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

ARACHNID, INC,
Plaintiff.
v.
MERIT INDUSTRIES, INC., et al,
Defendants.

May 16, 2002.

Patentee of system for automatic collection and distribution of player statistics for electronic dart games brought patent infringement action against competitor. The District Court, Shadur, Senior District Judge, held that: (1) person of ordinary skill in the art at the time method and apparatus for automating data transfer and management of dart league or tournament was patented would have had an understanding of how electronic dart games, leagues, and tournaments operated, but not necessarily an engineering background, and (2) proper construction of structure element of "dart game having means for storing data" language in electronic dart board scoring system patent claim did not include integrated circuit (IC) player card.

Ordered Accordingly.

Proper construction of "output means" language in electronic dart board scoring system patent claim was player card reader or writers or other portable data storage device interfaces and modems, and was not limited to non-contact integrated circuit (IC) player card readers and computer modems.

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Martin J. Black, Thomas P. Lihan, Marc S. Segal, Dechert Price & Rhoads, Philadelphia, PA, David Lieberman, Sachnoff & Weaver, Chicago, for Defendants.

MEMORANDUM OPINION AND ORDER

SHADUR**, Senior District Judge.**

Arachnid, Inc. ("Arachnid") has brought this patent infringement action against Merit Industries, Inc. and Millennium Reserve Corporation (collectively "Merit"), FN1 alleging that Merit has infringed Arachnid's United States Patent No. 5,114,155 FN2 for a "System for Automatic Collection and Distribution of Player Statistics for Electronic Dart Games." This opinion takes the first of the two steps required to determine whether claims of Patent '155 have been infringed: conducting a *Markman* analysis (Markman v. Westview Instruments, Inc., 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), aff'g 52 F.3d 967 (Fed.Cir.1995) (en banc)) to construe the claims by determining their scope and meaning. To that end each party has submitted a full set of claim construction memoranda, FN3 enabling this Court to address each of the disputed claim elements as a matter of law.FN4 But first a brief review of claim construction principles will obviate the need for needless repetition in the discussion that follows.

FN1. On August 19, 1998, Merit Industries, Inc. along with its sole stockholder sold substantially all of its

assets and the right to use the name to Merit Acquisition Corporation. After the sale, seller Merit Industries, Inc. changed its name to Millennium Reserve Corporation and purchaser Merit Acquisition Corporation changed its name to Merit Industries, Inc. (M.Mem.1).

FN2. In conformity with conventional practice, this opinion will refer to the patent in suit by its last three digits: "Patent '155." All citations to paragraphs of the applicable statute, 35 U.S.C. s. 112, will take the form "Section 112 para. -."

FN3. Arachnid and Merit's initial memoranda are cited "A. Mem.-" and "M. Mem.-," with their responsive memoranda cited "A. Resp.-" and "M. Resp.-," and their reply memoranda cited "A. Reply-" and "M. Reply-." Any citations to other submissions also use the "A." and "M." designations.

FN4. *Markman* calls for construction of the claims as a matter of law before the factual application of those claims to the accused products can take place.

Claim Interpretation

[1] Our American patent system serves two equally important goals: to secure the patentee's rights (the definitional goal) and to put others on notice of what the patentee has removed from the public domain for the life of the patent (the notice goal) (Markman, 517 U.S. at 373, 116 S.Ct. 1384, quoting McClain v. Ortmayer, 141 U.S. 419, 424, 12 S.Ct. 76, 35 L.Ed. 800 (1891)). Hence cases such as Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed.Cir.1999) instruct that the language of the documents constituting the public record-the claims, the specification and the prosecution history-should be the primary source for construing patent claims. Extrinsic evidence, such as expert testimony, should be relied on only if analysis of that intrinsic evidence fails to resolve an ambiguity in the disputed claim term (Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996)).

[2] [3] That being said, a court may nonetheless rely on dictionary definitions in construing (though not in contradicting) claim terms, even though such dictionary evidence is extrinsic (id. at 1584 n. 6). As Vitronics, id. at 1582 explains, because claim terms are given the ordinary and customary meaning ascribed to them by persons experienced in the field of the invention, dictionaries may often be useful to that end. But reliance on dictionary definitions is improper where a patentee has chosen "to be his own lexicographer" and has clearly stated in the patent specification or file history that a term has been given a special definition (*id.*). In such a case the special definition controls over the ordinary and customary meaning.

[4] Moreover, while the specification "is the single best guide to the meaning of a disputed term" (*id.*), claim language may be broader than any limitations set forth in the specifications. As Kemco Sales, Inc., v. Control Papers Co., 208 F.3d 1352, 1362 (Fed.Cir.2000) (emphasis and internal quotation marks omitted) has cautioned, quoting from earlier Federal Circuit caselaw:

This court has consistently adhered to the proposition that courts cannot alter what the patentee has chosen to claim as his invention, that limitations appearing in the specification will not be read into claims, and that interpreting what is meant by a word in a claim is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.

[5] Section 112 para. 6 governs the construction of so-called "means-plus-function" elements of patent claims:

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

Use of the word "means" in a patent claim raises a presumption that the patentee used the term with the rules of Section 112 para. 6 in mind (*Al-* Site Corp., v. VSI Int'l, Inc., 174 F.3d 1308, 1318 (Fed.Cir.1999)).

[6] [7] Construction of means-plus-function claim elements involves two steps: (1) identification of the function recited in the claim and (2) identification of the structure (or structures) described in the specification that can perform that function (Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1257-58 (Fed.Cir.1999)). Courts may not adopt functions different from those explicitly recited by claims, nor may they incorporate structure beyond what is necessary to perform the claimed function (id. at 1258). *Micro Chem., id.* also teaches:

Identification of corresponding structure may embrace more than the preferred embodiment. A means-plus-function claim encompasses all structure in the specification corresponding to that element and equivalent structures....When multiple embodiments in the specification correspond to the claimed function, proper application of s. 112, para. 6 generally reads the claim element to embrace each of those embodiments.

Here the parties are in essential agreement as to which of the disputed claim elements require means-plus-function analysis, and with few exceptions they agree on the function of each of those elements. Where disputes arise is in the identification of the structures disclosed by the patent specification that can perform the functions for the means-plus-function elements.

Patent '155's Subject Matter

Patent '155 discloses a method and apparatus for conducting dart leagues or tournaments in which "a plurality of remotely located electronic dart games [are] connected via a communication medium to a central control device enabling bidirectional communication between the central control device and the plurality of remotely located electronic dart games" (Patent '155 abstract). In its preferred embodiment, the invention allows players in different locations to participate in one dart league or tournament, although the patent recognizes an alternate embodiment in which all of the dart games are situated at the same location. Each dart game receives information from and transmits information to player cards assigned to each participant. In a preferred embodiment, each location has a master game that receives information from all non-master games through a communication link and in turn transmits that information to the central control device, which calculates player standings and transmits that information back to the remote locations.

Ordinary Skill in the Art

Finally before this opinion turns to construction of the elements of the Patent '155 claims, one preliminary dispute between the parties must be resolved: determining who constituted a "person of ordinary skill in the art" at the time Patent '155 was issued in 1992.FN5 That issue breaks down into two parts: (1) what exactly is the "art" at issue and (2) who qualifies as a "person of ordinary skill" in that art?

FN5. More typically that issue would be addressed during the validity phase of a patent infringement suit. It is necessary to resolve it at this point because part of the parties' dispute as to claim construction revolves around how widely or narrowly the art in question is defined.

Arachnid contends that the art in question was that of "electronic dart leagues and dart tournaments"

(A.Mem.11), and it quotes its proposed expert witness for the proposition that a person of ordinary skill in that art (id. at 12):

has knowledge, understanding and experience in the operations of electronic dart game machines, and in the marketing, promotion and management of electronic darts in league and tournament play, has field experience in the operation, setup, and maintenance of electronic dart game machines, and has operated electronic dart game machines at multiple locations in which regularly scheduled electronic dart promotions occur.

Merit counters that the relevant field of art is "the design and development of software and electrical circuitry for the transmission of information between electronic apparatus" (M.Resp.5) and that a person of ordinary skill in the art necessarily had a background in electrical engineering (M.Resp.4). Neither side has it just right.

[8] To define the relevant art, a court must look to "the nature of the problem confronting the would-be inventor" (Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 716 (Fed.Cir.1991)). Here the nature of the problem was neither "electronic dart leagues and dart tournaments" nor "the design and development of software and electrical circuitry." Patent '155 did not claim to have invented either electronic dart leagues and tournaments or particular software and electrical circuits. Instead it is directed to "a method and apparatus for automating data transfer and management of a dart league or tournament" (Patent '155 2 :13-15).FN6 That defines the relevant art.

FN6. Arachnid has provided a copy of the patent at A. Ex. A. Further citations to the patent itself will follow the convention of "column number:line numbers," without repeating "Patent '155."

[9] That being so, a person of ordinary skill in the art at the time would have had an understanding of how electronic dart games, leagues and tournaments operated, as well as training or experience (but not necessarily an engineering background) in the use of pre-existing hardware and software systems that could be used to create an automated system. With that issue out of the way, it is time to turn to the construction of the various claim elements at issue. Unsurprisingly, that begins with Claim 1.

Claim 1

Here is Claim 1 (8:1-16):

1. A method of conducting dart leagues or tournaments utilizing a plurality of electronic dart games, each dart game having means for receiving, storing, and transmitting data, said method further utilizing a central control device (CCD) having means for processing, inputting, storing and outputting data, said method comprising the steps of:

connecting the plurality of the electronic dart games to the central control device via a communication medium;

inputting data on each player into the central control device via the inputting means; and

communicating bidirectionally between the central control device and the plurality of electronic dart games via the communication medium.

Arachnid and Merit dispute the meaning of a number of terms in that claim.

Unfortunately, here as elsewhere Merit's submissions seem to exhibit its pursuit of goals other than that

appropriate for the *Markman* phase of patent litigation. For instance, its Mem. 3-6 are impermissibly devoted to contentions that essentially urge the invalidity of Patent '155, an issue that may become ripe for consideration only after this Court has decided what the patent means-but not now. And by like token, too much of Merit's approach is devoted to its attempts to rewrite the patent in its own way, doubtless looking forward to the opportunity to argue that Merit does not infringe on the quite different patent that it would reconstruct. Those things certainly do not help this Court much in the *Markman* process, and Merit's counsel apparently do not recognize the risk that urging arguments that are thus suspect could conceivably spill over to taint other arguments that are substantively more defensible. But on to the merits.

" ***dart game having means for receiving...data*** "

Both parties agree that the function of the just-quoted means-plus-function element is the receipt by each dart game of data or information relating to a dart tournament or league (A.Mem.16, M.Resp.6). They offer differing constructions of the structures associated with that function, with Arachnid claiming "any one or more of a player card or other portable data storage device such as an integrated circuit card and interface, keyboard, modem, a touch pad, a switch or switches, or computer I/O processing circuitry" (A.Mem.18) and with Merit seeking to limit the structures to "(1) a computer modem and (2) a player card reader, capable of reading non-contact IC [integrated circuit] cards" (M.Resp.7)

[10] Merit's argument that the patent discloses the use of only non-contact IC cards as player cards lacks any intrinsic support. Patent '155 describes the use of player cards, which are specifically defined as "any portable data storage device" (4:34-35). It goes on to say, " *For instance,* the player card... *may* be a noncontact integrated circuit (IC) card as disclosed in" a specified recent patent (4:35-36, emphasis added). That is not properly read as a limitation on the devices that can fill the role of player cards, but instead as providing an example (the universally understood meaning of "For instance") to ensure that readers of the patent understand that it could include the disclosure in a recent invention. Because the patent specifies that any portable data sharing device-including both contact and non-contact IC cards-can serve as a player card, a reader for any type of those devices can serve as the structure for receiving data.

Some of the structures Arachnid proposes are not, however, supported by the patent specification. For example, Arachnid claims that player cards and other portable data storage devices are themselves structures for receiving data, but nothing in the patent supports a finding that such devices, which are wholly independent of the dart game, fit the claim language of "each dart game *having* means for receiving...data." In like fashion Arachnid lists a touch pad, a switch or switches and computer I/O processing circuitry as structures that fulfill that function, but nothing in the specification supports that construction either.FN7

FN7. Arachnid cites to the report of its "expert" Howard Smoyer ("Smoyer"), who states that someone of ordinary skill in the art would have understood upon review of the patent that those devices could serve as means of receiving data (A. Ex. C 11). Apart from the question whether Smoyer would qualify as an expert (which this Court finds it unnecessary to resolve at this point in the case), Arachnid offers no evidence that those devices were known to be equivalent to any of the specified structures or were otherwise disclosed in the patent. This is not an instance in which the patent language is ambiguous (it is conventional wisdom that litigants' disagreement over the meaning of language does not equate to ambiguity), and so the testimony of Arachnid's claimed expert is entitled to no weight (Vitronics, 90 F.3d at 1584).

On the other hand, Arachnid correctly lists keyboards, electronic wire interlink and Spider Writer ^{TM} Technology as structures for receiving data, each of which is disclosed in the patent (4:50-53, 3:66-4:2, 5:34-38). "Means for receiving... data" is therefore construed as any one or more of a computer modem, player card readers (capable of reading any portable data storage device), keyboard, electronic wire interlink and Spider Writer ^{TM} Technology.

" ***dart game having means for...storing...data*** "

[11] Again both sides agree that the just-quoted means-plus-function element addresses the function of storing dart game league-related or tournament-related data (A.Mem.18, M.Mem.20). They also agree that the corresponding structure is computer memory. Merit urges that the structure be restricted to "non-volatile computer memory located within the electronic dart game" because that is the only type of memory that is retained after a device is turned off (M.Mem.20). Because nothing in the claim or patent specification requires that data be retained in the dart games after they are turned off, no support exists for Merit's effort to engraft the term "non-volatile" into this element.

Arachnid contends that the structures for storing data are "computer memory, electronic memory circuitry, hardware or software including IC player cards if part of the dart game, and/or equivalent structures" (A.Mem.18). Nothing in the specifications discloses the use of IC cards as part of the dart games themselves-those cards are always disclosed as storage devices external to the games. According to the patent specification, computer memory and electronic memory circuitry are the dart game structures for storing data (6:9-13). That construction is adopted.

" ***dart game having means for...transmitting data*** "

[12] Arachnid and Merit agree that the just-quoted means-plus-function element discloses the function of transmitting data from a dart game to some other destination (A.Mem.19, M.Mem.19). Merit argues, as it did as to the "means for receiving" element, that the only structures disclosed for transmitting are a computer modem and non-contact IC player card reader. That effort to limit the structure to non-contact IC cards fails for the same reasons as stated earlier. Modems and player card reader/writers or other portable data storage device interfaces constitute the structures for transmitting data. Although Arachnid also posits that the means for transmitting data can also include "electronic I/O processing circuitry...or computer peripheral device hardware and software" (A.Mem.21), it provides no showing that those structures are disclosed by the patent.FN8

FN8. This is the first of several places where Arachnid includes "equivalents" of specified structures as also coming within the plain meaning of phrases in Patent '155 (A.Mem.20). Because the current status of the doctrine of equivalents is awaiting definition by the Supreme Court in *Festo Corp. v. Shoketsu Kinzoku Kabushiki Co.,* No. 00-1543, which was argued January 8 of this year (see 70 U.S.L.W. 3471-73), this opinion expresses no view either way on that subject.

" ***CCD having means for processing*** "

[13] Both parties agree that the function of the just-quoted means-plus-function element is the processing or manipulation of data (A.Mem.21, M.Mem.20). Merit arguesthat the means for processing should be construed as limited to the central processing unit ("CPU") of a computer (M.Mem.20).FN9 Arachnid proposes a more expansive construction that includes other "electronic processing circuitry" because the dart games contain electronic processors that are not themselves computers (A. Reply 11-12). That argument fails because this element discloses the *CCD's* means for processing, not the processing capabilities of the dart games. Merit's construction is adopted.

FN9. Both sides agree that the CCD is a computer system, including typical features like a CPU, memory, keyboard, modem and printer (A.Mem.21).

" ***CCD having means for...inputting...data*** " FN10

FN10. To avoid undue awkwardness, this and later quotations have omitted the parentheses around "CCD"

in the patent itself.

[14] Again the parties agree that the just-quoted language denotes a means-plus-function element, with its function being the entry of data into the CCD (A.Mem.22, M.Mem.21). Arachnid claims that the structures performing that function include "one or more of electronic I/O processing circuitry, peripheral hardware device, portable data storage device interface, modem, or keyboard" (A.Mem.23), while Merit argues that the only structures described in the patent are a computer modem and computer keyboard (M.Mem.21).

Patent '155 discloses the use of a modem for inputting data into the CCD from remotely-located master games (3:61-63) and explains that "[p]layers register for a dart league or tournament by inputting the information at the location of the CCD" (5:24-25), a step that anyone of ordinary skill in the art would presume requires the use of a computer keyboard. It also discloses the use of wires to create an electronic interlink between dart games situated at the same location as the CCD (3:66-4:2) and an interface for downloading data into the CCD from player cards (5:12-21). Each of those structures meets the means-plus-function test for the element at issue.

" ***CCD having means for...storing...data*** "

[15] Both parties agree that the just-quoted language constitutes a means-plus-function element, with its function being the storage of data. They also agree that the structure for storing data is the computer memory system, although Merit seeks to restrict that structure to non-volatile computer memory (M.Mem.21). As discussed earlier, no evidence supports such a restriction, and the element is therefore construed to include any computer memory system included in the CCD.

" ***CCD having means for...outputting data*** "

[16] [17] In this instance the parties agree that the just-quoted language constitutes a means-plus-function element, but they differ as to both the function and the structure. Merit argues that the function is "transmitting data from the CCD to the dart games" and that the only structure in the patent that performs that function is a computer modem (M.Mem.21-22).

Not so-the claim language embraces the transmission of the data from the CCD to any external destination. Intrinsic evidence supports the finding, which this Court makes, that a number of structures can serve as means of outputting data from the CCD: a player card or other portable data storage device interface (5:12-32), a modem (3:61-63) or an electronic interlink (3:63-4:2). Though Arachnid further suggests that a display unit, printer and electronic processing circuitry can be structures for outputting data, nothing in the patent specifications links those structures to the CCD for data output-instead they are linked with the dart games themselves (see 5:57-59, 7:54-57, 1:63-2:4).

" ***connecting*** "

[18] Merit proposes that "connecting" be construed as meaning "establishing an electrical continuity between" the CCD and dart games (M.Mem.11-12). That proposal is drawn primarily from the definition of "connection" found in an electrical engineering dictionary.

But even apart from Merit's potentially suspect transmutation from "connecting" (the word used in Patent '155) to "connection," FN11 Merit's attempt to engraft the word "electrical" as a limitation on the term "connecting" is inappropriate for several reasons. As indicated earlier, the relevant art here is not electrical engineering per se. Further, a dictionary definition may not be used if it contradicts or varies the claim language (Vitronics, 90 F.3d at 1584), and that is precisely what Merit's proposed definition would do here. Nothing in Patent '155 specifies that the connection between the CCD and the dart games must be "electrical." It is at least questionable whether the preferred embodiment of a modem qualifies as an

"electrical" connection, and another specified embodiment-the use of game cards and routemen-obviously does not include electrical connection. FN12 Intrinsic evidence from Patent '155 plainly supports Arachnid's construction of "connecting" as having the less restricted meaning of simply joining in a communications path (A.Mem.26-28). That construction is adopted.

FN11. After all, in normal English usage the verb "connect" is wholly generic, carrying no implication that is limited to the electric or electronic fields. By contrast, the noun "connection" has some more specialized connotations that might arguably lend some force to Merit's argument-though it is ultimately unpersuasive even in those terms.

FN12. While Arachnid labels that as a "preferred" embodiment, Patent '155 itself says it is an alternative to the preferred embodiment (5:21-23).

" ***via a communication medium*** "

[19] Merit again proposes a construction paraphrased from definitions in an electrical engineering dictionary: "the physical environment by which an electromagnetic communication signal may travel between two points without signal alternation or modification" (M.Mem.13). Once again that proposal seeks to impose restrictions that are in no way supported by the intrinsic patent evidence. Patent '155 lists a number of possible communication media: telephone lines and modems, electric wires and routemen manually transporting player and operator cards. That normal and nonrestrictive meaning is adopted.

" ***communicating bidirectionally*** "

[20] Merit asserts at its Mem. 15-16 that for communication to be bidirectional, "data must proceed in both directions while the communication is occurring" (M.Mem.15). In an effort to support that contention, M. Mem. 15 quotes a definition of "bidirectional" from an electrical engineering dictionary (*Hargrave's Communications Dictionary* (2001)) as "capable of operation in both a forward and reverse direction." But that quotation itself belies Merit's proposed construction, for it requires only that data be able to flow in either direction, not that data must flow in both directions at the same time. And nothing in Patent '155 justifies Merit's strained construction of "bidirectional." Arachnid's proposed more straightforward meaning of the term as "transferring information in both directions between the dart games and the CCD" (A.Mem.32) is adopted.

Claim 3

Claim 3 incorporates all aspects of Claim 1 and Claim 2,FN13 adding this language (8:22-37):

FN13. Claim 2 reads:
The method of conducting dart leagues or tournaments as set out in claim 1, wherein the plurality of electronic dart games are situated at one or more locations remote from the central control device.

None of that language has been disputed by the parties.
each dart game further comprising means for displaying data, said method further comprising the steps of: recording play-by-play of each player automatically via the game storing means upon impact of a dart thrown by a player striking a dart board on said player's respective dart game;

calculating a score of each player resulting from a dart thrown by a player striking a respective dart board of the player;

displaying at each location current scores of every player participating at that location; and

polling each remote location by the central control device via the communication medium at a predetermined time in order to upload data from each remote location and process data.

Several of the terms in that claim are the subject of disagreement between the parties.

" ***means for displaying data*** "

[21] This just-quoted means-plus-function element discloses the function of displaying data (A.Mem.33, M.Mem.22). Arachnid contends that the structures specified in Patent '155 that perform that function are "one or more of a video monitor, display, CRT screen, lighted display or printer associated with it to display data" (A.Mem.34). Predictably Merit submits a narrower construction, proposing that the structure be limited to "an external portable video display connected to the dart game" (M.Mem.22).

Intrinsic patent evidence discloses two structures that do fulfill this function: a portable display such as a video display connected to the master dart game (5:42-45) and, disproving Merit's overly narrow reading, the visual displays internal to the individual dart games (5:57-59). And as for Arachnid's contention that a printer also qualifies as a "display" structure, it cannot be disputed (1) that a printer is a "means" and (2) that its function is that of "displaying data"-thus validating the rest of Arachnid's position as to the element now under consideration.

" ***game storing means*** "

[22] Merit argues that the just-quoted term is indefinite and incapable of construction (M.Mem.23). But that argument disregards the fact that Claim 3 is dependent on Claim 1, so that the fully-quoted term (" *the* game storing means") clearly refers back to the Claim 1 term "dart game having means for...storing."

Merit attempts to counter that "[t]he applicants' failure to unambiguously identify the 'game storing means' as the dart game's 'means for storing' makes it unclear whether the element is found at the CCD, dart game or some other intermediate point" (M.Resp.12). But that argument in turn ignores the plain language of Claim 3, which in part discloses " *each dart game* further comprising means for displaying data, said method further comprisingthe steps of: recording play-by-play of each player automatically via the game storing means..." (8:21-25, emphasis added).

In sum, "game storing means" is not at all indefinite. It plainly refers to structures within the dart games, and it is therefore subject to the same construction already given to "means for storing" in Claim 1.

" ***polling each remote location by the CCD*** "

Even though both parties expend considerable energy expounding on the construction of the just-quoted term, in the end both also concede that they agree on its plain meaning: requesting information from each remote location of the dart game to facilitate data transfer (A.Mem.38, M.Mem.23).FN14 That construction is adopted.

FN14. Merit correctly points out that Arachnid, without explanation, asserts at one point that polling means "retrieving" information (A.Mem.40). Because Arachnid fails to elaborate an argument for that construction or to respond to Merit's challenge on that score, that assertion is disregarded.

Claim 14

Claim 14 incorporates all aspects of Claims 1 and 2 and adds in part (9:51-10:3):

a communication medium coupling the plurality of remotely located electronic dart games to the central control device and enabling bidirectional communication between the central control device and the plurality of remotely located electronic dart games, wherein the receiving and transmitting means of the dart games and the inputting and outputting means of the CCD interface with the communication medium.

As such, Claim 14 is the apparatus counterpart to the method of Claim 1. That being so, the parties agree that analogous terms of Claim 14 must be interpreted in a manner consistent with the construction of Claim 1. Three of those terms have been disputed by the parties.

" ***coupling*** "

"Coupling" is the counterpart to the Claim 1 term "connecting." Accordingly, the same meaning-establishing an association to allow communication between electronic devices-is adopted.

" ***enabling bidirectional communication*** "

"Bidirectional communication" is the counterpart to the Claim 1 term "communicating bidirectionally." Hence the same construction-transferring information in both directions, but with no requirement that data must flow in both directions at the same time-is adopted.

" ***interface with the communication medium*** "

[23] Merit has misread the word "interface" in Claim 14 as a noun, proposing a construction of "a shared electrical boundary" (M.Mem.25). But as A. Resp. 21 correctly points out, "interface" is indisputably a verb in Claim 14. Despite some reluctance to endorse such a classic patent-lawyer-talk term as "therebetween," this Court accepts Arachnid's statement of the plain meaning of the element in question: "the receiving means and transmitting means of the dart games and inputting means and outputting means of the CCD are configured to effect a data exchange therebetween" (a reading to which Merit does not object).

Claim 18

Claim 18 reads (10:19-32):

In an electronic dart game apparatus especially for use in a dart league or tournament, the combination comprising:

electronic input means for receiving player data and league or tournament player pairings information from at least one external source and game statistics;

storage means within the dart game apparatus for storing the external data and game statistics generated within the dart game; and

output means for transmitting the player data and game statistics to a location external to the dart game.

Three terms in that claim require construction.

" ***electronic input means*** "

[24] This just-quoted means-plus-function element performs the function of receiving player data and league or tournament player pairings information from at least one external source as well as the function of receiving game statistics (A.Mem.52, M.Mem.27). Merit argues that the element is indefinite (and therefore incapable of any reasonable construction) because no structure in the dart game is capable of receiving both player and league or tournament information and game statistics. But that contention is based on the faulty

assumption that "game statistics" can refer only to the information generated by games played on each particular dart game. Instead there is nothing to prevent the input of statistics into one game from another source-and indeed, a preferred embodiment in Patent '155 describes a configuration in which "nonmaster" games at each location input their game statistics into the "master" game, which then sends all of the data on to the CCD.

Thus Merit's indefiniteness argument fails. "Electronic input means" is construed as including any one or more of a computer modem, player card reader/writers, electronic interlink or Spider Writer ™ technology.

" ***storage means*** "

[25] This just-quoted means-plus-function element performs the function of storing external data and game statistics generated within the dart game (A.Mem.54, M.Mem.28). As earlier, Merit asserts that this term should be construed to mean only *nonvolatile* computer memory. For the same reasons as stated earlier, that assertion is rejected. For its part, Arachnid proposes that the term "storage means" should include player cards-but such cards are clearly not "within the dart game apparatus."

Patent '155 discloses computer memory and electronic memory circuitry as storage means within the dart game. That construction is adopted.

" ***output means*** "

[26] Both parties agree that the function of this just-quoted means-plus-function element is the same as the "means for transmitting" element in Claim 1 (A.Mem.56, M.Mem.28). Consequently Merit's argument that the term should be construed as limited to non-contact IC player card readers and computer modems is again rejected. As earlier, "output means" are construed to comprise player card reader/writers or other portable data storage device interfaces and modems.

Conclusion

This opinion, faithful to the teaching of *Markman,* has construed the disputed terms in Claims 1, 3, 14 and 18 as a matter of law. With that done, it now becomes necessary to determine the next steps needed to move the case forward for ultimatedisposition. This Court sets a status hearing for 8:45 a.m. May 30, 2002.FN15

FN15. This application of the *Markman* canon was originally tackled by this Court's outstanding law clerk Jennifer Smiley, and her proposed draft opinion was-as always-exemplary. It is just such excellent work product that makes it possible to handle the caseload that the inexorable computer delivers to each district judge, and it is even more noteworthy when the project calls for the clerk's exploration of the arcane mysteries of patent law in general and *Markman* in particular for the first time. It must of course be understood that if any errors have nevertheless found their way into this opinion, they are ascribable to this Court and not to Ms. Smiley-this Court has followed its invariable practice of parsing each law clerk's draft word by word and sentence by sentence, so that the end product must be placed at the Court's doorstep.

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