

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLAF JACH

Appeal No. 2001-2188
Application No. 09/085,300

ON BRIEF

Before JERRY SMITH, RUGGIERO, and SAADAT, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 7-10, 12, and 14-19. Claims 11 and 13 have been canceled. Claims 1-6 stand withdrawn from consideration as being directed to a non-elected invention.

The claimed invention relates to a method of calibrating sensor elements for a limit current probe in which a value of pump current for a selected sensor element is measured at a preselected pump voltage. An optimum diameter of a gas intake

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orifice for an entire lot of sensor elements is determined by correlating an optimum pump current value with the measured pump current and the diameter of the intake orifice of the selected sensor element. The diffusion resistance of a diffusion barrier of the sensor elements is adjusted by modifying the diameter of the gas intake orifice in accordance with the determined optimum gas intake orifice diameter.

Claim 7 is illustrative of the invention and reads as follows:

7. A method of calibrating sensor elements for limit current probes, comprising the steps of:

(a) measuring a value of a pump current of one of the sensor elements at a selected pump voltage, a gas intake orifice of the one of the sensor elements having a predetermined diameter;

(b) correlating the measured value of the pump current with the predetermined diameter of the gas intake orifice and an optimum pump current; and

(c) calibrating the sensor elements as a function of the correlating step, the calibrating step being performed during a manufacturing process of the sensor.

No prior art references have been relied upon by the Examiner.

As the sole rejection by the Examiner before us, claims 7-10, 12, and 14-19 stand finally rejected under 35 U.S.C. § 112, first paragraph, as being based on an inadequate disclosure.

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Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs¹ and Answer for their respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner, and the evidence and arguments relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that Appellant's specification in this application describes the claimed invention in a manner which complies with the requirements of 35 U.S.C. § 112. Accordingly, we reverse.

At the outset, we note that, from the arguments presented in the Answer, the Examiner is relying on both the "written description" and "enabling" clauses of the first paragraph of 35

¹ The Appeal Brief was filed September 18, 2000 (Paper No. 19). In response to the Examiner's Answer dated November 17, 2000 (Paper No. 20), a Reply Brief was filed January 23, 2001 (Paper No. 21), which was acknowledged and entered by the Examiner as indicated in the communication dated January 30, 2001 (Paper No. 22).

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U.S.C. § 112 in establishing a basis for the rejection. The Examiner's assertion of lack of compliance with the "written description" requirement was a result of amendments to the original disclosure and claims as detailed at pages 2-4 of the Answer. The function of the description requirement of the first paragraph of 35 U.S.C. § 112 is to ensure that the inventor has possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him. In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976).

Initially, the Examiner contends that the amendment to pages 3 and 6 of the specification relating to the mathematical symbol used to signify the relationship between the diameter d_b of the gas intake orifice and the pump current I_p resulted in an improper attempt to add new matter to the specification. In making this amendment, in which the symbol " \cong ," i.e., a single wavy line over two horizontal lines, used in the original disclosure was changed to two wavy lines over a single horizontal line, Appellant attempted to conform the present disclosure to the symbol used in the corresponding German priority applications.

We agree with Appellant that the symbol change in question is merely an attempt to clarify any possible ambiguity between

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the symbology used in the U.S. and German applications. An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but also the appropriate correction. In re Oda, 443 F.2d 1200, 1203, 170 USPQ 268, 270-71 (CCPA 1971). In our view, whatever the mathematical symbol used, the relationship between the gas intake diameter and the pump current is clear when considering the entirety of Appellant's disclosure. From the detailed disclosure at pages 5 and 6 of Appellant's specification, the described ratio relationship establishes that the measured value of pump current I_M at a predetermined gas intake orifice diameter D_p is related in the same way that an optimum or target pump current I_{OPT} is related to an optimum gas intake orifice diameter D_{OPT} .

We further agree with Appellant that, contrary to the Examiner's contention, the term "optimum pump current" is described with sufficient particularity in the specification so as to satisfy the written description requirement of the statute. It is apparent from our reading of the specification that the "optimum pump current" is a target value that is determined dependent on various factors including, for example, the desired exhaust gas ratio for a particular application. It is also clear

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from Appellant's disclosure that in the disclosed ratio relationship, the optimum gas intake orifice diameter can be determined since it has the same relationship to the "optimum" or target pump current as does the known value of measured pump current to the known value of the selected gas intake orifice diameter. "It is not necessary that the application describe the claim limitations exactly, . . . but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations." In re Wertheim, 541 F.2d at 262, 191 USPQ at 96 citing In re Smythe, 480 F.2d 1376, 1382, 178 USPQ 279, 284 (CCPA 1973). Furthermore, the Federal Circuit points out that "[i]t is not necessary that the claimed subject matter be described identically, but the disclosure originally filed must convey to those skilled in the art that applicant had invented the subject matter later claimed." In re Wilder, 736 F.2d 1516, 1520, 222 USPQ 369, 372 (Fed. Cir. 1984), cert. denied, 469 U.S. 1209 (1985), citing In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983). In our opinion, under the factual situation presented in the present case, Appellant has satisfied the statutory written description requirement because he was clearly in possession of the invention at the time of filing of the application.

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As to the Examiner's assertion of lack of enablement of Appellant's disclosure, we note that, in order to comply with the enablement provision of 35 U.S.C. § 112, first paragraph, the disclosure must adequately describe the claimed invention so that the artisan could practice it without undue experimentation. In re Scarbrough, 500 F.2d 560, 566, 182 USPQ 298, 303 (CCPA 1974); In re Brandstadter, 484 F.2d 1395, 1404, 179 USPQ 286, 293 (CCPA 1973); and In re Gay, 309 F.2d 769, 774, 135 USPQ 311, 316 (CCPA 1962). If the Examiner has a reasonable basis for questioning the sufficiency of the disclosure, the burden shifts to Appellant to come forward with evidence to rebut this challenge. In re Doyle, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973), cert. denied, 416 U.S. 935 (1974); In re Brown, 477 F.2d 946, 950, 177 USPQ 691, 694 (CCPA 1973); and In re Ghiron, 442 F.2d 985, 992, 169 USPQ 723, 728 (CCPA 1971). However, the burden is initially upon the Examiner to establish a reasonable basis for questioning the adequacy of the disclosure. In re Strahilevitz, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982); In re Angststadt, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976); and In re Armbruster, 512 F.2d 676, 677, 185 USPQ 152, 153 (CCPA 1975).

The Examiner has questioned (Answer, page 5) the sufficiency of Appellant's disclosure in that " . . . the originally filed

disclosure does not provide sufficient teachings to allow for the practice of the claimed subject matter without undue experimentation.” In particular, the Examiner questions (id., at 4) how the optimum surface area value of 0.0819 mm^2 is determined from the relationships set forth at page 6 of Appellant’s specification. It is apparent to us, however, that, following Appellant’s description of the ratio relationship between measured pump current at a preselected surface area and an optimum surface area at an optimum or target pump current, the calculation is straight forward. In other words, since the preselected surface area 0.0625 mm^2 is related to measured pump current 3.65 mA in the same way that the target pump current of 4.8 mA is related to optimum surface area, then solving for the unknown optimum surface area would yield a result of 0.0819 mm^2 .²

² While Appellant’s describes a ratio relationship of target diameter to preselected diameter of gas intake orifice at page 3 of the specification, the ratio relationship described at page 6 of the specification utilizes a surface area parameter of the gas intake orifice which takes into consideration the thickness h of the diffusion barrier.

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In view of the above, we find that the Examiner has not established a reasonable basis for challenging the sufficiency of the instant disclosure. While some experimentation by artisans may be necessary in order to practice the invention, we find that such experimentation would not be undue.

In conclusion, in view of the above discussion, we will not sustain the rejection of claims 7-10, 12, and 14-19 under the first paragraph of 35 U.S.C. § 112. Accordingly, the Examiner's decision rejecting claims 7-10, 12, and 14-19 is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOSEPH F. RUGGIERO)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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