remains a genuine issue of material fact concerning the interpretation of the claims, we cannot determine whether those claims are indefinite. Consequently, we deny Waterloo's motion that claim 22 and claims 31 through 38 are invalid due to indefiniteness.

C. Limitations on Interpretation of Means-Plus-Function Elements

In its motion, Waterloo asks that if this court finds claims 22 and 31 through 38 to be definite, that we declare that these claims are limited to means which perform the same function and are structurally equivalent to means disclosed in the '798 patent. Haworth argues that such an interpretation would impermissibly limit the claims to the best mode disclosure.

We need not decide this question for two reasons. First, we interpret the terms "first means" and "second means" in claims 22 and 31 through 38 as not claiming means-plus-function elements. Lacking a means-plus-function element, the critical clauses are not subject to the restriction of 35 U.S.C. §112, ¶6, at least with reference to the first means and the second means. Second, all Waterloo really is asking is that we restate the law. At trial, Haworth will have the burden of proving infringement by a preponderance of evidence. *See Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1535, 19 U.S.P.Q.2d 1367, 1369 (Fed. Cir. 1991). To prove literal infringement, Haworth must show that the structure of Waterloo's alleged infringing apparatus is the same or *structurally equivalent* to the means described in the '798 patent. *See id.* at 1536, 19 U.S.P.Q.2d at 1370.[7] At trial, we can consider the issue in the context of infringement rather than as an abstract proposition at this time.

CONCLUSION

Waterloo has not established that there is no genuine issue of material fact concerning the interpretation by one of ordinary skill in the art, of the terms "first means" and "second means" in claims 22 and 31 through 38. Consequently, Waterloo is not entitled to summary judgment and we deny its motion.

[7] The elements in the accused device also must perform the same function as the claimed means. *See Intel Corp.*, 946 F.2d at 841, 20 U.S.P.Q.2d at 1178.

U.S. Patent and Trademark Office
Board of Patent Appeals and Interferences

Ex parte Porter

No. 92-1668

Decided September 29, 1992
Released November 4, 1992

PATENTS

1. Patentability/Validity — Specification — Written description (§115.1103)

Claims for nozzle and method for removing catalyst from reactor tube were improperly rejected for being based on specification which fails to provide adequate written description of invention as required by 35 USC 112, first paragraph, since specification discusses prior art and in particular prior patent which addresses problem of catalyst removal, and since person of ordinary skill in art would understand operation of invention from specification in view of level of knowledge described; rejection for failure to disclose method was likewise improper, since method is inherent in operation of apparatus of invention.

2. Patentability/Validity — Specification — Written description (§115.1103)

Claims for nozzle and method for removing catalyst from reactor tube were improperly rejected under 35 USC 112, first paragraph, for being based on specification which improperly states that more than three openings in nozzle are present, since recitations of number of nozzle openings were present in original claims, since original claims constitute part of original disclosure, and since rejection of claims as lacking descriptive support is thus clear legal error; Section 112 rejection on ground that specification does not show "tear-shaped" nozzle openings was likewise improper, since surface shape of openings is illustrated substantially in form of "tear" or tear drop in drawing.

3. Patentability/Validity — Specification — Claim adequacy (§115.1109)

Claims for nozzle and method for removing catalyst from reactor tube are not invalid for indefiniteness under 35 USC 112, second paragraph, since claim term "the controlled fluid" finds reasonable antecedent basis in previously recited phrase "controlled stream of fluid," so that scope of claim would be reasonably ascertainable by those skilled in art, and since number of fluid discharge openings in nozzle is recited in claims in reasonably clear manner.

4. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Claims for nozzle and method for removing catalyst from reactor tube are not obvious in view of prior patent, since reference does not teach or suggest nozzle having plurality of unevenly spaced smaller fluid discharge openings positioned around its circumference, and does not disclose embodiment in which nozzle will inherently move against wall of tube when fluid is passed through discharge openings, but instead shows discharge channels which are radially oriented and evenly distributed around circumference of nozzle.

5. Patentability/Validity — Specification — Claim adequacy (§115.1109)

Claim for method of removing catalyst and bead material from reactor tube "which comprises utilizing the nozzle" described in independent claim of application is not invalid under 35 USC 112 for being ambiguous or for failing to provide steps defining method, since format in which claim is drafted, although more often used in chemical arts, is acceptable, and since claim clearly recites step of "utilizing" nozzle and thus includes method step.

6. Patentability/Validity — Specification — Claim adequacy (§115.1109)

Claim for method of removing catalyst and bead material from reactor tube "which comprises utilizing the nozzle" described in independent claim of application is proper dependent claim under 35 USC 112, fourth paragraph, since Patent and Trademark Office, for fee calculation purposes, initially treats any claim which refers to another claim as dependent in accordance with Manual of Patent Examining Procedure 608.01(n), and since last paragraph of that section specifically states that claims in nature of claim at issue may be proper dependent claims; claim which incorporates by reference all subject matter of another claim, i.e., is not broader than that claim in any respect, will be regarded as complying with fourth paragraph of 35 USC 112.

Appeal from final rejection of all claims remaining in application for patent (Ernest G. Cusick, primary examiner).

Patent application of Troy G. Porter, Jr., serial no. 595,164, filed Oct. 10, 1990 (nozzle for use in a catalyst unloader). From final rejection of all claims remaining in application, applicant appeals. Reversed.

John F. Levis, Parsippany, N.J., for appellant.

Before Stahl, Lovell, Lindquist, Steiner, Goolkasian, Pendegrass, Cohen, Lyddane, and Thomas, examiners-in-chief.

Pendegrass, examiner-in-chief.

This is a decision on appeal from the final rejection of claims 2, 3, 6, 7 and 8, all of the claims pending in the application.

An adequate understanding of the invention can be had from a reading of claim 7, which is illustrative of the subject matter on appeal and which is reproduced as follows:

7. A nozzle suitable for use in discharging a controlled stream of fluid into a reactor tube of a catalyst unloading apparatus for removing non-packed, non-bridging, and packed bridging flowable catalyst and bead material from within the reactor tube, said nozzle comprising:

a main channel running medially along the length of said nozzle for entry and exit of the controlled fluid; and

a plurality of unevenly spaced smaller fluid discharge openings positioned around the circumference of said nozzle at such an angle to the central axis of the nozzle so as to discharge some of the controlled fluid in an upward and sideward thrusting manner, such that a sideward and downward thrust is exerted against said nozzle, thereby forcing the nozzle to position itself in a downward manner against the side of the reactor tube and allowing both the catalyst and the bead material to be removed in one continuous operation.

Claim 6 is also reproduced as it presents an issue that needs clarification and the panel deciding this appeal has been expanded to decide such issue.

6. A method for unloading non-packed, non-bridging and packed, bridging flowable particle catalyst and bead material from the opened end of a reactor tube which comprises utilizing the nozzle of claim 7.

The reference of record relied on by the examiner is:

Larsson 4,756,324 July 12, 1988

Claims 2, 3, 6, 7 and 8 stand rejected under 35 USC §112, first paragraph, as

being based on a specification that fails to provide an adequate description of the invention. The examiner considers the specification to be deficient in not disclosing a specific means to create a pressure differential, in not specifying how the nozzle enters the head assembly T, in not disclosing a "method," in setting forth that more than three openings in the nozzle are present and in not stating that the nozzle openings are "tear-shaped."

Claims 2, 3, 6, 7, and 8 stand rejected under 35 USC §112, second paragraph, as being directed to indefinite subject matter. The examiner considers the term appearing in claim 7 of "the controlled fluid" to be without proper antecedent basis as the claim previously sets forth "a controlled stream of fluid." The examiner considers that the term "plurality of," appearing in claims 2, 3 and 8, is without proper antecedent basis.

The examiner considers the scope of claim 6 "ambiguous" because claim 6 is a method claim depending from claim 7, which is directed to a nozzle. The examiner further considers that claim 6 does not "provide any steps to define the 'method'."

Claim 6 stands further rejected under 35 USC §112, fourth paragraph, as not being a proper dependent claim.

Claims 2, 3, 6, 7 and 8 stand rejected under 35 USC §103 as being unpatentable over Larsson. As we understand the examiner's rejection, the examiner considers the Larsson nozzle structure, as illustrated in Figs. 3A, 3B and 4, to correspond to the claimed subject matter except that the openings A_2, B_2, C_2, D_2 in such nozzle structure are not unevenly spaced. The examiner considers that the nozzle structure illustrated in Figs. 1 and 1A of the Larsson patent, identified as "PRIOR ART," to be unevenly spaced, and that such teachings of the nozzle structure of Figs. 1 and 1A would have made it obvious to modify the nozzle structure of Figs. 3A, 3B and 4.

After carefully reviewing the record in this application, we reach the conclusion that none of the examiner's rejections is sustainable.

[1] With regard to the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §112, first paragraph, the specification discusses the prior art and, in particular, U.S. Patent No. 3,916,960, that addresses the problem of removal of catalyst from reactor tubes. The prior art used lances that were inserted into reactor tubes past deformable seals to blast catalyst particles loose by discharging gas under pressure through the lances. A vacuum head was maintained adjacent the top of the reactor tube by means of a vacuum-producing means. Against this background of the exemplary knowledge of one of ordinary skill in the art, we have no difficulty in finding that one of ordinary skill in the art would know how to insert the nozzle of the instant invention into a sealed head and how to maintain a pressure differential by using a vacuum-producing means at one end of a reactor tube and pressurized gas jetting through a nozzle. With respect to the examiner's conclusion that no method is disclosed, the operation of the apparatus of the invention is inherently a method.

[2] As to the number of openings in the claimed nozzle, we note that such recitations of the number of nozzle openings were present in original claims 2 and 3. Since original claims constitute part of the original disclosure, *In re Anderson*, 471 F.2d 1237, 176 USPQ 331 (CCPA 1973), the examiner's rejection of claims 2 and 3 under 35 USC §112, first paragraph, as lacking descriptive support is clear legal error.*

With respect to claim 8, we disagree with the examiner's conclusion that the drawings do not show tear-shaped openings. The surface shape of the openings 4, 5, and 6, illustrated in Fig. 2 of the instant drawings, are substantially in the form of a "tear" or tear drop, in our opinion.

Accordingly, we will not sustain the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §112, first paragraph.

[3] With respect to the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §112, second paragraph, we do not agree with the examiner's stated reasons that the claims are indefinite. The term "the controlled fluid", appearing in claim 7, finds reasonable antecedent basis in the previously recited "controlled stream of fluid," in our opinion. Stated differently, the scope of claim 7 would be reasonably ascertainable by those skilled in the art. Note, *In re Goffe*, 526 F.2d 1393, 188 USPQ 131 (CCPA 1975); *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971); *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (CCPA 1970). Likewise, the manner in which the number of fluid discharge openings are recited in dependent claims 2 and 3 is reasonably clear, in our opinion.

Accordingly, we will not sustain the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §112, second paragraph.

[4] In regard to the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §103, we do not agree with the examiner that the Larsson patent teaches or suggests a nozzle having "a plurality of unevenly spaced smaller fluid discharge openings positioned around the circumference of a nozzle," or that Larsson discloses any embodiment in which the nozzle will inherently move against the tube into which it is inserted when fluid is passed through discharge openings. The specification of the Larsson patent, in describing the prior art embodiment illustrated in Figs. 1 and 1A, sets forth that six to eight channels are provided in the nozzle (column 1, lines 33 and 34). Fig. 1A is inconsistent with the specification in illustrating seven channels. These channels, however, are illustrated as being *evenly spaced* or evenly distributed about the circumference of the nozzle and as being radially oriented. Such distribution and orientation will result in a dynamic balance when fluid is passed through the channels. In our opinion, the examiner has misinterpreted the disclosure of the Larsson patent and has failed to provide a proper factual basis for reaching a conclusion of obviousness. Note, *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967).

Accordingly, we will not sustain the rejection of claims 2, 3, 6, 7 and 8 under 35 USC §103.

Turning to the rejection of claim 6 under 35 USC §112, second and fourth paragraphs, we do not agree with the examiner that the claim is either ambiguous or non-statutory.

[5] The manner in which claim 6 has been drafted has been an acceptable format for years. The format of claim 6 apparently is used more often in chemically related applications; for example, note claim 11 reproduced in the decision of *In re Kuehl*, 475 F.2d 658, 177 USPQ 250 (CCPA 1973) and claims 11 and 14 reproduced in *Ex parte Blattner*, 2 USPQ2d 2047 (BPAI 1987). Contrary to the examiner's assertion that claim 6 has no method step, the claim clearly recites the step of "utilizing." Such single-step method claims were present in *In re Kuehl*, *supra*, (contacting) and *Ex parte Blattner*, *supra*, (administering, in claim 14).

[6] While claim 6 could be construed as an independent claim, drafted in a short-hand format to avoid rewriting the particulars of the nozzle recited in claim 7, for fee calculation purposes the Office initially treats all claims that refer to another claim as a dependent claim. M.P.E.P. §608.01(n), (Rev. 8, May 1988) page 600-40 under the heading, TREATMENT OF IMPROPER DEPENDENT CLAIMS.

We note that the above-referenced section of M.P.E.P. §608.01(n) suggests that where an examiner considers a claim to be an improper dependent claim, the examiner should require cancellation of that claim. Such requirement, in our opinion, properly treats a claim considered to be an improper dependent claim as an administerial function or formal matter wherein the examiner's ruling can be challenged by way of petition under 37 CFR §1.181 rather than by appeal under 37 CFR §1.191. How a claim is to be treated, for fee calculation purposes, is a matter solely within the jurisdiction of the Commissioner, in our opinion.

We further note that M.P.E.P. § 608.01 (n), page 600-40, last paragraph under the heading INFRINGEMENT TEST, specifically sets forth that claims of the nature of claim 6 in this application may be proper dependent claims.

Our decision herein, when considered with *Ex parte Moelands*, 3 USPQ2d 1474 (BPAI 1987) should make it clear that we do regard a claim that incorporates by reference *all* of the subject matter of another claim, that is, the claim is not broader in any respect, to be in compliance with the fourth paragraph of 35 USC §112.

From the above discussion, it follows that we will not sustain the rejection of claim 6 under either the second or fourth paragraph of 35 USC §112.

The decision of the examiner is reversed.

REVERSED.

* M.P.E.P. §608.01(o) sets forth that the specification should be objected to for failing to provide proper antecedent basis for the terminology of the claims. Also, compare *In re Marzocchi*, 394 F.2d 571, 157 USPQ 504 (CCPA 1968).

U.S. Patent and Trademark Office
Board of Patent Appeals and Interferences

Brown v. Bravet

Interference No. 102,791

Decided August 18, 1992
Released September 21, 1992

PATENTS

1. Practice and procedure in Patent and Trademark Office — Interference — Rules and rules practice (§110.1704)

Practice and procedure in Patent and Trademark Office — Interference — Burden of proof (§110.1707)

Decision of examiner-in-chief dismissing preliminary motion of party in interference