

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(2) is not binding precedent of the Board.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. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRY L. CORDELL
and
DAVID G. GALER

Appeal No. 1996-3162
Application 08/227,897¹

ON BRIEF

¹ Application for patent filed April 15, 1994. According to appellants, the application is a continuation of Application 07/897,598, filed June 10, 1992, abandoned; which is a continuation of Application 07/602,751, filed October 24, 1990, abandoned; which is a continuation of Application 07/062,482, filed June 15, 1987, abandoned; which is a continuation-in-part of Application 06/743,529, filed June 11, 1985, now U.S. Patent No. 4,691,846, issued September 8, 1987.

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Before CALVERT, PATE and McQUADE, Administrative Patent Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 to 16, all the claims remaining in the application.

The claims on appeal are drawn to a method for gasifying solid organic materials, and are reproduced in the appendix of appellants' brief.²

The references applied in the final rejection are:

Boutillier	835,847	Nov. 13, 1906
Evans	1,267,646	May 28, 1918
Yamazaki et al. (Yamazaki)	2,088,679	Aug. 3, 1937
Schrage	2,344,328	Mar. 14, 1944
Söderlund et al. (Söderlund)	2,678,615	May 18, 1954
Caughey	4,030,895	June 21, 1977
Virr	4,465,022	Aug. 14, 1984
Payne	4,531,462	July 30, 1985

The appealed claims stand finally rejected as follows:

² On page 2 of the answer, the examiner notes errors in the copy of claims 13 and 16 in the appendix. All references herein to appellants' brief are to the brief filed on November 20, 1995.

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- (1) Claims 1 to 16, unpatentable for failure to comply with the first and second paragraphs of 35 U.S.C. § 112;
- (2) Claims 1 to 11, unpatentable over Boutillier in view of Yamazaki, under 35 U.S.C. § 103;
- (3) Claims 12 and 14, unpatentable over Boutillier in view of Yamazaki, Caughey and Schrage, under 35 U.S.C. § 103;
- (4) Claim 13, unpatentable over Boutillier in view of Yamazaki, Caughey, Payne and Söderlund, under 35 U.S.C. § 103;
- (5) Claim 15, unpatentable over Boutillier in view of Yamazaki and Evans, under 35 U.S.C. § 103;
- (6) Claim 16, unpatentable over Boutillier in view of Yamazaki, Evans and Virr, under 35 U.S.C. § 103.

Rejection (1)

This rejection consists of two parts:

- (i) a lack of compliance with the enablement requirement of § 112, first paragraph, and with the second paragraph of § 112, as to certain language in claim 1;
- (ii) a lack of compliance with the second paragraph of § 112, in that claims 13 and 16 are indefinite because the term "said further remaining portion" therein lacks antecedent basis.

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Since appellants have not presented any argument as to part (ii) in their brief, it will be summarily sustained.

Turning to part (i), the language of claim 1 with which this part is concerned reads:

establishing a gaseous effluent flow path within said primary oxidation chamber whereby a portion of said gaseous effluent repeatedly flows in a recirculating upward and downward direction through said heated solid organic

materials to enhance continuous oxidation of said solid organic materials, and a further portion of said gaseous effluent flow is advanced in a direction outward from said primary oxidation chamber.

The basis of the rejection, as stated on page 4 of the examiner's answer, is that this language

has no clear meaning and is not enabled by the original disclosure. In this regard note page 10, line 11 of the specification indicates the air appears "to repeatedly flow up and down". There is no disclosure to indicate that the gaseous effluent flow comprises separate portions which are caused to flow as claimed. Indeed, it is not clear how one skilled in the art could ensure that such a flow pattern was duplicated. How, does one take care of the essential buildup of the portion in

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repeated recirculation flow? This language is also misdescriptive since even the gas caused to recirculate will eventually be presumably advanced outward. The specification does not teach how to assure obtaining the claimed flow pattern where one portion is in circulation, while another portion [is] removed.

In determining, first, whether the language in question has a clear meaning, it is fundamental that it cannot be read apart from and independent of the supporting disclosure on which it is based, but rather must be read in light of that disclosure. In re Cohn, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971). The definiteness of the language must be analyzed in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one of ordinary skill in the art. In re Merat, 519 F.2d 1390, 1394, 186 USPQ 471, 474 (CCPA 1975).

In the present case, appellants disclose that in the operation of the primary oxidation chamber 400, as shown in Fig. 5 (specification, page 10, lines 10 to 16):

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The air which is added to the primary oxidation chamber 400 through the annular air distributor 409 appears to repeatedly flow up and down through the mass of feed material M in the primary oxidation chamber 400, as is illustrated by the arrows A and B in Figure 5, this continuous recirculation of air, which progressively changes in composition to the gaseous oxidized feed material, being facilitated by the hemispherical shape of the dome 404 of the primary oxidation chamber 400.

They further disclose that the recirculating effect may be enhanced by the use of vertical flutes 413 in the chamber wall (page 10, lines 16 to 20). At the same time, the incompletely oxidized gaseous effluent passes from chamber 400 through duct 412 to secondary oxidation chamber 600 (page 9, lines 15 to 22; page 11, lines 1 to 3).

The examiner interprets the claim 1 language in question as calling for the establishment of "a split flow of gaseous effluent with one portion repeatedly recirculating and another further portion directed in an outward direction" (answer, page 7). Thus, as claimed, according to the examiner, one portion of the effluent recirculates, apparently

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for the duration of the process, while another, separate portion advances outward. We do not consider, however, that one of ordinary skill in the art, reading the claim language in light of the disclosure, would reach the examiner's interpretation. Rather, one of ordinary skill would recognize, as the examiner himself states on page 7 of the answer, that "the gases within the primary oxidation chamber will eventually be advanced outward thereof in carrying out the process with the addition of air and organic material." Therefore, one of ordinary skill would not interpret the language in question as requiring that the recited "portion" and "further portion" of the gaseous effluent remain separate entities throughout the process, but would interpret the recited "further portion" as inclusive of gaseous effluent which previously had been recirculated as part of the first recited "portion." Thus interpreted, claim 1 would meet the requirements of § 112, second paragraph, since it would reasonably apprise those of skill in the art of its scope. In re Warmerdam, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994).

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We also conclude that, with claim 1 given the foregoing interpretation, as we believe it must be, the disclosure of the application as filed meets the enablement requirement of the first paragraph of § 112. As noted above, appellants disclose, inter alia, that the recirculation in primary oxidation chamber 400 is facilitated by the hemispherical shape of the chamber dome 404, and is enhanced by using vertical flutes 413. We see no reason why this disclosure would not enable one of ordinary skill to practice the claimed "establishing a gaseous effluent flow path" step of the method of claim 1 without undue experimentation. Cf. National Recovery Techs. Inc. v. Magnetic Separation Sys. Inc., 166 F.3d 1190, 1196, 49 USPQ2d 1671, 1676 (Fed. Cir. 1999).

Part (i) of rejection (1) therefore will not be sustained.

Rejection (2)

On pages 4 and 5 of the examiner's answer, the basis of this rejection as to claim 1 is stated as:

Boutillier discloses a bottom feed gas producer for feeding solid feed upwardly

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and forming a mass thereof within a chamber of the producer and adding an oxidant (18) for heating and gasification. The gases leaving (17) of Boutillier are transferred to an energy recovery device, such as an engine. A gaseous flow (45) is also established. It

would have been obvious to use a domed top reactor structure in Boutillier to obtain gas recirculation as claimed, Yamazaki et al showing such to be a well known gasifier option.

Also, on page 9 of the answer:

Regarding the argued recirculatory flow path at page 20 of the brief, the claims are not considered to call for any specific amount of recirculation. As so construed, recirculation, as claimed, is considered obvious from the teachings of Boutillier and Yamazaki et al. While it is agreed that Yamazaki et al remove gases from a lower region of the gasifier and not from the top portion as does Boutillier the teachings of Yamazaki et al regarding recirculating flow are considered applicable to Boutillier. This is no [sic: so] since, whether the gases are removed near the top of a recirculating flow area or at another lower location does not change the nature of the recirculating flow.

We will not sustain this rejection. In the first place, claim 1 requires that a portion of the gaseous effluent

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repeatedly flows in a recirculating upward and downward direction, whereas in Yamazaki the gaseous effluent simply flows upward through the material ("remaining combustibles") on grate 5, downward through the material in retort 3, and then out through exit 9. Since Yamazaki does not disclose gas flow wherein the gas repeatedly flows upward and downward, the method

of claim 1 would not be met even if Boutillier and Yamazaki were combined as proposed by the examiner.

Secondly, we do not in any event consider the rejection to be well taken. As appellants point out in their brief, the gas flow in Boutillier is upward through the combustible material and then out the top of the retort, while in Yamazaki air is introduced at the bottom of the furnace, flows upward through grate 5, down through retort 3, and then out the bottom of the furnace. The examiner asserts that it would have been obvious to modify Boutillier's apparatus in view of Yamazaki's teachings regarding recirculating flow, but

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it is not clear how one of ordinary skill would apply any such teachings. To do so would require a wholesale reconstruction of the Boutillier device, which in our view would not have been suggested by Yamazaki, but rather would result only from impermissible hindsight gleaned from appellants' own disclosure.

Accordingly, rejection (2) will not be sustained.

Rejections (3), (4), (5) and (6)

These rejections will not be sustained, since the additional references cited therein do not overcome the deficiency in the combination of Boutillier and Yamazaki, discussed above with regard to rejection (2).

Rejections Pursuant to 37 CFR § 1.196(b)

Pursuant to 37 CFR § 1.196(b), we enter the following new grounds of rejection.

(A) Claims 2 to 5 and 7 to 14 are rejected for failure to comply with the first paragraph of 35 U.S.C. § 112, in that there is no written description in the original application as

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filed for: (a) the recitation in claim 2 that (emphasis added) "said solid residue is continuously transferred out of said primary oxidation chamber" (only periodic transfer is disclosed, see specification, page 13, lines 3 and 22), and (b) the recitation in claim 3 that "said solid residue is continuously transferred to a device to recover the thermal energy therein." This problem appears to have arisen when, in the amendment filed on November 18, 1991, appellants changed the expression "gasified solid organic materials are" in claims 2 and 3 to --solid residue is--.

(B) Claim 14 is rejected for failure to comply with 35 U.S.C. § 112, second paragraph. The scope of this claim is indefinite, because the recitation therein that the grate is periodically actuated to remove non-combustible solid residue from the primary oxidation chamber is inconsistent with the recitation in parent claim 2 that the solid residue is continuously transferred out of the primary oxidation chamber.

Conclusion

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The examiner's decision to reject claims 1 to 16 is affirmed as to the rejection of claims 13 and 16 under 35 U.S.C. § 112, second paragraph, but is otherwise reversed. Claims 2 to 5 and 7 to 14 are rejected pursuant to 37 CFR § 1.196(b).

In addition to affirming the examiner's rejection of one or more claims, this decision contains new grounds of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision. . . .

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new

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grounds of rejection to avoid termination of proceedings (37
CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellants elect prosecution before the examiner and this does not result in allowance of the

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application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). AFFIRMED-IN-PART, 37 CFR § 1.196(b)

	IAN A. CALVERT)	
	Administrative Patent Judge)	
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PATENT)	BOARD OF
	WILLIAM F. PATE, III)	APPEALS AND
	Administrative Patent Judge)	
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