

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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DOUGLAS MacGREGOR DEWAR and ALEXANDER F. ANDERSON

Appeal No. 2002-1445
Application No. 09/280,775

ON BRIEF

Before COHEN, FRANKFORT, and McQUADE, Administrative Patent Judges.
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, 4 through 7, 9, 12 through 15, and 18 through 21. These claims constitute all of the claims remaining in the application.

Appellants' invention pertains to a heat exchanger. A basic understanding of the invention can be derived from a reading of exemplary claims 1, 9, and 18, respective copies of which appear in the APPENDIX to the brief (Paper No. 16).

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As evidence, the examiner has applied the documents listed below:

Scanlon et al. (Scanlon)	4,832,118	May 23, 1989
Dewar et al. (Dewar '363)	5,628,363	May 13, 1997
Dewar et al. (Dewar '600)	5,655,600	Aug. 12, 1997
Suzuki et al. (Suzuki) (Japan) ¹	2,298,797	Dec. 11, 1990

The following rejections are before us for review.

Claims 1, 2, 4, and 18 through 21 stand rejected under 35 U.S.C. § 101 as claiming the same invention (double patenting) as that of claims 1 through 16 of Dewar '363 (U.S. Patent No. 5,628,363) and of claims 1 through 13 of Dewar '600 (U.S. Patent No. 5,655,600).

Claims 1, 4 through 7, 9, 12 through 15, and 18 through 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Suzuki.

¹ Our understanding of this foreign language document is derived from a reading of a translation thereof appended to the brief (Appendix C).

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Claims 1, 2, 4 through 7, 9, 12 through 15, and 18 through 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Suzuki in view of Scanlon.

The full text of the examiner's rejections and response to the argument presented by appellants appears in the answer (Paper No. 17), while the complete statement of appellants' argument can be found in the brief (Paper No. 16).²

OPINION

In reaching our conclusion on the issues raised in this appeal, this panel of the board has carefully considered appellants' specification and claims, the applied teachings,³ and

² The examiner's objection regarding claims 18 and 21 (answer, page 3), discussed by appellants in the brief (page 9), relates to a petitionable, not an appealable, matter. Therefore, we shall not further comment thereon.

³ In our evaluation of the applied prior art, we have considered all of the disclosure of each document for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings, but also the inferences which one skilled in the art would reasonably have been expected to draw
(continued...)

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the respective viewpoints of appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Double Patenting

We do not sustain the rejection of claims 1, 2, 4, and 18 through 21 under 35 U.S.C. § 101 as claiming the same invention (double patenting) as that of claims 1 through 16 of Dewar '363 (U.S. Patent No. 5,628,363) and of claims 1 through 13 of Dewar '600 (U.S. Patent No. 5,655,600).

35 U.S.C. § 101 proscribes two patents from issuing on the same invention. Same invention means identical inventions. See In re Vogel, 422 F.2d 438, 441, 164 USPQ 619, 621 (CCPA 1970). It follows therefore that, the issue now before us is whether the identical invention is being claimed twice.

³(...continued)
from the disclosure. See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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Independent claim 1 sets forth a heat exchanger comprising, inter alia, a plurality of electrically non-conductive carbon spacers located between carbon-carbon plates. Independent claim 9 recites a heat exchanger comprising, inter alia, a plurality of electrically non-conductive spacers located between carbon-carbon plates. Independent claim 18 is drawn to a heat exchanger comprising, inter alia, a plurality of electrically non-conductive carbon spacers located between carbon composite plates.⁴

A review of each of claims 1 through 16 of Dewar '363 and claims 1 through 13 of Dewar '600 reveals to us that the invention thereof is not the identical and same invention now on appeal, and the examiner's rejection does not establish by specific claim language comparison an identity of invention. Thus, the examiner's same invention type double patenting rejection cannot be sustained.

⁴ In understanding the nature of "carbon-carbon" plates, we referred to "Ceramic-Matrix Composite," Engineered Materials Handbook, Desk Edition, pp. 1059-1060, 1995 (copy attached).

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Obviousness

We do not sustain the rejection of claims 1, 4 through 7, 9, 12 through 15, and 18 through 21 under 35 U.S.C. § 103 as being unpatentable over Suzuki.

At the outset, we note that we earlier referred to certain features in appellants' independent claims. A review of the Suzuki translation indicates to us that one having ordinary skill in the art would not have derived any suggestion therefrom as to the specific plate and spacer materials now claimed. Suzuki is silent on the matter of materials. The examiner has simply failed to provide the requisite evidence in the rejection to support a conclusion that the differences between the claimed invention and the Suzuki heat exchanger (particular materials for plates and spacers) are such that the subject matter as whole would have been obvious to person having ordinary skill in the art.⁵ Relative to the examiner's view (answer, page 6) of the spacers of Suzuki being "inherently dielectric" (anticipation),

⁵ In the answer (page 6), we note the examiner's reliance upon a Soviet Union document (CHAG). It is worthy of pointing out that, where a reference is relied upon to support a rejection, there would appear to be no excuse for not positively including the reference in the statement of the rejection. See In re Hoch, 428 F.2d 1341, 1342, 166 USPQ 406, 407 (CCPA 1970).

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we offer the following. Considering, in particular, the sparse disclosure of the Suzuki reference vis-a-vis the spacer per se, we are of the opinion that the more appropriate assessment should address the matter of the spacer being dielectric in an obviousness context. Lastly, we note the examiner's assessment that the claimed specific materials are not critical/important (answer, page 7). However, criticality is not a requirement for patentability.

We do not sustain the rejection of claims 1, 2, 4 through 7, 9, 12 through 15, and 18 through 21 under 35 U.S.C. § 103 as being unpatentable over Suzuki in view of Scanlon.

This panel of the Board discussed the plate and spacer materials deficiency of the Suzuki document above. Scanlon discloses the replacement of metal with materials such as carbon in the heat exchanger art (column 1). In particular, Scanlon teaches a heat exchanger (Fig. 1) having flat composites 30 (graphite fibers in an epoxy resin matrix) with a plurality of bar-like gaskets 38 (no material disclosed) respectively therebetween (column 3, lines 25 through 59). The fibers are unidirectionally oriented (see double headed arrow 40 in Fig. 4).

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We also note that Scanlon does not address a heat exchanger configured for the application of a voltage thereto.

All in all, it is our opinion that the collective teachings of the applied prior art before us simply would not have been suggestive of the heat exchanger of appellants' claims 1, 9, and 18. Specifically, the evidence applied by the examiner lacks a suggestion for the now claimed specific materials and, for example, the fiber traversing relationship of electrodes and electrically conductive fibers in carbon-carbon plates of a heat exchanger (claim 9). As to appellants' point application of voltage argument relative to Suzuki (brief, page 7) and the examiner's assessment (answer, page 8), we note that the reference document's drawings are highly schematic.

In summary, this panel of the board has not sustained any of the rejections on appeal.

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The decision of the examiner is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JOHN P. McQUADE)	
Administrative Patent Judge)	

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