United States Court of Appeals for the Federal Circuit

00-1514

ASYST TECHNOLOGIES, INC.,

Plaintiff-Appellant,

v.

-

EMPAK, INC.,

Defendant,

and

EMTRAK, INC., JENOPTIK AG, JENOPTIK INFAB, INC., JENOPTIK GMBH AND INFAB U.S. OPERATIONS, INC., and MEISSNER & WURST,

Defendants-Appellees.

Paul A. Renne, Cooley Godward LLP, of San Francisco, argued for plaintiff-appellant. With him on the brief were Matthew B. Lehr, Lori R. E. Ploeger, and Jonathan H. Takei. Of counsel on the brief were Darryl M. Woo, Fenwick & West, of Palo Alto, California.

Gerald H. Kiel , ReedSmith, LLP, of New York, New York, argued for defendants-appellees. Of counsel were Stephen Chin, Eugene Ledonne, Arthur Dresner, and Richard Mario Ballerini, of ReedSmith, LLP, New York, New York.

Appealed from: U. S. District Court for the Northern District of California

Judge Jeremy Fogel

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and MEISSNER & WURST,

Defendants-Appellees.

DECIDED: October 10, 2001

Before NEWMAN, Circuit Judge, ARCHER, Senior Circuit Judge, and BRYSON, Circuit Judge.

BRYSON, Circuit Judge.

Asyst Technologies, Inc., filed suit against Jenoptik AG and other parties (collectively, "Jenoptik") in the United States District Court for the Northern District of California, charging Jenoptik with infringing Asyst's U.S. Patent Nos. 4,974,166 ("the '166 patent") and 5,097,421 ("the '421 patent"). On Jenoptik's motion for summary judgment, the district court ruled that the accused device made by Jenoptik did not infringe the asserted claims of the '166 and '421 patents. On appeal, Asyst argues that the district court erred in its claim construction and infringement analysis. Because we conclude that the district court's claim construction and analysis was flawed in certain respects and that summary judgment of noninfringement should not have been entered, we reverse the judgment and remand for further proceedings.

I

Asyst's patents describe systems to be used in processing semiconductor wafers into integrated circuits. Wafer processing must occur in an ultra-clean environment in order to avoid manufacturing defects. One way to maintain an ultra-clean environment is to enclose the wafers

in a sealed transportable container, also known as a "pod." In the course of processing, human operators typically transport a batch of wafers in a pod through a series of process tools, or work stations, each of which performs a different process on the wafers. Unlike in a conventional assembly line, the wafers do not follow a single path from tool to tool. Rather, a batch of wafers may travel back and forth among various tools at different times, depending on the desired characteristics of the final integrated circuit.

During the manufacturing process, it is critical to provide routing information to the human operators and to verify that the correct wafer lot is at the right tool at the right time. The physical results of many processes performed by the tools are impossible to ascertain by sight, and if the wrong process is performed at the wrong time or in the wrong sequence, the wafers may be irreparably damaged. The verification process is commonly referred to as "lot validation," and the patents in suit are directed at lot validation systems.

The patent claims generally relate to lot validation systems featuring microcomputers mounted on each pod. The microcomputers on the pods communicate with microcomputers located on each wafer processing tool. Each microcomputer has an associated communication device located on the respective pod or tool, and the microcomputers communicate through those devices. The preferred embodiment of the communication device features light emitting diodes and photosensitive transistors to transmit and receive signals between the microcomputers.

Before the district court, Jenoptik moved for summary judgment of non-infringement of independent claims 1 and 2 of the '421 patent, claims 1 and 5 of the '166 patent, and various asserted dependent claims. Jenoptik also moved for an order of summary judgment holding certain claims invalid.

The claims at issue in this case are reproduced below. Claims 1 and 2 of the '421 patent recite:

1. A processing system comprising:

(1) at least one transportable container for transporting articles to be processed;

(2) first two-way communication means mounted on said at least one transportable container;

(3) first microcomputer means mounted on said at least one transportable container for receiving and processing digital information communicated with said first two-way communication means;

(4) storage means mounted on said at least one transportable container for storing digital information processed by said microcomputer means; and

(5) a plurality of work stations each respectively adapted to having said at least one transportable container removably mounted thereon and each respectively included mounted thereon,

(a) respective second two-way communication means adapted for

two-way communication with said at least one transportable container when said container is mounted on the respective work station therewith, and

(b) respective second microcomputer means for receiving and processing digital information communicated with said respective second two-way communication means mounted on the respective work station therewith.

2. An inventory management system comprising:

(1) At least one transportable container for transporting articles, said at least one container including mounted thereon,

(a) first two-way communications means,

(b) first microcomputer means for receiving and processing digital information communicated with said first two-way communication means, and

(c) storage means for storing digital information processed by said

microcomputer means;

(2) a plurality of respective sensing means for sensing the presence of said at least one transportable container, each respective sensing means including respective second two-way communication means adapted for two-way communication with said first two-way communication means;

(3) selection means for selecting between respective sensor means of said plurality;

(4) central processor means coupled to said selection means for receiving digital information from and for providing digital information to respective two-way communication means of respective sensor means of said plurality.

Claims 1 and 5 of the ’166 patent recite:

1. A system for performing a series of processing steps for an article, each processing step being performed at a corresponding workstation, comprising:

a transportable container for the article, said transportable container including:

first interface means for controlling access to the article in said transportable container, and

container data processing means for receiving, storing and transmitting data relating to the identity and processing history of the article;

second interface means, provided at each workstation, for interfacing with said first interface means;

workstation data processing means, provided at each workstation, for receiving data from and transporting data to said container data processing means, for processing the data received from said container data processing means, and for controlling said first and second interface means to permit access to the article in said transportable container based on a comparison of the processing history of the article and the identity of the workstation; and

central data processing means for receiving data from and transmitting data to each of said container and workstation data processing means and for processing data received from each of said container and workstation data processing means.

5. A system for transporting and processing articles, comprising:

at least one transportable container having an interior region adapted to receive an article;

first means, provided on each said transportable container, for receiving, storing, transmitting and displaying information related to the article received by the corresponding transportable container;

a plurality of workstations, each said workstation comprising:

second means for receiving one of said transportable containers,

third means for processing the article transported by the transportable container received by said second means, and

fourth means, responsive to said information stored by the first means provided on the transportable container received by said second

> means, for controlling said second means and said third means, and for transmitting information related to the processing performed by said third means to the first means; and
>
> fifth means for communicating with said third means of at least one said workstation to receive information related to the status of the corresponding workstation, to transmit information regarding the processing to be performed by said third means of the workstation, and to receive information stored by the first means provided on the transportable container received by the second means of the workstation.

In addressing the issue of claim construction, the district court focused on limitations that referred to various "means," such as the "second microprocessor means for receiving and processing digital information" from claim 1 of the '421 patent, the "workstation data processing means for receiving . . . and transporting data" from claim 1 of the '166 patent, and the "fourth means for controlling . . . and for transmitting information" from claim 5 of the '166 patent. The parties argued, and the district court agreed, that each of those limitations was drafted in means-plus-function form and therefore was governed by 35 U.S.C. § 112, ¶ 6. Section 112 paragraph 6 provides that "[a]n element of a claim for a combination may be expressed as a means or a step for performing a specified function" and that if it is drafted in that form, it "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

The district court concluded that all three of the limitations set forth above referred to the structure described in the specification of both patents as "a local control processor 20 connected

to the second two-way communication means 50 via a line 51 over which an electronic signal can be transmitted in either direction." Those features are shown schematically in Figure 2 of the '421 patent, reproduced below:

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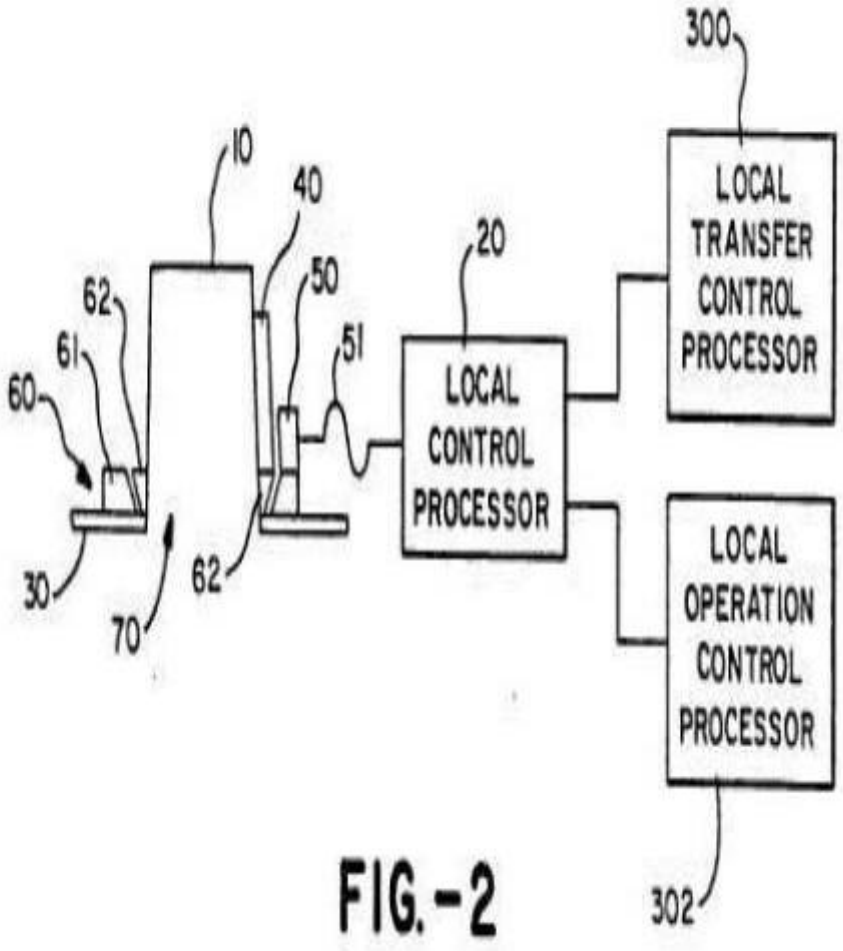

FIG.-2

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As noted, the parties and the district court have treated the pertinent limitations of the three claims at issue as means-plus-function limitations, governed by 35 U.S.C. § 112, ¶ 6. While at

least two of those limitations contain some reference to structure, the parties have not suggested that the structure recited in the limitations is sufficient to remove those limitations from the reach of section 112 paragraph 6, and we see no reason to depart from the position consistently taken on this issue by the parties and the district court. See WMS Gaming, Inc. v. Int'l Game Tech., 184 F.3d 1339, 1347-48 n.2, 51 USPQ2d 1385, 1390 n.2 (Fed. Cir. 1999).

The first step in construing a means-plus-function limitation is to identify the function explicitly recited in the claim. Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376, 58 USPQ2d 1801, 1806 (Fed. Cir. 2001). The next step is to identify the corresponding structure set forth in the written description that performs the particular function set forth in the claim. Section 112 paragraph 6 does not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function." Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1257-58, 52 USPQ2d 1258, 1263 (Fed. Cir. 1999). Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations. Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc., 145 F.3d 1303, 1308-09, 46 USPQ2d 1752, 1755-56 (Fed. Cir. 1998); see B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1900 (Fed. Cir. 1997) ("[S]tructure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.").

The parties treat the pertinent limitations from the three claims at issue as if they were identical, but they are not. We turn first to the "second microcomputer means" limitation of claim 1 of the '421 patent. The district court concluded that the "second microcomputer means for receiving and processing digital information communicated with said respective second two-way communication means" includes all the structure identified in the written description that serves to transmit information between the tool-mounted microcomputer and the tool-mounted communication device, referred to as the "second two-way communication means." That corresponding structure,

the district court held, includes the structure identified in the written description as communication line 51.

Asyst argues that line 51 is not corresponding structure to the functions recited in the "second microcomputer means" limitation, because line 51 does not perform the recited functions of "receiving and processing" digital information transmitted between the second microcomputer means and the tool-mounted communication means. Rather, Asyst says, line 51 merely carries or communicates information between the tool-mounted communication means and the tool-mounted microcomputer means; according to Asyst, the tool-mounted microcomputer disclosed in the written description is the only structure that receives and processes the information referred to in the "second microcomputer means" limitation.

Although the '421 patent is not drafted in a manner that facilitates confident claim construction, we conclude that the best interpretation of the patent is that the structure corresponding to the function recited in the "second microcomputer means" limitation of claim 1 is the local control processor 20, which performs the functions identified in the claim and does not include external cables or devices that are connected to local control processor 20, such as line 51. The written description identifies local control processor 20, which is located on the workstation 100, as performing a variety of functions, including instructing the data card 40 to report its status, determining if the container 10 is at the correct work station, composing a history of the processing operation and communicating it to the data card 40, and instructing the container 10 to advance to the next processing step when the processing operation is complete. '421 patent, col. 8, l. 60 to col. 10, l. 17. In performing each of those functions, local control processor 20 receives and processes digital information from communication means 50, which are the two functions of the second microcomputer means recited in claim 1 of the '421 patent. Line 51 is not referred to at any point in the description of those functions of local control processor 20. Instead, line 51 is simply identified as the communication line between the communicating means 50 and

the process controller 20. '421 patent, col. 4, ll. 17-20; col. 8, ll. 41-42; col. 6, ll. 22-24. The patent therefore does not clearly link line 51 to the two functions recited for the second microcomputer means.

Moreover, claim 1 of the '421 patent refers to the second microcomputer means as "receiving and processing digital information communicated with [the] second two-way communication means," which makes clear that both the second microcomputer means and the second two-way communication means send and receive information over line 51. In light of the role of line 51 as simply carrying data between local control processor 20 and communicating means 50, it would be arbitrary to associate line 51 with the microcomputer means rather than with the two-way communication means. Rather, line 51 is best viewed as structure separate from either the microcomputer means or the two-way communication means, and thus not as structure corresponding to the "second microcomputer means" recited in claim 1.

Jenoptik argues that line 51 must be regarded as part of the structure corresponding to the second microcomputer means because the second microcomputer means cannot perform its intended function without a means of conveying data between the second microcomputer means and the second two-way communication means. In making that argument, Jenoptik relies on this court's decision in IMS Technology, Inc. v. Haas Automation, Inc., 206 F.3d 1422, 54 USPQ2d 1129 (Fed. Cir. 2000). In that case, which involved control systems for machine tools, the claim term in dispute was "interface means for transporting a control program and control parameters from an external medium into . . . alterable memory and for recording the control parameter contents of said memory onto an external medium." The appellant argued that the district court was wrong to identify the tape cassette transport referred to in the specification as the relevant corresponding structure. This court rejected the appellant's argument and held that the tape cassette transport was the relevant corresponding structure to the functions set forth in the claims because the specification identified it as one of the devices directly involved in performing the

functions of transferring data from the tape cassette to the RAM and recording data from the RAM onto the tape cassette. 206 F.3d at 1431, 54 USPQ2d at 1134-35.

The present case differs from IMS because although line 51 enables the second microcomputer means to perform its recited functions, it does not actually perform any of those functions. The fact that a means of transferring data between the second microcomputer means and the second two-way communication means enables the claimed device to work does not mean that the communication line 51 is necessarily part of the claimed structure corresponding to one or the other of those functional limitations.

It is well established that "it is not necessary to claim in a patent every device required to enable the invention to be used." Hughes Aircraft Co. v. United States, 640 F.2d 1193, 1197, 208 USPQ 785, 798 (Ct. Cl. 1980). An electrical outlet enables a toaster to work, but the outlet is not for that reason considered part of the toaster. The corresponding structure to a function set forth in a means-plus-function limitation must actually perform the recited function, not merely enable the pertinent structure to operate as intended, which is the case for the structure identified as line 51. We therefore disagree with the district court that line 51 should be regarded as part of the structure corresponding to the functions set forth in the "microcomputer means" limitation.

We turn next to claim 1 of the '166 patent. The pertinent limitation in that claim is the "workstation data processing means" limitation, which recites the functions of "receiving data from and transmitting data to said container data processing means" and "controlling said first and second interface means to permit access to the article in said transportable container based on a comparison of the processing history of the article and the identity of the workstation." The "workstation data processing means" limitation identifies the means as involving "data processing." The language of the limitation therefore associates the functions recited in the claim with the local control processor 20, which performs data processing, and not with communication line 51, which does not.

The written description of the '166 patent supports this view. It states that the "communicating means 50 communicates across the communication line 51 with the data processing means 20 on the processing station 100." '166 patent, col. 6, ll. 49-51. That sentence makes clear that the structure that corresponds to the "data processing means" is the local control processor 20; moreover, the sentence clearly distinguishes the communication line 51 from the data processing means. In light of that characterization, line 51 cannot properly be viewed as part of the data processing means.

Furthermore, the functions recited in the claim are best viewed as functions that are performed by a data processor even though, of course, to perform any functions at all within a system the data processor must be connected in some fashion to other components of the system. Thus, notwithstanding that other components of the system enable the data processor to operate in the intended fashion, we do not regard those components—or the connections between those components and the data processor, such as line 51—to be part of the structure that performs the functions identified in the "data processing means" limitation.

Finally, we turn to claim 5 of the '166 patent. The pertinent limitation in that claim is the "fourth means . . . for controlling [the receipt of the transportable containers and the processing of the articles within the containers] and for transmitting information related to the processing performed [to the container]." The language of that limitation is significantly different from the language of the pertinent limitations of claim 1 of the '421 patent and claim 1 of the '166 patent. The "fourth means" assigns two functions to the means—controlling activities on the workstation and transmitting information to the transportable container. The written description makes clear that the first function is performed by the local process controller 20 and the second function is performed by the communication means 50. The "means" that performs those two functions therefore consists of the entire complex comprising local process controller 20 and communication means 50. Because the "fourth means" encompasses both the local process controller 20 and

the communication means 50, it also necessarily encompasses structure that connects the two, i.e., communication line 51. With respect to the "fourth means" limitation of claim 5 of the '166 patent, then, we agree with the district court that the corresponding structure that performs the recited functions necessarily includes line 51.

That brings us to the question whether the accused IridNet system contains structure that is identical or equivalent to line 51. The district court entered summary judgment of noninfringement after concluding that no reasonable jury could conclude that a communication path that includes information processing by the Ridian server found in the IridNet system is the equivalent of the communication path identified in the specification as line 51. The court explained that "[a] computer executing software instructions is not substantially similar to the line described in the specification, and no reasonable jury could so find."

Asyst argues that the IridNet system has all the elements of the structure set forth in the '166 patent and that the Ridian server simply provides additional functionality, which does not avoid infringement. Jenoptik, on the other hand, contends that the role of the Ridian server in the communication path between the workstation communication means and the local control processor renders the IridNet system fundamentally different from the system described in the '166 patent, and that the path between the workstation communication means the local processor cannot be regarded as equivalent to line 51. In particular, Jenoptik points out that the Ridian server does not simply convey information passively between the communication means and the local control processor. Instead, when a request is sent by the local processor with respect to a particular transportable container in the IridNet system, the processor sends a signal to the Ridian server. The Ridian server then locates the appropriate workstation communication means, reformulates the request into a form that can be understood by the microprocessor on the transportable container, obtains the information from the container, and sends it back to the requesting processor in a form that the processor can understand. That process, according to

Jenoptik, is substantially different from just conveying an electronic signal from the workstation communication means to the local processor.

While it is true that the addition of features does not avoid infringement if all the limitations of the patent claim are found in the accused device, Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 945, 15 USPQ2d 1321, 1332 (Fed. Cir. 1990), that principle is not dispositive here, because the question in this case is whether, in light of the role played by the Ridian server, the means used in the IridNet system for controlling activities on the workstation and transmitting information to the transportable container are equivalent to the means described in the specification of the '166 patent. Even if the Ridian server is considered merely an additional feature, it would be sufficient to defeat an infringement claim under section 112 paragraph 6 if it significantly changes the way the control and communication functions are performed.

It seems clear that the IridNet system is not identical to the structure described in the '166 patent specification. The question, then, is whether it is equivalent to that disclosed structure for purposes of section 112 paragraph 6. That question is one of fact. IMS Tech., 206 F.3d at 1430, 54 USPQ2d at 1134; Odetics, Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1268-69, 51 USPQ2d 1225, 1230-31 (Fed. Cir. 1999). In the course of the proceedings before the trial court, Asyst offered evidence from its technical expert that connecting the Ridian server to the communication path does not alter the way the communication path performs its function and that at most the Ridian server acts as a "repeater" for communications between the local process controller and the workstation communication means. The expert stated that the Ridian server "receives such call [from the local control processor seeking information from the transportable container] and simply repeats the [processor's] request in a form understood by the [communication devices on the workstation and the transportable container]." Although Jenoptik takes issue with Asyst's expert's characterization of the role of the Ridian server, we are persuaded that the record contains sufficient evidence to raise a genuine issue of material fact as to the issue of

equivalence under section 112 paragraph 6.

In sum, while we sustain the district court's claim construction with respect to claim 5 of the '166 patent, we hold that it was error for the court to enter summary judgment for Jenoptik with respect to that claim. With respect to claim 1 of the '421 patent and claim 1 of the '166 patent, we disagree with the district court's claim construction. Because the court's summary judgment of noninfringement on those two claims was based on its claim construction, our ruling on claim construction requires that we reverse the court's summary judgment as to those two claims as well. Asyst argues that the consequence of overturning the district court's claim construction is to require that we direct entry of a judgment of infringement against Jenoptik. Jenoptik, however, notes that there are open issues remaining with regard to infringement and Jenoptik's affirmative defenses, and we have no basis to assume that those issues will be resolved in Asyst's favor. Moreover, because the district court focused its claim construction on line 51 and did not address other claim construction issues raised by the parties, there may be other claim construction questions that the court will wish to consider on remand. We therefore decline Asyst's request that we direct the entry of a judgment of infringement, and instead we remand to the district court for further consideration of the remaining issues relating to claim 1 of the '421 patent and claims 1 and 5 of the '166 patent.

III

Asyst next contends that the district court erred when it granted summary judgment of noninfringement with respect to claim 2 of the '421 patent. The court based its noninfringement ruling on its conclusion that the specification did not disclose structure corresponding to the "sensing means for sensing" recited in the claim. In challenging the district court's ruling, Asyst makes two arguments. First, it argues that the court failed to recognize structure disclosed in the specification that corresponds to the "sensing means for sensing" limitation. Second, it argues that the court's ruling that there was no structure corresponding to the "sensing means for

sensing" limitation has the effect of invalidating claim 2 of the '421 patent, and that the court therefore should have required that the absence of corresponding structure be shown by clear and convincing evidence, the standard required to invalidate an issued patent claim. Because we rule in Asyst's favor on the first argument, we do not reach its second argument.

The "sensing means for sensing" limitation of claim 2 of the '421 patent recites, in pertinent part, "a plurality of sensing means for sensing the presence of said at least one transportable container, each respective sensing means including respective second two-way communication means adapted for two-way communications with said first two-way communication means." That language seems to refer to some kind of device that (1) senses the presence of the transportable containers when they arrive at the workstation to begin the processing operation and (2) has the capacity to communicate information regarding the presence of the containers. The problem is that the written description does not contain any obvious reference to such a device.

Claim 2 is to an "inventory management system." In seeking a reference in the specification to the structure that corresponds to the "sensing" function, we therefore first turn to the portion of the written description that describes the inventory management aspect of the invention. See '421 patent, col. 11, l. 11. Pertinent language of that section states:

> Referring to the illustrative drawings of FIG. 12, there is shown a tray 630 including a recessed region 632 sized to receive a transportable container 10 having a data card 40 mounted on it as shown. The tray 630 includes a two-way communication means 50-1 like the two-way communication means 50 described above and mounted on the work station 100.
>
> As illustrated by the dashed lines 634, the base portion 636 of the transportable

> container 10 can fit snugly within the recessed region 632. When the transportable container 10 is received within the recessed region 632, the card 40 is aligned with the two-way communication means 50-1 such that the card 40 and the means 50-1 can engage in two-way communication with each other.

'421 patent, col. 11, ll. 17-31.

On its face, that passage does not disclose structure that senses the presence of the container. Asyst argues, however, that the structure corresponding to the "sensing means for sensing" function is communication means 50-1. That structure, Asyst explains, performs a protocol identical to the protocol performed by communication means 50, which is described at column 8, line 63, through column 9, line 2, of the '421 patent (with references to the patent figures omitted):

> [A]fter the container is engaged to the work station, the local [control processor] queries the data card as to whether it is ready to exchange digital information. The data card responds with a digital message generated by the microcomputer that it is set to exchange digital information.

Asyst refers to this passage as describing the "ready" and "set" exchange. That exchange of signals, according to Asyst, constitutes the "sensing means for sensing" the presence of the transportable container at the workstation. Asyst contends that this "sensing" occurs because if the communication means on the transportable container replies "set" in response to the "ready" signal from communication means 50-1 on the workstation, the system will have ascertained that the transportable container is in place on the workstation.

The district court rejected that argument on the ground that the description of the "ready, set" protocol does not include any step that triggers the sending of the "ready" inquiry. Thus, the court observed, "there is no structure which serves the function of sensing the presence of a container such that the system would know to initiate such a query. The possibility that the communication means will report that a container is not present (or that it is) does not make the communications means a 'means for sensing the presence' of containers."

As a practical matter, it seems likely that any commercial embodiment of the claimed invention would have a triggering mechanism that would signal the communication means on the workstation to initiate the "ready, set" inquiry. It would not have been difficult to include a reference to such a triggering mechanism, and the natural operation of the patented system would seem to call for such a device. But, for whatever reason, no such structure is recited. In light of that apparent omission, our task is to determine whether what remains is sufficient to constitute some structure that corresponds to the function recited in the claim to the extent necessary to satisfy section 112 paragraph 6. Although we regard the question as close, we think that communication means 50-1, which performs the "ready, set" protocol, is sufficient corresponding structure to give meaning to claim 2 of the '421 patent. The "set" signal that is returned from the transportable container when it is in place on the workstation indicates its presence; accordingly, a protocol in which the "set" signal is sought and—when the container is in place—obtained can serve as a "means for sensing" the presence of the container.

The absence of a recited triggering mechanism for the "sensing means" is peculiar, to be sure. But the recited function is "sensing," not "initiating a sensing protocol," and it is therefore not necessary to set forth structure that initiates the sensing protocol in order to satisfy the requirement of reciting structure corresponding to the claimed function. Once initiated, the "ready, set" protocol is capable of performing the function of sensing the presence of the container. That is all that is required to identify structure in the patent specification corresponding

to the function recited in the claim. Accordingly, we hold that the district court should not have granted summary judgment of noninfringement based on the purported absence of structure corresponding to the "sensing means for sensing" function recited in claim 2 of the '421 patent. We therefore reverse the judgment of noninfringement as to claim 2 of the '421 patent, and we remand to the district court for further consideration of any remaining issues as to that claim, including claim construction, infringement, and Jenoptik's affirmative defenses.

Each party shall bear its own costs for this appeal.

REVERSED and REMANDED.