

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DAVID H. HALVORSON and JOE B. HUNGATE

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Appeal No. 2001-1541  
Application No. 09/094,297

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ON BRIEF<sup>1</sup>

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Before CALVERT, COHEN, and NASE, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 20, which are all of the claims pending in this application.

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<sup>1</sup> The appellants requested an oral hearing (Paper No. 19, filed December 26, 2000) and a hearing was scheduled for September 13, 2001 (Paper No. 21, mailed July 19, 2001). The appellants confirmed the hearing set for September 13, 2001 (Paper No. 22, filed July 27, 2001). However, the appellants did not attend the hearing. Accordingly, the issues raised in this appeal will be decided on brief.

We REVERSE.

BACKGROUND

The appellants' invention relates to train control systems and more particularly to automatic and remote sensing of the passage of rail switches (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Dierker, Jr. et al. 6, 1992 (Dierker)	5,152,544	Oct.
Kull et al. 1998 (Kull)	5,740,547	Apr. 14,
Codina et al. 1999 (Codina)	5,880,681	March 9,

Claims 1, 3 and 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C.

§ 103 as obvious over Dierker.

Claims 1 to 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kull in view of Dierker or Codina.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 17, mailed November 6, 2000) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 16, filed September 25, 1999) and reply brief (Paper No. 18, filed December 26, 2000) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

**The anticipation rejection**

We will not sustain the rejection of claims 1, 3 and 9 under 35 U.S.C. § 102(b).

To support a rejection of a claim under 35 U.S.C. § 102(b), it must be shown that each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

Claims 1 and 9 read as follows:

1. An apparatus for providing information on rail vehicle positions comprising in operative combination:
  - a first rail vehicle wheel truck pivotally coupled to said rail vehicle;
  - a first distance sensor associated with said rail vehicle and said truck, said first distance sensor measuring a horizontal distance from a side portion of said truck to a facing side portion of said rail vehicle and generating rotation signals in response to said measured horizontal distance; and
  - a rotation signal processor for receiving said rotation signals and determining from said rotation signals horizontal rotation directions and rotation magnitudes of said truck with respect to said rail vehicle.

9. A device for assisting and controlling a rail vehicle of the type having a rotating wheel truck, the device comprising:

means for sensing a horizontal distance from a predetermined position on a facing side portion of a rail vehicle to a location on a side portion of said wheel truck and generating a signal relating to said distance, said means for sensing a distance being associated with said rail vehicle and said truck; and

means for processing said signals to determine horizontal rotation magnitude and rotation direction of said truck with respect to said rail vehicle.

Dierker's invention relates to a control system/method for controlling the braking force applied to the brakes of a towed subvehicle in an articulated vehicle system, such as the semitrailer subvehicle in a tractor-semitrailer system, to prevent, arrest or to minimize and quickly recover from, the condition known as trailer brake induced trailer swing. As shown in Figure 8, an ultrasonic transceiver 230 is mounted to the tractor 12 and will send and receive ultrasonic signals which bounce off predetermined surfaces on the trailer 14 to provide an indication of the articulated vehicle articulation angle and/or derivatives thereof. Dierker teaches that a central processing unit 70 will, as is well known in the ABS

prior art, process input signals in accordance with predetermined logic rules to generate command output signals.

The examiner's position is that claims 1 and 9 are anticipated by Dierker since the use of a "rail vehicle" is inherent. We do not agree. We have reviewed Dierker's disclosure and fail to find any disclosure of a rail vehicle or a rail vehicle wheel truck. In fact, we fail to find any disclosure of any of the elements recited in claims 1 or 9. In that regard, while Dierker does disclose a distance sensor and a processor for receiving signals from the distance sensor, the distance sensor in Dierker is not positioned on a rail vehicle as claimed and the processor does not determine rotation magnitude and rotation direction of the rail vehicle wheel truck with respect to the rail vehicle.

For the reasons set forth above, all the limitations of claims 1 and 9 are not found in Dierker. Accordingly, the decision of the examiner to reject claims 1 and 9, and claim 3 dependent on claim 1, under 35 U.S.C. § 102(b) is reversed.

**The obviousness rejection based on Dierker**

We will not sustain the rejection of claims 1, 3 and 9 under 35 U.S.C. § 103 as being obvious over Dierker.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting **evidence** that would have led one of ordinary skill in the art to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As set forth above, all the limitations of claims 1 and 9 are not found in Dierker. The examiner's determination (answer, p. 3) that the use of a "rail vehicle" is obviously suggested by Dierker is not supported by any **evidence**.<sup>2</sup> We

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<sup>2</sup> Evidence of a suggestion, teaching, or motivation to modify a reference may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art,  
(continued...)

have reviewed Dierker's disclosure and fail to find any suggestion whatsoever of applying Dierker's control system to a rail vehicle.

For the reasons set forth above, the subject matter of claims 1 and 9 would not have been obvious from Dierker. Accordingly, the decision of the examiner to reject claims 1 and 9, and claim 3 dependent on claim 1, under 35 U.S.C. § 103 is reversed.

#### **The obviousness rejection based on Kull**

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<sup>2</sup>(...continued)  
or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg., Inc. v. SGS Importers Int'l., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), cert. denied, 117 S. Ct. 80 (1996), although "the suggestion more often comes from the teachings of the pertinent references," In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., C.R. Bard Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 1804 (1999). A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not "evidence." See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

We will not sustain the rejection of claims 1 to 20 under 35 U.S.C. § 103 as being unpatentable over Kull in view of Dierker or Codina.

The examiner's position (answer, pp. 4-5) with respect to this ground of rejection is that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kull<sup>3</sup> by replacing Kull's gyroscope/GPS means for determining turn rate by using a distance sensing means to determine the turn rate in view of the teachings of either Dierker<sup>4</sup> or Codina<sup>5</sup>. We do not agree.

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<sup>3</sup> The pertinent teachings of Kull are set forth on page 9 of the brief and page 4 of the answer.

<sup>4</sup> The pertinent teachings of Dierker are set forth on pages 5,6 and 10 of the brief and pages 4-5 of the answer.

<sup>5</sup> The pertinent teachings of Codina are set forth on page 10 of the brief and pages 4-5 of the answer.

Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). And "teachings of references can be combined only if there is some suggestion or incentive to do so." Id. Here, after reviewing the teachings of the applied prior art we conclude that the applied prior art contains no suggestion or motivation to combine their teachings in the manner set forth in this rejection.

Instead, it appears to us that the examiner relied on hindsight in reaching the obviousness determination. However, our reviewing court has said, "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a

hindsight syndrome wherein that which only the inventor taught is used against its teacher." W. L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). It is essential that "the decisionmaker forget what he or she has been taught . . . about the claimed invention and cast the mind back to the time the invention was made . . . to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art." Id.

Since it would not have been obvious to combine the teachings of the applied prior art for the reasons set forth above, we will not sustain the 35 U.S.C. § 103 rejection of claims 1 to 20.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3 and 9 under 35 U.S.C. § 102(b) is reversed and the

decision of the examiner to reject claims 1 to 20 under 35  
U.S.C. § 103 is reversed.

REVERSED

IAN A. CALVERT	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
IRWIN CHARLES COHEN	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	

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