

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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* ALFRED RECK and UWE SIEPMANN

---

Appeal No. 2002-1974  
Application No. 09/023,953

---

HEARD: March 05, 2003

---

Before PAK, LORIN, and JEFFREY T. SMITH, *Administrative Patent Judges*.  
JEFFREY T. SMITH, *Administrative Patent Judge*.

***DECISION ON APPEAL***

Applicants appeal the decision of the Primary Examiner finally rejecting claims 1, 3, 5 to 7 and 9 to 20, all of the claims in the application.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 134.

---

<sup>1</sup> In rendering our decision, we have considered Appellants arguments presented in the Brief, filed December 28, 2001.

***BACKGROUND***

The subject matter of Appellants' invention relates to a catalytic converter for a vehicle with an internal combustion engine. According to Appellants, the catalytic converter is said to partially reduce the proportion of hydrocarbon in exhaust gases that have very high proportions of hydrocarbon. (Brief, p. 9). Claim 1, which is representative of the claimed invention, appears below:

1. A catalytic converter for a vehicle with an internal combustion engine, comprising:

a jacket tube having a wall with an inner surface and defining therein a flow passage with a given cross-sectional area;

a honeycomb body having a metal sheet disposed in a vicinity of the inner surface of the jacket tube, said metal sheet being at least partially coated with a catalytically active effective to convert hydrocarbons in an exhaust gas having a hydrocarbon concentration of up to 4% by volume in the exhaust gas and being disposed such that a predominant, contiguous central portion of the given cross-sectional area of said flow passage remains free of said metal sheet;

said metal sheet being corrugated and defining flow channels having a size and a shape defining a channel density of 25 to 200 cspi, said central portion being bound by a corrugated surface of said metal sheet.

Appeal No. 2002-1974  
Application No. 09/023,953

***CITED PRIOR ART***

As evidence of unpatentability, the Examiner relies on the following references:

Kitzner et al. (Kitzner)	3,770,389	Oct. 30, 1973
Toh et al. (Toh)	4,220,625	Sep. 2, 1980
Nonnenmann et al. (Nonnenmann)	4,282,186	Aug. 4, 1981
Noakes et al. (Noakes)	4,397,772	Aug. 9, 1983
McMahon et al. (McMahon)	4,400,309	Aug. 23, 1983
Cyron et al. (Cyron)	4,842,954	Jun. 27, 1989
Hitachi et al. (Hitachi)	5,110,561	May 5, 1992
Arai et al. (Arai)	5,151,254	Sep. 29, 1992
Prigent et al. (Prigent)	5,386,696	Feb. 7, 1995

The Examiner has rejected claims 1, 3, 5 to 7, 9 to 20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 1, 3, 5 to 7, 12, 13, 15, 18 and 19 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron; claim 9 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron as applied to 1, 3, 5 to 7, 12, 13, 15, 18 and 19, further combined with McMahon, Prigent and Noakes; claims 10, 11 and 14 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron as applied to 1, 3, 5 to 7, 12, 13, 15, 18 and 19, further combined with Arai; claim 16 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron as applied to 1, 3, 5 to 7, 12, 13, 15, 18 and 19, further combined with Toh; claim 17 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron as applied to 1, 3, 5 to 7, 12, 13, 15, 18 and 19, further combined with Nonnenmann; and

Appeal No. 2002-1974  
Application No. 09/023,953

claim 20 as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hitachi and Cyron as applied to 1, 3, 5 to 7, 12, 13, 15, 18 and 19, further combined with Kitzner. (Answer, pp. 3 to 10).

## DISCUSSION

Rather than reiterate the conflicting viewpoints advanced by the Examiner and Appellants concerning the above-noted rejection, we refer to the Answer and the Briefs.

### *I. The Rejection under Section 112, ¶2*

The Examiner must demonstrate that the claims do not “set out and circumscribe a particular area with a **reasonable** degree of precision and particularity.” *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971), emphasis added. The purpose of the second paragraph of Section 112 is to basically insure an **adequate** notification of the metes and bounds of what is being claimed. *See In re Hammack*, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970).

The Examiner has rejected claims 1, 3, 5 to 7, 9 to 20 under 35 U.S.C. § 112, second paragraph as indefinite.

According to the Examiner, the claims are indefinite because “claim 1, lines 8-10 the language of the claim is directed to a method limitation which renders the claim vague and indefinite as it is unclear as to what structural limitation applicants are attempting to recite.” (Answer, p. 3).

Appeal No. 2002-1974  
Application No. 09/023,953

We determine that the Examiner has not met the initial burden by failing to present any reasons why one of ordinary skill in the art would not be apprised of the scope of the claims on appeal. The language “said metal sheet being at least partially coated with a catalytically active coating effective to convert hydrocarbons in an exhaust gas having a hydrocarbon concentration of up to 4% by volume in the exhaust gas” of claim 1 defines the metal sheet as partially coated with a coating and the properties of the coating thereon in terms of function. *In re Hughes*, 496 F.2d 1216, 182 USPQ 106 (CCPA 1974) (Defining a product in terms of a process does not make the language of the claim imprecise or indefinite.). The claims provide adequate notification of the metes and bounds of the claimed subject matter.

For the foregoing reasons and those set forth in the Brief, the rejection of claims 1, 3, 5 to 7 and 9 to 20 under 35 U.S.C. § 112, second paragraph, is reversed.

## *II. The Rejection under Section 103*

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellants in support of their respective positions. This review leads us to conclude that the rejection of claims 1, 3, 5 to 7 and 9 to 20 are not well founded. Our reasons appear below. We will limit our discussion to the independent claim, i.e., claim 1.

Appeal No. 2002-1974  
Application No. 09/023,953

According to the Examiner, Hitachi describes a catalytic converter that differs from the claimed invention in that (1) the channel density is not provided and (2) the central portion of the converter is bounded by a flat surface of sheet metal. The Examiner asserts that if the corrugation of Hitachi were limited to one layer then the channel density would be about 40 channels. To remedy the other deficiency, the Examiner relies on the Cyron reference. (Answer, pp. 4-6).

To hold an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention. *See, e.g., Heidelberger Druckmaschinen AG v. Hantscho Commercial Prods., Inc.*, 21 F.3d 1068, 1072, 30 USPQ2d 1377, 1379 (Fed. Cir. 1994) (When the patent invention is made by combining known components to achieve a new system, the prior art must provide a suggestion, or motivation to make such a combination.); *Northern Telecom v. Datapoint Corp.*, 908 F.2d 931, 934, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990) (It is insufficient that the prior art disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor.); *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1044, 1051, 5 USPQ 1434, 1438 (Fed. Cir. 1988). In addition to the differences cited by the Examiner above, Hitachi

Appeal No. 2002-1974  
Application No. 09/023,953

does not describe the coating which is applied to at least a portion of the interior metal sheet.<sup>2</sup> In any event, if Hitachi did include a coating as required by the claimed invention the coating would have been applied to an interior smooth surface.

Hitachi discloses the interior of the catalytic converter is bounded by a flat cylinder (3) that extends the entire axial length of the honeycomb structure. The Examiner has not provided adequate motivation for eliminating the interior support devices of Hitachi. The Examiner asserts that “[i]t would have been obvious to one having ordinary skill in the art to use the corrugated metal sheet as an innermost layer to define a coil-free central zone as taught by Cyron et al[.] in the apparatus of Hitachi et al[.] to facilitate the grasping of the end of the sheets during mass production as taught by Cyron et al.” (Answer, p. 6). As stated above, Hitachi uses a cylinder as support for the honeycomb structure. The Examiner has not addressed what the effects of removal of the interior would have on the Hitachi invention.

The mere fact that the prior art could be modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.

*In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); *In re Laskowski*, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989). The record

---

<sup>2</sup> Hitachi discloses that a nickle-based brazing solution is used in the combining of the honeycomb core body and metal casting. (Col. 6). There is no indication by the Examiner that this solution would have the properties required by the invention of claim 1.

Appeal No. 2002-1974  
Application No. 09/023,953

indicates that the motivation relied upon by the Examiner suggesting the combination of Hitachi and Cyron came from the Appellants' description of their invention in the specification rather than coming from the applied prior art and that, therefore, the Examiner used impermissible hindsight in rejecting the claims. *See W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983); *In re Rothermel*, 276 F.2d 393, 396, 125 USPQ 328, 331 (CCPA 1960). For the reasons stated above and in Appellants' Brief, pages 15 to 18, we reverse all of the Examiner's rejections under 35 U.S.C. § 103(a).<sup>3</sup>

---

<sup>3</sup> All of the rejections under section 103 rely on combination of references that include Hitachi and Cyron. The additional cited references do not remedy the aforementioned deficiencies of Hitachi.

Appeal No. 2002-1974  
Application No. 09/023,953

**CONCLUSION**

The Examiner's rejections of claims 1, 3, 5 to 7 and 9 to 20 unpatentable under 35 U.S.C. § 103(a) are reversed. The rejection of claims 1, 3, 5 to 7 and 9 to 20 under 35 U.S.C. § 112, second paragraph, is reversed.

**REVERSED**

CHUNG K. PAK  
*Administrative Patent Judge*

HUBERT C. LORIN  
*Administrative Patent Judge*

JEFFREY T. SMITH  
*Administrative Patent Judge*

)  
)  
)  
)  
)  
)  
) **BOARD OF PATENT**  
) **APPEALS**  
) **AND**  
) **INTERFERENCES**  
)  
)  
)  
)

JTS/kis

Appeal No. 2002-1974  
Application No. 09/023,953

LERNER & GREENBERG  
P. O. BOX 2480  
HOLLYWOOD, FL 33022-2480