

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

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UNIRAC, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 21-58 (MN)
	)	
ECOFASTEN SOLAR, LLC and	)	
ESDEC, INC.,	)	
	)	
Defendants.	)	

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UNIRAC, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 21-59 (MN)
	)	
ECOFASTEN SOLAR, LLC and	)	
ESDEC, INC.,	)	
	)	
Defendants.	)	

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**MEMORANDUM ORDER**

At Wilmington this 12th day of July 2022:

IT IS HEREBY ORDERED that the claim terms of U.S. Patent Nos. 7,434,362 (“the ’362 Patent”), 8,128,044 (“the ’044 Patent”), 9,057,542 (“the ’542 Patent”) and 9,160,273 (“the ’273 Patent”) with agreed-upon constructions are construed as follows (*see* D.I. 96 at 2):

1. “keeper” means “one or more hardware components connectable to a surface and shaped to permit attachment of at least one other hardware component” (’362 Patent, claim 3; ’044 Patent, claims 5 & 23)
2. “variably positionable on the dual track rail and footing grid” shall be given its plain and ordinary meaning (’362 Patent, claim 3)
3. “the plate” shall be given its plain and ordinary meaning (’362 Patent, claim 10)
4. “base” shall be given its plain and ordinary meaning, which is “a structure or assembly’s support” (’542 Patent, claims 14, 16 and 19)

Further, as announced at the hearing on June 14, 2022, IT IS HEREBY ORDERED that the disputed claim terms of the '362, '044, '542 and '273 Patents are construed as follows:

1. “dual track rail” / “rail with at least two tracks” shall be given its plain and ordinary meaning, which is “a rail formed with at least two tracks” ('362 Patent, claim 3; '044 Patent, claim 5 & 23)
2. “means for variably positioning the at least one dual track rail on the at least one keeper” is subject to 35 U.S.C. § 112(6) and has a function of “variably positioning the at least one dual track rail on the at least one keeper” and the corresponding structure for performing that function is “the hole in the extension of the keeper and hardware depicted in Figure 7 as connecting the keepers to the rails” ('362 Patent, claim 3)
3. “opposing shoulders” shall be given its plain and ordinary meaning, which is “opposing edge regions” ('362 Patent, claim 3; '044 Patent, claims 5, 9 & 23)
4. “means for variably positioning the one or more clamps in a second channel of the body” is subject to 35 U.S.C. § 112(6) and has a function of “variably positioning the one or more clamps in a second channel of the body” and the corresponding structure for performing that function is “the hole in the clamp and conventional hardware for connecting the clamp to the rail” ('044 Patent, claim 23)
5. “first recess” / “second recess” shall be given its plain and ordinary meaning, which is “a [first / second] depression, crevice or other indentation” ('542 Patent, claims 14 & 15)
6. “to secure the module to the support member” shall be given its plain and ordinary meaning, which does not require contact between the module and support member ('273 Patent, claims 4 & 6)
7. “slot” shall be given its plain and ordinary meaning, which is “an elongated opening” ('273 Patent, claims 4, 6 & 9)

The parties briefed the issues (*see* D.I. 96)<sup>1</sup> and submitted intrinsic and extrinsic evidence, including expert declarations (*see* D.I. 96, Exs. A-K; D.I. 97 & 98). Neither side provided a tutorial describing the relevant technology. The Court carefully reviewed all submissions in connection

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<sup>1</sup> All D.I. citations are to docket items in C.A. No. 21-58.

with the parties' contentions regarding the disputed claim term, heard oral argument (*see* D.I. 122) and applied the following legal standards in reaching its decision.

## I. LEGAL STANDARDS

“[T]he ultimate question of the proper construction of the patent [is] a question of law,” although subsidiary fact-finding is sometimes necessary. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837-38 (2015). “[T]he words of a claim are generally given their ordinary and customary meaning [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (internal citations and quotation marks omitted). Although “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Id.* at 1314. “[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted).

The patent specification “is always highly relevant to the claim construction analysis . . . [as] it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. “Even when the specification describes only a single embodiment, [however,] the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (internal quotation marks omitted) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence, . . . consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

In some cases, courts “will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. Expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Phillips*, 415 F.3d at 1318. Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, although extrinsic evidence “may be useful to the court,” it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope

of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

## II. THE COURT'S RULING

The Court's ruling regarding the seven disputed claim terms of '362, '044, '542 and '273 Patents was announced from the bench at the conclusion of the hearing as follows:

. . . At issue we have seven terms from four patents. I am prepared to rule on all of the disputes.

I will not be issuing a written opinion, but I will issue an order stating my rulings. I want to emphasize before I announce my decisions that although I am not issuing a written opinion, we have followed a full and thorough process before making the decisions I am about to state. I have reviewed the patents in dispute. I have also reviewed the portions of the prosecution history, the expert declarations, and all of the other references submitted in the almost 1,000 pages of appendices. There was full briefing on each of the disputed terms and each party, you argued here today. All of that has been carefully considered.

As to my rulings, I am not going to read into the record my understanding of claim construction law. I have a legal standard section that I have included in earlier opinions, including somewhat recently in *Roche Diabetes Care, Inc. v. Insulet Corp.*, C.A. No. 20-825. I incorporate that law and adopt it into my ruling today and will also set it out in the order that I issue.

Neither party has suggested any differences in the definition of a POSA that are relevant to the claim construction issues.

Now the disputed terms, which I will address in the order they were briefed. First, we have "dual track rail" in claim 3 of the '362 Patent and "rail with at least two tracks" in claims 5 and 23 of the '044 Patent. The parties agree that the terms have the same meaning. Plaintiff proposes the "plain and ordinary meaning," which it states is "a rail formed with at least two tracks." Defendants propose "a rail formed with at least two tracks arranged at approximately a right angle to each other."

Defendants do not dispute that the terms require a rail formed with at least two tracks, but add that those tracks must be arranged in such a way that they are at a right angle to each other. Defendants concede that the claims at issue "do not specify the

orientation of the tracks.”<sup>[2]</sup> But in Defendants’ view, the terms nevertheless require the tracks to be at approximately right angles because the patentee expressly limited the terms in the specification and through the prosecution history.

Starting with the specification, Defendants point to the “Summary of Invention” where it states that the present invention provides advantages “by providing a system for removably and adjustably mounting a device on a surface that includes a rail formed with at least two tracks.” And then the following sentences note that “[e]ach of the tracks includes a channel extending the length of the rail” and those channels each have slots extending the length of the rail and “[t]he slots are arranged at approximately a right angle to each other.”<sup>[3]</sup> Defendants also argue that the only embodiments disclosed in the ’362 Patent are ones in which the slots of the two tracks are at approximately right angles to each other. Plaintiff acknowledges that this is true. And, as Defendants note, although the ’044 Patent adds an embodiment with three tracks, the specification provides that the slots of two of those tracks are at right angles.<sup>[4]</sup> I recognize the somewhat limiting nature in which the invention is described in the specifications, but the intrinsic evidence also includes the claims. And there are a number of independent claims in both the ’362 and ’044 Patents that specifically recite the slots (and therefore tracks) being at approximately right angles. The patentee knew how to claim such a configuration. So when that language is missing from a claim, it suggests that the claim is not limited to configurations having tracks with slots at right angles to each other. This conclusion is bolstered by the fact that the ’362 Patent concludes with language that recognizes only one embodiment has been disclosed but explicitly stating that the embodiment is not exclusive or intended to be a limitation on the invention.<sup>[5]</sup> The same paragraph also appears in the ’044 Patent before the additional three-track embodiment is described in detail.<sup>[6]</sup>

As to the prosecution history, Defendants point out that the Examiner rejected then-pending claim 10 (along with a number of others) on § 102 grounds and, in response, the patentee explained

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<sup>2</sup> (D.I. 96 at 8).

<sup>3</sup> (’362 Patent at 3:55-62; *see also* ’044 Patent at 3:66-4:6).

<sup>4</sup> (’044 Patent at 9:6-21).

<sup>5</sup> (’362 Patent at 7:11-23).

<sup>6</sup> (’044 Patent at 8:37-49).

that the “dual track configuration of the present invention” differed from the prior art at issue in that it had slots in channels of the rails and which extended the length of the rails. Moreover, the patentee stated those slots were “arranged at approximately a right angle to each other” and that “unique channel construction” afforded advantages in terms of adjustability.<sup>[7]</sup> Defendants argue that the Examiner understood then-pending claim 10 to require the two tracks be arranged at approximately right angles as evidenced by her later rejection of claim 10 (and others) over prior art requiring such a right-angle configuration.<sup>[8]</sup> Claim 10 ultimately issued as claim 2 with some amendments unrelated to track configuration. Plaintiff disputes this characterization of the prosecution history, particularly that the Examiner understood then-pending claim 10 (*i.e.*, issued claim 2) to require the two tracks to have slots at approximately right angles to each other. I tend to agree with Plaintiff here – both the Examiner and Applicant were discussing a group of claims that included explicit requirements of right angles as well as claims that were silent on this point (like claim 10). Ultimately, viewing the prosecution history as a whole, I do not think that a POSA would understand that the patentee clearly and unmistakably disclaimed embodiments where the slots of the at least two tracks are not at approximately right angles.

So in sum, I will decline to find that the patentee has limited these terms to rails with two tracks having a specific right-angle configuration. I am not convinced that the patentee specifically defined “dual track rail,” as used in the ’362 Patent, or “rail with at least two tracks,” as used in the ’044 Patent, to require the slots of those at least two tracks to be at approximately right angles to each other. And I do not view the prosecution history statements as clear and unmistakable disclaimers of any configuration lacking a right angle between the tracks. Therefore, I will construe the terms according to their plain meaning, which is “a rail formed with at least two tracks.”

The second term is “means for variably positioning the at least one dual track rail on the at least one keeper” from claim 3 of the ’362 Patent. Both sides agree that this term is subject to § 112(6) and that the function is “variably positioning the at least one dual track rail on the at least one keeper.” The dispute centers around the corresponding structure for performing that function. Plaintiff proposes that the structure has “at least one hole in the keeper and equivalents.” Defendants argue that the specification fails to set

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<sup>7</sup> (D.I. 96, Ex. C at pgs. 10-11).

<sup>8</sup> (D.I. 97, Ex. Q at UNIRAC00002890).

forth sufficient structure for the claimed function and, therefore, the claim is indefinite.

Here, I disagree that the specification fails to set forth sufficient structure for the term. The '362 Patent explains that keepers can be arranged in a network to form a “footing grid” on which photovoltaic and other modules are mounted.<sup>[9]</sup> The patent further provides that those keepers can be connected to a surface and at the same time are shaped so as to attach to hardware such as rails and frames on which the modules are mounted.<sup>[10]</sup> The keepers are often (but not always) in an L-shape to accommodate this attachment to the surface as well as the rails or frames.<sup>[11]</sup> The patent explains that the keepers are “formed with at least one hole in each extension of the ‘L.’”<sup>[12]</sup> I think a POSA would find sufficient structure disclosed here. That being said, I think Plaintiff's proposal is too broad. Indeed, looking at Figure 7, which depicts the keepers attaching to rail, there is hardware included as well to allow for the positioning of the rail on the at least one keeper.

I considered finding the structure for this term to be “the hole in the extension of the keeper and hardware connecting the keepers to the rails.” This tracks what the Examiner found in the *inter partes* re-exam (and was sanctioned by the PTAB in the IPR denial) but it recognizes that the keepers do not have to be in an L-shape.<sup>[13]</sup> That being said, Defendants asserted that simply saying “hardware” would result in an *O2 Micro* issue and Plaintiff agreed that saying the hardware in Figure 7 was acceptable. So I will construe the structure according to that agreement as “the hole in the extension of the keeper and hardware depicted in Figure 7 as connecting the keepers to the rails.” I note that this includes equivalents thereof but, as we discussed, that is in the statute and I don't think we need to add it here.

The third term is “opposing shoulders” from claim 3 of the '362 Patent and claims 5, 9 and 23 of the '044 Patent. Both sides agree again that the term should be given the same meaning across

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<sup>9</sup> ('362 Patent at 2:3-6).

<sup>10</sup> (*Id.* at 2:6-9).

<sup>11</sup> (*Id.* at 2:3-6).

<sup>12</sup> (*Id.* at 2:5-6).

<sup>13</sup> (*See* '362 Patent at 2:3-6 & 6:43-46 (“In the preferred embodiment of the present invention, each of the network of keepers 76 is L-shaped and constructed of metal. Neither the shape nor material of the keepers 76 is a material limitation of the present invention.”)).



the two patents. Plaintiff proposes that the term be given its plain and ordinary meaning, which it contends is “opposing edge regions.” Defendants argue that the term should be construed to mean “opposing walls of the body of the rail which are adjacent to and extending between the opposing sides.”

Here, I think Defendants’ proposed construction is unnecessarily wordy and confusing, and I also think that it is unsupported by the intrinsic evidence. Although Defendants cite several provisions discussing “opposing shoulders” from the ’362 and ’044 Patents, none of those supports a construction that redefines shoulder to mean “wall,” particularly in a way that makes the “shoulders” extend the entire length of that edge. I think Plaintiff’s proposed construction better captures the meaning of the term in light of the nonlimiting disclosure of the patents. Therefore, I will construe “opposing shoulders” to mean “opposing edge regions.”

The fourth term is “means for variably positioning the one or more clamps in a second channel of the body” from claim 23 of the ’044 Patent. Both sides agree that this term is subject to § 112(6) and that the function is “variably positioning the one or more clamps in a second channel of the body” but disagree as to the corresponding structure. Plaintiff proposes that the structure is “a hole in the clamp and hardware for connecting the clamp to the rail, and equivalents.” Defendants argue that the structure is “the hole in the clamp and hardware shown in Figures 7 and 8 for connecting the clamp to the rail.” The dispute focusing on whether the hardware included in the structure is limited in the particular hardware depicted in Figures 7 and 8, as Defendants suggest, or whether hardware means something broader.

I am not entirely sure of the point of this dispute or why the parties’ proposals are really different from one another. Even if I were to use the words of Defendants’ construction, I think that the language of § 112(6) makes clear that structural equivalents to that depicted in Figures 7 and 8 are also covered by the claim. In any event, I think that the corresponding structure for this means-plus term is “the hole in the clamp and conventional hardware for connecting the clamp to the rail.” I note that Defendants argued that construing the term this way raises another *O2 Micro* issue, but I disagree. The argument made today seemed to be what “conventional hardware” covers and that seems to be an issue of fact for infringement.

The fifth dispute is about “first recess” / “second recess” from claims 14 and 16 of the ’542 Patent. Plaintiff proposes the plain and ordinary meaning, which it contends is “a [first / second]

depression, crevice or other indentation.” Defendants argue that the term should be construed as “depression or crevice on the surface of the [first / second] side wall.” Although the parties generally agree on the meaning of recess, they disagree as to whether the recess needs to be at a particular location on the side walls. Plaintiff argues there is no limitation on location, whereas Defendants argue that the recesses must be on the surfaces of the side wall.

Here, I disagree with Defendants that the terms are limited to recesses on the surfaces of side walls. Starting first with the claim language, claims 14 and 16 recite “a first side wall including a first recess” and “a second side wall including a second recess.” Neither claim at issue requires the recess be on any particular part of the side wall, let alone the surfaces that Defendants contend. Turning to the specification, in Figures 1 and 2 and column 3, lines 3 to 57, the ’542 Patent depicts and describes an embodiment where the recesses are present in opposing surfaces of the side walls. Although Defendants urge that this description limits the terms to requiring those recesses be present in the side wall surfaces, I disagree. The description repeatedly makes clear that this is one non-limiting embodiment and, further, that different configurations are contemplated. Indeed, the specification explicitly states that “the crevice or recess may be created by forming a groove, bore, or other indentations into the side wall 20 or may be formed between various protrusions extending from the sidewall 20.”<sup>14</sup> That protrusions extending from the sidewall may be used to form this functionality suggests that the recesses need not be on the side wall surface as Defendants argue. Indeed, I think a POSA reading the claims in light of this disclosure would understand that the recesses do not need to take the form of crevices on the side wall surface but can exist in other forms and on locations other than the surface itself and still be within the scope of invention. Therefore, I will construe “first recess” / “second recess” to mean “a [first / second] depression, crevice or other indentation.”

The sixth term is “to secure the module to the support member” from claims 4 and 6 of the ’273 Patent. Plaintiff proposes that the term be given its plain and ordinary meaning, which it contends is “to secure the module to the support member.” Defendants agree that the term should be given its plain and ordinary meaning but argue that that meaning is “to secure the module to and in contact with the support member.” The dispute here is whether

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<sup>14</sup> (’542 Patent at 3:13-16).

there must be contact between the module and support member or not.<sup>[15]</sup>

Contrary to Defendants' arguments, I find that there is no basis to limit this term in such a way as to require the module to be secured between the support member and clamp. A POSA would understand that securing the module to the support member contemplates some type of connection or attachment that does not necessarily require the contact Defendants propose. I don't think that the portions of the specification and figures relied on by Defendants amount to disclaimer or an otherwise narrowing of these terms to require a specific type of contact.

The seventh and final term is "slot" in claims 4, 6 and 9 of the '273 Patent. Plaintiff proposes that the term be give its plain and ordinary meaning, which it contends is "an elongated opening." Defendants propose that the term be construed to mean "an enclosed aperture configured to receive the downward extending arm." Although Defendants include language regarding what the slots are configured to do – *i.e.*, receive downward-extending arms, I find that language is redundant and inappropriate. Each of the independent claims at issue already requires this through other language. In claim 4, the claim requires a clamp with "at least one arm extending downward" and "at least one slot . . . configured to accept the at least one arm of the clamp."

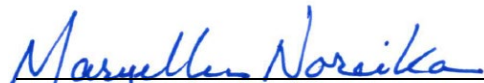
Similarly, claim 6 requires a clamp with "at least two arms extending downward" and "at least two slots . . . configured to accept the at least two arms of the clamp." And Plaintiff does not dispute that these concepts are required by the independent claims – so I see no need to recite that language in the construction. And as for claim 9, which depends from claim 6, I think reading in this language for the additional slots added to the wings there is without support. So the dispute here is really about whether the slot must be an "enclosed aperture," as Defendants argue, or simply an "elongated opening," as Plaintiff suggests.

Here, I agree with Plaintiff. As Defendants agree (and the extrinsic evidence shows), the ordinary meaning of the term "slot" does not require an enclosed aperture. That is true even in the art at issue here. Defendants, however, argue that the patent itself compels

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<sup>15</sup> From the briefing, the dispute over this term appears to focus on whether *direct* contact between the module and support member was required. (*See, e.g.*, D.I. 96 at 51-56). During argument, however, Defendants focused more on an alternative construction – *i.e.*, "to secure the module between the clamp and the support member," arguing that this captured the top-down configuration that Defendants believe the term is limited to. (*See* 122 at 63:11-65:2; *see also* D.I. 96 at 56 n.10).

a narrower construction pointing at an embodiment. I disagree that the particular embodiments pointed to compel me to redefine the ordinary meaning of the word slot. So I will construe the term to mean “an elongated opening.”

  
The Honorable Maryellen Noreika  
United States District Judge