United States District Court,
E.D. Michigan, Southern Division.

DESIGN-RITE, INC,
Plaintiff.
v.
J.V. MANUFACTURING, INC,
Defendant.

No. Civ.A. 96-CV-75699-DT

July 23, 1998.

Patent infringement suit was brought against manufacturer of industrial trash compactor and baler products. Upon manufacturer's motion for summary judgment, the District Court, Duggan, J., held that manufacturer did not infringe, either literally or under doctrine of equivalents, patent for electronic control unit which, along with an operator control panel, controlled the hydraulic cylinder and the ram for compacting trash in automated trash compactors.

Motion granted.

4,953,109. Not infringed.

John A. Van Ophem, Angela M. Brunetti, VanOphem, Meehan & Vanophem P.C., Troy, MI, for Plaintiff.

Robert L. Kelly, Dykema Gossett, Bloomfield Hills, MI, Robert Keegan, Trent Keisling, Head, Johnson & Kachigian, Fayetteville, Arkansas, for Defendant.

OPINION

DUGGAN**, District Judge.**

Introduction

Plaintiff brings this action seeking a judgment that defendant has infringed plaintiff's patent, U.S. Patent No. 4,953,109. Defendant asks the Court to rule as a matter of law that plaintiff's patent, is not infringed, either literally or under the doctrine of equivalents, by any of defendant's industrial trash compactor and baler products. The Court held a hearing on defendant's motion for summary judgment on February 5, 1998, and subsequently, held a *Markman* hearing on April 6, 1998. For the reasons that follow, the Court enters judgment in favor of defendant and dismisses plaintiff's complaint.

Background

The present action involves a claim by plaintiff Design-Rite against defendant J.V. Manufacturing for defendant's products' alleged infringement of U.S. Patent No. 4,953,109 ("109") issued on August 28, 1990 to Stephen A. Burgis. The application for the '109 patent was filed by Stephen Burgis on October 16, 1989. The Burgis patent describes a compactor system having a hydraulic cylinder for displacing a ram to compact trash in a mobile trash container. The hydraulic cylinder is manipulated by an electronic control unit capable of independently calibrating and subsequently automatically controlling the displacement of the ram. Plaintiff owns the '109 patent and provides its electronic control units to manufacturers of automated trash compactors. Defendant is a corporation that manufactures and sells trash compactors and balers utilized in waste management. Plaintiff alleges in its complaint that virtually all of defendant's compactors and balers infringe the '109 patent.

Infringement

The claimed invention of the Burgis '109 patent is essentially an electronic control unit ("ECU") which, along with an operator control panel, controls the hydraulic cylinder and the ram. In the automatic mode, the ECU only requires actuation of the start button on the operator control panel to begin compactor operation. In automatic operation, the ECU receives only one other input from the compactor electro-mechanical and hydraulic system. That input is a signal which represents the value of the motor current from a conventional motor current sensor. The ECU first determines how much motor current the motor draws when it is not working against a load and then it "remembers" this value for future reference. The ECU can be set to automatically have the compactor make two or more strokes on each operation.

Assuming the trash container is not full, the ECU controls the forward and reverse valve for the hydraulic cylinder and the motor on/off switch to make the prescribed number of forward and reverse strokes during normal operation. The forward stroke is terminated at the full stroke time or by an excess current signal generated as a result of compacting trash. The reverse stroke follows the forward stroke, and it is terminated when the cylinder reaches the fully retracted position when the resulting load on the hydraulic cylinder produces a high motor current and the solenoid valve is put in neutral. If more forward and reverse strokes are required by the operator control setting, a forward stroke promptly follows the reverse stroke until the number of cycles have been completed.

[1] [2] [3] In order to establish infringement of a patent, every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent. Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1259 (Fed.Cir.1989). Stated differently, a court cannot find either a literal infringement or infringement by the doctrine of equivalents, if one limitation of a particular claim is not found in the accused product. The burden of proof in a patent infringement case is on the patentee to prove infringement by a preponderance of the evidence. Amstar Corp. v. Envirotech Corp., 823 F.2d 1538, 1545 (Fed.Cir.1987).

In the present case, plaintiff claims infringement of the independent claims 1, 19, and 35 of the Burgis '109 patent. The parties to the present dispute acknowledged at the April 6, 1998 Markman hearing that the present dispute concerns a critical limitation present in independent claims 1, 19, and 35.

THE COURT: Do you agree that if claims 1, 19 and 35 are not infringed, there's no infringement of the patent?

MR. MEEHAN: That's correct.

THE COURT: And let me ask defense counsel, do you agree that if those claims are infringed-I'm not saying liability, but that there is infringement?

MR. KEISLING: Yes, Your Honor.

(4/6/98 Hrg. at 8). The final clause of independent claims 1, 19, and 35 contains the following limitation, "an electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value." At the Markman hearing, counsel for both parties acknowledged that the interpretation of the phrase "means for terminating said reverse signal when said current signal exceeds a stop value" is the critical limitation at the heart of the present dispute. The parties consider the language of the limitation significant because defendant alleges that its products do not contain the requisite limitation.

It is undisputed that the limitation "an electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value" refers to the mechanism by which the reverse movement of the ram is terminated.

Plaintiff's position is that any use of motor current sensing to stop the reverse ram movement constitutes an infringement of the '109 patent. Stated differently, plaintiff argues that the critical limitation is broadly worded so as to refer to termination of the reverse movement of the ram whether in the "normal" mode of operation of the trash compactor or whether the trash compactor performs in an error mode. Conversely, defendant's position is that the "means for terminating said reverse signal when said current signal exceeds a stop value," as it is utilized in the patent, refers exclusively to the mechanism by which reverse ram movement is terminated in the "normal" mode of operation of the trash compactor.

Defendant asserts that in the normal mode of operation of its compactors and balers, the termination of the reverse movement of the ram is accomplished by employing conventional timers and limit switches. However, defendant does acknowledge that its products employ current sensor monitoring to terminate the reverse movement of the ram when the machine malfunctions and is operating in an "error" mode. The sole issue for the Court's resolution is whether the limitation "an electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value" refers to the termination of the reverse movement of the ram in the normal mode of operation, or if such language encompasses an error mode as well.

Literal Infringement of the Burgis '109 Patent

[4] Infringement analysis involves a two-step process. First, the meaning and the scope of the patent claims must be determined. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). This first step is commonly referred to as "claim construction" or "claim interpretation." In *Markman,* the Federal Circuit held that the Court has the "power and obligation to construe as a matter of law the meaning of language used in the patent claim." *Id.* at 979. FN1 The second step, generally an issue of fact appropriate for resolution by the jury, involves a comparison of the properly construed claim to the allegedly infringing product. *Id.* As such, it is amenable to summary judgment where, *inter alia,* no reasonable fact finder could find infringement. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 117 S.Ct. 1040, 1053 n. 8, 137 L.Ed.2d 146, 41 USPQ2d 1865, 1875 n. 8 (1997).

FN1. The language utilized by the Federal Circuit demonstrates the mandatory nature of the Court's duty to construe the meaning of the claims of a patent as a matter of law.

[5] [6] In order to properly construe the claims of a patent, a court should consider: (1) the language of the claim; (2) the specification contained in the patent; and (3) the prosecution history. Markman, 52 F.3d at 979-80. After considering the language of the claim, the text of the patent specification and the drawings, the court may also look to the patent history-the "undisputed public record of proceedings in the Patent and Trademark Office." *Id*. Finally, the Court has the discretion to consider extrinsic evidence, i.e., evidence external to the patent and the prosecution history. Extrinsic evidence may be utilized to improve a court's understanding of the patent; however, it may not be used to vary or contradict the terms of a claim. With the foregoing in mind, the Court turns to a construction of the relevant limitation and a comparison of the limitation to the accused devices.

[7] There appears to be considerable agreement between the parties that defendant's devices utilize conventional timers or limit switches to terminate the reverse movement of the ram in the normal mode of operation of its compactors and balers. It is only when defendant's machines function in the error mode, that the processes outlined in the plaintiff's patent are implicated. Thus, the Court must determine the precise import of the critical limitation contained in independent claims 1, 19, and 35.

At the April 6, 1998 hearing on the meaning of the claims, the Court requested counsel for plaintiff to identify and describe the precise means employed by the patented device for terminating the reverse movement of the ram in an "error" mode. Counsel for plaintiff stated:

The error mode for the retraction cycle is described in the patent at column 12, beginning at line 11. If the return time is greater than two minutes, it indicates that the ram has hung up in its extended forward position and the sub-routine will generate an error signal as indicated by termination block 370 terminating the ram reverse sub-routine.

(Tr. 21, para.para. 14-20). Indeed, the patented device's function in an error mode is detailed at column 12, line 11 of the patent specification and reads as follows: "If the return time is greater than two minutes, it indicates that the ram has hung up in its extended forward position and the subroutine will generate an error signal as indicated by termination block 370, terminating the Ram Reverse subroutine." (Burgis '109 patent, column 12, lines 11-15).

The aforementioned language detailing the patented device's function in an error mode is set forth in the patent specification and is not set forth in the claims portion of the patent specification. It is only in the claim limitation portion of the patent specification that the language "electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value" is present. The limitational language of the claims of the '109 patent does not contain any reference to trash compactor function in an "error" mode.

Plaintiff argues that the language of the limitation does not contain any suggestion that the "means for terminating said reverse signal when said current signal exceeds a stop value" is limited to the "normal use" of the trash compactor. Therefore, plaintiff urges this Court to broadly read the limitational language of the independent claims of the '109 patent to encompass any use of current sensor monitoring in a trash compactor. Defendant claims that such a broad reading of the claims is not supported by the plain language

of the claim limitation. Second, defendant avers that such an interpretation is contrary to the terms of the patent specification and the corresponding drawings and figures.

In this Court's opinion, it is reasonable to infer from a reading of the language of the independent claims, that the limitation "electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value" refers to the mechanism by which reverse ram travel is terminated in the normal operation of the trash compactor. The Court believes this is a proper interpretation of the claim because the patent specification clearly details a separate and distinct mechanism by which reverse ram travel is terminated in the error mode. The patented device's mechanism for termination in the error mode employs a process that utilizes an "error signal" which will in turn terminate the ram's return movement when the return time is greater than two minutes. In light of the patented device's specification which contains a separate mechanism for terminating reverse travel in the error mode, the Court does not believe that it is reasonable to infer that the limitational language contained in claims 1, 19, and 35 contemplates anything other than current sensing to determine the termination of the reverse ram travel in the normal mode of the patented device.

Moreover, Figure 13 of the '109 patent details a flow chart illustrating the reverse operation of the ram. The flow chart depicted in Figure 13 demonstrates that the current signal monitored in block 360 determines whether the ram has returned to the start point or whether it should continue its retraction. The current signal monitored in block 360 does not determine whether a fault or error condition exists. Instead, the functionof determining whether a fault or error condition exists is performed by a conventional timer indicated by block 368. In block 368, if the time exceeds two minutes, then an error code results. Therefore, based upon an analysis of the patented device's reverse ram operation as illustrated in Figure 13, the Court believes that the limitation "electronic control unit having ... means for terminating said reverse signal when said current signal exceeds a stop value" refers to reverse ram travel in the "normal" operation of the trash compactor.

The parties have agreed that defendant's accused products, i.e. its balers and compactors, use limit switches or timers to determine when the ram has reached the expected end of a reverse cycle in its normal operation. It is also undisputed that current sensor monitoring is utilized only to detect an error or fault condition in the accused products. As a result, defendant's products lack at least one element of each independent claim, i.e. a "means for terminating said reverse signal when said signal exceeds a stop value" in the normal operation of its compactors and balers. Therefore, defendant's products cannot literally infringe the Burgis '109 patent.

[8] [9] [10] Moreover, the Court does not believe that infringement of the Burgis '109 patent has occurred under the doctrine of equivalents. If literal infringement is not present, infringement under the doctrine of equivalents still may be shown "if the differences between the claimed and accused products or processes are insubstantial." Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d 1512, 1517 (Fed.Cir.1995). Insubstantial differences can be proved both through evidence that the accused and claimed products "include substantially the same function, way and result" and through other evidence that is relevant to the substantiality of differences between the products. Id. at 1518. Finally, if all the elements of the claim are present in the accused product, the existence of extra features will not defeat a claim of infringement. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1057-58 (Fed.Cir.1988).

The Court does not believe that plaintiff can succeed on its claim of infringement under the doctrine of equivalents. For the reasons previously discussed, the Court does not believe that all of the elements of claims 1, 19, and 35 are present in the accused devices. The Court is satisfied that any current sensor

monitoring in defendant's products is exclusively utilized to detect the presence of an error or fault condition. As the Court has construed the relevant limitation of claims 1, 19, and 35 to relate to the reverse ram travel in the "normal" operation of the trash compactor, the Court does not believe plaintiff can succeed on a claim of infringement under the doctrine of equivalents.

Plaintiff objects to the entry of a judgment in favor of defendant based on non-infringement, contending that the claim interpretation which is the basis for a judgment of non-infringement, i.e. the meaning of the claim limitation "electronic control unit ... having a means for terminating said reverse signal when said current signal exceeds a stop value" and whether such limitation is present in the accused devices, was previously decided by this Court at a summary judgment motion hearing on Feb. 5, 1998. At that hearing, the Court was not persuaded that it could rule, as a matter of law, that defendant's products did not infringe plaintiff's patent.

Subsequent to this ruling, defendant requested a *Markman* hearing. Plaintiff concurred in this request stating:

Plaintiff concurs in the decision of the Court to attempt to resolve conflicting theories of claim interpretation in advance of the start of trial in this matter, and presumably, therefore, in advance of a final pretrial conference, because *Markman* does make it clear that these issues are legal issues that must be resolved by the Court even in a case that otherwise will be tried to a jury.

(Letter from Thomas Meehan, Esq. to the Honorable Patrick J. Duggan of 3/4/98, at 1).

On March 11, 1998, plaintiff filed a " *Markman* hearing" brief "in support of its position on the scope of claims." In such brief, plaintiff clearly "reargued" the issues which the Court addresses in this Opinion. At the *Markman* hearing on April 6, 1998, plaintiff agreed that the issue to be resolved is the meaning of the limitation "electronic control unit ... having means for terminating said reverse signal when said current exceeds a stop value" and whether such limitation is present in the accused devices. Plaintiff argued in essence that defendant's products contain the relevant limitation, and therefore, infringe plaintiff's patent.

[11] In sum, plaintiff concurred in defendant's request that the Court conduct a *Markman* hearing, the purpose of which is to ascertain the meaning of the contested claim limitation and determine its presence in the defendant's accused products. In this Court's opinion, plaintiff cannot, having availed itself of the opportunity to present arguments on claim interpretation, now contend that the Court may not properly "decide" the meaning of the limitation because the Court already implicitly ruled on that issue at a previous hearing. If plaintiff wished to raise an objection of this nature, the appropriate time would have been before the Court held the *Markman* hearing and entertained oral argument from both parties on the interpretation of the claim.

It is apparent that the Court, at the summary judgment hearing, was not satisfied, based on the arguments presented by the parties at that time, that it should rule as a matter of law on the issue. However, having been requested to conduct a *Markman* hearing and having received plaintiff's concurrence, the Court exercised its "power" and interpreted the claim at issue. The Court does not believe that its prior decision should preclude the Court, with the benefit of the *Markman* briefs and oral argument, to rule on the issues before it, even if, arguably, the Court previously declined to make such a ruling.

Based on the rulings set forth above, this Court is satisfied that plaintiff cannot prevail on its claim of

infringement. Therefore, the Court shall enter judgment in favor of defendant and dismiss plaintiff's complaint.

A judgment consistent with this Opinion shall issue forthwith.

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