United States District Court,
E.D. Texas, Marshall Division.

TINKERS CHANCE,
v.
LEAPFROG ENTERPRISES, INC.

No. 2:05-CV-349

June 18, 2007.

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MEMORANDUM OPINION AND ORDER

CHARLES EVERINGHAM IV, United States Magistrate Judge.

1. Introduction

In this case, Tinkers & Chance ("Tinkers") asserts various claims of five United States patents against Leapfrog Enterprises, Inc. ("Leapfrog"). The asserted patents are all related, each a continuation of U.S. Patent Application Serial No. 08/581,437 ("the '437 application"), now abandoned. The asserted patents include U.S. Patent Nos. 6,739,874 ("the '874 patent"), 7,006,786 ("the '786 patent"), 7,018,213 ("the '213 patent"), 7,029,283 ("the '283 patent"), and 7,050,754 ("the '754 patent") (referred to collectively as "the '874 patent family"). FN1 This opinion and order resolves the material claim construction disputes between the parties. The court will briefly address the technology at issue in this case, and then turn to the merits of the claim construction issues.

FN1. Because each of the five patents issued as a continuation application from a common parent application, they each have the same written description. For ease of reference, all cites to the written description of a patent within the '874 patent family will be made to the '874 patent.

2. Background of the Technology

In general, the asserted patents disclose electronic devices and systems that can be used as educational toys for children. '874 patent, Abstract. A typical device includes a work platform, one or more objects, such as blocks, for placement on the work platform by a child, a monitor, speaker, computer processor, and data storage device. Id. at 3:44-61. In accordance with software stored in the data storage device, the educational

toy will instruct a child via the speaker or monitor to arrange blocks in a certain configuration on the work platform. Id. at 9:8-13. The device will sense the location and identification of the blocks on the work platform, compare this information with the instructions, and notify the child of his or her compliance with the instructions. Id. at 9:13-23. Although aimed at children, devices and systems of the invention may be used by adults, such as to learn braille or play a board game. Id. at 3:13-16, 9:48-57.

3. Discussion

A. General Principles Governing Claim Construction

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed.Cir.1999). Claim construction is an issue of law for the court to decide. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. Markman, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id*. 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. *Id*. "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." Watts v. XL Sys., Inc., 232 F.3d 877, 882 (Fed.Cir.2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. SRI Int'l v. Matsushita Elec. Corp., 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. Intellicall, Inc. v. Phonometrics, 952 F.2d 1384, 1388 (Fed.Cir.1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. Electro Med. Sys., S.A. v. Cooper Life Scis., Inc., 34 F.3d 1048, 1054 (Fed.Cir.1994).

This court's claim construction decision must be informed by the Federal Circuit's decision in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (en banc). In *Phillips,* the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." *Id*. at 1312 (emphasis added) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed.Cir.2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id*. The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e*. as of the effective filing date of the patent application." Id. at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id*.

The primacy of claim terms notwithstanding, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id*. Although the claims

themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id*. at 1315 (quoting Markman, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id*. at 1314-17. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims." Bates v. Coe, 98 U.S. 31, 38, 25 L.Ed. 68 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir.1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. Phillips, 415 F.3d at 1317. Because the file history, however, "represents an ongoing negotiation between the PTO and the applicant," it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id*. Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193 (Fed.Cir.2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id*. at 1319-24. The approach suggested by *Tex. Digital*-the assignment of a limited role to the specification-was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id*. at 1320-21. According to *Phillips,* reliance on dictionary definitions at the expense of the specification had the effect of "focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent." *Id*. at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id*. What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id*. The definitions found in dictionaries, however, often flow from the editors' objective of assembling all of the possible definitions for a word. *Id*. at 1321-22.

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id*. at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

B. Specific terms in dispute

1. object(s)

The term "object(s)" appears in claims 1-24 of the '874 patent, claims 1-20 of the '786 patent, and claims 26-28 and 40-43 of the '213 patent. The plaintiff proposes a construction of "a physical thing capable of being grasped in a human hand." The defendant's counter-construction is "a block," and the defendant further argues that the term " 'object' does not include keyboards, mice, pens, wands, instruments for writing or hand signing on graphic tablets or touch screens, or other devices not specifically adapted for a child's use." The court finds the defendant's arguments unpersuasive.

The defendant argues that the patentees' repeated use of the term "block" within the written description to describe certain preferred embodiments of the invention limits the construction of the term "object" to "block." In support of its argument, the defendant cites isolated claim construction canons from SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc., 242 F.3d 1337, 1341 (Fed.Cir.2001), Genzyme Corp. v. Transkaryotic Therapies, Inc., 346 F.3d 1094, 1099 (Fed.Cir.2003), and other Federal Circuit cases. These cases are inapposite. FN2 As the Federal Circuit has stated, "[w]hether an invention is fairly claimed more broadly than the 'preferred embodiment' in the specification is a question specific to the content of the specification, the context in which the embodiment is described, the prosecution history, and if appropriate the prior art ...." Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377, 1383 (Fed.Cir.1999).

FN2. As the Federal Circuit has stated, "[a]lthough precedent offers assorted quotations in support of differing conclusions concerning the scope of the specification, these cases must be viewed in the factual context in which they arose." Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377, 1383 (Fed.Cir.1999). "All rules of construction must be understood in terms of the factual situations that produced them, and applied in fidelity to their origins." Modine Mfg. Co. v. U.S. Int'l Trade Comm'n, 75 F.3d 1545, 1551 (Fed.Cir.1996). "[W]hen the preferred embodiment is described in the specification as the invention itself, the claims are not *necessarily* entitled to a scope broader than that embodiment." *Id*. (emphasis added).

A review of the patentees' specification reveals that although many of the embodiments described in the written description use the term "block," other embodiments in the specification, including the written description, fail to use such limiting term. For example, the original claims, filed as part of the specification of the parent '437 application, use the term "object" in contrast to the use of the more limiting term "block." Opening Brief of the Plaintiff, Exhibit 6 at 22-23. Additionally, the specification supports a broader construction of the term "object." For example, the specification describes "objects" as "computer-recognizable characters." *See* '874 patent at 1:12-19, 3:1-5. In light of the intrinsic evidence contained in the specification, the court concludes that the term "object" is not limited to a "block."

Next, the defendant argues that the term "object" does not include "keyboards, mice, pens, wands, instruments for writing or hand signing on graphic tablets or touch screens, or other devices not specifically adapted for a child's use." Brief of the Defendant at 19. In support of its position, the defendant asserts that the patentees disclaimed the above subject matter during prosecution before the patent office. FN3

FN3. The statements were made during prosecution of the '754 patent, U.S. Patent Application Publication Number 2004/0063078, and U.S. Patent Application Serial Number 09/692,898.

The defendant's argument is misplaced. The cited portions of the prosecution history are consistent with the specification as originally filed. For example, the patentees' statements during prosecution are consistent with the following statement by the patentees in the Background of their specification: "young children have not yet developed the mental capabilities or the motor skills to interact well with conventional computers, which require data to be entered, for example via the keyboard or mouse, in a fixed format," as well as the following phrase in the plaintiff's reply brief: "[t]he kinesthetic activities of typing, manipulation of a mouse, or handwriting or hand signing are not covered by [this] invention." '874 patent at 1:33-36; Reply Brief of the Plaintiff at 11. Additionally, the specification contemplates that "objects" may be used by an adolescent or an adult. *See* '874 patent at at 3:13-16, 9:48-57 (describing embodiments for learning braille and playing board games).

For the foregoing reasons, the court rejects the defendant's attempt to limit this term and concludes that the term "object" means "a physical thing (or item)."

2. graspable object(s)

The term "graspable object(s)" appears in claims 1-24 of the '874 patent, claims 1-20 of the '786 patent, and claims 1-8 of the '754 patent. The parties have discussed the term "graspable object" in tandem with the term "object," and have not placed much emphasis on the term "graspable." The plaintiff proposes a construction of "an object that is capable of being grasped by a human hand." The defendant proposes "a block," with the further caveat that a " 'graspable object' does not include keyboards, mice, pens, wands, instruments for writing or hand signing on graphic tablets or touch screens, or other devices not specifically adapted for a child's use." For the above reasons, the court concludes that the term "graspable object" means "a physical thing (or item) that is capable of being grasped in a human hand."

3. work platform; planar work platform

The term "work platform" appears in claims 1-24 of the '874 patent, and claims 1-20 of the '786 patent. The term "planar work platform" appears in claims 25-53 of the '213 patent and claims 10-12 of the '283 patent. The plaintiff proposes a common construction for both terms of "a planar surface designed to allow the child to interact with the toy by causing contact with the surface." The defendant initially proposed different constructions for each term, arguing that "work platform" meant "an integral planar physical platform of the toy housing for receiving blocks," and that "planar work platform" meant "an integral planar physical platform of the toy housing for receiving blocks and not containing defined cavities for receiving objects." In light of the intrinsic evidence, the defendant changed each of its proposed constructions to "a planar platform of the toy housing for receiving a plurality of blocks." Brief of the Defendant at 31.

The plaintiff's proposed construction improperly incorporates separately claimed features. For example, claim 10 of the '283 patent states "a planar work platform on which a child can make selections by causing contact across a surface of the planar work platform," as well as "correctly solved by the child causing contact with the work platform." '283 patent, cl. 10. As is evident from the claim language, the "work platform" is distinct from the interactive limitation of "causing contact." Additionally, as discussed above, the patentees' invention is not necessarily limited to children.

The defendant's construction improperly incorporates a requirement that the work platform be a part of, *e.g.* integral with, the toy's housing. The specification contradicts this limitation. For example, Figure 1 depicts an embodiment where the work platform is separate from toy housing, while Figure 2 depicts an alternative

embodiment where the toy housing and work platform are joined in a unitary structure. *See* '874 patent, 3:6-67.

The defendant's attempt to incorporate the word "planar" within the construction of "work platform" is improper because the term "planar" is separately included in the claims. *See* '283 patent, cl. 10. Additionally, as discussed above, the defendant's proposed construction improperly incorporates the term "block."

For the foregoing reasons, the court concludes that the term "work platform" means "a surface for receiving objects," and the term "planar work platform" means "a planar surface for receiving objects."

4. substantially flat surface

The term "substantially flat" appears in claims 1-24 of the '874 patent and claims 1-20 of the '786 patent. The plaintiff apparently proposes that the above term be construed in accordance with its plain and ordinary meaning. The defendant proposes a construction that excludes the presence of defined cavities within the surface. The defendant bases its construction on an amendment made by the patentees with respect to claims 2 and 3 of the '437 application. As stated by the patentees in their amendment,

[w]ith regard to Claim 2, and Claim 3 dependent thereon, Claim 2 has been amended to recite that the surface is *substantially flat and planar*. This feature is clearly not disclosed in *Lee,* which includes defined cavities within the apparatus for receiving the indicia-carrying blocks. Without cavities, the system of *Lee* would be completely inoperable because the notches and ridges on the blocks in *Lee* must precisely align within the cavities with the detectors. By contrast, as identified in Claims 2 and 3 as amended, the objects may be located on the substantially flat, planar surface, and do not need to be provided in a precise alignment on the surface. This greatly enhances the ease of use and flexibility with regard to how a user provides the objects on the surface.

Opening Brief of the Plaintiff, Exhibit 8 at 7 (emphasis added).

"When multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that contain the same claim limitation." Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 980 (Fed.Cir.1999) (citing Jonsson v. The Stanley Works, 903 F.2d 812, 817-18 (Fed.Cir.1990). Although the '437 application was abandoned before issuance, claims 2 and 3 of the '437 application issued as claims 2 and 3 of U.S. Patent No. 5,823,782, which issued from a continuation application that was based on the '437 application. Therefore, the above portion of the prosecution history is relevant to the construction of this claim term. The court concludes, however, that the limitation "substantially flat" inherently excludes the defined cavities of *Lee* and that this term needs no further construction.

5. make selections by causing contact across the [a] planar surface of the work platform

This phrase appears in claims 25-53 of the '213 patent and in claims 10-12 of the '283 patent. The plaintiff proposes a construction of "the child can cause contact across the surface of the work platform, as opposed to being limited to specific locations on the work platform." The defendant asserts that this term fails to comply with the written description requirement of s. 112. Alternatively, the defendant proposes "arrange blocks in a particular configuration by movement across the work platform."

The disagreement between the parties stems from whether the claimed device is configured to sense objects

continually (*i.e.*, make selections) as the objects are moved across the work platform, or whether the claimed device senses objects only after the objects are located in a final position. Although the written description does not offer much explicit help, it does state that "[w]hile a block is moved on the working platform, the working platform transmits the identification of the moved block and the new locations of the block on the working platform." '874 patent at 9:2-5. The written description additionally states, "the block location information and the character identification information [can be] continuously generated and transmitted to the processing device 22." Id. at 4:46-47. This recited functionality is distinct from the generation of location and identification information upon the actuation of a button, such as by depressing a button upon completion of spelling a word, which is also described in the specification. Id. at 4:47-50.

Claim 25 of the '213 patent, as well as claim 10 of the '283 patent, describe the ability of the educational toy to sense or detect the lateral movement of a contact across the work platform while the contact is maintained with the work platform. *See* '213 patent, cl. 15; '283 patent, cl. 10. In light of the claim language, combined with the specification's disclosure, the court concludes that this term means "making selections by causing a maintained contact across the planar surface of the work platform."

6. occurrence of contact; occurrences of contact

The term "occurrence of contact" appears in claims 25-53 of the '213 patent, and the term "occurrences of contact" appears in claim 39 of the ' 213 patent and in claims 10-12 of the '283 patent. The plaintiff's proposed construction is "the act of causing contact to occur at a location on the work platform." The defendant counters with "occurrences of physical contact with the surface of the work platform." The crux of the disagreement with respect to this term is whether or not an "occurrence of contact" includes a moving contact with the work platform (the defendant's position), or, in contrast, includes solely a stationary, location-based contact (the plaintiff's position).

In light of the intrinsic evidence, the court agrees with the plaintiff and concludes that this term means "the act of causing contact to occur at a location on the work platform."

7. causing contact with the work platform two or more times

This phrase appears in claim 10 of the '283 patent. The plaintiff's proposed construction is "contacting the work platform two or more times, each contact being at a location on the work platform." The defendant argues that the term is indefinite, but alternatively offers a construction of "causing two or more coexisting physical contacts with the work platform." The crux of the disagreement is whether the contact times must occur simultaneously or whether such contact times can occur independently of one another.

In support of its position, the defendant cites to amendments and arguments that were made by the patentees during the prosecution of separate, related patents. The plaintiff supports its position with excerpts from the specification that suggest the claimed invention is capable of detecting and transmitting the location of an object in a continuous fashion. *See, e.g.*, ' 874 patent at 9:18-21. The defendant's prosecution history arguments are misplaced because it appears that the patentees' statements during prosecution were directed at different claim limitations. *See* Elkay, 192 F.3d at 980 ("When multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that *contain the same claim limitation*." (emphasis added)). Therefore, the court concludes that this phrase means "causing contact with the work platform two or more times."

8. causing contact with the work platform two or more times in a particular sequence

This phrase appears in claims 11 and 12 of the '283 patent. The plaintiff proposes a construction of "contacting the work platform two or more times in a particular sequence, each contact being at a location on the work platform." The defendant counters with "causing two or more coexisting physical contacts with the work platform in a particular positional sequence on the work platform." The crux of the argument is whether the "particular sequence" is limited to a simultaneous positional arrangement of the objects on the work platform, or whether the "particular sequence" more broadly includes a temporal relationship, such as the sequential contacting of objects on the work platform. For the above reasons, the court concludes this term means "causing contact with the work platform two or more times in a particular sequence."

9. arbitrary child defined locations

This term appears in claims 1-24 of the '874 patent and in claims 1-20 of the '786 patent. The plaintiff proposes a construction of "the child selects where to place the object on the work platform and can place the object at arbitrary locations across the work platform. The object is sensed where the child places the object." The defendant counters with "any location on the work platform chosen by a child." The parties' disagreement stems from whether an "arbitrary child defined location" includes only those portions of the work platform that are capable of detecting an object (the plaintiff's position) or whether the above term includes any location on the work platform, such as a "dead zone" (the defendant's position). The plaintiff's definition of this term appears to incorporate other claim limitations. *See* '874 patent, cl. 1 ("the graspable object capable of being placed and sensed in arbitrary child-defined locations on the work platform"). The court concludes this term means "arbitrary locations on the work platform selected by the child."

10. sensing system

The term "sensing system" appears in claims 25-53 of the '213 patent and in claims 10-12 of the '283 patent. The plaintiff proposes a construction of "a system for transmitting an output signal in response to the causing of contact on the work platform." The defendant counters with "system that senses location and identification information for a block." The specification fails to support the defendant's requirement that the sensing system sense both object location information and identification information. Additionally, the specification fails to support the plaintiff's proposed requirement that the sensing system transmit an output signal. Therefore, the court concludes this term means "a system that senses the location and/or identification information of objects."

11. sensors

The term "sensors" appears in claims 1-24 of the '874 patent and in claims 1-20 of the '786 patent. The plaintiff proposes a construction of "one or more elements that cooperate to transmit an output signal in response to the placement of an object on the work platform." The defendant counters with "system that senses location and identification information for a block." In accordance with the above construction for "sensing system," the court concludes the term "sensors" means "one or more devices for sensing the location and/or identification information of objects."

12. movement tracking capability

This term appears in claims 25-38, 43, and 53 of the '213 patent and in claims 10-12 of the '283 patent. The plaintiff proposes a construction of "the processor receives information corresponding to the path of contact

as it moves laterally across the face of the work platform." The plaintiff additionally avers that " 'movement tracking capability' is distinct from the 'occurrence of contact,' which is the act of causing contact to occur at a location on the work platform." The defendant's counter-construction is "the processor detects new locations of a block (object) while it is moved on the working platform." The defendant additionally urges that " 'laterally' means from side to side." The court concludes this term means "the ability to track the movement of an object."

13. button

This term appears in claims 1 and 5 of the '754 patent. The plaintiff proposes "the button used by the user to input cognitive selections into the system. The button is not part of a keyboard or numeric keypad." The defendant asserts that this term is indefinite. Alternatively, the defendant's construction is "a button with which the user can initiate the generation of the block location information and the character identification information by the working platform." Although the written description includes an embodiment that utilizes a button as the defendant's construction suggests, those passages of the written description are not limiting. In light of specification, including the claims of the '754 patent, the court concludes the term "button" means "a button for making entries."

4. Conclusion

The court adopts the above constructions. The court recognizes that it has not construed all of the terms proposed in the parties' briefing. Nevertheless, the court has attempted to construe all of the terms that the parties addressed in oral argument as the material terms in dispute. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the constructions adopted by the court.

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