THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte IRFAN F. RAZA and RONALD D. WALTHER

Appeal No. 98-1457
Application No. 08/530,006[1]

ON BRIEF

Before STAAB, NASE, and CRAWFORD, Administrative Patent Judges.

NASE, Administrative Patent Judge.

STAAB, Administrative Patent Judge, dissenting.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 15, which are all of the claims pending in this application.[2]

[1] Application for patent filed September 19, 1995.

[2] In the brief (p. 1), the appellants requested that claim 14 be amended. In the answer (p. 2), the examiner noted that the requested amendment to claim 14 was improper, however, the examiner indicated that claim 14 has been informally amended to read as requested by the appellants. We suggest that the appellants submit a formal amendment to claim 14. Since the rejection of claim 14 under 35 U.S.C. § 112, second paragraph, raised in the final rejection was not repeated in the answer,

We REVERSE.

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we assume that this rejection has been withdrawn by the examiner. See Ex parte Emm, 118 USPQ 180, 181 (Bd. App. 1957).

BACKGROUND

The appellants' invention relates to a vehicular wheel suspension link. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellants' brief.

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

Schlechtendahl	3,266,339	Aug. 16, 1966
Hynds	5,064,216	Nov. 12, 1991
Crandall	5,282,396	Feb. 1, 1994
Jacques et al. (Jacques)	5,417,499	May 23, 1995
Scowen	WO 86/04122	July 16, 1986

Claims 1 through 10 and 13 through 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crandall in view of Scowen and Schlechtendahl.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crandall in view of Scowen, Schlechtendahl and Jacques.

In addition to the two grounds of rejection set forth above, the examiner's answer set forth the following new grounds of rejection.

Claims 1 through 4, 7 through 10 and 13 through 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crandall in view of Hynds and Schlechtendahl.

Claims 5 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crandall in view of Hynds, Schlechtendahl and Scowen.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crandall in view of Hynds, Schlechtendahl and Jacques.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 10, mailed April 16, 1997) and the supplemental examiner's answer (Paper No. 12, mailed August 29, 1997) for the examiner's complete reasoning in support of the rejections, and to the appellants' brief (Paper No. 9, filed January 29, 1997) and reply brief (Paper No. 11, filed June 16, 1997) 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. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to claims 1 through 15.[3] Accordingly, we will

[3] In view of our determination that the examiner has not established a prima facie case of obviousness with respect to

not sustain the examiner's rejections of claims 1 through 15 under
35 U.S.C. § 103. Our reasoning for this determination follows.

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 the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 9 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of

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claims 1 through 15, we have not considered the evidence of nonobviousness submitted by the appellants (i.e., the May 14, 1996 declaration of Irfan Raza).

ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

The appellant argues that the applied prior art does not suggest the claimed subject matter. We agree.

All the claims under appeal require a vehicular wheel suspension link to include an elongated member formed of a thermoplastic material and provided with an intermediate section having an I-shaped cross-sectional configuration. However, it is our opinion that these limitations are not suggested by the applied prior art. In that regard, while Crandall does disclose a vehicular wheel suspension link, Crandall does not teach or suggest forming the link of a thermoplastic material and providing the link with an intermediate section having an I-shaped cross-sectional configuration. To supply these omissions in the teachings of Crandall, the examiner made determinations (answer, pages 5, 6 and 8) that these difference would have been obvious to an

artisan based upon the teachings of Scowen and Schlechtendahl or Hynds and Schlechtendahl. However, it is our view that this determination of the examiner has not been supported by any evidence that would have led an artisan to arrive at the claimed invention.

In our view, the only suggestion for modifying Crandall in the manner proposed by the examiner to meet the above-noted limitations stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Specifically, we find that there is no suggestion in the applied prior art to modify Crandall's link to be formed of a thermoplastic material and provided with an intermediate section having an I-shaped cross-sectional configuration. While Schlechtendahl discloses an I-shaped cross-sectional configuration used in a connecting rod for an internal combustion engine and Scowen and Hynds disclose links

formed of a thermoplastic material[4], we see no suggestion therein for an artisan to have modified Crandall's link in the manner set forth by the examiner to arrive at the claimed vehicular wheel suspension link. It follows that we cannot sustain any of the examiner's rejections of claims 1 through 15.

As to our colleague's dissenting opinion, we do not share his view that the subject matter of claim 1 would have been suggested to one of ordinary skill in the art by the combined teachings of *the applied prior art*. In determining obviousness/nonobviousness, an invention must be considered "as a whole," 35 U.S.C. § 103, and claims must be considered in their entirety. Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983). Thus, the issue presented by the rejections before us on appeal is whether *the applied prior art* would have suggested to one of

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[4] Scowen discloses that a connecting rod formed from fibre reinforced plastics material can replace conventional metal connecting rods in reciprocating piston and cylinder machines. Hynds discloses an automotive vehicle suspension link can be integrally molded from a suitable plastic material.

ordinary skill in the art modifying the elongated member of Crandell's suspension link (i.e., the rigid member 11, preferably made of steel and having a cross-sectional configuration as shown in Figures 1 and 3) to be **both** formed of a thermoplastic material and provided with an intermediate section having an I-shaped cross-sectional configuration. In our opinion, while *the applied prior art* may have been suggestive of modifying the elongated member of Crandell's suspension link to be **either** (1) formed of a thermoplastic material, **or** (2) provided with an intermediate section having an I-shaped cross-sectional configuration, the combined teachings of *the applied prior art* would not have been suggestive of modifying Crandell to contain **both** of these features without the use of hindsight knowledge derived from the appellants' own disclosure.

In regard to the "well-known engineering knowledge" cited by the examiner on page 3 of the supplemental answer and our colleague in his dissenting opinion, we note that this "well-known engineering knowledge" was not applied by the examiner in

the actual rejections before us on appeal (see pages 4-10 of the answer). In addition, there is no evidence in the record that one of ordinary skill in this art would have known about this "well-known engineering knowledge." Moreover, while an artisan may be presumed to know something about the art apart from what references teach, it is the burden of the examiner to establish a sufficient factual basis for one to be able to draw such a presumption. This was not done in this instance.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 through 15 under 35 U.S.C. § 103 is reversed.

REVERSED

JEFFREY V. NASE Administrative Patent Judge	)	
	)	BOARD OF PATENT APPEALS AND INTERFERENCES
MURRIEL E. CRAWFORD Administrative Patent Judge	)	

JVN/gjh

STAAB, Administrative Patent Judge, dissenting.

The majority implies that the reason they find the examiner's rejections to be lacking is because the various secondary references applied by the examiner in rejecting the claims do not disclose the use of an I-shaped cross-sectional configuration and thermoplastic material in the specific environment called for in the appealed claims, namely, a vehicular wheel suspension link. There are several flaws in the sort of analysis, if that is what they meant. For example, it does not properly consider what the *combined* teachings of the applied references would have suggested to one of ordinary skill in the art[1], nor does it take into account the baseline knowledge that a person of ordinary skill in the art is presumed to possess in approaching the question of obviousness[2].

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[1] *See, for example, In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

[2] *See, for example, In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962)(artisan presumed to know something about art apart from what references teach) and *In re Sovish*, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985)(skill in the art presumed, rather than the converse).

Confining my remarks, for the sake of brevity, to the standing § 103 rejection of claim 1 based on Crandall, Hynds and Schlechtendahl, admittedly the Schlechtendahl reference does not disclose the use of an I-shaped cross-sectional configuration in the environment of a vehicular wheel suspension link. However, as aptly noted by the examiner on page 3 of the supplemental answer, and as not disputed by appellants, "[it] is well-known in the field of engineering that members having I-shaped cross-section have a desirably high strength-to-weight ratio." Also relevant in this regard is the Hynds patent, which is directed to an automotive vehicle suspension link. Concerning the cross-sectional shape of the suspension link 12 thereof, Hynds states (column 2, lines 32-37):

> As illustrated best in Fig. 3, the cross section of the link 12 can include longitudinal ribs 18, 20 to increase strength and resistance to stresses. Preferably, the ribs 18, 20 are integrally molded on the outer surface of the link 12. Other cross sections for the link 12 are within the scope of the invention.

Thus, Hynds may be fairly viewed as teaching that the Fig. 3 cross-sectional shape for the suspension link 12 is merely exemplary, and that other cross sectional shapes may be employed for a vehicle wheel suspension link so long as they adequately take into account the strength and resistance requirements of the link.

From my perspective, the basic engineering knowledge of the strength characteristics of an I-shaped cross-sectional configuration, the above-noted teaching of Hynds, and the teachings of Schlechtendahl regarding the use of an I-shaped cross sectional configuration in a connecting rod[3] are sufficient to establish prima facie that it would have been obvious to one of ordinary skill in the automotive vehicle suspension art to provide the intermediate section of Crandall's suspension link with an I-shaped cross-sectional configuration in order to take advantage of the well known strength characteristics such a configuration provides. This view is bolstered by the circumstance that there is nothing in

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[3] The claimed "vehicular wheel suspension link" is merely a special purpose connecting rod.

the record which leads me to believe that the I-shaped cross-sectional configuration was selected and used by appellants for other than its well-known strength-to-weight characteristics.

Looking at the requirement of claim 1 calling for the link to be formed of thermoplastic material, the disclosure of Hynds that link 12, barrel portion 14 and ring portion 16 of the suspension assembly "are integrally molded from a suitable plastic material, e.g., DELRIN" (column 2, lines 27-28) is sufficient, in my view, to establish prima facie that it also would have been obvious to one of ordinary skill in the art to form the corresponding elements of Crandall's suspension link of thermoplastic material for the self evident purpose of taking advantage of the well known characteristics of thermoplastic material (e.g., weight reduction).

Thus, when the *combined* teachings of Crandall, Hynds and Schlechtendahl are properly taken into consideration, such teachings are sufficient to establish a prima facie case of obviousness of the subject matter of claim 1. As to

appellants' evidence of nonobviousness (i.e., the May 14, 1996 declaration of Irfan Raza), suffice it to say I have reviewed same but find it insufficient to outweigh the above noted reference evidence of obviousness. Accordingly, at the very least, the standing § 103 rejection of claim 1 based on Crandall, Hynds and Schlechtendahl should be affirmed.[4]

	) BOARD OF PATENT
	) APPEALS
LAWRENCE J. STAAB	) AND
Administrative Patent Judge	) INTERFERENCES

[4] It should not be inferred from my focus on the rejection of claim 1 based on Crandall, Hynds and Schlechtendahl that I necessarily agree with the majority that the remainder of the examiner’s rejections of the appealed claims should be reversed.

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APPEAL NO. 98-1457 - JUDGE NASE
APPLICATION NO. 08/530,006

APJ NASE

APJ CRAWFORD

APJ STAAB

DECISION: **REVERSED**

Prepared By: Gloria Henderson

DRAFT TYPED: 01 Feb 99

FINAL TYPED: