

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT L. STARNES

Appeal No. 1997-0467
Application 08/318,019

ON BRIEF¹

Before WINTERS, WILLIAM F. SMITH and SCHEINER, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 15 through 22. Claims 23 through 32, which are the only other claims remaining in the application,

¹ Applicant requested an oral hearing on April 4, 1996. However, on review of this file in anticipation of setting a hearing date, we determined that a hearing would not be necessary.

stand allowed.

Claims 15 and 17, which are illustrative of the subject matter on appeal, read as follows:

15. A process of using a cyclodextrin glycosyl transferase, comprising

(a) treating a liquefied starch solution with the cyclodextrin glycosyl transferase at a temperature above 70EC and a pH in the range of 5.0-6.0; and

(b) recovering a cyclodextrin;

wherein the cyclodextrin glycosyl transferase used in the treatment is derived from a strain of Clostridium and has a pH optimum of about 5.0 and a temperature optimum in the range of 80-85EC.

17. A process according to claim 16, wherein the liquefied starch solution is treated with the cyclodextrin glycosyl transferase at a temperature above 85EC.

The prior art reference relied on by the examiner is:

Japanese Unexamined Patent Application 52-25043 Feb. 24, 1977
(Assignee Japan Maize Products Co. Ltd.)(Maize)

The issues presented for review are:

(1) Whether the examiner erred in rejecting claims 15, 16 and 18 through 22 under 35 U.S.C. § 103 as unpatentable over Maize; and

(2) Whether the examiner erred in rejecting claim 17 under 35 U.S.C. § 112, first paragraph, as based on a non-enabling disclosure.

On consideration of the record, we reverse both of the examiner's rejections.

DISCUSSION

In resolving questions of obviousness, a decision-maker must consider the claimed subject matter as a whole. 35 U.S.C. § 103. Here, independent claim 15 recites a process of treating a liquefied starch solution with cyclodextrin glycosyl transferase “wherein the cyclodextrin glycosyl transferase used in the treatment is derived from a strain of Clostridium and has a pH optimum of about 5.0 and a temperature optimum in the range of 80-85EC.” Further, according to claim 15, the treating step is carried out “at a temperature above 70EC.” Manifestly, the Maize reference relied on by the examiner constitutes insufficient evidence to support a conclusion of obviousness of claims containing those limitations.

The Maize disclosure, like applicant's specification, relates to a process for enzymatically converting a liquefied starch solution to cyclodextrin using cyclodextrin glycosyl transferase. Maize, however, discloses cyclodextrin glycosyl transferase produced by Bacillus unlike applicant's cyclodextrin glycosyl transferase “derived from a strain of Clostridium” having “a pH optimum of about 5.0 and a temperature optimum in the range of 80-85EC.” See the Maize reference (English translation), page 1, second and third paragraphs; paragraph bridging pages 2 and 3; and page 4, third full paragraph. Further, Maize discloses that cyclodextrinization “is carried out at 30-65EC” (page 3, fourth full paragraph) whereas claim 15 requires “a temperature above 70EC.” On this record,

the examiner has not explained how the prior art would have led a person having ordinary skill from “here to there,” i.e., from the Maize process using cyclodextrin glycosyl transferase produced by Bacillus, where cyclodextrinization is carried out at 30-65EC, to the claimed process using cyclodextrin glycosyl transferase derived from a strain of Clostridium, where cyclodextrinization is carried out above 70EC.

In the advisory action mailed July 25, 1995 (Paper No. 8), the examiner refers to In re Durden, 763 F.2d 1406, 226 USPQ 359 (Fed. Cir. 1985). To the extent that the examiner relies on Durden as providing support for the rejection of claims 15, 16, and 18 through 22 under 35 U.S.C. § 103, that reliance is misplaced. As stated in In re Ochiai, 71 F.3d 1565, 1570, 37 USPQ2d 1127, 1132 (Fed. Cir. 1995), “there are not 'Durden obviousness rejections' or 'Albertson obviousness rejections' [In re Albertson, 332 F.2d 379, 141 USPQ 730 (CCPA 1964)], but rather only section 103 obviousness rejections.” Reliance on per se rules of obviousness, eliminating the need for a fact-specific analysis of claims and prior art, is legally incorrect and must cease. In re Ochiai, 71 F.3d at 1572, 37 USPQ2d at 1133; In re Brouwer, 77 F.3d 422, 426, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995).

Independent claim 15 requires the use of cyclodextrin glycosyl transferase “wherein the cyclodextrin glycosyl transferase used in the treatment is derived from a strain of Clostridium and has a pH optimum of about 5.0 and a temperature optimum in the range of

80-85EC.” Dependent claim 19 requires that the cyclodextrin glycosyl transferase be derived from a strain of Clostridium thermoamylolyticum, and claim 20 recites the strain ATCC 39,252. Likewise, dependent claim 21 requires that the cyclodextrin glycosyl transferase be derived from a strain of Clostridium thermo-hydrosulfuricum, and claim 22 recites the strain ATCC 53,016. The examiner acknowledges that applicant's cyclodextrin glycosyl transferase is novel and unobvious. See the examiner's answer, page 8, first full paragraph, referring to “the novel and patentable cyclodextrin glycosyl transferase.” Also, see page 8, second full paragraph (“[t]he process as claimed employs the novel glycosyl transferase”); page 9, last line, referring to applicant's “novel patentable transferase;” and page 10, lines 2 and 3, referring to “the patentable transferase.” Where, as here, applicant's cyclodextrin glycosyl transferase constitutes an essential limitation in each claim on appeal, and where the examiner acknowledges that applicant's cyclodextrin glycosyl transferase is novel, unobvious, and patentable, it follows that the cited prior art would not have led a person having ordinary skill to the claimed process considered as a whole.

The rejection of claims 15, 16 and 18 through 22 under 35 U.S.C. § 103 as unpatentable over Maize is reversed.

As stated in the examiner's answer, page 12, second paragraph:

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Claim 17 is now rejected under 35 U.S.C. § 112, first paragraph, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The basis for this rejection is somewhat unclear. For example, according to the examiner, claim 17 does not “particularly point out and distinctly claim the subject matter which applicant regards as the invention” even though the examiner has not entered a rejection under 35 U.S.C. § 112, second paragraph.

It is further unclear whether this rejection is predicated on the description or enablement requirement, or both the description and enablement requirements, of 35 U.S.C. § 112, first paragraph. The examiner expresses concern respecting the “open ended” claim language in claim 17 “at a temperature above 85EC.” Nonetheless, claims 15, 16 and 18 through 22 also include “open ended” language (“at a temperature above 70EC”), and the examiner has not entered a rejection of those claims under 35 U.S.C. § 112, first paragraph. For this reason, we find that the examiner's rejection is internally inconsistent. The examiner refers to In re Fisher, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970) for the principle that “the scope of the claims must bear a reasonable correlation to the scope of enablement provided by the specification to persons of ordinary skill in the art.” However, the examiner has not adequately explained why Fisher controls the outcome of this case. On this record, the

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examiner has not established a prima facie case of non-enablement with adequate reasons or evidence.

Accordingly, the rejection of claim 17 under 35 U.S.C. § 112, first paragraph, is reversed.

In conclusion, we do not sustain the examiner's rejection of claims 15, 16, and 18 through 22 under 35 U.S.C. § 103. Nor do we sustain the rejection of claim 17 under 35 U.S.C. § 112, first paragraph. The examiner's decision rejecting claims 15 through 22 is reversed.

REVERSED

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SHERMAN D. WINTERS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
WILLIAM F. SMITH)	
Administrative Patent Judge)	APPEALS AND
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