United States District Court,
N.D. Illinois, Eastern Division.

Philip S. JACKSON,
Plaintiff.
v.
CASIO PHONEMATE, INC., Asahi Corporation, and Casio Computer Co., Ltd,
Defendants.

July 18, 2000.

Owner of patent for device which allowed telephone caller to remotely control attached appliances brought infringement action against seller of remotely accessible telephone answering machine. On defendant's motion for summary judgment, the District Court, Gettleman, J., held that: (1) claims calling for "gating means," "flip-flop means" and "feedback-gate means" were not infringed, and (2) fact issue existed as to whether claims calling for "access limiting circuit means" and "counter means" were infringed.

Motion granted in part and denied in part.

4,596,900. Not infringed.

Raiford A. Blackstone, Jr., David Joseph Marr, Thomas J. Donovan, Linda L. Palomar, Trexler, Bushnell, Giangiori & Blackstone, Ltd., Chicago, IL, for Philip S Jackson, plaintiff.

Alan L. Barry, Linda A. Kuczma, Bradley F. Rademaker, Wallenstein, Wagner & Hattis, Ltd., Chicago, IL, Barry D. Rein, Kevin L.F. Luo, Pennie & Edmonds, New York City, Brent A. Hawkins, Wallenstein & Wagner, Ltd., Chicago, IL, for Casio Phonemate, Inc., defendant.

Daniel N. Christus, Bradley F. Rademaker, Brent A. Hawkins, Wallenstein, Wagner & Hattis, Ltd., Chicago, IL, for Asahi Corporation, defendant.

Raiford A. Blackstone, Jr., David Joseph Marr, Thomas J. Donovan, Linda L. Palomar, Trexler, Bushnell, Giangiori & Blackstone, Ltd., Chicago, IL, for Philip S Jackson, counter-defendant.

MEMORANDUM OPINION AND ORDER

GETTLEMAN**, District Judge.**

Plaintiff Philip Jackson has filed a complaint against defendants Casio PhoneMate, Inc., Asahi Corp., and Casio Computer Co., Ltd., alleging patent infringement. Defendant Casio PhoneMate ("defendant") has moved for summary judgment pursuant to Fed.R.Civ.P. 56. For the following reasons, defendant's motion is granted in part and denied in part. FN1

FN1. Defendant has filed a statement of material facts pursuant to Local Rule ("L.R.") 56.1 in conjunction with its summary judgment motion. Plaintiff nevertheless devotes much of his response brief to arguing that defendant's motion should be denied because defendant failed to comply with L.R. 56.1. Plaintiff would have spared the court this frivolous argument had he engaged in even a brief perusal of the docket sheet or the court file. To add insult to injury, plaintiff has filed an unacceptable statement of additional facts pursuant to L.R. 56.1(b)(3)(B). Many of the assertions in this document are statements of law rather than statements of fact. Moreover, rather than citing to *specific* parts of the record, as required by the local rule, plaintiff consistently refers the court to Dr. LeRoy F. Silva's expert report, "passim." The court does not appreciate plaintiff's indolent tactics, which have forced the court to sift through all 177 pages of Dr. Silva's expert report in an effort to glean evidence in support of plaintiff's position.

FACTS

Plaintiff owns United States Patent No. 4,596,900 ("the '900 patent"). Plaintiff's invention enables a user to remotely control many functions of an appliance or device by using the "touch-tone" features of a conventional telephone. Plaintiff's invention can be connected to, for example, a heating or air conditioning system or a lighting system, and enables a caller to remotely control the attached appliance. The caller can make the appliance perform a number of functions by using a predetermined sequence of tones, such as those tones generated by most telephones. The preferred embodiment of the apparatus covered by the '900 patent responds to one predetermined sequence of tones, known as the access code, and thereafter responds to other predetermined sequences of tones, known as "control codes," which are used, for example, to turn the attached appliance on and off. Plaintiff's apparatus uses integrated circuit digital logic to perform its functions.

The '900 patent works in the following way: When sequences of two or more touch tones are entered into a telephone and received over a telephone line, the controller of the '900 patent responds by generating "control signals." The process begins when the owner of the appliance controlled by the '900 patent enters a specific "tone sequence," such as the sequence " *,1" or the sequence "# ,1." (The sequence " *,1" turns the controlled appliance on, while the sequence "# ,1" turns the controlled appliance off.) The tone sequences " *,1" and "# ,1" are two types of "control codes." The controller of the '900 patent includes a "detecting means" that detects the control code the owner has input. Once the control code is input and detected, the controller outputs a corresponding "sequence detection signal." The sequence detection signal is then fed to a bistable "control means" that always outputs either an "on" control signal or an "off" control signal to the controlled appliance. Consequently, if the owner enters the tone sequence " *,1," the ultimate result will be that the controlled appliance will turn on; conversely, if the owner enters the tone sequence, "# ,1," the ultimate result will be that the controlled appliance will turn off.

Defendant's allegedly infringing device, the TC-540 ("the accused device"), is a combination cordless telephone and answering machine that an owner can access remotely to listen to messages left by callers. The accused device enables a caller to leave a message in one of three mailboxes by calling the device and pressing various tones. The accused device enables an owner to access her messages remotely by calling the device and pressing an access code. By pressing various tones, the owner can retrieve, save, replay, and erase messages. Defendant's device uses a microprocessor to perform its functions.

Plaintiff alleges that the accused device infringes the '900 patent in the way that it enables the owner to

remotely access and play back messages in selected mailboxes and in the way that it limits remote access to callers who enter an access code. Plaintiff states that in 1988, he attended the Consumer Electronics Show in Chicago, Illinois. According to plaintiff, defendant's representatives attended this same show and examined the device protected by the '900 patent. Some time thereafter, defendant began manufacturing and selling telephone answering machines that incorporated every element of many of the claims recited in the '900 patent. Plaintiff alleges that the accused device is one such answering machine.

SUMMARY JUDGMENT STANDARD

A movant is entitled to summary judgment under Fed.R.Civ.P. 56 when the moving papers and affidavits show there is no genuine issue of material fact and the movant is entitled to judgment as a matter of law. *See* Fed.R.Civ.P. 56(c); Celotex Corp. v. Catrett, 477 U.S. 317, 322, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986); Unterreiner v. Volkswagen of America, Inc., 8 F.3d 1206, 1209 (7th Cir.1993). Once a moving party has met its burden, the nonmoving party must go beyond the pleadings and set forth specific facts showing there is a genuine issue for trial. *See* Fed.R.Civ.P. 56(e); Becker v. Tenenbaum-Hill Assoc., Inc., 914 F.2d 107, 110 (7th Cir.1990). The court considers the record as a whole and draws all reasonable inferences in the light most favorable to the party opposing the motion. *See* Fisher v. Transco Services-Milwaukee, Inc., 979 F.2d 1239, 1242 (7th Cir.1992).

A genuine issue of material fact exists when "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986); Stewart v. McGinnis, 5 F.3d 1031, 1033 (7th Cir.1993). However, the nonmoving party "must do more than simply show that there is some metaphysical doubt as to the material facts." Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, 586, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986). "The mere existence of a scintilla of evidence in support of the [nonmoving party's] position will be insufficient; there must be evidence on which the jury could reasonably find for the [nonmoving party]." Anderson, 477 U.S. at 252, 106 S.Ct. 2505.

DISCUSSION

Defendant moves for summary judgment of non-infringement, arguing that the accused device lacks certain elements of the claims of plaintiff's patent. Specifically, defendant argues that the accused device lacks a "gating" means, a "flip-flop" means, a "counter" means, and a "feedback-gate" means. FN2 Defendant focuses its analysis on four independent claims, Claim 1 (gating means), Claim 3 (flip-flop means), Claim 5 (counter means), and Claim 10 (feedback-gate means), because "[i]t is axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed." Wahpeton Canvas Co. v. Frontier, Inc., 870 F.2d 1546, 1553 (Fed.Cir.1989). Each of the allegedly infringed claims requires one of the means found in Claims 1, 3, 5, and 10, with two exceptions. FN3 Accordingly, the resolution of defendant's motion may resolve many of the infringement allegations in the instant case.

FN2. According to defendant, the gating means is required by Claims 1, 14, 16, 18, 20, 59, 60, 62, 63, 64, and 66; the flip-flop means is required by Claims 3, 4, 25, 26, 28, 69, 70, 72, 73, 74, and 76; the counter means is required by Claims 5, 32, 33, 35, 79, 84, 85, and 87; and the feedback-gate means is required by Claims 10, 45, 46, 97, 99, and 100.

FN3. Defendant has not responded to plaintiff's allegation that the accused device infringes Claims 2 and 24.

The instant opinion therefore does not apply to Claims 2 and 24.

I. Legal Framework

[1] [2] [3] [4] Two steps are required to determine whether a patent claim has been infringed: (1) the court must construe the claim to determine its scope; and (2) the court must determine whether the properly construed claim encompasses the accused structure. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353 (Fed.Cir.1998). With respect to the first step, claim construction, "[w]hen the meaning or scope of a patent claim is in dispute the court construes the claim as a matter of law." Vivid Technologies, Inc. v. American Science & Engineering, Inc., 200 F.3d 795, 804 (Fed.Cir.1999) (citing Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996)). "[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy." *Id*. at 803. To construe the claims, the court first examines intrinsic evidence. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996); Oneac Corp. v. Raychem Corp., 20 F.Supp.2d 1233, 1237 (N.D.Ill.1998). The intrinsic evidence consists of the patent claims, the specification, and, if in evidence, the prosecution history. Vitronics, 90 F.3d at 1582. If the intrinsic evidence alone is not sufficient, extrinsic evidence may be used. Id. at 1583. Extrinsic evidence is external to the patent and file history, such as expert testimony, inventor testimony, dictionaries, technical treatises, articles, and prior art not cited. Id. at 1584. Intrinsic evidence is preferred since it encompasses the materials in the public record. Id. at 1583. Therefore, if the intrinsic evidence alone resolves any ambiguity, it is improper to rely on extrinsic evidence. Id. at 1583.

[5] [6] The second step requires the court to determine if a defendant is guilty of either literal infringement or infringement under the doctrine of equivalents. Bai, 160 F.3d at 1353. Literal infringement is a question of fact and may be decided on summary judgment when no genuine issue of material fact exists, such that "no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device." *Id*. Infringement under the doctrine of equivalents is also a question of fact. The question under this doctrine is, "whether a reasonable jury could find that the accused device contains elements that are equivalent to each of the properly construed claim limitations." *Id*. at 1354.

[7] Claims governed by 35 U.S.C. s. 112, para. 6 are often referred to as "means-plus-function" claims. A "means-plus-function" limitation describes an element of a product claim as "a means or step for performing a specified function." 35 U.S.C. s. 112 para. 6. If an accused device exactly meets the means-plus-function limitation in a patent claim, it literally infringes that claim. "In applying the 'means plus function' paragraph of s. 112 ... the sole question is whether the single means in the accused device which performs the function stated in the claim is the same as or an equivalent of the corresponding structure described in the patentee's specification as performing that function." D.M.I., Inc. v. Deere & Co., 755 F.2d 1570, 1575 (Fed.Cir.1985). In other words, "to meet a means-plus-function limitation, an accused device must (1) perform the identical function recited in the means limitation and (2) perform that function using the structure disclosed in the specification or an equivalent structure." Carroll Touch, Inc. v. Electro Mechanical Systs., Inc., 15 F.3d 1573, 1578 (Fed.Cir.1993). "Literal infringement requires that the accused device embody every element of the claim." Builders Concrete, Inc. v. Bremerton Concrete Prods. Co., 757 F.2d 255, 257 (Fed.Cir.1985). If the accused device does not perform the *identical* function as that recited in the claim, there is no literal infringement. *See* Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 934 (Fed.Cir.1987).

[8] If the court determines that "the required function is not performed exactly in the accused device, ...

section 112, paragraph 6 ... is not involved." Pennwalt, 833 F.2d at 934.FN4 In this situation, the court should proceed to examine the accused device under the doctrine of equivalents. The court may find infringement under the doctrine of equivalents if the accused device "performs substantially the same overall function or work, in substantially the same way, to obtain substantially the same result as the claimed invention." *Id*. In comparing an accused device with a patent claim under the doctrine of equivalents, the court must start with the claim itself. *Id*. at 935. "In applying the doctrine of equivalents, the fact finder must determine the range of equivalents to which the claimed invention is entitled, in light of the prosecution history, the pioneer-non-pioneer status of the invention, and the prior art." D.M.I., 755 F.2d at 1575. "[T]he doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole." Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17, 29, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997). "In order for the court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device. To be a 'substantial equivalent,' the element substituted in the accused device for the element set forth in the claim must not be such as would substantially change the way in which the function of the claimed invention is performed." Perkin-Elmer Corp. v. Westinghouse Elec. Corp., 822 F.2d 1528, 1533 (Fed.Cir.1987) (internal citations and quotation marks omitted).

FN4. For this reason, "Section 112, paragraph 6, plays no role in determining whether an equivalent function is performed by the accused device under the doctrine of equivalents." Pennwalt, 833 F.2d at 934.

II. Claim 1: Gating Means

[9] Defendant argues that the accused device does not perform the function of the gating means required by independent Claim 1 and those claims that depend from Claim 1. Claim 1 reads, in relevant part:

A phone-line-linked, tone-operated control apparatus for remotely controlling various functions of at least one device, said apparatus comprising: detecting means coupled to receive tone signals from said phone line, for detecting at least one predetermined sequence of predetermined tone signals and for producing a corresponding sequence detection signal; and control means responsive to said sequence detection signal for producing a corresponding control signal; wherein said detecting means comprises first detecting means for producing a first detection signal in response to the reception of a first predetermined sequence of predetermined tone signals and second detecting means for producing a second detection signal in response to the reception of a second predetermined sequence of predetermined tone signals; wherein said control means is responsive to said first detection signal for producing a corresponding first control signal and responsive to said second detection signal for producing a corresponding second control signal; ... and wherein said first and said second detecting means further include **gating means** coupled in circuit for disabling production of said first and said second detection signals respectively in response to said second control signal and said first control signal, respectively, whereby said apparatus cannot produce said first detection signal and said second detection signal at the same time.

A. Claim Construction: Function of the Gating Means

As discussed above, the court must first determine the meaning and scope of the patent claim asserted to be infringed. "A determination of the claimed function, [is] a matter of construction of specific terms in the claim.... [A] determination of corresponding structure is a determination of the meaning of the 'means' term in the claim and is thus also a matter of claim construction." Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc., 145 F.3d 1303, 1308 (Fed.Cir.1998). "To ascertain the meaning of claims, we consider three sources: The claims, the specification, and the prosecution history." Markman, 52 F.3d at 979

(citation omitted). The detailed description in the patent elucidates the function of the above-quoted Claim 1. "For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims." Markman, 52 F.3d at 979.

The language of Claim 1 and the detailed description explain that entering a predetermined sequence of predetermined tone signals (such as the tones # and 1), produces a corresponding sequence detection signal, and a certain gate and flip-flop respond by producing the control signal "off," thus turning off the device the patented invention is controlling. Similarly, entering a predetermined sequence of predetermined tone signals (such as the tones * and 1), leads to the production of a sequence detection signal, which itself leads to the production of a corresponding control signal (such as "on"), thus turning on the controlled device.

According to the detailed description, the gating means "assures that repetition of the '# ,1' (off) sequence will not result in turning the instrument on." Similarly, the gating means "prevents production of the 'on' signals unless the instrument is in the off state. Hence, repetition of the sequence ' *,1' will not turn the instrument 'off,' if it is already in the 'on' state."

The prosecution history of the first and second reexaminations of the patent also sheds light on the function of the gating means. "Although the prosecution history can and should be used to understand the language used in the claims, it too cannot 'enlarge, diminish, or vary' the limitations in the claims." Markman, 52 F.3d at 980. Plaintiff explained one embodiment of the gating means to the patent examiner during the prosecution of the '900 patent. He discussed the situation in which the device "receive[s] signals corresponding to the '# ' signal and '1' signal digits." "This detection signal (i.e., the output ... which represents the existence of a '# ' and a '1' at the same time) is *disabled,* however, unless an appropriate signal is simultaneously present.... In this embodiment, an appropriate signal is the opposite control signal.... This feature of Jackson's invention positively assures production of only one control signal at a time, and thereby prevents production of these signals simultaneously." (Emphasis added.) This explanation suggests that the device will respond to the tone sequence "# ,1" only if the opposite control signal ("on") is present; if the opposite control signal is not present (that is, if the controlled device is already off), the output that usually follows the entry of "# ,1" (an "off" control signal) will not be produced, no matter how many times "# ,1" is entered. The prosecution history thus reinforces the claim's description of the gating means as something that "disables production" of sequence detection signals in response to certain control signals.

"Usually, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." Optical Disc Corp. v. Del Mar Avionics, 208 F.3d 1324, 1334 (Fed.Cir.2000). "The court may, in its discretion, receive extrinsic evidence in order 'to aid the court in coming to a correct conclusion' as to the 'true meaning of the language employed' in the patent." Markman, 52 F.3d at 980. However, "[i]n those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper," because the public has a right to rely on the public record. Vitronics, 90 F.3d at 1583. "Allowing the public record to be altered or changed by extrinsic evidence introduced at trial, such as expert testimony, would make this right meaningless." *Id.* "Extrinsic evidence is to be used for the court's understanding of the patent, not for the purpose of varying or contradicting the terms of the claims." Markman, 52 F.3d at 981.

In light of the foregoing, the court looks to the extrinsic evidence provided by Dr. LeRoy F. Silva ("Dr.Silva") to help understand the function of the gating means, but does not credit testimony that contradicts the plain language of the claims. Dr. Silva explained the function of the gating means at his deposition as follows: "[Y]ou put those gating means in there *to disable production of these first and second*

detection signals ... in response to said second control signal and said first control signal. That is, we've been talking about how, *if the flip-flop No. 66 is in the off state ... why, we disable production of the off signal*." (Emphasis added.) Dr. Silva agreed that what occurs, in plain language, is that "if [the device] is off and I keep giving it subsequent off signals, it's not going to change its output." Dr. Silva affirmed that conversely, "The on control signal, when present, results in *disabling* the on sequence detector." (Emphasis added.) Defendant does not dispute the foregoing testimony.

From the plain language of the claim, the information contained in the detailed description section of plaintiff's patent, and the prosecution history, the court construes the function of the gating means in Claim 1 as, inter alia, preventing the production of a given sequence detection signal if the device is already in the state associated with that signal and the same tone sequence is entered a second time. Dr. Silva's testimony merely affirms this construction.

B. Literal Infringement Analysis

[10] Having construed the function of the gating means in Claim 1, the court must now compare the properly construed claims to the accused device and address two questions to determine literal infringement. First, the court must determine if the accused device performs the identical function recited in the means limitation. Second, the court must decide if the accused device performs that function using the structure disclosed in the specification or an equivalent structure.FN5 If the court determines that the accused device does not perform the identical function as that recited in plaintiff's patent, it does not literally infringe, and the court need not reach the second prong of the inquiry. *See* Pennwalt, 833 F.2d at 934.

FN5. Plaintiff argues that defendant's motion for summary judgment should be denied because in its initial motion, defendant advanced only the argument that the accused device did not perform the same functions as the '900 patent, but then introduced structural arguments into its reply brief. The court rejects plaintiff's contention. As an initial matter, if the court decides that the two devices perform the same function, it must address the structure question to determine literal infringement. Moreover, the court's reading of defendant's reply brief affirms that defendant continues to focus on function (what the accused device does), and not on structure (the way in which the device performs the function).

Defendant argues that the accused device does not perform the same function as the gating means in Claim 1, because it does not disable production of a given sequence detection signal if the device is already in the state associated with that signal and the tone sequence that produces that signal is entered a second time. Plaintiff responds that in his report, Dr. Silva concluded that the infringing device performs the same function identified in plaintiff's patent. Dr. Silva described what happens when an owner calls into the accused device to retrieve her messages. After the owner has entered the access code, she can press " *, 2" to retrieve her messages. According to Dr. Silva's report: "[C]onsecutive inputting of the same control code (e.g., * and 2) does not result in the infringing device performing a function other than the function associated with the control code (e.g., play back mailbox 2 messages). That is, repetitive entry of the ' * ' and '2' buttons does not cause the infringing device to do anything but play back mailbox 2 messages." Dr. Silva's description suggests that the accused device does not respond to the second entry of " *, 2," and Dr. Silva testified at his deposition that "nothing" happens when the caller enters the tone sequence " *, 2" while the messages are playing.

If Dr. Silva's description in his report and at his deposition were correct, his testimony would create a

question of fact whether the accused device "disabl[es] production" of a sequence detection signal if the device is already in the state associated with that signal, and therefore performs the identical function as plaintiff's Claim 1. Later during Dr. Silva's deposition, however, a demonstration of the accused device was conducted. The demonstration revealed that when the owner presses " *, 2," the machine responds, "Hello, you have no messages in mailbox 1." If the owner presses " *, 2" again during the middle of this recording, the machine begins again with the word, "Hello." This demonstrates that the accused device does not prevent production of the sequence detection signal associated with the tone sequence " *, 2." Rather, every time the tone sequence " *, 2" is entered, the accused device appears to detect this sequence and respond to it. If the accused device does not "disabl [e] production of ... detection signals," it does not have a function identical to that of the gating means required by the '900 patent.

Plaintiff argues in his surreply that the function of the gating means in Claim 1 is stated in the last phrase of that claim: "whereby said apparatus cannot produce said first detection signal and said second detection signal at the same time." According to plaintiff, the accused device performs the same function as the gating means in plaintiff's patent because it does not jam when the owner inputs the same signal again and again. Therefore, plaintiff argues, the accused device must have a gating means or the equivalent thereof.

Plaintiff cites Dr. Silva's testimony to support his argument that defendant's device does not jam when the same signal is input a second time: "it does the same thing, and it doesn't jam it. If you-if you hit [*, 2] on the Casio device and, while it's playing back [*, 2] messages, you hit [*, 2], it will-it wont bother it. It just keeps playing back the messages." The subsequent demonstration revealed, however, that the accused device does not simply ignore the signal " *, 2" and keep playing back the messages; rather, it stops playing back the messages and starts over again at the beginning.

[11] Plaintiff's argument limits the function of the gating means to one phrase, the "whereby" phrase, while ignoring the phrase "for disabling production of ... detection signals." As an initial matter, "[a] 'whereby' clause that merely states the result of the limitations in the claim adds nothing to the patentability or substance of the claim." Texas Instruments, Inc. v. United States Int'l Trade Comm'n, 988 F.2d 1165, 1172 (Fed.Cir.1993); *see also* In re Certain Personal Computers and Components Thereof, 224 U.S.P.Q. 270, 283, 1984 WL 64146 (U.S. Intern. Trade Comm'n, Mar. 9, 1984) ("Whereby clauses are given no weight if they express only a necessary result of the structure already recited in the body of the claims."). It could be said that the instant whereby clause merely states the result of the gating means. Even if the instant whereby clause expresses not just a result, but a function, it is not the only functional phrase in the claim. Plaintiff's argument eliminates one of the functions of the gating means, as the court has construed that claim element.

Plaintiff also attempts to argue that the accused device simply has additional features not found in the '900 patent. The demonstration of the accused device revealed the exact opposite, however. It revealed that the accused device is missing a crucial functional element described in Claim 1, the function of preventing production of a detection signal. Plaintiff cannot read the phrase "for disabling production of ... detection signals" out of Claim 1, FN6 because the court has construed this phrase as describing a function performed by the gating means in Claim 1. Plaintiff has not carried his burden of proving that there is a genuine issue of triable fact that the accused device performs the identical function as the gating means described in Claim 1. Finding that the accused device does not perform the same functions specified in the claim "negates the possibility of finding literal infringement." Pennwalt, 833 F.2d at 934. Defendant's motion for summary judgment on its argument that Claim 1 does not literally infringe the '900 patent is therefore granted.

FN6. Dr. Silva appears to assert at one point during his deposition that Claim 1 does not require disabling

detection of the " *, 2" sequence while mailbox two is playing. Because plaintiff does not cite this testimony or include it in a statement of additional facts, the court does not consider it. Even if plaintiff had cited this testimony, the court would heed *Markman* 's caution that extrinsic evidence is "not for the purpose of varying or contradicting the terms of the claims." Markman, 52 F.3d at 981. Moreover, at another point during his deposition, Dr. Silva said just the opposite: "If you keep hitting it with star one, and star one ... then that flip-flop is-can't get a signal, and so it's disabled. And that's precisely what we want to do."

C. Doctrine of Equivalents Analysis

Defendant also argues that it has not infringed Claim 1 of the '900 patent under the doctrine of equivalents. As discussed above, the court may find infringement under the doctrine of equivalents if the accused device "performs substantially the same overall function or work, in substantially the same way, to obtain substantially the same overall result as the claimed invention." Pennwalt, 833 F.2d at 934. This test is often referred to as "the function-way-result test." Overhead Door Corp. v. Chamberlain Group, Inc., 194 F.3d 1261, 1270 (Fed.Cir.1999). In performing a doctrine of equivalents analysis, "[t]he trier of fact, applying the claims as construed, finds whether the accused device, element by element, is equivalent to that which has been patented." Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1480 (Fed.Cir.1998).

Plaintiff has not created a question of fact about whether the accused device performs substantially the same function as the gating means in the '900 patent. As this court has construed Claim 1, it is part of the function of the gating means to prevent production of a sequence detection signal if the controlled device is already in the state associated with that signal and the same tone sequence is entered a second time. To place this description into more concrete terms, assume the '900 patent is being used to turn a lamp on and off. If the owner of the lamp uses a tone sequence such as " *,1" to turn the lamp on, and then enters " *,1" again, it is part of the function of the gating means to prevent production of the sequence detection signal associated with the command " *,1," such that the lamp does not turn off the second time the command " *,1" is entered; rather, it would remain on.

The accused device does not perform an equivalent function as that performed by the '900 patent's gating means. When the owner calls the accused device and enters the tone sequence " *, 2," a recorded message says "Hello" and tells the owner how many messages are in the mailbox. If the owner thereafter presses " *, 2" again, the device responds to this tone sequence and the recorded message begins again with "Hello."

If a person using the '900 patent to control a lamp enters a tone sequence once and then enters that same tone sequence again, the lamp remains on without interruption. In contrast, if an owner using the accused device to check her messages enters a tone sequence once and then enters that same tone sequence again, the message that has begun playing is interrupted and restarted. If the accused device performed substantially the same function as the '900 patent, when the same tone sequence was pressed a second or successive time the message would continue playing rather than stopping and restarting (as in the accused device). Put the other way, if the '900 patent performed substantially the same function as the accused device, every time the person controlling the lamp entered the same tone sequence again, the lamp would turn off for an instant and would then turn back on.

Therefore, the '900 patent does not define a function that is substantially the same as the interrupting and restarting that occurs in the accused device. Accordingly, no reasonable jury could find that the accused device performs a function that is within the range of equivalents for the function of the gating means.

Defendant's motion for summary judgment on doctrine of equivalents grounds with respect to Claim 1 is therefore granted.

III. Claim 3: Flip-Flop Means

Defendant argues that the accused device does not have the "flip-flop means" required by independent Claim 3 and those claims that depend from Claim 3. Claim 3 reads, in relevant part:

A phone-line-linked, tone-operated control apparatus for remotely and selectively controlling a variety of operations, said operations being bistable by having only two mutually-exclusive operating conditions, said apparatus comprising: detecting means coupled to receive a plurality of tone signals from said phone line, for detecting at least one predetermined sequence of predetermined tone signals and for producing a corresponding sequence detection signal; and control means responsive to said sequence detection signal for producing a corresponding control signal ... wherein said control means comprises **flip-flop means** associated with each said bistable operation, with said flip-flop means producing first state and second state output signals for each said bistable operation, said first state output signal corresponding to one of said mutually-exclusive operating conditions, and said second state output signal corresponding to the other of said mutually-exclusive operating conditions, and wherein said flip-flop means is responsive to a sequence detection signal selectively associated with one of said conditions of fewer than all of said bistable operations for changing from said first state output signal to said second state output signal ... and is responsive to a different sequence detection signal selectively associated with the other one of said bistable operating conditions for changing from said second state output signal to said first state output signal ..., and maintaining the state of said flip-flop means until and if and only if said flip-flop means responds to a sequence detection signal selectively associated with the other of said conditions of fewer than all of said bistable operations, said first and second state output signals comprising said control signal.

A. Claim Construction: Function of the Flip-Flop Means

[12] According to the plain language of Claim 3, the '900 patent controls "bistable" operations, meaning operations that have two mutually exclusive stable operating conditions only. The two mutually exclusive operating conditions of the preferred embodiment of plaintiff's patent are "on" and "off." As plaintiff explained to the patent office on April 26, 1996, "a single flip-flop means 66 selectively controls both of two, mutually exclusive, stable operating conditions (e.g., 'ON' and 'OFF') of a bistable operation." The language of Claim 3 and the detailed description explain that entering a predetermined sequence of predetermined tone signals (such as the tones # and 1), produces a sequence detection signal, which itself produces a corresponding control signal (such as "off"). As explained in the claim language, a specific and different sequence detection signal is associated with each of the two operating conditions, and part of the function of the flip-flop means is to respond to different sequence detection signals in different ways.

The claim language reveals that it is also part of the function of the flip-flop means to maintain its state and remain in one operating condition (e.g., on) "until and if and only if" it receives the sequence detection signal associated with the mutually exclusive operating condition (e.g., off). As plaintiff explained while prosecuting the patent: "flip-flop means 66 maintains its state until it responds to a sequence detection signal selectively associated with the other of its two mutually exclusive states. Neither the hanging up of the answering circuitry ... nor any other signal or operation can cause flip-flop means 66 to change its state. It only changes its state when it receives a sequence detection signal[ ] selectively associated with its opposite state."

According to the plain language of the claim coupled with the detailed description, if the appliance is on, for example, it is part of the function of the flip-flop means to not turn the item off until it receives the sequence detection signal associated with the operating condition "off." FN7 When the flip-flop means receives this sequence detection signal, it is part of the function of the flip-flop means to produce an output signal corresponding to the operating condition "off," such as the control signal "off." It is also part of the function of the flip-flop means to turn the item back on only if it receives a different sequence detection signal, e.g., the sequence detection signal selectively associated with the operating condition "on." FN8 It is further the function of the flip-flop means to maintain its state (and thus insure that the device remains in a given operating condition, such as off, and does not shift to the opposite operating condition, such as on) "until and if and only if" the flip-flop means receives and responds to "a sequence detection signal selectively associated with" the opposite state.

FN7. "[W]herein said flip-flop means is responsive to a sequence detection signal selectively associated with one of said conditions of fewer than all of said bistable operations [the condition off] for changing from said first state output signal [on] to said second state output signal [off]."

FN8. "[W]herein said flip flop means ... is responsive to a different sequence detection signal selectively associated with the other one of said bistable operating conditions [the condition on] for changing from said second state output signal [off] to said first state output signal [on]."

Dr. Silva's testimony corroborates the above-described function of the flip-flop means. He explained at his deposition that Claim 3 "is saying that that flip-flop responds to the sequence detecting signals, and it stays in that state until it gets another sequence detection signal, a different one. And it is bistable; it won't flip back and forth until it gets the right signal." Dr. Silva thus affirmed that it is part of the function of the flip-flop to maintain its state and insure that the device remains in one stable operating condition (such as on) until the flip-flop receives the sequence detection signal associated with the mutually exclusive stable operating condition (such as off).

B. Literal Infringement Analysis

[13] Defendant argues that the accused device does not perform the same function as the function described in Claim 3. Plaintiff relies on Dr. Silva's report to argue otherwise. Dr. Silva pointed to the light emitting diodes ("LEDs") on the accused device in an attempt to prove that defendant's device performs the same function as the flip-flop means in the '900 patent. The LEDs are small lights on the cover of the answering machine. One LED is connected to each mailbox.

Dr. Silva testified in his report that each mailbox has only two mutually-exclusive stable operating conditions, as evidenced by the fact that the LED associated with each mailbox is either turned on or turned off at any given time. The two mutually exclusive operating conditions are LED on and LED off. Dr. Silva explained that the function of the detecting means described in Claim 3 is performed when the owner calls the answering machine and keys in the tones, " *, 2", a signal that causes the accused device to select mailbox 2. According to Dr. Silva, the accused device performs the function of the control means because selecting mailbox 2 causes the LED associated with mailbox 2 to turn on. The accused device performs the function of the flip-flop means, Dr. Silva asserts, because pressing " *, 2" turns on the LED associated with mailbox 2,FN9 and pressing "1, 2, 3, *, 2, 3" turns off the LED associated with mailbox 2.FN10 Moreover,

Dr. Silva stated, the LED does not turn from off to on until and if and only if the predetermined tone sequence " *, 2" is pressed, and does not turn from on to off until and if and only if the predetermined tone sequence "1, 2, 3, *, 2, 3" is pressed. FN11

FN9. Calling the accused device and pressing " *, 2" enables a caller to leave a message in mailbox 2.

FN10. Entering "1, 2, 3, *, 2, 3" performs the following functions: The first three digits, "1,2,3," are the access code, discussed below; the tones " *, 2" enable the owner to access mailbox 2; and the tone "3" enables her to delete the messages therein.

FN11. Defendant argues that the accused device does not have two stable operating states, but may have as many four. According to the owner's guide for the accused device, when a caller leaves a message in mailbox 2, the LED associated with that mailbox blinks rapidly, and if the owner listens to that message and saves it, the LED blinks slowly. Defendant argues that the fast-blinking state, the slow-blinking state, and the "LED off" state are all stable operating conditions. Defendant further argues that the "LED on" state is not a stable operating condition. The court concludes that this argument does not create a genuine issue of material fact. Even accepting Dr. Silva's conclusion that the accused device has only two stable operating states, LED on and LED off, the accused device does not literally infringe Claim 3.

As an initial matter, defendant demonstrates that Dr. Silva's description of the accused device is flawed. The first tone sequence (*, 2) turns the LED for mailbox 2 solidly on temporarily, and enables the caller to leave a message. If the caller leaves a message and hangs up, the light begins blinking quickly. The only way to turn the blinking light off at that point is for the owner to call the machine and punch in "1, 2, 3, *, 2, 3." At one point during his deposition, Dr. Silva stated that the blinking light is not a stable operating condition.FN12 Although Dr. Silva identified a sequence of tones that turns the solid light from off to on (*, 2), he did not identify any sequence of tones that turns the solid light from on to off. In fact, Dr. Silva admitted at his deposition that the light for mailbox 2 turns from steadily on to off if, after hitting " *, 2" and selecting mailbox 2 (thus turning the LED on), the caller hangs up without leaving a message. Dr. Silva did not identify any *sequence of tones* that produces a sequence detection signal to shift the accused device from one stable operating condition back to the opposite stable operating condition as he had defined those conditions.

FN12. Dr. Silva explained: "With regard to the operations of star two [*, 2] and one two three star two three [1, 2, 3, *, 2, 3], with regard to those operations, the stable operating conditions are *off* and *steadily burning*." (Emphasis added.)

As Dr. Silva explained at his deposition, "it's the entering of the sequence star two, according to that claim, ... that causes the bistable operation to change to the other operating condition," that is, that turns the LED associated with mailbox 2 from off to on. Given the plain language of the claim, entering another tone sequence should be the only way to cause the bistable operation to change back to the initial operating condition (LED off). Plaintiff explained to the patent office that "flip-flop means 66 *maintains its state until it responds to a sequence detection signal* selectively associated with the other of its two mutually exclusive states." (Emphasis added.) Yet simply hanging up the telephone turns off the LED for mailbox 2. The very

fact that the LED for mailbox 2 turns off when the caller selects the mailbox and subsequently hangs up the telephone demonstrates that the accused device performs a different function than the flip-flop means in the '900 patent, because plaintiff explicitly explained to the patent office that "[n]either the hanging up of the answering circuitry nor any other signal or operation can cause flip-flop means 66 to change its state."

At one point during his deposition, Dr. Silva suggested that the blinking LED that turns on when a message is left in a mailbox constitutes a stable operating condition, and that this is essentially the same stable state as when the LED is steadily on: "Now, if you define stable operating condition as inclusive of ... messages in the mailbox and operations in the mailbox, then the flashing lights, flashing LEDs and steady LEDs, all mean the same thing. You're doing something to the mailbox." Even if the court assumes, for the sake of argument, that the blinking light and the steadily on light are both *stable* operating conditions that are opposite the operating condition of the LED when the light is off, plaintiff has not established that something in the accused device functions like the '900 patent's flip-flop means. Plaintiff cannot overcome the fact that the steadily burning/blinking light does not go off *only* in response to a sequence detection signal selectively associated with the other mutually exclusive or opposite state, the state of "LED off," because there are two ways to turn the light off: press the tones "1, 2, 3, *, 2, 3," or hang up the phone.

In truth, those functions of the accused device that are discussed by the parties can be divided into two types of genuinely opposite functions: (1) calling the machine and pressing " *, 2" turns the LED for mailbox 2 steadily on; hanging up the telephone turns that LED off; (2) leaving a message in mailbox 2 makes the LED for mailbox 2 blink steadily; pressing "1, 2, 3, *, 2, 3," turns that blinking LED off. In both of these situations, although hitting a predetermined sequence of tones ultimately shifts the accused device from one stable operating condition to the opposite stable operating condition, there is no predetermined sequence of tones that will shift the accused device back to the initial stable operating condition. In the first example, a sequence of tones turns the light steadily on, but the only way to turn the steadily burning light off is to hang up the phone. Similarly, although in the second example, a sequence of tones turns the blinking light off, the only way to turn the blinking light on is to leave a message. In sum, the accused device does not perform the function of not changing from one operating condition to the opposite operating condition "until and if and only if" a sequence detection signal associated with the opposite operating condition is received.

Plaintiff argues in his surreply that defendant's focus on the LEDs associated with the mailboxes is misplaced. Plaintiff's argument is rather disingenuous. After all, it was plaintiff's expert, Dr. Silva, who initially focused the inquiry on the LEDs by stating in his report that the way in which the LEDs reacted to tone signals demonstrated that the accused device must have flip-flop means and therefore must infringe. Defendant was compelled to focus on the LEDs to refute Dr. Silva's argument that the LEDs demonstrate that the accused device infringes the '900 patent.

Plaintiff also argues in his surreply that the function of the flip-flop means is simply to produce a control signal to control various bistable operations, such as turning an appliance on or off. According to plaintiff, it is clear that the accused device produces a control signal to control various operations because the owner of the device can turn it on and off, select a mailbox and play messages, and perform other such operations. Plaintiff contends that the very act of selecting a mailbox is a bistable operation, regardless of what happens to the LEDs associated with that mailbox.

Even accepting as true Dr. Silva's assertion that the very act of selecting a mailbox is a bistable operation, plaintiff does not demonstrate that the accused device literally infringes Claim 3. To do so, plaintiff would have to show that in order to exit mailbox 2 (that is, to place the device in a stable operating condition that

is opposite from the condition of "mailbox 2 selected") the caller must press a predetermined sequence of tone signals to produce a corresponding sequence detection signal that essentially tells the accused device to exit mailbox 2.FN13 Plaintiff has not and cannot demonstrate this, because use of the device at Dr. Silva's deposition demonstrated that to exit mailbox 2, all the caller need do is hang up the telephone without leaving a message. The fact that the caller can also exit mailbox 2 by, for example, pressing the signal for mailbox 3 (" *,3"), is irrelevant, because in order to read on the literal language of Claim 3, the accused device would have to "maintain[ ]" its state "until and if and only if [it] responds to a sequence detection signal selectively associated with the other of said conditions." The fact that the accused device appears to change its state in response to hanging up, an operation that does not involve the entry of codes FN14 (and therefore does not produce a corresponding sequence detection signal), demonstrates that it does not literally infringe Claim 3.

FN13. Dr. Silva testified during his deposition that playing the messages from a given mailbox is a stable operating condition, and that not playing the messages is likewise a stable operating condition.

FN14. According to the plain language of the '900 patent, Claim 3 requires that one must enter codes to shift from one stable operating condition to another. Plaintiff does not dispute this. In fact, plaintiff's expert's deposition testimony that the flashing LED is not a stable operating condition because it is not controlled by the entry of codes, but is rather voice-activated, confirms this conclusion.

Plaintiff essentially attempts to argue in his surreply that if the accused device has control means, it must have flip-flop means. But the mere fact that the accused device produces a control signal to control various operations does not mean that it does so using flip-flop means. Plaintiff cannot read the flip-flop means out of the '900 patent. It is plaintiff's burden to demonstrate that the accused device literally infringes his patent by performing the function performed by the flip-flop means. To do so, plaintiff must demonstrate that when a user of the accused device enters tones that produce a sequence detection signal, the accused device performs some bistable operation. Plaintiff must also demonstrate that the user must press a different sequence of tones to perform the opposite and mutually exclusive bistable operation. As mentioned above, Dr. Silva's definition of bistable is that "it won't flip back and forth *until it gets the right signal*." (Emphasis added.) And plaintiff's explanation to the patent office of the function of flip-flop 66 in the '900 patent is that "it *only* changes its state when it receives a sequence detection signal[ ] selectively associated with its opposite state." (Emphasis added.)

Plaintiff has not identified in the accused device a single bistable operation, an operation that has two mutually-exclusive stable operating conditions as defined and described in the '900 patent. Plaintiff has not demonstrated that anything in the accused device produces an output signal corresponding to a given stable operating condition only if it receives the sequence detection signal associated with that operating condition, and produces an output signal corresponding to the opposite stable operating condition only if it receives the sequence detection signal associated with that opposite operating condition. Plaintiff thus has not identified anything in the accused device that performs the identical function as the flip-flop means in plaintiff's patent. Accordingly, the court grants defendant summary judgment, holding that the accused device does not literally infringe the Claim 3 of the '900 patent and those claims that depend from Claim 3.

C. Doctrine of Equivalents Analysis

Although defendant contends that the accused device does not infringe any of the claims of the '900 patent under the doctrine of equivalents, defendant does not explain why the accused device does not infringe Claim 3. The court has held that the accused device does not perform the identical function as the flip-flop means described in Claim 3. Something in the accused device may nevertheless function in substantially the same manner as the flip-flop means, and the accused device may achieve substantially the same result as the flip-flop means in substantially the same way. The court will not construct defendant's argument for it. Summary judgment under the doctrine of equivalents is denied with respect to Claim 3 and its dependent claims.

IV. Claim 5

Defendant argues that the accused device does not literally infringe independent Claim 5 and those claims that depend from Claim 5 because the accused device does not contain anything that functions like the "access limiting circuit means" or the "counter means" described in that claim. Claim 5 reads, in relevant part:

A phone-line-linked, tone-operated control apparatus comprising: detecting means ...; **access limiting circuit means** coupled with said detecting means for preventing production of said sequence detection signal *until an access sequence comprising a further predetermined sequence of predetermined tone signals is first received on said phone line;* wherein said access limiting circuit means includes ... **counter means** coupled to said gate means and responsive to said tone signals for causing said gate means to enable operation of said detecting means following a predetermined number of tone signals received thereby. [Emphasis added.]

Defendant does not dispute Dr. Silva's testimony that the accused device contains functions akin to the detecting means and the control means in the '900 patent. Dr. Silva's explanation of the function of the detecting means at his deposition, discussed above in relation to Claim 3, applies to Claim 5 as well. As explained above, the function of the detecting means is performed in the accused device when someone calls the answering machine and keys in the tones, " *, 2." This produces a corresponding sequence detection signal that causes the accused device to select mailbox 2.FN15 Dr. Silva used this same explanation in his report in discussing Claim 5. He stated that the function of the detecting means in Claim 5 is performed in the accused device because remotely keying in " *, 2" causes the accused device to play back messages in mailbox 2.

FN15. If someone other than the owner calls the machine, selecting " *, 2" will enable that person to leave a message in mailbox 2. If the owner calls the machine, selecting " *, 2" will enable her to access and listen to those messages that have been left in mailbox 2 as long as she also enters an access code.

A. Access Limiting Circuit Means

1. Claim Construction

[14] Defendant argues that the accused device does not have access limiting circuit means. The court must first determine the function of this means. According to the plain language of the claim, the function of the '900 patent's access limiting circuit means is to prevent a sequence detection signal from being produced until after the phone line receives a predetermined sequence of predetermined tone signals. In essence, it is the function of the access limiting circuit means to prevent a user from accessing a mailbox unless she first

enters an access code.

2. Literal Infringement Analysis

[15] Having determined the function of the access limiting circuit means, the court turns to defendant's argument that the accused device does not perform the function performed by this means. Dr. Silva testified in his report that the function of the access limiting circuit means is performed because "actual use of the infringing device confirms that the correct access code (e.g., '1' and '2' and '3') FN16 must first be entered prior to entering a control code to make the instrument perform a function. When the device is called from a remote location and a control code is entered (without first entering the access code), the machine does not perform the desired function. On the other hand, when the access code is entered before the control code is entered, the machine performs the desired function."

FN16. The owner of the device may choose any three-digit number as an access code. The example used by the parties and in this opinion is "1, 2, 3."

According to defendant, it is clear that the accused device lacks the function performed by the access limiting circuit means because use of the device reveals that an access code does not always have to be entered before a control code (such as " *, 2") is entered and detected. At Dr. Silva's deposition, defendant demonstrated to Dr. Silva that the owner of the accused device could access her messages equally well by pressing the access code ("1, 2, 3") and then the control code (" *, 2"), or by pressing the control code and then the access code; that is, the order of these two commands is irrelevant. Defendant argues in its reply that this evidence demonstrates that the accused device does not perform the same function as the access limiting circuit means in the '900 patent. But the plain language of the claim controls. Dr. Silva's erroneous interpretation of the accused device does not change the fact that the accused device appears to "prevent[ ] production of [the] sequence detection signal" that causes the device to play back messages from mailbox 2 " *until an access sequence is first received*." This creates a question of fact about whether the accused device performs the same function as the access limiting circuit means in the '900 patent.

B. Counter Means

1. Claim Construction

[16] Defendant also argues that the accused device does not perform the same function as the counter means described in Claim 5. The counter means is part of the access limiting circuit means. According to the plain language of the claim, the function of the counter means is to count the number of tone signals that are entered until the number of signals entered equals the number of digits in the access code. If the correct tone signals were entered, the counter means enables operation of the detecting means. Dr. Silva's deposition testimony demonstrates that he does not disagree with this construction of the function of the counter means.FN17

FN17. As Dr. Silva explained, the counter means "counts the number of tone signals, and when we've received four tone signals, it will disable itself.... [A]fter the apparatus ... receives four tones and a correct sequence is entered, it will cause flip-flop 122 to send out a good signal."

2. Literal Infringement Analysis

[17] Dr. Silva testified in his report that the accused device performs the function of the counter means because the three-digit access code, composed of the tone signals "1, 2, 3," "must be received within a count of three (e.g., entering '1' and '2' and '3' works but entering '1' and '2' and 'X' and '3' does not)." According to Dr. Silva, the Owner's Guide for the accused device corroborates this conclusion, because it states that the access code is comprised of three digits. As Dr. Silva testified in his report: "[T]his is further evidence that the infringing device has a counter to enable operation of the infringingdevice only after it counts the entry of this correct, three-digit access number." Plaintiff contends from this evidence that the access code for the accused device must be entered within a count of three, and that therefore the accused device must have counter means.

Defendant argues that the accused device does not actually count the number of tone signals entered. In support, defendant notes the demonstration at Dr. Silva's deposition which revealed that entering any number of incorrect digits before entering the correct access code does not prevent the owner from accessing the device. All that matters is that the last 3 digits entered are "1, 2, 3." That is, the accused device works equally well whether the owner enters the sequence "1, 2, 3," the sequence "X, X, 1, 2, 3," or the sequence "X, X, X, X, 1, 2, 3." Defendant contends that plaintiff's statement that the access code must be entered within a count of three is therefore too broad.

Defendant does not deny, however, that once the user of the accused device has begun to enter the access code, the access code must be entered within a count of three. Dr. Silva is correct that an owner who enters "1, 2, X, 3" will not be granted access to the accused device. Moreover, Dr. Silva testified that, "any answering machine that has a fixed-length access code must have a counter in it in order to count the number of correct digits of the access code ... It must have counter means ... to keep track of the number of correct digits that are ... entered." Although defendant argues that this conclusion is absurd, it has presented no expert testimony to refute this evidence. Plaintiff has created a question of fact about whether the accused device in fact has a counter means (e.g., whether once the owner of the accused device begins to enter the correct access code (that is, once the owner presses the number 1) the accused device begins to count the number of tones).FN18 The court concludes that whether the accused device performs the function of the counter means recited in Claim 5 is a question of fact. Defendant's motion for summary judgment on its contention that his device does not literally infringe Claim 5 of the '900 patent is therefore denied.

FN18. Defendant also attempts to argue that the accused device does not perform the same function as the counter means in Claim 5 because the detailed description of the '900 patent states that the preferred embodiment "hangs up" on a user after four tones have been entered if the tones do not constitute the correct access code. The plain language of the claim does not require that the device hang up, however. The court therefore does not read this limitation into the claim. *See, e.g.,* Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1054 (Fed.Cir.1994) ("[A]lthough the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.").

C. Doctrine of Equivalents Analysis

Defendant does not explicitly argue why the accused device does not infringe Claim 5 under the doctrine of equivalents. Because there is a question of fact about whether the accused device performs the identical function as the access limiting circuit means and the counter means required by Claim 5, there is also a question of fact about whether substantially the same function is performed. Moreover, Dr. Silva's statement

that both the '900 patent and the accused device perform the function described in Claim 5 in the same way, using integrated circuit digital logic, creates a question of fact about the "way" prong of the function-way-result test. Defendant's motion for summary judgment on Claim 5 under the doctrine of equivalents is therefore denied.

V. Claim 10: Feedback-Gate Means

Defendant argues in his motion for summary judgment that the accused device does not perform the same function as the feedback-gate means required by Claim 10 of the '900 patent and those claims that depend from Claim 10. In his response, plaintiff concedes that the accused device does not literally infringe Claim 10, but argues that it nevertheless infringes that claim under the doctrine of equivalents.

Claim 10 reads, in relevant part:

A phone-line-linked, tone-operated control apparatus comprising: detecting means ...; control means ...; switching means ...; **feedback means** coupled to said switching means for producing a verifying signal in response to operation of said switching means for activating said instrument under control; wherein said feedback means includes **gate means** coupled with answering circuit means and responsive to said verifying signal for momentarily decoupling said answering circuit means from said phone line and thereby producing an audible signal.

A. Claim Construction: Function of the Feedback-Gate Means

[18] The detailed description helps clarify the function of the feedback-gate means described in Claim 10. According to the detailed description, the feedback means generates a signal (designated ANSR). "The ANSR signal produced by this feedback circuitry momentarily disables gate 95, causing momentary disconnection of the phone line by relay 90. This momentary disconnection *results in an audible 'click'* being sent over [the] phone line ... to verify operation of an instrument under control." (Emphasis added.)

In light of the plain language of Claim 10, combined with the detailed description, the court construes the function of the feedback-gate means to be to respond to the verifying signal generated by the feedback means and cause a momentary disconnection of the phone line. The court construes the result of the feedback-gate means to be to produce an audible signal. Dr. Silva's testimony does not contradict this construction. In his report, Dr. Silva characterized the function of the feedback-gate means as follows: "the function of momentarily decoupling said answering circuit means from said phone line and thereby producing an audible signal."

B. Doctrine of Equivalents Analysis

[19] Plaintiff argues that the accused device performs substantially the same function, in substantially the same way, to achieve substantially the same result as the feedback-gate means described in the '900 patent. Dr. Silva stated at his deposition that both devices achieve substantially the same result in substantially the same way because they both "use[ ] integrated circuit logic to put a signal on the line."

The court proceeds to determine whether a reasonable jury could find that the accused device contains elements that are equivalent to each of the functional limitations of Claim 10, as the court has construed them. Bai, 160 F.3d at 1354. Plaintiff admits that the accused device does not momentarily disconnect from the phone line, but argues that it nevertheless performs substantially the same function as the feedback-gate

means when it plays back messages in mailbox 2 after the owner presses "1, 2, 3, *, 2." Dr. Silva testified at his deposition that playing back voice messages is equivalent to momentarily decoupling the phone line to produce an audible signal. He stated, "The [accused device] doesn't momentarily disconnect from the line, but it performs the function of producing a verifying signal, an audible signal, with-that's the function." At his deposition, therefore, Dr. Silva's characterized the function of the feedback-gate means to be either producing a verifying signal or producing an audible signal.

Defendant argues that Dr. Silva's interpretation of the function of the feedback-gate means erases a meaningful functional limitation from the feedback-gate means because it ignores the requirement that the answering circuit means "momentarily decoupl[e]" from the phone line. In construing Claim 10, the court agrees with defendant that disconnecting the phone line is an explicit functional limitation of the claim. Although "any analysis of infringement under the doctrine of equivalents necessarily deals with subject matter that is 'beyond,' 'ignored' by, and not included in the literal scope of a claim," Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1317 (Fed.Cir.1998), "[t]he doctrine of equivalents cannot be used to erase meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement," Conopco, Inc. v. May Dep't Stores Co., 46 F.3d 1556, 1562 (Fed.Cir.1994) (internal citations omitted), *cert. denied,* 514 U.S. 1078, 115 S.Ct. 1724, 131 L.Ed.2d 582 (1995).

Dr. Silva testified that the accused device operates in substantially the same way (through integrated circuit logic), to achieve substantially the same result (putting a signal on the line) as the '900 patent. Dr. Silva's testimony does not claim or create a genuine issue of material fact, however, that the accused device performs substantially the same function as "momentarily decoupling" from the phone line. Summary judgment for defendant under the doctrine of equivalents is therefore appropriate.

[20] The doctrine of prosecution history estoppel likewise supports the court's conclusion under the doctrine of equivalents. "Prosecution history estoppel acts as one check on application of the doctrine of equivalents, by precluding a patentee from regaining, through litigation, coverage of subject matter relinquished during prosecution of the application for the patent." Wang Laboratories, Inc. v. Mitsubishi Electronics America, Inc., 103 F.3d 1571, 1577-78 (Fed.Cir.) (citations omitted), *cert. denied,* 522 U.S. 818, 118 S.Ct. 69, 139 L.Ed.2d 30 (1997). To determine if prosecution history estoppel applies, the court decides "whether an aspect of the originally claimed subject matter was surrendered by the amendment and is thus outside the range of equivalents to which the patentee is entitled." Bai, 160 F.3d at 1354 (internal citations omitted).

Defendant argues that plaintiff was required to add the phrase "momentarily decoupling" to his patent so as not to infringe the prior art, and that plaintiff should therefore be estopped from arguing that the feedback-gate means covers devices that do not momentarily decouple from the phone line. "When determining whether prosecution history estoppel applies to limit the doctrine of equivalents, a court must examine the reason why an applicant amended a claim. If such examination indicates that a patent applicant has made a substantive change to his claim that clearly responds to an examiner's rejection of that claim as unpatentable over prior art, prosecution history estoppel applies to that claim." Id. at 1355 (citing Warner-Jenkinson, 520 U.S. at 30-31, 117 S.Ct. 1040).

Defendant contends that plaintiff abandoned Claim 15 in response to a prior art rejection, and that the only difference between Claim 10 and Claim 15 was that the latter claim lacked feedback-gate means. An examination of the two claims reveals that defendant is correct that the only real difference between the two claims is that the feedback means described in Claim 15 does not include gate means. The patent office

rejected Claim 15 on August 23, 1985, as clearly anticipated by the Puckett patent. In response to this action, plaintiff amended the '900 patent by, inter alia, canceling Claim 15.

[21] [22] If the prosecution history fails to disclose a reason for a claim amendment, it should be presumed that the claim was amended "for a reason related to patentability and thus that prosecution history estoppel applie[s] to that claim limitation unless the patentee [can] establish that the amendment was not related to patentability." Bai, 160 F.3d at 1355 (discussing Warner-Jenkinson, 520 U.S. at 33, 117 S.Ct. 1040). The burden rests on the patent holder to establish the reason for an amendment made during patent prosecution. Warner-Jenkinson, 520 U.S. at 33, 117 S.Ct. 1040. Plaintiff does not offer any explanation for his amendment of the patent to exclude Claim 15. Defendant presents evidence, in the form of the Puckett patent, that the prior art included means for producing a verifying signal, the function performed by the feedback means described in both former Claim 15 and present Claim 10. Plaintiff does not rebut the presumption that Claim 15 was eliminated for a reason related to patentability. *See id*. Accordingly, prosecution history estoppel applies to Claim 15.

"The remaining issue is the scope of estoppel." Bai, 160 F.3d 1350, 1356. "The scope of estoppel, i.e., what subject matter has been surrendered during prosecution by the patentee, is to be viewed from the vantage point of a reasonable competitor of the patentee." Sextant Avionique, S.A. v. Analog Devices, Inc., 172 F.3d 817, 826-27 (Fed.Cir.1999). Given that the only relevant difference between the accepted Claim 10 and the rejected and withdrawn Claim 15 is that the feedback means in Claim 10 includes a gate means, the function of which is to disconnect the phone line, the court concludes that prosecution history estoppel limits plaintiff to a feedback means that includes a gate means. Because the accused device does not perform the function of the gate means described in Claim 10, it does not fall within any scope of equivalents to which plaintiff is entitled under the '900 patent. "A patentee is estopped from recovering through equivalency that which was deemed unpatentable in view of prior art." Bai, 160 F.3d at 1356. For the foregoing reasons, the court grants summary judgment for defendant on Claim 10 under the doctrine of equivalents.

CONCLUSION

Defendant's motion for summary judgment of no literal infringement is granted with respect to Claim 1 and the dependent claims that also require a gating means (Claims 14, 16, 18, 20, 59, 60, 62, 63, 64, and 66), and is also granted with respect to Claim 3 and the dependent claims that require a flip-flop means (Claims 4, 25, 26, 28, 69, 70, 72, 73, 74, and 76). Defendant's motion for summary judgment of non-infringement is denied with respect to Claim 5 and the dependent claims that require a counter means (Claims 32, 33, 35, 79, 84, 85, and 87). Defendant's motion for summary judgment under the doctrine of equivalents is granted with respect to Claim 1 and the claims that depend therefrom, and is also granted with respect to Claim 10 and the dependent claims that require a feedback-gate means (Claims 45, 46, 97, 99, and 100). Defendant's motion for summary judgment under the doctrine of equivalents is denied with respect to Claim 3 and the claims that depend therefrom, and with respect to Claim 5 and the claims that depend therefrom. This matter is set for a report on status July 26, 2000, at 9:00 a.m.

N.D.Ill.,2000.
Jackson v. Casio Phonemate, Inc.

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