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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* JOERN IHLENBURG and HOLGER HESS

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Appeal 2019-001293  
Application 14/456,163  
Technology Center 2400

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Before JOHNNY A. KUMAR, JOHN A. EVANS, and  
SCOTT E. BAIN, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> seeks review under 35 U.S.C. § 134(a) of the Final Rejection of claims 1–20. We have jurisdiction over the appeal of these claims pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> <sup>1</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a) (2017). Appellants identify Magna Electronics Inc. as the real party in interest (App. Br. 2).

## STATEMENT OF CASE

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter added):

1. A vision system of a vehicle, said vision system comprising:
  - a camera disposed at a vehicle and having a field of view exterior of the vehicle;
    - a head unit comprising a video display screen for displaying images derived from a video image data feed received by said head unit from said camera;
      - wherein the video image data feed from said camera is received by a video line connector of said head unit;
      - wherein said head unit comprises a plurality of circuit slots;
        - wherein said head unit comprises a plurality of circuit cards;
          - wherein a respective one of said plurality of circuit cards of said head unit slots to a respective one of said circuit slots of said head unit;
          - wherein each of said circuit slots is connected to said video line connector of said head unit that receives the video image data feed from said camera;
          - wherein each of said plurality of circuit cards receives and individually processes video image data received by said head unit at said video line connector of said head unit that receives the video image data feed from said camera;
          - wherein each of said circuit cards receives the video image data feed received by said head unit at said video line connector from said camera and provides a respective processing function associated with that circuit card;
          - wherein at least two of said plurality of circuit cards of said head unit are operable to generate an output to said video display screen of said head unit responsive to processing by the respective circuit card of the video image data feed received by said head unit;
          - wherein said video display screen of said head unit displays images responsive to the respective outputs of said circuit cards of said head unit;

[1] wherein one of said at least two cards comprises an image processing chip that runs object detection software and that receives image data captured by said camera and processes the received image data to detect one of a pedestrian and a vehicle in the field of view of said camera; and

[2] wherein said video display screen of said head unit highlights the detected pedestrian or vehicle in the displayed images.

### REJECTIONS

1. Claims 1–6, 9, 10, 12–16, 18, and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Hottmann (US 2012/0069184 A1; Mar. 22, 2012) in further view of Boulia (US 2010/0128890 A1; May 27, 2010) and Lyman (US 2010/0001897 A1; Jan. 7, 2010).
2. Claim 7 is rejected under 35 U.S.C. § 103 as being unpatentable over Hottmann in further view of Boulia, Lyman, and Okada (US 2006/0072011 A1; Apr. 6, 2006).
3. Claim 8 is rejected under 35 U.S.C. § 103 as being unpatentable over Hottmann, Lyman in further view of Minikey (US 2011/0141381 A1; June 16, 2011).
4. Claims 11, 17, and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Hottmann in further view of Boulia, Lyman, and Chutorash (US 2011/0257973 A1; Oct. 20, 2011).

### ANALYSIS<sup>2</sup>

Issue on Appeal: Did the Examiner err in combining Hottmann, Boulia, and Lyman to teach or suggest all the limitations of independent

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<sup>2</sup> As to independent claims 12 and 18, Appellant merely repeats for these claims the same or similar arguments directed to claim 1. (App. Br. 21–22,

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claim 1 (and similarly recited in claims 12 and 18) because the references are not properly combinable?

We have reviewed the Examiner’s rejections in light of Appellant’s contentions that the Examiner has erred. *See* App. Br. 7–17. Further, we have reviewed the Examiner’s response regarding claims 1–17 to the arguments presented by Appellant.

We disagree with Appellant’s arguments. We 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 set forth by the Examiner in the Examiner’s Answer in response to Appellant’s Appeal Brief. Ans. 22–32. We concur with the conclusions reached by the Examiner. We highlight and address specific findings and arguments for emphasis as follows.

The Examiner finds that Hottmann teaches all elements of exemplary claim 1 (Final Act. 6–9), except for the “circuit slots” element for which the Examiner relies upon Boulia (Final Act. 9); and elements [1] and [2] for which the Examiner relies upon Lyman. (Final Act. 9–10).

Appellant’s arguments with respect to the Examiner’s obviousness rejection of claim 1 mainly focus on whether Hottmann and Boulia are combinable. App. Br. 9–19; Reply Br. 4–5.

In particular, Appellant contends:

the Final Office Action alleges that Hottmann and Boulia are in the same *field of endeavor* because both inventions disclose vehicle multimedia display systems. Appellant respectfully disagrees. Neither the '163 application nor Hottmann disclose multimedia systems. Instead, Hottmann discloses a motor

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and 23–24). Except for our ultimate decision, these claims are not discussed further herein.

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vehicle rear view device in order to eliminate the need for side rear view mirrors.

App. Br. 18. (Panel's emphasis added).

Appellant also contends:

Here, we have the Examiner combining the vehicle rear view system of Hottmann and combining it with the single receptacle disclosed in Boulia for upgrading a user's ability to connect portable electronic devices to an automobile's infotainment system and alleging that such a combination is obvious to one of ordinary art in the skill to disclose a *plurality* of circuit slots in the head unit display of a vehicle vision system. The Examiner is clearly *impermissibly using hindsight reconstruction* with the '163 application claims as a template.

App. Br. 19. (Original emphasis removed, panel's emphasis added).

The Examiner finds:

Hottman and Boulia are in the same field of endeavor. Both inventions disclose vehicle multimedia display systems. Hottmann disclose circuit cards and integrating the circuit cards in to one unit (suggestive of a head unit). Hottmann does not explicitly use the term card slot. Although the term is not used. One with ordinary skill in the art would understand that the circuit boards are mounted into slots. If one with ordinary skill reproduced Appellants head unit using the circuit boards, a slot for the board would be logically necessary to hold the circuit card. Boulia was referenced in this rejection to evidence the use of card slots. Boulia explicitly discloses a single unit, similar to the claimed head unit (Boulia, figures 2–5) wherein slots are provided for hardware components in one common unit. One with ordinary skill in the art would acknowledge that the circuit boards of Hottmann may be included via slots such that the circuit boards are integrated in to a single unit, for the purpose of simplifying the design of the vehicle multimedia system.

Ans. 25–26 (*see also* Ans. 22, citing Hottmann, ¶¶ 43, 45, 50, 57, 59–61, Figures 3, 4; Boulia, Figures 2–5).

We agree with the Examiner because Appellant's arguments do not take into account what the collective teachings of the prior art would have suggested to one of ordinary skill in the art and are therefore ineffective to rebut the Examiner's prima facie case of obviousness. *See In re Keller*, 642 F.2d 413, 425 (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; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." (Citations omitted)). This reasoning is applicable here.

We further note that the Examiner has found actual teachings in the prior art and has provided a rationale for the combination (*see* Final Act. 9–10). We note that the above-noted teachings suggest that the combination involves the predictable use of prior art elements according to their established functions. There is no requirement that the problem solved by the secondary reference be discussed by the primary reference to apply the teachings of the secondary reference in a rejection under 35 U.S.C. § 103. The Supreme Court has held that in analyzing the obviousness of combining elements, a court need not find specific teachings, but rather may consider "the background knowledge possessed by a person having ordinary skill in the art" and "the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions," *id.* at 417, and the basis for an obviousness rejection must

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include an “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 418 (citation omitted). Here, the Examiner has provided a rationale for the combination. Accordingly, we find that the Examiner has provided sufficient motivation for modifying Hottmann with the teachings of Boulia.

Regarding Appellant’s hindsight argument, we are cognizant that our reviewing courts have not established a bright-line test for hindsight. In *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), the Supreme Court guides that “[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon *ex post* reasoning.” *KSR*, 550 U.S. at 421 (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1966)). Nevertheless, the Supreme Court qualified the issue of hindsight by stating, “[r]igid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *Id.*

In reviewing the record here, we find Appellant has not identified any knowledge relied upon by the Examiner that was gleaned only from Appellant’s disclosure and that was not otherwise within the level of ordinary skill in the art at the time of application filing. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971).

Moreover, Appellant has not provided persuasive evidence that combining the respective teachings of the references (as proffered by the Examiner — Ans. 25–26) would have been “uniquely challenging or difficult for one of ordinary skill in the art,” or that such a combination would have “represented an unobvious step over the prior art.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Nor has Appellant provided any objective evidence of secondary

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considerations, which, as our reviewing court explains, “operate[] as a beneficial check on hindsight.” *Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013).

Regarding the dependent claims, while Appellant raises additional arguments for patentability of the cited claims (App. Br. 21–27), we find that the Examiner has responded in the Answer with sufficient evidence. Ans. 26–32. Therefore, we adopt the Examiner’s findings and underlying reasoning, which are incorporated herein by reference.

Accordingly, Appellant has not provided sufficient evidence or argument to persuade us of any reversible error in the Examiner’s reading of the contested limitations on the cited prior art, or in the proper combinability of the prior art references as suggested by the Examiner. Therefore, we sustain the Examiner’s obviousness rejections of claims 1–20.

## CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–6, 9, 10, 12–16, 18, 19	103	Hottmann, Boulia, Lyman	1–6, 9, 10, 12–16, 18, 19	
7	103	Hottmann, Boulia, Lyman, Okada	7	
8	103	Hottmann, Lyman, Minikey	8	
11, 17, 20	103	Hottmann, Boulia, Lyman, Chutorash	11, 17, 20	
<b>Outcome</b>			1–20	

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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