “to prevent leakage of wind between the air dam 12 and the grill 100.” *Id.* Thus, the seal, in conjunction with seal stay, does substantially prevent air flow through the gap between the air dam and the grill. *See* Kojima col. 5, ll. 23–25.

Appellants also argue that the strip identified by the Examiner in Jacquay is not positioned to prevent air flow between a grill support and an air deflector. Appeal Br. 12. However, we agree with the Examiner that this argument against Jacquay individually is not persuasive. Rather, the Examiner makes clear that Jacquay is not relied upon for the specific location of the strip and is only relied upon to show that an air flow deflector seal may be configured as a strip. Ans. 7.

Appellants further argue that the rejection “fails to provide any reason based on rational underpinning for combining the references.” Appeal Br. 12. Appellants assert that the Examiner has not articulated a reason for modifying Kojima and that “incorporating the air flow deflector strip mounted on a bracket would require a substantial re-design of the system disclosed in Kojima. *Id.* at 13. We are not persuaded of error. First, we note that the rejection is not based on modifying Kojima to bodily incorporate the specific strip seal of Jacquay. Rather, as noted above, Jacquay is only relied upon insofar as it teaches that an air flow deflector seal may be configured as a strip. Further, we agree with the Examiner that modifying Kojima’s seal, which was not explicitly described in Kojima, with a strip-shaped seal would not require a substantial redesign of Kojima’s

components. We also agree with the Examiner that one of ordinary skill in the art would have recognized that using a strip of material for the seal would have been an obvious modification of Kojima and would represent only a simple substitution of one known element for another that would yield predictable results. Thus, we are not persuaded that the rejection lacks a suitable articulated reason with rational underpinning. *See KSR Int'l. Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (“the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”)

Finally, Appellants argue that “Jacquay fails to disclose what the Examiner contends it does” because Jacquay’s element 32 is an elastomeric ring and not a strip. Reply Br. 3. However, the Examiner finds that Jacquay’s element 32 is a “strip 32 formed in a ring.” Final Act. 3. Appellants do not explain adequately why the Examiner’s finding is in error or is inconsistent with the broadest reasonable interpretation of the claim.

Based on the foregoing, we are not persuaded of error by Appellants’ arguments regarding the rejection of independent claims 1 and 10. Accordingly, we sustain the rejection of claims 1 and 10. We also sustain the rejection of dependent claims 4, 5, 8, 9, 11, 12 and 15–17 for which Appellants do not present separate arguments.

### *Claim 3*

Claim 3 depends from claim 1 and further requires that “the air flow deflector strip is carried by the one or more brackets.” Appeal Br. 16. For the reasons discussed above, we are not persuaded by Appellants’ argument

that Kojima does not teach that the seal is carried by the one or more brackets. Accordingly, we also sustain the rejection of claim 3.

*Claims 6 and 13*

Claims 6 and 13 each require that the one or more brackets attach to the radiator support member by a snap-fit fastener. Appeal Br. 17, 18. Appellants argue that “Kojima expressly discloses that the rear end of the vehicle body attachment wall 133 is secured to the radiator panel lower member 50 by a mechanical fastening element such as a resin fastener (F), not a snap-fit fastener.” *Id.* at 14 (citing Kojima col. 5, ll. 17–20). In the Answer, the Examiner explains that Kojima’s Figure 2, “showing the vertically inserted fastener which, lacking any description as being threaded or a screw, along with its enlarged intermediate structure and the complementarily-shaped portion of the dashed line support 50[,] can be reasonably interpreted as a snap fit connection).” Ans. 4. Appellants do not address this finding and we find that it is supported on the record before us. *See* Kojima Fig. 2. Further, Appellants do not explain why a resin fastener cannot also be a snap-fit fastener. Accordingly, we are not persuaded of error, and we sustain the rejection of claims 6 and 13.

*Claims 7 and 14*

Claims 7 and 14 depend from claims 1 and 10, respectively, and further require that “the one or more brackets each include at least one reinforcing rib structure.” Appeal Br. 17, 18. The Examiner acknowledges that “the Kojima combination [with Jacquay] does not disclose that the bracket includes at least one reinforcing rib structure.” Final Act. 4. The Examiner relies on Bernt as teaching “another radiator air flow guiding device including having an air deflector strip (16) supporting braces (9, 10)

that includes at least one reinforcing rib (12; see Col. 3, lines 34–35).” *Id.* The Examiner concludes that it would have been obvious to include reinforcing ribs in Kojima because it applies “a known technique (e.g., providing additional support to a rigid structural/brace element) to known devices (e.g. vehicle radiator cooling air channels) ready for improvement to yield predictable results.” *Id.*

Appellants argue that neither Kojima nor Jacquay “mention any need for the brackets . . . to include at least one reinforcing rib structure.” Appeal Br. 14. Appellants assert that Kojima “utilizes rivets and fasteners to secure the brackets and expresses [sic] any need for reinforcing rib structure.” *Id.* Thus, Appellants assert that the only motivation for providing reinforcing rib structures is found in the present application and the rejection is based on hindsight. *Id.* at 15. We are not persuaded of error.

As noted above, “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418. Thus, the mere fact that neither Kojima nor Jacquay expresses a need for such reinforcing structure is not sufficient to show error in the rejection. Further, the Examiner makes clear that the reason supporting the combination is supplied by Bernt and the knowledge of one of ordinary skill in the art. *See* Ans. 8–9. Specifically, the Examiner finds that one of ordinary skill in the art would recognize that Kojima’s bracket “would further benefit from selective reinforcement to ensure that the deflection occurs at a desired location along the bracket to control the movement of the inwardly moving grill.” *Id.* at 9. Appellants do not rebut this finding and Appellants do not

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explain adequately how the rejection relies on knowledge found only in the present application to support their argument regarding hindsight. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971).

Based on the foregoing, we are not persuaded of error in the rejection of claims 7 and 14. Accordingly, we also sustain this rejection.

#### CONCLUSION

We AFFIRM the rejections of claims 1 and 3–17.

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).

AFFIRMED