

United States District Court,
D. New Mexico.

LEVITON MANUFACTURING CO., INC,
Plaintiff.

v.

**ZHEJIANG DONGZHENG ELECTRICAL CO., Harbor Freight Tools USA, Inc., Nicor, Inc., d/b/a
Nicor Lighting & Fans, and Central Purchasing, LLC,**
Defendants.

No. CIV 05-0301 JB/DJS

March 5, 2007.

Background: Assignee of patent for circuit interrupter device that electrically isolated load terminals and user accessible terminals sued competitors for infringement.

Holdings: The District Court, James O. Browning, J., held that:

- (1) term "movable bridge" meant at least one moveable arm that was always electrically connected to the first electrical conductor and that had the ability to create a parallel conductive path between the first, second, and third electrical conductors;
- (2) term "predetermined condition" meant the occurrence of a current imbalance from an actual or artificially induced ground fault and excluded open-neutral test cycles that would not create or require current imbalances; and
- (3) term "reset portion" was a means-plus-function term.

Claims construed.

6,864,766. Construed.

Barry G. Magidoff, Christopher B. Prescott, Deepro R. Mukerjee, Paul J. Sutton, Greenberg Traurig LLP, New York, NY, Emil Kiehne, Rufus Thompson, Modrall Sperling Law Firm, Albuquerque, NM, James Taylor Hosmer, Larry Sheldon Nixon, Nixon & Vanderhaye PC, Joseph Scott Presta, Joseph Albert Rhoa, Updeep Singh Gill, Arlington, VA, for Plaintiff.

Dewitt M. Morgan, Rodey Dickason Sloan Akin & Robb PA, Alberto Leon, Bauman Dow & Leon PC, Bryan G. Harrison, J. Douglas Foster, Foster, Rieder & Jackson, PC, Albuquerque, NM, Mark J. Rosenberg, Sills Cummis Epstein & Gross PC, New York, NY, John P. Fry, Tingkang Xia, Morris, Manning & Martin LLP, Atlanta, GA, for Defendants.

MEMORANDUM OPINION AND ORDER

JAMES O. BROWNING, **District Judge.**

THIS MATTER comes before the Court on: (i) the Plaintiffs' Claim Construction, filed July 3, 2006 (Doc. 94); and (ii) the Defendants' Claim Construction, filed July 5, 2006 (Doc. 95). The Court held a Markman hearing on the proposed claim constructions on January 8, 2007. The primary issue is whether the Court should adopt the Plaintiff Leviton Manufacturing Co., Inc.'s or the Defendants' construction of the asserted claims as best in keeping with the precedent from the United States Court of Appeals for the Federal Circuit. Specifically, the parties dispute the meanings of the following terms: (i) "movable bridge;" (ii) "predetermined condition;" and (iii) "reset portion." Because the Court believes that the terms at issue require construction, and that the Defendants' positions with respect thereto are faithful to Federal Circuit precedent, the Court will adopt the Defendants' construction of those terms

FACTUAL BACKGROUND

The Court has set forth the factual background of the parties and their ongoing dispute in other opinions in this case, and in another case involving a similar patent. *See* Memorandum Opinion and Order at 1-2, filed September 18, 2006 (Doc. 114); *Leviton Manufacturing Co., Inc. v. Nicor, Inc./Leviton Manufacturing Co., Inc. v. Zhejiang Dongzheng Electrical Ltd*, Case No. 04-CV-0424 ("*Dongzheng I*"), Memorandum Opinion and Order at 2-13, filed May 23, 2006 (Doc. 230); *id.* Memorandum Opinion and Order at 2-3, filed September 18, 2006 (Doc. 248). The patent at issue in this case is a successor to the patent at issue in *Dongzheng I*. This opinion will set forth only those facts necessary to decide the claim construction issues in this case.

A. THE PARTIES.

Leviton is an American corporation. Defendant Zhejiang Dongzheng Electrical Co. is a Chinese company. The other Defendants sell Dongzheng's products.

1. *Leviton.*

Leviton is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in the State of New York. *See* Memorandum of Points and Authorities in Support of Defendants' Claim Construction for U.S. Patent No. 6,864,766 at 1, filed August 2, 2006 (Doc. 102)("Defendants' Memo"). Leviton is the owner, by assignment, of U.S. Patent No. 6,864,766, entitled "Circuit Interrupting Device with Reverse Wiring Protection" ("the '766 Patent"), which issued on March 8, 2005. *See id.*

2. *The Defendants.*

After Leviton filed this suit, Dongzheng completed a corporate name change to General Protech Group, Inc. *See id.* at 1, n. 1. Protech has retained the Dongzheng name for what, in essence, is an unincorporated division that continues the prior Dongzheng company's business activities. *See id.* Dongzheng has its principal place of business in Zhejiang Province, China. *See id.* at 1. Dongzheng designs, develops, manufactures, and distributes various electrical devices, including ground fault circuit interrupting (GFCI) devices with reverse wiring protection. *See id.*

Defendant Nicor, Inc. is a corporation organized and existing under the laws of the State of New Mexico,

with its principal place of business in Albuquerque. *See id.* at 2. Nicor distributes electrical devices, including the Dongzheng manufactured devices at issue in this action. *See id.*

Defendant Central Purchasing, LLC is a limited liability company organized and existing under the laws of the State of California, with its principal place of business in Camarillo, California. *See id.*

Defendant Harbor Freight Tools USA, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in Camarillo, California. *See id.* Harbor Freight, which purchases all of its inventory from Central Purchasing, sells power tools, hand tools, and related products and accessories, including the Dongzheng manufactured devices at issue in this action. *See id.*

B. THE CIRCUIT INTERRUPTING TECHNOLOGY AT ISSUE.

GFCIs have been available for many years. Nevertheless, there is a risk of ground fault in older designs. Leviton contends that the GFCI receptacle designed in accordance with the claims of its patent addresses the ground fault problem with a solution that is elegant, fail safe, and does not increase the complexity or size of the circuit interrupter device.

1. GFCI Technology in General.

This action involves GFCIs, which are designed to provide protection against electrocution in residential and/or commercial settings. *See id.*; Leviton Manufacturing Co., Inc.'s Initial Brief on Claim Construction at 4, filed August 2, 2006 (Doc. 103) ("Leviten's Memo"). GFCI devices are well known and have been in use for over twenty years. *See Defendants' Memo* at 2.

A GFCI device provides protection against electric shock and electrocution from either ground faults or contact with live electrical parts by a person that is grounded. *See Defendants' Memo* at 2; Leviton's Memo at 5-7. A ground fault occurs when the electrical current strays from its intended path in, for example, a hair dryer because of wear and tear, or because the device has become wet. *See Defendants' Memo* at 2; Leviton's Memo at 7-8. A GFCI device senses any imbalances in the circuit between the current leaving the GFCI device, *i.e.*, the phase, and current returning to the GFCI device, *i.e.*, the neutral, and interrupts the circuit, thus preventing potential harm to a person in the current path. *See Defendants' Memo* at 2; Leviton's Memo at 5-7.

A GFCI device is connected to external wiring so that phase and neutral line wires are connected to the line side connection screws, and phase and neutral load wires are connected to the load side connection screws, respectively. *See Defendants' Memo* at 3; Plaintiff's Memo at 5-7. Reverse wiring refers to an improper configuration where a GFCI device is installed improperly with the line wires connected to load side connection screws and the load wires connected to the line side connection screws. *See Defendants' Memo* at 3; Leviton's Memo at 8. If a GFCI device is reverse wired, it may not provide fault protection to devices using the plug connection-the user accessible load connection. *See Defendants' Memo* at 3; Leviton's Memo at 8. A RW-GFCI is a GFCI device in which fault protection is still provided even if reverse wiring occurs. *See Defendants' Memo* at 3.

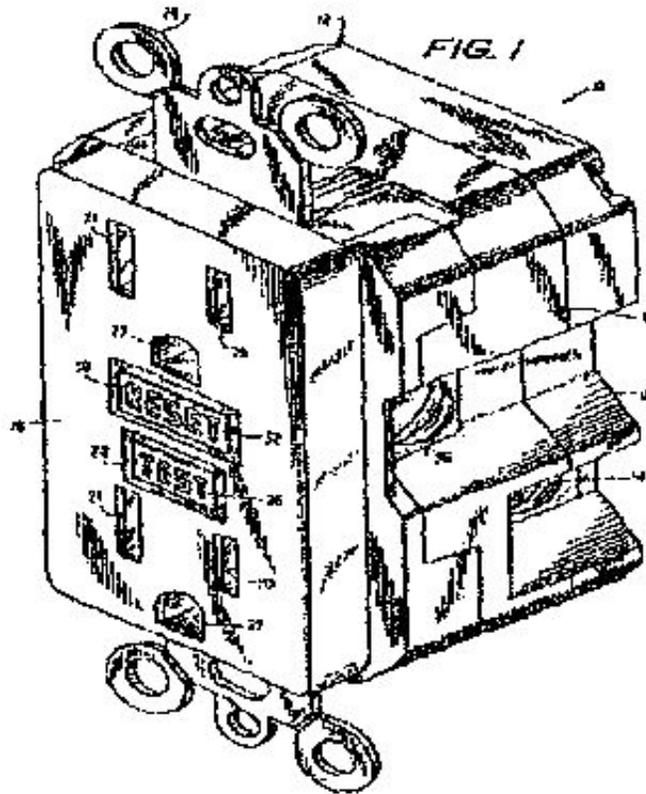
2. Overview of the '766 Patent.

The '766 Patent is the successor of U.S. Patent No. 6,246,558 ("the '558 Patent"), *see Defendants' Memo* at 3, which is the subject of *Dongzheng I*, currently pending before the Court, *see Dongzheng I*, Complaint for

Patent Infringement, filed April 16, 2004 (Doc. 1). As such, the disclosure in the specification of the '766 Patent is substantially the same as what the Court reviewed in considering the '558 Patent. Thus, the Court is familiar with much of the discussion regarding the function and operation of the GFCI device claimed in and described in the specification of the '766 Patent.

3. *The GFCI Receptacle in the '766 Patent.*

A GFCI receptacle has the external appearance of an electrical outlet that normally provides alternating current ("AC") when installed in the wall of a building. *See id.* An example of a GFCI receptacle is shown in Figure 1:



The '776 Patent, Figure 1, at Sheet 1.

Figure 1 shows a GFCI device (10) having housing (12) that has a relatively central body (14) to which a face or cover portion (16) and a rear portion (18) are secured. *See id.* at Col. 5:65-6:1. The housing (12) has a face portion (16), through which are provided openings (20), (21), and (22) to user accessible terminals or outlet sockets configured to receive two 3-prong plugs. *See id.* at Col. 6, ll. 1-19. Socket (22) is a ground-prong-receiving receptacle and the usual opening for a ground prong. *See id.*

The face (16) also has a "TEST" button (26) extending through an opening (28) and a "RESET" button (30) extending through an opening (32). *See id.* The test button (26) allows a user to test the GFCI's circuit interrupting function; when the TEST button is depressed, the device breaks electrical continuity between

the line and load terminals. *See id.* The reset button (30) allows a user to reestablish electrical continuity in the conductive paths, after electrical continuity between the line and load terminals has been broken. *See id.*

Figure 1 shows only one side of the GFCI receptacle, depicting the location of binding screws (34) and (36), which provide the line phase connection and load phase connection, respectively. *See Col. 6, ll. 20-35.* Binding screws (34A) and (36A), which are not visible in Figure 1, are located on the opposite side of the housing from binding screws (34) and (36). *See id.*

Electrical connections to existing household electrical wiring are made on the phase side of the device via screws (34) and (36). *See id.* Screw (34) is an input, or line phase, connection, and screw (36) is an output, or load phase, connection. *See id.* Two additional binding screws, (38) and (40), shown in Figure 3 are located on the opposite side of the GFCI device (10), and provide line and neutral connections, respectively. *See id.*

When an electrical device is plugged into the socket of a functioning GFCI receptacle, current flows from the power source, through the GFCI phase terminal, and through the phase wire of the power cord to the electrical device. *See Leviton's Memo at 6.* Current returns to the power source from the electrical device via the neutral terminal of the GFCI receptacle and the neutral wire of the power cord. *See id.*

A circuit interrupting portion is located in the housing (12) and functions to break the electrical circuit of the GFCI device. *See Defendants' Memo at 4.* Tripping the GFCI device by activating the circuit interrupting portion cuts all current flow through the GFCI device. *See id.*

The load terminals of a GFCI receptacle may be connected to downstream AC outlets in daisy chain fashion and/or to other electrical devices such as ceiling fans and light fixtures, as shown in Figure 2. *See Leviton's Memo at 6.* The line terminals are connected to an AC power source that provides electrical power to the GFCI via line phase and line neutral conductors. *See id.*

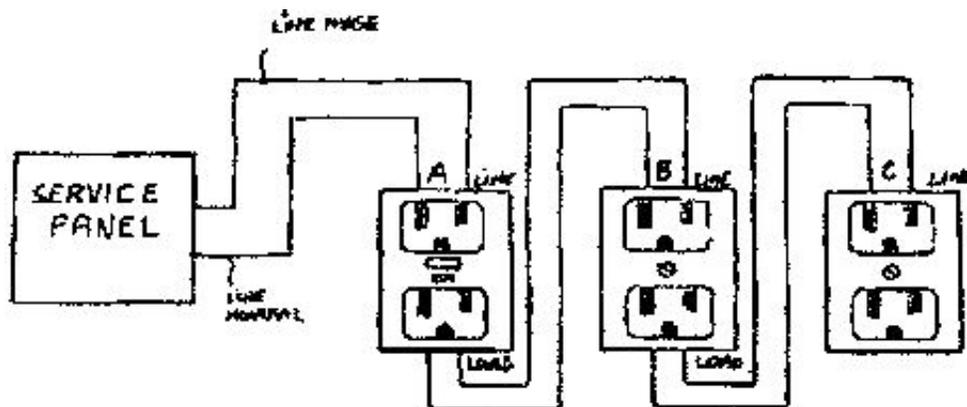


FIG. 2

A switch and associated circuitry inside the GFCI electrically connects the line terminals to the load terminals. *See id.* at 7. In this fashion, GFCI protection is provided to both the user accessible terminals-the sockets-and the devices attached to the load terminals. *See id.*

4. Ground Fault.

The current flowing from a power source, through a GFCI receptacle, to an electrical appliance plugged to the receptacle, and back through the GFCI receptacle to the power source, is routed through a closed system. *See id.* A current leak may occur in the closed system where part of the current flowing through the electrical appliance is diverted to ground. *See id.* When part of the current has been diverted to ground, a current imbalance exists within the GFCI, because the current flowing out from the power source will not be equal to the current from the GFCI receptacle back to the power source. *See id.* This scenario is an example of a "ground fault." *Id.*

In many cases, the current diverted to ground may flow through a person. *See id.* Obviously, dire consequences can result when electrical current flows through a human body. *See id.*

A GFCI is designed to open, or break-using an internal switch-the electrical circuit that the closed system forms automatically, interrupting current flow to and from the load upon detecting the occurrence of a current imbalance. *See id.* at 7. When this occurs, the GFCI is said to be in the "tripped" condition *Id.* While tripped, the GFCI disconnects power to the connected electrical device that may be causing the ground fault. *See id.*

5. The Reverse Wiring Problem.

GFCI receptacles are properly installed by connecting their line terminals to power sources, and their load terminals to downstream AC outlets or other electrical devices. *See id.* at 8. Reverse wiring occurs when one mistakenly connects the line terminals to downstream AC outlets or other electrical devices, and the load terminals to power sources. *See id.* Previously, when GFCI devices were reverse wired, there was no protection from ground faults for devices that were plugged directly into the user accessible terminals of the GFCI receptacle. *See id.* Such result occurs because the user accessible terminals of prior GFCI receptacles were integrally connected, electrically and structurally, to the load terminals. *See id.* The user accessible terminals were thus connected to power regardless whether the GFCI was tripped. *See id.* Moreover, the user of such a reverse-wired GFCI receptacle could potentially be lulled into a false sense of security, because, even though tripped, the receptacle would provide electricity to appliances plugged into the user accessible terminals. *See id.* The danger exists therefore that a user could believe that ground-fault protection is being provided when it is not. *See id.*

In prior GFCIs, the user-accessible terminals-phase and neutral-were permanently connected to the corresponding load terminals, as Figure 3 shows.

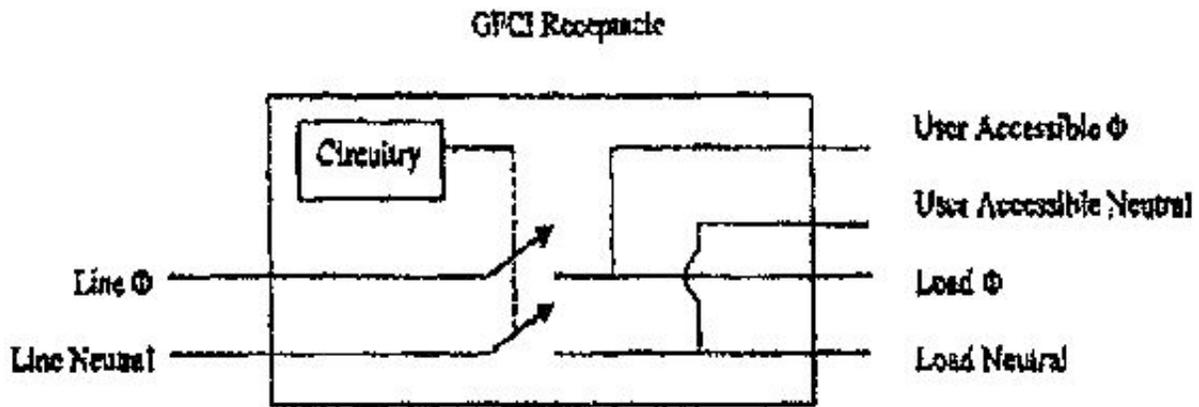


FIG. 3

Id. at 8.

6. *The GFCI Receptacle Designed in Accordance with the Claims of the '766 Patent.*

The RW-GFCI contained within the '766 patent solves the problem associated with reverse wiring. *See id.* at 9. The '766 patent's RW-GFCI provides: (i) a structure in which the user-accessible terminals and the load terminals are electrically isolated from each other when the device is tripped; and (ii) a structure that connects electronically the line terminal, the load terminal, and the user-accessible terminal when the device is reset. *See id.*

A circuit interrupter device designed according to the '766 Patent is shown in Figure 4.

GFCI Receptacle

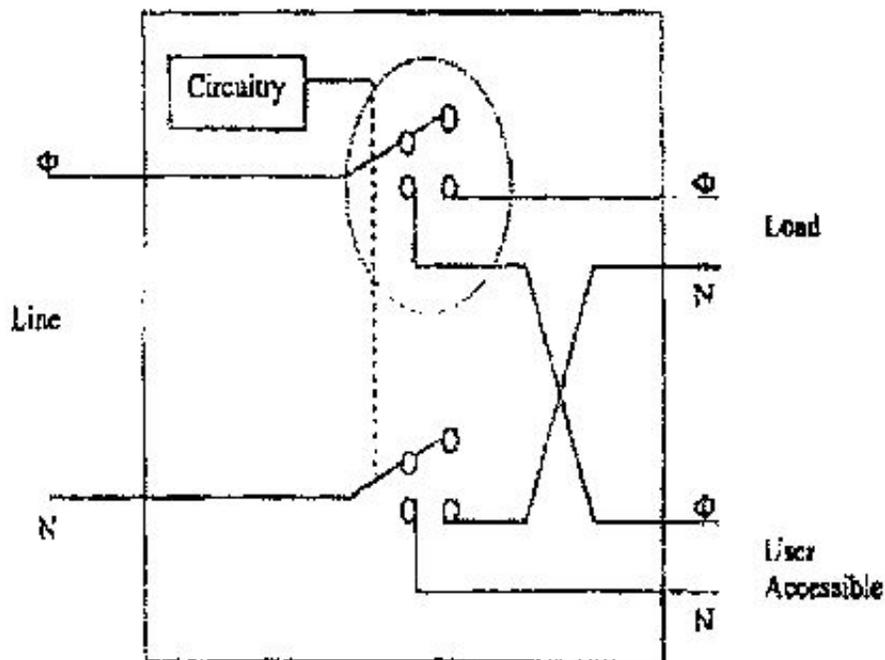


Figure 4

Id. at 9.

The design of an RW-GFCI in accordance with the claims of the '766 Patent ensures that the load terminals and the user accessible terminals are electrically isolated from each other when the device is tripped. *See id.* When the '766 Patent's RW-GFCI is properly wired and then tripped there is no power at the load or user accessible terminals. *See id.* at 9-10. When the device is reverse wired and then tripped, there is also no power at the user-accessible terminals and the user remains protected. *See id.* at 10.

PROCEDURAL BACKGROUND

On March 18, 2005, Leviton filed a Complaint alleging, among other things, that Defendants Harbor Freight, Central Purchasing, and Nicor, were infringing the '766 Patent. *See* Complaint for Patent Infringement, filed March 18, 2005 (Doc. 1)("Complaint"). Leviton amended its Complaint on March 28, 2005, adding Dongzheng as a defendant, another alleged infringer of the '766 Patent. *See* First Amended Complaint and Jury Demand, filed March 28, 2005 (Doc. 2). On April 14, 2005, Leviton again amended its Complaint, adding a count for infringement of Claim 3 of the '558 Patent against Central Purchasing. *See* Second Amended Complaint and Jury Demand, filed April 14, 2005 (Doc. 8).

The Court, on May 23, 2006, issued a claim construction Memorandum Opinion and Order ("the '558 Claim Construction") in *Dongzheng I*, wherein the Court construed the disputed terms of Claim 3 of the '558 Patent. *See Dongzheng I*, Memorandum Opinion and Order, filed May 23, 2006 (Doc. 230). The parties to this action agree that the Court's construction of Claim 3 of the '558 Patent in *Dongzheng I* applies to this

case with respect to the count against Central Purchasing for infringement of Claim 3 of the '558 Patent. *See* Leviton Memo at 4. Leviton reserves the right to appeal the Court's construction of Claim 3 of '558 Patent, however, after final judgment is entered in either action. *See id.* at 4-5.

On July 3 and 5, 2006, Leviton and the Defendants filed their respective claim construction charts and statements in this action, setting forth the parties' positions and proposed constructions regarding the disputed terms of the '766 Patent. *See* Doc. 94; Doc. 95. In support of its construction, Leviton attaches the Declaration of Dr. Jaime De La Ere. *See* Leviton Memo, Exhibit B, Declaration of Jaime De La Ere (executed August 2, 2006)("De La Ere Declaration").

In their proposed claim constructions, the parties appear to contest the meanings of the terms: (i) "electrical conductor;" (ii) "pair of terminals;" (iii) "electrically isolated;" (iv) "movable bridge;" (v) "circuit interrupting portion;" (vi) "predetermined condition;" and (vi) "reset portion." *See* Defendants' Memo at 23-46; Leviton's Memo at 14-23. At the January 8, 2007 Markman hearing, the parties reached agreement on the constructions of "electrical conductor," "pair of terminals," and "electrically isolated," and the parties' filings and statements at the hearing suggest that there is no dispute concerning the construction of "circuit interrupting portion." The parties agree that the term "electrical conductor" refers to "a material or object that permits an electric current to flow easily that is capable of being electrically connected to a source of electricity." Hearing Transcript at 86:9-87:4 (Magidoff)(taken January 8, 2007)("Transcript"); Defendants' Presentation at 21-23 (submitted January 8, 2007). The parties also agree that the term "pair of terminals" refers to "[a] pair of screws, soldering lugs or other electrical points of connection that is capable of being electrically connected to a source of electricity." Transcript at 85:25-86:8 (Magidoff); Defendants' Presentation at 118-120. The parties further agree that the term "electrically isolated" means "each of the three electrical conductors is not electrically connected to either of the other two electrical conductors." Transcript at 87:5-88:1 (Magidoff & Fry). Additionally, the parties have noted, and the Court agrees, that the Court's determination concerning "circuit interrupting" in its '558 Claim Construction applies here. *See* Transcript at 15:1-17 (Magidoff); *id.* at 21:13-19 (Magidoff); *id.* at 48:1-8(Fry); Leviton's Memo at 19; Defendants' Memo at 32 n.4. In its '558 Claim Construction, the Court held that the term "circuit interrupting" is not subject to the claims limitations in 35 U.S.C. s. 112, para. 6, and that it refers to "[a] mechanism, device, or system configured to break electrical continuity between the input and output conductors." '558 Claim Construction at 26-27; *Dongzheng I*, Joint Claim Construction Statement, filed February 7, 2005 (Doc. 96), Exhibit A at 4, Construction of Claim 3 of the '558 Patent.

Following the January 8, 2007 hearing, the terms "movable bridge," "predetermined condition," and "reset portion" remain in dispute.

LAW REGARDING CLAIM CONSTRUCTION

The claims of a patent define the patented invention. *See* Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005); E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed.Cir.1988). The claim defines the scope of the patent and "functions to forbid not only exact copies of an invention, but products that go to the heart of an invention but avoid[] the literal language of the claim by making a noncritical change." Markman v. Westview Instruments, Inc., 517 U.S. 370, 373-74, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996)(internal citations and quotations omitted). Courts must construe claims as a matter of law. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995)(en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

In determining the meaning of claims, courts should first consider the following intrinsic evidence: the claims, the specification, and the prosecution history. *See* *Markman v. Westview Instruments, Inc.*, 52 F.3d at 979; *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). Courts should construe the words of the claims in light of their ordinary and customary meaning. *See* *Phillips v. AWH Corp.*, 415 F.3d at 1312. The ordinary and customary meaning of claim terms should be interpreted from the perspective of a person of ordinary skill in the art at the time of the invention, and in the context of the other claims and the specification of the patent. *See id.* at 1313, 1326. The words of the claim are the controlling focus; "it is the claims, not the written description, which define the scope of the patent right." *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed.Cir.1998). *See* *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1344 (Fed.Cir.1998). "We presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed.Cir.2003).

Claims must be read in view of the specification. *See* *Phillips v. AWH Corp.*, 415 F.3d at 1315. The Federal Circuit has described the specification as "highly relevant to the claim construction analysis," usually "dispositive," and "the single best guide to the meaning of a disputed term." *Id.* (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d at 1582). If a term's meaning is still uncertain after reviewing the claim language, the specification provides the best potential source for elucidating the term's meaning. *See* *Phillips v. AWH Corp.*, 415 F.3d at 1315. The specification may reveal a special definition of a claim term, an intentional disclaimer, or a term used to distinguish prior art. *See id.* at 1316; *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366-67 (Fed.Cir.2002). Nevertheless, case law is clear that a patentee need not describe every conceivable and future embodiment of the invention in the specification. *See* *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d at 1366.

The last piece of intrinsic evidence, the prosecution history, consists of the complete record of the proceedings before the United States Patent and Trademark Office ("USPTO") and includes prior art cited during the examination of the patent. *See* *Phillips v. AWH Corp.*, 415 F.3d at 1317. While a parent patent's prosecution history may inform the claim construction of its descendant, the parent patent's prosecution history is irrelevant to the meaning of a descendant's limitation if the two patents do not share the same claim language. *See* *Ventana Med. Sys. v. Biogenex Labs., Inc.*, 473 F.3d 1173, 1182 (Fed.Cir.2006)(quoting *Advanced Cardiovascular Sys.*, 265 F.3d 1294, 1305-06 (Fed.Cir.2001)).

If, after examining the relevant intrinsic sources, ambiguity persists, courts may also consider extrinsic evidence, including expert testimony, dictionaries, and learned treatises to explain scientific principles, the meaning of technical terms, and terms of art. *See* *Markman v. Westview Instruments, Inc.*, 52 F.3d at 980. This evidence is useful to demonstrate how those skilled in the art would interpret the claims. *See id.* at 979. Nevertheless, extrinsic evidence is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Phillips v. AWH Corp.*, 415 F.3d at 1317 (internal quotations omitted). The Federal Circuit has cautioned courts not to place too much reliance on extrinsic evidence and too little reliance on intrinsic sources. *See id.* at 1320.

[1] Despite this caution, the Federal Circuit has made clear that dictionaries can be a useful source to help in understanding the commonly understood meanings of words, and thus that a court may consult a dictionary at any time to help understand the definition of a word. *See id.* at 1322-24. Courts should not, however, elevate the dictionary meaning to such prominence that it shifts the focus of the inquiry to "the abstract meaning of words rather than on the meaning of claim terms within the context of the patent." *Id.* at 1321. Courts should instead generally focus "at the outset on how the patentee used the claim term in the claims,

specification, and prosecution history, rather than starting with a broad definition and whittling it down." *Id.*

Expert testimony can also be helpful to establish a term's meaning in the pertinent field. *See id.* at 1318. An expert's conclusory, unsupported assertions as to the meaning of a claim term, however, are not useful to a court. *See id.* at 1318. Courts should also only use extrinsic evidence, including expert testimony, to understand the patent, not to vary or contradict the terms of the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d at 981. The Federal Circuit has cautioned courts about relying on expert testimony that is generated at the time of litigation and is more prone to bias than intrinsic evidence. *See Phillips v. AWH Corp.*, 415 F.3d at 1318.

"Section 112, para. 6 of title 35 of the United States Code allows patent applicants to claim an element of a combination functionally, without reciting structures for performing those functions." *Envirco Corp. v. Clestra Cleanroom, Inc.*, 209 F.3d 1360, 1364 (Fed.Cir.2000). Where a claim element contains the word "means" and recites a function, courts presume that the element is a means-plus-function element under 35 U.S.C. s. 112, para. 6. *Envirco Corp. v. Clestra Cleanroom, Inc.*, 209 F.3d at 1364. "Merely because an element does not include the word 'means' [, however,] does not automatically prevent that element from being construed as a means-plus-function element." *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed.Cir.1996). *See Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 704 (Fed.Cir.1998)(citing *Cole v. Kimberly-Clark Corp.*). 35 U.S.C. s. 112, para. 6 states:

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

Nevertheless, a party can rebut that presumption by showing that the claim element recites sufficiently definite structure to perform entirely the specified function. *See Envirco Corp. v. Clestra Cleanroom, Inc.*, 209 F.3d at 1364; *Sage Products, Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed.Cir.1997). To determine whether the claim recites sufficient structure, courts must consider whether the "term, as the name for structure, has a reasonably well understood meaning in the art." *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed.Cir.1996). A term does not need to connote a precise physical structure to rebut the s. 112, para. 6 presumption. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d at 1370; *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d at 1583.

If a court determines that the means-plus-function claim limitation applies, the court must then identify the function described in the limitation. *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed.Cir.2004). The court must examine the written description to determine the structure that corresponds to the function. *See id.* "[T]he 'means' term in a means-plus-function limitation is essentially a generic reference for the corresponding structure disclosed in the specification." *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308 (Fed.Cir.1998). Only structures from the specification that are necessary to perform the claimed function constitute corresponding structures. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1369-70 (Fed.Cir.2001). "The corresponding structure to a function set forth in a means-plus-function limitation must actually perform the recited function, not merely enable the pertinent structure to operate as intended." *Id.* at 1371.

ANALYSIS

The parties' remaining construction disputes center on three terms: (1) "movable bridge;" (2) "predetermined

condition;" and (3) "reset portion." The Court concludes that all three terms need construction. The Court further concludes that it will adopt the Defendants' proposed constructions of these terms.

1. *Movable Bridge.*

[2] The Court believes that the term "movable bridge" is not clear on its face to one of ordinary skill in the art and that, therefore, construction is warranted. The parties agree that the term refers to contact arms 50 and 70, listed in the specification. *See* Leviton's Memo at 18; Defendants' Memo at 29; Defendants' Presentation at 33, 36. The patent does not anywhere else define or reference, however, either "movable bridge" or contact arm, and thus the term "movable bridge" needs constructing.

Leviton points out that the examiner used "movable bridge" in communications with it during prosecution of the '766 patent. *See* Leviton Memo, Exhibit D, Examiner's Amendment at 2-3. The examiner merely restates the term, however, and does not further elucidate its meaning. *See id.* The Defendants' note that the '776 patent's re-examiner, reasoning that "all of the unfixed or non-permanent electrical connections in the claim are designed as 'capable of being connected,' whereas the connection between the movable bridge and the first electrical conductor is designed as being 'electrically connected,'" construed "movable bridge" as always connected to the "first electrical conductor." Defendants' Memo, Exhibit F, *Inter Partes* Reexamination at 2, 3, 6-8. Because "movable bridge" is not clear on its face to one of ordinary skill in the art, and because the patent does not, either in the claims or specification, give meaning to the term, it is appropriate to look to extrinsic evidence such as dictionaries and textbooks. *See* Markman v. Westview Instruments, Inc., 52 F.3d at 980 (stating that it is appropriate to consult extrinsic sources, such as dictionaries, learned treatises, and expert testimony, if ambiguity persists after reviewing intrinsic sources).

The McGraw-Hill Dictionary of Scientific and Technical Terms defines "bridge" as "[a]n electrical shunt path." Defendants' Memo at 29 (quoting McGraw-Hill Dictionary of Scientific and Technical Terms 268 (5th ed.1994)). A "shunt path" is "an electrical path in which components are each connected in parallel (i.e. to the ends of the circuit)." Defendants' Memo at 29 (citing McGraw-Hill Dictionary of Scientific and Technical Terms 1443, 1818, 2002 ("**shunt** ... [ELEC] 1. A precision low-value resistor placed across the terminals of an ammeter to increase its range by allowing a known fraction of the circuit current to go around the meter. Also known as electric shunt. 2. To place in parallel with another. **parallel** ... [ELEC] Connected to the same pair of terminals. Also known as multiple; shunt. **terminal** ... [ELEC] 1. A screw, soldering lug, or other point to which electric connections can be made. Also known as an electric terminal.... 3. One of the electric input or output points of a circuit or component.")). Leviton does not dispute the Defendants' interpretation of the terms defined in the McGraw-Hill dictionary.

Based upon the claims, specification, re-examiner's statements, and the definitions extracted from the McGraw-Hill Dictionary, the Defendants propose that the term "movable bridge" be construed as: "At least one moveable arm that is always electrically connected to the first electrical conductor and that has the ability to create a parallel conductive path between the first, second, and third electrical conductors." Defendants' Presentation at 32. Citing its expert Dr. De La Ere's testimony, Leviton contends that the Defendants' construction is wrong, because the claim language refers only to the creation of a "single electrical connecting point," rather than two distinct electrical connecting points as would be required for a "parallel conductive path" to be created. Leviton's Memo at 18; De La Ere Declaration para. 22, at 11. The Defendants counter, however, that the fact that the unbroken circuit paths constitute but a "single point" does not mean that the circuit does not have "separate conductive paths." Memorandum of Points and Authorities Further Supporting Defendants' Claim Construction for U.S. Pat. No. 6,864,766 at 11 ("Defendants'

Response"). The Defendants support that assertion by pointing out that Dr. De La Ere conceded that the device claimed in the '766 patent would contain a first, second, and third electrical conductor when each of the conductive paths is electrically connected to the other, and would maintain electrical conductivity from the line terminals to the downstream terminals, even if the contact in the device was damaged such that it would not conduct electricity to the user accessible load terminals. *See* Defendants' Response at 11; Defendants' Response, Exhibit B, Deposition of Jaime De La Ere at 64:8-18 (taken August 31, 2006)("August 31 De La Ere Deposition"); *Id.* at 73:7-17.

The Court disagrees with Leviton's position that "movable bridge" is clear on its face to one of ordinary skill in the art. *See* Leviton Manufacturing Co., Inc.'s Responsive Brief on Claim Construction, Exhibit D, Plaintiff's Proposed Claim Construction of the '766 Patent, filed September 15, 2006 (Doc. 115). The Court also concludes that the construction Leviton proposes for the term, "a movable bridge is a movable structure," serves to make the term more open ended and less certain than it already is. *Id.* Given those conclusions, finding that there is sufficient prosecution history to support the "is always electrically connected to the first electrical conductor" portion of the Defendants' proposed construction, *see* Phillips v. AWH Corp., 415 F.3d at 1317 (the prosecution history is intrinsic evidence that should be considered in determining the meaning of claims); Defendants' Memo, Exhibit F, *Inter Partes* Reexamination at 2, 3, 6-8, finding that intrinsic sources leave the term "movable bridge" ambiguous, and concluding that the dictionary derived meaning the Defendants put forth clarifies the term, *see* Markman v. Westview Instruments, Inc., 52 F.3d at 980 (stating that it is appropriate to consult extrinsic sources, such as dictionaries, learned treatises, and expert testimony, if ambiguity persists after reviewing intrinsic sources); McGraw-Hill Dictionary of Scientific and Technical Terms at 268, 1443, 1818, 2002, the Court will adopt the Defendants' proposed construction of "movable bridge."

2. Predetermined Condition.

[3] The Court believes, contrary to Leviton, that the term "predetermined condition" is not clear on its face to one of ordinary skill in the art and that, therefore, it requires construction. The term "predetermined condition" is not specifically defined or described in the '766 patent. *See* The '766 Patent. The Defendants' initial proposed construction of the term is "the occurrence of a current imbalance from an actual or artificially induced ground fault." Defendants' Memo at 32.

In their initial memorandum in support of their proposed claim constructions, the Defendants' assert that the specification describes only three conditions in which the "circuit interrupting portion" would cause "electric discontinuity:" sensing an actual fault, pressing the test button, and pressing the reset button. *See* Defendants' Memo at 32; The '766 Patent, Col. 7, ll. 13-18; *id.* at Col. 7, ll. 19-23; *id.* at Col. 8, ll. 35-38; *id.* at Col. 6, ll. 8-12. The Court agrees that those are the only three conditions that the specification describes that would lead the circuit interrupting portion to cause electric discontinuity. *See* The '766 Patent. The Defendants, in their initial claim construction briefing, also maintain that those three conditions have one thing in common: they create a circuit imbalance from an actual or artificially induced ground fault. *See* Defendants' Memo at 32-33; The '766 Patent, Col 3, ll. 1-5; *see id.* at Col 3, ll. 21-31.

In further support of their construction, the Defendants cite Dr. De La Ere's testimony concerning the '558 patent. *See* Defendants' Response at 14. The Defendants point out that Dr. De La Ere testified that "predetermined condition" meant the same thing in U.S. Pat. No. 6,040,967 ("the '967 patent") and the '558 patent, *see* Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d at 1334 ("We presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed

meaning."); August 31 De La Ere Deposition at 68:17-20; *id.* at 69:3-6, and that he admitted that the term "test cycle," as used therein, was synonymous with "stimulating a ground fault," *see* Defendants' Response, Exhibit A, Deposition of Jaime De La Ere at 149:18 (taken December 14, 2004)("December 14 De La Ere Deposition"); *id.* at 150:2.

Leviton contends that the '776 patent incorporates by reference the language concerning "predetermined condition" contained in the '967 patent. *See* Leviton's Response at 11-12. The Court concurs. *See* The '776 Patent at Col. 1, 12-15. With regard to "predetermined condition," the '967 patent states: "Predetermined conditions include, without limitation, ground faults, arc faults, appliance leakage faults, immersion faults and a test cycle." The '967 Patent at Col.2, ll. 25-27. Leviton also contends that "arc faults" and "test cycles" do not necessarily create or require current imbalances. FN1 *See* Leviton's Response at 12. The Defendants respond to that contention by noting that may be true, but pointing out that in such "open-neutral" test circumstances, the circuit interrupting portion does not cause electrical discontinuity-because no electricity is flowing through the device-and that the relevant claim expressly states: "A circuit interrupting portion configured to cause electrical discontinuity." Transcript at 53:9-54:18(Fry); The '766 Patent, Claim 1. Essentially, the Defendants argue that the claim language effectively excludes "open-neutral test cycles" that do not cause current imbalances, and that, therefore, the "upon the occurrence of a current imbalance" portion of their proposed claim construction is correct. *See id.* The Court also notes that the proposed construction the Defendants presented at the Markman hearing replaced "ground fault" with "electrical fault," seemingly acknowledging that the '967 patent was incorporated by reference and that it allows for the possibility that the circuit interrupting portion may cause electrical discontinuity upon the occurrence of arc faults, appliance leakage faults, immersion faults, in addition to ground faults and test cycles. *See* Defendants' Presentation at 73.

FN1. Leviton does not discuss the circumstances surrounding such "arc faults," and thus fails to give the Court sufficient information to evaluate this element of Leviton's contention.

The Court believes that the term "predetermined condition" is not clear on its face to one of ordinary skill in the art and that, therefore, construction is required. The Court finds that the '967 patent is incorporated by reference in the '766 patent, and that, as a result, it is proper to use "electrical fault," rather than "ground fault." Defendants' Memo at 32; Defendants' Presentation at 73. Moreover, the Court notes that Dr. De La Ere has testified that, for purposes of the '558 patent, "test cycle" is synonymous with "stimulating a ground fault," *see* December 14 De La Ere Deposition at 149:18; *id.* at 150:2, and that it is not disputed that ground faults create and/or require current imbalances. Further, the Court agrees with the Defendants and finds that the claim language excludes "open-neutral test cycles" that would not create or require current imbalances. As such, the Court will adopt the Defendants' proposed claim construction for "predetermined condition."

3. Reset Portion.

Leviton argues, citing Dr. De La Ere's declaration, that the term "reset portion" is clear on its face to one of ordinary skill in the art. *See* Leviton's Memo at 20; De La Ere Declaration para. 24, at 12-13. Leviton also contends that "reset portion" is a structural limitation and not a means-plus-function clause subject to s. 112, para. 6. *See id.* In support of its position, Leviton cites Col. 3, ll. 5-8 of the '766 patent, which states: "A reset portion is disposed at least partially within the housing and is configured to reestablish electrical continuity in the open conductive paths." The '766 Patent at Col. 3, ll. 5-8; Leviton's Memo at 20. Leviton, in maintaining its position, also asserts that the "reset portion" claim element does not use the word "means."

See Leviton's Memo at 20-21. In further support of its position that the "reset portion" claim element is clear on its face and not subject to s. 112, para. 6, Leviton states that "reset portion" has, over the years, acquired a reasonably well understood meaning in the art that is reasonably associated with a particular structure. *See id.*

[4] The Court does not agree with Leviton's position that "reset portion" is clear on its face to one of ordinary skill in the art and that it is not a means-plus-function clause. While "means" is not used in the "reset portion" claim element, the presumption that a claim element not containing the word "means" is not subject to s. 112, para. 6 can be overcome. *See* *Cole v. Kimberly-Clark Corp.*, 102 F.3d at 531 ("Merely because an element does not include the word 'means' does not automatically prevent that element from being construed as a means-plus-function element."); *Personalized Media Commc'ns. LLC v. Int'l Trade Comm'n*, 161 F.3d at 704. The Court, agreeing with the Defendants, believes that presumption is overcome here; the relevant claim element does not provide sufficient structure. *See* Defendants' Memo at 34-35; Defendants' Response at 15-17; The '766 Patent, Claim 1. Moreover, as the Defendants point out, the language at Col. 3, ll. 5-8 of the '766 patent, upon which Leviton relies for support, provides the location and function of the "reset portion" without providing any structure. *See* Defendants' Response at 15-17; The '766 Patent at Col. 3, ll. 5-8. Additionally, the Court notes that, while Leviton asserts that "reset portion" has acquired a reasonably well understood meaning that is reasonably associated with a particular structure, Leviton does not put forth that meaning or structure with a sufficient degree of specificity. *See* Leviton's Memo at 21.

The Defendants, citing *Massachusetts Institute of Technology and Electronics for Imaging, Inc. v. Abacus Software*, 462 F.3d 1344 (2006), contend that the presumption that a claim element lacking the word "means" is not a means-plus-function element is overcome here, because the claim does not contain sufficient structure and the words "reset" and "portion," when assessed either independently or in conjunction, do not connote sufficient structure. *See id.* at 1353 ("[A] limitation lacking the term 'means' may overcome the presumption against means-plus-function treatment if it is shown that 'the claim term fails to recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.' "). The Defendants note that pertinent dictionaries either do not define those terms or do not define them in a manner that connotes structure. *See* Transcript at 58:14-60:13(Fry); Defendants' *Markman* Hearing Presentation at tabs 31-34, 36-40. The Defendants also point out that Dr. De La Ere testified that "reset portion" did not refer to any specific structure. *See* Transcript at 60:21-62:17(Fry); Defendants' Response at 16-17 (citing August 31 De La Ere Deposition at 78:17-79:5). Further, the Defendants note that the Court previously, in its construction of the '558 patent's claims, determined that the "reset means" claim element was subject to s. 112, para. 6, and that, in the '558 patent, Leviton uses the terms "reset means" and "reset portion" interchangeably. *See* Transcript at 59:12-21(Fry); Defendants' Memo at 34-45.

The Court finds the Defendants' position concerning "reset portion" persuasive. The Court believes that the language of the "reset portion" claim element cannot be said to impart sufficient structure. *See* The '776 Patent, Claim 1. The Court also believes that it is noteworthy that the Defendants' search did not reveal, nor did Leviton present, evidence that the term "reset portion" or the individual terms "reset" and "portion" impart sufficient structure within the art. *See* *Mass. Inst. of Tech. & Elec. for Imaging, Inc. v. Abacus Software*, 462 F.3d at 1354 (analyzing disputed claim element terms together and independently, and finding that s. 112, para. 6 applied where those terms did not impart sufficient structure and none was otherwise included within the claim). The Court, moreover, acknowledges that Dr. De La Ere conceded that the term "reset portion" does not connote any specific structure, *see* August 31 De La Ere Deposition at 78:17-79:5,

and that Leviton does appear to use "reset means" and "reset portion" interchangeably in Claims 3 and 4 of the '558 patent, *see* The '558 Patent, Claims 3 & 4, *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d at 1334 ("We presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning."). Considering the foregoing, the Court concludes that the Defendants have overcome the presumption that s. 112, para. 6 is not applicable, and that the "reset portion" claim element is a means-plus-function element.

Citing *Ventana Med. Sys. v. Biogenex Labs, Inc.*, Leviton contends that the "reset" language used in Claim 1 of the '766 patent and Claim 3 of the '558 patent is different, and that, therefore the Court's construction of Claim 3 of the '558 patent is irrelevant and the Court should not find that "reset portion" is a means-plus-function element. *See Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d at 1334 (stating that, while a parent patent's prosecution history may inform the claim construction of its descendant, the parent patent's prosecution history is irrelevant to the meaning of a descendant's limitation if the two patents do not share the same claim language); Transcript at 14:10-15:17 (Magidoff). The Court notes, however, that the "reset portion" claim element's lack of accompanying structure, and not its language's similarity to that of Claim 3 of the '558 patent, drives the Court's conclusion here.

[5] Because the Court concludes that "reset portion" is a means-plus-function element, it must determine its function. *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d at 1322. The Court concurs with the function that the Defendants put forth. The language of the "reset portion" claim element is largely identical to that of the "circuit interrupting portion" claim element, for which the Court adopts the Defendants' proposed construction. *See* The '766 Patent, Claim 1. Moreover, the word "said" indicates that the term "predetermined condition," as used in the "reset portion" claim element, should be construed as it was with respect to the "circuit interrupting portion" element. *Phillips v. AWH Corp.*, 415 F.3d at 1316-17 (stating that use of the term "said" indicates that the term in question has previously been used within the claim and that the earlier understood meaning should be maintained). Given the use of "said," given that the Court adopts the Defendants' construction of the "circuit interrupting portion" construing identical language, given that it is presumed that the same claim term in the same patent or related patents carries the same construed meaning, *see Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d at 1334, and given that, while Leviton states that the Defendants' proposed s. 112, para. 6 function is incorrect, Leviton does not present the Court with an alternative, *see Leviton's Response* at 15-17, the Court will adopt the Defendants' proposed construction of the "reset portion" claim element. The Defendants' proposed construction provides:

This claim element is a means-plus-function element in accordance with 35 U.S.C. s. 112, para. 6. The function to be performed by the "reset portion" is reestablishing electrical continuity between the first and second electrical conductors and between the first and third electrical conductors after the occurrence of a current imbalance (in this case an artificially induced electrical fault) that activates the circuit interrupting portion.

Defendants' Presentation at 88.

Because the Court concludes that "reset portion" is a means-plus-function element, it must also identify the structure that corresponds to the function. *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d at 1322. The Court finds that the pertinent specification language contained within the '776 patent for completing the function assigned to the "reset portion" is the same structural language contained within the '558 patent for completing the function that was assigned there to "reset means." *See* The '766 Patent, Col. 8, ll 25-56; The '558 Patent, Col. 8, ll 25-56. Given that the language the Court used to describe the function of the "reset

means" in the '558 patent is nearly identical to the language it adopts to describe the function of the "reset portion" of the '766 patent, and given that the relevant specification language is the same in both the '558 and '776 patents, the Court will apply its finding with regard to the structure of "reset means" from the '558 patent to the "reset portion" claim element appearing in the '766 patent. Thus, the necessary structures corresponding to the function ascribed to the "reset portion" are: reset button 30; return spring 120; latch number 100; latching finger 102; movable contract arms 50 and 70; reset contacts 104, 106, 52, 62, 56, 66, 72, 82, 76, and 86; coil assembly 90, plunger 92, banger 94, banger dogs 96 and 98; operable ends 116 and 118; and a circuit that senses the "predetermined condition" and causes coil assembly 90 to actuate plunger 92. *See* The '766 Patent at Col. 8, ll 25-56.

IT IS ORDERED that, for the reasons stated herein, the case proceed on the basis of the above constructions of the '766 patent.

D.N.M.,2007.

Leviton Mfg. Co., Inc. v. Zhejiang Dongzheng Elec. Co.

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