

United States District Court,
S.D. New York.

JOHNSON ELECTRIC NORTH AMERICA INC. and Johnson Electric Industrial Manufactory, Ltd,
Plaintiffs and Counterclaim Defendants.

v.

MABUCHI MOTOR AMERICA CORP. and Mabuchi Motor Co., Ltd,
Defendants and Counterclaim Plaintiffs.

No. 88 Civ. 7377(JES)

Dec. 10, 1999.

Electric motor manufacturer sought declaratory judgment that competitor's patent was unenforceable as obtained through inequitable conduct. Defendant counterclaimed for infringement. The District Court, Sprizzo, J., held that defendant's earlier, unpatented electric motor was material but cumulative over prior art before patent examiner, and thus failure to disclose it was not inequitable conduct sufficient to hold patent unenforceable.

Judgment for defendant.

4,574,215. Construed.

Stephen N. Weiss, Adam B. Landa, Graham & James LLP, New York, New York, for Plaintiffs and Counterclaim Defendants.

Robert B. Davidson, John Kakinuki, Baker & McKenzie, New York, New York, for Defendants and Counterclaim Plaintiffs.

Bradford Kile, Kile & Singh, LLP, Washington, D.C., for Defendants and Counterclaim Plaintiffs.

MEMORANDUM OPINION AND ORDER

SPRIZZO, District Judge.

Plaintiffs and counterclaim-defendants, Johnson Electric North America, Inc. ("JENA") and Johnson Electric Manufactory, Inc., Ltd. ("JEI") (collectively "Johnson") bring the instant action seeking, *inter alia*, a declaratory judgment that defendants' United States Patent No. 4, 574, 215 ("the '215") is unenforceable as the result of inequitable conduct. Defendants and counterclaim-plaintiffs, Mabuchi Motor America Corp. ("Mabuchi America") and Mabuchi Motor Co., Ltd. ("MMC") (collectively "Mabuchi Motor"), bring a counterclaim for a declaration of infringement by Johnson of the '215 patent, permanent injunctive relief, and damages. On Mabuchi Motor's motion, a *Markman* hearing was held to construe the scope of the claims

10 and 11 of the '215 patent. The Court also heard at the same time Johnson's claim of inequitable conduct by Mabuchi Motor in the prosecution of the '215 patent. During the course of the hearing and in its post-hearing submissions, Johnson has focused almost exclusively upon its claim of inequitable conduct and has largely ignored the issues of claim construction raised by Mabuchi Motor. Nonetheless, Johnson has not conceded the correctness of Mabuchi Motor's construction of the claims in suit, requiring the Court to address by the instant Memorandum Opinion and Order both the claim construction issues and Mabuchi Motor's alleged inequitable conduct. The following constitutes the Court's findings of fact and conclusions of law on the construction of the patent claims in suit and Johnson's claim of inequitable conduct.

BACKGROUND

The Parties

JEI, a Hong Kong corporation, and JENA, a Connecticut corporation, are in the business of making small motors for a wide variety of products. *See* Amended Complaint ("Am.Compl.") para. 1,4. MMC and Mabuchi America also produce small motors and together are one of Johnson's most important competitors. *See* Amended Answer and Counterclaims in Response to Amended Complaint ("Am. Ans.") para. 4. Mr. Takachi Mabuchi is the president of MMC, a Japanese joint-stock company, and Mabuchi America, a New York corporation. *See* Transcript of Markman Hearing, dated July, 8, 9, 14, 1997 ("Tr.") 10.

The '215 Patent

Mr. Mabuchi was the inventor of the '215 patent that is the subject of this litigation. *See id.* at 11. On March 4, 1986, the '215 patent was duly issued to MMC as assignee of Mr. Mabuchi. *See* Complaint ("Compl.") para. 32. The invention claimed in the '215 patent relates to fractional horse power permanent magnet direct current ("D.C.") motors. A typical D.C. motor contains, among other parts, a rotating interior cylinder, or commutator, located between magnets and connected to three coils. *See* Mabuchi's Memorandum of Law in Support of Application Requesting a Markman Hearing, dated June 20, 1997 ("Mab.Memo") 4. Two carbon brushes touch the commutator as it rotates to pass electricity to and create magnetic fields around the coils. *Id.* Each brush is mounted on a piece of metal or "terminal strip" that extends at some angle to a point outside of the motor casing, where it is attached to a wire or other means for delivery of electric power. FN1 *Id.* If the brush fails to deliver electricity to or to make continuous contact with the rotating commutator, the motor fails. *See* Tr. 31

FN1. The mechanism used to bring the carbon brush into contact with the commutator is referred to generally as the "brushgear."

The particular invention contained in the '215 patent addressed a problem occurring in Mabuchi Motor's Flat Case ("FC") motors. *See* Tr. 25-26. These FC motors were initially used primarily in toy applications but were later sold for use in automobile accessories, including power door locks and mirrors. *See id.* Prior to the invention disclosed in the '215 patent, the FC motors contained a one-piece brushgearmechanism. *See id.* at 25. The one-piece brushgear consisted of a terminal strip of rigid metal and a carbon brush attached at the end. *See id.* at 30. The terminal strip's rigidity created problems, as the terminals often broke under mechanical pressure. *See id.*

After receiving complaints from customers in the automobile industry, Mr. Mabuchi directed his design team to address the problem. *See* Tr. 26. When the Mabuchi Motor research and development department

was unable to derive a satisfactory solution, Mr. Mabuchi personally became involved in the design process. *See id.* at 28. His efforts produced the invention claimed in the '215 patent. *See id.* at 29.

The '215 patent teaches the use of a two-piece brushgear composed of a terminal strip and a separate commutator contactor strip upon which the carbon brush is mounted. *See Tr.* 29. The terminal and commutator contactor strips are each made with a different material appropriate for their function-flexible material for the terminal strip and resilient material for the commutator contactor strip. *See id.* As described in the specification, the two pieces are then joined together by means of parallel projections contained on the terminal strip. FN2 *See id.* at 35, 54. The parallel projections are bent and crimped onto the edges of the commutator contractor strip to secure the two pieces together. *See id.* The brushgear is bent into an L-shape at the joint and fit in to a corresponding L-shaped slot in the brush holder on the case cover. *See id.* at 35. With the brushgear attached to the brush holder, its terminal strip extends laterally through the motor case. *See id.* at 104.

FN2. The specification is that portion of the patent that includes a description of the invention, including its preferred embodiment, and any drawings. Technically, the claims are also part of the specification, but general usage distinguishes between the specification and the claims as separate parts of the patent. *See* 4 Donald S. Chisum, *Chisum on Patents*, s. 11.02[1](a)-(b) (1999).

Prosecution History of the Patent

On August 16, 1983, Mr. Mabuchi filed an application for a United States patent relating to his design for a two-piece brushgear. *See Am. Ans.* para. 62. In April 1984, the patent examiner denied Mr. Mabuchi's application. *See Plaintiffs' Post Markman Hearing Memorandum ("P. Post Markman")*, Ex. 4. The examiner rejected the originally filed claim 1 as obvious in view of Mabuchi's earlier United States Patent No. 4, 195, 242 ("the '242") and United States Patent 4, 155, 023 ("Hagenlocher"). *See id.* Mabuchi '242 teaches a one-piece, L-shaped brushgear consisting of a terminal and contactor portion. *See id.* The terminal portion is supported by grooves in a brush support, and extends axially from the motor case. *See id.* The examiner explained that although the '242 does not show separate terminal and contactor portions, such a two-piece brushgear design is taught by Hagenlocher. *See id.* Hagenlocher teaches a contactor portion with a brush mounted upon it and a separate terminal portion. *See id.* Each portion extends into a groove of the support means. *See id.* Given the L-shape of the '242 and the two-piece design of Hagenlocher, the examiner found that these two references considered together made Mr. Mabuchi's originally filed claim 1 obvious. *See id.*

In order to avoid rejection, Mr. Mabuchi amended his application for the '215 patent. Since neither the '242 nor Hagenlocher taught projections, Mr. Mabuchi inserted into every claim a limitation claiming the use of projections to join the terminal and commutator contactor strips. As a result of these amendments, the PTO issued the '215 patent in March 1986. *See Compl.* at 14 para. 32. FN3

FN3. The originally filed claim 1, as listed in subparagraph form, contained subparagraphs a-c and was subsequently amended by Mr. Mabuchi to include subparagraph d. Therefore, claim 1 as issued reads as follows:

1. Brushgear for a miniature motor comprising: brush arms each having
 - a. a terminal strip,

- (1) made of a flexible and electrically conductive metal strip,
 - (2) forming a terminal portion adapted to extend through a motor case of the motor, and
 - (3) adapted for external connection; and
- b. a commutator contactor strip,

- (1) made of a highly resistant and electrically conductive metal strip,
 - (2) forming a commutator contactor portion adapted for making electrical contact with a commutator of the motor by means of brush mounted on said commutator contactor strip; and
- c. brush supporting means provided on a case cover of the motor case for supporting said brush arm;

d. said terminal strip having

- (1) a plurality of projections formed by extending the strip,
- (2) said projections being bent and crimped, with said terminal strip and said commutator contactor strip at least partly overlapping to join said terminal and commutator contactor strip together into one piece at a joint.

United States Patent No. 4, 574, 215 ("U.S. Patent No. '215"), dated March 4, 1986, col.4

Alleged Infringement by Johnson

Mabuchi Motor alleges, *inter alia*, that Johnson infringed the '215 patent in violation of 35 U.S.C. s.s. 271, 281, 283 and 284. *See* Am. Ans. para. 61. Mabuchi Motor asserts that Johnson encountered similar problems with breakage of one-piece brushgears. After being unable to solve the problem independently, Mabuchi Motor alleges that Johnson's engineers copied Mabuchi Motor's new, two-piece brushgear design. *See* Mab. Memo 6.

According to Mabuchi Motor, the first infringing brushgear Johnson created infringed upon the '215 patent because it consisted of a terminal strip with four parallel projections that were bent and crimped around corresponding edges of the commutator contactor strip. *See* Am. Ans. para. 72. Mabuchi Motor objected to Johnson's alleged infringement, and Johnson subsequently redesigned its brushgear. *Id.* at para. 72-73. Mabuchi Motor alleges, however, that the changes made to Johnson's first design were merely cosmetic and that Johnson's second design also infringed the '215 patent. *Id.* at para. 73. Again Mabuchi Motor objected to Johnson's design as infringing, and again Johnson altered its design. Mab. Memo 7. Mabuchi Motor concedes that the third Johnson design does not infringe upon the '215 patent. *Id.* Therefore, Mabuchi Motor's claims of infringement are limited to Johnson's first two designs. Mabuchi Motor alleges Johnson's first brushgear infringes claims 10 FN4 and 11FN5 of the '215 patent and that Johnson's second design infringes claim 11. *Id.* at 12-14.

FN4. Claim 10 of the '215 patent is a combination of the text of claims 1 and 10 of the '215 patent. Claim 10 contains all the elements of claim one and adds the following, in subparagraph form:

e. wherein said terminal strip includes four bent projections.

See id.

FN5. Claim 11 is a combination of the text of claims 1, 2, 3, 8, and 11 of the '215 patent. Claim 11 contains all the elements of claim 1 and adds the following, in subparagraph form:

e. wherein the brush supporting means has grooves for supporting the brush arms by inserting said joint of said terminal and said commutator contactor strips thereinto.

f. wherein a width of each groove provided on said brush supporting means is made slightly smaller than a thickness of the bent portion of said projections.

g. wherein said terminal strip is made of brass.

h. wherein the brush arms are bent into an L-shape and the grooves provided on the brush supporting means are formed into a shape corresponding to the L-shape of the bush arms.

See id.

Johnson's Claim of Inequitable Conduct

Johnson asserts that the Mabuchi '215 patent is unenforceable because Mabuchi Motor committed inequitable conduct during the prosecution of the '215 patent by withholding from the Patent and Trademark Office ("PTO") material prior art. The undisclosed prior art is an unpatented Mabuchi motor design called the "RS-360." Mr. Mabuchi invented the RS-360 motor before the brushgear claimed by the '215 patent but never sought a patent for its design.

Like the '215 patent, the RS-360 contains a two-piece brushgear design. Unlike the '215 brushgear, however, the RS-360 does not use lateral projections to join the terminal strip and the commutator contactor strip. *See* Tr. 104. Rather, an opening is cut in the middle of the terminal strip and the pieces cut out of the terminal strip are then bent around the commutator contactor strip. *See id.* at 56-57, 104. As a result of this process, the two pieces are aligned perpendicularly. *See id.* After the two pieces are joined, the brushgear is attached to a plastic column on the motor case cover by means of a screw. *See id.* at 54, 104. Once mounted, the brushgear's terminal strip extends axially through the case cover. *See id.* at 104-105.

At the time he applied for the '215 patent, Mr. Mabuchi was obviously aware of his own design for the RS-360 motor's brushgear. *See* Tr. 48-49. In the course of his application that culminated in the '215 patent, however, Mr. Mabuchi disclosed to the PTO only the old FC-type motor design employing a one-piece brushgear, as well as another motor type with a similar brushgear design. *See id.* at 49. At the *Markman*

hearing, Mr. Mabuchi testified that he disclosed the FC-motor design because he believed that there was a very close relationship between the brushholders in the FC-type motors and the design taught in the '215 patent. *See id.* at 49-50. Mr. Mabuchi further stated that he did not disclose the RS-360 brushgear design because he considered it totally unrelated to the FC-type motors and the '215 patent in its manner of assembly and installation. *See id.* at 53-54.

DISCUSSION

Claim Construction

[1] [2] [3] Because the language of a patent's claims determine the scope of the monopoly granted to the patent holder, the first step in any patent litigation is for the Court to determine the proper construction of the claims in suit. Claim construction is a question of law to be decided by the Court. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370 388-89, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). To interpret the claims of a patent, the Court considers the language of the claims in light of the patent's specification, the prosecution history, and, in appropriate cases, extrinsic evidence. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-81 (Fed.Cir.1995) (en banc). A court will ascribe to the language of a claim the meaning that one skilled in the art would ordinarily ascribe unless the inventor sets forth a specific alternative meaning in the specification. *See Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387-88 (Fed.Cir.1992); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1571 (Fed.Cir.1983).

Mabuchi Motor requested a *Markman* hearing in order to construe the scope of claims 10 and 11 of the '215 patent. Mabuchi Motor also sought to adduce additional testimony relating to Johnson's claim of inequitable conduct.

Claims 10 and 11 are dependent upon claim 1 and thus have as a common element the entire text of claim 1. FN6 The only disputed issue of claim construction arises with respect to the text of claim 1, which has been reproduced in its entirety in the margin. *See* footnote 3, *supra*. The four elements that require construction by this Court are:

FN6. Claims may be written in either independent or dependent format. *See* 35 U.S.C. s. 112 (1999). An independent claim is a single sentence paragraph that recites elements of an invention. *See id.* A dependant claim refers to and incorporates the text of all claims from which it directly or ultimately depends, and more particularly defines an element recited in a prior claim or adds an element to a prior claim. *See id.*

-> "brush supporting means provided on a case cover of the motor case for supporting said brush arm." *See* U.S. Patent No. '215, col. 4, ln. 23 ("subparagraph c").

-> "terminal portion adapted to extend through a motor case." *See id.*, col. 4, ln. 16 ("subparagraph a(2)").

-> "plurality of projections formed by extending the strip." *See id.*, col. 4, ln. 25 ("subsection d(1)").

-> "projections being bent and crimped, ... to join said terminal and commutator contactor strip together into one piece." *See id.* col. 4, ln. 26 ("subsection d(2)").

Subparagraph c

[4] Subparagraph c of claim 1 claims a "brush supporting means ... for supporting said brush arm." Mabuchi

Motor argues that this language must be interpreted in light of the patent's specification. According to Mabuchi Motor, the term "brush supporting means" refers to a brush holder located on the case cover of the motor case with grooves corresponding to the L-shape of the brush arm and supporting the brushgear for a lateral exit. Johnson, however, asserts that the claim language offers no basis for Mabuchi Motor's construction and that Mabuchi Motor's construction violates the claim construction rule of claim differentiation.

The quoted limitation was clearly drafted using "means-plus-function" language under 35 U.S.C. s. 112, which provides that an "element in a claim for a combination may be expressed as a means or step for performing a specified function...." Subparagraph c claims a "brush supporting means." Although the general rule is that claims may not be limited by elements disclosed only in the specification, an inventor who uses means-plus-function claim language limits the invention to encompass only the corresponding structure disclosed in the specification and its equivalents. *See* 35 U.S.C. s. 112 (1999); *see also* Kahn v. General Motors Corp., 135 F.3d 1472, 1476 (Fed.Cir.1998); B. Braun Medical, Inc. v. Abbott Laboratories, 124 F.3d 1419, 1424 (Fed.Cir.1997).FN7 Thus, in determining the meaning of subparagraph c, the Court must turn to the '215 patent specification to determine the corresponding brush supporting means that is claimed.

FN7. 35 U.S.C. s. 112 para. 6 states:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The specification for the '215 patent clearly supports Mabuchi Motor's interpretation of subparagraph c. The figures included in the specification and the descriptions referencing those figures describe the "means" claimed in subparagraph c. *See* U.S. Patent No. '215, Figs. 1-4, 8, cols. 1-4. The specification states that the brush supporting means for the '215 invention is the same as described in figures 1 through 4. *See id.* at col. 3. The specification goes on to explain that the figures show a groove of a shape corresponding to the shape of the brush arm, provided on a case cover of the motor case. *See id.* Figures 1 and 2 also depict the brushgear extending laterally from the motor case.FN8 *See id.* at Figs. 1, 2.

FN8. Furthermore, Mabuchi Motors' construction is supported by the report and testimony of its expert Professor Parks. *See* Tr. at 144-47. Because analysis of the specification is sufficient to resolve any ambiguity in the claim language, the Court does not rely on Professor Parks's testimony. *See* Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1584 (Fed.Cir.1996).

[5] [6] In opposition, Johnson relies on the doctrine of claim differentiation.FN9 Johnson maintains that subparagraph c cannot be limited to the means depicted in figures 1 through 4 because a similar limitation already appears in claim 2 of the '215 patent. The Court notes, however, that numerous cases have held that claim differentiation is merely a guide for construction and does not impose a rigid rule. *See e.g.* Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1479-80 (Fed.Cir.1998); *see also* 5A Chisum, *supra*, s. 18.03[6][a]. Furthermore, the Federal Circuit has specifically held that the means-plus-function rule codified by 35 U.S.C. s.112 para. 6 trumps the doctrine of claim differentiation where the two doctrines conflict. *See*

Laitram Corp. v. Rexnord Inc., 939 F.2d 1533, 1538 (Fed.Cir.1991). Thus, Johnson's reliance upon the doctrine of claim differentiation is misplaced.

FN9. The doctrine of claim differentiation provides that if a limitation is to be read into a claim, and if this added limitation already appears in another claim, then the additional words of limitation may not be used in the broader claim. *See* D.M.I. v. Deere & Co., 755 F.2d 1570, 1574 (Fed.Cir.1985).

Accordingly, the Court interprets the brush supporting means claimed in subparagraph c as claiming a brush holder that is located on the case cover of the motor case with grooves corresponding to the L-shape of the brush arm and that holds the brushgear for a lateral exit.

Subparagraph a(2)

[7] The Court's construction of subparagraph c necessarily dictates the Court's construction of subparagraph a(2). Subparagraph a(2) claims "a terminal portion adapted to extend through a motor case." The parties dispute whether the claimed terminal strip must extend laterally through the motor case. Mabuchi Motor argues that the claim should be so limited in scope; Johnson argues that it should not. Although subparagraph a(2) does not include means-plus-function language, its construction is similarly dictated by the figures in the specification because the claimed terminal portion must be of a shape suitable for use with the brush supporting means claimed in subparagraph c. Because this Court interprets subparagraph c as claiming only the brush supporting means depicted in figures 1 through 4, and the depicted brush support requires the brushgear to make a lateral exit through the motor case, it follows that the terminals referred to in subparagraph a(2) must extend and exit laterally. Any other construction would render subparagraph a(2) and subparagraph c inconsistent.

Subparagraph d(1)

[8] The central issue regarding subparagraph d(1) is how to interpret the phrase "projections formed by extending the strip." Johnson argues that this language includes any type of projections or extensions. Mabuchi Motor argues in the alternative that subparagraph d(1) unambiguously claims only parallel projections or that subparagraph d(1) should be so construed in light of the specification, which describes and depicts only parallel projections.

[9] While the Court must refer to the limitations set forth in the specification to construe means-plus-function language, subparagraph d(1) does not employ such means-plus-function language. Ordinarily, claims are attributed their ordinary meaning to one skilled in the art unless a term is defined in the specification. *See* Intellicall, 952 F.2d at 1387; Fromson, 720 F.2d at 1571. Furthermore, while claims should be read in light of the specification, it does not follow that limitations from the specification's general discussion, embodiments or examples should be read into the claim when such limitations are not explicitly provided for in the claim language. *See* Comark Comm., Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir.1998); Sjolund v. Musland, 847 F.2d 1573, 1582 (Fed.Cir.1988).

In this case, it is clear from the claim language that Johnson's construction is overbroad, as subparagraph d(1) claims not projections generally but only such projections as are "formed by extending the strip." This phrase is obviously not a process step in a method claim; rather, it describes the geometric relationship between the terminal strip and the projections. Only parallel extensions of the strip may be described in such terms, and to the extent that the described geometric relationships are ambiguous, the specification clearly

resolves this ambiguity in support of Mabuchi Motor's construction. Thus, the Court holds that subparagraph d(1) claims only parallel projections.

Subparagraph d(2)

[10] Based on its proffered construction of subparagraph d(1), Mabuchi Motor argues that the "bent and crimped" projections claimed by subparagraph d(2) are parallel projections from the terminal strip that wrap around the edge of an overlapping commutator contactor strip in a manner sufficient to form a mechanical and an electrical connection between the two strips. As there is nothing in the claim or the specification to suggest any other construction of the claim language, the Court adopts Mabuchi Motor's construction.

Inequitable Conduct

[11] [12] Johnson alleges that Mr. Mabuchi breached his duty of candor before the PTO by knowingly withholding material prior art—the RS-360 motor design—during prosecution of the '215 patent. Applicants for patents, including their patent attorneys, are required to prosecute patent applications before the PTO with candor, good faith, and honesty. *See Elk Corp. v. GAF Bldg. Mats. Corp.*, 168 F.3d 28, 29 (Fed.Cir.1999); *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178 (Fed.Cir.1995); *see also* 37 C.F.R. s. 1.56(b)(1998). A breach of this duty may constitute inequitable conduct. *See id.* The duty of candor extends throughout the patent's entire prosecution history, and thus a breach early in the prosecution may render unenforceable all claims that eventually issue from the same or a related application. *See Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1331 (Fed.Cir.1998) (citing *Fox Indus., Inc. v. Structural Preservation Systems*, 922 F.2d 801, 803 (Fed.Cir.1990)).

[13] [14] Inequitable conduct includes affirmative misrepresentations of a material fact, failure to disclose material information, or submission of false material information, coupled with an intent to deceive. *See Baxter Int'l, Inc.*, 149 F.3d at 1327; *see Elk Corp.*, 168 F.3d at 30; *Molins PLC*, 48 F.3d at 1178. Determination of inequitable conduct requires a two step analysis. First, this Court must determine whether the withheld reference meets a threshold level of materiality. *See Baxter Int'l Inc.*, 149 F.3d at 1327; *Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1439 (Fed.Cir.1991). The Court must then determine whether the evidence shows a threshold level of intent to deceive. *See id.* Once the threshold levels of materiality and intent have been established, this Court is required to balance materiality and intent. *See Baxter Int'l Inc.*, 149 F.3d at 1327; *Molins PLC*, 48 F.3d at 1178. The more material the omission, the less evidence of intent will be required for a finding of inequitable conduct, and vice versa. *See id.* In other words, in light of all the circumstances, including any evidence of the inventor's good faith, the Court must determine whether the applicant's conduct is so culpable that the patent should be held unenforceable. *See LaBounty Mfg., Inc. v. U.S. Int'l Trade Comm'n*, 958 F.2d 1066, 1070 (Fed.Cir.1992).

[15] The parties in this case have agreed that the Court should make all findings of fact and conclusions of law regarding Johnson's defense of inequitable conduct on the basis of the hearing record. Johnson's defense of inequitable conduct must be decided by the Court rather than the jury and thus is appropriately tried separately in advance of a jury trial of infringement. *See Kingsdown Medical Consultants Ltd. v. Hollister, Inc.*, 863 F.2d 867, 876 (Fed.Cir.1988); *Gardco Mfg., Inc. v. Herst Lighting Co.*, 820 F.2d 1209, 1213 (Fed.Cir.1987).

Materiality

Mabuchi Motor argues that its failure to disclose the RS-360 motor does not constitute inequitable conduct

because the RS-360 design was not material to the prosecution of the '215 patent application. Alternatively, Mabuchi Motor states that even if the RS-360 is found to have been material, it is nonetheless cumulative over the prior art cited by the PTO. Johnson, however, asserts that regardless of how the claims are construed, the RS-360 was more material than any of the prior art references considered by the examiner.

[16] [17] [18] Prior art is material where there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent. *See Elk Corp.*, 168 F.3d at 30; *Molins PLC*, 48 F.3d at 1179. In deciding whether a patent should issue on an application, the examiner must give each term in the claim its broadest reasonable construction consistent with the specification, and in deciding the issue of materiality the Court must adopt a similarly broad construction. *See J.P. Stevens & Co. v. Lex Tex Ltd.*, 747 F.2d 1553, 1563 (Fed.Cir.1984); 37 C.F.R. s. 1.56(b). However, an otherwise material reference need not be disclosed if it is merely cumulative or less material than other references already disclosed. *See Baxter Int'l, Inc.*, 149 F.3d at 1328; *Halliburton Co.*, 925 F.2d at 1440. Moreover, materiality is not analyzed in a vacuum, dependant on a single element viewed in isolation. Rather, it is judged based upon the overall degree of similarity between the omitted reference and the claimed invention in light of the other prior art before the examiner. *See Baxter Int'l, Inc.*, 149 F.3d at 1328; *Halliburton Co.*, 925 F.2d at 1441.

[19] The Court finds that the RS-360 motor was material but cumulative over the prior art before the examiner. Mr. Mabuchi admits that, like the brushgear claimed by his initial patent application, the RS-360 brushgear is 1) a brushgear for a miniature motor 2) having a terminal strip made of a flexible and conductive metal strip and 3) having a commutator contactor strip made of a highly resilient and electrically conductive metal strip forming a commutator contactor portion for making electrical contact with a commutator by means of a brush mounted on top. *See Tr.* 82-84. Although these similarities are sufficient to establish materiality, either Hagenlocher or the '242 patent also taught each of these elements, and were these elements the only common features between the RS-360 and the '215 patent, the RS-360 clearly would be cumulative over Hagenlocher and the '242 patent.

However, as noted above, the patent examiner initially rejected Mr. Mabuchi's originally filed claim 1 as obvious over the '242 patent and Hagenlocher, and Mr. Mabuchi responded by inserting into every claim of the patent a limitation claiming the use of projections to join the terminal and commutator contactor strips by lapping the strips and bending and crimping the projections. Johnson argues that the RS-360 was not cumulative with respect to the amended claims because, unlike the prior art considered by the examiner, the RS-360 teaches attachment of the terminal strip to the commutator contactor strip by bending and crimping metal projections.

The RS-360 brushgear, however, is assembled in manner quite different from that taught by the '215 patent because the two brushgears are designed for very different brush supporting means. As discussed above, the claim language of the '215 patent claiming a brush supporting means was drafted as a means-plus-function claim, and such claims must be interpreted in the same manner during prosecution as they are in litigation. *See In re Donaldson Company*, 16 F.3d 1189, 1193 (Fed.Cir.1994). Thus, following the Court's construction of subparagraph c as set forth above, the brushgear claimed by the '215 must be of such a shape as will pass through the L-shaped brush supporting means depicted in Figure 2 of the '215 patent specification. If the two strips of the '215 patent brushgear were assembled using the RS-360's internal-door-flap connection, then the brushgear could not be used with the claimed L-shaped supporting means. The RS-360 offers no guidance in how to make a brushgear that will fit through an L-shaped groove and thus is in this respect irrelevant to the invention claimed by the '215 patent. For this reason, the RS-360 was merely

cumulative, and Mr. Mabuchi was under no duty to disclose that brushgear design to the examiner.

Intent

[20] Even assuming *arguendo* that the RS-360 was not cumulative, the Court would nonetheless reject Johnson's defense of inequitable conduct because Johnson has failed to prove the requisite intent to deceive. In addition to materiality, a claim for inequitable conduct can be sustained only if coupled with evidence of an intent to deceive. *See Baxter Int'l Inc.*, 149 F.3d at 1327; *Halliburton*, 925 F.2d at 1440. Intent to deceive need not, and rarely can, be proven by direct evidence. *See Elk Corp.*, 168 F.3d at 32; *Merck & Co. v. Danbury Pharmacal, Inc.*, 873 F.2d 1418, 1422 (Fed.Cir.1989). Rather, this element of inequitable conduct must generally be inferred from the surrounding circumstances. *See Paragon Podiatry Laboratory, Inc. v. KLM Laboratories, Inc.*, 984 F.2d 1182, 1190 (Fed.Cir.1993); *Merck*, 873 F.2d at 1421. Although intent may be inferred from circumstantial evidence, mere gross negligence is insufficient; there must be clear and convincing evidence that the applicant made a deliberate decision to withhold a known material reference. *See Halliburton Co. v. Schlumberger Technology Corp.*, 925 F.2d 1435, 1443 (Fed.Cir.1991); *Symbol Technologies v. Opticon, Inc.*, 935 F.2d 1569, 1582 (Fed.Cir.1991); *Kingsdown*, 863 F.2d at 876.

Mr. Mabuchi testified that he did not disclose the RS-360 design because he determined that it was significantly different from the design embodied in the '215 patent. *See Tr.* at 104. He explained that the terminals in the RS-360 motor extend axially through the case cover, whereas the '215 patent teaches terminals that extend laterally through the motor case and that the RS-360 motor uses a different method of attaching the brushgear to the case cover than the '215 patent. *See id.* Whereas the RS-360 uses a screw to attach a brush supporting means to a plastic column on the case cover, the '215 patent calls for a brush holder located on the motor case with grooves corresponding to the L-shape of the brush arm. *See id.* Mr. Mabuchi further explained that the RS-360 uses a different method for attaching the terminal and commutator contactor strips. *See id.* The RS-360 joins the terminal and commutator contactor strip by cutting an opening in the middle of the terminal strip and then bending the resulting portion around the commutator contactor strip, whereas the '215 patent uses four projections that extend from the plane of one strip and wrap around the outside of the other strip. *See id.*

The Court finds Mr. Mabuchi's testimony a highly credible and persuasive explanation of his decision not to disclose the RS-360 to the examiner. Johnson is correct that Mr. Mabuchi's original patent application did not contain any mention of projections for connecting the terminal strip to the commutator contact strip and that the difference in the strip attachment in the two designs cannot explain Mr. Mabuchi's failure to disclose the RS-360 in connection with his initial application. However, the other features described by Mr. Mabuchi in his testimony do distinguish the RS-360 from the invention claimed in both the initial application and the amended application. Accordingly the Court finds that Mr. Mabuchi considered his invention to be dramatically different from the RS-360 brushgear and reasonably believed that the RS-360 was not material to either the initial application or the amended application. Thus, Mr. Mabuchi could not have intended to deceive the PTO by withholding prior art he believed to be irrelevant to the patent application.

Johnson's Rule 37(c) Motion to Preclude Mr. Mabuchi's Testimony

This finding, however, rests primarily upon the Court's assessment of Mr. Mabuchi's testimony at the hearing, which Johnson has moved to strike as a sanction for Mr. Mabuchi's improper assertion during discovery of the attorney-client privilege. During his deposition on June 21, 1991, Johnson's counsel inquired of Mr. Mabuchi:

Q. If you were prosecuting the U.S. patent application today, would you disclose the structure of [the RS-360 brushgear] to the United States Patent Office?

Pl.'s Reply., Ex. 5. Mr. Mabuchi was directed by his attorney not to answer on the basis of attorney-client privilege. He was then asked:

Q. Today do you believe that the RS-360 brushgear is material to the examination of your reissue application?

Id., Ex. 6. Mr. Mabuchi's attorney again asserted attorney-client privilege. Following a luncheon recess, Johnson's counsel asked the following question:

Q. Mr. Mabuchi, at any time prior to March 4, 1986, FN10 did you believe that the [RS-360 brush structure] was material to the examination of your original patent application?

FN10. The date of issue for the '215 patent.

Id., Ex. 7. Upon conferring with his colleagues, Mr. Mabuchi's attorney again instructed him not to answer on the grounds of attorney-client privilege.

At the *Markman* hearing six years later, Mabuchi Motor's counsel asked Mr. Mabuchi the question:

Q. Why did you not disclose the design of the RS-360 brushgear?

Tr. 53. It was in response to this question that Mr. Mabuchi testified that he believed the two designs were significantly different for the reasons discussed above. *See* Tr. 53-60.

Johnson argues that the assertion of attorney-client privilege at the deposition was unjustified. Johnson points to the fact that Mr. Mabuchi answered a similar question at the hearing six years later and, moreover, that when asked why he asserted the privilege, Mr. Mabuchi was unable to provide an explanation. FN11 Citing Rule 37(c), Fed.R.Civ.P., Johnson argues that Mr. Mabuchi's testimony should be struck as a sanction for his unjustified failure to disclose discoverable information under Rule 26(a), Fed.R.Civ.P.

FN11. When asked why he asserted the attorney-client privilege in his deposition, Mr. Mabuchi testified that he did not assert the privilege, his attorney did, without consulting him. *See* Tr. at 76. Furthermore, Mr. Mabuchi testified that he never discussed with any attorney whether the RS-360 design was material to his application. *See id.* at 77.

[21] Rule 37(c)(1) states in relevant part that "a party that without substantial justification fails to disclose the information required by Rule 26(a) ... shall not, unless failure is harmless, be permitted to use as evidence at trial, at a hearing, or on a motion ... information not so disclosed." Fed.R.Civ.P. 37(c)(1). The imposition of sanctions under Rule 37(c)(1) is a matter within the trial court's discretion. *See Newman v. GHS Osteopathic Inc.*, 60 F.3d 153, 156 (3d Cir.1995). Moreover, refusing to admit evidence that was not disclosed in discovery is a drastic remedy and will apply only in situations where the failure to disclose represents a flagrant bad faith and callous disregard of the rules. *See Hinton v. Patnaude*, 162 F.R.D. 435,

439 (N.D.N.Y.1995); *McNerney v. Archer Daniels Midland Co.*, 164 F.R.D. 584, 587 (W.D.N.Y.1995); *Sterling v. Interlake Ind. Inc.*, 154 F.R.D. 579, 587 (E.D.N.Y.1994). This approach is consistent with the rule's purpose to provide parties with an incentive to disclose, in a timely manner, all material evidence and to prevent the practice of "sandbagging" an adversary with new evidence at trial. *See* 7 James Wm. Moore, et al. *Moore's Federal Practice*, para. 37.60[1] (1999).

[22] The Court finds Johnson's argument based on Rule 37(c) unpersuasive. The Court could have fully remedied any prejudice to Johnson by adjourning the hearing to allow Johnson's counsel to continue its deposition of Mr. Mabuchi. In the context of a bench trial such a remedy will better serve the truth-seeking function of this Court than the more drastic remedy of preclusion sought by Johnson's counsel. Johnson did not seek this more appropriate remedy. In failing to do so, he cannot persuasively claim that he suffered any prejudice.

In addition, the Court finds that Mabuchi's assertion of the attorney-client privilege, while in error, was not so baseless as to warrant any sanction. Although counsel for Mabuchi should not have asserted the privilege without first ascertaining the scope of Mr. Mabuchi's prior consultation with counsel, Johnson's examination clearly intruded upon areas that counsel reasonably could have expected to have been the subject of prior consultation between Mr. Mabuchi and his patent counsel. This is especially true since Johnson never sought to have the Court compel a response, which would, of course, have permitted the issue to be resolved well in advance of the hearing.

Therefore, the Court denies Johnson's motion to strike Mr. Mabuchi's testimony and finds on the basis of that testimony that Mr. Mabuchi lacked the requisite intent to deceive.

CONCLUSION

For the reasons set forth above, the Court finds as to United States Patent No. 4,574,215 that

1. In claims 10 and 11, "terminal portion adapted to extend through a motor case" describes a terminal portion that extends laterally from a motor case, in contrast to a terminal axially extending through a case cover;
2. In claims 10 and 11, "brush supporting means provided on a case cover of the motor case for supporting said brush arm" describes a brush holder having an internal groove which holds and provides a lateral exit for the terminal portion of the brush arm, in contrast to a plastic column which provides an axial exit for the terminal portion;
3. In claims 10 and 11, "plurality of projections formed by extending the strip" describes at least two projections that are formed by the addition of arms which extend or project away from the edge of the terminal strip, in contrast to piercing out internal portions of the terminal strip.
4. In claims 10 and 11, "projections being bent and crimped, with said terminal strip and said commutator contactor strip at least partly overlapping to join said terminal strip and commutator contact strip together into one piece at a joint" describes a brushgear structure where the laterally extending projections are bent around the edge of the commutator contactor strip and crimped to provide a gripping mechanical connection and an electrical contact between the terminal strip and commutator contactor strip sufficient to form a working joint or unit in the context of a small DC electric motor.

The Court further finds with respect to Johnson's claim of inequitable conduct that the RS-360 motor was cumulative over the prior art considered by the patent examiner and that, in any event, Mr. Mabuchi lacked any intent to deceive the PTO by not disclosing as prior art the RS-360 motor.

It is **SO ORDERED**.

S.D.N.Y., 1999.

Johnson Elec. North America Inc. v. Mabuchi Motor America Corp.

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