

United States District Court,
D. Kansas.

B & W CUSTOM TRUCK BEDS, INC,
Plaintiff.

v.

METALCRAFT, INC,
Defendant.

No. 01-2087-JWL

July 23, 2001.

Owner of trailer hitch patent sued competitor for infringement. On cross-motions for summary judgment, the District Court, Lungstrum, J., held that: (1) means for securing hitch ball within retention sleeve, called for in patent, was limited to spring-biased locking rod mechanism identified in specification, and its equivalents, and (2) claim was not infringed by accused device.

Defendant's motion granted.

5,016,898. Not Infringed.

Gerald M. Kraai, Kent R. Erickson, Cheryl L. Burbach, Shughart, Thomson & Kilroy, P.C., Kansas City, MO, for plaintiff.

Craig T. Kenworthy, William Bruce Day, Swanson Midgley, LLC, Kansas City, MO, for defendant.

MEMORANDUM & ORDER

LUNGSTRUM, District Judge.

B & W Custom Truck Beds, Inc. ("B & W") alleges in its complaint that Metalcraft, Inc. ("Metalcraft") infringed on United States Patent No. 5,016,898 ("the '898 patent"), owned by B & W. Defendant Metalcraft filed a motion for summary judgment (Doc. 7) and plaintiff B & W filed a cross-motion for partial summary judgment (Doc. 15). Both parties ask the court to decide whether the trailer hitch manufactured by Metalcraft infringes on B & W's patent. The parties agree that the portion of the patent that is in issue, a limitation in Claim One regarding the means for securing the hitch ball within a retention sleeve (the "securement means"), was written in "means-plus-function" format pursuant to 35 U.S.C. s. 112, para. 6. Consequently, the court construes the limitation as the structure described in the specification corresponding to the function of securing the hitch ball within the retention sleeve: a rod that may be extended through or withdrawn from openings in the retention sleeve and hitch ball and is urged through the openings by a spring. B & W argues that the patent is infringed both literally and under the doctrine of equivalents.

Whether the patent is infringed is a question of fact. After considering the parties' papers and the arguments made at the hearing held to construe the '898 patent pursuant to *Markman v. Westview Instruments Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), the court holds that no reasonable jury could find that the securement means in the defendant's product is identical or equivalent to the securement means of the '898 patent. Summary judgment, therefore, is granted to the defendant.

-> Summary judgment standard

Summary judgment is appropriate if the moving party demonstrates that there is "no genuine issue as to any material fact" and that it is "entitled to a judgment as a matter of law." Fed.R.Civ.P. 56(c). In applying this standard, the court views the evidence and all reasonable inferences therefrom in the light most favorable to the nonmoving party. *Adler v. Wal-Mart Stores, Inc.*, 144 F.3d 664, 670 (10th Cir.1998). A fact is "material" if, under the applicable substantive law, it is "essential to the proper disposition of the claim." *Id.* An issue of fact is "genuine" if "there is sufficient evidence on each side so that a rational trier of fact could resolve the issue either way." *Id.*

-> Means-plus-function limitation

[1] [2] The parties agree that the relevant claim limitation, the means for securing the hitch ball within the retention sleeve, was written in "means-plus-function" format. A means-plus-function claim limitation "recites a function to be performed rather than a structure or materials for performing that function." *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1307 (Fed.Cir.1998). In evaluating a claim limitation written in means-plus-function form, a court must determine the claimed function and identify the corresponding structure in the specification. *Chiuminatta*, 145 F.3d at 1309. These are both questions of law for the court. *Id.* To decide if the patent has been infringed, it must be determined whether the accused device performs the identical function recited in the claim and is identical or equivalent to the corresponding structure in the specification. *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1266 (Fed.Cir.1999). This determination is a question of fact. *Id.*; *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1430 (Fed.Cir.2000). Because this second step is a question of fact, summary judgment can be granted to a defendant only if no reasonable jury could find that the accused product performs the identical function with the same or equivalent structure, materials, or acts described in the specification. *IMS Technology*, 206 F.3d at 1430.

-> Construing the limitation

[3] The parties agree that the relevant function is "securing said hitch ball means within said retention sleeve." The court, therefore, must identify the structure described in the specification that corresponds to the function of securing the hitch ball within the retention sleeve. *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed.Cir.1999). A structure is only "corresponding" to a function if "the structure is linked by the specification or the prosecution history" to the function. *Unidynamics Corp. v. Automatic Products Int'l*, 157 F.3d 1311, 1319 (Fed.Cir.1998).

The securement means is described at several points in the specification. FN1 In the description of the preferred embodiment, the securement means are described as a "locking rod," mounted through a pair of guides, that is manually inserted through or withdrawn from openings in the retention sleeve and hitch ball and is held in position "by a spring element." Claim Four describes a "locking rod" that is extendable through openings in the retention sleeve and hitch ball and Claim Five says that a "resilient means [is] mounted adjacent said locking rod for normally urging said locking rod through said first and second aligned

openings." Elsewhere, the specification describes the use of a "locking pin" without reference to a spring. For example, in the section entitled "Summary of the Invention," the specification describes a "locking pin" that may be extended through or pulled from aligned openings in the retention sleeve and hitch ball. There is no mention of a spring or "resilient means" that urges the locking pin through the openings.

FN1. Pursuant to statute, an application for patent shall include a specification, a drawing and an oath. 35 U.S.C. s. 111. The specification shall contain a written description of the invention, the best mode contemplated by the inventor for carrying out his invention, and one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his or her own invention. *Id.*

The parties disagree about what structure corresponds to the function of securing the hitch ball with the securement sleeve. B & W argues that the spring does not correspond to the securement means. According to B & W, the locking rod is the only structure that secures the hitch ball within the retention sleeve. The spring, according to B & W, prevents the accidental withdrawal of the locking rod, an "additional, complimentary function." Metalcraft, on the other hand, characterizes the patented product as a "spring biased locking rod assembly" and its arguments for summary judgment presume that the spring is a component of the securement means.

After reviewing the specification and considering the arguments made by the parties in their papers and at the hearing, the court holds that the structure corresponding to the function of securing the hitch ball within the retention sleeve is a rod that may be extended through or withdrawn from openings in the retention sleeve and is urged through the openings by a spring. The court recognizes that the securement means is not limited to the description in the preferred embodiment. *Micro Chemical, Inc. v. Great Plains*, 194 F.3d 1250, 1258 (Fed.Cir.1999). The preferred embodiment section, however, is not the only place where the use of a spring is specified. Claim Five specifies that "resilient means" are used to urge the locking rod through the openings and the drawings show a spring used to propel the locking rod through the openings in the retention sleeve and hitch ball. "Resilient" is defined by Webster's Third New International Dictionary as "to jump back, rebound ... returning freely to a previous position, shape, or condition ... springy." While the use of a "locking pin" is described at other points in the specification without reference to a spring, these descriptions do not purport to give a complete description of the securement means. Furthermore, the rod alone is not accurately described as a "locking rod" because the rod is "locked" or secured in position only by a spring or "resilient means." As the plaintiff concedes, absent a spring, the rod can be accidentally withdrawn from the hitch ball and retention sleeve by vibration or other movement caused by the operation of a truck.

In its own research, the court found two Federal Circuit decisions that persuade the court that the securement means should be construed to include a spring. In *Medtronic, Inc. v. Advanced Cardiovascular Systems, Inc.*, 248 F.3d 1303 (Fed.Cir.2001), the parties disagreed about what structures correspond to the function of "connecting adjacent elements together." The parties agreed that "helical windings" were corresponding structure but disagreed about whether "straight wire and hooks" were also corresponding structure. The court concluded that both structures were capable of performing the function but emphasized that the inquiry, instead, is whether the specification clearly linked or associated the straight wire and hooks with the function of "connecting adjacent elements together." The court held that the specification did not make such a link or association but, instead, linked the "straight wire and hooks" to the entirely different function of preventing overstretch of the formed coil.

In this case, unlike the *Medtronic* case, the specification clearly links or associates the spring with the securement means. Claim Five describes the "resilient means" as acting to urge the locking rod through the openings in the retention sleeve and hitch ball. The drawings and the preferred embodiment also show that the purpose of the spring is to urge the locking rod into the openings and to prevent the locking rod from unintentionally being removed from the openings. The spring, thus, is clearly linked by the specification to the function of securing the hitch ball within the retention sleeve. B & W argues that the spring corresponds to an "additional, complimentary function" of preventing the accidental withdrawal of the locking rod. Any one function can be broken down into multiple component functions. The issue is whether the specification links or associates a structure to the function in issue. *Unidynamics*, 157 F.3d at 1319. B & W's concession that the spring serves a "complimentary function," therefore, actually supports the court's conclusion that the specification links or associates the spring with the function of securing the hitch ball within the retention sleeve.FN2 Use of a spring to hold the locking rod in the openings, whether characterized as an essential component or a complimentary function, is clearly linked to or associated with the function of securing the hitch ball within the retention sleeve.

FN2. In contrast, the specification in *Medtronic* provided only that the "straight wire and hooks" act to "prevent overstretch of the formed coil," a function unrelated to the function in issue, "connecting adjacent elements together."

In *Kemco Sales, Inc. v. Control Papers Co., Inc.*, 208 F.3d 1352, 1360 (Fed.Cir.2000), the Federal Circuit upheld a district court's decision that the structure corresponding to the "closing means" of an envelope was "a flap that folds over the opening and is secured to one or more of the outside panels of the envelope." The plaintiff argued that the "closing means" was not limited to the "method" of folding over the "flap" and securing it to the outside of the envelope but included any method of securing the flap to the envelope. *Id.* The Federal Circuit pointed out that the drawings and the written description both "indicate that the disclosed structure corresponding to the closing means is a plastic, fold-over flap that is secured to the outside of one or both panels of the envelope." *Id.* at 1362. The *Kemco* court explained that while it is "fully cognizant of the need to avoid reading limitations into a claim from the specification," the specification described the "closing means" only as a fold-over flap and did not support the plaintiff's "expansive interpretation of what structures correspond to the closing means." *Id.* Because the specification only described the "closing means" as folding over the flap and securing it to the outside of the envelope, the court rejected the plaintiff's argument that the limitation should be construed to include other "methods."

Like the *Kemco* case, while the function of securing the hitch ball within the retention sleeve could be accomplished by structure not including a spring, the specification only describes structure including a spring that urges the locking rod through openings in the retention sleeve and hitch ball. FN3 The specification does not describe other structure that could hold the locking rod in position. The specification, therefore, does not support construing the securement means as the locking rod and any other structure that could be used to hold the locking rod in the position of securing the hitch ball. The quid pro quo for the convenience of writing a limitation in means-plus-function format is that the claim is construed as covering only corresponding structure described in the specification and linked to or associated with the function in issue. *B. Braun Medical, Inc. v. Abbott Laboratories*, 124 F.3d 1419, 1424 (Fed.Cir.1997).

FN3. The court notes that the preferred embodiment description includes the statement that "[o]ther types of latching means may be provided without deviating from the inventive characteristics of the present invention." The "latching means" described in the preferred embodiment are means to secure the pin or rod

"in a withdrawn position." Different latching means, therefore, would not change the securement means described. Furthermore, the specification describes only one securement means and the court may only construe the "means" to include the corresponding structures described in the specification. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 934 (Fed.Cir.1987) ("section 112, paragraph 6, rules out the possibility that any and every means which performs the function specified in the claim literally satisfies that limitation.").

For these reasons, the court construes the "securement means" as a rod that may be extended through or withdrawn from openings in the retention sleeve and hitch ball and is urged through the openings by a spring.

-> **Literal infringement**

[4] "Literal infringement of a s. 112, para. 6 limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification." *Odetics*, 185 F.3d at 1267. The defendant apparently concedes that its product's securement means perform the same function as the securement means described in the '898 patent. The issue presented, therefore, is whether the structure of the defendant's product is identical or equivalent to the structure described in the '898 patent. To determine whether the structures are equivalent, the court must ascertain "whether the differences between the structure in the accused device and any disclosed in the specification are insubstantial." *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1309 (Fed.Cir.1998). A change is substantial if the "way" the defendant's product performs the claimed function and the "result" of that function is substantially different from the "way" the claimed function is performed by the corresponding structure, acts, or materials described in the '898 patent specification or the "result" of that function. *Odetics*, 185 F.3d at 1267.

The parties disagree about how to characterize the securement means of the defendant's product. The defendant characterizes its securement means as a "ball/box/wedge inversion mechanism" that is operated by placing the hitch ball in the box, sliding the hitch ball to the side and placing the wedge in the remaining space in the box. The plaintiff points out that the wedge is not the structure that holds the hitch ball within the box. It characterizes the securement means as a "pin" that is connected to the box, or retention sleeve.

Even accepting the plaintiff's characterization of the defendant's securement means, a reasonable jury could not conclude that the defendant's product uses the identical structure, materials, or acts described in the specification. As construed by the court, the securement means of the '898 patent is a "locking pin" that may be extended through or withdrawn from openings in the retention sleeve and hitch ball and a spring that urges the locking pin through the openings. Even if the defendant's product is characterized as using a "pin" to secure the hitch ball, the "pin" is not extended through or withdrawn from openings in the retention sleeve and hitch ball and the product does not use a spring to urge the pin through the openings.

The court also holds that a reasonable jury could not find that the securement means of the defendant's product are equivalent to the securement means described in the '898 patent. The structure described in the '898 patent is a rod that slides through openings in the hitch ball and retention sleeve and a spring that urges the rod through the openings. In a best case scenario for the plaintiff, a reasonable jury could find that the defendant's structure is a hitch ball that slides onto a "rod" or "pin" connected to the inside of a box, and a wedge that holds the hitch ball on this "rod" or "pin." A reasonable jury could not find that the difference

between the two securement means is insubstantial. The securement means of the defendant's product is contained entirely within the box. In contrast, the patented product includes openings in the retention sleeve and requires sliding a rod through these openings. By securing the hitch ball within the enclosed box, the defendant's securement means is not exposed to the underside of a truck bed and does not require movable parts under the bed. The court does not need to find that this change creates the advantages claimed by the defendant; it only must conclude that a reasonable fact-finder would find that this change is substantial. In addition, the defendant's product uses a "wedge" to hold the hitch ball on a "pin" or "rod." This is significantly different from the use of a spring to hold a rod in the hitch ball. The "wedge" is held in the box by gravity and, as a rigid structure, prevents the hitch ball from sliding sideways off of the "pin" or "rod." FN4 The spring, in contrast, is connected to the rod and operates by applying sideways pressure on the rod to keep it inside the openings in the retention sleeve and hitch ball. Again, the court does not need to find that this change creates advantages; it only must conclude that a reasonable fact-finder would find that this change is substantial.

FN4. B & W argues that the "box" is really a "retention sleeve." Whether the structure in the defendant's product that is described as a "box" can be fairly characterized as a "retention sleeve" does not impact the analysis of whether the structural changes are substantial.

The plaintiff argued at the hearing on the motions that the court should allow a broad range of equivalent structures because the securement means is not the heart of the '898 patent. For support, B & W pointed to *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422 (Fed.Cir.2000). The court in *IMS* explained that whether two structures are equivalent depends, in part, on viewing the structures in the context of the invention. *Id.* at 1436. In cases where "the disclosed physical structure is of little or no importance to the claimed invention, there may be a broader range of equivalent structures than if the characteristics of the structure are critical in performing the claimed function in the context of the invention." *Id.* In *IMS*, the claimed invention was an "apparatus that permits interactive programming of a machine tool" and in issue was the equivalence of the "interface means" which "merely provide a way of storing programs created using the inventive programming apparatus and process." *Id.* at 1436-37. The "interface means" could be changed without impacting the utility of the claimed invention. Thus, in *IMS*, the relevant structure was of little importance to the claimed invention. In contrast, the securement means of the '898 patent is of great importance to the claimed invention. The claimed invention allows a hitch ball to be inverted and stored in the bed of a truck when not in use. The means for securing the hitch ball when in use and when not in use is central to the operation of the claimed invention. The ability to remove and invert the hitch ball is only of value if the hitch ball can be safely secured within the retention sleeve. In *IMS*, the court also pointed out that the plaintiff presented evidence that one skilled in the art would recognize the interchangeability of the two "interface means" and that such evidence should be considered in an equivalence determination. *Id.* at 1437. In contrast, there is no such evidence before the court in this case and the court believes that defendant's change of the "securement means," while simple, was creative and significantly changed the product.FN5 For these reasons, the securement means of the '898 patent is not entitled to "a broader range of equivalent structures" like in *IMS*.

FN5. The parties have indicated that they do not intend to present such evidence.

Because a reasonable jury could not find that the securement means in the defendant's product is identical or equivalent to the securement means in the '898 patent specification, the court holds that the defendant's

product does not literally infringe the '898 patent.

-> Infringement under the doctrine of equivalents

[5] Analysis under the doctrine of equivalents varies only slightly from analysis of equivalence in a means-plus-function literal infringement claim. Equivalence analysis under s. 112, para. 6 requires identical function whereas the doctrine of equivalence requires either identical or equivalent function. Chiuminatta, 145 F.3d at 1310. Otherwise, the analysis is the same, both requiring identical or equivalent "way" and "result." Odetics, 185 F.3d 1259, 1267; Caterpillar Inc. v. Deere & Co., 224 F.3d 1374, 1379 (Fed.Cir.2000). Absent a case involving later-developed technology, which is not the case here, "a finding of non-equivalence for s. 112, para. 6, purposes should preclude a contrary finding under the doctrine of equivalents." Chiuminatta, 145 F.3d at 1311. The defendant's product, therefore, also does not infringe under the doctrine of equivalents.

Because the court holds that no reasonable jury could find that the securement means in the defendant's product is identical or equivalent to the securement means of the '898 patent and, therefore, the product does not literally infringe upon the '898 patent or infringe under the doctrine of equivalents, summary judgment of non-infringement is granted to the defendant.

IT IS THEREFORE ORDERED that defendant's motion for summary judgment (Doc. 7) is granted and plaintiff's cross-motion for partial summary judgment (Doc. 15) is denied.

D.Kan.,2001.

B & W Custom Truck Beds, Inc. v. Metalcraft, Inc.

Produced by Sans Paper, LLC.