IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF WISCONSIN

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BRIGGS & STRATTON CORP.,

Plaintiff,

OPINION AND ORDER

v.

05-C-0025-C

KOHLER CO.,

Defendant.

- -

Plaintiff Briggs and Stratton Corporation and defendant Kohler Co. are Wisconsin corporations that manufacture small engines. In this civil action, plaintiff accused defendant of marketing and selling a lawn mower engine that infringed two of its patents: United States Patent No. 6,382,166 (the '166 patent) and United States Patent No. 6,460,502 (the '502 patent). Defendant counterclaimed, contending that both patents were invalid.

On November 3, 2005, I issued an order construing the claims in this case and finding that defendant's Courage engine infringed claims 1, 2, 4, 6, 7, 8, 9 and 10 of the '166 patent. Dkt. #110, at 105. In the same order, I concluded that disputed questions of material fact precluded me from finding that the '166 and '502 patents were not invalid or the '502 patent had been infringed. Id. The parties moved for reconsideration and, as a

result, an order was issued January 6, 2006, revising construction of the much disputed claim term "rail" and holding that the guide shoe on the Courage engine was not a rail within the meaning of the '166 patent. Dkt. #219, at 13. This order prompted a fresh round of motions for reconsideration with attendant briefing and culminated in an order dated January 30, 2006. Relying upon plaintiff's allegation that it had additional evidence to offer on the question, I vacated the summary judgment order, leaving it up to the jury to decide whether the Courage engine's guide shoe was or was not a rail. Dkt. #241, at 5-6.

Following trial in February 2006, the jury found that defendant had infringed claim 1 of the '166 patent and had not infringed any claim of the '502 patent. In addition, the jury invalidated both of plaintiff's patents, finding that the '166 patent was obvious in light of the prior art and that the '502 patent was invalid as both anticipated and obvious.

Now before the court are the parties' postverdict motions. Defendant has filed a motion for judgment as a matter of law that its engine does not infringe claim 1 of the '166 patent. Plaintiff has moved for judgment as a matter of law that defendant's engine infringes claims 7 and 8 of the '166 patent and that neither the '166 nor the '502 patent is invalid. After a thorough review of the trial transcripts and the parties' briefs, I conclude that the jury's verdict must be set aside with respect to the invalidity of the '166 patent and with respect to its finding that the ribs of the Courage engine are not rails and that the guide shoe of the Courage engine is a rail. Consequently, I will deny defendant's motion for judgment

as a matter of law on its contention that claim 1 of the '166 patent is not infringed, grant plaintiff's motion for judgment as a matter of law on its contention that the '166 patent is not invalid, deny plaintiff's motion for judgment as a matter of law on its contention that the '502 patent is not invalid and grant in part and deny in part plaintiff's motion for judgment as a matter of law on its contention that claims 7 and 8 of the '166 patent are infringed. Because the evidence adduced at trial mandates a finding of infringement of the '166 patent, the parties must return for a trial on damages.

I. THE PATENTS AT ISSUE

A. The '166 Patent

The '166 patent discloses a counterbalance weight system designed to eliminate unwanted vibration caused by piston reciprocation in single cylinder engines, such as those used in riding lawn mowers. Independent claim 1 of the '166 patent claims:

> A balancing system for an internal combustion engine having a crankcase housing and a cylinder bore defining a cylinder axis, the system comprising:
>
> a crankshaft substantially within the crankcase housing, wherein the cylinder bore is disposed on a first side of the crankshaft;
>
> a piston disposed in the cylinder bore for reciprocal movement generally along the cylinder axis in response to rotation of the crankshaft;
>
> a counterbalance weight disposed on a second side of the crankshaft that is generally opposite the first side, said counterbalance weight reciprocating in

response to rotation of the crankshaft; and

a rail interconnected with at least one of said counterbalance weight and said crankcase housing such that said rail guides said counterbalance weight during reciprocation of said counterbalance weight.

'166 pat., col. 4, lns. 6-24. Dependent claim 7 comprises the system of claim 1 plus a second rail. Dependent claim 8 claims the system of claim 7 plus a third rail.

B. The '502 Patent

The '502 patent discloses an invention that permits manufacturers to alter the intake position of an engine without casting a new cylinder head. It does so by disclosing an adapter that fits into a relatively large intake runner. A portion of the adapter, called the runner filler, is shaped to fill a portion of the intake runner. When the runner filler is inserted into the intake runner, it creates a custom-sized intake passageway.

The patent contains three independent claims, 1, 15 and 22, which read as follows:

1. A cylinder head assembly for an internal combustion engine comprising:
an intake port;

an intake runner that receives at least one of air and fuel, said intake runner including:
an entrance;
a section having a first end nearer said entrance and having a second end nearer said intake port;

an adapter having a runner filler disposed within said intake runner;

an intake passageway having a substantially uniform cross-sectional area created at least in part by said runner filler; and wherein the cross-sectional area of said intake runner decreases from said entrance to said intake port.

* * * *

15. A cylinder head assembly for an internal combustion engine comprising:
an intake port;

an intake runner that receives at least one of air and fuel, said intake runner including:

an entrance;

a section having a first end nearer said entrance and having a second end nearer said intake port;

an adapter having a runner filler positioned in said intake runner; and

an intake passageway disposed within said intake runner and at least partially defined by said runner filler, wherein the position of said intake passageway is selectable based upon at least one of the position and the configuration of said runner filler.

* * * *

22. A cylinder head assembly for an internal combustion engine comprising:
an intake port;

an intake runner that receives at least one of air and fuel, said intake runner including an entrance having a height dimension that is greater than a width dimension of said entrance;

an adapter having an inlet and having a runner filler positioned in said intake runner; and

an intake passageway at least partially defined by said runner filler, said passageway extending from an inlet near said entrance, wherein the position of said inlet is selectable along said height dimension.

'502 pat., col. 6, ln. 54 - col. 7, ln. 2; col. 7, lns. 44-59; col. 8, lns. 18-30.

II. MOTIONS FOR JUDGMENT AS A MATTER OF LAW

When deciding a Rule 50 motion, the fundamental question is whether a reasonable jury could find in favor of the non-moving party on the basis of all the evidence presented. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). This is the same standard used for deciding a motion for summary judgment under Rule 56; the difference between ruling on Rule 56 and Rule 50 motions is that, in deciding a Rule 50 motion, the court has the benefit of viewing the evidence as it has developed (or failed to develop) since the summary judgment stage. Massey v. Blue Cross-Blue Shield of Illinois, 226 F.3d 922, 924 (7th Cir. 2000).

In determining whether there is sufficient evidence to sustain a jury's verdict, the court must view the evidence in the light most favorable to the winning party. David v. Caterpillar, 324 F.3d 851 (7th Cir. 2003). Furthermore, in reviewing the jury's verdict, the court may not assess the credibility or persuasiveness of witnesses. Massey, 226 F.3d at 924. Although the court must view the record as a whole, "it must disregard all evidence favorable to the moving party that the jury is not required to believe" and should "give credence to the evidence favoring the nonmovant as well as to evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that [such] evidence comes from

disinterested witnesses." Reeves v. Sanderson Plumbing Products, Inc., 530 U.S. 133, 151 (2000).

However, a Rule 50 motion should be granted when "a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue." Fed. R. Civ. P. 50(a)(1). If the moving party demonstrates that "the jury's findings, presumed or express, are not supported by substantial evidence, or if they were, that the legal conclusions implied from the jury's verdict cannot in law be supported by those findings," the verdict should be set aside. Celeritas Techs., Ltd. v. Rockwell Int'l Corp., 150 F.3d 1354, 1358 (Fed. Cir. 1998).

A. The Rail Motions: Defendant's Motion for Judgment as a Matter of Law that Claim 1 of the '166 Patent is Not Infringed and Plaintiff's Motion for Judgment as a Matter of Law Regarding Infringement of Claims 7 and 8 of the '166 Patent

In an order dated November 3, 2005, I granted plaintiff's motion for summary judgment with respect to its claim that defendant's Courage engine infringed claims 1, 2, 4, 6, 7, 8, 9 and 10 of the '166 patent. Dkt. #110, at 84-88. After the summary judgment decision issued, the parties moved for reconsideration of the court's construction of the claim term "rail," contending that the construction was too broad. Thereafter, in an order dated January 5, 2006, I narrowed the construction and defined a rail as "a bar supported along

its length that serves to direct substantially the motion of a component that slides along the axis of the bar." Dkt. #219, at 13. After applying the new claim construction to the features of the '166 patent, I concluded that the guide shoe was not a rail because it was not supported along its length. In addition, I found that disputed material facts precluded a finding that as a matter of law the ribs of the Courage engine were rails.

In response to the January 5 order, plaintiff moved again for reconsideration, alleging that

> [w]hether the guide shoe is supported along its length and thus is a rail has never been at issue on summary judgment. The parties have had neither opportunity nor any reason to introduce evidence or argument on this issue.

Dkt. #222, at 1. Although it was unclear how the guide shoe could be "supported along its length," I gave plaintiff the benefit of the doubt and vacated the finding that the guide shoe was not a rail on the ground that the parties may not have been aware of the importance of introducing evidence that the guide shoe was "supported along its length." Order dated Jan. 30, 2006, dkt. #241, at 2.

At trial, the jury heard testimony from both parties' experts about the function and structure of defendant's Courage engine's ribs and guide shoe. Plaintiff's expert testified that each of these three features was a rail; defendant's expert testified that none of them was a rail under the court's claim construction. The jury found that the engine had only one rail. From this finding, the parties infer that the jury found that the ribs were not rails and the

guide shoe was a rail. In the postverdict motions, defendant contends that the guide shoe cannot be a rail as a matter of law; plaintiff contends that, as a matter of law, each rib is a rail. Both are correct.

1. The guide shoe as rail

a. Direct infringement

At trial, the jury heard evidence from both parties' experts that the Courage engine's counterbalance weight is attached by a pin to a small metal "guide shoe" that is attached to the counterbalance weight, guiding its motion as it reciprocates in response to the movement of the engine's piston. Close against either side of the guide shoe are raised metal "ribs" formed out of the crankcase housing. As the guide shoe reciprocates, it makes contact with the ribs. Defendant contends that the court's construction of "rail" requires that a rail be supported along its entire length. Because it is undisputed that the guide shoe is *not* supported along its entire length, the question is whether the jury erred in finding that the guide shoe is a rail.

Plaintiff raises two arguments in support of its position that the guide shoe need not be supported along its entire length. First, it contends that the court's vacation of summary judgment in the January 30, 2006 order was an implicit rejection of defendant's reading of the phrase "along its length." As discussed above, summary judgment was vacated only

because plaintiff alleged that it had not been given an opportunity to present evidence on whether the guide shoe was supported along its length, not because the court agreed that such support was not mandated by the claim construction.

Second, plaintiff contends that it would be a mistake to require support along the full length of the guide shoe because to do so "would be inconsistent with this court's construction of [the claim term] 'interconnected with.'" Dkt. #300, at 3. Why? Plaintiff points to claim 1 of the '166 patent, which claims "a rail interconnected with at least one of said counterbalance weight and said crankcase housing such that said rail guides said counterbalance weight during reciprocation of said counterbalance weight." The court construed "interconnected with" to mean "a connection between two components, without regard to the form of the connection." Plaintiff contends that if the court required a rail to be supported along its entire length, then the connection between the rail and its support would have to be "integral with" the support, a result that runs counter to the court's construction of the phrase "interconnected with."

According to the patent, a rail must be interconnected with either the crankcase housing or the counterbalance weight. That interconnection can be integral (as, for example, in the rails shown in Figure 4 of the '166 patent, which are formed integrally with the crankcase housing) or by some other means (as, for example, the connection between the guide shoe and the counterbalance weight in defendant's Courage engine). But plaintiff is

putting the cart before the horse. The patent requires a *rail* to be interconnected with the crankcase housing or counterbalance weight. That connection can be formed in a variety of ways. But *to even be a rail*, according to the construction proposed by plaintiff and adopted by this court, the bar that allegedly constitutes a rail must be supported along its length. As the court and the parties established through many hours of briefing and argument, that support must extend along the length of the bar. To omit such a requirement would re-inject the allegedly anticipatory pin patents back into this case; a result that is not true to the way in which a skilled artisan would understand the invention claimed by the '166 patent.

As defendant asserts, the plain meaning of the word "along" is "over the length of." American Heritage Dictionary 39 (4th ed. 2004). Plaintiff does not deny that it failed to produce evidence that the guide shoe is supported over its full length; consequently, the jury's finding that the guide shoe is a rail must be rejected with respect to plaintiff's claim that the guide shoe is a rail under a theory of direct infringement.

b. Doctrine of equivalents

Because the guide shoe is not a rail under the court's construction of that term, the question remains whether it is a rail under the doctrine of equivalents. To infringe under this doctrine, a feature must perform "substantially the same function, in substantially the same way, to achieve substantially the same result, as that of the invention claimed."

Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1330-31 (Fed. Cir. 2001) (citing Unidynamics Corp. v. Automatic Prod. Int'l, Ltd., 157 F.3d 1311, 1322 (Fed. Cir. 1998).

At trial, plaintiff's expert testified that the function of the rails on the Courage engine is to "direct the planar motion of the interfacing component along the axis of the rail." Dkt. #275, at 160:6-7. He explained that the rail performs this function by using a smooth, low friction surface along which the interfacing component can slide, id. at 162:6-7, 15-20, and the result "is that eventually the component follows that motion." Referring to the ribs of the Courage engine as "guide shoes,"plaintiff's expert explained in detail how the ribs of the Courage engine (which he referred to as "guide surfaces") work to direct the motion of the interfacing guide shoe and counterbalance weight. However, his discussion of the guide shoe as the equivalent of a rail was limited to the following exchange:

> Q. Okay. Now, did you perform a similar analysis of the doctrine of equivalents with respect to the question of whether the guide shoe constitutes a rail in the '166 patent?
> A. I have.
> Q. And without going into great detail about it all again, did you do the same type of function/way/result analysis that you just described?
> A. I did.
> Q. [A]nd what conclusion did you reach after applying the doctrine of equivalents to the guide shoe?
> A. Under the doctrine of equivalents the guide shoe is also a rail. It substantially has the same function, it has the same way that it achieves it in, and the result we get from it is substantially the same.

Id. at 165:13-166:5.

The Court of Appeals for the Federal Circuit has made it clear that parties "asserting infringement [under the doctrine of equivalents] must present evidence and argument concerning the doctrine and each of its elements. nCube Corp. v. Seachange Intern., Inc., 436 F.3d 1317, 1325 (Fed. Cir. 2006) (citing Lear Siegler, Inc. v. Sealy Mattress Co. of Michigan, Inc., 873 F.2d 1422, 1425 (Fed. Cir.1989)). The conclusory testimony offered by plaintiff's expert with respect to the guide shoe did not establish that the guide shoe was equivalent to the rails claimed by the '166 patent.

I agree with defendant that the jury did not hear evidence that would allow it to conclude reasonably that the guide shoe of the Courage engine is a rail. However, the relief defendant has requested is judgment as a matter of law that claim 1 of the '166 patent is not infringed. Because plaintiff has shown that the jury erred in not finding that the Courage engine's ribs are rails, as discussed in the following section, the motion will be denied.

2. Each rib as rail

Plaintiff contends that in finding that the ribs of the Courage engine were not rails, the jury ignored uncontroverted evidence that, functioning together, the ribs direct the motion of the engine's guide shoe as it moves back and forth between the ribs in response to the motion of the reciprocating piston. Defendant provides two reasons why it believes

the jury's verdict was correct. First, the jury heard substantial evidence that the ribs do not direct the motion of the counterbalance weight substantially along their axes; plaintiff does not challenge this characterization of the evidence. Although it is true that, in the face of evidence to the contrary, the jury was not free to conclude that the ribs directed the motion of the counterbalance weight substantially along their axes, they were free to conclude from the evidence presented that the ribs directed the motion of the guide shoe. As I explained in an order dated January 30, 2006,

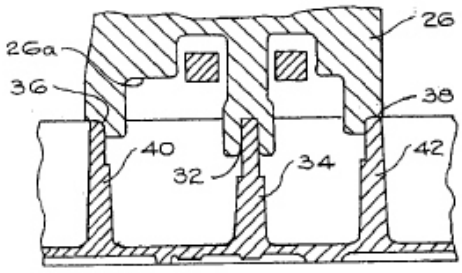
> the definition of rail adopted by the court is a creation of the parties, not a feature of the patent . . . [A]s is now obvious, the Courage engine has two "components" whose motion the rail might reasonably direct: the guide shoe and the counterbalance weight. In the end, it does not matter which of these objects' motion is "directed substantially" by the alleged rails; either will do. For purposes of infringement, the critical question is whether the Courage engine's guide shoe or ribs are rails, not how they acquire that status. The jury must decide whether the ribs or the guide shoe is "a bar supported along its length that serves to direct substantially the motion of a component that slides along the axis of the bar." It could do so by determining either that the guide shoe or the counterbalance weight is a "sliding component."

Second, defendant contends that the jury correctly found that each rib is not a rail because both parties' experts testified that neither rib alone could direct the motion of the guide shoe. Plaintiff asserts that nothing in the court's construction or in the patent itself prevents a rail from directing the motion of a moving component by working in conjunction with another feature, which in this case is another rail.

Although the court's construction of rail is silent with respect to whether a rail must

direct motion wholly by its own action, silence is not equivalent to prohibition. Defendant's assertion that a rail must direct motion in isolation from other engine components is clever; however, it is an interpretation of the term "rail" that is belied by the patent itself. Pfizer, Inc. v. Teva Pharmaceuticals, USA, Inc., 429 F.3d 1364, 1374 (Fed. Cir. 2005) ("A claim construction that [would] exclude[] a preferred embodiment is rarely, if ever, correct.")

Figure 4 of the '166 patent, shown below, discloses an embodiment of the patented invention that is characterized by the specification as having three rails, numbered 34, 40 and 42.[1]



If the centrally disposed rail (34) were removed from the embodiment shown above, the embodiment would possess two rails that combine to form a space between and along which the weight would move. In such a configuration, neither rail 40 nor rail 42 would work

[1]Although the parties did not point out the error, I note that the court's January 5, 2006 order referred mistakenly to the rails shown in Figure 4 as guides. As discussed below, Figure 9 of the '166 patent shows guides. The features in Figure 4 numbered 40 and 42 are rails, not guides.

alone to direct the motion of the counterbalance weight; if either were removed, the remaining rail alone could not direct the motion of the weight.

So it is with the ribs of defendant's Courage engine. The difference between the patent embodiment shown above and the ribs of the Courage engine is minimal. The evidence at trial demonstrated that in the Courage engine, the guide shoe fits entirely in the space between the ribs and moves along their axes, directing the movement of the attached counterbalance weight which rests atop the ribs and the guide shoe. (In the embodiment a portion of the counterbalance weight fits between the two rails, while the remainder of the weight rests atop the surface of the rails.) However, although the weight's motion is guided directly in the embodiment and indirectly in the Courage engine, this difference is of no consequence with respect to the function of the rails or ribs.

In its brief in opposition to plaintiff's motion for judgment as a matter of law on the question whether the ribs are rails, defendant renews an argument it has raised before: that the ribs are equivalent to the "guides" shown in Figure 9 of the '166 patent (reproduced below) and not to rails.

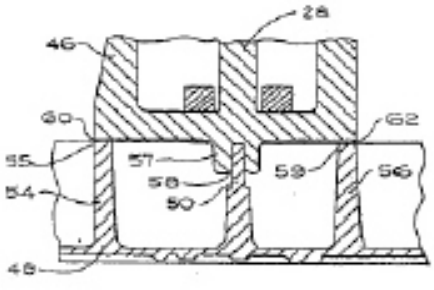


Figure 9 reveals a rail (50) interconnected with a counterbalance weight (46) by means of a slot (58). Two guides (54 and 56) support the weight but do not direct the weight's motion along their axes. As I explained in the January 5, 2006 order,

> the difference between a guide and a rail is purely functional. A rail directs substantially the motion of a component along its axis. A guide does not direct motion along its axis. As long as a bar (*or combination of bars*) directs the motion of a component along its axis, the bar need not interconnect with the moving component in order to constitute a rail.

Dkt. # 219, at 8 (emphasis added). The guides in the '166 patent are features that block the movement of the weight on one plane only. They do not direct movement. In the Courage engine, the ribs do more than limit the movement of the guide shoe; they direct it.

At trial, the jury heard uncontroverted evidence that, like the rails shown in Figure 4 of the patent, the ribs of the Courage engine are supported along their length and work together to direct the motion of a component that slides along the axes of the ribs, namely, the guide shoe. There was no evidence that the testimony introduced on this point was unreliable or incredible.

Independent claim 1 of the '166 patent is infringed when an accused product contains one or more rails and dependent claim 7 is infringed when an accused product contains two rails. Dependent claim 3 requires an accused product to possess 3 rails. Because the ribs of defendant's Courage engine are rails and because (as discussed above) the guide shoe of defendant's Courage engine is not a rail, the engine contains a total of two rails. Therefore,

I will grant plaintiff's motion for judgment as a matter of law that claim 7 of the '166 patent is infringed and deny plaintiff's motion for judgment as a matter of law that claim 8 of the '166 patent is infringed.

B. Plaintiff's Motion for Judgment as a Matter of Law that the '166 Patent Claims Are Not Invalid as Obvious

At the close of evidence at trial, I expressed grave misgivings about the sufficiency of defendant's invalidity case with respect to the '166 patent. Nevertheless, I withheld ruling on plaintiff's Rule 50 motion and permitted the jury to consider the question of validity, noting that "it c[ould] not succeed." Dkt. #279, at 686:3-4; U.S. Philips Corp. v. Windmere Corp., 861 F.2d 695, 705 (Fed. Cir. 1988) ("It is usually better practice for a district court, faced with a motion for directed verdict, to allow the case to go to the jury, and address the issue by way of judgment [not withstanding the verdict] if necessary."). Although the jury found the '166 patent obvious, the evidence adduced at trial did not support that finding.

Most if not all inventions arise from a combination of old elements. In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000). Therefore, every element of a claimed invention may often be found in the prior art. Id. at 1370. If the law held inventions invalid as obvious under 35 U.S.C. § 103(a) simply because each individual part claimed could be identified

in the prior art, few patents would issue. In fact, in this situation in which all elements of an invention can be found in a combination of prior art references, the invention will be found "obvious" only when (1) the prior art would have suggested to those of ordinary skill in the art that they should make the claimed device and (2) the prior art would also have revealed that in doing so, those of ordinary skill would have a reasonable expectation of success. Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1164 (Fed. Cir. 2006). The question is whether the jury erred when it found that it would have been obvious to one of skill in the art to combine the features of the Ogura patent with the rails disclosed in the Austin or Loque patent.

In determining obviousness, the test is "whether the subject matter of the claimed inventions would have been obvious to one skilled in the art at the time the inventions were made, not what would be obvious to a judge after reading the patents in suit and hearing the testimony." Medichem, 437 F.3d at 1164 (citing Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 1092 (Fed. Cir. 1985)). Evidence of a motivation to combine prior art references "may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved." Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1125 (Fed. Cir. 2000).

In this case, both parties presented evidence that the problem of engine vibration was well known in the field. Furthermore, the jury heard evidence that the kinematic drawings

found in Ogura direct one of ordinary skill in the art to find a means to guide the motion of a weight and that rails, as shown in Loque and Austin, were a tested means of guiding weights. Although recognition of a need does not render obvious the achievement that meets that need, Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc., 381 F.3d 1371, 1377 (Fed. Cir. 2004), courts have held that motivation to combine prior art references may be found from the nature of the problem to be solved, particularly in the case of simple mechanical technologies, Ruiz v. A.B. Chance Co., 357 F.3d 1270, 1276 (Fed. Cir. 2004). From the evidence presented at trial, the jury could conclude that one skilled in the art would have been motivated to combine Ogura with the rails shown in Loque or Austin.

However, in order to find that a patent is invalid as obvious, a jury must find not only that one skilled in the art would have been motivated to combine elements from different prior art references, but also that he "would have perceived a reasonable expectation of success in making the invention via that combination." Medichem, 437 F.3d at 1165. After all, motivation will not ripen into action unless the actor expects his efforts to be fruitful. To have a reasonable expectation of success, one must be motivated to do more than merely "vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful." Id. (citing In re O'Farrell, 853 F.2d 894, 903 (Fed. Cir. 1988)).

Defendant contends that the "reasonable expectation of success" requirement is not a clearly established element of obviousness and applies "mostly" to cases involving chemical and biotechnical patents. As discussed above, the Court of Appeals for the Federal Circuit has held clearly that a finding of obviousness under § 103 requires both motivation to combine and a reasonable expectation of success. Id. at 1164. Defendant does not cite authority for the distinction it draws and none is readily ascertainable.

At trial, plaintiff's expert testified that one skilled in the art would not have expected success from combining the rails on Loque or Austin with the Ogura system. Defendant did not cross-examine him on this point or introduce any evidence to the contrary. The jury heard no evidence that one skilled in the art would have had a reasonable expectation of success if he were to combine the weight and link arms disclosed in the Ogura patent with the rails disclosed in the Loque or Austin patents. Without proof, it was not free to assume that this critical element was present. Therefore, plaintiff's motion for judgment as a matter of law that the '166 patent is not invalid as obvious will be granted.

C. Plaintiff's Motion for Judgment as a Matter of Law that the '502 Patent Claims Are Not Invalid as Anticipated or Obvious

At trial, defendant contended that the '502 patent was invalid in two ways. Defendant asserted that the '502 patent was anticipated by the Watanabe patent alone or

alternatively, would have been rendered obvious by a combination of the Cousimano patent with elements of the Roberts, Watanabe and McFarlane patents.

A patent claim is invalid as anticipated only when each and every element as set forth in the claim is found in a single prior art reference either expressly or inherently. Schering Corp. v. Geneva Pharmaceuticals, 339 F.3d 1373, 1379 (Fed. Cir. 2003) (citing Verdegaal Bros., Inc. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Similarly, a patent claim is invalid as obvious only if each and every element set forth in the claim is found in a combination of prior art references; if one skilled in the art would be motivated to combine the references; and if the artisan would have a reasonable expectation of success. Plaintiff contends that the jury erred in finding that claims 1-2, 4-6, 11-13, 15-17 and 19-21 of the '502 patent were anticipated and that claims 1-31 of the patent were obvious because defendant introduced no evidence that prior art disclosed a runner filler, as claimed by the '502 patent.

On summary judgment, plaintiff proposed that the term "runner filler" be defined as "an element that volumetrically shapes the intake runner cavity to form an intake passageway." Defendant proposed the definition, "a component that is positioned within, and fully defines at least part of, the intake passageway." In the November 3, 2005 summary judgment order, I construed a runner filler as "a component that partially fills the intake runner, thereby forming at least a portion of the intake passageway," Dkt. #110, at

78. The construction adopted by the court did not differ in any material way from the definition proposed by plaintiff, since the phrase "volumetrically shape" is the equivalent of the verb "fill." In the order, I explained why plaintiff's proposed construction more closely captured the meaning of the term "runner filler":

> *Defendant's proposal would make a runner filler of any object placed within the intake runner. This is a broader construction of the term than the patent itself claims.* The'502 patent's written description states: "The present invention solves some of the problems of redesigning engines to fit existing o[riginal] e[quipment] m[anufacturer's] devices by forming an intake runner cavity that is relatively large and then filling at least some of the cavity space with a runner filler to form and position the intake passageway as desired." The '502 invention relies on the ability of the runner filler to fill portions of the intake runner cavity to form the intake passageway. Although plaintiff's proposal comes closer to defining the term as claimed in the '502 patent, it states that the runner filler shapes the intake runner cavity, rather than the intake passageway. According to the '502 patent specification, the intake runner cavity does not change its shape. It is oversized and remains so without regard to the shape or size of the inserted runner filler. It is the intake passageway that is shaped by the runner filler, either partially (in the case of "open" runner fillers) or fully (in the case of "closed" runner fillers). Therefore, I will construe "runner filler" to be a component that partially fills the intake runner, thereby forming at least a portion of the intake passageway.

Id. at 78-79 (emphasis added). Neither party moved for reconsideration of this construction, apparently believing it adequate to capture the essential features of a runner filler.

At trial, defendant asserted that the Watanabe patent disclosed a runner filler. (Defendant asserted also that the Cousimano patent disclosed a feature in its exhaust port

that could make a runner if moved from the exhaust port to the intake port of a cylinder head.) The jury found that the '502 patent was rendered obvious in its entirety by the prior art and that certain claims of the '502 patent were anticipated, agreeing implicitly with defendant that the Watanabe patent disclosed a runner filler (for if the patent did not disclose each and every feature found in the '502 patent it could not anticipate). Plaintiff contends that defendant misled the jury by contending that the connecting pipe shown in the Watanabe patent was a runner filler under the court's construction of that term since the connecting pipe did not fill a portion of an "oversized intake runner," thereby forming a portion of the intake passageway.

Defendant's response to this argument is simple: It did not present evidence that the intake runner was "oversized" because it was not required to do so. According to defendant, plaintiff's emphasis on "oversized intake runners" is an untimely attempt to reargue claim construction.

It appears that both parties have misunderstood the contours of the court's construction of runner filler and what proof was needed in order to show that the connecting pipe disclosed in Watanabe was a runner filler within the meaning of the '502 patent. Claim constructions are "simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." Embrex, Inc. v. Service Engineering Corp., 216 F.3d 1343, 1347 (Fed. Cir. 2000). Although claim constructions

should elaborate on the meaning of claim terms, they ought not become elaborate; after all, their purpose is to guide the jury in applying the elements of a claimed invention to specific aspects of an accused device. Hence, there is a heavy presumption that the terms used in claims "mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." SuperGuide Corp. v. DirecTV Enterprises, Inc., 358 F.3d 870, 874-75 (Fed. Cir. 2004). If claim constructions are to be comprehensible to jurors, they must be detailed enough to assist the jury in understanding the claims but not so complex that the jury is left more confused than it would be without any guidance. Consequently, no claim construction can account for every possible nuance or contingency. Therefore, it is imperative that the parties understand and argue their cases in the full context in which the claim at issue was construed.

To the extent that plaintiff contends that a runner filler had to be more than an object inserted into the intake runner, it is correct. However, plaintiff is wrong when it asserts that in order to show that prior art contained a runner filler, defendant had to show that prior art contained an "oversized intake runner." As defendant points out, what it means to be "oversized" is not entirely clear. Certainly, the intake runner needs to be large enough so that the inserted runner filler can fill a portion of the runner and thereby customize the size of the intake passageway. However, defendant was right to keep its focus on the function of the runner filler, not on the size of the intake runner. To be a runner filler, the

connecting rod had to "fill" a portion of the intake runner, thereby shaping a portion of the intake passageway. The operative question was whether the connecting rod performed this function.

Plaintiff contends that the Watanabe connecting rod is no more than a straight insert, that does not "fill" or "shape" the intake runner. Defendant contends that the connecting rod *does* fill the intake runner by filling a portion of the top and bottom of the intake runner to form a portion of the intake passageway. Whether the connecting pipe constitutes a runner filler was a question of fact for the jury to decide. Akamai Technologies, Inc. v. Cable & Wireless Internet Services, Inc., 344 F.3d 1186, 1192-93 (Fed. Cir. 2003) (whether prior art discloses each limitation of claim is question of fact). Therefore, regardless whether I agree with the jury's finding, it must stand if defendant presented evidence to support the verdict. It did.

At trial, defendant's expert opined that the Watanabe patent disclosed a runner filler. When cross-examined by defendant, plaintiff's expert conceded that the connecting pipe shown in the Watanabe patent met each element of the court's construction of "runner filler":

> Q. And the component that goes into the intake runner is what Watanabe calls the connecting pipe, 120; right?
> A. Correct.
> Q. And that connecting pipe is inserted into the intake runner, correct?
> A. Correct.

Q. And it partially fills the intake runner, doesn't it?
A. Correct.
Q. And it forms at least a portion of the intake passageway?
A: That's correct.

Dkt. #279, at 661:7-17. From this evidence, the jury was free to conclude that the Watanabe patent disclosed a runner filler; plaintiff does not deny that the jury heard sufficient evidence from which it could conclude that the remaining elements of the '502 patent were disclosed in the prior art.

It is certainly true that there are differences between the connecting pipe found in Watanabe and the runner filler disclosed in the '502 patent. It may even be the case that those difference are of some importance. However, there can be no question that the jury heard credible evidence that the connecting pipe meets every element of the claim construction that plaintiff proposed and the court modified only superficially. If that construction lacked some further feature or distinction essential to the preservation of the term "runner filler" as it is used in the '502 patent, the blame lies not with the jury, but with plaintiff. I must assume that plaintiff had its own reason for not requesting a different construction. Because the jury heard evidence from which it could have reasonably concluded that prior art rendered the '502 patent invalid as both obvious and anticipated, plaintiff's motion for judgment as a matter of law that the '502 patent is not invalid must be denied.

ORDER

IT IS ORDERED that

1. Defendant's Motion for Judgment as a Matter of Law that Claim 1 of the '166 Patent is Not Infringed is DENIED;

2. Plaintiff's Motion for Judgment as a Matter of Law that the '166 Patent Claims Are Not Invalid as Obvious is GRANTED;

3. Plaintiff's Motion for Judgment as a Matter of Law Regarding Infringement of Claims 7 and 8 of the '166 Patent is GRANTED with respect to infringement of Claim 7 and DENIED with respect to infringement of Claim 8; and

4. Plaintiff's Motion for Judgment as a Matter of Law that the '502 Patent Claims Are Not Invalid is DENIED;

5. A new trial will be held on August 14, 2006 to determine damages for defendant's infringement of the '166 patent.

Entered this 30th day of May, 2006.

BY THE COURT:
/s/
BARBARA B. CRABB
District Judge